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REPORT OF THE COMMISSIONER OF LABOR ON HAWAII.

[This report upon the commercial, industrial, social, educational, and sanitary condition of the laboring classes of the Territory of Hawaii was prepared in accordance with the provisions of "An act to provide a government for the Territory of Hawaii," and was transmitted to the United States Senate on February 26, 1903. The detailed provisions of the act directing this report are contained in section 76 thereof, and are in the following language:

It shall be the duty of the United States Commissioner of Labor to collect, assort, arrange, and present in annual reports statistical details relating to all departments of labor in the Territory of Hawaii, especially in relation to the commercial, industrial, social, educational, and sanitary condition of the laboring classes, and to all such other subjects as Congress may, by law, direct. The said Commissioner is especially charged to ascertain, at as early a date as possible, and as often thereafter as such information may be required, the highest, lowest, and average number of employees engaged in the various industries in the Territory, to be classified as to nativity, sex, hours of labor, and conditions of employment, and to report the same to Congress.

This is the second report under the foregoing provisions of law, the first having been transmitted to the Senate under date of February 4, 1902, and printed as a Senate document to the extent of a limited number of copies. The present report was transmitted to Congress at

so late a date in the session that no provision was made for the printing of an edition to supply public demands. The report is therefore printed here that the many calls for it may be satisfied, and that it may receive more general circulation. C. D. W.]

INTRODUCTION.

The inhabited islands of the Hawaiian group lie slightly over 2,000 miles, or six days' steamship voyage, southwest of San Francisco, in the same latitude as Cuba. They have a tropical and oceanic climate, and yet are not subject to the destructive storms or the extreme temperatures of the Indies. They are entirely of volcanic formation, of rugged topography, and their soil is disintegrated lava, except for scattered coral formations that mark occasionally some ancient beach line. Naturally, therefore, they possess no mineral resources. On account of their remoteness from other land bodies and their comparatively recent origin, the native flora and fauna are less varied than is usual in tropical countries. The general trend of the group, which is the same as that of the mountain axis of each island, is from northwest to southeast, or directly transverse the path of the prevailing trade winds. There results an almost continental difference of climate on the windward and leeward side of each island, the former being, as a rule, cool, well watered, with abundant vegetation and many running streams, while the latter is arid or semiarid, except under artificial irrigation, and during the greater portion of the year has a prevailing high temperature. The great differences of altitude within small areas also give variety to the climate. In some places a vigorous man can walk from palms and cane fields to snow-covered summits and return in the same day.

These general conditions, geographical, geological, and climatic, determine the industrial possibilities of the Territory. Without mines or other sources of fuel and raw material, and with a water supply no more than adequate for irrigation, they afford no field for large manufacturing enterprises. Their trade possibilities are limited by their remoteness from the great marts of commerce, and for the same reason profitable agriculture is confined to those crops that give products not readily perishable and of an intrinsic value that enables them to be marketed over long distances. As the closest commercial relations of the islands are with the California coast, a country blessed with a superabundance of fruits and food products of every kind, there is little opportunity for the Hawaiians to compete with their neighbors of the mainland in grains or meats or in garden and orchard produce. The native plants and animals have not been developed under the stress of severe competition, and most of those introduced from abroad

have been more or less domesticated, therefore any chance pest that finds its way into the islands has a free field for its ravages without the hindrance of those natural enemies that limit its destructiveness in other countries. Attempts to restore artificially the balance of nature in such cases do not always prove successful, and at the present time the diversification of agriculture in Hawaii is seriously hampered by blights and beetles and plant diseases with which local scientists have proved as yet unable to cope.

These limitations have determined the industrial history of the islands in the past, as they doubtless will continue to do in the future. Before white men came the native population lived almost entirely in the deep mountain valleys, where they raised taro and other root crops on lands that could be overflowed at will from primitive irrigation ditches. So important was water in their social economy that its Hawaiian name "wai" forms the root of their terms for law and magistrate, and appears prominently in most of their designations of locality. Then the highlands were covered with untenanted forest, and the large plains and rolling coast lands that now form the most fertile plantations were either arid deserts or tropical jungles, according as the mountains helped or hindered the rainfall. During the first half of the last century commerce with the whaling fleet, which found the islands a convenient wintering place, and trade in sandalwood with China formed the only local enterprises of importance. The latter industry speedily ended with the exhaustion of the forest resources, and the former, already on the decline, ceased with the completion of our first transcontinental railway, which made San Francisco the natural shipping point of the whale oil for the eastern markets. From the time of the gold excitement in California agriculture began gradually to assume increased importance in Hawaii, and among the various farming industries then started the cultivation of sugar soon showed its preeminent fitness to survive. By a happy coincidence for the islands, a reciprocity treaty was concluded with the United States within three years after the whaling fleet finally left their shores, and thus the extinction of one industry was almost contemporaneous with the establishment of another upon a secure basis through the preference so obtained in its most profitable market.

The causes that have made sugar the most important industry in Hawaii are obvious. The product was one that could stand long shipments and pay heavy freight charges. There was an ample market for it upon the adjacent mainland. The business justified large investments of capital, and such investments were necessary in order to open and bring under cultivation a greater portion of the arable land of the islands, and to construct and equip the extensive irrigation plants that alone made these lands productive. The last enterprise was one that

a small farmer could not undertake, and the assistance of the State was out of the question during the existence of the weak Hawaiian monarchy. Finally, the climate and the soil, especially the unwashed lava lands of the leeward coasts, proved the best adapted in the world for cane cultivation, and the plant itself encountered no enemies in the Islands to interfere with its thrifty growth. These causes have made sugar not only the predominant but also the most aggressive industry. Stock raising is conducted upon the highlands and where the water supply is too limited to render tillage possible, but wherever there is a neutral zone, as in the coffee country, we find cane invading districts formerly occupied by other crops, and never the reverse.

The four principal islands in the Territory, and the only ones of industrial importance, have a combined area of nearly 6,000 square miles, or practically equal in extent Connecticut and Rhode Island. Hawaii alone is nearly as large as the former State and considerably larger than Porto Rico, while Kauai, the smallest of the four, has an area of but 544 square miles. Honolulu, the principal city and capital of the Territory, is situated upon Oahu, which is the third island in size, but has the largest population. The widest channel is but 60 miles across, the mountains of one island being visible from another, and there is frequent connection by local steamer and communication by wireless telegraphy throughout the group, so that socially and industrially, as well as politically, the Territory forms a compact unit.

The proportion of the total surface suitable for cultivation is lessened by the presence of much mountainous country, large stretches of recent lava flow, and districts suffering from deficient water supply. It is doubtful if more than a tenth of the area will ever be regularly tilled. But much of this is so fertile and so adapted to intensive cultivation under irrigation during the entire year that its average productiveness is far greater than that of ordinary lands in other countries. Therefore the islands may in time support by agriculture alone a large population—possibly a million people. Even then they would be less than half as densely populated as Porto Rico. This fact, that the present number of inhabitants may increase manyfold, gives exceptional importance to Government policy likely to influence the industrial development or the permanent settlement of Hawaii.

The present population of the islands is slightly over 150,000, a majority of whom are Asiatics. In 1900, 39.68 per cent of the inhabitants were Japanese, 24.45 per cent Hawaiians and Part-Hawaiians, 18.72 per cent Caucasians, and 16.73 per cent Chinese. The Hawaiians and Chinese are decreasing in number, while the other two elements of the population are increasing. The Japanese, however, have not hitherto been permanent settlers; they do not acquire land or other

fixed property interests in the islands and their numbers have simply marked the ebb and flow in the tide of plantation laborers.

These general facts are a necessary prelude to any description of the labor situation in Hawaii. They emphasize and explain the existence, in a small and homogeneous group of islands, of a single predominant industry which so far overshadows all others that it has determined the race and character of the population. Present labor conditions and demands are a result of the traditions and practices and experience of half a century of plantation life. Therefore it seems proper to review briefly some of the salient features of this history in order the better to understand the labor plans and policies of the moment.

HISTORY OF THE PENAL LABOR CONTRACT.

The early importance of the whaling industry to Hawaii has already been mentioned. American sailors and missionaries brought the first elements of modern civilization, good and bad, to the islands. The natives are natural seamen and were frequently sought as recruits by the whaling captains. Soon irregularities and abuses crept into the system of enlistment, and the native kings, who, with the advice and assistance of the missionaries, were trying to create a body of modern law for their kingdom, borrowed from the United States our seamen's shipping act. Thus this became the most practically familiar piece of civilized legislation to the average Hawaiian workingman. The seaman's contract was not only required by law for the protection of sailors, but it also secured masters for the advances they were obliged to make by custom in order to obtain a crew. The natives, who are temperamentally thoughtless of the morrow, adopted with enthusiasm the idea of partial prepayment for their labor, and soon it became impossible to secure satisfactory service of any kind in Hawaii unless the employee received a portion of his compensation beforehand.

When the early sugar plantations were started, the seaman's shipping act had thus become by usage the master-and-servant law of the kingdom. The first plantation managers and overseers and many of the owners were old captains and mates, whose experience in handling men, and especially Hawaiians, made them exceptionally valuable in such positions. They naturally recruited laborers for their plantations by the same methods they had employed to secure a crew for their ships. Oftentimes they went to the same shipping master to obtain their men. They paid their advances, secured themselves by the same form of contract, handled and disciplined their employees so far as possible in the same manner as when at sea. At this time there were few Chinese in the islands and the native population furnished the whole labor supply. They were people who in former times had been

virtually the bondmen or agricultural serfs of their chiefs, and they adapted themselves with facility to the exigencies of this new form of service. This seaman's or penal contract had 20 years to become established on land before the whaling industry ceased, and during this time its operation was confined practically to natives. In 1872, the last year of the whaling fleet, 3,289 of the 3,921 plantation laborers in the islands were Hawaiians and but 526 were Chinese.

It is probable that during this earlier and nautical period of contract labor there was proportionately more brutality and harsh treatment of men than at any subsequent time. It is significant that from 1868 to 1872 a vigorous campaign was conducted in the islands for the modification of the contract system. This was headed by Americans and white Hawaiians, and resulted in the control of the legislature the latter year by the reforming party and in a series of amendments to the existing master and servant law intended to restrict the authority of employers. So the seaman's shipping act of the United States, as adopted practically without change in Hawaii, had been modified in what was considered a humanitarian direction before there was extensive employment of Asiatic labor on the plantations.

The seaman's or penal contract act appears with unimportant changes as the master and servant law of the Hawaiian civil code or compilation published in 1859. The essential features were:

(1) Any person not a minor might bind himself or herself out by written contract to serve another in any art, trade, or occupation, for a period not to exceed five years.

(2) Any similar contract made in a foreign country, in accordance with the laws of that country, would be held binding in Hawaii, but its term must not exceed ten years.

(3) For willful absence or refusal to work, a contract servant might be apprehended and sentenced by any district or police magistrate to serve his employer not to exceed double the time absent, after the date of the expiration of his contract, but such extra period should not exceed one year. For continued refusal to work, a contract servant might be committed to prison.

(4) A district or police magistrate might terminate a contract if a charge of cruelty or of violation of contract was sustained against an employer.

An amendment in 1860 authorized magistrates to impose not to exceed three months' imprisonment, besides the additional period of service already provided for, upon contract servants deserting a second time; and in 1868 it was provided that when one of the contracting parties was Hawaiian the contract should be in both English and Hawaiian, and that the minister of the interior should furnish blank forms of contracts to employers desiring them, though the use

of these official forms was to be optional.^(a) In 1864 a bureau of immigration was established, which among its other duties was authorized to regulate and supervise labor contracts. The orders of this bureau, when approved by the King, were to have the force of law.

There were undoubtedly abuses in the administration of the law at this time. The Commercial Advertiser, the principal paper in the islands, said editorially in 1870, that while the master and servant act was in the main satisfactory, that paper could not be understood as assenting to "the entire system of double time, fines, imprisonment, transfer, and sale of contracts and an indefinite term of servitude, which now obtain under the present law." Four years later Mr. S. B. Dole states in the same paper that contracts had been sold at auction to the highest bidder, but that "at present our contract laborers are as a rule highly paid, well fed, and cared for and treated perhaps,

"THE SO-CALLED "PENAL LABOR CONTRACT" IN FORCE IN HAWAII UNTIL ANNEXATION.

THIS AGREEMENT, made and entered into this — day of —, A. D. 188—, by and between —, on the island of —, party of the first part, and —, party of the second part, WITNESSETH:

I. That the said party of the second part promises to perform such labor on the island of — as the said party of the first part shall direct, and that he will faithfully and diligently perform the same as becomes a good workman, and that he will obey all lawful commands of the said party of the first part, its agents or overseers, during the term of — months or — days of — hours each, of labor actually performed, commencing the — day of —, 188—.

II. The said party of the second part further agrees that he will work at night and rest during the day whenever directed to do so, and if absent from work without the consent of the party of the first part or its agents, that he will perform two days' service for every working day so absent.

III. The party of the first part will well and truly pay, or cause to be paid, unto the said party of the second part, at the end of each month during which this contract shall remain in force, compensation or wages at the rate of — dollars for each month of twenty-six days' labor performed, if said party of the second part shall well and truly perform his labor as aforesaid, and will provide him with food and lodging while he shall so labor.

IV. The sum of — dollars is acknowledged to have been paid as an advance upon the wages to accrue under this contract.

Witness and security:

[Stamp.]

ISLAND OF —, *Hawaiian Islands*, ss:

On this — day of —, A. D. 188 —, personally appeared before me —, masters, and —, servant (satisfactorily proved to me by the oath of —), to be the persons executing the accompanying contract, and the same having been by me read and explained to them, they severally acknowledge that they understood the same, and that they had executed the same voluntarily, and upon the terms and conditions therein set forth.

Agent to take acknowledgments to contracts for labor in the District of —.

according to their behavior, as well as they deserve, sometimes better." There was much bitterness of feeling during this controversy over the contract system, but the weight of public sentiment, even among the planters, seems to have been in favor of ameliorating the condition of the laborers.

The amendments of 1872 greatly improved the legal status of contract men. Though the courts condemned the practice as illegal, the old ship custom of flogging laborers for disorder or disobedience still obtained on some plantations. It was impossible to secure the conviction of the guilty parties in such cases, because the flogging was not done in the presence of witnesses. The first of the amendments mentioned made the complainant—i. e., the laborer—a competent witness in a suit of this character, and provided for his discharge from his contract and for fining or imprisoning the employer if he proved his case. A second amendment rendered a contract by a married woman invalid, and provided that any contract for service made by a woman should be voided by her subsequent marriage. The third amendment provided that when a servant was sentenced by a court to make up time lost by desertion, he should be paid for such time at the rate stipulated in the contract. The fourth amendment, which was evidently intended to prevent peonage, prohibited masters from holding a servant to work beyond the expiration of his regular term of service for any debt or advance made during the period of the contract. The final amendment provided for special officers who should acknowledge all contracts for service. Advances were required to be paid the laborer in the presence of one of these officers. It was further required that all fees and commissions for securing and contracting labor should be paid by the employer, and should not be deducted in any way from the wages of the laborer as stipulated in the contract.

An amendment was passed in 1876 substituting fines and imprisonment for service beyond the term of the original contract in case of desertion.

These enactments mark the conclusion of the first period of the contract system, the period when it was stamped with the traditions and practices given it by the whaling captains, and when the laborers were mostly natives of the islands. With the reciprocity treaty with the United States, the subsequent rapid development of the sugar industry, and the opening of a source of labor supply in China and Japan, the conditions of service changed. The whole tendency of legislation and court rulings from this time on, however, was toward more complete protection for the laborer and a more humane administration of the laws affecting him. An act was passed in 1882 limiting advances to servants entering upon contracts to \$15 if the period of the contract was for one year, and to \$25 if it were for a longer term. An exception was made of money advanced to pay the passage of immigrants. The

death of an individual employer, but not that of a member of a firm, terminated a contract. The courts ruled that time lost to an employer through the illness of a servant need not be made up at the expiration of the contract. It was still considered legal to assign contracts for service; in fact, this right was necessary in order to allow the bureau of immigration or its agents to contract with laborers in foreign countries for subsequent assignment to individual planters. But the custom marked one striking difference between this and ordinary civil contracts. A form of assignment by indorsement read as follows, to quote from an actual instrument:

I, J. S. Brown, in consideration of the sum of \$150 to me paid by Theodore Smith, do hereby assign this contract to said Theodore Smith (his representatives and assignees), under the covenants and agreements therein contained, which are to be duly kept and performed by said Theodore Smith.

This particular assignment was declared invalid by the court, and the laborer discharged, not because the power of assignment itself was questioned, but because the persons to whom the contract was transferred, as indicated by the words in parentheses, were not clearly described. The law did not require that the kind of service or the place where it was to be performed should be definitely specified in a contract. In a broad way there was a distinction between contracts made in foreign countries and those made in Hawaii. The former did not require acknowledgment before Hawaiian officials; their term might be double that of local contracts, and their provisions were enforced with the laws of the country where they had been made in view, the courts ruling that, unless proof were brought to the contrary, any provision actually appearing in a contract executed in a foreign country would be assumed to be in conformity with that country's laws. In later times, however, contract laborers could be imported only with the consent of the bureau of immigration, and contracts not approved by that body were void. An exception was made of contracts with Japanese laborers under a convention made with that country in 1886. By this convention Japan directly safeguarded the rights of such of her citizens as engaged for service in Hawaii by certain special measures, and such contracts were limited by the international agreement to the term of 3 years.

These were the main features of actual legislation and legal interpretation relating to contract labor up to the time the system was finally abolished by the organic act of Congress annexing Hawaii to the United States. As to what the system was as a concrete fact, apart from the statute books, opinion and testimony in the islands differ. The planting interests have long constituted a sort of industrial oligarchy in Hawaii, and even their passive influence has counted for much, both in legislature and in hall of justice. But it does not neces-

sarily follow that this influence was detrimental to public or private welfare, or exercised as a rule for selfish and short-sighted ends. It doubtless tended to preserve internal peace and order under the monarchy, hastened the material development of the country, and was otherwise potent in evolving modern civilization in the islands. But the commercial spirit has not dominated alone. The missionaries brought into Hawaii a temper of New England altruism so practical and progressive that it has always constituted an efficient force in shaping public policy and private practice in matters of civil right. Local public sentiment was strong enough to correct evils that were arising in 1870, and there is little doubt that such sentiment would have led ultimately to a termination of penal contracts even had no such emergency as annexation arisen. The following quotation from an article by a leading planter, written in 1898, sufficiently indicates the tendency of public thought in Hawaii upon this subject:

The sudden extinction of the penal contract, while exercising great influence on the situation, will not prove of so revolutionary a character as it would have done 10 years ago, for there has been a manifest tendency against it steadily increasing during that period, and a frank deprecation by the planters of its supposed necessity, irrespective of annexation. This is proved by the fact of a material decrease since the early days of the sugar industry in the proportion of contract laborers to the total number of laborers employed.

In a word, there was a conscience in the islands, ready to be awakened to action by any act of gross injustice, which afforded the most effective guaranty for a reasonably fair administration of the laws and the humane treatment of the laborers.

No doubt there were occasional instances of cruelty, abuse, and fraud practiced against those under contract. This might be assumed a priori. Such occurrences might happen without the knowledge and against the will of the manager or owner of a plantation, through the unauthorized action of his subordinates. "Lunas," or overseers, are not always endowed superabundantly with the finer sentiments, and they are dealing with a class of men who often understand only the appeal to force. Judging from observation and from the testimony of those in a position to be well informed upon the subject, the attitude of a field gang toward the man placed directly over them is often somewhat akin to that of the big boys in an old-time country school toward the teacher, whom it is a point of honor with them to put out through the window. And the two situations are apt to evolve quite similar modes of discipline. A tactful manager, blessed with overseers of his own stamp, might pass a lifetime on a plantation without an instance of disorder or serious complaint arising among the men in his employ, while his neighbor's life was spent in vainly trying to dominate a succession of riots. But the official life of a manager of the latter sort was apt to be very brief, and, by the law of the survival of

the fittest, men who could run a plantation without being constantly involved in disagreements and petty litigation with their employees came into control.

Laborers have generally boarded themselves during recent years. The interest of employers, as well as the laws, have made it necessary to provide comfortable quarters for plantation hands. It is a legal requirement that the cabins for single men shall contain 300 cubic feet of air space for every occupant, and that those for families shall contain 900 cubic feet of air space for every two adults and two children. The statutes fixed a day's labor at 9 hours, unless it was otherwise specified in the contract, and required that overtime be paid for at a rate not less than that stipulated for regular work.

There was always a temptation to dock or fine laborers for slack work, malingering, or petty offenses more heavily than the case justified, especially if a plantation chanced to be shorthanded and work was pressing. Overseers sometimes docked time as a method of discipline, but the arbitrary use of this authority occasioned greater evils than it remedied. One manager, speaking of plantations that happened to come under his personal observation, stated that he believed that more injustice was done contract laborers by the arbitrary docking by irritable overseers than in any other way. However, in looking over the account books and pay rolls of 19 plantations for the last 8 years during which penal contracts were in force, no cases were found where individual fines were oppressively heavy or where their sum total was an amount large enough to make an important item in the entries. In a typical instance, on a plantation employing more than the average number of hands, the total fines for a month amounted to \$16.50 while the total overtime paid was more than \$600.

Physical ill-treatment of contract laborers was the exception. It was clearly contrary to law, and if proved was sufficient ground for annulling a contract. But it is probable that in spite of this fact plantation officers occasionally went to extremes with Orientals who proved unusually refractory. In 1885 the bureau of immigration issued a circular to the effect that thereafter beating and similar ill-treatment of laborers would not be permitted. An inspector of the same bureau at another time reported a Chinese laborer practically throttled to death by an overseer. The latter, however, served a term in prison for his offense. Riots once occurred upon a Kauai plantation which resulted in the death of two or three Chinese laborers, and for which the authorities held the manager in some degree responsible. But these were exceptional instances, which became the subject of official investigation and correction. The Japanese Government promptly intervened upon complaint of unwarranted severity toward its own citizens. But an employer might go to some lengths at times

in what was considered the way of judicious discipline. A manager at present in service in Hawaii related a personal experience of this character which may be taken as typical of what occurred at times without exciting much comment. Among a lot of recently arrived contract laborers he received two Japanese who were apparently from the criminal class of their own country. These men, whose passage money had been advanced by the plantation, refused to work as agreed in their contracts, and deserted repeatedly, so that the rewards and court charges for their apprehension and restoration to the plantation amounted in a short time to a sum considerably greater than their services promised ever to compensate. When the men were brought back one evening by a police officer after their last desertion, the manager, who had heretofore used only strictly legal methods with the men, took them back of his house and gave each a sound horsewhipping, and then ordered his own cook to give them a good meal in his own kitchen. After the men had finished their supper they both voluntarily came around to the veranda where the manager was sitting, salamed profoundly, expressed their thanks, and went to their quarters. One remained on the plantation until his contract expired 3 years later, and the other worked 8 years—5 years after his contract was out—for the same manager. Neither ever gave him the least trouble afterwards. This was the whipping that settled the school on that plantation; but, as the manager himself admitted, there were ten chances of failure to one of success in adopting such a policy.

In considering these methods of discipline employed by planters during the contract system, it must be remembered that the free or day laborers were nearly as numerous as those under contract; that both classes were working side by side in the field, and that the same manner of handling must be used with both to a large extent. Furthermore, the cost of importing new men was very heavy, and consequently every farsighted manager was studying to maintain such conditions among his employees as would make his day laborers remain and lead as many as possible of his contract men to "reship" with him when their period of service was over. More than 45 per cent of the 23,000 field hands on Hawaiian plantations in 1897, the year before annexation, were day men, and the policy of managers in relations with their laborers could hardly fail to be guided by this fact.

There seems no ground, therefore, for believing that the former contract system in Hawaii was a system of quasi-servitude for laborers after the reforms of 1872, or that it was marked by extreme injustice or brutality. Europeans who have worked under it seem to regard it with no special antipathy. A man who had himself risen from the position of a field cultivator to the highest ranks of plantation administration, stated that he had seen more abuse of men in a single watch

upon an American sailing vessel than in 21 years of life in the Hawaiian cane fields. It was not a system that an American would care to work under, or one that it would be practicable to revive, but it ought not to go down in history burdened with any particular odium. It was simply an adaptation of a United States statute to a particular situation—to an end no less exigent for the country in which it was enforced than is the end which justifies in the opinion of our Supreme Court the existence of our seaman's shipping act, in spite of our constitutional provision against involuntary servitude.

PRESENT PLANTATION LABOR SUPPLY.

While the Hawaiians as individuals are marked by superior physique and bodily vigor, the race as a whole is decadent in contact with modern civilization. The natives have decreased in numbers from 70,000 to 30,000 during the last half century. So rapid has been the wasting away of the indigenous population that it early excited the alarm of the Government and threatened to cause serious economic disturbances in the kingdom. Revenues began to fail as the number of producers decreased and industrial enterprises were hampered by want of labor. Rulers and employers were a unit in their desire to foster immigration, though they were not always agreed as to the source from which settlers should be obtained. The kings naturally desired subjects of a race kindred to their own, and looked to the South Sea Islands for their future immigrants. Many planters and influential missionaries also sympathized with the Hawaiians in this matter, and preferred to keep the body of citizens, or laborers or church communicants, as the case might be, as homogeneous in race and language as possible. A second element, composed principally of those interested in the sugar industry, looked at the question primarily from an economic standpoint, and demanded cheap labor before all else. They have usually stood with their faces toward the Orient. A third party, strongest perhaps in Honolulu itself, has been formed of those who looked forward to ultimate annexation to the United States, partly as a political ideal and partly for commercial reasons, and who have desired to foster a Caucasian population capable of administering free institutions and of making Hawaii in fact as well as in name an integral part of the Union. It is not to be understood that these three parties were always divided into well-defined groups of men carrying out a clearly formulated political propaganda, but the three influences mentioned were constantly at work shaping the policy of the Government toward immigration and determining the character of the labor supply.

It is hardly necessary for the purpose of this report to give a detailed account of the measures taken to recruit labor for the islands

during the last half century. An exhaustive history of the subject, with statistics of every party of immigrants entering the kingdom since 1852, is given in the report of the president of the bureau of immigration to the legislative assembly, published in 1886, and a summary by Dr. William C. Stubbs appears in Bulletin No. 95 of the Office of Experiment Stations, United States Department of Agriculture. Chinese coolies were first imported in 1852, but the total number entering the islands during the 15 years previous to the organization of the bureau of immigration was only 704, or less than 50 per annum. During the 22 years ending with 1886 the total immigration of contract laborers was 45,214, of whom 27,814 were Chinese, 3,073 were Japanese, and 2,444 South Sea Islanders. The remainder were Caucasians, 10,216 being Portuguese, 1,052 Germans, and 615 Norwegians. The Government expended \$1,079,797 and the planters \$631,078 in assisting these people to reach the islands. This policy of assisted immigration was continued later, but after the convention with Japan in 1886, and especially after the Chinese restriction acts passed by the local government in 1887 and 1888, a large majority of the laborers coming into the islands were Japanese. As late as 1897, however, 227 Germans were brought to Lihue plantation, on the island of Kauai, under contract.

One or two features of this immigration are worthy of remark because of their bearing upon the sociological condition of labor and their ultimate influence upon population. The interests of the planter and of the Government were exactly diverse in one respect. The former desired single men, the latter families. The element of cost was important to all parties, and the expense of bringing an immigrant from Europe was much greater than that of bringing one from China or Japan. Asiatics were cheaper than Europeans, because they came a shorter distance and seldom brought families, not because they rendered proportionally greater services for their wages. About 65 per cent of the Portuguese, who formed the bulk of the assisted Caucasian immigrants, were women and children, as against 19 per cent of the Japanese. Therefore at a time when it cost but \$87.75 to bring a Japanese laborer to the islands, it cost \$266.15 to bring a Portuguese, including the passage of the nonproducing members of his family. In the long run the discrepancy in cost was not so great, because the Portuguese settled in the country and raised up children there, so that they and their families were a permanent increment to the working population, while the Japanese usually returned to their homes at the expiration of their contracts and had to be constantly replaced. But the immediate economy was in securing Asiatics, and it is this factor of first cost that has played the most important part in determining the character of the laboring population of Hawaii. Furthermore, the deficiency in women among the oriental immigrants has hitherto

prevented their becoming an organic part of the social system. This is a condition that, as will be shown later, promises speedily to change with the substitution of free for contract immigration. But except for some Chinese, who have made the islands their permanent home and have intermarried with the natives and bred a mixed race, the Asiatics have had as individuals but a transient connection with the permanent population. So to speak, they have formed a constantly shifting party of industrial excursionists. And one important factor in creating this condition has been the impossibility that more than a small fraction of them could know any family life in their temporary home.

The history of the attempts made by Hawaii to supply its labor needs is instructive because it is the record of a long series of experiments, conducted under conditions almost as simple as those of a laboratory, for the purpose of creating a population that would at the same time supply a civic and an industrial need. There were no conflicting industries, no complicated internal problems, either political or economic, to disturb the result. The failure to reconcile public and commercial interests in the outcome is suggestive. The field of labor supply was well covered by the island government. Hardly a locality in the world exists where there is a surplus of unskilled labor that has not been visited and investigated by Hawaiian labor agents. Attempts to recruit field workers have been made in many European countries, in various parts of the United States, in the East Indies, the islands of the Pacific, and in Asia, but nowhere was a people found combining the civic capacity to build up a state with the humility of ambition necessary for a contract laborer.

The present plantation labor of Hawaii, exclusive of skilled labor and superintendence, is composed of a few Europeans and Portuguese from the Azores, Hawaiians, American Negroes, Porto Ricans, Chinese, and Japanese. The Europeans include a few Italians who have come into the country from Louisiana (where they work for the same wages upon the sugar plantations and live in the same quarters with the Negroes), Galicians and Slavs from East Austria, and a few Germans. The latter are almost entirely upon one or two plantations on the windward side of Kauai, the northernmost island of the group, where the climate and general conditions are favorable to outdoor work by Europeans. The owners and managers are also Germans, and the men are allowed the use of a garden and of sufficient land to keep a cow—what would be almost a small farm in some parts of their own country—in addition to the fuel and quarters that are regularly furnished field hands. Aside from the Portuguese, however, the number of Europeans employed in actual field labor is very small. In the autumn of 1902 it was but 39 in a total force of 18,536 men.

The Portuguese are largely employed in the semi-skilled occupations

of the plantation, though 1,183 of the 2,663 on the pay rolls are listed as field laborers. These people are an exceedingly hopeful element of the population. They are both industrious and frugal, and their vices are not of a sort to injure their efficiency as workers. They make good citizens, and though those of the first generation are usually illiterate and averse to sending their children to the public schools, they rapidly become Americanized. In fact the town Portuguese that one meets in Honolulu or Hilo differ in no essential respect from intelligent foreign-born citizens of the United States. Their education has been acquired in the public schools, if they are of the younger generation, under a system identical with that of the mainland, and they have acquired the habits of thought and action that distinguish an American from a European. They take an active part in local politics and are prominent in both commercial and public life. The country people become homesteaders, cultivate small crops and fruits or coffee, and raise enormous families of bright, sturdy children—the most desirable crop of all in a country like Hawaii. It is rather significant, however, that they are not classed with “white men” on the plantations. They form a class apart, somewhere between Asiatics and the other Caucasians. This is probably because the “white man” has always been a sort of aristocrat in the islands, and a large body of immigrants who lived in ordinary plantation quarters and worked with hoes could hardly aspire to that rank in popular estimation. Portuguese or Hawaiians are usually employed as teamsters, plowmen, or cultivators where animals are used. It is rather interesting that the Portuguese, like the Italians in Louisiana to-day, were formerly considered inferior for this sort of work. But they have acquired the knack of handling mules and oxen, and in this branch of plantation labor are excelled only, if at all, by the Hawaiians. The Portuguese is more individualistic—he has less of the communal instinct than either the Chinese or the Japanese. Therefore he is less successful in cooperative and company contract work than are the Orientals. He is not inclined to strike, and is quite as apt to disagree with his fellow workmen as with his employer. But he can not be counted upon to remain upon a plantation after he has saved enough to become his own master. The ambition of most of the Portuguese laborers interviewed was to get a little homestead back in the mountains and to come down to the plantation occasionally to work at odd jobs for ready money.

There are 1,369 Hawaiians employed on sugar plantations in all capacities. This is without considering those whites who may have a strain of Hawaiian blood in their veins, who are to be found among plantation owners and in the highest administrative positions. The natives, as intimated above, are usually preferred for handling animals. On account of their superior strength they also make excellent

wharf men and porters. They are frequently found occupying positions as locomotive drivers and stokers and in the mechanical employments. Comparatively few are field hands, those so engaged numbering but 392, or 28.6 per cent of the total number employed in the autumn of 1902. The Hawaiians are reported to be good men when they work, but they lack industrial discipline. They are indisposed to regular labor day after day in any occupation of a monotonous character. It is for this reason that they give best satisfaction in positions that afford varied or irregular employment, such as that of the wharf laborers just mentioned.

There are a few American Negroes in Hawaii, a majority of whom have arrived since annexation. About a dozen were brought into the Kohala district of Hawaii in the spring of 1901, and some 100 men and their families were imported from Louisiana and Alabama by Maui planters under a contract by which they were to be paid from \$18 to \$24 a month, with a bonus of \$72 at the end of 3 years of continuous service. Their passage to the islands was also paid by the planters. Of the latter expedition only a few men remained in the fall of 1902, practically none serving as field hands. Those who remained were earning salaries varying from a minimum of \$26 a month and board as hospital nurses to \$70 a month as policemen. There were 5 Negro field hands earning \$22 a month and quarters in the Kohala district. In a word, the experiment of importing black labor from the South was a failure. After the variety and excitement of a long trip across the continent and the Pacific, ending with an entirely new environment and change of climate, the Southern Negroes found it impossible to settle down to plantation routine. The men drifted into the towns, found employment there or on ships, and scattered to the four points of the compass. The more industrious and ambitious did not find the same opportunities for acquiring small land holdings or making economic progress in other ways that they had possessed in the South, and their civil and social status was little improved by the change. The minimum wages of field labor in the Texas and Louisiana cane fields are \$18 a month and quarters, and the cost of living is far less than in Hawaii. Under these conditions there is no inducement for the Negro to migrate to the islands. Furthermore, a prejudice has always existed in Hawaii against the importation of black labor, which has found voice on at least one occasion in a special resolution of the legislature opposing such immigration. There are social reasons that make the Negro an especially undesirable settler in the islands. The color line is very loosely drawn between the Hawaiians and Caucasians. The former have hitherto included the rulers, the nobility, and many of the largest landowners of the country. Schools, churches, and society are opened to them, and they have intermarried with leading American and European residents. The Hawaiians are not racially

allied with the Negro. For all these reasons, political and social, Hawaiian public sentiment considers it undesirable that an element be added to the population that would be certain in time to disturb the existing happy conditions and to create or emphasize unnecessary prejudices.

The Porto Ricans, when they arrived, gave the least promise, either as citizens or as laborers, of any immigrants that ever disembarked at Honolulu. The men had been carelessly recruited at a time when the laboring population of Porto Rico was in a condition of acute distress. It is probable that few of them were in a physical condition to make a long voyage when they went on shipboard. They were mostly people from the coffee country of their own island, who had been starved out of the mountains when that region was devastated by the hurricane of 1899. This was followed by a year of idleness, semidependence, and mendicancy in the coast country before they left for Hawaii. They were half starved, anæmic, and, in some cases, diseased. A considerable number of petty criminals, wharf rats, and prostitutes from Ponce and other coast towns accompanied them. They were not so much representatives of the people of Porto Rico as of famine and misery in the abstract when they arrived in Honolulu. Numbers of men afflicted with hydrocele and other diseases, and who were manifestly incapable of working, found their way among the immigrants. But this was hardly the fault of the Hawaiian planters, who spent nearly \$565,000 to get these men, or more than \$192 passage money and recruiting expenses for every adult male arriving, and who were practically interested in their physical well-being.

The Porto Ricans appear to have been well treated during their passage from Porto Rico to Hawaii, and to have been provided with as many comforts as are usually enjoyed by voluntary immigrants from Europe to the United States. But their food, while wholesome and abundant, was not always the kind to which they were accustomed, and they had been made ravenous by long starvation. The first three expeditions passed through San Francisco in the winter, and, although they were brought across the country by the southern route, the lightly clad members were subjected to the inclemencies of what was to them almost an arctic climate. But there were few deaths among them while en route. The hardships of traveling merely prevented any recuperation from the deplorable physical condition in which they had left their homes. When they reached the plantations where they were to be employed, many—especially of the first expeditions, which arrived in the worst condition—were taken directly to the hospitals, which some of them never left alive. Those who were not actually ill were in no condition to work and had to be fed with specially prepared food for some weeks before they could do a full day's labor in the fields. They did not know how to care for themselves. They had to be taught how to live in their new surroundings. They were

morally upset by their long travels and changed environment, and many could not acquire the new habits of life necessary to their new condition. So a considerable number became strollers and vagabonds, and, wherever possible, flocked into the towns.

The social regimen of the islands is strict. There is no extreme poverty, and begging is unknown. Any industrious and able-bodied man can always find employment in the country, and planters act upon the theory that a man who doesn't work is bound to steal. So a person without visible means of support is not allowed to remain on a plantation, and as the plantations cover nearly all the settled portion of the islands, it is exceedingly difficult for a man to follow a life of vagrancy with comfort. A certain number of Asiatics contrive to do so, but they live a sort of parasite existence upon their fellows, visiting from plantation to plantation among their more industrious brothers, and do not sink to the social rank or follow the methods of tramps or public beggars. Therefore Porto Ricans so disposed did not find conditions favorable to the *dolce far niente* existence so common among their own country population. They were confronted with the necessity of constant labor, and this was a new situation to most of them. A fair number are meeting the emergency with credit, and are acquiring habits of persistent industry that they might never have gained in their own country. But a certain proportion have failed to adapt themselves to any sort of an industrious life, and these have drifted from the plantations into the towns or their immediate vicinity and form a class of malcontents and petty criminals.

The Porto Ricans arrived in Hawaii in 11 expeditions, beginning in December, 1900, and continuing until October 19, 1901. There were about 450 in each party, the total number of immigrants being about 5,000, of whom 2,930 were men and the remainder women and children. The exact cost of recruiting and bringing them to Honolulu was \$564,191.68, or more than \$100 per capita—a sum amply sufficient to assure their comfortable transportation and entertainment while en route. An English translation of the notice in Spanish, posted by agents recruiting laborers in Porto Rico for the Hawaiian Planters' Association, and known as the "Contract under which the Porto Rican laborers went to Hawaii," follows:

AGREEMENT FOR THE EMPLOYMENT OF LABORERS FOR THE ISLANDS OF HAWAII.

The Planters' Association of the Hawaiian Islands needs laborers for the cultivation of cane and the manufacture of sugar, and therefore makes the following offer to working people and their families who will go to that country:

1. To furnish such laborers, their wives, children, and relatives free passage from Porto Rico to Honolulu, including subsistence and medical attendance during the journey.

2. To furnish such laborer upon his arrival with agricultural employment for the period of three years from the date of actually commencing work; also furnishing employment to his wife and elder children if they so desire.

3. To guarantee the laborer the following wages for each month of 26 working days of actual labor:

	Per month.
During the first year	\$15
During the second year	16
During the third year	17

and to pay his wife and elder children, if they wish to work, as follows:

	Per day.
Boys from 15 to 18 years of age	\$0.50
Girls from 15 to 18 years of age .....	.35
Women from 18 to 40 years of age .....	.40

4. The laborer and his family will receive, free of cost, living apartments, fuel and water for domestic use, medical attendance, and medicines.

5. The laborer shall be exempt from personal taxes, he and his family will enjoy the full protection of the laws of the Territory of Hawaii, and his children under 14 years of age will be provided with primary instruction in the public schools.

6. At the conclusion of three years from the time of actually beginning work the planter will pay the laborer \$72 bonus, providing always that the laborer shall have worked continually during this period upon the plantation to which he was assigned an average of not less than 20 days in each month.

Upon their arrival in Honolulu the workmen and their families will be instructed in the methods of cane culture followed upon the Hawaiian plantations.

Ten hours constitute a working day in the fields and 12 hours in the mill, it being understood that this work is not continuous, as the laborer is given time to eat his meals and rest from his work.

All overtime in excess of the hours stated will be paid for at the rate of 10 cents an hour; 26 working days constitute a month.

The journey will be made as follows: The laborers will embark upon comfortable steamers for New Orleans, a trip of 4 days; from there they will travel by rail to San Francisco, which will require about 4 days more, and from California they will embark in a Pacific liner, which will take them to Hawaii in 6 days more. The whole journey will occupy about 14 days.

The workmen and their families will be provided by the Planters' Association upon embarking with *clothing, underclothing, footwear, and blankets*, as follows:

For men and boys, 1 pair of shoes and stockings, 1 suit of underwear, 1 shirt, 1 pair of trousers, 1 hat, and 1 blanket. For women and girls, cloth for a dress and undergarments, stockings, shoes, a head cloth, and a blanket.

The climate of the Hawaiian islands is similar to that of Porto Rico, inasmuch as it lies in the 18th degree of latitude, and the temperature does not fall below 15° C. (59° F.) or rise above 25° C. (77° F), a less degree of heat than in Porto Rico.

The products of the islands are sugar, coffee, tobacco, pineapples, and all the fruits found in Porto Rico, such as bananas, yams, sweet potatoes, etc.

The inhabitants of the islands profess different religious faiths, among them the Roman Catholic, which denomination has many churches and priests there.

From cablegrams and letters received we know that the Porto Ricans, who have gone to Hawaii in the first five expeditions have been given satisfactory employment upon the plantations of the islands, as well as their wives and children. This is corroborated by letters which the emigrants have sent to their families in Porto Rico. Letters of a very satisfactory tenor have been received by several commercial establishments in Yauco for delivery to friends. These letters are on file at the Hawaiian agency, at the disposition of any who care to examine them.

Porto Rico, April 16, 1901.

R. A. MACFIE,
W. D. NOBLE,

The Agents, San Jaun, Ponce, Adjuntas.

So far as a personal visit to every plantation in the islands save one (and that a place where no Porto Ricans were or had been employed) was able to show, the planters appear to have fully kept their side of this agreement. In most cases, however, the men have left the plantations originally employing them and wandered from place to place, taking such positions as their fancy or necessity dictated, like other free agricultural laborers. On nearly every plantation they are given in addition to the wages agreed upon in the "contract" a bonus of 50 cents a week for every week in which they work the full six days. They receive special consideration in many ways that is not shown laborers of other nationalities. One plantation employs a physician for Porto Ricans exclusively, others that do not run plantation stores buy rice and similar supplies at wholesale which they sell at cost to these employees; a planter on the island of Hawaii gives his Porto Ricans a sack of flour in addition to their weekly bonus whenever they work a full month of 26 days, and at another place, where there are nearly 100 employed, they are served with a free luncheon of hard tack and coffee in the field. Among about 100 Porto Ricans interviewed, there was not a single man who complained that he had not received full compensation for his services.

The quarters provided for the Porto Ricans were in many cases new and were usually modeled after those supplied the Portuguese, with whom it was assumed they would associate, and were superior to most of those occupied by Asiatics. They were comfortable cottages, equal to the better class of plantation quarters in the South or in Cuba, and considerably superior to the dwellings of the country laborers in Porto Rico. But complaint is made that, compared with other working people in the islands, the habits of the Porto Ricans are untidy, and, as a result, many were transferred to poorer quarters, and Asiatics and other laborers were put in the homes that were originally built for them. In these things they were compared with the tidy Japanese and other Asiatics employed in the islands, who, as well as the native Hawaiians, are clean about their persons, and this fact reacts favorably upon their surroundings, even when they neglect sanitation and orderliness about their houses.

This fact has prejudiced plantation managers and the people of the islands against the Porto Ricans. They are also unpopular on account of the number of criminals who accompanied them. Petty thieving was extremely rare in the country districts of Hawaii previous to their arrival. In this respect the native Hawaiians are almost perfectly honest, unless corrupted by city influences, and the Asiatics and other laborers are not inclined to pilfer from the whites or to commit any lawless acts that will bring them into direct relations with other than their own people. Heretofore doors and windows of private residences have seldom been locked, and small articles of value and

other property have been left about uncared for with perfect security. The planters state that the arrival of the Porto Ricans changed all this, and bring in support of this statement official statistics which show that the commitments per thousand inhabitants to Oahu Prison, Honolulu, during the first 10 months of 1902 were, for the Japanese, 1.1; Chinese, 3; whites, 5.3; Hawaiians, 6.1; and Porto Ricans, 33.2.

The Porto Ricans, on their part, have not been uniformly contented with the conditions they have encountered in Hawaii. Complaints of ill usage and injustice were made. It was claimed that they were charged exorbitant prices at the plantation stores, and were obliged to be at work at unreasonably early hours. A careful investigation failed to disclose any extortion in the prices charged by the plantation stores or any discrimination as to hours of labor. The cost of living is relatively higher in Hawaii than in Porto Rico, so that prices that seem but normal to those familiar with the islands might well appear exorbitant to the new arrivals. The hours of labor generally observed in Hawaii would naturally seem a hardship to those accustomed to the somewhat easy going Porto Rican methods. Other plantation laborers work rainy days as a matter of course, but over this point considerable trouble with the Porto Ricans in Hawaii occurred. Especially were complaints made by those working in the Hilo and Hamakua districts, and it is in this country that there is the most rainfall. As a result of this climatic condition there has been a gradual movement of the Porto Ricans toward the dryer sections of the islands, and in those regions they are more contented and give better satisfaction as laborers. To repeat a statement already made, the industrial regimen of the islands is a strict one. Hawaii is a country where no encouragement is given to idlers. It is probably the most energetic tropical country in the world.

But the condition of the Porto Ricans in Hawaii has another and a pleasanter side. The hopelessly ill have died, some of the discontented have left for California, and the criminal element has been largely weeded out of the working population in the country. There remains upon the plantations a considerable body of fairly efficient laborers. Representatives of these were interviewed upon all the islands, and without exception they were satisfied with their present condition. There are 539 Porto Rican children in the schools of Hawaii, enjoying educational facilities that are exceedingly rare in their own country. Some of the better educated men are employed in positions of responsibility, as overseers, storekeepers, office men, and mechanics. Intelligent medical treatment, wholesome diet, and steady labor have improved both their physical condition and their morale. They have lost the dejected, drooping walk that characterized them on their arrival, and step out as freely and vigorously as the jaunty little Japanese. Some of them are saving money. One field

hand from Pepeekeo plantation left the islands with \$250. Another, the head of a family in the Kohala district, has \$110 deposited with a physician in Honolulu, and another informed the writer that he and his family were earning \$75 a month, besides house, fuel, and medical attendance, and that he "Thanked God he had come to Hawaii." In a number of instances men had smaller sums than those mentioned deposited with their employers.

Many of the Porto Ricans had recourse to Dr. L. C. Alvarez, the Spanish vice-consul in Honolulu, as a friendly adviser during the difficulties and misunderstandings attending their arrival, and have remained in correspondence with him since. He has received complaints of harsh treatment from but 3 of the 55 plantations, and when some rumor was circulated through the islands to the effect that the Washington Government would send a transport to take the men back to Porto Rico some of them wrote to protest against this gross injustice, as they considered it, of being deprived of their present opportunities and forced to return to their own country. Of course many of the men are homesick, and probably a very large majority of them would welcome an opportunity to return to Porto Rico. They suffer from the same nostalgia that affects European immigrants to the United States.

The opinions of managers as to the efficiency of Porto Rican laborers differ, but most of those interviewed thought that sifted men, who had remained steadily on the plantations, were satisfactory. From 40 to 60 per cent of the laborers originally received were reported good. A few managers, including one or two with the longest pay rolls in islands, preferred not to have a Porto Rican in their employ, while others retain in their service all who apply for work. The manager of the Kohala Sugar Company says in his report for 1901: "The Porto Ricans have turned out well and are among the best laborers on the plantation, and are improving greatly."

The annual report of Olaa plantation for the same year contains the following statement by the manager:

We have on the plantation 237 Porto Ricans, including women and children. Although there is among them a good deal of poor material, the majority of them are fair workers and we have little trouble with them. I think the one prime reason for this is that we have continuously maintained in our employ a thoroughly competent interpreter, so that there has been no misunderstanding between laborers and manager as to what was wanted on either side.

One manager states that the Porto Ricans in his force constantly improve, but that they have to be taught to eat sufficient and wholesome food. Almost the same opinion was recently expressed by a large employer of native labor in Cuba. The manager at Waialua thought the Porto Ricans remaining in his employ were good men, but not equal to the Japanese, while a manager on Kauai and another

on Hawaii considered that they accomplished more field work in a day than any Asiatic and nearly as much as a Portuguese or a European. Two cases were actually observed where Porto Rican and Japanese gangs chanced to be working in the same field, in one instance cutting cane and in the other distributing fertilizer, and on both occasions the Porto Ricans were covering ground much faster than the Orientals. There was complaint that Porto Ricans work irregularly, but this is only partially borne out by the figures taken from the books of two large plantations for the months of July and August, 1902. The averages, for men only, are as follows:

Portuguese:

Average number of men employed.....	126
Average days worked per month	22. 74

Hawaiians:

Employed	32
Days worked.....	21. 95

Japanese:

Employed	664
Days worked.....	21. 34

Porto Ricans:

Employed	125
Days worked.....	20. 85

Chinese:

Employed	119
Days worked.....	20

It should be said of the Chinese, however, that since the exclusion law went into effect with annexation most of the younger and most vigorous workers have gone back to China, leaving behind the gamblers and opium smokers, and those who, on account of age and decrepitude, can not accumulate funds to return to their own country. The best workers among the Chinese are also drafted off to the rice fields by employers of their own nationality, so that altogether only a remnant of the poorest hands remain as day laborers on the plantation. The Porto Ricans are incited to regular work by a special bonus of 50 cents a week for every full week of labor, which inducement is not offered to Asiatics.

There has been practically no change in the number of Porto Ricans working on the plantations during the year 1902, though there was a rapid decrease previous to that time, which would tend to show that after the naturally vagrant and criminal classes were once eliminated the remainder form a reasonably steady class of employees. The figures of the total number, of both sexes, employed at different dates, as given by the Planters' Association, are as follows:

October, 1901	2, 085
February, 1902.....	1, 851
September 30, 1902.....	1, 853

Of the 55 plantations in Hawaii, 34 had Porto Ricans on their pay rolls in the autumn of 1902. One thousand seven hundred men, or slightly more than 58 per cent of the whole number of men imported, were then employed, and were earning an average monthly wage, without bonus, of \$17.52. Including the weekly bonus of 50 cents paid to a very large majority of them for regular work, their possible wages were nearly \$2 a month more than this, and their real monthly earnings probably averaged between \$18 and \$19. On one plantation, where the actual wages paid 54 Porto Rican employees were averaged for the month of August, 1902, it was found that they earned \$18.85 each, or 51 cents a month more than the Japanese. There were also 172 Porto Rican women employed, at an average wage of \$11.13 a month, and 164 minors, whose average wages were \$10.20. The occupations of the men were distributed as follows: Four held clerical positions, paying an average of \$35.32 a month; 11 were overseers, receiving \$30.29 a month; 18 mechanics and mechanics' helpers received \$21.57; 29 teamsters received \$20.61; 15 wharf men received \$19.77; 15 railway laborers received \$20; 9 mill hands received \$18.20; and 1,734 field hands and common laborers received, without including the bonus, an average of \$16.13 a month. The average wages of the Porto Ricans employed on the plantations are therefore higher than those promised them when they left Porto Rico. But slightly more than half of those imported still remain in plantation work. Of these 539 are accounted for by the school children, 166 had been committed to Oahu Prison, and the remaining 2,300 represent minors too young to attend school, those employed off of the plantations, and the vagrant and vagabond population that has collected in Honolulu. Some also have died and a few have left for the Coast. Twenty-three Porto Ricans are also engaged in cultivating on contracts, and are earning about \$26 a month besides quarters, fuel, and medical attendance. These are not included among the plantation wage earners enumerated above.

From the planters' point of view an important result of the Porto Rican immigration was the moral effect that their arrival had upon the Japanese. The latter had begun to fancy that with the enforcement of the Federal Chinese exclusion and contract laws after annexation they were complete masters of the labor situation in Hawaii. They formed temporary combinations for the purpose of striking at critical periods of the planting and grinding season, and in this way had succeeded in forcing up wages. This is sufficiently shown by the rise in the average wage of field hands from 60 to 76 cents a day, or an increase of over 25 per cent, during the year ending June 30, 1901—the first 12 months following annexation. The regular arrival of monthly expeditions of Porto Rican laboring people throughout an entire year largely disabused them of this sense of monopoly and made them much more reasonable in their relations with their employers.

The ultimate effect of the Porto Rican immigration upon the islands will probably be unimportant. Those who remain will doubtless amalgamate more or less with the Portuguese during their transition into Hawaiian Americans. They and their descendants will in all probability be vastly better off than they had any prospect of being in their own country. They have brought with them a criminal element which it may take time to eliminate, but which will find the islands a decidedly discouraging field for operations, and they have faults and weaknesses which it may require a generation or two fully to correct. They are somewhat given to drinking, gambling, and carrying concealed weapons, and are more quarrelsome and vindictive than the other inhabitants. Difficulties sometimes arise between them and the Japanese. The latter are seldom the aggressors and rather fear the Porto Ricans in individual disagreements, but on one or two occasions, when their blood was up, it required prompt and energetic police interference to prevent a sudden extermination of the local Porto Rican population. The customs of the two people are so different that trouble is apt to result if they are placed in neighboring quarters. The Japanese, for instance, have a naive disregard for proprieties of costume and occasionally walk about their camps in an absence of attire that Americans or Europeans tolerate only in works of art. Porto Ricans object to this in case of adults, and one or two small riots have occurred as a consequence. Yet these are but other versions of the race riots and fights between workmen of different nationalities that happen in other parts of the country. They are not common, and none so far has led to serious consequences. His careless disregard of cleanliness renders the Porto Rican a less pleasant neighbor or employee in many respects than an Oriental. But to an outside observer it would seem that despite all his faults he is more desirable as a permanent settler. He possesses the heredity of the Caucasian, and with the discipline of regular work and the encouragement of the social and political environment he finds in Hawaii, he ought to turn out in the course of time a fairly intelligent and industrious citizen.

The Chinese have long constituted an important—most of the time the most important—element of Hawaii's working population, and they possessed influence and privileges and received a degree of consideration in the old island kingdom that they never enjoyed in the United States. The first connection of Hawaii with China was through the sandal-wood traffic, when the Celestial Empire was looked upon as the great source of royal revenue and of ready money for the people. The cooly appeared in 1852 with the dignity of this tradition behind him. His number increased slowly at first; he accumulated property in those days of early abundance, intermarried with the natives, learned their language, gained their confidence and trade, and with his shrewd commercial instincts established himself strongly in the mer-

cantile life of the Kingdom. In the marshy coast regions and fertile mountain valleys he opened profitable rice plantations, redeeming valueless waste lands, and adding greatly to the wealth of the country, the income of the native proprietors, and the revenues of the Government. His competition was not felt as much as his services were appreciated, and he was treated accordingly. Visitors from California speak of his superiority to the Chinamen of the coast as if he came from a different quarter of the globe, but he is simply the cousin or brother of the latter developed under a different environment.

But the number of Chinese immigrants ultimately caused disquietude, especially in view of the constantly decreasing native population and the small contingent of permanent white residents, and from 1883 a growing opposition to their continued importation existed. Shortly afterwards plantation labor began to flock in from Japan, and a Chinese-restriction act was passed in 1887, with amendments in 1888, which virtually excluded laboring people of that nationality from the islands for a time. Chinese women and children having relatives in Hawaii, clergymen, merchants, and teachers formerly residing in the country were allowed to land. Under a special permit from the minister of the interior merchants and travelers were allowed to remain in the country 6 months under bond. A limited number of field hands and domestic servants were also permitted to enter the country each year. These were allowed to engage in no occupations but the two stated, and had to keep their residence registered with the authorities, while their employers were required, under penalty of a fine, to deposit a certain portion of their wages each month with the Government for the payment of their return passage when the contracts under which they were permitted to enter had expired. Despite these restrictions, however, the number of Chinese plantation laborers increased relatively to the number of Japanese from 1894 to 1896, inclusive, though the latter always remained a large majority. The constitution of 1887 prohibited Chinese from voting for members of the legislature. The opposition to the Chinese was vigorously voiced by Mr. L. A. Thurston, then minister of the interior, in his report as president of the bureau of immigration, published in 1890.

The planting interests have usually, though not unanimously, been in favor of Chinese labor. An ideal situation in the eyes of most managers would be to have a force of unskilled employees divided about equally between the two oriental nationalities. If confined to either one of the two, probably a majority would prefer the Chinese, partly because they still retain a lively recollection of their difficulties with the Japanese at the time of annexation. The two peoples, in spite of their kinship, have marked dissimilarities. The Chinaman is usually the more steady and reliable but the less energetic laborer of the two, and is preferred for irrigation and cane cutting. The

Japanese has greater physical strength, and is the better man for loading or for general roustabout work in the mill. He is more frequently seen with a team than is the Chinaman. He is more cleanly about his person and tidy about his surroundings, and adopts much more readily all the superficial tokens of Caucasian civilization. He wears European clothing, carries a watch, and seeks most eagerly for variety in life. He is constantly visiting new places and trying his hand at new trades. He represents the radical, the Chinaman the conservative, side of oriental character. His white employers consider him mercurial, superficial, and untrustworthy in business matters. His vices are more occidental than those of the Chinese. He does not fall a victim to opium or the unnatural practices of the latter, but is fond of intoxicants. Partly on account of his religion he is usually kind to animals and largely vegetarian in his diet. When the Japanese first began to arrive in the country one of the difficulties employers experienced was to persuade them to eat enough wholesome and strength-sustaining food to do a fair day's work. The Chinaman is said by planters to spend half again as much for his provisions as a Japanese. He eats meat and not unusually is to be seen tramping home to his quarters with a canvas-wrapped ham on his shoulder. In matters of business honor, the Chinaman is considered vastly more reliable. He seldom deserts a contract, even though he lose heavily, while a Japanese will walk off and leave a manager in the lurch if he fails to get what he considers a profitable bargain. A prominent business man of Honolulu, who had dealt with the Chinese for 31 years, buying rice from them and advancing them money on crop loans and mortgages, stated that he had never lost a cent through their dishonesty or had one of them fail to keep his side of an agreement fairly entered into or attempt to evade a business promise. They are also said to be constant in their domestic relations and to bring up their families with a strict regard for their own ethical ideas. They have less national sentiment than the Japanese, and a number of them have settled and made permanent homes in the islands, where their children, either pure Chinese or mixed Chinese and Hawaiian, form a small but constantly growing element of the population. The descendants from Chinese-Hawaiian marriages are esteemed the best mixed race in the territory.

The Japanese make more demands upon a plantation manager in the way of quarters and general conveniences for living than do the Chinese. Many of them have families and require individual apartments. They will not sleep in "double deckers," and tear them out of any apartments to which they are assigned. They prefer to board in small companies, upon a cottage system, while the Chinese like to herd together in large barracks—usually roomy, barn-like structures—with little suggestion of domesticity about them. It is difficult to keep Japanese employees upon a plantation unless they are

provided with plenty of water—preferably hot water—for their daily bath. No provision for privacy need accompany these bathing arrangements. One big tub satisfies all ordinary requirements.

The patriotism and national aggressiveness of the Japanese are factors of their sociological influence in the islands. On the one hand these qualities have, up to the present time, prevented their becoming permanent settlers like some of the Chinese. They have not acquired large property holdings in Hawaii, though they conduct many business enterprises of importance among their own people. Japanese financial institutions and steamship companies handle the savings of the laborers and carry the latter to and from the islands, while the Government of Japan closely supervises and regulates every detail of their immigration. Most of those migrating to Hawaii do so at the instance and under the control of immigration companies, which are institutions authorized by the home Government for conducting this business. It is stated that at times only a fixed quota of laborers is permitted to leave each province, the number being adjusted to local requirements and to the rate of wages prevailing in the foreign labor market. Each immigrant pays or becomes indebted to the immigration company for his passage, and a fixed fee or commission, which ranges from \$10 to \$20, in consideration of which the company is bound to transport the laborer to his destination, and to provide for his care or else return him to his own country in case illness or accident incapacitates him for work. As a Japanese can save as much from his wages in a year in Hawaii as in the better part of a lifetime in some of the rural districts of his own country, and as the cost of passage to Honolulu—under \$40—is by no means prohibitive, the voluntary labor supply from Japan has naturally filled the Hawaiian market, though always under the strict control of the Government. It is even rumored that when plantation hands become numerous and wages begin to decline, or when the pressure for employment becomes great at home, the local agents of the Government intervene to encourage a return to Japan of those laborers having the largest deposits in the Japanese bank. Whether this is true or not, it is certain that Japan never lets go of its citizens, and does not intend that they shall form permanent ties in another country. This fact has so far distinguished Japanese immigration into Hawaii from European immigration into the United States. The Japanese, with his inherited reverence for the authority of his Government, is not a free agent in the social or industrial world and does not sever himself from the influence of his native rulers when he passes beyond the sphere of their political control.

It is in part this national sentiment which gives a certain aggressiveness to the religious policy of the Japanese. A majority of the laborers are Buddhists, and this religion is conducting a quiet but persistent propaganda against Christianity among its own people. Out-

side of Honolulu there are perhaps a score of Buddhist temples recently erected upon the different plantations, and Japanese schools are conducted in connection with a number of them. The national trait of assimilating readily the exterior forms of Western civilization reproduces itself peculiarly in their religion. Partly as a matter of convenience the Buddhists observe Sunday in the Islands, conduct Sunday school and meetings on that day, and to some extent imitate church observances. Buddhist priests have adopted the title of "Reverend." There is no opposition to this religion on the part of managers and plantation authorities, in fact they rather encourage the building of temples and the observance of forms of worship among their Asiatic employees. The moral and social influence of the priests among the laborers is thought to be good. But cases are reported where Buddhist committees have been at work using their moral influence, and even, it is said, employing a form of boycott, to force Christian Japanese to send their children to Buddhist schools and to renounce their adopted form of worship. Aside from their religion, patriotism alone is a potent influence in keeping the Japanese loyal to their own national institutions. They cooperate and make considerable sacrifices to maintain schools where their children can be taught in their mother tongue and in accordance with the customs and beliefs of Japan.

So far as private morals are concerned, the Japanese of the laboring class immigrating into Hawaii are practically in a state of nature—the ideals and conventionalities of the West simply do not exist among them. Marriage is a business contract, and many women arrive in Honolulu to meet husbands whom they have never seen. They have been practically purchased by friends or agents of the latter in the home country, and feeling free to observe a different custom in a new land, promptly desert the men if they do not meet with their approval. Much looseness in the sex relations results.

Despite the transient character of Asiatic settlement in Hawaii, the labor question there has certain permanent social and racial aspects that it does not possess in other portions of the country. These turn upon the probability of a final orientalization of that Territory. At present Hawaii is as characteristically American as any place on the mainland. This may be due in part to an aggressiveness in Hawaiian Americanism that was born of its struggle to survive and to dominate the country. Something of the cohesiveness that Macaulay mentions as characterizing the Englishry of Ireland in the sixteenth and seventeenth centuries has united the white population. The public school system has been a powerful instrument for unifying the ideals and establishing solidarity in the civilization of the islands. European immigrants are assimilated into this American life as readily as in any other part of the Union. Up to the present time the Asiatic has had only an economic value in the social equation. So far as the

institutions, laws, customs, and language of the permanent population go, his presence is no more felt than is that of the cattle upon the mountain ranges. He lives apart, his society forms an *imperium in imperio* that is not assimilated, and does not even coalesce with the social organism of the dominant race.

The question whether this is a permanent condition and whether two societies can continue thus to exist side by side without reacting the one upon the other, is an interesting one, because it is certain to become more important and to have many new applications in the future. In Hawaii there seems to be an appreciable tendency to extend Western at the expense of Eastern civilization and customs. This is not so significant in case of the Japanese, for they are ready imitators, if not assimilators, of Western ideals. But a breaking down of Chinese conservatism means much more, and when these people decide to make their permanent homes in the islands it is evidently with a view to becoming Occidentals. They send their children to the public schools and encourage them to acquire American accomplishment and habits. In one school visited where there were about 70 pupils, but 13 wore cues. Ten years ago, the principal said, the proportion was about reversed. And a group of Chinese boys without cues, talking very fair English, dressed as American boys would be under similar circumstances, and starting out for a football game—as these boys were the morning the school was visited—present very few oriental characteristics. Each one of these young men and women who steps over the line that separates the East from the West makes it easier for more to follow.

The Americanized Chinaman contributes a not unimportant element to the Hawaiian people, and there are indications that he will stand on a certain social parity with the Caucasians. Young Chinese are occasionally seen in evening dress at balls and receptions where whites predominate. When they adopt an American manner of life they soon cease to be a depressing factor in the labor market. Those best qualified to speak of the Hawaiian Chinese state that they are rapidly acquiring the habits and tastes of American working people and demand the same standards of living. Many of those who make but a temporary sojourn in the islands carry back with them to China packing cases full of American lamps, clocks, tools and implements, sewing machines, and other novelties and conveniences of various kinds, a knowledge of which they often introduce for the first time to the remoter parts of their own country. Some of them return to build and furnish homes, like those of the Americans, in their native villages. The circulation of oriental labor through Hawaii has been a potent but little-heeded influence in extending familiarity with Western civilization and a demand for Western products throughout the two great oriental nations.

On the other hand, the presence of a transient population of Asiatics in Hawaii checks Caucasian immigration, limits the market for white labor, and thus tends to hinder the building up of a strong, self-governing American community in the mid-Pacific. Were Hawaii virgin and unoccupied territory it might be questioned whether American interests would permit a single Mongolian upon its shores. But now there are established industries and interests urging their claims. The sugar industry has been built up upon Asiatic labor; that labor can not be withdrawn at once without ruining the industry, and with it the economic prosperity of the islands for many years to come. Causes already sufficiently described limit the industrial possibilities, and no community, white or yellow, can obviate these limitations. Certain other conditions, sociological rather than material, still further restrict the sphere of industrial effort in the islands. That labor policy is evidently the wisest which, while recognizing existing conditions and the natural limitations to productive enterprises already mentioned, strives to maintain the economic prosperity of the Territory with the least possible sacrifice of the interests of Caucasian workmen.

Assuming the production of sugar to retain its present ascendancy, it is pertinent to inquire to what extent white men can be profitably employed in that industry. It is generally conceded that all the higher occupations, such as those involving superintendence or mechanical skill, might remain in their control. But the men employed in these pursuits are only a small fraction of the whole plantation force. Unskilled laborers constituted, in round numbers, over 38,000 of the 42,000 men employed on Hawaiian plantations in the fall of 1902, or about 90 per cent of the whole plantation force. It is among the remaining 10 per cent that there would theoretically be the greatest field for white employment.

The preliminary explanation should be made that, irrespective of the general question whether white men can work satisfactorily in the cane fields, there is, it is said, no supply of the kind of labor needed in the States. Italy furnishes a large share of the field hands employed in Louisiana, and Japanese cultivate the beet-sugar fields of California. The latter State furnishes a ready market for all the agricultural labor that up to the present date has ever reached its borders, at higher wages than the cane industry can afford to pay. American farm hands can not be employed, and small farmers from the States will not occupy and till with their own hands cane lands in Hawaii, until some economic revolution is accomplished by which workers are made to move freely from a higher to a lower market and from more profitable to less profitable fields of production.

White men are sometimes said to be physically incapable of working continuously in the cane fields of a country having the climate of

Hawaii. This may be true of some spots, like the Mana end of Kekaha plantation, where highlands cut off the ocean breezes and the sun pours its untempered rays into a little pocket in the foothills, but as a general statement it has been disproved by the use of the Portuguese in Hawaii, and, it might be added, of the Gallego in Cuba. The Italians, while they have the recuperative effects of the frost season, work for months of the busiest time of the year in Louisiana in temperatures higher than are common in Hawaii. North Europeans have been and are still employed in field labor in the islands. The committee of labor of the Hawaiian Planters' Association said in its report for 1882:

The employment of Europeans has not as a rule proved desirable, although in some cases Germans from the farming classes have proved valuable laborers, especially when the employers were Germans.

There is one field operation, however, in which white men can rarely be prevailed upon to engage. That is "stripping" the cane, or tearing off the leaves so as to admit the sugar-building sunlight to the stalks. This is an especially disagreeable operation in many parts of Hawaii—on some plantations they do not strip at all—because the cane grows heavier on the irrigated lands than in any other place in the world. Forty tons of cane to an acre is a big crop in Cuba or other sugar countries, while 120 tons is sometimes raised in Hawaii. When this occurs the stalks attain an extraordinary length, sometimes 28 feet, and intertwine and tangle so as to produce a nearly impenetrable jungle. A writer thus describes this operation of thrashing the cane in Australia, where the growth is far less luxuriant than in some portions of the Hawaiian Islands:

Picture to yourself a 50 or 60 acre field of well-grown cane. It stands from 8 to 10 feet high, in serried rows some 6 feet apart with half that distance between the stools, which number 6 to 12 stalks each. Much of the cane has been blown down, and lies in a tangled mass under foot. Every single stalk is clothed with a casing of dead leaves from the ground to the green crown. This is the so-called "trash," which has to be removed in order to allow the sun and air to act directly upon the cane. Enter this field and a few feet from the outside edge you find it difficult to force your way farther. Overhead is the pitiless, blazing sun of the Tropics. Should there be any breeze at all not a breath of it can find its way more than a few yards into the thickly growing cane. The thermometer stands well above 100 in the sun, and added to that there is a deadly, muggy dampness everywhere, which renders the heat more oppressive. The trash is easily detached from the cane stalk—a child can pull a dead leaf off with his finger and thumb. All that the laborer has to do is to throw himself upon a stool of cane, plunge both hands into the accumulated trash, drag it clear of the cane and deposit it between the rows. But fine dust rises from the crackling leaves in clouds, which gets into the laborer's eyes and nostrils, covers his whole perspiring body with streaming dirt, and closes up his bronchial tubes as badly as if he were working a

cotton gin in a closed room. In addition to this annoyance there is the still greater one arising from the hairs fringing each cane joint. These become detached in the process of thrashing and stick into the skin, like the fine hairs of a certain caterpillar or the fine spicules of the prickly pear, and cause intense irritation. The skin burns and itches, and there is no possible escape or relief until knock-off time.

Still it is an economic reason, not the physical disabilities of the white man, that has caused the preference for Asiatics. The difference in the past has not been so much in the matter of wages as in the original cost of importing labor and the extra expense of maintaining families, as compared with single men, upon the plantation. The opinions of a number of planters upon this subject are given in a report of the bureau of immigration, in 1886. At that time it was customary to board the hands, and the incentive to obtain single men was therefore greater. One manager says:

Under the present contract system, where the employer has to pay for the children of Portuguese, furnish fuel, board them when sick and idle, it makes the expense so high that employers will of necessity have to replace them with cheaper labor in order to keep their works going.

Another reports:

They (the Japanese) are more reliable, thus far, in many ways than the Portuguese, and less costly, as there are comparatively fewer children to feed and house, and they do not seem to require the same amount of house room as the Portuguese.

However, a third says:

I think the Portuguese are by far the best class of immigrant laborers, both as day men and under contract, and the Chinese the worst in the long run.

Many far-sighted managers have seen the desirability of obtaining men with families on account of the greater permanence they give to the laboring population upon a plantation. In his report for 1900, the manager of Ewa plantation says:

In the opinion of the writer it would be better to bring in married men, with or without children, rather than single men. The average single laborer is unsettled, and removal from place to place cuts but a small figure in his estimation; while each cottage and garden, however humble, of the married man will become a center toward which its occupants will look with varying degrees of attachment. And the labor question of this Territory will not be settled until a large proportion of the houses of the workers, whether Anglo-Saxon, or Latin, or Asiatic, represent homes with families, for the present well-being of the workman, and for the future labor supply and well-being of the planter. The home, therefore, on a plantation has, apart from other considerations, its commercial value.

Several serious attempts have been made by Hawaiian planters to introduce a system of colonies or small farming into the sugar industry, and thus to dispense to some extent with the uncertainties of

labor supply that faced them as large individual employers. These experiments appear to have been made in good faith and to have demonstrated that this particular method of cane culture is not practicable in Hawaii. Certainly no new system of this sort could survive in competition with the one already established.

As early as 1870 one of the pioneer sugar raisers, Captain James McKee, brought 18 white settlers to Ulupakalu plantation, on Maui. They built a little hamlet called Lincolnville, and received advances of supplies and living expenses and the use of land, with an understanding that they should be paid for their crop according to the number of tons produced. Only one of the members remained until the crop matured. A still more elaborate experiment was recently tried at Ewa plantation, which is described in detail in the two letters below. Fifteen farmers were brought from California, their expenses were paid in full and they were placed under exceptional conditions for succeeding as cane cultivators upon one of the best-paying plantations in the islands; but for various reasons they became dissatisfied and gave up the undertaking. Americans and many Europeans will not engage in an occupation that is stigmatized by coolly traditions, even though it prove profitable and not excessively laborious. They have a certain pride or vanity of race that is as difficult as any economic obstacle to overcome.

LETTER FROM MR. W. J. LOWRIE, THE MANAGER UNDER WHOM THE EXPERIMENT WAS INAUGURATED OF INTRODUCING A COLONY OF AMERICAN FARMERS AS CULTIVATORS UPON EWA PLANTATION IN 1898-99.

DEAR SIR: The question of employing white labor for the cultivation of sugar cane has received considerable and careful consideration by the Ewa Plantation Company. In the early part of 1897, Mr. W. N. Armstrong told of interviews he had had with Mr. E. L. Fitzgerald, labor commissioner of the State of California, and he was invited to a meeting of the directors of the Ewa Plantation Company, at which meeting, I, as manager, was present; the results of which meeting may best be told by quoting the following resolution unanimously passed:

“Resolved, That the Ewa Plantation Company, through Mr. W. N. Armstrong, extend to Mr. Fitzgerald, labor commissioner of the State of California, an invitation to visit Honolulu and the Ewa Plantation, to look into the labor conditions existing here, with the view of introducing desirable white laborers upon the plantation.”

Mr. Fitzgerald accepted the invitation of the company, arriving here in the islands shortly afterwards. He was furnished with every opportunity for the purpose of obtaining all the information possible on the subject, not only from a practical point of view, but also in the line of statistics, and before his return to California was able to express the opinion that it was his belief that white labor could be introduced for the cultivation of sugar cane on our plantation. After the return of Mr. Fitzgerald to California considerable correspondence was conducted with him on the subject, and, acting on the results of

his visit to the islands and such correspondence, in July, 1898, I was authorized to visit California for the purpose of securing white families of the farming class to enter upon the cultivation of sugar cane at Ewa Plantation, according to the general terms of a form of contract that I had drawn up, with such modifications as might be considered necessary.

Accordingly, I went to San Francisco, going into the agricultural districts of the State in the interior, particularly to Modesto, Stanislaus County. On reaching Modesto, in order to thoroughly lay before the people the conditions as they existed pertaining to the cultivation of sugar cane, I engaged a hall, inviting the people from around the neighboring districts to come together in meetings, where I addressed them, offering them all the information possible on the subject. I found these people very anxious and willing to accept the propositions offered to them to come to Hawaii; in fact, they had been suffering quite severely the past two or three years with their crops there, owing to drought. These people, while honest and hard-working farming people, were actually without any money whatever, owing to the losses sustained undoubtedly by them owing to the drought. In order to assist them in getting to the islands, we offered and did pay their fares to San Francisco, even going so far as to settle up some indebtedness owing by some of them in Modesto. They were all furnished with transportation from San Francisco to Honolulu, and thence to the plantation, free of charge to themselves.

As the result of my visit I succeeded in selecting personally 15 farmers, 10 of whom were single men and 5 married. They arrived here in the islands during September of that same year, being engaged under the general following conditions:

They were to cultivate and take care of the cane from the time it received its first watering up to maturity, and were to receive therefor one-sixth of the actual net price realized on the sale of sugar. During the time previous to settlement with them after the harvesting of each crop they were allowed an advance of \$18 per month. Further, they were furnished, free of charge to themselves, houses, fuel, and water, and medical services; they were also allowed to have a small piece of ground surrounding their houses, on which to cultivate and grow for themselves vegetables and other articles for their own use, with the water necessary to irrigate the same.

Having resigned the management of the Ewa Plantation in November of that same year, for further information as to the results obtained with these farmers I will have to refer you to the present management, but I believe that all have left the plantation, with rather unsatisfactory results to the Ewa Plantation Company.

One can see from the foregoing that the Ewa Plantation Company made an honest and earnest effort to introduce white labor, especially white farmers, for the purpose of cultivating sugar cane on their plantation, with the hope that the same would prove successful, and that in the future we could get large numbers of American farmers into this country, and we can not help but admit that the whole thing was a complete failure. It may be of interest to note that the Ewa Plantation Company did not send a paid agent who went to the cities of the mainland to try this experiment, securing their labor from the cities; on the contrary, they sent me as manager, and I did go to the agricultural districts and did get the farmers.

It also may be of interest in this connection to state that at the time this experiment was undertaken the joint commission sent here by Congress to report upon our conditions (consisting of Senators Cullom and Morgan and Representative Hitt) were very much interested in the effort, and, together with the directors of the Ewa Plantation Company, were in hopes that it would tend to solve the labor question for these islands.

Yours, truly,

W. J. LOWRIE.

LETTER FROM MR. GEORGE F. RENTON, THE MANAGER UNDER WHOM
THE EXPERIMENT WAS CONCLUDED.

DEAR SIR: I have now to reply to your request for information concerning the experiment with American labor in the cane fields on this estate.

The profit-sharing company on the Ewa plantation; known as the California Farmers' Colony, consisted at the outset of 15 men, 5 of whom were married. These farmers arrived at Ewa in October and November of 1898.

For their transportation from San Francisco \$1,110.81 had been advanced to them; for their free accommodation 9 houses, each containing 4 rooms, 13 by 12 feet, exclusive of kitchen and pantry, with 24 by 6 feet verandas front and back, had been erected; for their convenience water was piped to each building, gardens were allotted to each household, and a fenced pasture of 17 acres immediately adjoining the house lots was set aside for common use. Each married man had a separate house; of the single men, 6 occupied 2 rooms each, while the remaining 4 had separate apartments. This was at the inception of the experiment.

After a few months had elapsed, owing to departures, each single man had two rooms, and before eight months had passed each farmer, whether married or otherwise, occupied an entire house. Thus, of the original 9, there remained 4 houses empty and to spare.

This was at the middle of the experiment.

They were, therefore, housed with ample accommodations and sufficient comfort; fuel, water, and medical attendance were supplied, without charge; a field of deep rich soil already planted with seed cane and "first watered" was allotted to them for their cultivation; one of their number was selected as their suboverseer in the distribution of irrigation water, and they commenced work.

The following is a record of the time each man stayed on the estate, and the reasons given by each for dissolving his connection with the plantation:

Number of men.	Time worked (months).	Reason for leaving.
1.....	1	Wife dissatisfied.
2.....	7	Dissatisfied and quarreled with the rest.
1.....	7	Dissatisfied with the work.
2.....	8	Dissatisfied with the work.
1.....	8	Dissatisfied with the work. Returned to California.
1.....	9	Wife died at Portland, Oreg.
1.....	12	Illness.
1.....	12	Ill and dissatisfied with the work.
5.....	16	Dissatisfied with the work, but stayed until crop was mature to fulfill agreement.

General average of time at the plantation, 10.9 months.

From the first there was dissension among themselves; complaints of one another, both trivial and otherwise, were of frequent occurrence; extra men were always needed to keep their field in order; one by one they departed, until finally the California Farmers' Colony dwindled, as per record, to but 5 out of an original 15. Five remained, but they remained dissatisfied. They stayed to the completion of maturity of the crop, but they stayed to demonstrate that they would not work longer at the cultivation of cane. They had done fairly well financially; they each had received over \$40 per month of labor cash, clear of rent, firewood, water rates, and medical attendance; they had received, in fact, more than the plantation could afford to pay for profitable cultivation, and yet these 5 men refused point-blank and without hesitation to entertain a similar proposition for continuance of cane-field work. This was the end of the experiment.

The work was distasteful to them in this warm climate; the irrigation, being light, was least disagreeable; the task of stripping, with the necessary bending and stooping, was unfit for the taller Anglo-Saxon, they said, and should be relegated to Japanese; whereupon they flatly refused to perform the work; of assisting at the cutting and loading of canes during harvest they would have none.

To sum up, the plantation cleared, plowed, furrowed, ditched, surveyed for irrigation, planted, and "first watered" the field for the California farmers and turned it over to them. At the proper time for fertilizing the plantation had to apply fertilizer with extra labor, stripped (what was stripped) with extra labor, and had the labor of cutting and loading the canes done by extra labor.

The farmers performed merely the lightest portion of the work, viz, the hoeing and the irrigation, which consists in the removal by hoe of weeds from the furrows and the turning in of water from the various water courses into the furrows. This, too, was not performed without daily assistance of extra labor supplied by the plantation.

I do not think that any of these men have complained that the plantation did not fulfill its agreement with them. One farmer returned to San Francisco shortly after his arrival at a loss of \$112.76 for transportation to the plantation; the one whose wife died in Oregon was given a liberal estimate of his share when he went; in fact, was given all he asked for; the two, both past middle age, who stayed 12 months received their shares of profit for the time they worked and the amount due them was given them. Of the remainder who left, the profits from 3 of the shares were turned over to the 5 who remained until the cane had matured.

And yet the experiment was a failure and the men were not satisfied to remain.

Mark this further. Not one of these 15 farmers was intemperate. They quarreled, they were dissatisfied, the work was menial, was laborious, was distasteful, but, while a few were not as industrious as they might have been, they were all respectable, law abiding, temperate men. If they had been otherwise, vice and intemperance might have contributed to the failure of the colony of these farmers. But it was not so. And I am forced to the conclusion that American farmers will not work in the cultivation of Hawaiian cane fields.

Here was an experiment entered into by the largest and most fertile plantation in the Hawaiian Islands, under a directorate composed entirely of Americans, and its terms carried out in the field under the management of Americans.

It was the aim of the Ewa Plantation Company, if the scheme had proved successful, to establish further colonies of American farmers, and thus obtain a source of labor in the United States from which to draw, which labor would be reliable, would be American in spirit, and thus do away with the necessity of looking entirely to the Orient.

It was a praiseworthy effort, but it was utterly fruitless and entirely disappointing.

It is unfortunate to have to say that the experiment, toward which the whole country looked with so much interest, was a flat failure. Nevertheless the fact remains and I so record it; for, looking back over the whole situation of labor in Hawaii, comprising both this experiment with the California farmers and my personal experience of 24 years on sugar plantations with white men, I have come to this settled conclusion:

That Anglo-Saxons can perform the actual labor of cultivation on sugar plantations in Hawaii only when forced by necessity to do so, but that now they will not.

The principal objection seems to be to perform the laborious work required in the cane field when there is any other possible opening in any easier occupation in other industries. Another objection is to the sort of pioneer life which obtains on a plantation when compared to that to which the laborer is accustomed on the mainland. It is probable, also, that a great drawback to the success of any scheme for American farm labor here in Hawaii lies in the great distance this Territory is from the mainland, and the difficulty and expense this distance necessitates in getting to or away from Hawaii.

The geographical drawback mentioned is a natural one. The objections stated above are also natural ones. But they will as surely kill any attempts to introduce American farmers here as labor for cane fields as they have already killed the Ewa plantation experiment.

Yours, very truly,

GEO. F. RENTON, *Manager.*

As our contract labor and immigration laws prevent the direct importation of laborers, and there is no voluntary immigration of moment except from Japan, the question of whom he shall employ is taken entirely out of the hands of the planter at present. Oriental labor is forced upon him, especially since the partial failure of the Porto Rican experiment. He is not entirely averse to this situation, perhaps, but it has its difficulties from the point of view of the sugar raiser.

The objections which have been made by planters to the present labor conditions are these:

1. He is entirely dependent upon a supply of unskilled workers that may at any moment be cut off or withdrawn. During and immediately after the first war between Japan and China 20 per cent of the plantation laborers of the former nationality withdrew from the islands. Another war, diplomatic difficulties with the United States, or even a domestic crisis in Japan might prostrate industries in Hawaii and cause losses from which it would be difficult to recuperate, simply by checking the immigration or increasing the emigration of Japanese laborers.

2. The present condition has created a large, homogeneous Asiatic population of the same nationality, which is, so to speak, industrially autonomous. These people trade among themselves, carry on their own local industries, and are practically independent of the white population commercially. These activities absorb the energies of a large population into which the plantation laborer frequently retreats, but from which he seldom emerges. The proportion of the whole number of Japanese in the islands employed on the plantations continues to grow smaller. The interests of these outsiders are often opposed to those of the planters. Some act as shyster employment agents, who make their gains by shifting men as often as possible from one place to another. Others purvey to the vices of the hands and disorganize plantation discipline. All live, in one way or another, off the common laborer, who is the only primary producer among them, and their presence, considered as a whole, constitutes a sort of parasitic growth upon the body of the working people that cripples their effectiveness and disturbs their relations with their employers. It is claimed that if there were more diversity of nationality among the laborers, this evil would be greatly reduced.

3. The predominance of one nationality among the field hands increases the liability to strikes and similar disturbances, such as occurred at the time of annexation.

4. The actual supply of labor from Japan is inadequate, and does not increase to meet new demands.

These are the arguments which the planters present against field labor of a single nationality, as gathered from numerous conversations in the islands. Actual records show that strikes and combinations to force up wages occur as rarely in Hawaii as in most countries where there are business enterprises employing a large force of unskilled labor. Plantation wages are falling after the abnormal rise of 1901, without having occasioned up to the present any crisis in the relations of employers and their men. The embarrassments resulting from a large secondary population of Japanese, living upon and exploiting the laborers in various ways, are such as are encountered everywhere and are hardly to be remedied in a free country.

The complaint of an existing shortage of labor in the autumn of 1902 could be verified by an inspection of the fields on some of the plantations. It was hard to judge just how far this might be due to exceptional conditions prevailing in certain localities. A severe drought afflicted portions of the island of Hawaii in 1901, affecting especially the Kohala district and part of the Hamakua coast. The crop was so short that plantations were obliged to discharge many laborers and several contracting cultivating companies failed. It was in this country that the labor shortage was most apparent in 1902. Some fields of young plant and ratoon cane were entirely lost through lack of hands to cultivate them, while others were badly damaged because of late or inadequate attention. Managers who had studied to economize labor in previous years, and were equipped to utilize animal cultivation to the largest extent, met this difficulty more

easily than others. The shortage on other islands, while a source of constant complaint, had not resulted in such obvious damage to the fields as in Hawaii. At the opening of the grinding season for 1902-03 the entire labor deficiency for all the islands was reported by the Planters' Association to be 5,450 men, or about 12 per cent of the whole force employed. The distribution of this shortage was as follows: Kauai, 375 men, or 4 per cent of the total force; Oahu, 990 men, or slightly over 10 per cent of the total force; Maui, 1,010 men, or nearly 12 per cent of the whole force, and Hawaii, 3,075 men, or practically 20 per cent of all the plantation workmen employed in the island.

The immigration statistics since annexation account in large part for this condition. They are more fully discussed in a later paragraph of this report, but they show that while the oriental population has remained nearly stationary since annexation, so far as additions from Asia are concerned, there is a rapid substitution of females for males taking place, which promises to continue until an equilibrium of the sexes is established among the Hawaiian Japanese. Allowing for this fact, and taking into account those who have migrated to the California coast, there has been a decrease of 3,088 in the immigrant population of male Asiatics from the date of annexation to the time the above statistics relating to the labor deficiency were gathered. The number of oriental laborers in Hawaii had constantly decreased during the two years of industrial expansion. There had been an increase of 65,000 tons in the sugar crop and an increase of nearly 3,000 employees upon the plantation pay rolls during this period. The present stringency would therefore be easily accounted for, even if there were no movement, such as is actually taking place, of oriental laborers toward the towns. Without the 2,000 Porto Ricans who remain upon the plantations, the situation would have been even more critical. It has probably been relieved to some extent by the excess of Japanese immigration during the last months of 1902.

A deficiency of laborers is not a new or unusual thing in Hawaii, but it is a source of more financial loss and more administrative embarrassment in sugar production than in most other industries. Cane can neither be cut nor planted at random seasons, even where the climate is as equable as it is in the Hawaiian Islands. Delays in planting or grinding due to an inadequate force of laborers mean financial losses by which a plantation in a single season may eat up two or three years' profits. Insufficient cultivation may produce almost equally bad results. Ordinary expenses for irrigation, manufacture, or land rentals, which are very high in portions of Hawaii, remain virtually the same, irrespective of the size of the crop. A single plantation on the island of Hawaii, which produced slightly under 8,000 tons of

sugar in 1901-02, spends upon an average \$80,000 a year for fertilizers. Through lack of cultivators the present year, a considerable fraction of this investment was exhausted in producing weeds instead of cane. In a word, no matter how men may come and men may go, the processes of nature go on upon a plantation without interruption. The planter has to keep up with them. He is not like the manufacturer or the miner, who can employ idle periods to repair a plant or sell surplus stock, or can recoup temporary losses by higher prices in the future. He can not dictate to the processes of production. The manufacturing side of his business obeys the agricultural. Like the small farmer, he is subservient to wind and weather, but, unlike him, he is at the head of a vast enterprise, combining with its agricultural features the characteristics of a manufacturing industry and a commercial establishment. His dependence upon satisfactory labor conditions is therefore unique. It is not primarily a question of wages, but certainty and assurance of an abundant supply of workers that interests him.

In the organic act for Hawaii Congress made three provisions relating directly to labor—it abolished the penal contract, and it extended the Federal immigration and contract-labor laws and the Chinese-exclusion act to the Territory. People in the islands generally agree that the old form of labor contract ought not to be revived. While the system was misrepresented and was quite different from what it was popularly supposed to be in the United States, it was contrary to the best sentiment of the islands and would form a legal anomaly, even if it could exist at all, under our Constitution. But it is urged by the planters, inasmuch as conditions are quite different from those in the States, that the Territory is justified in asking for special treatment in regard to the other two series of enactments thus suddenly imposed upon her, and especially in case of the law prohibiting the importation of contract labor.

Hawaii, it is argued, is a country that invites very little voluntary immigration of Caucasians. There are no large tracts of public lands where agriculture can be profitably pursued by people unfamiliar with local conditions; the islands are isolated and expensive to reach, and the extent of territory is not great enough to attract attention or to give occasion for an immigration boom in any European country. Without some artificial stimulus the influx of white settlers promises to be exceedingly small. And yet permanent prosperity and the solution of the gravest political and social problems that confront Hawaii depend upon just this sort of immigration. When white families have once settled in the islands and have become acclimated, they find opportunities, especially in the field of agriculture, to acquire lands and homes and to attain economic independence. The only method of

securing such settlers that has ever been effective in the past or is likely to prove successful in the future is to permit of their importation under contract from Europe. The planter and the other business interests of the Territory are in accord in urging this point.

The assumption might be made that planters would have no inducement to import expensive labor from Europe so long as voluntary immigrants were coming in from Japan, but experience proves the contrary. At a time when there was no restriction upon the introduction of Japanese or Chinese, 10,000 Portuguese were imported. From 1885 to 1888 they were the chief source of supply, though it cost three times as much to get them to the islands as it did to bring in Orientals. During these years wages were about the same as at present. In the grinding season of 1885 Chinese field hands received \$17 and \$18 a month on most of the plantations. The Porto Ricans were imported two years ago, after penal contracts were abolished, at a cost greater than would be required to bring immigrants from Europe. Two plantations have gone to considerable expense to bring in Negro laborers, and three plantations in the Kohala district spent \$3,893.88 in importing 26 adult Portuguese and 1 child from New England last year. The planters say that there is no probability that they would swamp the islands with European immigrants if permitted to do so, but there would be, under their encouragement, a steady influx of Caucasian laborers, relieving temporary stringencies in the local supply and leaving a residue of permanent settlers who would doubtless follow the example of the Portuguese and take up mountain homesteads, develop lands at present untilled, and form a rural population that might grow large enough in time to supply all the demands of the plantation employers in the lowlands. Planters might wish further protection than exists at present for passage money advanced to such immigrants under contract, but this could be secured without any modification of the organic act, by a Territorial law allowing the recovery of this amount and costs from a laborer breaking his contract, without exemption of a sum large enough to enable him to leave the islands. The modus operandi of previous importations would doubtless be observed. The planters' association has assessed expenses pro rata per ton of sugar produced upon the different plantations, paid directly the cost of importation, and assigned the laborers to the different employers in a ratio proportionate to their respective assessments. There are three known sources from which such laborers might be obtained—from Portugal and the Portuguese islands, which have already proved a source of supply; from Italy, which supplies labor for the Louisiana cane fields, and from Spain, whose Gallego mountaineers have already proved such efficient laborers in Cuba. It should be remembered, also, that as recently as 1897, 227 contract German laborers were imported by Lihue plantation, on Kauai.

The most insistent demand made by planters, however, is that they be allowed to import Chinese field hands, for agricultural purposes only, under the restrictions imposed by the local law of 1887-88. These were briefly as follows: The number imported each year was limited; a system of registration was employed to prevent Chinese from engaging in other than agricultural labor; a portion of the wages of the latter were deposited with the public authorities each month to pay their return passage to China at the close of their contracts. Deportation is the penalty suggested for violating a contract.

Such a law, it is pointed out, would affect only Hawaii. It would have no influence whatever on the migration of Chinese to the mainland, as they are not permitted to enter California from the islands at the present time. There are two parties in Hawaii with regard to it. Most of the white artisans and laboring people, especially in Honolulu, many American and European residents not directly interested in sugar, and probably most of the natives oppose any measures likely to increase the oriental population, and favor further restrictive legislation against the Japanese rather than any relaxation of the existing laws against the Chinese. A majority of the planters and white plantation employees, and many merchants and business men in Honolulu and elsewhere, who consider that the general prosperity of the country is dependent upon abundant and cheap field labor, favor the restricted admission of Chinese.

The question was discussed at a mass meeting of white workingmen in Honolulu, at which the writer of this report was present. The prevailing sentiment was clearly opposed to the admission of Chinese on any terms whatever, but a minority of those attending entertained opposite views. Some of the bitterest opponents of the Chinese were men recently arrived from the Coast and from Australia, whose hostility to oriental labor was a fixed principle, not to be modified by any consideration of local conditions. Others resented the employment of Japanese in skilled positions on the plantations and in the towns. Many of these were men of long residence in the islands, and they related instances where white plantation mechanics had been discharged to make place for the cheaper Orientals. Those who were in favor of the admission of Chinese under restriction were apparently plantation mechanics of assured position and highly paid artisans familiar with the islands, who had acquired the sympathies of their plantation environment or thought that the general prosperity of the sugar industry was a greater benefit to white mechanics than increased Asiatic competition would counteract. A committee was appointed at this meeting, which drew up a set of resolutions upon the subject. These resolutions, as adopted at a subsequent meeting, represent the

prevailing sentiment of organized labor in Honolulu upon the Chinese question in its local applications. They are as follows:

RESOLUTIONS OF A MASS MEETING OF WHITE MECHANICS AND WORKINGMEN OF HONOLULU, HELD DECEMBER 5, 1902, UPON THE IMPORTATION OF CHINESE FIELD LABORERS INTO THE HAWAIIAN ISLANDS.

Whereas the Merchants' Association of Honolulu has asked the local trades unions of Honolulu to indorse that portion of the memorial to the subcommittee on Pacific Islands and Porto Rico of the United States Senate, presented by said association, in which Congress is petitioned to permit Chinese laborers to enter this Territory to engage in agricultural pursuits only, the deportation to be the penalty for violating this provision; and

Whereas the sugar industry is the sole agricultural pursuit for which this labor is sought, and said industry in this Territory is now suffering, owing to insufficient and unreliable labor; and

Whereas the Merchants' Association affirms that the only reason for asking Congress to admit such labor into this Territory is to fill the great gaps in the ranks of sugar plantation field hands, and that such laborers would not displace or in any case enter into competition with any white artisan, mechanic, or common laborer; and

Whereas the Chinese and Japanese have superseded mechanics of all trades in positions on the sugar plantations, they being able to work for such a low scale of wages, the white and Hawaiian mechanics were forced to look elsewhere for employment; and

Whereas the Asiatic laborers, after completing their time of contract and being released, came into the towns in these islands and entered into competition with white mechanics and contractors, thus making it a hardship on mechanics by being deprived of work, owing to the letting of contracts to Asiatic contractors far below the prices which white mechanics and contractors could compete with; and

Whereas there are many thousands of idle Asiatics in these islands, enough to supply all demands; and

Whereas, if the United States Congress passes legislation to admit Chinese laborers, what assurances have the white and Hawaiian mechanics that all the Japanese now employed on the plantations as skilled laborers would not be discharged and, being allowed to stay in the country, would enter into competition on a larger scale, both here and on the Pacific coast, with skilled white labor; and

Whereas the laboring classes of the United States have been for years opponents of the importation and admission of Asiatic labor into the United States: Therefore, be it

Resolved, By the representatives of the various trades in the Hawaiian Islands, that we do decidedly oppose any and all legislation tending to import any more Asiatics into the Hawaiian Islands; and be it further

Resolved, That a copy of these resolutions be sent to the Merchants' Association of Honolulu.

J. T. GREENWOOD,

Recording Secretary, Honolulu Federation of Trades.

Doubtless one of the benefits anticipated by planters from the restricted admission of Chinese is a lowering of the wages of field hands. Under a system similar to that proposed, wages fell to \$12.50 a month in 1896 and 1897, and the present relatively high price of labor is felt the more severely by the contrast. Plantations were highly capitalized

and less productive tracts developed for cane culture upon the basis of the cost of producing sugar under these conditions, and there are other special incentives to economical management and the cheapest possible production at the present time that have not existed before. But aside from the question of wages, planters value the fact that discipline would be easier and labor more tractable if Chinese were present or obtainable in sufficient numbers to play off against the Japanese in case of disputes or other difficulties. It is a general complaint that the Japanese take advantage of their present predominance as laborers to shirk work and to soldier, and that they are insolent and undisciplined and inclined to pick trouble with their employers. Their faults, it is claimed, have a peculiar racial quality. In many ways the Japanese laborers are children, and possess an inordinate national and personal vanity. They are apt for this reason to resent any but the most tactful direction, and it becomes a very difficult matter to supervise them if they once feel that they are masters of the situation. Some employers and overseers have no trouble, but they take the most ludicrous measures at times to flatter or cajole their men into obedience. The Chinaman, on the other hand, is a sort of agricultural automaton. Except for occasional attacks of hysteria, when a whole crew of them will fly off the handle for reasons entirely incomprehensible to their superiors, they are perfectly reliable for work within their capacity. So it is for administrative as well as financial reasons that employers would like to see the number of Chinese increased upon the plantations.

It has been suggested that the wishes of all parties in the islands might possibly be reconciled if a law could be framed and enforced that would admit Chinese in limited numbers for a specified term of years' service and at the same time restrict the present competition of Orientals with white workingmen in plantation occupations. It is admitted there would be many practical difficulties in formulating and administering such a law.

Japanese are said to be usurping every year a larger proportion of the skilled positions on the plantations and this is what causes special resentment against the planters among white workmen. Furthermore, a plantation is an excellent place to pick up a trade. There is much rough work to be done, at which a new man can prove his apprentice hand, and at the same time there are positions requiring the highest skill which he may aspire to when properly qualified. The Japanese are beginning to monopolize the lower positions and many are working up into those of higher grade. Those who do not advance rapidly frequently leave plantation work and carry their half acquired trade into the towns, where they again become the competitors of white mechanics. In a word, the plantations of Hawaii are a sort of Japanese trade school. Legislation that would change this condition, and supersede Japanese and Chinese plantation mechanics with Caucasians

and native born workmen, even at the expense of admitting Chinese field laborers, would be popular with all classes of citizens.

The following table has been prepared to show to what extent Chinese and Japanese are engaged in the various skilled trades on Hawaiian plantations:

ORIENTALS EMPLOYED IN SKILLED OCCUPATIONS ON HAWAIIAN SUGAR PLANTATIONS
IN 1902, CLASSIFIED BY AVERAGE DAILY WAGES.

Occupation.	Chinese earning daily wages—			Japanese earning daily wages—			Total Orientals earning daily wages—		
	Less than \$1.00.	\$1.00 or under \$1.50.	\$1.50 or over.	Less than \$1.00.	\$1.00 or under \$1.50.	\$1.50 or over.	Less than \$1.00.	\$1.00 or under \$1.50.	\$1.50 or over.
Blacksmiths.....			1		7	11		7	12
Blacksmiths' helpers.....		1		37	31	3	37	32	3
Boilermakers.....						6			6
Boilermakers' helpers.....				3	21	1	3	21	1
Brakemen, railroad.....				2	4		2	4	
Bricklayer.....					1			1	
Carpenters.....	2	5	17	78	195	49	80	200	66
Carpenters' helpers.....	1	1		45	57	3	46	58	3
Engineers' helpers, locomotive.....						2			2
Engineers' helpers, stationary.....	4	1		5	2	1	9	3	1
Engineers' helpers, traction.....					6			6	
Engineers, locomotive.....	1			2	6	1	3	6	1
Engineers, stationary.....	1	8	4	13	26	6	14	34	10
Engineers, traction.....					35	2		35	2
Fence men.....	1			10	1		11	1	
Foremen, general.....			3	6	14	4	6	14	7
Harness makers.....	2	1		2	1	1	4	2	1
Machinists.....						6			6
Machinists' helpers.....	1			2	10	2	3	10	2
Masons.....					3	5		3	5
Masons' helpers.....				16	1		16	1	
Overseers.....	3	17	5	5	83	16	8	100	21
Painters.....				5	10		5	10	
Riggers.....						1			1
Sugar boilers' helpers.....	1	6	6		18	9	1	19	15
Total.....	17	40	36	231	527	129	248	567	165

There are practically no Americans working on the plantations for less than \$40 a month. Assuming the rate of wages paid to the Asiatics to be one-half that paid white and Hawaiian workmen in the same occupations, there are probably not over 500 competing with Caucasians, excepting Portuguese, on the pay rolls at present. If all of the 980 men listed above were replaced by Caucasians and Hawaiians, including Portuguese, there would be no very great revolution in plantation employment, the planters would not be seriously affected, and the irritation of white workmen might be allayed.

One argument advanced in favor of admitting Chinese for a limited period and confining them to field employments is that the secondary Chinese population, of storekeepers, small mechanics, and other purveyors to oriental needs, could not increase proportionately to the number of hands introduced, while a portion of the present Japanese secondary population would be forced to leave the islands with the falling off of its customers among the ranks of primary producers; 15,000 Japanese laborers would support only one-half as many Japa-

nese tradesmen and artisans as 30,000 laborers. Moreover, a circulating oriental population, residing in a western country only temporarily, has less effect upon that country's civilization and carries more occidental ideals and trade demands back to Asia than does a more or less permanent population, such as now appears to be forming among the Japanese in Hawaii.

GENERAL CONDITIONS OF PLANTATION LABOR.

The general conditions of labor prevailing upon the plantations at the present time are as favorable as those commonly found in any large employing industry in other parts of the United States. Personal visits were made to 54 of the 55 establishments now in operation. The one omitted was a small isolated plantation, from which statistics were received by mail. Without exception the common laborers were comfortably housed, and apparently well treated and contented. Sanitary conditions were uniformly good. The larger plantations keep scavengers regularly employed to clean the camps and look after out-houses, and employers exercise a positive influence in various ways toward improving the physical surroundings and well-being of their men. This general disposition is indicated in many directions. Oahu plantation has just erected a cottage for the public school teacher, for which the general government lacked funds, in order to secure better instruction for the children of employees. The manager of another plantation concludes his report of hospital improvements as follows:

These matters of homes and sanitation show no specified return on the balance sheet. They are mentioned because they work for the better physical condition of the workmen, and this, in a place where 2,000 laborers are employed, belongs to fundamental things.

Several plantations support kindergartens. On some, prizes are given for the most attractive quarters. Laborers are furnished with plants and flowers to place in their yards. They are provided with special conveniences for laundry work, bathing, and cooking, and one plantation distills all the water used by its factory village for drinking and culinary purposes. Of course these conditions are not uniform on all plantations, but the men are generally encouraged to take an interest in their quarters, and on no plantation visited were there evidences of neglect of sanitary precautions on the part of the management or of a failure to provide satisfactory living apartments for employees. Asiatic laborers show a tendency at times to herd together, and will leave quarters vacant in order to crowd into others, but this is rather a Chinese than a Japanese habit, and no overcrowded rooms were found in buildings actually inspected. The system of contract cultivation, described later, has had a good effect in causing

the companies to prefer isolated cottages near their fields to the large camps. This scattering of the plantation population also improves discipline and is acceptable for other reasons to employers.

Some of the plantations, especially those where Caucasian field labor is employed, allow their men the use of small plots of ground for garden patches. Lihue plantation, on Kauai, has adopted this policy most extensively. It should be observed, however, that local conditions have a share in determining the degree to which this can be done. Some of the plantations are largely upon leased lands and hold no title, temporary or otherwise, to the valley bottoms used for these little homesteads. The high rental cost and the expense of irrigating regular cane lands make it impracticable to assign them, even in limited tracts, to laborers for private use. It is on the fee simple plantations, owning ravine sides and bottom lands, that camps with vegetable gardens and cow pasture are found. A planter possessing this advantage finds it comparatively easy to retain a sufficient force of men in his employ.

Many plantations own or control immense tracts of "mauka" or mountain lands, which they use as a watershed to supply their irrigation reservoirs and ditches. Some raise stock and cultivate coffee upon these uplands, while others merely keep them fallow or encourage the natural forest growth. A single plantation has 20,000 acres of fenced forest within its bounds, from which cattle and tree-destroying animals are carefully excluded. Other managers are reforesting as rapidly as possible all the waste lands under their control. One planter has recently spent, to his own profit, \$20,000 for this purpose. With a more abundant labor supply it is probable that tree planting would be engaged in much more extensively, to the great benefit of all agriculture in the islands. Small tracts of this upland country may also, in the course of time, be developed as homesteads for plantation laborers without materially lessening the water supply of the sugar lands. This would be similar to but independent of the development of larger areas of mountain land not directly connected with the plantations, which it has been suggested may in time provide homes for a permanent population of small agriculturists. Naturally their distance from the cane fields would be an important factor in determining whether such lands could be utilized for the purpose indicated; but even now Portuguese laborers come down to work on the Hamakua plantations from their homesteads on the flanks of Mauna Kea, returning to them each night.

White mechanics, overseers, and skilled plantation employees enjoy many advantages unusual upon the mainland, though at the cost of some isolation and monotony. They have the benefit of a perfect climate, where outdoor work is agreeable to a white man, and robust health seems to come without the asking. The plantation provides

them with comfortable homes, high salaries, and, as a rule, with assured positions during good behavior. All white plantation employees, from manager down, are more or less upon a plane of social equality, for the former is frequently a man who has worked up from overseer, book-keeper, or mechanic, and there are no invidious distinctions of rank in the plantation community. The larger plantations often provide a club for their employees, with billiard and reading rooms, and tennis, polo, and other outdoor sports are cultivated. The primary schools are about equal to the rural schools of the States, and there are good secondary institutions in Honolulu. Medical attendance is at hand, there is always telephone communication with the whole island, and wireless telegraphy and the cable have recently brought the world to the planter's door. While there are long hours and plenty of rough work in his life, so far as material conditions go the lot of the white plantation employee is preferable to that of the average wage-earner or salaried clerk in America or Europe.

The regulation hours for field labor are from 6 a. m. to 5 p. m., with an hour's rest at noon, or 10 hours' work a day. Each plantation has its own time, to bring 6 in the morning as near sunrise as possible, and the earliest dawn sees the workmen filing from their quarters to the fields. Manager, overseers, mechanics, even the bookkeeper and store clerks, are usually about and active, so that plantation life gets under full headway with the sun. Stablemen and teamsters have been up beforehand to care for their animals, and receive extra pay for this longer day. Each little Japanese, as he takes his way toward his field, carries his luncheon of rice and salmon in some indeterminate receptacle, securely tied in a canvas sack to keep out the ants. He has a wide-awake, well-washed look, his trousers are stuck in a pair of canvas leggings, and the women have covered their hair with cloths or handkerchiefs to keep out the field dust. The Porto Ricans follow, looking rather frowsy and unwashed, and as if they had slept in their working clothes, but break into laughter occasionally, and some youngster starts a song or whistle—something that never occurs among the Asiatics. A "luna" gallops past on a fresh horse, a light glows in the blackness near the mill as they fire a locomotive, wagons begin to rumble in the distance, and before the gray dusk of the departing night has fully risen there is the activity of high noon in every direction. This is the way to get things done in the tropics—to break the back of the day's task before the sun begins to strike straight out from the shoulder. Such an adjustment of the working hours is easier on both men and animals.

"Knocking off" time is usually 5 o'clock, though this end of the plantation day is not so rigidly fixed as the beginning. If labor is short and work is pressing, longer hours are kept, for which there is extra pay. Still oftener the day's task is done by stint work. The

field boss lays off a fair portion of work for each man, so many rows to hoe, so many stools to fertilize, so large an area to irrigate, and when the laborer has finished this satisfactorily he goes home. Thus it is not unusual to pass gangs of day men returning to their quarters at 4 o'clock or earlier. They may have shortened their noon hour and put unusual vigor into their work in order to finish before the usual time. This practice of assigning stints is successful only within certain limits, and it requires a judicious and tactful overseer to handle the system without disagreements, imposing neither too little nor too much upon the men. But it is a very common practice on some plantations. This custom and others similar make it difficult to estimate exactly the hours of labor in the various field occupations. The actual time worked by the laborers probably averages rather under the time given in the statistical tables.

There is no Sunday work except such as is required to care for the stock and the voluntary labor of the contract cultivators. Chinese New Year is a vacation of some days for workmen of that nationality. The Japanese celebrate the Mikado's birthday, and election day and a number of legal and national holidays break into the routine order of work.

During the grinding season some of the mills run two shifts of 12 hours each, but many close wholly or partially for the night. The working day in the manufacturing department is regularly 12 hours, though in actual practice white employees often get their luncheon time out of this, and Asiatics find an opportunity to eat without leaving the mill. Cane is generally cut and loaded by contract at a fixed price per ton, and the gangs do not remain in the field a full day if there is enough cane to keep the mill running. Managers estimated that contract men of this class averaged about 8 hours. Upon several of the irrigated plantations the unit in cutting contracts is a row of cane, that is the line of stools about 30 feet long between two transverse irrigating ditches.

Professional employees, like chemists, surveyors, and supervising engineers, are naturally not employed upon a working-day basis. Neither is the head sugar boiler upon a large plantation. But some surveyors and levelmen, whose business is simply to lay out level furrows in the irrigated fields, are to be classed with skilled rather than with professional labor in the matter of time. Pump engineers and firemen are on duty 7 days on plantations depending entirely upon irrigation, though few if any are kept employed full hours without intermission the year around. Many of the laborers classed as reservoir and ditch men, and in general men connected with gravity irrigation plants, work more or less irregularly, so that any attempt to tabulate their time with statistical exactness is misleading. Many plantations contract for certain work, such as the stripping of cane,

by the acre. All such employees or contractors keep their own hours. The large body of contract cultivators, constituting 25 per cent of the entire force of employees, work whatever hours their convenience dictates so long as they keep their fields in a condition satisfactory to the manager. It follows, therefore, that any minute and detailed estimate of the hours of plantation work is subject to many exceptions and reservations. The conditions may be summed up by saying that the 10-hour day prevails for field work and the 12-hour day for mill work. The store and office are open for the longer period; but the individual employees put in about a 10-hour day. Six days' work a week is the rule, and wages are always figured upon a basis of 26 working days a month for common laborers and semiskilled employees. Contractors follow their own pleasure in the matter of hours and days of labor. Such irrigation plant employees as work 7 days lighten the continuity of their work by short shifts and similar expedients arranged among themselves.

CONTRACT CULTIVATION AND CONTRACTORS.

Contract cultivation is an institution which appears to have grown up in Hawaii and which has gone far toward alleviating, if not toward completely solving, many of the difficulties of labor supply in cane cultivation. There are several forms of contract in use, some of which are not very different from ordinary share cultivation or tenancy, or from the "colonia" system of assisted cultivation in Cuba. But there are many features that seem to be peculiar to Hawaii, so that the institution is practically of indigenous growth. In one of its forms it has been carried over to California, where the Japanese have applied it to beet-sugar cultivation.

The origin of the institution dates back to the early days of sugar production in the islands. The native Hawaiians had a system of "uku pau," or a rudimentary contract, by which they were paid by the job for certain kinds of agricultural labor. As they were irregular workers, payment was at the conclusion of the task, in order to insure its prompt completion. But this applied usually to engagements made with individual workmen. The Chinese seem to have brought in the "hui," or company contract, by which a number of men undertake to perform certain work—farm work in this case—in union upon a basis of final payment when the undertaking is finished. Intelligent Japanese residents in the islands say that in their own country this custom of cooperative cultivation is not common, though it is said to be usual in China. The Chinese introduced the system first on the Hawaiian rice plantations, where companies would engage to raise a crop to maturity in consideration of their necessary expenses for board and clothing and a share in the net proceeds. As early as

1872 Brewer & Co. entered into a contract with a company of 10 or 12 Chinese at Wailuku, by the terms of which they were to furnish the latter with 100 acres of land, houses, tools, seed, and the necessary facilities for raising a crop of cane; to pay them a monthly advance in money, upon which interest was charged; to cart the cane to the mill, charging the Chinese with two-fifths of the cost of transportation, and to manufacture the sugar. The Chinese were to receive two-fifths of the yield, less money advances and interest. Some 12 or 15 years later a similar system was introduced on Honomu plantation by the manager, Mr. William Kinney. It was on this plantation that payment was first based upon the amount of cane raised rather than upon the amount of sugar produced. But as this was in a district where water is abundant and cane is flumed to the mills, it was not convenient to weigh the cane, nor were facilities for this at hand, so the clarifier of juice became the measure upon which payment was based. Land was assigned in tracts of 40 to 50 acres, to companies of 8 or 10 men. The latter bought and sold their shares, but the company remained. The system was subsequently developed at Haiku and Paia, on Maui, and Ewa plantation on Oahu, and has now extended throughout the islands. The tendency of all modifications upon the original system has been to simplify, omit unnecessary details, and make the contract easily intelligible to the men. Practice varies according to local conditions, and each plantation has to work out the details of its contracts independently. So it is difficult to say how much of the contract in use has been borrowed and how much developed independently in each individual establishment. Some plantations employ almost as many forms of contracts as there are cultivating companies engaged in their service.

Cultivation contracts, as distinguished from other contracts for plantation work, such as land clearing, tunneling, railroad building, cane cutting and loading, can be classified roughly as acre and ton contracts. An acre contract may be for all the operations necessary to bring cane to maturity and deliver it to the mill, or for any one or group of such operations. A ton contract always involves bringing cane to maturity and may in addition to this include one or both of the operations of cutting and loading. The acre contracts are somewhat simpler to describe and will be first considered. They are being superseded in most places by the ton contract, but remain in use to some extent on the island of Hawaii, where they give satisfaction. One planter employing both forms gives preference to the acre contract. It is likely to survive or to be introduced where labor is scarce and droughts or other crop calamities have disappointed companies in previous years in their anticipated profits upon a ton basis. This last is the reason for its existence on one or two plantations on the Hamakua coast; for in the ton contract risks and anticipations, losses and gains are shared to some extent by both plantation and cultivator,

while the other form of agreement places the payment of labor upon a fixed basis irrespective of the amount of the crop. For this reason the cultivators under ton contracts are known as "profit sharers" upon some plantations.

There are 7 plantations on the island of Hawaii that employ acre contracts. Two of these also have ton contracts in force with some of their companies.

The general provisions of the acre contract are as follows: ^(a)

I. The plantation as party of the first part agrees:

(1) *To furnish land as specified.*—The area of tracts varies with the size of the cultivation company, the character of the land, and the

^aSPECIMEN CULTIVATING CONTRACT, PAYMENT BY THE ACRE.

THIS AGREEMENT, made this — day —, 190—, by and between the — Sugar Company, an Hawaiian corporation, hereinafter called the "Mill," party of the first part, and — and associates, to wit, —, acting together as a hui, hereinafter collectively called the "Planters," party of the second part, witnesseth:

That the Mill, in consideration of the covenants and agreements of the Planters, hereinafter contained, doth hereby covenant and agree with the Planters that it will furnish to the Planters without charge:

Land (as hereinafter described) for the term of — (—) months from the date hereof for cultivation for the Mill with sugar cane, on the terms and conditions hereinafter set forth;

Lodgings necessary for their use while working under this agreement;

Fuel for domestic use, which shall be cut and gathered by the Planters at such place as the Mill shall designate;

Seed cane required for replanting;

Tools (in the first instance) necessary for the performance of the work required in connection with this agreement;

Fertilizer for use on said land, the Mill being the judge as to the quality and quantity, time and manner of application;

That it will pay, as hereinafter described, the sum of — dollars (\$—) for each and every acre cultivated under this agreement. Payment being made in the following manner:

Upon completion of each required hoeing, and its inspection and acceptance by the Mill, the sum of — dollars (\$—) per acre for each and every acre so completed and accepted. Upon completion of each stripping required (not to exceed three), and its inspection and acceptance by the Mill, the sum of — dollars (\$—) per acre for each and every acre so completed and accepted.

For and in consideration of the covenants and agreements of the Mill, hereinbefore mentioned, the Planters do hereby, jointly and severally, covenant and agree with the Mill that they will immediately upon the execution of this agreement proceed to replant such portion of said land as may be required with the seed cane furnished by the Mill, and in a good and workmanlike manner, under the direction and to the satisfaction of the Mill, care for the cane grown on said land, weeding and fertilizing as required, and at proper intervals stripping the same until it is ready for harvesting.

It is hereby mutually agreed and understood:

That if the Planters are unable, through sickness or accident, or for other cause fail to do all of the work required of them by this agreement, to the satisfaction of the Mill, the Mill may furnish a sufficient number of laborers to do such work,

conditions of the contract. Some plantations are divided by water courses or other natural boundaries into fields of fixed extent. In such cases the number of cultivators is adjusted to the area of the field. In other instances tracts are divided off to suit the size of companies. The number of members and sometimes the individual membership of companies is fixed by the contract. Companies range from 3 to 50 men, though 10 men is about the ideal size. Very small companies complicate accounts and supervision, their work suffers relatively more when members are sick or disabled, and it is often inconvenient

charging the cost thereof, including superintendence, together with interest thereon, to the Planters, deducting the same from any amount coming to the Planters upon the completion of this agreement;

That the working force of this hui shall consist of not less than —— (——) men, and that when not required upon their own work they shall work for the Mill, accepting for such work the market rate of wages at that time paid by the Mill for similar work;

That for any violation of the terms of this agreement, the same may be terminated by the Mill, and any advances and payments, with interest thereon, made to, or on behalf of, the Planters, or any of them, shall constitute and be a first lien on all of the interests of the Planters and each of them, in and to the cane raised on said land and the proceeds thereof, and that the Planters shall not have the right, collectively nor severally, to sell, assign, sublet (or otherwise transfer his or their right or interest in or under this agreement), said cane or the proceeds thereof, without the written consent of the Mill;

That any advance made to the Planters by the Mill in the way of stores, clothing, etc., shall be considered a cash advance and deducted, principal and interest, from any sums due and payable by the Mill to the Planters first after the securing of such advances;

That the Planters shall be liable for any damage caused by the neglect or failure to properly perform the required work;

That this agreement shall terminate when all of the cane grown on the land herein described shall be ready for harvesting, at which time the balance of moneys due up to the first-mentioned —— dollars (\$——) per acre, will be due and payable.

That any advance heretofore made by the Mill in the caring for any portion of this area shall be considered a cash advance and deducted, principal and interest, from any sums due the Planters upon the termination of this agreement;

That the land assigned under this agreement shall consist of —— acres, as per drawing attached and made part of this instrument, situate at ——;

That should kipakua work be required by the Mill on the above-mentioned field, or any portion thereof, in lieu of mule cultivation, the Planter will immediately, under the direction and to the satisfaction of the Mill, and in a good and workman-like manner, perform such work. Upon completion thereof, and its inspection and acceptance by the Mill, the amount of —— dollars (\$——) per acre, which sum is hereby mutually agreed upon, will become due and payable;

That should a stoning of said field, or any portion thereof, be required by the Mill, the Planters will as above perform such work. Upon the completion thereof, under the same terms and conditions as above stated, the sum of —— dollars (\$——), per acre, will become due and payable.

In witness whereof the said parties have hereto, and to another instrument of like tenor and date, set their hands and seals the day and year first above written.

_____.

to house them near their fields. If a company is too large, weakness of internal administration and the divided responsibility of individual members often occasion difficulties. The largest single contract reported was for 797 acres, but this was exceptional and under a modified agreement, the average being nearer 40 or 50 acres. Cultivating companies naturally try to get the largest possible amount of land in proportion to their membership, while the plantation's interest lies in having as many cultivators as possible upon a given area. The acreage assigned for each laborer in a company varies with local conditions. On wholly irrigated and highly fertilized plantations, where the acre tonnage is very large, it is less than upon a plantation having a light tonnage of cane and depending entirely upon natural rainfall. The conditions of the contract also determine the amount of land assigned as well as the amount paid per acre. As a rule, more land is given each cultivator for ratoon than for plant cane, and for fields not requiring stripping than for those that are thrashed. Where cane is brought to maturity, either in acre or ton contracts, the area varies from a minimum reported of 3.6 acres to a maximum of 12 acres for each laborer signing in the company. The average amount is about midway between those two figures.

(2) *To furnish lodgings.*—While companies may be required to live in the regular camps, separate cottages are often provided for them near the field they are to cultivate.

(3) *To furnish wood and water for domestic use.*—Sometimes wood is cut and delivered by the plantation, and sometimes by the cultivators under the supervision of the plantation. Teams and wagons are always furnished free for hauling.

(4) *To furnish necessary tools and implements in the first instance.*—This means that the company is made responsible for loss and repairs. Where team cultivating is required, the use of animals is also furnished.

(5) *To supply seed cane.*—The employer usually prepares the land and first plants the cane. In such cases the cultivators require only enough seed cane for replanting those spots where the first planting does not sprout.

(6) *To supply fertilizer.*—The plantation is always made the judge as to quality, quantity, and time and manner of application.

(7) *To advance a specified sum of money to each laborer.*—The amount of the advance varies, and it may be adjusted either to the number of days the cultivator has worked in any month or to the number of acres kept in satisfactory condition. The sum is supposed to be sufficient to support the cultivator, and varies from \$10 to \$15 a month of 26 working days. In one instance the company received \$2.50 an acre each month for every acre kept in a condition satisfactory to the plantation. Interest is sometimes, but not usually, charged upon these advances, at the rate of 8 or 9 per cent. One plantation advances \$10

cash and \$6 store credit a month, but this is a solitary instance—the only one discovered where any requirement to trade with a plantation was included in a contract. The provision is sometimes specifically made, however, that store credits voluntarily incurred by the members of a company shall be deducted from the cash advances at the end of the month.

(8) *To pay upon the conclusion of the contract a specified sum per acre for the work performed.*—Advances with accrued interest are deducted from the total sum due, as are certain other contingent amounts, to be mentioned later, under special stipulations. The acre price varies with the number of operations to be performed by the cultivator. For a single stripping one plantation pays \$6.75 and another \$7 an acre. For hoeing and stripping—that is, for taking the cane after it is above ground and bringing it to maturity—without irrigating, fertilizing, cutting, or loading, another plantation pays \$22 and \$30 an acre, according as one or two strippings are required. Where cultivators plant the cane and bring it to maturity, but do not cut and load, two plantations pay \$40 an acre. For bringing ratoon cane to maturity \$28 an acre is paid. On a recently opened plantation, where the ground has not been fully cleared and plowing is impossible, the cultivators trench, plant, replant (where first planting fails to come up), cultivate, and strip for \$52.50 an acre, while upon an older plantation they take the cane above ground, replant, hoe, apply fertilizer, and horse cultivate three times, for \$32.50 and \$40 an acre. Another plantation pays \$7 an acre for planting, \$30 for cultivating, and \$5 for stripping. While the time of payment is usually at the conclusion of the entire contract, in cases where several operations are to be performed payment is sometimes made in installments, due at the completion of each hoeing, stripping, or other operation to the satisfaction of the plantation. It is further specified in some contracts that if circumstances should require certain extra work upon the land, such as removing stones, this shall be performed by the contractors, subject to compensation stated or to be agreed upon later.

II. The cultivating company, as party of the second part, agrees:

(1) *To perform the operations specified to the satisfaction of the plantation.*—The date at which each separate operation shall be begun or completed is often specified.

(2) *To supply labor to the plantation.*—This is an almost universal stipulation, to the effect that when the plantation is in need of labor the company shall furnish as many men as can be spared without prejudice to their contracts to the plantation. The men receive regular wages, like any other employees, for this extra service.

III. There are certain special stipulations, that vary on different plantations, under which it may be agreed:

(1) That the plantation may put its own laborers into any field that is not kept in good condition by a company, or where the operations

contracted for are not performed promptly as agreed, to perform the work needed, paying them the rate of wages prevailing upon the plantation, and deducting the sum so paid from the amount due the company in final settlement. Interest may or may not be charged, according as the agreement provides. This is a privilege reserved by the plantations in practically all contracts of this character.

(2) The contract often fixes the number of members that shall constitute a company, even when the latter is represented by a single person in the written instrument. One member of the company is usually designated by the contract to act as agent for the others in all transactions with the plantation's representative.

(3) Some contracts stipulate that fines for property lost or destroyed and damages for nonfulfillment of any part of the agreement may be deducted from the sum total due the company at final settlement.

These are the essential features of acre cultivating contracts. Their general form and many of their provisions are identical with those of the ton contracts, though the latter are so much more generally in use that they have been elaborated to a greater extent and present more points of divergence from each other.^(a) Over half of the plantations

^aSPECIMEN CULTIVATING CONTRACT, PAYMENT BY THE TON.

THIS AGREEMENT, made this — day of — 190—, by and between the — Sugar Company, a Hawaiian corporation, hereinafter called the "Mill," party of the first part, and —, acting together as a hui, hereinafter collectively called the "Planter," party of the second part, witnesseth:

That the Mill, in consideration of the covenants and agreements of the Planters, hereinafter contained, doth hereby covenant and agree with the Planters:

1. *Land*.—That it will, without charge to the Planters, furnish to the Planters for cultivation for the Mill with sugar cane on the profit-sharing system, on the terms and conditions hereinafter set forth: — acres of land, situate at —, district of Puna, Island of Hawaii, described as follows: —

2. *Lodgings*.—That it will also furnish without charge to the Planters, for use while they are working under this agreement, lodgings for the Planters and their wives and children, if any.

Fuel, for domestic use, which shall be cut and gathered by the Planters at such place as the Mill shall designate.

Tools, in the first instance, after which all tools shall be furnished at the expense of the Planters.

Seed cane, delivered at or near the said land, which shall be cut, bagged, and loaded by the Planters, or if such labor is done by the Mill, it shall be charged to the Planters.

Water, for household use.

Fertilizer, in such quantity and of such kinds as it may deem best, the Planters applying the same as directed to said land.

3. *Advances*.—That it will, at the end of each month during the term of this contract, advance to each of the Planters at the rate of twelve and one-half dollars (\$12.50) per month of twenty-six (26) full days' work, which amounts shall be deducted by the Mill, without interest, from the amount coming to the Planters when the cane from said land is ground. Provided, that not less than — full days' work shall

in Hawaii have agreements of this character in force with their employees, and some of the most important of them have no cane whatever that is not cultivated under contract. A third of the field laborers in the islands are employed and probably more than that proportion of the cane is raised under either ton or acre contracts, and agreements of the former class are much the more numerous of the two.

The two forms of contract are virtually identical so far as the clauses binding upon the plantation are concerned, except the provisions for payment mentioned in the eighth paragraph. Some of the earlier Ewa contracts provided that kitchen gardens and water for irrigating them should be furnished cultivators. Where seed cane is supplied, especially for first planting, it is sometimes stipulated that the cultivators shall cut, bag, and load the same, while the plantation transports it to the field. In one instance the cultivators pay for the fertilizer used. In another the plantation not only furnishes but also

have been performed by the Planter for each month of a term of seventeen (17) months from the date of this contract.

4. *Basis of payment.*—That it will pay to the Planters, in U. S. gold coin, as full compensation for all labor done under this contract (\$——) —— dollars, for each ton of (2,000) two thousand pounds of sound cane harvested from said land and accepted by the Mill. No dry or sour cane shall be considered sound.

5. *Cutting.*—That it will at its own expense cut and weigh said cane when it is to be harvested.

The Planters, in consideration of the foregoing covenants of the Mill, do hereby jointly and severally covenant with the Mill:

6. *Planting and cultivation.*—That they will immediately proceed to plant the whole of said land with the seed cane furnished by the Mill, and weed, cultivate, strip not less than three times, and care for the same in a good and husbandlike manner, including the weeding of the roads through said land, until it is harvested.

7. *Stoning.*—That during such portion of the term of this agreement as the size of the cane will permit they will devote all of the time not required for the other requirements under this agreement to the removal and piling of the loose surface stone on said land. All of said stone within two hundred feet of any road to be piled at the edge of such road, and the other stone at convenient intervals, averaging not less than two hundred and fifty feet apart.

It is hereby mutually covenanted and agreed by and between the parties hereto:

8. *Supervision of Mill.*—That all work to be done by the Planters under this agreement shall be under the supervision and direction, and done to the satisfaction of the Mill.

9. *Mill to assist Planters.*—That if the Planters are unable, through sickness or accident, or for other cause fail to do all of the work required of them by this agreement to the satisfaction of the Mill, the Mill may furnish a sufficient number of laborers to do such work, charging the Planter therefor at the rate of one dollar per day per man, together with the cost of superintendence, and interest on the entire amount so charged at the rate of eight per cent per annum, deducting the same from the amount coming to the Planter when the crop is harvested.

10. *Planters to assist Mill.*—That when said cane is to be cut, and at other times when it can be done without injury to said cane, the Planters shall in a diligent manner, when so requested by the Mill, cut said cane or do other work for the Mill, for which they shall receive the regular rate of wages then paid by the Mill for such

applies the fertilizer, though all the other operations are performed by the contractors. Another plantation does all the team cultivating required in its contract fields. The clause relating to advances stipulates in one instance that a certain minimum number of day's work shall be performed by the cultivator each month in order to entitle him to the advance payment. Where artificial irrigation is largely employed, the plantation's obligation to furnish sufficient water from its main ditches to supply the fields is mentioned, and it is often expressly stipulated that the plantation shall place portable flumes or tracks at stated intervals in the fields, in case a contract includes cutting and loading.

The distinguishing feature of these contracts lies in the manner of payment, which is based upon the size of the crop. Before facilities for weighing cane were at hand the clarifier of juice was the unit of

work. Provided, that subject to the above conditions the Mill will furnish such employment.

11. *Right to cancel agreement.*—That for any violation of the terms of this agreement the Mill may terminate same at any time; and the Planters, or any one of them, upon two months' written notice. Upon termination by either party, such of the Planters as withdraw from this agreement shall be entitled, provided their work has been satisfactorily performed, to immediate payment of amount due at date of termination of contract, after deducting all advances theretofor made by the Mill. Provided, that all tools have been returned and the premises furnished by the Mill vacated and left in good condition.

12. *Inspection and weighing.*—That the Planters shall have the right, in person or by proxy, to inspect the weighing of said cane.

13. *Advances first lien.*—That all advances and payments with the interest thereon, when interest is payable, made to or on behalf of the Planters, or any of them, shall constitute and be a first lien on all of the interest of the Planters and of each of them, in and to the cane raised on said land and the proceeds thereof.

14. *Agreement nonassignable.*—That the Planters shall not, collectively or severally, have the right to sell, assign, sublet or otherwise transfer his or their right or interest in or under this agreement, said cane or the proceeds thereof, without the written consent of the Mill; this being a purely personal agreement with the Planters and their permitted assigns; and all settlements shall be made with the Planters personally, or their permitted assigns, or their legal representatives, in case of death of any Planter.

15. *Nonliability of Mill.*—That the Mill shall in no way be liable for damage caused by fire, storms, or unavoidable delays in the Mill, or for other causes beyond its control.

16. *Term of agreement.*—That this agreement shall terminate when the last cane from said lands shall be placed upon the cars or in the flume aforesaid.

17. *Rattoons.*—That if so desired the Mill will let out the said land for cultivation of the ratoons after this agreement is terminated, under the same agreement and conditions, to the Planters herein specified.

In witness whereof the said parties have hereunto set their hands and seals the day and year first above written.

Witness:

measurement, as it still continues to be on a few plantations where cane is flumed to the mill. In one instance a mill pays \$11 a clarifier of 500 gallons. The price paid cultivators for cane is conditioned chiefly by the number of operations to be performed, though, as a rule, a slightly lower price is paid for the same operations on ratoon cane than on plant cane. The time required to bring to maturity is also a factor. Men will take a field for less if the cane has been planted in July than if it was planted in November. There are also some hot, highly fertile, irrigated plantations, surrounded by barren or semiarid country and free from weeds, where the cane closes in early and very little hoeing and cleaning is required, and where the borer can not thrive, that get their cane cultivated for a fourth of what it costs on some portions of the windward coast of Hawaii, especially in the Hilo district, where, on account of cooler temperature and more abundant rainfall, the cane grows more slowly and weeds are abundant. In the dry districts, where there is almost uninterrupted sunshine every day and the borer does not exist or is inactive, stripping is less essential and can even be dispensed with entirely without injury to the cane.

All these factors have an influence in determining the wide variations in price for bringing cane to maturity that obtain on different plantations. The average rate is about \$1 a ton for taking the cane when above ground and bringing it to the point of harvesting, but as low as 40 cents a ton is paid on one plantation and as high as \$2 a ton on another. A few contracts cover cutting and loading as well as cultivation, but this is exceptional. Where artificial irrigation is employed entirely, it is customary for the plantation to prepare land, plant, and first water, cut, load, and carry, leaving the intermediate operations to the cultivator. As the trenches and furrows on such plantations must be laid out by a levelman, in order to insure a free flow of water through the fields, the actual preparation of the land is better done by the employer. In these cases, also, the plowing is usually done by steam.

The obligations upon the cultivators are essentially the same as in the acre contracts, though special stipulations not found in the latter agreements occasionally occur. Some of these extra provisions are:

1. That roads and ditches running through the fields shall be kept in good condition and free from weeds.

2. That a cultivator shall not transfer his share in a company contract to another without the permission of the plantation. Members sometimes speculated in these shares, poor men were substituted for good men in the companies, and a man who had been overreached in a bargain when buying out another lost interest in the company and shirked or deserted his contract.

3. The contract generally provides that the cultivators shall have a right to inspect the weighing of the cane at the mill.

4. The plantation is not liable for losses caused by storm, fire, or unavoidable delays in manufacturing.

5. In one case a plantation binds itself to enter a second contract, identical with the first, for the cultivation of the rattoons of the field contracted for, if the cultivator should so desire.

6. Contracts may be terminated by the plantation at any time and by the cultivators upon one or two months' notice. In the case of such termination or of the death of a cultivator, the latter is entitled to wages for the period he has worked on the contract, at the rate for such labor prevailing upon the plantation, subject to deductions for cash advances and for losses falling upon the plantation through his fault or neglect; as, for instance, for lost tools and implements.

7. The claims of the plantation against the crop constitute a first lien by virtue of a special clause in the contract, and it is sometimes further provided that the cultivator shall not mortgage or otherwise encumber his interest in his cane without the consent of the plantation. This is in order to prevent the cultivator's anticipating his returns and then losing interest in carrying out the contract.

8. It is provided in one case that if, for any reason, the cane remain uncut after 18 months from the signing of the contract, the plantation shall pay for the further cultivation necessary.

9. The seed cane—that is, the tops used for that purpose in Hawaii—as well as the cane delivered at the mill, belongs to the employer, though in practice most of it is usually given to the cultivators in case they desire to use it for feeding animals.

Some of the contracts read in such a way as to permit of the execution of an individual document for each cultivator, instead of a single instrument for the whole company, it being specified that the laborer signing shall receive, in addition to advances and other considerations, such a proportionate part of the proceeds of the cane grown upon the land in question as his labor bears to the entire amount of labor expended upon the premises by the total number of contracting cultivators.

So far as learned, all cane grown by contract cultivating companies is now paid for at a fixed price per ton, but formerly there was a plan in vogue, which is still retained for independent planters, of paying for cane upon a sliding scale rated according to the net proceeds from the sugar or from last sales previous to the delivery of the cane made in the primary market, which was usually San Francisco. Uneducated laborers naturally prefer a contract where the system of compensation is simple and the fixed rate a ton is most popular for this reason.

Some of the contracts that have recently expired contained a provision intended to keep the laborer upon the plantation long enough after the completion of his contract to recover from the effervescence

of spirits—animal and otherwise—that sometimes followed the receipt of a considerable lump sum of money from his crop sales. It was agreed that the cultivator should allow \$50 of the amount due him on his contract to remain in the hands of his employer for three months subsequent to the conclusion of the same, to be forfeited if he left the employ of the plantation before that period had expired. It was assumed that if the laborer could be kept at work at regular wages for three months after receiving the bulk of his contract money, he might be inclined to enter into a second contract in the interval. Otherwise he was apt either to make a hasty departure for Asia or to enter upon a life of dissipation in the towns. But this special stipulation has practically disappeared from the contracts now in force.

The cultivation contracts are usually written or drawn up upon printed forms provided by the plantation. But in two instances, in both of which the number of contract cultivators is very large, the agreements are entirely verbal. There is only one large plantation where the contract system is not in use, and that is near a town of some size, and enjoys other advantages in the way of a permanent local labor supply. Some 15 or 16 small plantations, most of them producing less than 2,000 tons each, employ only day labor, though they occasionally let out small contracts for special work when conditions are favorable. Usually the complaint of short labor upon a plantation was inversely as the proportion of contract cultivators among the employees, and probably laborers could be found with ease in the islands to-day to cultivate all the cane fields under the "profit-sharing" system. It is partly to the increase of this system that the sudden lessening of strikes and similar disturbances that followed the abolition of penal contracts is due. Upon 19 typical plantations, including some upon all four of the islands, there was a decrease from 10,871 to 6,015 in the total number of day men employed, from 1900 to 1902. Meantime the total crop of the same plantations increased from 127,000 to 135,000 tons, in spite of the drought in the island of Hawaii, which reduced the crop on the plantations reported on that island more than 10,000 tons, without lessening their area of cultivation. Had the average annual increase in the number of laborers employed on these plantations during previous years continued after 1900, they would have had nearly 12,000 instead of 6,000 day men on their pay rolls. This deficit represents approximately the increase in the number of contract cultivators on the 19 plantations in question within two years. The principal motive in extending these contracts has been to secure regular labor and prevent strikes. Men who have a stake in a plantation and are directly interested in the prompt performance of its work in all departments not only refuse to take part in labor agitation themselves, but promptly cooperate with the managers to keep things running in case of a defection of day employees. Their attitude at the

time of annexation is thus described by the manager of Ewa plantation in his report for the year 1900:

The system of employing labor in companies for the cultivation of fields, from date of planting until milling, continues in a flourishing condition. There are engaged on this basis 755 men. Subject to general supervision, the work of cultivating and irrigating almost the entire area of growing and ripe canes is in their hands. While the laborers came and went during the period of unrest following the termination of the (penal) contract system on June 14 last, there was practically no change of personnel in these "profit-sharing" companies; and whatever delay there may have been in other plantation work, this branch was not set back in the slightest degree.

A threatened strike on one of the largest plantations was recently averted by the readiness with which the contract men came forward to replace the laborers who refused to work. A delay in grinding at that time, for instance, would have meant a direct loss to every cultivator having ripe or rapidly maturing cane standing in the fields.

Some plantations reserve certain fields to be cultivated by day labor with a view to employing the women not working with the contract companies, or in order to keep a force of day men adequate for emergencies, or to carry their mill laborers over the dead season, or for the purpose of raising seed cane. Only in exceptional cases can all the cane on a plantation be raised under contract. The method has its disadvantages as well as its advantages, from the planter's point of view. There is a difference of opinion as to the relative cost of cultivating by day labor or by contract. The cultivators earn more money than the day laborers, but they require less supervision, voluntarily work longer hours, and do more work in the time they are actually in the field. An estimate, based upon statistics, of the number of day laborers and of contract laborers, respectively, required to cultivate certain areas would be inaccurate, because local conditions are so unequal, not only upon different plantations, but upon different fields of the same plantation, that they constitute a variable factor important enough to render results reduced to figures unreliable. It is the general opinion that the extension of the contract-cultivating system reduces the number of laborers required to run a plantation, and certainly it increases the economic incentive to industry on the part of each worker. But influences sometimes appear that counteract this effect to some extent. There is a less flexible distribution of labor under the contract system of cultivation that sometimes causes waste; that is, there are times when, if the locality in which each field hand was to work was at the absolute discretion of the manager instead of being fixed by a written instrument, the latter could employ the labor in his employ more productively. Contracting companies are less apt to adopt progressive methods of culture than are the managers; they stick to the hoe where the manager would introduce machines and animals.

A third effect of the system has been noted by a very intelligent planter, that relates not so much to the number of men employed as to the total product of the plantation. Under some conditions contract cultivation tends to limit production. The Japanese can figure out pretty accurately from the appearance of the cane the point at which they will get the maximum compensation for their labor. This is not always the highest possible return of cane from the land under their control. In other words, they have learned empirically the law of diminishing returns as applied to cultivation. But such factors as rent, expense of fertilizing and irrigating, and greatest economy of manufacture do not enter at all into their computations. Therefore, the amount of cane per acre which best suits their interests is not always the amount which best suits the interests of the plantation. Their maximum return and the planter's maximum return are not identical when figured into profits.

The average earnings of contract cultivators throughout the islands are over a dollar a day for each day of actual labor. They appear almost exactly a dollar in the statistical tables, but there were a few instances where the profits of companies whose contracts were closed were of necessity figured upon a basis of 26 days worked each month, because other data were lacking, when the probability is that each member worked less than that time. In exceptional instances members earned as high as \$44 a month in single companies, and on certain large plantations, whose combined contractors numbered over a thousand, the average earnings for all companies were about \$34 a month. On the other hand, there were a few instances where drought or other unfavorable conditions had prevented companies from earning fair wages. A few companies had failed; that is, the value of their cane was less than the total cash advances made them. On one plantation 11 out of 38 companies failed last year, but this was on account of certain unfavorable and largely experimental conditions under which they worked. Managers not unusually give a bonus to companies that do not make expenses, the amount thus given being sufficient to bring their average earnings up to those of day laborers. One planter guarantees a bonus sufficient to bring the earnings of the men up to \$20 a month, which is more than ordinary field hands receive, but is paid in consideration of the fact that the cultivators ordinarily put in considerable overtime in their fields.

Most of the cultivating companies are Japanese, as laborers of this nationality are most numerous upon the plantations, but, in proportion to their numbers, more Chinese than Japanese work under this system. In fact a majority of the Chinese doing field work are contractors. The Portuguese do not agree well enough among themselves to conduct such companies with uniform success, and with the Porto Ricans this form of cultivation is still an experiment. The Chinese possess a

business integrity so habitual as to be almost automatic, which makes them desirable cultivators. No matter how bad the prospects of a company are, it is exceedingly rare for laborers of that nationality to desert a contract. But the Japanese have less sense of obligation in such matters. They have been known to abandon their fields and the plantation without compunction if the crop threatened to turn out poorly.

The sociological effects of the contract system are beneficial. There is a tendency, already noted, for the cultivators to scatter about in isolated cottages, which is advantageous upon the whole from both moral and physical considerations. They also learn something of business ways and responsibilities, of the use of money, and of self-discipline that they would not learn as hired hands. Probably they also make more rapid progress under this system toward higher social ideals and standards of living.

The details of the contracts have been worked out experimentally. Some plantations have lost heavily by making them too favorable for their employees, while others have got the advantage of their men to an extent that made it difficult to renew these agreements subsequently. A majority of the managers are of the opinion that the system is more expensive than day labor would be with an ample supply of men. They let their cane out on contract because they thus insure a certain, if not a cheap, supply of labor upon the plantation. They can count with reasonable certainty, if their contracts are fair, upon having at least an ample force of cultivators in their fields—and this security is worth money under present conditions. Because the contracts simplify administration, there are some managers who prefer them to any form of day employment, even to a penal contract, as a means of securing effective work. Judging from the testimony of planters at the present time and that printed in earlier reports published by the local government, the longer the system is practiced and the better it is understood, the more favorably disposed are the managers toward it. Tact and judicious business foresight play an important part in the success or failure of a manager handling these agreements, but under the conditions now prevailing they present the nearest approximation to a solution of the problem of a constant field labor supply that has yet been discovered.

Another form of contract, that prevails especially in the island of Hawaii, is the agreement between a plantation and a single individual by which the latter engages to plant cane either upon his own land or upon land rented from the plantation and to sell the same to the plantation for a stipulated price per ton. This is to be distinguished from the cultivation contract chiefly by the fact that the party contracting with the plantation is usually a single individual, that he generally assumes full responsibility for preparing land and planting as well as

for bringing the cane to maturity, and that there are no cooperative features by which the planter supplies labor to the plantation or is directly supervised in his work by the agents of the latter. Of course there are modifications of these contracts in some instances by which they come to resemble cultivation contracts in certain features, but the classification is kept distinct in plantation administration. These agreements have arisen in response to definite local conditions, and the specific term "planter's contract" has been applied to them.

The parties contracting to raise the cane in these agreements are known as planters,^(a) while the second parties to the cultivation con-

^aSPECIMEN PLANTER'S CONTRACT—PLANTER OWNS LAND.

THIS AGREEMENT made this — day of —, 190—, by and between the — sugar company, a Hawaiian corporation, hereinafter called the "Mill," party of the first part, and —, hereinafter called the "Planter," party of the second part, witnesseth:

1. That the Mill, in consideration of the covenants and agreements of the Planter hereinafter contained, doth hereby covenant and agree with the Planter:

That it will buy from the Planter all sound sugar cane (excluding all dry and sour cane) of the kind herein enumerated, grown and brought to maturity as hereinafter specified, during the term of — years from the date hereof, on that certain piece or those pieces of land situate at —, containing an area of — acres, and more particularly described as follows, viz, —.

2. That when ready for harvesting, subject to the harvesting of the cane of others as hereinafter set forth, it will cut, weigh, and transport said cane on and from said land to the flume or railroad leading to the Mill, charging the Planter for such transportation — cents for each ton of cane; the Planter, at his option, doing such transportation himself, at his own expense, under the supervision of the Mill, and with a sufficient force to keep the flume or railroad in operation.

3. That it will, after deducting from the purchase price of said cane all moneys then due or payable by the Planter to the Mill, within three months after such delivery, pay to the Planter in U. S. gold coin, the purchase price of said sugar cane at the following rates, viz:

When the price received by the Mill for sugar in San Francisco is per pound for each ton of cane—

2½ cents and less than 2¾ cents.....	\$2.55
2¾ cents and less than 3 cents.....	3.17
3 cents and less than 3½ cents.....	3.80
3½ cents and less than 3¾ cents.....	4.15
3¾ cents and less than 3½ cents.....	4.40
3½ cents and less than 4 cents.....	4.75
4 cents and less than 4½ cents.....	5.10
4½ cents and less than 4¾ cents.....	5.50
4¾ cents and less than 4½ cents.....	5.85
4½ cents and less than 5 cents.....	6.25
5 cents and less than 5½ cents.....	6.70
5½ cents and less than 5¾ cents.....	7.15
5¾ cents and less than 5½ cents.....	7.65

and in like ratio for any increase in price over that last above named.

4. That the price of sugar upon which said price of cane shall be based shall be the price shown by the account sales of the sugar belonging to the Mill sold in San

tracts are known as contract cultivators, cooperative cultivators, or profit sharers, according to variations in local parlance. In the autumn of 1902 the Planters' Association reported 8,851 contract cultivators and 1,662 planters in all the islands. Many of the latter, who cultivate small tracts of plantation land with their own labor, are classed with contract cultivators in the statistical tables. The distribution of these planters was as follows: On Kauai, 3; on Oahu, 17; on Maui, 40, and on Hawaii, 1,602.

The contract planter is the nearest approach to the small farmer that exists at present in the sugar business. The centralization of the indus-

San Francisco last previous in date to the respective deliveries of said cane. If there have been no previous sales in San Francisco that crop, then the first account sales received thereafter shall be the basis of said price.

5. That the Mill will furnish to the Planter at market rates such fertilizer as may be required for use on said crops of cane.

6. That when the Mill has seed cane to spare it will allow the Planter to have the same with which to plant said land, charging therefor market rates.

If the Mill has the teams to spare, it will, at the request of the Planter, transport the said seed to said land or plow and harrow his said land, charging market rates therefor.

7. All material or labor furnished by the Mill to the Planter shall be paid for by the Planter within thirty days after such furnishing, without interest. If not so paid, such sum shall bear interest from the respective dates of furnishing, and shall be deducted, principal and interest, from the amount coming to the Planter from his crop next thereafter harvested, interest to be at the rate of eight per cent per annum.

8. That it will harvest said successive crops at the time and times nearest maturity, at which it is able to do so, having due and equitable regard for the crops of the Mill and other Planters whose crops shall mature at the same time: *Provided*, That maturity shall be deemed to be such time as the Mill shall be taking off similarly planted and contiguous cane.

9. In consideration of the foregoing covenants and agreements on the part of the Mill the Planter doth hereby covenant and agree with the Mill (and if the Planter consists of more than one person the covenants are both joint and several):

That the Planter will, immediately upon the execution of this agreement, proceed to diligently and properly clear and plant not less than — acres of said land with lahaina, yellow bamboo, rose bamboo, or yellow Caledonia sugar cane, or such other kind as the Mill may, in writing, consent to, and diligently and continuously and in a good and husbandlike manner cultivate the same until it arrives at maturity, stripping it as many times as may be necessary, but not less than three times, at appropriate intervals, so that the same shall be fit for harvesting by January 1, 190—.

10. That during each succeeding year for and during the term of this agreement the Planter will, so far as the area of said land and the proper length of time for ratooning will allow, plant or ratoon, or both plant and ratoon, and cultivate and care for in manner as aforesaid not less than a like area of said land, so that there shall, during each year of said term following 190—, be matured and fit for harvesting, with the exceptions aforesaid, and delivered to the company as aforesaid, not less than — acres of cane on said land.

11. That so far as reasonably practicable the Planter will cause the cane to be harvested each year to be in one compact area, to be located under the supervision of the Mill.

12. That the Planter will sell and deliver all cane raised on all of said land during the term of this agreement to the Mill at the time and times, place and places, in the

try has been in response to well-defined economic necessities, and has proceeded more rapidly in the Hawaiian Islands than in other sugar-producing countries because the requirements of irrigation made it necessary to establish large plants and to purchase large tracts of land at the outset when organizing many plantations, and the example of these reacted quickly upon the smaller plantations of the districts having natural rainfall. The advantages of wholesale production were so patent as soon as this method was in actual operation, that there was a rapid coalescing of the smaller establishments in this country where, on account of climatic conditions, cane culture had had its modest beginnings. But the balance of advantage has never remained so strongly in favor of extensive centralization in the regions of natural rainfall as in other portions of the islands, and therefore the tendency to compromise the two systems has manifested itself there in the form of these planters' agreements.

manner, upon the conditions, and for the price and prices above set forth, and will not sell or otherwise dispose of any cane grown on said land during said term to any person or corporation other than the Mill.

13. That the Planter will allow and hereby grants to the Mill for the term of this agreement a free right to enter said land to examine, cut, and remove said crops and a free right of way into and across said land and any other land owned, leased, or controlled by the Planter and any part thereof not interfering with the buildings of the Planter for flumes or railroads with which to remove the said crops or other crops owned or controlled by the Mill.

14. That if at any time during said term the Planter shall fail to properly plant said land, or properly and in a good and husbandlike manner cultivate or care for said cane as aforesaid, or shall otherwise violate or fail to observe and perform the terms of this agreement, the Mill may at its option cancel this agreement, or it may at its option enter upon said land and plant, cultivate, and care for the successive crops of cane herein provided for, charging to the Planter the full cost thereof both for labor, superintendence, and material, together with interest thereon at the rate of 8 per cent per annum: *Provided*, That when any and all advances made by the Mill shall be liquidated, and any crops in the ground at the time of incurring such debt shall be harvested, then this claim shall be considered of no force and virtue.

15. That all sums due or payable by the Planter to the Mill for advances of cash, material, or labor shall be a first charge and lien in favor of the Mill on all of said crops and the money coming to the Planter from the Mill.

16. It is hereby mutually covenanted and agreed by and between the parties hereto that each and every of the covenants and agreements herein contained shall run with the land and be binding upon the successors and assigns of the Mill and upon the heirs, executors, administrators, and assigns of the Planter.

17. And also that if at the end of said term of this agreement there shall be an unmatured crop on said land then this agreement shall continue in force for such further length of time as may be necessary to mature and harvest said crop.

In witness whereof the said parties have hereunto set their hands and seals in duplicate the day and year first above written.

Witness:

The topography of the country and the system of land tenure have also contributed to maintain the small cultivators. Much of the land on the slopes of Mauna Kea and Mauna Loa, the two great peaks of Hawaii, along whose bases lie the Hamakua, Hilo, and Kau districts, is broken by ravines and steep hillsides. The steam plow is useless and even animal cultivation is difficult upon some of these tracts. They are sufficiently isolated from each other to make even the loose supervision given to contract cultivation companies, whose time at least is taken every day, difficult and expensive. As there is water and elevation enough to permit of fluming cane to the mills, railways are less common, and as the acre tonnage is light and the land is broken up by tracts unavailable for cultivation, the total area of a plantation compared with its tonnage and administrative and labor force is larger than in the irrigated districts.

The semiarid lands that now form some of the most fertile irrigated plantations were formerly great tracts of scanty pasture, and were leased or sold to private parties in immense ranges, so that extensive unbroken areas easily came into the hands of plantation companies. In the country of natural rainfall, on the other hand, lands were always of sufficient value to insure their being broken up into smaller tracts. Considerable uncleared land remaining in the hands of the Government was taken up by homesteaders in allotments of a few acres, and there were small native proprietors and white farmers in possession before the sugar industry became extensive. These homesteaders and small farmers find it profitable at times to raise cane for the mills upon their own holdings, selling at a price per ton that has been agreed upon at the time of planting. Occasionally they can employ their time and such labor as they hire to better advantage by taking in addition to their own tracts a small portion of plantation land, receiving a lower price for the cane raised upon such land or allowing a share of the crop to the plantation in lieu of rent. Others engage to cultivate a portion of the plantation where hired labor can not be profitably employed upon a similar basis. Each planter, in this sense of the term, is practically his own master, a small share or tenant farmer, or petty landholder. The planter's contract, therefore, has not arisen in order to correct a labor stringency or to insure the plantation against uncertainties of labor supply, but as a strictly agricultural institution in response to conditions that were climatic and topographical rather than sociological or economic.

These contracts may be made by three parties, the plantation, the land owner, and the planter who is to raise the cane—in case a third person owns the land in question—but more usually only two parties appear in the instrument. In some contracts the planter clears the land, raises first-plant cane to maturity and also first ratoon, or a

series of ratoons, so that the term of the agreement is three years or longer. The plantation customarily furnishes advances, which are usually timed by the progress of the crop rather than by the month. Seed cane and fertilizer may be supplied free or at a price fixed in the contract. Occasionally every detail of the cultivation—the number and date of hoeings, strippings, and other operations—is specified in the contract; but more usually the agreement is confined to the two cardinal points—the amount of advances and price of cane on one hand, and the promise to raise cane upon the whole tract of land specified upon the other. The plantation agrees to place flumes, portable tracks, or other conveniences for transportation at certain intervals throughout the fields at cutting time. The planter has the right to inspect the weighing at the mill. Payment is always by the ton, and is generally based upon a sliding scale proportioned to the net price of sugar in the San Francisco market at the time the crop is sold. Interest may or may not be charged upon advances. In some cases the plantation reserves the right to supervise the work and to place labor in the fields to complete operations promptly, at the planter's expense, if this appears necessary to the manager. Some plantations contract with their own employees as planters, stipulating to allow them a certain number of days a week, without pay, to attend to their fields.

A few of the planters are white men, a number are native Hawaiians and Portuguese, and a majority are Asiatics. Most of those planting upon their own land belong to the first three classes. The Asiatics are frequently storekeepers or small contractors in the vicinity of the plantation, or employees holding positions of some responsibility. A Japanese carpenter working at a salary of \$52 a month was pointed out by the manager of one plantation as a man worth about \$20,000, made in planting contracts. A Chinese storekeeper in the same locality has accumulated a considerable fortune—probably more than his Japanese neighbor—in the same manner. A white merchant in the vicinity of one of the Hamakua plantations keeps about 10 acres in cane. He employs Japanese labor, and reports that at \$4 a ton for cane it is necessary to raise a crop of 30 tons to the acre to make expenses. The price paid per ton by the mills averages about \$4 in Hawaii. This is the usual price paid on sliding-scale contracts when sugar nets $3\frac{1}{2}$ cents a pound at San Francisco. A typical sliding scale has been given in the specimen planter's contract.^(a) The plantation always pays taxes upon its own land. The arrangement as to rent varies. In one case 3 or 4 tons of cane an acre is charged; in another one-seventh of the crop is taken; and in yet another 25 cents a ton is deducted from the price of the cane for rent. This makes the price paid for the use of the land range from \$7 to \$12 an acre. The planter's

^(a)See page 751.

contracts have enabled some plantations to extend their area of cultivation greatly, especially in the mountains. One plantation has raised its annual crop from an average of about 4,000 tons to 12,000 tons in the last 10 years, largely by extending its field area in the broken uplands through this form of agreement with small cultivators.

Job work is done on many plantations under some form of verbal agreement constituting a contract. Ground is cleared by the acre, ditches and tunnels are dug by the linear foot, portable tracks and flumes are laid and cane is cut and loaded in this way. The Japanese especially prefer to undertake work under an understanding of this sort. Cane harvesting is done by contract, partly because it is an employment that does not last throughout the year and where the unit of work is easily measured, and partly because such contracts give greater assurance of a steady supply of cane at the mill. It is for the same reasons that these two operations of cutting and loading are usually omitted from cultivating contracts. They require a large temporary force, working actively over a comparatively limited area. The usual price for cutting is from 20 to 25 cents a ton, or 3 or 4 cents a line of 30 feet of cane for cutting, and from 15 to 22 cents a ton for loading. Cutters average 4 tons and loaders from 4 to 6 tons a day, and where contracting gangs are of the same nationality for both kinds of work, they trade off occupations, resting by varying their employment occasionally. Where cane is delivered by cable, it has to be bundled in addition to cutting. One plantation pays 60 cents a ton for cutting, bundling, and delivering at cable—22½ cents for cutting, and 30 cents for delivering at cable, but not for cutting or bundling. This would make bundling cost about 7½ cents a ton.

WAGES AND COST OF LIVING UPON PLANTATIONS.

There are stores upon a majority of the plantations, run directly or indirectly in the interest of the controlling company. In one or two cases the agents also conduct a wine room or liquor shop upon the premises. This is the exception, however, and many plantations allow no liquors to be sold within their limits. No rum is manufactured in the islands. There may be commercial reasons for this, but opposition from local owners and directors, who were influenced by moral considerations, has also had an important influence in preventing the erection of distilleries in Hawaii.

The method by which plantations deal with their employees differs, some granting store credits to the amount of the earnings due, as shown by the time books, and some issuing credit tickets, which are punched for the amount paid when purchases are made. No instances were discovered where men were paid by store orders, except in the single case mentioned of advances made to contract cultivators on one plantation,

where it was stipulated that \$6 of the \$16 advanced monthly for each man should be in this form. But the total prepayment was in this instance considerably larger than it is customary to allow contractors, so that the store credit might almost be construed as a special concession, in addition to the usual cash advance.

Plantation stores seldom have a monopoly of the business done with their employees. Small plots of leased or fee-simple land held by independent proprietors are scattered along the main highways in all parts of the islands, and these serve as sites for clusters of little Portuguese or Oriental stores, with now and then a more pretentious establishment owned by a white man. Plantations seldom lease land to independent merchants, but in one case quasi-independent Asiatic stores were reported to be agents for the plantation store. Independent stores, selling legitimate merchandise, are not opposed by the managers as a rule, because employees are better satisfied and remain more willingly upon a plantation where there is store competition—and the Asiatics like to trade with their own people. Chinese and Japanese storekeepers are also frequently planters or subcontractors upon the plantation nearest them. They find their customers among the plantation employees, and therefore have a personal interest in keeping as many men as possible steadily at work in the manager's service. Their presence is an advantage to a plantation in other ways under a system of free labor, and they serve as a natural corrective to overcharging or other oppression that might possibly arise if the plantation stores were absolute masters of the situation. The Porto Ricans and natives are dependent upon their employers for credit to a greater extent than the Asiatics because of their own thriftless habits, but with these exceptions practically all plantation employees buy their goods in a market where there is free competition. On one plantation the Japanese employees owed the store, on the date of the visit, \$242.50, while the total wages due them at that time were \$855.25. This was where there were very few competing stores. On another plantation, where there was the average number of competing stores, the combined store debts of all employees, the date of visit, amounted to \$625.35, while the wages due them amounted to \$7,449.50.

Wages are paid monthly and are computed for a period of 26 working days. White employees and salaried men are usually paid by the calendar month.

Between 1850 and 1870 the wages of Chinese coolies in the islands were very low compared with what they became later, though they were higher than prevailed at that time in the Oriental colonies. Field laborers and domestic servants received from \$3 to \$4 a month, besides board and clothing. Seven years later, in 1877, Chinese, natives, and other field laborers were getting \$10 and \$12 a month and found, and the earliest Portuguese immigrants were guaranteed \$15 a

month without board, and actually received much higher wages on account of the competition for their services after their arrival. Women and children were paid at this time from \$6 to \$8 a month. The South Sea Islanders imported the following year were physically a less robust people and less efficient laborers. They received \$5 and \$6 a month, with "poi and salmon." In 1881 Norwegian laborers were imported under contract and received \$20 a month, with board. But the same year it was reported that field wages had fallen to \$10 a month and board as a result of a sudden influx of Chinese. Shortly afterwards Portuguese immigrants were brought in under 5-year contracts at \$8 a month and board. But the Portuguese colonies and Brazil offered better inducements to laborers of that nationality, and this lower price turned the current of Portuguese emigration toward those countries, so that higher wages were offered the following year, in 1882. The planters were then willing to pay \$16 a month, with a cottage and garden plot for each family, but without board. At this time, 20 years ago, the number of plantation employees in the islands was 10,243, or about one-fourth the number at present. The same rate of \$16 and quarters was offered Portuguese contract laborers in 1885. The various expenses of plantation field labor, as tabulated from data contained in the report of the Bureau of Immigration for 1886 with estimates based on the report for 1890, were as follows during the years in question:

Nationality.	Cost to planter (1886) of—			Wages per month of men, without food.		Wages per month of women and minors, without food.	
	Importing.	Board per month.	Quarters.	1886.	1890.	1886.	1890.
Chinese.....	\$76.83	\$6.43	\$31.49	\$13.56	\$17.54	.....	.....
Germans.....	100.00	8.00	79.57	12.75	26.02	\$9.95	.....
Japanese.....	65.85	6.32	41.94	9.88	17.21	8.54	\$10.45
Norwegians.....	130.00	10.00	31.00	9.00	26.02	.....	.....
Portuguese.....	112.00	9.16	76.38	10.41	20.89	10.32	11.95
South Sea Islanders.....	78.50	5.77	46.10	10.16	17.19	7.80	12.37

Since 1890 there have been extremely wide fluctuations in the price of unskilled plantation labor, the average wages in 1897 being 20 per cent lower and in 1901 17 per cent higher than they were in 1890. This wide variation was due chiefly to two causes—the extensive importation of Chinese labor under the limited restriction act of 1881, which lowered wages between 1894 and 1898 to \$12.50 a month and quarters, and the abolition of the penal contract at the time of annexation, accompanied by the absolute prohibition of Chinese immigration, which resulted in an increase of more than 25 per cent in the cost of labor in a single year.

The practice of boarding laborers upon the plantations died out before 1890, traces of it remaining upon but two plantations—one on

Kauai and one on Hawaii—after that date. There was greater economy for both employer and employee in allowing each man to provide his own food. The actual wages received by many of the Chinese contract laborers in the years immediately preceding annexation were only \$11 a month, though the contract rate was \$12.50. This was due to a provision of the Chinese restriction law requiring employers to deposit \$1.50 of each contract Chinese laborer's monthly wages with the Government, until the sum of \$36 had accumulated, to pay his return passage to China. Much of this money has remained in the treasury since annexation. It was never returned to the Chinese owners. A portion of it was recently lost by the defalcation of the Territorial treasurer.

The present wages of the different classes of plantation employees are given in a table accompanying this report. Average field wages at the present time, including those of females, minors, and pensioners, are \$16.64 a month, and the average earnings of contract cultivators are \$25.87. The average cost of a month's labor in the field is therefore about \$19.73 per employee, if we take the total number of laborers of both classes as final. The statistics are based upon data taken directly from the books of every plantation on the islands. A few contract planters employing two or three laborers irregularly are not included, but these scattered employees would make no difference in the totals. The trend of daily wages of plantation wage-earners in both skilled and unskilled occupations for the last 10 years is shown in the following table:

AVERAGE DAILY WAGES OF VARIOUS CLASSES OF PLANTATION LABOR, 1890 TO 1902.

Occupation.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
Unskilled (male)...	\$0.65	\$0.64	\$0.60	\$0.56	\$0.55	\$0.53	\$0.53	\$0.52	\$0.52	\$0.58	\$0.64	\$0.76	\$0.71
Unskilled (female)...	.39	.40	.39	.38	.38	.37	.35	.32	.32	.37	.39	.44	.45
Field labor and superintendence (a)	.80	.70	.69	.66	.65	.63	.62	.60	.60	.68	.72	.88	.74
Mechanics.....	3.04	3.57	3.21	2.93	3.16	3.90	3.28	3.29	3.24	3.07	3.74	3.69	3.80

a One plantation only.

The remuneration of mechanics, like that of field hands, includes house, water, and fuel, but not medical attendance. The better class of employees usually have ground for a garden, and on one or two plantations are supplied with milk from the plantation ranch. Most of them can keep a horse and cow without additional expense to themselves other than that which comes from their care. The money wages of this class of employees are seen to have fluctuated less than those of unskilled laborers during the period under consideration, though since annexation they have averaged higher than before. But while in case of unskilled laborers the wages of nearly 10,000 employees were averaged, in the other occupations a much smaller number were con-

sidered, and the figures show wider variations in single years, due to temporary changes in the plantation force. Field labor and superintendence means salaries of field hands and overseers and all employed in actual cultivation in its widest sense, including plowing, planting, and harvesting. Evidently labor compensation has been uniformly higher since the islands became part of the United States than it was during the years immediately preceding that event.

The following table shows the average daily wages paid for field labor by the Wailuku Sugar Company for each month during the six years from October 1, 1896, to September 30, 1902:

AVERAGE DAILY WAGES PAID BY THE WAILUKA SUGAR COMPANY DURING EACH MONTH, OCTOBER 1, 1896, TO SEPTEMBER 30, 1902.

Month.	Year ending September 30, 1897.	Year ending September 30, 1898.	Year ending September 30, 1899.	Year ending September 30, 1900.	Year ending September 30, 1901.	Year ending September 30, 1902.
October	\$0.5404	\$0.5432	\$0.5116	\$0.5778	\$0.6531	\$0.7414
November .....	.5446	.543	.5106	.5844	.6759	.7303
December .....	.5991	.547	.5269	.5935	.6888	.7255
January .....	.5463	.5655	.5309	.6108	.7168	.7256
February .....	.5898	.5431	.5432	.6354	.7734	.7427
March .....	.5487	.5292	.5593	.6263	.7416	.7702
April .....	.5456	.5291	.5608	.6155	.7290	.7249
May .....	.5914	.5286	.5614	.6226	.7447	.7157
June .....	.5301	.526	.5717	.6498	.7436	.6983
July .....	.5133	.5033	.574	.6432	.7393	.6815
August .....	.5069	.5031	.5522	.6232	.7437	.6703
September .....	.5190	.5104	.5757	.644	.7462	.6989
Average .....	.5433	.5309	.5481	.6192	.7251	.7188

The distribution of occupations in the sugar industry can be made only approximately, and there is more or less interchange between the various employments at different seasons of the year. During planting time every available man is put in the fields and during the grinding season mill laborers are recruited largely from the more experienced or intelligent field hands. Common laborers are listed as teamsters or as mechanics' helpers, when any emergency requires a sudden but temporary increase in the force of such employees, and on some plantations wages in the semiskilled occupations are rated upon the scale paid field hands plus a fixed daily increment, ranging from 8 to 30 cents, for every day the laborer is engaged in the higher grade of work. Occasionally the same plantation pays different rates to field hands employed on different sections of its lands, the higher compensation being usually given for work in the "mauka" or mountainward fields, and as the gangs are shifted from one location to another irregularly the exact rate of pay of any individual is difficult to average.

The extreme variations of wages that occur in Cuba and on the Southern plantations between the grinding and the dead season are not so noticeable in the Hawaiian Islands. This is because the labor supply is derived almost entirely from outside the country, and the

former labor contracts, which have determined present usage, made no distinction between the two seasons. Moreover, on some of the irrigated plantations, especially where the cane does not tassel, there is grinding throughout the year. As it is, the only decided increase in the pay rolls of most plantations during the grinding season is in the manufacturing and transportation departments, where compensation is increased sufficiently to pay for the extra hours of work required. Field hands taking contracts for cutting and loading cane also earn more money than when working at regular wages. One effect of an increase in the permanent population of the islands, which it has been suggested might result from allowing the importation of contract Caucasian laborers, would be to provide a more flexible labor supply, which would enable planters to economize in the labor cost of production to some extent by adjusting more readily the number of employees to their actual needs.

The nationality of plantation employees for the last 11 years, with the exception of 1893 and 1900, is shown by the following table:

NATIONALITY OF EMPLOYEES ON SUGAR PLANTATIONS, 1892 TO 1902.

[The figures previous to 1902 are taken from the Hawaiian Annual; those for 1902 are from Table I of the present report.]

Nationality.	1892.	1894.	1895.	1896.	1897.	1898.	1899.	1901.	1902.
Caucasians (a).....	516	563	473	600	675	979	806	991	1,032
Chinese.....	2,617	2,786	3,847	6,289	8,114	7,200	5,979	4,976	3,881
Chinese and Japanese (b).....									845
Hawaiians.....	1,717	1,903	1,584	1,615	1,497	1,482	1,326	1,470	1,493
Japanese.....	13,009	13,884	11,584	12,893	12,068	16,786	25,644	27,537	30,640
Negroes.....								55	20
Porto Ricans.....								2,095	2,036
Portuguese.....	2,526	2,177	2,499	2,268	2,218	2,064	2,153	2,417	2,669
South Sea Islanders.....	141	181	133	115	81	68	79	46	26
Total.....	20,536	21,294	20,120	23,780	24,653	28,579	35,987	39,587	42,242

a Except Portuguese and Porto Ricans.
b Not separately reported.

c Including 7 Filipinos.

The decrease of Japanese laborers in 1895 is said to have been due to their returning to Japan during and immediately after the war with China. It will be noticed that the proportion of the total number of employees that are Caucasian, with the exception of the Portuguese, has remained about constant, but that the proportion of Portuguese has decreased about one-half during the period under consideration.

The following table shows the distribution of labor in the different groups of plantation occupations in 1902. Under administration are included office and laboratory force, surveyors, and store employees. Steam-plow men, stable men, and team cultivators are included under cultivators, as well as members of contract companies. Pump employees, reservoir and ditch men, shaft diggers, and well borers form the irrigation force, field irrigators being included under cultivation. All mill employees are rated as manufacturers, and all mechanics, including foremen, as mechanics. Superintendence covers overseers and all fore-

men except in the mechanical trades. Transportation includes all railway operating and construction crews, teamsters, and flume men, as well as wharf and warehouse employees. Butchers and herdsmen, physicians and hospital employees, and domestic servants on the regular pay rolls are listed as unclassified labor.

DISTRIBUTION OF LABOR ON HAWAIIAN SUGAR PLANTATIONS, BY GROUPS OF OCCUPATIONS AND NATIONALITY.

Nationality.	Admin- istra- tion.	Culti- vation.	Irriga- tion.	Manu- fac- ture.	Mech- anical trades.	Super- intend- ence.	Trans- porta- tion.	Unclas- sified.	Total.
Caucasians (a).....	162	89	55	138	127	332	54	25	1,032
Chinese	12	3,335	118	303	33	28	30	22	3,831
Chinese and Japanese (b).....		6,445							6,445
Hawaiians	21	725	53	35	34	112	420	43	1,493
Japanese	114	25,931	841	1,674	747	129	1,118	86	30,640
Negroes		11			2		1	6	20
Porto Ricans	4	1,938		11	13	11	55	1	2,036
Portuguese	42	1,682	56	68	148	204	436	33	2,669
South Sea Islanders		22			3		1		26
Total	355	34,176	1,123	2,229	1,162	866	2,115	216	42,242

a Except Portuguese and Porto Ricans.
b Not separately reported.

c Including 5 Filipinos.

Were we to deduct all steam-plow employees and team cultivators from those grouped under "cultivation" in this table, it would appear that about three-fourths of the total plantation force were unskilled field hands. Were all laborers of this class exclusively Orientals, and were all other groups of occupations entirely in the hands of whites and Hawaiians, the proportion of Asiatics to the whole force employed would not be materially different from that at present. They number over 34,900, which is about equal to the number of employees receiving less than \$1 a day, including contract cultivators.

The cost of medical attendance and medicines for employees receiving less than \$40 a month is usually, but not invariably, paid by the plantation. This is a custom resulting from the old penal contract system, when a medical inspector was necessary in order to inspect the men failing to report to work, in order to decide who were malingering and who were really ill. A number of Japanese physicians were formerly employed, as the laborers were so largely of that nationality, but at present practically all service of this kind is performed by Americans and Europeans. A majority of the plantations support hospitals. One plantation pays \$5,000 a year for this purpose. In some cases the Government subsidizes these institutions, and patients outside the plantation force are received in case of need. Many plantations either employ special policemen or partly pay the salary of the Government policemen of their district in return for special service. Quarters are furnished employees in all instances, but where there is a village situated near the fields, as at Wailuku and Lahaina, many of the men prefer to provide their own lodging, at extra expense

to themselves, in order to be freer from plantation discipline and in a position to share more readily the pleasures and excitements of town life. One manager of long experience thought that it would be advantageous both for the men and for the plantations if rent were charged for quarters and wages were increased proportionally, as many shiftless laborers now beat their rent out of the plantations, doing just enough labor at regular wages each month to secure themselves against ejection; but it was the general opinion that the present system could not be changed. It has been mentioned that some plantations supply their white and Portuguese employees with milk without charge. One also furnishes the same classes of workmen with free petroleum for domestic use. No exception was found in the custom of giving free fuel to employees.

Three plantations have introduced a system of profit sharing that applies to all employees receiving \$50 a month or more, and to certain others specified in the statistical tables. At the end of each year 2 or 3 per cent of the net profits of the plantation are distributed to the employees who have worked for that period pro rata in proportion to their respective salaries. One manager writes regarding this experiment: "While it is impossible to attribute a direct financial gain to its operation on the one crop during which the employees have worked under it, there has certainly been evident a spirit of added interest in their work among the men under the agreement." At the present time some 45 men share profits on the 3 plantations in question. The form of this profit-sharing agreement is given below.^(a) A few store employees also share in the store profits, though not in the general profits of the plantation. They receive as a body 10 per cent of the

^aPROFIT-SHARING AGREEMENT, IN FORCE AT KAHUKU, PAIA, AND HAIKU PLANTATIONS.

Employees whose names are listed below and such others who may be added to the list by the manager, or any others who may fill vacancies of anyone on the list, will receive a profit bonus, proportionally according to salaries and time worked, of 3 per cent of net earnings of crop of 1901. The net earnings are defined as the amount remaining after deducting the operating expenses and interest on bonds from the gross proceeds from the sale of sugar of that crop.

The percentage of profits earned to be disbursed will be subject to an equitable revision from year to year

No repairs or replacing of old worn-out parts of the plant by new parts can be allowed as an improvement, but must be charged to expense account.

This plan is offered trusting that all will enter into the spirit of it, and through extra efforts in their work bring about a mutual benefit at the end of the year.

Any employee listed below will be liable to have his name stricken from the list if he prove himself incompetent or misconduct himself, or by reason of lack of interest in the general welfare of the plantation shows himself not entitled to share in the profit bonus.

Any person discharged from the plantation, or anyone leaving without mutual consent, will forfeit all right to any share in the bonus.

net profits of the plantation stores, the share of each employee being proportioned to his respective salary.

The cost of living in Hawaii is higher than in any other sugar-producing section of the United States. According to statistics taken by an agent of the Department of Labor in 1900, the average cash expenses of the families of 21 plantation overseers, of whom 3 were Japanese, 3 Hawaiians, 6 Portuguese, and 9 of other European nationalities, were \$628 per annum. These employees all received free house, fuel, and garden. The average cash expenses of 49 unskilled plantation laborers, of whom 35 were Japanese field and mill hands, and 5 were Hawaiian and 9 Portuguese field hands and laborers, were \$256 per annum. All these employees received free fuel, house, and medical attendance. The store bills of several plantation laborers during the month of September, 1902, follow:

SPECIMEN STORE ACCOUNTS OF PLANTATION LABORERS FOR SEPTEMBER, 1902.

Items of expenditure.	Amount.	Items of expenditure.	Amount.
MARRIED MEN.		MARRIED MEN—concluded.	
Portuguese (family of 6; wages, \$22 a month):		Portuguese, etc.—Concluded.	
Allspice.....	\$0.10	Codfish.....	\$0.75
Beans.....	.25	Coffee.....	.20
Bluing.....	.20	Flour (4 bags).....	5.40
Bowl.....	.10	Gingham.....	.20
Brown cotton.....	.30	Knife.....	.35
Burner.....	.15	Lantern.....	.85
Butter.....	.55	Lard.....	.60
Candy.....	.05	Matches.....	.05
Charcoal.....	.05	Middlings.....	1.65
Cheese.....	.20	Onions.....	.25
Chimney.....	.15	Potatoes.....	1.00
Codfish.....	1.25	Rice.....	1.40
Coffee.....	.50	Salmon, canned.....	.10
Flour (3 bags).....	4.05	Salmon, salt.....	.75
Garlic.....	.05	Salt.....	.10
Gingham.....	.05	Soap.....	.75
Ladle.....	.25	Soda.....	.10
Lard.....	.60	Sugar.....	2.50
Mackerel.....	.50	Tobacco.....	.75
Needles.....	.05	Vinegar.....	.05
Onions.....	.50	Total.....	21.00
Pork.....	.10		
Potatoes.....	.75	Porto Rican (family of 3; wages, \$16 a month): (a)	
Rice.....	.25	Bacon.....	.50
Salmon.....	1.00	Beans.....	.50
Salt.....	.10	Candles.....	.05
Shirting.....	.05	Codfish.....	.50
Skip jack.....	.10	Coffee.....	.50
Soap.....	1.25	Flour (bag).....	1.35
Soda.....	.05	Garbanzos.....	.25
Sugar (50 pounds).....	2.00	Garlic.....	.10
Thread.....	.25	Lard.....	.60
Tobacco.....	.50	Matches.....	.05
Vinegar.....	.25	Rice.....	2.65
Wheat.....	.50	Salt.....	.05
Total.....	17.05	Soap.....	.25
Portuguese (family of 9; combined wages, \$43.15 a month):		Starch.....	.20
Beans.....	.50	Sugar.....	.50
Beef.....	1.50	Total.....	8.05
Beef, salt.....	.25		
Bluing.....	.05	UNMARRIED MEN.	
Buttons.....	.25	Portuguese (wages, \$26 a month):	
Charcoal.....	.10	Beans.....	.25
Cheese.....	.55	Beef.....	1.00

a And 50 cents a week bonus for 6 days' work.

SPECIMEN STORE ACCOUNTS OF PLANTATION LABORERS FOR SEPTEMBER, 1902—Conc'd.

Items of expenditure.	Amount.	Items of expenditure.	Amount.
UNMARRIED MEN—continued.		UNMARRIED MEN—concluded.	
Portuguese, etc.—Concluded.		Portuguese, etc.—Concluded.	
Blanket	\$0.75	Vinegar	\$0.25
Bluing .....	.05	Wheat .....	.25
Bran (bag)	1.00	Total	10.35
Codfish .....	.50		
Coffee .....	.25	Porto Rican (wages, \$16 a month): ^(a)	
Flour (bag)	1.35	Beans	2.25
Kerosene	1.50	Bluing .....	.25
Ladle .....	.25	Candles .....	.10
Lard .....	.60	Charcoal .....	.15
Milk .....	.25	Coffee	1.00
Mullet	1.00	Garlic .....	.10
Onions .....	.25	Gingham	1.00
Pork .....	.30	Lard .....	.70
Potatoes	1.25	Matches .....	.05
Salmon	1.00	Onions .....	.10
Salt .....	.10	Salt .....	.10
Soap .....	.50	Soap .....	.40
Spaghetti .....	.25	Starch .....	.20
Sugar	1.00	Sugar	1.00
Thread .....	.25	Tea .....	.25
Tobacco .....	.75	Tobacco .....	.50
Vinegar .....	.10	Total	8.15
Wheat .....	.65		
Total	15.15	Japanese (wages, \$17 a month):	
Portuguese (wages, \$28 a month):		Beans .....	.30
Corn meal .....	.50	Daicon .....	.15
Flour (bag)	1.35	Friko .....	.30
Hat .....	.75	Hoshrinku .....	.30
Lard	1.20	Rice	3.15
Onions .....	.10	Salmon .....	.50
Potatoes	1.25	Salmon, canned .....	.50
Rice .....	.35	Shoyo .....	.70
Ruler .....	.30	Sugar .....	.25
Salmon	2.00	Tobacco .....	.50
Sausage	1.05	Total	6.65
Tobacco	1.00		

^a And 50 cents a week bonus for 6 days' work.

These accounts were taken at a place that is somewhat isolated, so that the plantation store furnishes practically all the supplies purchased by the employees. A Portuguese family whose combined earnings were \$43.15 spent \$21; a laborer of the same nationality whose family contained no wage-earners except himself, received \$22 and spent \$17.05. An unmarried Japanese field hand earning \$17 a month, spent \$6.65. One Porto Rican with a wife and child, whose pay for a full month's work would be \$18, spent \$8.05, and an unmarried Porto Rican earning the same wages spent \$8.15 at the plantation store. These last two represent the best type of Porto Rican laborer—the frugal and industrious men who are saving money. The tables in the statistical chapter of the report, showing the relative retail prices of food during the last 13 years in Hawaii, indicate a decided increase in the cost of provisions since annexation. Local retail prices vary to some extent independently of market fluctuations in the States, as special factors, such as the decrease in freight rates and the constantly falling retail profits through increased competition, enter into the problem. Within the last 3 years direct shipment to the coast has been adopted by some plantations on all four of the islands, and general freight is received

directly from San Francisco at the ports of Hilo, Hawaii, and Kahului, Maui, with a saving of nearly half the expense formerly incurred by bringing the goods via Honolulu. Since annexation, also, competition has been much keener than previously, especially in the latter city, but even at present no coin smaller than a 5-cent piece is in use, and until very recently retail profits in many lines have been gauged upon a mining-camp basis. In some places where goods were priced a package of Uneeda Biscuit, costing 5 cents in the States, was sold for 20 cents, a cheap lead pencil for 10 cents, and what seemed exorbitant charges were made for other kinds of stationery, drugs, toilet articles, and fancy grades of provisions. On the other hand at a plantation store at Kahului, a little coast village on Maui, California figs sold for less than in San Francisco; salt cod sold for 6 cents, canned salmon for $10\frac{1}{2}$ cents, and canned corned beef for $12\frac{1}{2}$ cents a pound. The statistical tables show a general increase in the price of meats, but lower prices for fish and dairy products than 2 years ago. The increase in the price of potatoes is due to a local blight. As a rule all classes of canned provisions have fallen in price since annexation, and this has even counteracted the rising price of meats in the case of corned beef. Workingmen's clothing is not much more expensive than on the coast. A laborer seldom needs to pay more than a dollar for any single article of apparel excepting shoes. Jean or denim trousers cost from \$1 to \$1.50 a pair. Coarse shoes sell for \$2. Shirts can be bought at all prices, from 50 cents up, and underclothing retails as low as 25 cents a garment. The cost of provisions is much higher than in California, though in the grazing country fresh meat can sometimes be bought cheaper than in the States. Orientals require the best grade of rice, and this staple article of food sells for a much higher price than in Cuba and Porto Rico, or in our Southern States. A portion of the higher cost of maintaining a family, however, is to be accounted for by the higher standard of living encouraged by the habits and traditions of the islands. This applies especially to white wage-earners. It would be possible in some places to live about as economically as in the States were a person disposed to do so, and probably the family expenses of some of the German laborers cultivating their own gardens at Lihue are as low as those of many agricultural laborers enjoying the same material comforts in California and the East.

LABOR CONDITIONS IN THE SUGAR INDUSTRY IN HAWAII, CALIFORNIA, TEXAS, LOUISIANA, CUBA, AND PORTO RICO.

A rough comparison has been made of the general labor conditions prevailing in the principal sugar-producing districts of the Union and Cuba, based upon personal visits to plantations in the Pajaro Valley, California, the Brazos Valley, Texas, the lower Mississippi plantations, and the central provinces of Cuba in 1902, and a general familiarity with the situation in Porto Rico from residence in that island two years previously. Such a comparison can make no claim to statistical accuracy, but the information is taken from field notes and interviews made upon the ground, and is sufficient to present a general view of conditions in the districts mentioned.

In the Pajaro Valley, California, which was the only beet-sugar country visited for purposes of special information, a crop of approximately 200,000 tons of beets was taken off and over 20,000 tons of sugar were manufactured by a single mill during the present campaign. All mill labor is white, but practically all field labor is done by Japanese contract cultivators, working upon a system similar to that prevailing in Hawaii, except that the agreements are usually verbal. And these contracts are probably derived from Hawaii, though the Slavonian laborers cultivating the Colorado beet fields work under a similar system. The Japanese are paid from \$1 to \$1.10 a ton for bringing the beets to maturity, topping, and loading. The custom of paying monthly advances is not in vogue, as employers are mostly small farmers and do not control a large sum of cash capital. But after thinning and weeding an advance of \$3 an acre is paid, which is the amount the mill will loan upon the crop at that stage. Field laborers earn from \$1 to \$2 a day upon such contracts. They evidently find these conditions more favorable than those prevailing in Hawaii, for they are emigrating from the islands to the coast, while no reverse movement has taken place as yet. Quarters, medical attendance, and similar perquisites are not usually furnished.

In the Brazos Valley, Texas, where there is a single plantation producing and refining 10,000 tons of sugar per annum and where cane cultivation is being rapidly extended, convict labor is almost entirely employed. The State itself has started a plantation, but still leases numbers of men to private employers. These men are furnished and found, with guards who act as overseers, for \$20 a month. Small planters and farmers are paid for their cane upon a basis of 80 cents a ton for every cent a pound 96 degree sugar brings in the New Orleans market. Unskilled white mill laborers receive but 90 cents a day, which is about what Japanese laborers receive in similar occupations in Hawaii.

The wages of field hands in Louisiana vary from 70 cents to \$1 a day, according to whether it is the grinding or the dead season and as the plantation is more or less remote from towns and other seats of large employing industries. Quarters, gardens, and the privilege of getting wood from plantation lands are given in addition to wages, but free medical attendance or medicines are not supplied. Field laborers are Negroes or Italians, who work and live under identical conditions. White mill hands receive from \$1 to \$1.25 a day and board during the grinding season. Contract cultivation is not in general use. Plantation stores exist on all the plantations visited in the States.

Wide variations of wages exist at different localities and different periods of the year in Cuba, due to local variations in the labor supply, differences in the currency, and competing industries, which either tend, like the mines, to hold wages up to a certain level, or, like the tobacco plantations, create temporary but extraordinary demands for workers at certain seasons of the year. It is therefore hard to average wages in that country, but they range between \$12 and \$20 with board in the principal cane sections. They are higher, as a rule, than the wages paid Asiatic field hands in Hawaii, though in labor efficiency the Cubans and Gallegos are rather to be compared with the Portuguese than with the Orientals. Quarters and board are usually given upon Cuban plantations, though practice is not uniform in these respects, but medical attendance is not furnished. On account of the large areas of cheap land and ample rainfall in Cuba, extensive rather than intensive cultivation is practiced, more rattoons are taken from the same field, less attention is given to fertilizing and cultivation, and the labor force required is relatively smaller than in Hawaii. Employment is less regular, and there are greater variations of wages from season to season. Certain operations, such as cutting and loading, are performed by contract, and there are many small share planters, locally known as "colonos," but no extensive system of cultivation by contract companies exists.

Porto Rico is overpopulated, and there is an ample supply of labor for the cane fields. Wages were about 50 cents a day silver in Spanish times, and now remain the same nominally, though paid in American currency. Plantation employees are usually boarded, at an expense of from 10 to 15 cents a day to the planter. Medical attendance is not furnished, though there is usually a public physician whose services are theoretically at the disposition of the poorer population. The efficiency of the experienced Porto Rican cane laborer in his own country is superior to that of the Asiatic field hand in Hawaii.

Upon the whole the conditions in California are superior to those observed elsewhere, as the price of living is relatively low, wages are high, and the laborer lives in an environment favorable to progress. The field hands of Louisiana and Texas enjoy more economic oppor-

tunities and material advantages than those of the island countries, nominal wages are about the same, the cost of living is lower, and the adjacent labor market is more varied. If we include the board usually received by Porto Rican and Cuban field hands, their real wages are higher than those of the day laborer in Hawaii, but none of them enjoys the opportunity of the latter to increase his earnings through cultivating contracts. There is more certainty of regular employment in Hawaii, school advantages are better and more abundant, public services of all sorts are superior, and the general standard of living and civilization is higher than in the other islands in question; so that if an unprejudiced observer were forced to choose his lot among the working people of any one of the three insular countries mentioned under the conditions obtaining to-day, he would be justified in giving the preference to Hawaii.

The cost of sugar production is a subject which it is not within the province of this report to investigate directly, but which considered for a number of years affords ground for an interesting comparison with wage variations. The actual cost of producing any crop is determined from a series of expense items distributed through the two or three years since the land from which the cane was taken was prepared for seeding. Against this particular crop must be charged its pro rata share of the taxes, depreciation, and other permanent charges of that period. In this sense the figures here given are not exact. The cost per ton stated below is an average derived by dividing the annual expenditures of 9 representative plantations, including operating expenses, taxes, and depreciation, but not permanent improvements or interest, by the combined crops for that year. There is no distribution of the cost of each crop through the different years it took to produce it. But as the figures cover 5 years and the plantations from which the data are taken include establishments in all four of the islands, in both irrigated and unirrigated districts, the final averages are probably very near the average cost of production in the islands at large. These figures for the series of years in question have been compared with the wage variations for the same period in the following table:

COST OF PRODUCTION OF SUGAR, AND WAGES OF UNSKILLED LABOR, ON HAWAIIAN SUGAR PLANTATIONS, 1897 TO 1901.

Year.	Sugar produced.		Unskilled laborers (male).		Percentage of increase.		
	Tons.	Cost per ton.	Number.	Average daily wages.	Tons.	Cost of production per ton.	Average daily wages.
1897.....	71, 112	\$29.67	8, 889	\$0.52	.....	.....	.....
1898.....	76, 907	31.08	9, 589	.53	8.1	4.6	1.9
1899.....	84, 414	39.23	10, 105	.58	9.8	26.6	9.4
1900.....	90, 522	45.09	10, 871	.60	7.2	14.8	8.4
1901.....	101, 702	47.25	8, 200	.76	12.4	4.8	26.7

The decrease in the number of laborers reported in 1901 is due to the extension of contract cultivation after penal contracts were abolished by the organic act, which went into operation June 14, 1900. If it were possible to include these contract cultivators, wages might show even a greater percentage of increase for the last year of the table than they do as stated, but this is merely an assumption, as no figures give the exact value of a contract cultivator's labor as compared with that of a hired hand. The most significant point in the table is the irregular variation of labor prices as compared with cost of production. For instance, in 1901 the average daily wages showed an increase of 26.7 per cent over 1900, while the cost of production increased only 4.8 per cent. Wages constitute about 50 per cent of the cost of production; in two cases averaged they constituted 48 and 52 per cent, respectively. It is evident, therefore, that some other explanation than higher labor prices must be given for such increases in the cost of producing a ton of sugar as are reported in 1899 and 1900. This is apparently to be found in the extension of the cultivated area. When new lands are taken into a crop area, the cost of first land preparing and planting falls under operating expenses, which are realized in production two years later. So the increase of 26.6 per cent in the cost of production in 1899 finds its corollary partly in the increase of 12.4 per cent in the total tonnage of 1901. Moreover, as production is extended and approaches its limit in a circumscribed tract of country like the Hawaiian Islands, less productive lands or those involving more expensive irrigation are taken under cultivation, and the law of diminishing returns begins to operate on older sections of the plantation, as the managers force their increase of tonnage in order to keep up with the record of previous years' progress. Evidently, therefore, increased labor prices, even when combined with increased prices of supplies and materials, are not the sole cause of the higher cost of production in Hawaii; and it is probable, also, that when the present period of expansion is over there will be a decline in the expense of making a crop irrespective of the future movement of wages.

The strikes and disagreements between employers and employees which were so numerous immediately after annexation have almost entirely ceased. In fact, but two such occurrences were reported that were important enough to be susceptible of tabulation. Porto Rican laborers attempted to riot on one or two occasions, and just as the writer of this report was leaving the islands a difficulty concerning overtime occurred among the Japanese laborers on a Kauai plantation, which the manager reported settled without a strike. The extension of cultivating contracts, a better understanding and organization among employers, and the wearing out of the unsettled feeling that prevailed among the laborers after annexation, accounts in large part for the greater serenity prevailing in labor relations in the Territory.

The growth of the production of sugar during a period of 10 years is shown in the following table:

TONS OF SUGAR PRODUCED IN THE HAWAIIAN ISLANDS FROM OCTOBER 1, 1892, TO SEPTEMBER 30, 1902, BY FISCAL YEARS.

[From the report of the secretary of the Hawaiian Sugar Planters' Association, November 1, 1902.]

Island.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
Hawaii.....	57, 078	72, 199	61, 643	109, 299	126, 736	91, 606	117, 239	115, 224	134, 618	121, 295
Mauī.....	32, 670	33, 686	27, 735	39, 097	41, 047	45, 033	54, 389	57, 347	58, 349	56, 726
Oahu.....	19, 864	18, 843	17, 433	25, 782	28, 929	34, 181	45, 820	53, 625	99, 584	107, 870
Kauai.....	43, 009	41, 704	42, 816	51, 650	54, 414	58, 594	65, 359	63, 348	67, 537	69, 720
Total.....	152, 621	166, 432	149, 627	225, 828	251, 126	229, 414	282, 807	289, 544	360, 038	355, 611

The boom that followed annexation and the period of expansion in the sugar industry has probably passed. A number of plantations, however, will extend their areas when the labor question or the sugar market justify their doing so. On the other hand, some irrigated plantations are cutting out their higher levels, as the expense of pumping is more than their returns at present sugar and labor prices justify. Two old plantations have been abandoned within the past year. But, upon the whole, there will probably be a slight increase in the maximum crop, of 360,038 tons, raised in 1901. The limit of production will soon be reached, and when this happens there will probably be a decrease rather than an increase in the demand for laborers. For as fields are cleared, ditches are dug, and railroads and other permanent improvements are established upon a permanent basis, men are released from these occupations of developing. As stones disappear and machinery is improved, animal cultivation is extended at the expense of hand labor. Furthermore, cheap labor seems always to make work for many hands, and as wages rise, human force is economized in sugar production, and managers learn how to dispense permanently with a portion of their men. It is possible, therefore, that the number of unskilled laborers employed on the Hawaiian plantations has reached its maximum, though the annual crop may continue to increase for a number of years to come. The close of this period of development marks a new epoch in the question of labor supply. Until recently almost every year has seen some new plantation appear in the field as a competitor for laborers, and it was always a question not of maintaining the population of field hands at a fixed point, but of adding a considerable increase to it every season. The necessity for this has probably passed. The planters have organized for the purpose of fixing schedules of wages that may be made the subject of employers' agreements in each island or district, and they have accomplished something in the way of retaining control of the situation in that manner. But fixed rates of pay and schedules of wages in the different plantation occupations are a difficult thing to

maintain, as local conditions vary to such an extent that a scheme of uniform payment is impracticable. Differences of prevailing temperature or rainfall, the character of the water supply, the healthfulness of neighboring districts, the remoteness of towns, or the facilities for obtaining certain kinds of food, move labor from place to place and determine the rate of wages a manager must pay in order to keep his working force adequate to his needs. Every planter lives upon terms of amiable vigilance and friendly suspicion with his neighboring managers in the matter of labor relations, constantly on the watch lest for some inexplicable reason a camp of his men take a notion to swarm over to some short-handed friend in the next district. The employers' associations have an influence in maintaining wage rates, but they have not yet been able to establish ironclad conditions that are oppressive to the men. And when wages go down, the Japanese go home, certain that their services will be required upon more favorable conditions sooner or later. So the price and the supply of labor will doubtless continue to fluctuate, though not so widely as under the exceptional circumstances attending annexation, and the conditions of one year will not reproduce exactly those of its predecessor.

MINOR RURAL INDUSTRIES.

At one time coffee culture promised to form a close second to the sugar industry in Hawaii, and this prospect was hailed with satisfaction by those who saw that it promised an opportunity to develop a system of small land holdings and a permanent population of white cultivators in the islands. But this hope has been largely disappointed, for two reasons. The blight, while not fatal, harassed the coffee industry severely in some sections, and the cost of production was just about equal to the local market price. Until annexation, a high protective duty secured sales for the producer among the limited number of home consumers, but even this slight advantage is now a thing of the past. A 20,000-ton sugar plantation has been developed in what was formerly considered coffee country; many of the older plantations have tracts of deserted coffee trees in their uplands, and vacant houses and abandoned farms along the Volcano road mark the decadence of the industry. It still survives to some extent in the Kona district of Hawaii, and a prosperous but hardly profitable coffee plantation continues in active operation in Hamakua. The crop is indifferently cultivated in small tracts upon some of the other islands. The Hamakua plantation is especially interesting as showing what might be accomplished were the industry revived by changed conditions. The enthusiasm of an owner of means is its principal support at present. The wages and general condition of labor where hired hands are employed are the same as on the sugar plantations. Pickers

are paid 50 cents a hundred pounds of coffee in the berry, and many women and children engage in this occupation during the season. In the Kona district school vacations are so arranged as to leave the children free at this time.

The revival of coffee farming would doubtless increase the permanent white population of Hawaii, and be to the advantage of every other industry in the islands. It would thus assist in solving the political and social problems which confront the Territory and increase its value to the United States from both a commercial and a strategic point of view. There is a local demand for either protection or a bounty sufficient to enable producers to sell profitably in the American market. One of the evils complained of since annexation is the loss from local circulation of the customs receipts sent to the mainland. A portion of these, it is urged, might be devoted to paying a bounty upon high-grade coffee raised exclusively by white labor. Men practically interested in the business claim that a bounty of 3 or 4 cents a pound would afford a sufficient incentive to planters and small capitalists to open many small plantations and would lead to a considerable increase in the white farming population. An ultimate result might be to relieve the labor stringency upon the sugar plantations by furnishing a mountaineer population, such as exists in Porto Rico, which could be drawn upon in those seasons when an additional supply of men is needed.

Rice planting is almost exclusively in the hands of the Chinese, and forms an industry of importance, because it is undertaken upon lands that are usually suitable for no other crop except taro, and the product is one that finds a ready sale in the local market. Oriental methods of cultivation are employed, and the engagement of laborers conforms with Chinese rather than with American customs. The industry is concentrated in Oahu and Kauai, as there is very little land suitable for rice cultivation upon the other islands of the group. The total area under cultivation is about 16,500 acres, or double what it was 10 years ago. At that earlier date, as at present, it was stated that the price of labor had reached a point where planters would have to go out of business, and the later extension of cultivation took place during the era of low wages before 1898. Men are paid better than upon the sugar plantations, but work longer hours and harder. They are usually boarded by the proprietor, and frequently cultivate upon a share basis or under agreements similar to those made for cane cultivation. Where wages are paid, they vary from \$15 to \$20 a month and board, the higher rate being more common during the harvest season. As two or more crops are raised a year, share planters and contractors receive an early return for their labor. The working hours are usually from sunrise to sunset for 7 days a week.

Most of the employees upon the stock ranches are Hawaiians, who prefer and give best satisfaction in this occupation. Their hours of labor are long, but the work is not arduous, and it has an element of variety that appeals to the natives. Most of the cowboys are in the saddle from dawn to sunset every day of the week. They are boarded and furnished with a mount and equipment by their employer, and receive cash wages varying from \$15 to \$20 a month. With the decrease in the number of natives, especially in the country districts, wages have risen in this occupation nearly 100 per cent in the last 15 years. During the shearing season shepherds are paid \$1 a day.

There are a number of small farmers, fruit growers, and bee men in the islands who are employers of labor, but wages and general conditions of work in these minor industries are determined by those prevailing on the sugar plantations. As the Orientals generally prefer to serve a small employer, the latter seldom has any difficulty in obtaining such hands as he needs at reasonable rates.

Japanese fishermen have practically driven the Hawaiians out of this business in the vicinity of the larger towns. They constituted less than 7 per cent of those reported in this occupation in 1896 and more than 25 per cent in 1900, a rate that has probably been maintained since that time. Their earnings are variable, but are reported to average higher than those of plantation laborers. This industry is not organized upon an employing basis, the men engaging in it working either independently or upon shares.

Sailors employed upon the local shipping have always been Hawaiians, but Japanese are also getting a foothold in this occupation, especially upon the small steamers plying between local ports. Direct shipment and the substitution of steam for sail among Pacific freight carriers have had an adverse influence upon maritime employments in the islands. The native Hawaiians are excellent seamen, form a tractable crew, and are always preferred to Orientals when they can be obtained. In 1896 there were 755 "mariners" in the islands, of whom 342 were Hawaiian and Part-Hawaiian and 19 Japanese, while in 1900 there were 471 "boatmen, canalmen, pilots, and sailors" reported, of whom 244 were Hawaiians and Part-Hawaiians and 59 Japanese. While the absolute number of Hawaiians decreased, the percentage they formed of the whole number engaged in these occupations rose from 45.3 to 51.8, while that of the Japanese rose from 2.7 to 12.5 during the 4-year period before the last insular and the first United States census. The two steamship lines reported in the statistical tables had 115 Japanese sailors and seamen and 1 Japanese quartermaster on their pay rolls in 1902, or nearly double the whole number employed in the islands 2 years previously. The hours of labor upon the local steamships are 12, with 1 hour off for luncheon.

Salaries in all maritime employments range lower than for other deep-sea and coast sailors under the American flag.

There are very few white mechanics employed in Hawaii outside the towns and the sugar plantations. Country blacksmith and horse-shoeing shops, carriage repair shops, and similar establishments are usually run by Portuguese or Japanese. Common and semiskilled labor is so scarce in the country that the public works department, in spite of a legal provision requiring that American citizens be employed so far as possible in the work under its supervision, has many Asiatics on its pay rolls. After a storm, or in case of any emergency interrupting communication, the plantations usually turn out in force to make necessary road repairs, under an agreement with the government to be reimbursed for their expenses. The main carriage roads on some of the principal islands are not more than a decade old, public machinery for their maintenance and repair has not yet been perfected, and the difficulty of recruiting men for temporary work is so great that the plantations afford the only organization capable of taking prompt action in the cases mentioned. Therefore Hawaiians and Portuguese occasionally, but very seldom other white men, are to be seen employed in road construction and similar public improvements, but in all these occupations Orientals predominate. In the eyes of white workmen the Asiatic renders unclean every occupation he touches. A railway manager reported that he had paid white sailors stranded in the islands \$2.50 a day, with house and garden, for ordinary wharf work at a country landing, but that they had left his employ as soon as possible for inferior positions before the mast or as unskilled laborers on the Coast, because they would not associate with the Japanese. Civil engineers state that excavating and grading can be done in Hawaii more cheaply than in the Western States. Practically all work of this character is done by contract gangs of Japanese. The cost of grading a narrow-gauge plantation railway through broken lava country on Maui was 52 cents a running foot. There were some rock cuts on this road and the price was mentioned as unusually high. A construction engineer, who has superintended the building of some of the principal plantation railways, reports the cost of solid rock excavation as 75 cents a cubic yard. Contractors are charged for powder, caps, fuse, and the use of house and tools off of this price. The following three accounts of railway construction work done the present year show how closely Japanese contractors figure on jobs of this character, and how difficult it would be for a white man to compete with them. Where there is an apparent loss there is generally a real profit, which the contractor clearly foresees, for he boards his workmen for 27 cents a day in the contracts under consideration, and sells them on account, at high prices, beer, saké, clothing, and other articles and

supplies. The working day is 10 hours, and it will be noticed that wages are figured at the rate prevailing for this kind of labor throughout the islands, \$1 a day.

CONTRACT NO. 1.—JAPANESE CONTRACTOR.

Dr.		Cr.	
5,005 days' labor, at \$1 per day.....	\$5,005.00	3,592.7 cubic yards solid rock, at 75 cents.	\$2,694.525
Use of house and tools.....	375.75	161.9 cubic yards solid rock at 65 cents.	105.235
Powder.....	566.75	1,251 cubic yards loose rock, at 35 cents.	437.85
Fuse.....	33.25	793.6 cubic yards loose rock, at 50 cents.	396.80
Caps.....	48.00	6,237.5 cubic yards barrow, at 30 cents.	1,871.25
		143.5 cubic yards earth, at 20 cents...	29.70
		Extra work.....	450.85
Total expense.....	6,028.75	Total receipts.....	5,986.21
		Net loss on work.....	42.54
			6,028.75

CONTRACT NO. 2.—JAPANESE CONTRACTOR.

1,479.5 days' labor, at \$1 a day.....	\$1,479.50	431.8 cubic yards solid rock, at 65 cents.	\$280.67
Use of house and tools.....	70.00	791.1 cubic yards loose rock, at 35 cents.	276.89
Powder.....	58.00	3,823.7 cubic yards barrow, at 30 cents.	1,147.11
Fuse.....	8.50	Extra work.....	20.00
Caps.....	6.60		
Total expense.....	1,617.60	Total receipts.....	1,724.67
Net profit on work.....	107.07		
	1,724.67		

CONTRACT NO. 3.—JAPANESE COMPANY.

[Each workman shared equally in the profits. Days worked by company, 708.5; average daily earnings of each worker, \$1.286.]

Use of house and tools.....	\$55.00	1,004.9 cubic yards solid rock, at 65 cents.	\$653.18
Powder.....	157.50	256.6 cubic yards loose rock, at 35 cents.	89.81
Fuse.....	8.75	1,319.2 cubic yards barrow, at 30 cents.	395.76
Caps.....	6.00		
Total expense.....	227.25	Total receipts.....	1,138.75
Net earnings.....	911.50		
	1,138.75		

It is evident that the individual Japanese contractor looks to the profits from his dealings with his employees for his chief revenue from such contracts as are here quoted. Laborers of that nationality prefer construction work, either as employees or as company contractors, to ordinary plantation labor. So there is no complaint of lack of workmen from employers in these lines.

URBAN EMPLOYMENTS.

Urban industries are centered at Honolulu, which in 1900 had over 39,000 inhabitants, or more than one-fourth the entire population of the Territory. According to the census of that year there were in the Territory 395 manufacturing establishments having a product of \$500 or over. Of these establishments 119 were in Honolulu and employed 1,708 wage-earners at an average wage of \$47.66 a month. The remaining 276 establishments included 44 sugar mills, 37 rice mills, and 6 coffee-cleaning houses, and employed 2,560 wage-earners at an average monthly wage of \$25.77. The number of employees and rate of wages in rural manufactures vary so widely at different seasons of the year that the latter figures are only approximate. The number of sugar mills has increased to 50 since the census of 1900 was taken.

Immediately after annexation there was a considerable influx of population into the islands from the States, and something of a local boom resulted. The political status of the Territory was fixed, the relation of the sugar industry to the tariff placed upon a permanent basis, and increased business was brought to the islands by the frequent call of army transports and by other temporary conditions attending the war with Spain. The attention of outside capital was attracted to the large profits, of 40 per cent a year or over in some instances, that were frequently made by the plantations during the era of low wages and profitable markets that had immediately preceded. New plantation companies were organized to exploit lands on islands where cane culture was impossible for want of water, and old plantations were reorganized and capitalized upon the basis of the extraordinary profits that had been realized under the exceptional conditions formerly prevailing. Honolulu from a big, drowsy, tropical town, became a thriving modern city; streets were broadened and straightened, electric traction supplanted the little horse cars, tall steel-framed business blocks of brick and granite took the place of rambling two-storied stores, and whole suburbs of pretty cottages were built where cattle had been grazing a year before. Between 1896 and 1900 the population increased over 31 per cent, and the new inhabitants were mostly boomers from our Western cities. The whole social and commercial character of Honolulu was changed, and it was swept out of a secluded eddy into the swift current of modern life.

This industrial expansion, both urban and rural, called for two things—large investments of capital and large employment of labor. While the capital was partially supplied from the Coast, local reserves were drawn upon heavily at the same time, and large amounts of money that had hitherto been available in exchange were planted out of sight and beyond immediate recovery in unproductive undertak-

ings. The price of labor rose and the price of sugar fell. Stocks in new plantations were sold upon installments and purchased by all classes at a small original outlay, in the hope of turning them over at a profit before other payments became due. Much of this stock was forfeited when these rapid transfers became difficult, to the loss of all parties concerned—to that of the original purchasers, who lost their small investments, and to that of the large enterprises, which found themselves unexpectedly hampered for capital to continue development and to carry them along until their resources became productive. A sudden contraction of business followed, the swollen ranks of labor that had been recruited to meet the new demand faced an unexpected lull in employment. There was an ebbing away of white workmen to the mainland, and there resulted the general depression that naturally follows such conditions as have been described.

The scapegoat for all these troubles is, from the capitalist's standpoint, annexation and the exclusion of Chinese labor, and from the standpoint of the white wage-earner, especially if he has but recently come to the islands, oriental competition. Yet, while there is some unemployment and would be more had not many men returned to the mainland, the general condition of mechanics and laborers in Honolulu is as good or better than prevails in most American cities.

Where white mechanics are employed in the building trades, union rates of wages are observed. But there has been a great decrease in the number employed in this group of occupations since 1900–1901. The figures for 8 identical establishments in 1900–1901 and 1902, including foremen, are as follows:

WHITE MECHANICS (INCLUDING FOREMEN) EMPLOYED IN 8 IDENTICAL ESTABLISHMENTS IN THE BUILDING TRADES, 1900–1901 AND 1902.

Occupations.	1900–1901.	1902.	Decrease.
Bricklayers.....	11	.....	11
Carpenters.....	53	32	21
Foremen, bricklayers.....	1	.....	1
Foremen, carpenters.....	9	1	8
Foremen, masons, stone.....	2	.....	2
Foremen, painters, house.....	3	.....	3
Foremen, plasterers.....	1	.....	1
Foremen, plumbers.....	2	2	.....
Masons.....	37	2	35
Painters.....	18	15	3
Plasterers.....	9	2	7
Plumbers.....	16	5	11
Total.....	162	59	103

Notwithstanding these apparently unfavorable conditions for labor, wages of journeymen mechanics have not decreased, and, in case of the plumbers, have actually increased from \$5 to \$5.50 a day. This is a higher rate of pay than prevails in most American cities or in Habana, where white plumbers encounter many disagreeable and

dangerous conditions not found in Honolulu. The situation is, therefore, exceptional, for higher wages and shorter hours, or at least one of these, have accompanied a business depression and lessened employment. This is to be explained by the fact that an isolated group of islands does not present the same conditions—industrial, commercial, or even political—that would be presented by territory contiguous to the mainland, and by the further fact that oriental competition, while it lessens the number of white workmen employed, tends to raise, rather than to lower, their rate of compensation. A certain minimum of Caucasian mechanics is essential at present to any important undertaking which requires skilled labor, and these men must be retained in the islands by inducements that correspond roughly to the cost of living, the expense of reaching another labor market in case of unemployment, and the aversion of the white men to working with Asiatics. Furthermore, Caucasian mechanics seldom work in separate gangs where workmen of both races are employed, but are interspersed with Mongolian helpers, so that their compensation is in part wages for supervision. This last condition applies more especially to carpenters, bricklayers, and stone masons. Plumbers, painters, and plasterers are not associated with Asiatics to the same extent.

The Japanese are undoubtedly making some inroads into fields of employment in the building trades that have hitherto been reserved for white mechanics. They monopolize all the work for their own countrymen, which is mostly cheap frame or veneer construction, and are employed exclusively by one or two white contractors for building residences. Factories, business blocks, and other construction of a similar character are always supervised by whites, though many Japanese are employed in subordinate capacities. The foundation for a business block on Fort street, Honolulu, was being laid by Japanese entirely, no white men appearing about the work, and in one of the most imposing buildings in the city one white man and 6 or 7 Japanese were seen finishing a hard-wood staircase and polishing a floor.

Some contractors claim that the Japanese are gaining ground in the building trades for other than purely economic reasons. They do not organize and strike and are steady in their work. They are said not to go on sprees or to soldier when the boss is away, like some of the white mechanics. By way of explanation it is said that while there are many high-class Caucasian workingmen in Honolulu, the trades are afflicted with a percentage of stranded adventurers and beach combers, who drift in on vessels from all parts of the globe. And when labor is brought from the Coast on special contract the least reliable and chronically unemployed workingmen of San Francisco often form a large proportion of the men imported. Recent arrivals

feel a deteriorating influence in the climate. Latent tastes for dissipation are aroused, the check of public opinion is less strong than in their own homes, and their general physical relaxation unfits them for work.

The presence of Orientals demoralizes some white mechanics. A carpenter wants a board and tells a Japanese to get it; then he finds it convenient to have the man saw it, hold it in place, nail it; and so unconsciously he gradually begins to confine his own activity to the mental side of his trade alone, to the entire exclusion of any further muscular exertion than is necessary in order to keep out of the way of his Asiatic helpers. This flatters his race pride; he begins to associate an idea of degradation with the manual part of his craft, and he becomes morally and physically unfit to ply his trade under the conditions surrounding him. This does not occur with every white mechanic, but enough of them are so affected to prejudice employers and to constitute a constant influence in favor of the Japanese. The Orientals are probably steadier, though they are less efficient in their work than white men. No single condition hampers the latter more than their taste for liquor.

The Asiatics possess a powerful, and as yet but partly appreciated, instrument of competition in their genius for cooperation. They manage in some way to agree among themselves in their company contracts; one man does not shirk or lie down upon his fellows when it comes to hard work, and they figure so closely and successfully in these undertakings that it is almost useless to try to compete with them. To specify a single instance, an American builder took the contract to construct a residence upon one of the Government reservations at Honolulu. A Japanese company, or "hui," subcontracted the job from him not only for less than he could do it for himself, employing white mechanics, but for less than the cost would be were he to employ only oriental labor at prevailing rates of from \$1 to \$1.50 a day and supervise the work personally. The builder furnished materials and made advances—that is, he was the capitalist—and the company worked its own hours, elected its own foremen, completed its contract satisfactorily, and divided the proceeds without any friction that ever came to the knowledge of its employer.

Oriental mechanics are said, however, to learn their trades more or less empirically and to be able to adjust themselves only to routine situations. Some of them have learned plumbing, for instance, by rule of thumb, and now put in sinks and water connections for their own people in the little cottages and cheap tenements of the Asiatic quarters. But such work does not meet the requirements of strict sanitary inspection, and often shows a most ludicrous misunderstanding of the scientific principles underlying their craft. White plumbers do not complain of this competition. Between the Americans and the

Asiatics, however, stand the Portuguese, who are at present the most formidable rivals of organized labor in this occupation. These workmen learn their trade as regular apprentices, and open small shops, taking independent contracts, which they perform themselves. They will not join the unions and are satisfied to figure a job at \$2 a day.

In all the building trades the Hawaiians, Part-Hawaiians, and Portuguese are to be classed together as commanding wages about midway between those of American mechanics and those of Orientals. Some of them, however, receive union rates. It is rather interesting that the Portuguese, like the Spanish-Americans, acquire much readier skill in masonry than in frame construction—possibly an inheritance that goes back to Roman days.

The number of helpers and apprentices upon a builder's pay roll varies much more than the number of skilled mechanics, and it would appear that unemployment must be greater in proportion to their numbers among this class of workingmen than among those of higher grades. When a skilled mechanic finds himself out of a job in Honolulu, he is apt to make for the mainland before his funds give out unless there is a fair prospect of immediate employment. The Portuguese and the Hawaiians have not the same facility in moving about, and have more permanent attachments in the islands, so that they constitute a less floating element of the population.

The clothing trades are almost entirely in the hands of Orientals. Out of the 610 tailors in the islands in 1900, 430 were Chinese and 142 Japanese. A casual inspection of the shops would indicate that aside from a few employing tailors and one or two cutters, there were practically no Caucasians engaged in these occupations in 1902. Union workingmen who were questioned as to why they patronized Chinese instead of white shops for their clothing, stated that the latter, though they charged a much higher price for their goods, employed oriental labor as exclusively as the former. A white employer in this trade who was questioned refused to give information upon the subject, but an incident that occurred in his store at the time showed that garments were sent out to Chinese workmen to be finished. The weaving of palm and Lauhala hats forms a domestic industry among the natives, but the supply does not exceed the local demand, and it is not an employing business. Shoemaking and cobbling are largely but not so exclusively in the hands of Asiatics as the manufacture of clothing. There are some Portuguese engaged in these occupations. Judging from the number of shops in certain quarters of San Francisco and its suburban towns, the Japanese are fast establishing themselves in this industry in California. It is impossible to form any estimate of the average earnings or hours of labor in these trades in Honolulu. Clothing is made on what is practically a sweat-shop system. In a

fashionable dressmaking establishment, where there was an approach to factory production, Chinese sewing-machine men worked 9 hours a day and were paid from \$7 to \$8 a week.

The food, liquor, and restaurant trades employ chiefly Asiatic labor, though skilled operatives in the Honolulu brewery are Caucasians. Orientals run a number of little soda-water establishments throughout the islands and are employed in those owned by white men. The principal factory of this kind in Honolulu has 5 Americans, 9 Hawaiians and Part-Hawaiians, and 10 Japanese upon its pay roll. Bakeries, restaurants, and hotels employ Asiatic help almost universally as cooks and waiters, though salesmen and bakery-wagon drivers are usually Hawaiians or Caucasians. The employment of Orientals in these trades has not affected wages, which remain about as high as in towns of equal population in the States. Bottlers receive \$7 and \$8 a week for an 8-hour day, and cooks and waiters are paid from \$20 to \$30 a month, with board and lodging.

Caucasians and Hawaiians predominate in the metal-working and foundry trades, though the Japanese are competing actively by opening small, independent establishments wherever they have the skill and capital to do so. The Asiatics bring their plantation earnings and acquirements to the towns and villages and start small blacksmith and carriage shops, and carpenters' and building establishments, which cut prices and so are gradually gaining the bulk of the local petty patronage. But in larger plants and machine shops they are not generally employed. The Honolulu Iron Works, the largest firm of this kind in the Territory, which does ship repairing and manufactures sugar machinery and at times has 400 or 500 men upon its pay rolls, employs no Asiatics in any capacity. Helpers are mostly Portuguese and Hawaiians and head mechanics are Americans and north Europeans. One of the two principal establishments of this class observes a 9-hour day and the other an 8½-hour day. Skilled mechanics are paid \$4 a day and master mechanics and foremen from \$6 to \$7 a day. Employment for this class of workmen is steadier and more certain than in the States.

The printing trades employ between 100 and 150 persons in the islands and present no distinctive conditions. English shops have no Asiatic employees. The 9-hour day prevails and wages for pressmen and compositors range from \$15 to \$35 a week.

Steam-railway and electric traction and lighting companies employ Caucasians and Hawaiians almost exclusively in their administrative and operating departments, but track work is done by Japanese, who sometimes work under foremen of their own nationality. One company furnishes quarters to its white employees in addition to wages, and another builds residences for employees so desiring, for which a

nominal rent is charged. Motormen and street-car conductors are paid 30 cents an hour. As a rule, wages range higher than in the same or corresponding employments in the States.

The Japanese are crowding into stevedore and wharf work to an extent that is causing friction and even influencing local politics in Honolulu. Such work has always been in the hands of Hawaiians.

In 1890 the Chinese formed about 30 per cent of the hackmen and liverymen in Honolulu and 18 per cent of the draymen. At present the Japanese are much in evidence in these employments. They cater chiefly to the wants of their own people, but their competition is complained of by white drivers. Japanese livery stables are numerous in all parts of the islands and Japanese stage lines run over the principal highways.

Oriental owners run two large planing and saw mills in Honolulu, but white proprietors of similar establishments say that the trade of the Asiatic mills is so exclusively with their own people that they do not create competition in the white market. In the Asiatic quarter there are also a number of wagon shops and carriage factories, contracting firms and general builders, and wholesale dealers in provisions, liquors, Japanese canned goods and manufactured articles, and such other goods as are demanded by the oriental stores scattered throughout the country districts and smaller towns. Of course these establishments employ only Asiatics. Caucasian merchants usually have a Chinese and a Japanese clerk in their employ for the convenience of any patronage they may have among people of those nationalities.

The general statement may be ventured that labor conditions in urban occupations in Hawaii present no features to distinguish them from those in other parts of the United States, except such as arise from the presence of Asiatics. The isolation of the islands and the generally higher cost of living render wages higher and the conditions of employment more uniform than they are where an extensive contiguous territory is at hand with its constantly shifting labor demands to influence the local market. But in the main it is the Oriental, and especially the Japanese, who complicates conditions in Hawaii. He survives not alone by virtue of his lower standard of living and the lower wages he will therefore accept, for these wages rule almost as high in most occupations as in other parts of the Union, but also because of certain industrial qualities that find him favor in the eyes of employers. There is a limit to his competition at the present time. He can not entirely supplant white labor, because his intellectual equipment does not include that ready apprehension of the scientific principles underlying his craft which the Caucasian has partly inherited and partly absorbed from his environment, and which is necessary if a

workman is to adapt his processes to the new conditions constantly arising in every kind of employment. Whether the Japanese will gradually acquire a rational as well as an imitative mastery of the mechanical trades is yet an unanswered question. But it is certain that they will not do so rapidly enough to swamp the market, and it is exceedingly probable that those who by virtue of long practice or special training become really expert in their crafts will require a compensation commensurate with their abilities. So long as the skilled workers of that nationality in Hawaii are supported principally by a floating population of plantation laborers there will be no inducement for highly skilled mechanics of Japan to emigrate to the islands, and slight opportunity for partially skilled men to perfect themselves in the higher branches of their trade. The probability therefore is that they will remain what they are at present, largely helpers and contractors on small jobs, and that the high-grade mechanical work of the islands will be done entirely, or at least supervised in all its details, by Caucasian workmen.

GENERAL CONDITIONS AFFECTING LABOR.

The Chinese population is decreasing and the Japanese population increasing. The figures bearing upon oriental immigration into Hawaii since annexation are exceedingly interesting for both their economic and their sociological significance. The information as to arrivals has been furnished through the courtesy of the Commissioner of Immigration; and those as to departures, of which no official record is kept by the Government, through the courtesy of the steamship agents in Honolulu, who have compiled them from their passenger lists.

ARRIVALS AND DEPARTURES OF ORIENTAL IMMIGRANTS IN HAWAII, BY HALF-YEARLY PERIODS, SINCE ANNEXATION, JUNE 14, 1900.

Six months ending—	Chinese.					Japanese.				
	Male.	Female.	Total.	Have been in United States before.	Amount of money shown.	Male.	Female.	Total.	Have been in United States before.	Amount of money shown.
June 30, 1900 (a)...	51	.....	51	.....	.....	23	11	34	6	\$1,260
December 30, 1900.....	231	11	242	167	\$2,025	63	29	92	20	4,825
June 30, 1901.....	855	42	897	811	1,080	185	90	275	65	17,915
December 30, 1901.....	44	9	53	43	.....	1,927	971	2,898	102	138,556
June 30, 1902.....	210	8	218	208	.....	4,538	3,269	7,807	380	353,969
December 30, 1902.....	341	18	359	350	.....	4,591	2,153	6,744	375	323,120
Total.....	1,732	88	1,820	1,579	3,055	11,327	6,523	17,850	948	839,645

^a June 14 to June 30, 1900.

ARRIVALS AND DEPARTURES OF ORIENTAL IMMIGRANTS IN HAWAII, FROM ANNEXATION, JUNE 14, 1900, TO JUNE 30, 1902.

	Chinese.			Japanese.			Chinese and Japanese.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Arrivals	1,391	70	1,461	6,736	4,370	11,106	9,488	5,251	14,734
Departures	3,734	491	4,225	6,627	1,442	8,069	12,571	2,746	15,317
Excess of arrivals				109	2,928	3,037		2,505	
Excess of departures	2,343	421	2,764				3,088		583

It appears, therefore, that up to September 30, 1902, the total oriental population of Hawaii had decreased 583 persons since annexation, or at the rate of about 290 per annum, while the male Orientals had decreased 3,088. The result has been counteracted somewhat by an increased immigration at the beginning of the last grinding season, due to the urgent demand for laborers upon the plantations and possibly to the famine prevailing the present year in some of the northern provinces of Japan. More than 2,000 Japanese entered the islands in November and more than 1,500 in December, 1902. There are two points of general interest to be noted in connection with Japanese immigration and one additional point which is very significant for Hawaii. The average amount of money shown by all the immigrants into the United States in 1902 was but \$16.16, while the average amount shown by the Japanese arriving in Hawaii since annexation has been \$47.04. In other words, the Japanese who comes to the islands has on an average nearly three times as much money as the immigrant to the mainland. He surpasses in individual wealth members of every nationality contributing 1,000 persons or over to our population during the last fiscal year, except the English, French, and Scotch. The number of illiterates among the Japanese is relatively small. According to the Report of the Commissioner of Immigration, while 28.2 per cent of the total number of immigrants over 14 years of age who entered the country during the last fiscal year were unable to read or write, but 1.2 per cent of the Japanese failed to possess these qualifications. The latter were surpassed in literacy only by Scandinavian, Scotch, and Finnish immigrants.

The most significant fact for the islands, however, is in the proportion of sexes among the immigrants. While but 17.9 per cent of the departing Japanese are females, 39.3 per cent of those arriving are of that sex. This is larger than the proportion of females to the total population of Hawaii in 1900, which was but 30.9 per cent. Among the Caucasian residents the ratio of females is less than 43 per cent. This change in the character of Japanese immigration may indicate that the people of that nationality are beginning to take root in the Territory to a greater extent than heretofore. The women do not come over as

plantation laborers; at least the percentage of women employed upon the plantations has not increased materially during the last few years. When there is a special influx of laborers alone the proportion of women lessens, as it did during the last half of 1902. Many of these females come over as the wives of men who have settled in the country, in small trades or commercial employments—a part of the secondary Japanese population already described. Their children are numerous, and a certain fraction of them are probably destined to remain permanently in the islands.

There were 4,881 native-born Japanese and 4,021 native-born Chinese in the Territory in 1900. Most of the former were necessarily minors, as Japanese immigration did not begin until 1885. These young people attend the public schools and become thoroughly domesticated in their new homes. As early as 1899 the inspector-general of schools said in his report to the minister of public instruction of the Hawaiian Republic:

The increase in attendance of the Japanese is significant, being over 100 per cent in 2 years. Three years ago the American pupils in our schools outnumbered the Japanese. To-day the Japanese outnumber the Americans nearly 2 to 1, the exact ratio being 1,141 to 601. This is by no means surprising to those familiar with the conditions in the islands. Taking into account those conditions as suggested by these figures, and also the fact, as revealed in the custom-house statistics, that during the last year only 82 American women arrived in the islands with the purpose of becoming residents, while the excess of arrivals over departures of Japanese women was 4,505, it becomes evident that the "Americanization" of the islands is not to be wrought from without but from within.

The rapid growth of the Japanese school population has continued. The number of pupils of that nationality attending the schools of the Territory increased from 1,352 to 1,993, or more than 47 per cent, during the single year from 1900 to 1901, while the total enrollment of all nationalities increased less than 13 per cent. Unless some satisfactory system of registering those born among this population is adopted there may be much confusion attending their claim to citizenship as native-born inhabitants a couple of decades later, assuming that their strong national attachments should be weakened by their education and long residence in Hawaii.

The situation is summed up in the statement that the economic invasion of the Japanese has abated for a time, to be replaced by a sociological invasion. Not wages but homes are the incentives that are directing immigration into the islands at present. The Chinese who remain have mostly formed family ties, or at least made their permanent abode in Hawaii, and the Japanese are beginning to do the same. The elements of a permanent Asiatic population are evolving in the islands.

The relative proportions of Orientals and of workmen of other nationalities in the various skilled occupations at different periods is difficult to determine on account of lack of uniform data upon the subject. An estimate was made in 1890 of the number of Chinese and of other nationalities respectively employed in mechanical occupations in Honolulu, based upon data taken from the registry of voters. At that time the Japanese, who had only recently begun to arrive in numbers, were not an important factor in these employments. It appeared that about 600 of the 1,300 engaged in the occupations stated in the city of Honolulu at that time were Chinese. The population of Honolulu has increased about 75 per cent during the last 13 years, and therefore if the relative proportion of Orientals in these employments remained the same we should expect them to constitute about 1,050 of the 2,275 engaged in these occupations in 1902. But the term "mechanical occupations" is indefinite. The following table shows the number and percentage of Hawaiians and Part-Hawaiians, including a negligible number of Polynesians, Caucasians, Chinese, and Japanese, listed as mechanics in the insular census of 1890 and of 1896. The figures for 1900 are for 31 trades included in the 69 occupations given as "manufacturing and mechanical pursuits" in the United States census of that year. The classification is not strictly parallel, as is sufficiently indicated by the large increase in the number of those engaged in these occupations during the 4 years from 1896 to 1900. This increase is due in part to including a large number of helpers in the figures of the last census who were not rated as mechanics in the insular enumerations, and who were mostly Asiatics. The relatively larger number of Orientals in the last column is partly to be accounted for by this fact, though it is to be noted that while the total number of mechanics of all races increased 74 per cent, the number of Orientals among them shows the exceptional growth of 236 per cent during the 4 years in question. The Orientals are engaged in the lower grades of work. However, there are few skilled workmen among the Asiatic immigrants and few unskilled workmen among those now arriving from the States and Europe. The thought suggests itself, therefore, that a majority of the people learning trades in the islands are Orientals, and that these people may ultimately dominate the labor supply for this reason.

PERSONS ENGAGED IN MECHANICAL OCCUPATIONS, 1890, 1896, AND 1900, BY NATIONALITIES.

Race.	1890.		1896.		1900.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Hawaiian	902	33.5	761	32.2	995	24.1
Caucasian	1,182	43.9	1,123	47.5	1,512	36.7
Chinese	564	21.0	220	9.3	620	15.0
Japanese	42	1.6	261	11.0	997	24.2
Total	2,690	100.0	2,365	100.0	4,124	100.0

In order to form a more complete picture of the position of Asiatics in the industrial life of Hawaii, some accessory information was collected that does not bear directly upon labor conditions. The following table is of this character. It is not presented as having statistical accuracy, but simply as an approximate statement of the number of whites, Japanese, and Chinese, respectively, owning mercantile establishments or small shops in the Territory. The information has been taken from a directory of the islands, which is doubtless incomplete in some details, and the division, by nationalities, has been made solely upon a basis of the firm names. A few Hawaiians are necessarily included with the whites. Where the names were ambiguous, however, which was in a relatively small number of instances, the firms were not counted.

NATIONALITY OF PROPRIETORS OF MERCANTILE ESTABLISHMENTS IN THE HAWAIIAN ISLANDS, 1899, 1901, AND 1902, BY KIND OF BUSINESS.

Kind of business.	Whites.			Japanese.			Chinese.			Total.		
	1899.	1901.	1902.	1899.	1901.	1902.	1899.	1901.	1902.	1899.	1901.	1902.
Bakeries.....	7	8	13	3	12	2	15	25	14	25	45	29
Barber shops.....	17	33	32	54	56	78	24	8	11	95	97	121
Blacksmiths.....	72	73	70	13	18	25	10	6	6	95	97	101
Carpenter shops.....	67	141	76	10	13	8	9	7	5	86	161	89
General stores.....	144	115	130	57	92	117	248	219	226	449	426	473
Retail groceries.....	44	61	69	2	17	27	85	152	193	131	230	289
Shoe shops.....	44	47	36	1	2	1	18	16	21	63	65	58
Tailor shops.....	35	42	73	26	41	38	85	121	93	146	204	204
Tin shops.....	1	3	2	4	1	5	4	7	7	9	11	14
Watchmakers.....	13	20	18	22	23	27	6	8	13	41	51	58
Total.....	444	543	519	192	275	323	504	569	589	1,140	1,387	1,436

These figures, though only approximate, are not without significance. They show that after the boom of 1900-1901 the total number of white establishments of all classes mentioned decreased in number, but that the total number of oriental establishments has increased steadily during the period shown. For that period the percentages of increase, assuming the figures to be approximately correct, have been as follows: White firms (including Hawaiian), 16.9 per cent; Japanese, 70.8 per cent; Chinese, 16.8 per cent; increase in the total number of firms, 26 per cent. Meantime the Chinese population of the islands has decreased very rapidly and the Japanese population, while increasing, shows a comparatively slight addition to the number of males. But the number of oriental establishments of the classes tabulated above increased nearly twice as rapidly as the white establishments, or nearly 32 as compared with less than 17 per cent. The special significance of these figures in labor statistics lies in the fact that in the oriental establishments only Asiatics are employed, while in the white establishments both Asiatics and other nationalities are on the pay rolls. The conclusion is that independently of employers, there has been a rapid increase in the number of Chinese and Japanese engaged as wage-earners in mercantile and small trade establishments during the last 4 years.

The Japanese have not yet begun to acquire large holdings of permanent property in Hawaii. There are more Chinese than Portuguese land owners, but their aggregate holdings are smaller than those of the latter nationality. The figures taken from the tax assessment rolls of the Territory for the year ending December 31, 1901, show the following number of proprietors and assessed valuations of real estate and personal property for the different nationalities. The corporations listed are all Caucasian.

NUMBER OF TAXPAYERS AND ASSESSED VALUATION OF REAL AND PERSONAL PROPERTY, 1901.

Nationality.	Real estate.		Personal property.	
	Tax-payers.	Valuation.	Tax-payers.	Valuation.
Corporations	198	\$21,777,913	153	\$49,486,326
Caucasians	3,365	19,890,011	7,251	5,370,684
Hawaiians	5,980	12,817,278	3,679	959,338
Total	9,543	54,485,202	11,083	55,766,398
Chinese	1,115	1,320,084	12,926	3,287,802
Japanese	870	128,163	26,560	1,268,180
Total Oriental	1,985	1,448,247	39,486	4,555,982
Grand total	11,528	55,933,449	50,569	60,322,380

The assessment reports do not separate personal taxpayers from payers of taxes upon personal property. This personal tax is \$5 per annum, including \$2 for schools, \$2 for roads, and a poll tax of \$1. The property taxes, both real and personal, are 1 per cent of the assessed valuation. The total taxes, including both property and personal, were \$1,447,952.99 for the year reported, of which the Chinese paid \$114,222.46, and the Japanese, \$165,387.63. The Orientals pay slightly more than 38 per cent of all personal and real estate taxes paid by individuals in the Territory. Their total contribution to the public expenses for the year in question was \$279,610, while that of the white taxpayers under the same assessments was \$451,920.

No attempt to organize labor into unions affiliated with those of the States appears to have been made in Hawaii until about the time of annexation. The journeymen plumbers are said to have been the first to form a union, and they were rapidly followed by the carpenters, painters, machinists, electric fitters, and a number of other urban trades. Sugar workers are not organized, probably because so few unions exist in this industry in the States. For a time there was an association of the different trades called the Building Trades Council, which had technically ceased to exist in the autumn of 1902, though the former officers retained their titles pending some action to revive the organization. In the fall of 1901, when there were many outside workingmen in Honolulu and a Labor Day celebration was projected,

an unsuccessful attempt was made to form a "Hawaiian Amalgamated Confederation of Labor." These are the only attempts to federate organized labor in Hawaii that have been made to date. The membership of the unions has declined rapidly during the past year, partly because of the shifting character of the white working population and partly because there has been a decided decrease in the number of white mechanics, especially in the building trades, residing in Honolulu. Hawaiians and Portuguese do not generally belong to workingmen's organizations, though they are eligible to membership. The Sailors' Union of the Pacific has a branch at Honolulu and there is a Masters and Pilots' Association among the officers of the local steamship companies. Mutual benefit and fraternal associations having for their prime motive the assistance of needy members do not thrive in the islands, inasmuch as there has hitherto been very little unemployment or want among the white working population. The trades unions are practically identical with those of the States in organization and management. They are branches of the general organizations and act under the supervision of the latter.

Immediately after annexation there were a number of strikes and similar disturbances in the sugar industry, due to the sudden abolition of the penal contracts and the resulting disorganization among the field laborers, but these have almost entirely ceased since the close of the grinding season of 1900-1901. Three disagreements have occurred in urban trades in Honolulu, as a result of action taken by labor organizations. The first of these was a strike in the Honolulu Iron Works, due to a requirement by the local lodge of the International Association of Machinists that their employers accept the formal demands made by the International Association in the spring of that year, to secure which a general strike was inaugurated in the States, and that they dismiss an unpopular foreman and the superintendent of the works. The employers refused to consider these demands, a strike was ordered March 16, 1901, and for a time the works were partially closed. There were 62 out of the 252 employees involved, 57 of whom were ultimately replaced by men imported from San Francisco. The 5 who were reemployed were Part-Hawaiians who had grown up in the service of the company. The shop was running with a full force July 2, 1901, as nonunion and without conceding any of the demands of the men. No change was made in wages or hours of work. The 1st of April of the same year the mates on both the interisland steamship lines struck for higher wages. A local organization was formed to conduct the strike, which lasted about two weeks and was unsuccessful. Both lines were crippled for a time, three steamers were tied up and the trips of others rendered irregular. Hawaiian employees and local masters holding necessary licenses gradually replaced the men who refused to work.

A partially successful strike, conducted by Journeyman Plumbers' Union No. 225, began May 1, and ended August 8, 1901. The objects of the strike were an 8-hour day and an advance of pay from \$5 to \$6. A master plumbers' association was formed and committees from the two organizations finally compromised upon an agreement by which \$5.50 was to be paid for an 8-hour day. There were 48 men involved, 32 of whom resumed work upon these terms, one-fourth of the original strikers having left the islands before a settlement was made.

The data with regard to strikes are shown in the following table:

STRIKES, BY OCCUPATIONS, 1901 AND 1902.

Locality and cause.	Ordered by organization.	Establishments closed.	Establishments not closed.	Beginning of strike.	Ending of strike.	Days' duration.	Succeeded.	Wage loss of employees.	Loss to employers.	Days closed.
<i>Machinists.</i>										
Honolulu (reduction of hours from 9 to 8 per day, and discharge of foreman and superintendent).	Yes.	.....	1	Mar. 16, 1901	July 2, 1901	78	No....	\$12,000	\$5,000	.....
<i>Plumbers.</i>										
Honolulu (reduction of hours from 9 to 8 per day, and increase of wages from \$5 to \$6 per day).	Yes.	11	.....	May 1, 1901	Aug. 8, 1901	70	Partly.	\$14,800	\$20,000	70
<i>Steamship mates.</i>										
Honolulu (increase of wages).	(b)	.....	2	Apr. 1, 1901	Apr. 15, 1901	15	No....	\$1,200	\$3,000	.....
<i>Sugar plantation employees.</i>										
Kihel, Maui (increase of wages).	No..	.....	1	Mar. 25, 1902	Mar. 28, 1902	3	No....	\$720	(b)	.....
Makaweli, Kauai (increase of wages).	No..	.....	1	June 15, 1902	June 17, 1902	2	No....	\$80	\$700	.....

a Estimated.

b Not reported.

Relations of employers and employees are generally amicable, and the latter are not disposed to complain, except of what they consider to be the constantly-increasing pressure of Japanese competition. The material conditions of Caucasian workingmen are as favorable in Honolulu as in the smaller cities of the Central West or the Pacific Coast. Hitherto the isolation of the islands has made them unpopular with many working people from the mainland, and employers frequently complain that they can not keep good men in their service, even at the comparatively high wages prevailing. There are limita-

tions to advancement in a small and remote community which has already reached a high stage of industrial development, although some of the wealthiest men in Honolulu began life in the islands as mechanics. There is, undoubtedly, a certain monotony and lack of eventfulness in insular life that appeals unfavorably to workingmen coming from livelier scenes, and such men often interpret their ability to take in the entire community at a glance as an indication that the country is bereft of wider opportunities. The dissatisfaction that drives away many American workingmen venturing to Hawaii, arises not so much from their material as from their psychological "*milieu*."

There are excellent public schools in the Territory, differing in no essential respect from those of our more progressive States. Many of the Honolulu teachers are American normal and college graduates, and the public school buildings of that city compare favorably with those in towns of equal size in any other part of the country. Secondary instruction is provided for by an excellent city high school and by a number of private and endowed institutions. One of the latter is the Kamehameha School, a boarding school for Hawaiian children, having a fine campus and several substantial buildings in the suburbs of Honolulu. The institution has an ample endowment and a corps of experienced American teachers. Oahu College, in the same city, is equipped and conducted and offers practically the same courses as a small college in the States. This institution has been in existence as a college since 1853 and has a considerable endowment. Lahainaluna Seminary, on the island of Maui, which is now a part of the public school system, was founded in 1831. It is a boarding school, where special attention has always been given to industrial training. There is another similar institution for young ladies upon the same island, established by private endowment. Honolulu has also two Catholic colleges, and a number of private and church schools are scattered throughout the islands. Except upon one or two of the most recently developed large plantations, public school accommodations have kept up with the demand, and it is not a matter of special difficulty or expense for a child to acquire a good primary and secondary education in Hawaii, sufficient to prepare him to enter any American institution of higher learning. He can also receive a fair college course without leaving Honolulu. There is no Territorial university as yet, and the present population, with its heterogeneous elements, hardly supplies students to justify the authorities in making special appropriations for this branch of education.

All instruction in the public schools is given in English, and the same language is used in a majority of the private schools. The total enrollment for the islands in 1901, the last year for which the figures are available, was 17,518, of whom 13,189 were in the public and 4,329 in the private schools. The public school enrollment has

increased 84½ per cent and the private school enrollment has increased 44 per cent during the last ten years, showing a gradual trend of the pupils toward institutions supported by the Government. Of these 17,518 pupils, 7,772 were of Hawaiian ancestry, 4,124 Portuguese, 3,388 Asiatics, 596 Porto Ricans, and the remaining 1,638 of other nationalities, principally Caucasian. The task of leavening such a mass and making it fully American is naturally an arduous one. It is entrusted to 609 teachers, 380 of whom are in the public and 229 in the private schools. Very nearly half of these, or 329, were born and educated in the States, 149 are Hawaiian or Part-Hawaiian, and the remainder, with the exception of 11 Asiatics employed in private schools, are Europeans. However, many of those of European birth were educated in Hawaii, and practically all of them, as well as the native teachers, speak and teach in English.

The equipment, courses of study, and methods of organization of Hawaiian schools are similar to those of schools in the States; but the teacher is hampered more than elsewhere by the language difficulty, and the progress of pupils in the lower grades is less rapid for this reason. A smaller proportion of the students take advantage of the secondary courses, because their advancement has been retarded by partial ignorance of the idiom in which instruction is conveyed. It was not until 1901 that the last school was changed from Hawaiian into English. The transition may have been somewhat forced, though it was ultimately inevitable. A generation or two may pass before these embarrassments are fully corrected, and a pigeon-English period may intervene between the present confusion of tongues and the final dominance of a single language, but there is hopeful progress, which promises to be more rapid now than the political destiny of the people is finally determined.

Provision for manual training and instruction of an industrial character is made in the public school courses, and 5,889 pupils are given instruction in sewing, 5,010 in agriculture, 565 in lauhala and bamboo work, 536 in knife work, 275 in mat weaving, and 2,090 in other kinds of hand work. The Kamehameha School has an industrial department, with shops equipped with steam power and electricity, and with the necessary machinery and apparatus for full courses in wood and metal working. In fact, industrial education received the first attention of the missionaries, who were the founders of the Hawaiian school system, and Hawaii almost takes historical precedence of the United States in this field. The islands sent to the States the founder of Hampton Institute, and have contributed a long experience to the history of manual instruction.

The legislation, laws, and customs of Hawaii are so similar to those of the other States and Territories as to require no detailed description. Three acts were passed by the last Territorial legislature, relat-

ing more or less directly to labor. One forbids the employment of minors where liquors are sold. Another exempts from attachment for debt wages to the amount of \$200 in case of the head of a family, and to the amount of \$50 in case of unmarried wage-earners. The third makes it illegal for an employer to retain wages or to collect any store account, offset, or counterclaim against an employee without the written consent of the latter, except by a proceeding at law.

The opportunities for American mechanics in the islands are limited and those for unskilled workmen are not satisfactory. The former find a narrow field for employment and the latter find the Asiatic already in possession. There are no inducements for an immigration of wage-earners unless it be to accept positions secured before leaving the mainland. Except for the presence of the Orientals and the dominance of the sugar industry, the conditions encountered in the islands are similar to those in the States. The ratio of wages to cost of living is equally or more favorable to workingmen. For an American having definite employment in view, Hawaii offers a pleasant and satisfactory place to make a home. For immigrants with small capital there are public lands and agricultural opportunities equal to those in many other portions of the Union. But the social conditions surrounding a pioneer in rural industry are not so pleasant, and there is a lack of the moral support of a neighborhood of intelligent citizens engaged in similar occupations that makes farming satisfactory to an ambitious man in the States. Where small agriculture is attempted, it should be by colonies large enough to make their own social surroundings. Such an experiment, which promises to be successful, is now under way at Wahiawa, on Oahu.

The public lands of the Territory amounted to approximately 1,710,000 acres in 1901, about one-third of which were valuable cane, coffee, rice, or general farming lands, and the remainder pasture and forest. The larger portion of these lands formerly belonged to the Crown estate and are leased to various individuals and corporations, whose tenure expires at different periods between the present year and 1920. Certain forest reservations have been set aside by the Territorial government in order to protect water heads. The general land laws of the United States do not yet apply to the islands. The Territorial laws at present in force have been devised with the peculiar local conditions, relating to water rights, existing tenures, and the habits of the people in view. As the natives are not forehanded and are apt to sell or mortgage property, eat up the proceeds, and become dependent upon the ruder kinds of labor for their support, land is given them upon long leases, running for 999 years, so as to be equivalent to a fee-simple title, except that such leases are inalienable, not subject to attachment, levy or sale, or to any process of the courts, and that they may not be mortgaged, assigned, or sublet. Tracts varying from

1 acre to 60 acres in extent, according to the nature and quality of the land, are assigned under these leases. Natives holding them are protected so far as is legally possible from the encroachments of the larger and shrewder landholders or from the results of their own injudiciousness. Public lands are sometimes sold unconditionally for cash at public auction, but only in case extensive improvements, such as costly irrigation plants, are necessary in order to make the property productive. Public lands are sold at auction in limited tracts, of from 100 acres agricultural land to 1,200 acres grazing land, upon installments covering three years, with the requirement that the purchaser shall reside two years on the property and cultivate 25 per cent of the area in order to perfect title. In certain exceptional cases these requirements are varied to suit local conditions. Public lands are also allotted in the areas just mentioned, upon 21-year leases, at an annual rental of 8 per cent of the appraised value. At any time after the third year of the lease, the lessee who has completed 2 years' residence and cultivated 25 per cent of the area may acquire title by purchasing at the original appraised valuation. The last is the most popular method of acquiring land in Hawaii, the number of right of purchase leases taken during the last fiscal year being 97, out of 130 entries, covering a total area of 6,599.9 acres, with an appraised valuation of \$38,880.74. The 33 other entries were for the small homestead leases first mentioned, which are usually taken up by natives, and which averaged only about 3 acres each in extent.

CONCLUSION.

In résumé, sugar promises to remain the predominant industry in Hawaii, but the period of developing new plantations and of extending old ones is over, and the latest experiments in opening new country have proved a failure. Therefore the demand for plantation workers will cease to become greater with each recurring season, and the number of men employed in this industry will probably decrease, rather than the reverse, with the release of those now employed in clearing land and opening new water sources, and the further introduction of machinery and the extension of animal cultivation in field operations. There remain large areas of unimproved land in the Territory which may in time support a small farming population. All these considerations point to the prospect of more stable labor conditions in the future. This has been the experience of the West Indian islands which, when not devastated by war and insurrection, have already passed the period of deficient labor supply. In fact, those islands show a tendency toward overpopulation.

With these probabilities in view two things become important, the question of the labor supply and of the race and general character of

the future permanent population. At present a *laissez faire* policy is being pursued, which—so far as present tendencies indicate—will result in a few years in making the islands practically Japanese. These people are settling in the country with their families to a greater extent than formerly, and though hitherto transients, show a tendency to become a permanent population. In some respects they might make desirable citizens, as they readily adopt occidental habits, but they do not amalgamate with Caucasians and are intensely alien in their sympathies, religion, and customs. The increase of the oriental population as a whole through immigration alone had temporarily abated until the unusual influx of Japanese in the autumn of 1902, but this condition would not have continued in any case after the outflow of Chinese, following annexation, had ceased. There is no doubt of the rapid increase of the Japanese population through births. It is yet too early to determine what the attitude of these Hawaiian-born Japanese will be toward their birthplace in case many of them remain permanently in the islands, but this is a subject that promises complications in the future in the matter of citizenship unless some system of registry is adopted sufficiently exact to distinguish them from immigrant Japanese. A still more embarrassing situation would be created should this oriental population ultimately get control of the local government, by means of institutions established by Americans, and employ their racial solidarity to maintain themselves in power in the Territory.

Experience has proved that the Caucasian population of Hawaii can not be recruited by voluntary immigration, but that a fair proportion of those Europeans who once settle in the islands remain to become home builders and small farmers. Hawaiian interests urge the desirability of special legislation enabling Hawaiian planters to import field laborers and their families from Europe under a civil contract securing the planters, so far as possible without penal provisions, for passage money advanced. No class of American citizens, they urge, would be injured, and the interests of all American citizens and producers as well as of the planters themselves would be furthered by such legislation. The population thus created would increase the Hawaiian market for American products, and be for the direct interests of workingmen upon the Pacific coast and in all industries supplying goods to the Territory, while it would not be a competing element upon the mainland. It would be no more difficult or costly for such immigrants to migrate directly to the United States from Europe than it would be to reach the mainland from Hawaii.

The admission of Chinese contract labor is another insistent demand on the part of many planters and merchants of Hawaii. What they desire is permission to import a limited number of Chinese field laborers to the Territory, to work for a limited period of time. They represent that if this permission were coupled with a provision requiring

planters importing Chinese to employ only Caucasians or Hawaiians in other than field occupations it would not only remove the Japanese from a sphere of employment in which they are the most serious competitors of white labor in the islands, but would also deprive them of the principal opportunity that they now have of learning the trades and methods of work of Caucasians and so becoming competitors in urban occupations. Further, these skilled and semiskilled Japanese are now migrating in considerable numbers from Hawaii to California, where they again compete with American workingmen. For every Chinaman put in Hawaii, who can not under the present laws get to the Coast, standing room is taken from one Japanese who is looking to California as a possible future field of employment.

If the coffee industry could be made profitable, the success of small farming in Hawaii would be assured. Before it had been demonstrated that the product of the Hawaiian planters could not compete with the inferior and cheaper coffees of Brazil in the American market, and while there was home protection, this industry attracted many young Americans and Englishmen to the islands and extended rapidly among the Portuguese homesteaders. The method of accomplishing this extension of coffee culture desired by many local interests is to devote a portion of the local customs revenues to a bounty upon high-grade coffees raised exclusively by white labor in Hawaii. From the Hawaiian point of view, the islands would simply be paying for the privilege of supplying American consumers with a higher grade coffee than they use at present, the insular customs revenues would themselves be increased by the addition to the permanent Caucasian population that would follow this action, and such legislation would be a step toward creating the home supply of plantation labor which must be called into existence before the most pressing social and economic problems of the Territory are solved or its political destiny under the American flag determined.

GENERAL TABLES.

The tables which embody the results of the general statistical inquiry made in the Territory for the report of the present year appear immediately following this analysis. As has been stated already, the Department made no attempt to cover in its investigation the entire range of inquiries comprehended in its former report. The inquiries dealt with the question of rates of wages in the various industries and occupations of the Territory and the retail prices of articles of food. From the data collected four tables have been prepared, the titles of which are as follows:

TABLE I.—Occupations, wages, hours of labor, and nationality of employees in each industry, 1902.

TABLE II.—Occupations, average wages and hours of labor, and nationality of employees in each industry, 1900–1901 and 1902.

TABLE III.—Retail prices of food, 1890 to 1902.

TABLE IV.—Relative prices of food, 1890 to 1902.

Table I.—Occupations, wages, hours of labor, and nationality of employees in each industry, 1902 (pp. 802 to 855).—The number of establishments and the number of employees for each industry included in this investigation of wages and covered by Table I are shown in the following table. No attempt was made to canvass all establishments in the Territory. The establishments from which information was secured are representative of the leading industries and the great industry of the islands, the production and manufacture of sugar, is fully covered in the figures for 1902. Corresponding figures for the previous year therefore furnish opportunity for comparison as to wages but not as to number of persons employed:

NUMBER OF ESTABLISHMENTS AND NUMBER OF EMPLOYEES COVERED BY THE INVESTIGATION, BY INDUSTRIES.

Industries.	Number of establishments.		Number of employees.	
	1900–1901.	1902.	1900–1901.	1902.
Bakery and confectionery		1		19
Brewery		1		52
Building	8	9	443	173
Carriage making	1	1	34	26
Coffee		2		88
Dressmaking		1		24
Electric light and ice		1		61
Fertilizer		1		57
Foundry and machine shop	1	1	379	196
Laundry		1		37

NUMBER OF ESTABLISHMENTS AND NUMBER OF EMPLOYEES COVERED BY THE INVESTIGATION, BY INDUSTRIES—Concluded.

Industries.	Number of establishments.		Number of employees.	
	1900-1901.	1902.	1900-1901.	1902.
Planing mill	1	1	16	14
Printing	1	1	15	15
Rice	1	1	.....	146
Soda and soft drinks	1	1	22	19
Steam railroad	1	3	628	671
Steamship company	1	2	127	678
Stock ranch .....	.....	3	.....	118
Street railroad .....	.....	1	.....	245
Sugar	38	55	35,632	42,242
Total	53	87	37,296	44,881

It will be seen from this brief table that the wage statistics for 1902 include 44,881 workers employed in 87 establishments. Thirty-four more establishments and 7,585 more employees are covered than in the former report. The production and manufacture of sugar were found to employ 42,242 persons in 55 establishments. Of the remaining industries, the steamship companies are represented by 678 employees, the steam railroads by 671, a street railroad by 245, a foundry and machine shop by 196, and the building trades by 173. It has not seemed necessary to present the wage data in detail for each establishment as in the former report. Table I, therefore, combines the data for each industry and each occupation under the same, showing the wages uniformly reduced to a daily basis in both a classified and average form. Turning to the table itself it is seen that a practically separate tabulation has been given for each of the industries of the Territory as enumerated in the short table above. Taking up the building industry, for example, as shown on pages 802 to 805, it is seen that the wage data are a summary for 9 establishments. The first occupation shown is that of bookkeepers, the second that of carpenters, the next that of carpenters' helpers, and so on. Taking, for example, the occupation of carpenters, it is seen that of the 55 carpenters employed 33 were Americans, that they worked 6 days per week, and that their lowest hours per week were 47, their highest 48, and their average 47.9. They are then classified according to their wages, and it is seen that 1 received \$3 or under \$3.50 per day, 1 \$3.50 or under \$4, 23 \$4 or under \$4.50, 5 \$4.50 or under \$5, and 3 received \$5 or over per day, the average wages of all the American carpenters being \$4.18. Similar data are given for each of the other nationalities engaged in this occupation, the average daily wages of the 1 Danish carpenter being \$4, that of the 1 English carpenter \$4.50, that of the 1 German being \$4, that of the 10 Hawaiians being \$2.95, that of the 1 Japanese being \$1.50, and that of the 8 Portuguese being \$2.87½. These details, by nationalities, are followed in each case by a total for the occupation. This total for the occupation of carpenters shows that 55 men were employed in the 9 establishments reported in the build-

ing industry, and that they worked 6 days or an average of 47.8 hours per week. One of these earned \$1.50 or under \$2 per day, 4 earned \$2 or under \$2.50 per day, 1 earned \$2.50 or under \$3 per day, 11 earned \$3 or under \$3.50 per day, 2 earned \$3.50 or under \$4 per day, 27 earned \$4 or under \$4.50 per day, 6 earned \$4.50 or under \$5 per day, and 3 earned \$5 or over, while the average daily wages of all were \$3.72. The data relating to the other industries and occupations may be analyzed in a similar manner.

Table II.—Occupations, average wages and hours of labor, and nationality of employees in each industry, 1900–1901 and 1902 (pp. 856 to 895).—This table summarizes the facts as to wages, so as to render easy a comparison with the wage data as presented in the previous report. In this case the number of employees, average hours per week, and average wages per day are presented side by side for 1900–1901 and for 1902, for each industry and each occupation under the same, and under each occupation by nationality. In the building industry, for example, as shown on pages 856 to 858, reports were obtained for 9 establishments in 1902, as compared with but 8 establishments in the previous year. The occupations in this industry are shown to be bookkeepers, bricklayers, bricklayers' helpers, carpenters, etc., several occupations of the previous report not being found, due to the depression in the industry. Taking up carpenters, the leading occupation in this industry, it will be seen that in 1900–1901 Americans to the number of 30 averaged 48 hours per week and earned \$3.98½ per day, while in 1902 the Americans numbered 33, working on an average 47.9 hours per week and earning an average daily wage of \$4.18. Of other nationalities 1 Dane was employed in 1902 an average of 47 hours per week at an average daily wage of \$4, while no carpenter of that nationality was employed in 1900–1901 in the establishments from which reports were secured. The details for the other nationalities employed as carpenters may be compared in the same manner. The details for all nationalities are then brought together in a total, which in this case shows that in 1900–1901 a total of 67 carpenters were employed an average of 48 hours per week at an average wage of \$3.59½, while in 1902 the number employed was but 55, the average hours 47.8, and the average daily earnings \$3.72. The data relating to the other industries and occupations may be studied in a similar manner.

RETAIL PRICES OF FOOD, 1890 TO 1902.

In the previous report the retail prices of commodities in common use in the islands were given covering a period of 11 years, from 1890 to 1900. In the present report retail prices have been brought down to include 1902, but they relate only to food. These actual prices are then used as the basis of relative prices for Table IV to permit a study of the course of prices from year to year.

Table III.—Retail prices of food, 1890 to 1902 (pp. 896 to 900).—

The prices given in this table were in all cases secured from the books of firms engaged in the sale of the articles during the whole period covered and are the average selling prices for each of the years included in the period. For many of the commodities quotations were secured from several dealers. For example, prices of baking powder were secured from three dealers, prices for beans from five firms, etc. The quotation from each dealer is given a separate column.

Table IV.—Relative prices of food, 1890 to 1902 (pp. 900 to 902).—

This table is based on Table III and shows the prices of the various articles in that table in the form of index numbers. Briefly defined the relative price or index number is the ratio which the price of an article for a particular date bears to the price of the same article at a date or period which is established as a base or standard. In the present instance the average price of each article or commodity during the ten-year period from 1890 to 1899 has been selected as the base or standard. The relative prices have been secured in the case of each article by dividing the average price for each year by the average price for the ten-year period, thereby securing a relative price for each year. In cases where more than one quotation has been given in Table III for the same commodity, the figures given in Table IV for that commodity are an average of the relative prices or index numbers. These ratios are expressed in the form of percentages and render easy the comparison of prices from year to year as regards their increase or decrease. In order to illustrate more clearly the construction of the table the first commodity in Table III (Royal baking powder) will be taken up; it is seen that three series of prices are given for this commodity, and it is found by calculation that the average price for the first series for the ten years from 1890 to 1899 was 58.25 cents, that of the second 54.417 cents, and that of the third 60 cents. In order to secure the relative prices of the first series, its average price for ten-years (58.25 cents) is divided into the price for 1890 and each succeeding year. It will not be necessary in this illustration to go beyond the first year, as the relative prices for succeeding years are secured in the same manner. The result of the division just indicated is a relative price of 103. The results of similar calculations for the two other series of prices of Royal baking powder are 110.3 and 100, respectively. The average of the relative prices of these three quotations is 104.4, the relative price given in Table IV for the article and year under consideration. The figures for the remaining years and for the remaining articles have been computed in the same manner. The last column of Table IV combines the relative prices of all the articles of food covered by the table. An examination of the figures (p. 902) shows that in 1901 and 1902 there was a slight but steady rise in prices, the figures for 1900 having been 105.3, in 1901 rising to 106.9 and in 1902 to 107.8.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
BAKERY AND CONFECTIONERY (1 ESTABLISHMENT).

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age
1	Baker	1	M.	Japanese	6	54	54	54
2	Bakers' helpers	3	M.	Japanese	6	54	54	54
3	Confectioners	2	M.	Japanese	6	54	54	54
4	Cooks	3	M.	Chinese	7	(a)	(a)	(a)
5	Drivers	1	M.	Italian	6	54	54	54
6		2	M.	Portuguese	6	54	54	54
7	Total	3	M.		6	54	54	54
8	House boys	2	M.	Japanese	6	54	54	54
9	Laundrer	1	M.	Chinese	6	54	54	54
10	Salesmen	2	M.	American	6	54	54	54
11	Waiters	2	M.	Japanese	6	54	54	54

BREWERY (1 ESTABLISHMENT).

12	Bottlers	1	M.	Chinese	6	54	54	54
13		13	M.	Hawaiian	6	54	54	54
14		11	M.	Portuguese	6	54	54	54
15	Total	25	M.		6	54	54	54
16	Brewer, assistant	1	M.	American	6	54	54	54
17	Brewer, head	1	M.	American	6	54	54	54
18	Engineer	1	M.	American	7	63	63	63
19	Engineer, assistant	1	M.	American	7	63	63	63
20	Firemen	2	M.	Norwegian	7	63	63	63
21	Foreman, bottlers	1	M.	American	6	54	54	54
22	Ice pullers	1	M.	American	6	54	54	54
23		1	M.	Japanese	6	54	54	54
24		1	M.	South Sea Is- lander.	6	54	54	54
25	Total	3	M.		6	54	54	54
26	Operatives	2	M.	American	6	54	54	54
27		8	M.	Hawaiian	6	54	54	54
28		3	M.	Japanese	6	54	54	54
29		2	M.	Norwegian	6	54	54	54
30		2	M.	Portuguese	6	54	54	54
31	Total	17	M.		6	54	54	54

BUILDING (9 ESTABLISHMENTS).

32	Bookkeepers	1	M.	American	6	47	47	47
33		1	M.	German	6	47	47	47
34	Total	2	M.		6	47	47	47
35	Carpenters	33	M.	American	6	47	48	47.9
36		1	M.	Danish	6	47	47	47
37		1	M.	English	6	48	48	48
38		1	M.	German	6	47	47	47
39		10	M.	Hawaiian	6	48	48	48
40		1	M.	Japanese	6	47	47	47
41		8	M.	Portuguese	6	47	48	47.5
42	Total	55	M.		6	47	48	47.8
43	Carpenters' helpers	6	M.	Portuguese	6	48	48	48
44	Concrete workers	2	M.	American	6	48	48	48
45	Driver	1	M.	Part-Hawaiian	6	48	48	48
46	Foreman, bricklayers	1	M.	American	6	48	48	48
47	Foremen, carpenters	3	M.	American	6	48	48	48

a Irregular.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902.

BAKERY AND CONFECTIONERY (1 ESTABLISHMENT).

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
		3	1								\$1.72½	1
											1.00	2
	2										.86½	3
	3										.76½	4
				1							2.30	5
	1	1									1.15	6
	1	1		1							1.53½	7
b 1	b 1										b .51½	8
	1										.76½	9
		1	1								1.34½	10
	2										.86½	11

BREWERY (1 ESTABLISHMENT).

		1									\$1.16½	12
		13									1.16½	13
			11								1.66½	14
		14	11								1.38½	15
							1				3.83½	16
										1	8.62½	17
									1		4.95	18
											3.29	19
					2						2.50	20
							1				3.83½	21
			b 1								b 1.50	22
			1								1.75	23
			1								1.75	24
			c 3								c 1.66½	25
					1		1				3.00	26
			4	4							1.81½	27
			3								1.50	28
					2						2.50	29
			1	1							1.75	30
			8	5	3		1				1.97	31

BUILDING (9 ESTABLISHMENTS).

			1								\$1.91½	32
							1				3.83½	33
			1				1				2.87½	34
						1	1	23	5	3	4.18	35
								1			4.00	36
									1		4.50	37
								1			4.00	38
				2		7		1			2.95	39
			1								1.50	40
				2	1	3	1	1			2.87½	41
			1	4	1	11	2	27	6	3	3.72	42
			6								1.50	43
										2	5.00	44
			1								1.50	45
										1	8.00	46
										3	6.50	47

b Boys.

c Including 1 boy.

**TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
BUILDING (9 ESTABLISHMENTS)—Concluded.**

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Foremen, plumbers	1	M.	American	6	47	47	47
2		1	M.	English	6	47	47	47
3	Total	2	M.		6	47	47	47
4	Foreman, stone masons	1	M.	American	6	48	48	48
5	Ironworkers	2	M.	American	6	48	48	48
6	Laborers	23	M.	Japanese	6	48	54	52.2
7		6	M.	Portuguese	6	47	48	47.8
8	Total	29	M.		6	47	54	51.3
9	Manager, plumber's establishment	1	M.	American	6	47	47	47
10	Masons	2	M.	Portuguese	6	48	48	48
11	Painters	12	M.	American	6	47	48	47.9
12		1	M.	American Negro	6	47	47	47
13		19	M.	Hawaiian	6	47	48	47.7
14		3	M.	Portuguese	6	48	48	48
15	Total	35	M.		6	47	48	47.8
16	Painters' apprentice	1	M.	Portuguese	6	48	48	48
17	Plasterers	2	M.	American	6	48	48	48
18	Plumbers	5	M.	American	6	47	47	47
19	Plumbers' apprentice	1	M.	Portuguese	6	47	47	47
20	Plumbers' helpers	3	M.	American	6	47	47	47
21		2	M.	Hawaiian	6	47	47	47
22		3	M.	Portuguese	6	47	47	47
23	Total	8	M.		6	47	47	47
24	Teamsters	4	M.	Portuguese	6	48	48	48
25	Tinsmiths	1	M.	American	6	47	47	47
26		1	M.	German	6	47	47	47
27		4	M.	Portuguese	6	47	47	47
28	Total	6	M.		6	47	47	47
29	Tinsmiths' helpers	4	M.	Portuguese	6	47	47	47

CARRIAGE MAKING (1 ESTABLISHMENT).

30	Blacksmiths	1	M.	American	6	53	53	53
31		1	M.	German	6	53	53	53
32		1	M.	Portuguese	6	53	53	53
33	Total	3	M.		6	53	53	53
34	Blacksmiths' helpers	3	M.	American	6	53	53	53
35		4	M.	Hawaiian	6	53	53	53
36	Total	7	M.		6	53	53	53
37	Bookkeeper	1	M.	Hawaiian	6	53	53	53
38	Foreman, blacksmiths	1	M.	American	6	53	53	53
39	Foreman, painters	1	M.	Chinese	6	53	53	53
40	Foreman, trimmers	1	M.	German	6	53	53	53
41	Manager	1	M.	American	6	53	53	53
42	Painters	5	M.	Chinese	6	53	53	53
43	Trimmers	2	M.	Hawaiian	6	53	53	53
44	Woodworkers	1	M.	German	6	53	53	53
45		2	M.	Hawaiian	6	53	53	53
46		1	M.	Portuguese	6	53	53	53
47	Total	4	M.		6	53	53	53

^a Laborers for carpenters, masons, and ironworkers.

^b Including 2 laborers for carpenters, masons, and ironworkers.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

BUILDING (9 ESTABLISHMENTS)—Concluded.

Classified wages per day.											Average wages per day.	Mar-ginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
										1	\$7.50	1
										1	6.90	2
										2	7.20	3
										1	7.00	4
								1		1	5.50	5
		17	4	α2							b1.87	6
		6									1.50	7
		23	4	α2							b1.39½	8
										1	5.75	9
								1		1	4.50	10
						1	10	1			3.50	11
					1						2.50	12
					18	1					2.56½	13
					2	1					2.75	14
					21	8	10	1			2.90	15
			1								1.66½	16
										2	6.00	17
	c1									5	5.50	18
											c66½	19
	c1	2									d94½	20
			1			1					2.50	21
			2								2.00	22
	c1	2	3			1	1				d1.73	23
			4									
											1.50	24
							1				3.50	25
					3	1					3.00	26
							1				2.93½	27
					3	1	2				3.04	28
			4								1.50	29

CARRIAGE MAKING (1 ESTABLISHMENT).

								1		1	\$5.00	30
											4.00	31
						1					3.25	32
						1		1		1	4.08½	33
				3							2.00	34
	c1	c1	1	1							c1.29	35
	c1	c1	1	4							c1.59½	36
			1								1.72½	37
									1		4.79	38
						1					3.00	39
									1		4.79	40
										1	8.62½	41
		3		2							1.53½	42
	c1	c1									c.91½	43
	c1	1						1			4.00	44
								1			d1.04½	45
											4.00	46
	c1	1						2			d2.52	47

• Boy.

α Including 1 boy.

• Including 2 boys.

**TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
COFFEE PLANTATIONS (2 ESTABLISHMENTS).**

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- est.
1	Cultivators	1	M.	Hawaiian	6	60	60	60
2		19	M.	Japanese	6	60	60	60
3		2	M.	Portuguese	6	60	60	60
4	Total	22	M.		6	60	60	60
5	Overseer	1	M.	Japanese	6	60	60	60
6	Pickers	65	(a)	(b)	(c)	(c)	(c)	(c)

DRESSMAKING AND MILLINERY (1 ESTABLISHMENT).

7	Dressmaker	1	M.	American	6	54	54	54
8	Dressmakers' apprentices	5	F.	Portuguese	6	54	54	54
9	Dressmakers, assistant	1	F.	Part-Hawaiian	6	54	54	54
10		7	F.	Portuguese	6	54	54	54
11	Total	8	F.		6	54	54	54
12	Manager	1	M.	South American	6	54	54	54
13	Messenger	1	M.	Portuguese	6	54	54	54
14	Milliner	1	F.	American	6	54	54	54
15	Milliner, assistant	1	F.	Canadian	6	54	54	54
16	Sewing-machine operators	6	M.	Chinese	6	54	54	54

ELECTRIC LIGHT AND ICE (1 ESTABLISHMENT).

17	Coal passers	2	M.	Japanese	6	66	66	66
18	Cold-storage men	2	M.	American	6	66	66	66
19		1	M.	Japanese	6	66	66	66
20	Total	3	M.		6	66	66	66
21	Engineers, assistant	3	M.	American	6	66	66	66
22	Engineer, chief	1	M.	American	6	66	66	66
23	Firemen	4	M.	American	6	66	66	66
24	Foreman, cold storage	1	M.	American	6	66	66	66
25	Foreman, construction	1	M.	American	6	48	48	48
26	Foreman, linemen	1	M.	American	6	48	48	48
27	House wireman, electric fitter	1	M.	American	6	48	48	48
28	Ice-machine tenders	3	M.	Japanese	6	66	66	66
29		1	M.	Portuguese	6	66	66	66
30	Total	4	M.		6	66	66	66
31	Ice-tank men	2	M.	American	6	66	66	66
32	Linemen	2	M.	American	6	48	48	48
33		4	M.	Hawaiian	6	48	48	48
34	Total	6	M.		6	48	48	48
35	Meterman	1	M.	American	6	48	48	48
36	Metermen, assistant	2	M.	American	6	48	48	48
37	Oilers	4	M.	Japanese	6	66	66	66
38	Stablemen (f)	1	M.	American	6	66	66	66
39		2	M.	Japanese	6	66	66	66
40	Total	3	M.		6	66	66	66
41	Storekeeper	1	M.	American	6	48	48	48
42	Superintendent, ice factory	1	M.	American	6	66	66	66
43	Switchman	1	M.	American	6	48	48	48

^a Men, women, and children.

^b Principally Japanese and Portuguese.

^c Irregular.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

COFFEE PLANTATIONS (2 ESTABLISHMENTS).

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
		1									\$1.00	1
	18		1								.77	2
		2									1.00	3
	18	3	1									
											.80	4
		1										
											1.07½	5
											(d)	6

DRESSMAKING AND MILLINERY (1 ESTABLISHMENT).

e4	e1									1	\$5.00	7
											e. 34	8
				1							2.00	9
	4	1	1	1							1.14½	10
	4	1	1	2							1.25	11
		1						1			4.16½	12
											1.00	13
								1			4.16½	14
		6		1							2.00	15
											1.20½	16

ELECTRIC LIGHT AND ICE (1 ESTABLISHMENT).

		2									\$1.34	17
					2						2.87½	18
		1									1.15	19
		1			2						2.30	20
								1	2		4.60	21
										1	6.90	22
					4						2.87½	23
						1					3.06½	24
										1	5.75	25
							1				3.83½	26
							1				3.50	27
		3			1						1.00	28
											2.00	29
		3			1						1.25	30
						2					2.87½	31
					2						2.50	32
			1	1	2						2.18½	33
			1	1	4						2.29	34
							1				3.45	35
				1	1						2.49½	36
		2	2								1.43½	37
					1						2.35	38
	1	1									1.15	39
	1	1		1							1.55	40
								1			3.83½	41
								1			4.47½	42
				1							2.11	43

d Receive \$0.50 per cwt. of coffee in the berry. Earnings \$0.50 to \$2 per day.

e Girls.

f A small amount of work done on Sunday is not considered in time or rate.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
ELECTRIC LIGHT AND ICE (1 ESTABLISHMENT)—Concluded.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Teamster	1	M.	American	6	66	66	66
2	Teamsters, ice wagon	8	M.	American	6	66	66	66
3	Wiper	1	M.	Japanese	6	66	66	66
4	Wiremen	5	M.	American	6	48	48	48
5	Wiremen's helpers	1	M.	Part-Hawaiian	6	48	48	48
6		3	M.	Portuguese	6	48	48	48
7	Total	4	M.	.....	6	48	48	48

FERTILIZERS (1 ESTABLISHMENT).

8	Bookkeeper	1	M.	German	6	53	53	53
9	Chemist	1	M.	German	6	53	53	53
10	Engineer	1	M.	American	6	53	53	53
11	Engine-room men and firemen	10	M.	Japanese	6	53	53	53
12	Laborers	1	M.	Chinese	6	53	53	53
13		37	M.	Japanese	6	53	53	53
14	Total	38	M.	.....	6	53	53	53
15	Overseers	3	M.	Japanese	6	53	53	53
16	Superintendent, acid works	1	M.	German	6	53	53	53
17	Superintendent, factory	1	M.	German	6	53	53	53
18	Watchman	1	M.	German	7	84	84	84

FOUNDRY AND MACHINE SHOP (1 ESTABLISHMENT).

19	Blacksmiths	1	M.	American	6	53	53	53
20		3	M.	Hawaiian	6	53	53	53
21		1	M.	Portuguese	6	53	53	53
22	Total	5	M.	.....	6	53	53	53
23	Blacksmiths' helpers	1	M.	Hawaiian	6	53	53	53
24		2	M.	Portuguese	6	53	53	53
25	Total	3	M.	.....	6	53	53	53
26	Boiler makers	8	M.	American	6	53	53	53
27		4	M.	Hawaiian	6	53	53	53
28	Total	12	M.	.....	6	53	53	53
29	Boiler makers' helpers	13	M.	Hawaiian	6	53	53	53
30		1	M.	Portuguese	6	53	53	53
31	Total	14	M.	.....	6	53	53	53
32	Carpenter	1	M.	Hawaiian	6	53	53	53
33	Foreman, blacksmiths	1	M.	American	6	53	53	53
34	Foreman, boiler makers	1	M.	American	6	53	53	53
35	Foreman, machinists	1	M.	American	6	53	53	53
36	Foreman, machinists, assistant	1	M.	American	6	53	53	53
37	Foreman, molders	1	M.	American	6	53	53	53
38	Foreman, pattern makers	1	M.	American	6	53	53	53
39	Laborers	3	M.	Hawaiian	6	53	53	53
40		6	M.	Portuguese	6	53	53	53
41	Total	9	M.	.....	6	53	53	53
42	Machinists	22	M.	American	6	53	53	53
43		14	M.	Hawaiian	6	53	53	53
44		1	M.	Norwegian	6	53	53	53
45		4	M.	Portuguese	6	53	53	53
46	Total	41	M.	.....	6	53	53	53

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

ELECTRIC LIGHT AND ICE (1 ESTABLISHMENT)—Concluded.

Classified wages per day.										Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.	
.....	1	.....	.....	.....	.....	.....	.....	\$1.53½	1
.....	8	.....	.....	.....	.....	2.71	2
.....	1	.....	.....	.....	.....	.....	.....	.....	1.15	3
.....	2	3	.....	.....	.....	2.90	4
.....	1	.....	.....	.....	.....	.....	.....	.....	1.25	5
.....	1	1	1	.....	.....	.....	.....	.....	1.53½	6
.....	2	1	1	.....	.....	.....	.....	.....	1.50	7

FERTILIZERS (1 ESTABLISHMENT).

.....	.....	.....	.....	1	.....	.....	.....	.....	.....	\$2.87½	8
.....	.....	.....	.....	.....	.....	.....	.....	.....	1	7.67	9
.....	.....	.....	.....	.....	.....	.....	.....	.....	1	5.75	10
.....	.....	10	.....	.....	.....	.....	.....	.....	.....	1.25	11
.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1.25	12
.....	.....	87	.....	.....	.....	.....	.....	.....	.....	1.25	13
.....	.....	88	.....	.....	.....	.....	.....	.....	.....	1.25	14
.....	8	1.50	15
.....	1	7.67	16
.....	1	1	11.50	17
.....	1.64½	18

FOUNDRY AND MACHINE SHOP (1 ESTABLISHMENT).

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TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
FOUNDRY AND MACHINE SHOP (1 ESTABLISHMENT)—Concluded.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Machinists' apprentices	24	M.	Hawaiian	6	53	53	53
2		1	M.	Norwegian	6	53	53	53
3		4	M.	Portuguese	6	53	53	53
4	Total	29	M.		6	53	53	53
5	Molders	6	M.	American	6	53	53	53
6		8	M.	Hawaiian	6	53	53	53
7		1	M.	Portuguese	6	53	53	53
8	Total	15	M.		6	53	53	53
9	Molders' apprentices	1	M.	Hawaiian	6	53	53	53
10		2	M.	Portuguese	6	53	53	53
11	Total	3	M.		6	53	53	53
12	Molders' helpers	18	M.	Hawaiian	6	53	53	53
13		10	M.	Portuguese	6	53	53	53
14	Total	28	M.		6	53	53	53
15	Office boy	1	M.	Portuguese	6	53	53	53
16	Pattern makers	1	M.	American	6	53	53	53
17		3	M.	Hawaiian	6	53	53	53
18		3	M.	Portuguese	6	53	53	53
19	Total	7	M.		6	53	53	53
20	Pattern makers' apprentices	3	M.	Hawaiian	6	53	53	53
21	Porters	14	M.	Hawaiian	6	53	53	53
22		5	M.	Portuguese	6	53	53	53
23	Total	19	M.		6	53	53	53

LAUNDRY (1 ESTABLISHMENT).

24	Clerk	1	F.	American	6	60	60	60
25	Drivers	3	M.	American	6	60	60	60
26		1	M.	Part-Hawaiian	6	60	60	60
27	Total	4	M.		6	60	60	60
28	Engineer	1	M.	German	6	60	60	60
29	Fireman	1	M.	Polish	6	60	60	60
30	Forewoman, dangle	1	F.	Part-Hawaiian	6	60	60	60
31	Forewoman, polishers	1	F.	Hawaiian	6	60	60	60
32	Ironer, collars	1	F.	Portuguese	6	60	60	60
33	Machine hands	2	F.	American Negro	6	60	60	60
34		6	F.	Hawaiian	6	60	60	60
35		1	F.	Polish	6	60	60	60
36		11	F.	Portuguese	6	60	60	60
37	Total	20	F.		6	60	60	60
38	Markers	2	M.	American	6	60	60	60
39	Starchers	1	M.	American	6	60	60	60
40		1	M.	Portuguese	6	60	60	60
41	Total	2	M.		6	60	60	60
42	Superintendent	1	M.	American	6	60	60	60
43	Towel boy	1	M.	Hawaiian	6	60	60	60
44	Wringer boy	1	M.	American	6	60	60	60

^a Boys.

^b Including 1 girl.

^c Including 2 girls.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

FOUNDRY AND MACHINE SHOP (1 ESTABLISHMENT)—Concluded.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
	10	12	2								\$1.08	1
	1										.91½	2
		2	2								1.41½	3
	11	14	4								1.08	4
				3	1	1	3	5	1		4.08½	5
						1					2.78	6
											3.00	7
				3	1	2	3	5	1		3.31½	8
	a2	a1									a1.08½	9
											a.66½	10
	a2	a1									a.80½	11
			18								1.60	12
		2	8								1.58½	13
		2	26								1.59½	14
	a1										a.66½	15
					1				1		4.50	16
						1	1		1		3.50	17
									1		3.75	18
					1	1	2		3		3.75	19
	2		1								1.05½	20
		8	2	2		1	1				1.74	21
			4	1							1.76½	22
		8	6	3		1	1				1.74½	23

LAUNDRY (1 ESTABLISHMENT).

				1							\$2.00	24
					3						2.61	25
			1								1.66½	26
					3						2.37½	27
						1					3.33½	28
			1								1.66½	29
			1								1.66½	30
				1							2.00	31
		1									1.33½	32
	2										.75	33
b4	2										b.86	34
1											.66½	35
c8	3										c.77	36
d15	5										d.79	37
					1	1					3.00	38
	a1										a.75	39
		1									1.33½	40
	a1	1									e1.04½	41
	1								1		4.79	42
											.83½	43
		1									1.00	44

dIncluding 3 girls,

eIncluding 1 boy.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
STEAM RAILROADS (3 ESTABLISHMENTS).

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Agent, express	1	M.	American	6	54	54	54
2	Agent, freight	1	M.	American	6	54	54	54
3	Agents, station	11	M.	American	7	(a)	(a)	(a)
4		1	M.	English	7	(a)	(a)	(a)
5		4	M.	Hawaiian	7	(a)	(a)	(a)
6		1	M.	Portuguese	7	(a)	(a)	(a)
7	Total	17	M.	.....	7	(a)	(a)	(a)
8	Agent, ticket	1	M.	American	6	54	54	54
9	Ballast men	10	M.	Japanese	6	53	53	53
10	Blacksmiths	3	M.	American	6	53	54	53.3
11		2	M.	Portuguese	6	53	54	53.5
12	Total	5	M.	.....	6	53	54	53.4
13	Blacksmiths' helpers	2	M.	Hawaiian	6	53	53	53
14		2	M.	Portuguese	6	53	54	53.5
15	Total	4	M.	.....	6	53	54	53.3
16	Bookkeepers	1	M.	American	6	54	54	54
17		1	M.	Australian	6	54	54	54
18	Total	2	M.	.....	6	54	54	54
19	Bookkeeper, assistant	1	M.	German	6	54	54	54
20	Brakemen	2	M.	Hawaiian	6	54	54	54
21	Brakemen, freight	10	M.	Hawaiian	6	53	53	53
22	Brakemen, passenger	3	M.	American	6	54	54	54
23		3	M.	Hawaiian	6	53	53	53
24	Total	6	M.	.....	6	53	54	53.5
25	Captain, tug	1	M.	American	6	54	54	54
26	Car cleaners	6	M.	Japanese	6	53	53	53
27	Car inspector	1	M.	American	6	53	53	53
28	Carpenters	8	M.	American	6	53	54	53.3
29		4	M.	Hawaiian	6	53	54	53.5
30		3	M.	Japanese	6	54	54	54
31		8	M.	Portuguese	6	53	53	53
32	Total	23	M.	.....	6	53	54	53.3
33	Carpenters' helper	1	M.	Japanese	6	54	54	54
34	Carpenters, work train	2	M.	Japanese	6	53	53	53
35	Car porter	1	M.	Chinese	6	54	54	54
36	Car repairer	1	M.	Portuguese	6	54	54	54
37	Clerks, freight	6	M.	American	6	53	54	53.2
38	Clerk, lumber	1	M.	Hawaiian	6	54	54	54
39	Clerks, office	2	M.	American	6	53	53	53
40	Clerk, roundhouse	1	M.	American	6	53	53	53
41	Conductors	4	M.	American	6	54	54	54
42		1	M.	Italian	6	54	54	54
43	Total	5	M.	.....	6	54	54	54
44	Conductors, freight	3	M.	American	6	53	53	53
45	Conductors, passenger	3	M.	American	6	53	53	53
46	Engineers, locomotive	14	M.	American	6	53	54	53.4
47		1	M.	Hawaiian	6	54	54	54
48		3	M.	Portuguese	6	53	54	53.3
49	Total	18	M.	.....	6	53	54	53.4

a Irregular.

b And house, fuel, water, transportation of children to school, and medical attendance.

c Two employees also furnished with house, fuel, water, transportation of children to school, and medical attendance.

d Four employees also furnished with house, fuel, water, transportation of children to school, and medical attendance.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued

STEAM RAILROADS (3 ESTABLISHMENTS).

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
			1								\$1.91 $\frac{1}{2}$	1
										1	5.75	2
		1	8	1	1						1.91	3
					b 1						b 2.87 $\frac{1}{2}$	4
			2		b 2						c 2.39 $\frac{1}{2}$	5
					b 1						b 2.68 $\frac{1}{2}$	6
		1	10	1	d 5						d 2.12 $\frac{1}{2}$	7
									1		4.79	8
		10									1.00	9
					1	b 1			3		4.50	10
											e 2.97 $\frac{1}{2}$	11
					1	b 1			3		e 3.89	12
				2							2.35	13
				2							2.00	14
				4							2.17 $\frac{1}{2}$	15
										1	5.75	16
										b 1	b 5.75	17
										e 2	e 5.75	18
								b 1			b 4.21 $\frac{1}{2}$	19
			2								1.72 $\frac{1}{2}$	20
			10								1.50	21
				3							2.00	22
			3								1.50	23
			8	3							1.75	24
		6							b 1		b 4.79	25
						1					1.00	26
											3.00	27
					1	3	1	2	3	1	3.73	28
				c 3							2.42 $\frac{1}{2}$	29
			3	2		2		1			e 2.00	30
											2.48 $\frac{1}{2}$	31
			3	c 6	4	3	2	4	1		e 2.84 $\frac{1}{2}$	32
			1	2							1.75	33
		1									1.75	34
											1.34	35
				1							2.25	36
				1	2	2		1			3.13	37
				b 1							b 2.30	38
			1				1				2.58 $\frac{1}{2}$	39
				1							2.11	40
						e 3	1				e 3.35 $\frac{1}{2}$	41
						1					3.45	42
						e 4	1				e 3.37 $\frac{1}{2}$	43
						3					3.45	44
							3				3.83 $\frac{1}{2}$	45
				1	1	b 1	2	3	6		e 4.01	46
			b 1								b 1.91 $\frac{1}{2}$	47
				1	e 2						e 2.62	48
			b 1	2	e 3	b 1	2	3	6		f 3.66 $\frac{1}{2}$	49

e One employee also furnished with house, fuel, water, transportation of children to school, and medical attendance.

f Three employees also furnished with house, fuel, water, transportation of children to school, and medical attendance.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
STEAM RAILROADS (3 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Engineer, tug	1	M.	American	6	54	54	54
2	Firemen, locomotive	4	M.	American	6	53	54	53.3
3		12	M.	Hawaiian	6	53	54	53.5
4		2	M.	Portuguese	6	53	54	53.5
5	Total	18	M.		6	53	54	53.4
6	Fireman, shop	1	M.	Portuguese	6	54	54	54
7	Fireman, tug	1	M.	Hawaiian	6	54	54	54
8	Foreman, ballast men	1	M.	Japanese	6	53	53	53
9	Foreman, car cleaners	1	M.	American	6	53	53	53
10	Foreman, car shop	1	M.	American	6	53	53	53
11	Foreman, foundry	1	M.	American	6	54	54	54
12	Foreman, freight handlers	1	M.	American	6	54	54	54
13	Foreman, general	1	M.	Hawaiian	6	54	54	54
14	Foremen, hostlers, locomotive	1	M.	American	6	53	53	53
15		1	M.	Portuguese	6	53	53	53
16	Total	2	M.		6	53	53	53
17	Foreman, laborers, yard	1	M.	American	6	53	53	53
18	Foreman, painters	1	M.	American	6	53	53	53
19	Foreman, roundhouse	1	M.	American	6	53	53	53
20	Foremen, section men	1	M.	Chinese	6	54	54	54
21		1	M.	Hawaiian	6	54	54	54
22		1	M.	Irish	6	54	54	54
23		15	M.	Japanese	6	53	54	53.3
24	Total	18	M.		6	53	54	53.4
25	Foremen, wharf	4	M.	American	6	53	53	53
26	Freight handlers	2	M.	Hawaiian	6	54	54	54
27		31	M.	Japanese	6	53	54	53.4
28		5	M.	Portuguese	6	54	54	54
29	Total	38	M.		6	53	54	53.5
30	Hostlers, locomotive	7	M.	Portuguese	6	53	53	53
31	Laborers	53	M.	Hawaiian	6	54	54	54
32		72	M.	Japanese	6	54	54	54
33	Total	125	M.		6	54	54	54
34	Laborers, wharf	75	M.	Japanese	6	53	53	53
35	Machinists	6	M.	American	6	53	54	53.7
36		2	M.	Hawaiian	6	53	53	53
37	Total	8	M.		6	53	54	53.5
38	Machinists' apprentices	1	M.	Norwegian	6	54	54	54
39		1	M.	Portuguese	6	54	54	54
40	Total	2	M.		6	54	54	54
41	Machinists' helpers	1	M.	American	6	54	54	54
42		2	M.	Hawaiian	6	53	53	53
43	Total	3	M.		6	53	54	53.3
44	Master car builders	2	M.	American	6	53	54	53.5
45	Master mechanics	3	M.	American	6	53	54	53.7
46	Mechanics' apprentices	2	M.	Portuguese	6	54	54	54

^a And house, fuel, water, transportation of children to school, and medical attendance.

^b Four employees also furnished with house, fuel, water, transportation of children to school, and medical attendance.

^c One employee also furnished with house, fuel, water, transportation of children to school, and medical attendance.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

STEAM RAILROADS (3 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
									a 1		a \$4.79	1
			1	3							2.11	2
			b 7	5							b 1.84	3
			1	1							2.10½	4
			b 9	9							b 1.98	5
			1								1.50	6
				a 1							a 2.11	7
			1								1.55	8
					1						2.50	9
										1	5.00	10
						1			1		4.98½	11
							a 1				3.06½	12
											a 3.83½	13
					1						2.87½	14
					1						2.11	15
					1						2.49½	16
							1				3.83½	17
								1			4.25	18
									1		4.50	19
				a 1							a 2.00	20
			1								1.72½	21
			1								1.72½	22
		2	13								1.69	23
		2	15	a 1							a 1.71½	24
						4					3.00	25
		20	2								1.50	26
			11								1.17½	27
			5								1.50	28
		20	18								1.23½	29
			7								1.53½	30
		a 53									a 1.25	31
		a 72									a 1.25	32
		a 125									a 1.25	33
		75									1.15	34
							2	3	1		3.96	35
											3.00	36
							2	3	1		3.72	37
			1								1.50	38
											1.25	39
		1	1								1.37½	40
					1						2.00	41
				2							2.00	42
				3							2.00	43
										2	6.71	44
										c 3	c 6.39	45
		a 2									a 1.24½	46

a \$1.10 a day; after 3 months, \$1.25; after 6 months, \$1.50. Also house, fuel, water, transportation of children to school, and medical attendance.

c Boys.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
STEAM RAILROADS (3 ESTABLISHMENTS)—Concluded.

Mar- ginal num- ber.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Molders	2	M.	Hawaiian	6	53	53	53
2		1	M.	Russian	6	54	54	54
3		1	M.	Scotch.....	6	54	54	54
4	Total	4	M.	.....	6	53	54	53.5
5	Molders' apprentices	2	M.	Hawaiian	6	54	54	54
6	Molders' helpers.....	3	M.	Hawaiian	6	54	54	54
7		2	M.	Portuguese	6	53	53	53
8	Total	5	M.	.....	6	53	54	53.6
9	Painters.....	1	M.	American	6	53	53	53
10		2	M.	Chinese	6	53	53	53
11		2	M.	Hawaiian	6	53	54	53.5
12	Total	5	M.	.....	6	53	54	53.2
13	Pattern makers.....	1	M.	Portuguese	6	53	53	53
14		1	M.	Swedish	6	54	54	54
15	Total	2	M.	.....	6	53	54	53.5
16	Porters, chair car.....	2	M.	Chinese	6	53	53	53
17	Porter, station.....	1	M.	Japanese	6	53	53	53
18	Roadmasters	1	M.	American	6	53	53	53
19		1	M.	Japanese	6	53	53	53
20	Total	2	M.	.....	6	53	53	53
21	Section men	183	M.	Japanese	6	53	54	53.4
22	Stenographers.....	1	F.	American	6	53	53	53
23		1	M.	Part-Hawaiian	6	54	54	54
24	Total	2	.....	.....	6	53	54	53.5
25	Superintendent, wharf.....	1	M.	American	6	53	53	53
26	Train dispatcher	1	M.	American	6	53	53	53
27	Watchmen	1	M.	Portuguese	7	63	63	63
28		1	M.	Russian	7	63	63	63
29	Total	2	M.	.....	7	63	63	63
30	Wipers	2	M.	Hawaiian	6	54	54	54
31		2	M.	Portuguese	6	54	54	54
32	Total	4	M.	.....	6	54	54	54
33	Yard master.....	1	M.	American	6	53	53	53

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS).

34	Blacksmiths	1	M.	American	6	53	53	53
35		1	M.	Portuguese	6	53	53	53
36	Total	2	M.	.....	6	53	53	53
37	Blacksmiths' helpers.....	1	M.	Hawaiian	6	53	53	53
38		1	M.	Japanese	6	53	53	53
39	Total	2	M.	.....	6	53	53	53
40	Boatswains.....	5	M.	Hawaiian	6	66	66	66
41	Bookkeeper	1	M.	American	6	53	53	53

^a And house, fuel, water, transportation of children to school, and medical attendance.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

STEAM RAILROADS (3 ESTABLISHMENTS)—Concluded.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
				1	1						\$2.25	1
				1							2.00	2
								1			4.00	3
				2	1			1			2.62½	4
			2								1.50	5
			3								1.58½	6
			2								1.50	7
			5								1.55	8
						1					3.00	9
				2							2.25	10
				2							2.12½	11
				4		1					2.35	12
									1		4.50	13
									1		4.75	14
									2		4.62½	15
		2									1.34	16
		1									1.34	17
					1					1	5.75	18
											2.87½	19
					1					1	4.31½	20
		183									1.02	21
			a 1			1					3.26	22
											a 1.91½	23
			a 1			1					b 2.58½	24
										1	5.75	25
										1	5.75	26
			a 1								a 1.91½	27
			1								1.72½	28
			b 2								b 1.82	29
			2								1.58½	30
			2								1.72½	31
			4								1.68	32
										1	5.75	33

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS).

						1			1	\$5.00	34
						1				8.00	35
						1			1	4.00	36
					1					2.50	37
			1							1.50	38
			1		1					2.00	39
			c 5							c 1.72½	40
									1	8.38½	41

^b One employee also furnished with house, fuel, water, transportation of children to school, and medical attendance.

^c And board.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Carpenters	7	M.	American	6	53	53	53
2		4	M.	Portuguese	6	53	53	53
3	Total	11	M.		6	53	53	53
4	Clerk, freight	1	M.	Hawaiian	6	66	66	66
5	Clerks, office	2	M.	American	6	53	53	53
6	Clerks, ship	2	M.	American	6	66	66	66
7	Clerk, wharf	1	M.	American	6	66	66	66
8	Coal passers	3	M.	Hawaiian	6	66	66	66
9	Cooks	21	M.	Chinese	7	(b)	(b)	(b)
10		2	M.	Spanish	7	(b)	(b)	(b)
11	Total	23	M.		7	(b)	(b)	(b)
12	Cooks' helper	1	M.	Chinese	7	(b)	(b)	(b)
13	Electricians	4	M.	American	6	53	53	53
14	Engineers, assistant	5	M.	American	6	66	66	66
15		2	M.	English	6	66	66	66
16		1	M.	Greek	6	66	66	66
17		1	M.	Scotch	6	66	66	66
18	Total	9	M.		6	66	66	66
19	Engineers, assistant, first	7	M.	American	6	66	66	66
20	Engineers, assistant, second	4	M.	American	6	66	66	66
21	Engineers, chief	15	M.	American	6	66	66	66
22		1	M.	English	6	66	66	66
23		1	M.	German	6	66	66	66
24	Total	17	M.		6	66	66	66
25	Engineers, donkey engine	1	M.	German	6	66	66	66
26		5	M.	Hawaiian	6	66	66	66
27	Total	6	M.		6	66	66	66
28	Firemen	12	M.	American	6	66	66	66
29		28	M.	Chinese	6	66	66	66
30	Total	40	M.		6	66	66	66
31	Laborers	(c)	M.	Hawaiian	6	66	66	66
32	Laborers, carpenters'	3	M.	Hawaiian	6	53	53	53
33	Laborers, shop	2	M.	Chinese	6	53	53	53
34		1	M.	Hawaiian	6	53	53	53
35	Total	3	M.		6	53	53	53
36	Machinist	1	M.	Hawaiian	6	53	53	53
37	Machinist, assistant	1	M.	Hawaiian	6	53	53	53
38	Masters	7	M.	American	6	66	66	66
39		1	M.	Dutch	6	66	66	66
40		1	M.	English	6	66	66	66
41		3	M.	Part-Hawaiian	6	66	66	66
42		4	M.	(c)	6	66	66	66
43	Total	16	M.		6	66	66	66
44	Mates, first	7	M.	American	6	66	66	66
45		1	M.	Part-Hawaiian	6	66	66	66
46		9	M.	(c)	6	66	66	66
47	Total	17	M.		6	66	66	66
48	Mates, second	7	M.	American	6	66	66	66
49		8	M.	Part-Hawaiian	6	66	66	66
50	Total	15	M.		6	66	66	66

a And board.

b Irregular.

c Not reported.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
.....	3	.....	5 1	1	1	\$4.21½	1
.....	3.29	2
.....	8	.....	6	1	1	3.88	3
.....	a1	.....	.....	.....	.....	.....	.....	a2.30	4
.....	a1	.....	a1	.....	1	1	5.75	5
.....	a3.87½	6
.....	1	.....	4.79	7
.....	a3	.....	.....	.....	.....	.....	.....	.....	a1.58½	8
.....	a10	a9	a2	.....	.....	.....	.....	.....	.....	a1.54	9
.....	a2	.....	.....	.....	.....	.....	.....	.....	.....	a1.80½	10
.....	a12	a9	a2	.....	.....	.....	.....	.....	.....	a1.52	11
.....	a1	.....	.....	.....	.....	.....	.....	.....	.....	.....	a.50	12
.....	4	.....	.....	.....	.....	.....	.....	.....	1.91½	13
.....	a3	.....	a2	.....	.....	a3.72	14
.....	a2	.....	.....	a4.02½	15
.....	a1	.....	.....	a4.02½	16
.....	a1	.....	.....	a4.02½	17
.....	a3	.....	a6	.....	.....	a3.85½	18
.....	a1	a1	a5	.....	.....	a3.98	19
.....	a2	a2	.....	.....	.....	a3.56½	20
.....	a9	a6	a5.05½	21
.....	a1	.....	a4.60	22
.....	a1	.....	a4.60	23
.....	a11	a6	a5.00	24
.....	a1.91½	25
.....	a1	.....	.....	.....	.....	.....	.....	.....	a1.75	26
.....	a6	.....	.....	.....	.....	.....	.....	.....	a1.77½	27
.....	a1.72½	28
.....	a21	a12	.....	.....	.....	.....	.....	.....	.....	a1.42	29
.....	a7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	a21	a19	.....	.....	.....	.....	.....	.....	.....	a1.51½	30
.....	(d)	(d)	.....	.....	.....	.....	.....	.....	(d)	31
.....	2	1	.....	.....	.....	.....	.....	.....	1.75	32
.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	1.41½	33
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1.15	34
.....	1	1	.....	1	.....	.....	.....	.....	.....	.....	1.32½	35
.....	1	.....	.....	.....	1	.....	4.98½	36
.....	2.68½	37
.....	a1	a6	a5.58½	38
.....	a1	a5.75	39
.....	a1	a5.75	40
.....	a3	a5.94	41
.....	a4	a5.36½	42
.....	a1	a15	a5.61½	43
.....	a7	.....	.....	.....	.....	a3.46	44
.....	a9	a1	.....	.....	.....	a3.88½	45
.....	a3.36½	46
.....	a16	a1	.....	.....	.....	a3.43	47
.....	a7	.....	.....	.....	.....	.....	a2.91½	48
.....	a8	.....	.....	.....	.....	.....	.....	a2.30	49
.....	a8	a7	.....	.....	.....	.....	.....	a2.58½	50

^a Some receive \$1.50, and some \$2 per day. Number not reported.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Concluded.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Mates, third	1	M.	Part-Hawaiian	6	66	66	66
2		1	M.	Swedish	6	66	66	66
3	Total	2	M.		6	66	66	66
4	Oilers	4	M.	American	6	66	66	66
5		1	M.	German	6	66	66	66
6		2	M.	Irish	6	66	66	66
7	Total	7	M.		6	66	66	66
8	Pursers	6	M.	American	6	66	66	66
9		8	M.	Hawaiian	6	66	66	66
10		1	M.	Part-Hawaiian	6	66	66	66
11	Total	15	M.		6	66	66	66
12	Quartermasters	1	M.	American	6	66	66	66
13		16	M.	Hawaiian	6	66	66	66
14		1	M.	Japanese	6	66	66	66
15		1	M.	Norwegian	6	66	66	66
16		3	M.	Portuguese	6	66	66	66
17	Total	22	M.		6	66	66	66
18	Sailors	145	M.	Hawaiian	6	66	66	66
19		64	M.	Japanese	6	66	66	66
20	Total	209	M.		6	66	66	66
21	Seamen	114	M.	Hawaiian	6	66	66	66
22		51	M.	Japanese	6	66	66	66
23	Total	165	M.		6	66	66	66
24	Statistician	1	M.	American	6	53	53	53
25	Stenographer	1	M.	Part-Hawaiian	6	53	53	53
26	Stewards	14	M.	Chinese	6	66	66	66
27		1	M.	East Indian	6	66	66	66
28		1	M.	Portuguese	6	66	66	66
29		2	M.	Spanish	6	66	66	66
30	Total	18	M.		6	66	66	66
31	Steward, port	1	M.	American	6	(b)	(b)	(b)
32	Superintendent, engineers	1	M.	American	6	(b)	(b)	(b)
33	Superintendents, wharf	2	M.	American	6	c 66	c 66	c 66
34	Waiters	24	M.	Chinese	7	(b)	(b)	(b)
35		11	M.	Japanese	7	(b)	(b)	(b)
36		2	M.	Portuguese	7	(b)	(b)	(b)
37	Total	37	M.		7	(b)	(b)	(b)

STOCK RANCHES (3 ESTABLISHMENTS).

38	Butcher	1	M.	Chinese	6	66	66	66
39	Cook	1	M.	Chinese	7	70	70	70
40	Dairyman	1	M.	Chinese	7	77	77	77
41	Overseers	1	M.	American	7	84	84	84
42		4	M.	Hawaiian	(d)	60	77	64.3
43		1	M.	Irish	6	60	60	60
44	Total	6	M.		.....	60	84	66.8
45	Shearers	39	M.	Hawaiian	6	72	72	72
46	Stock herders	53	M.	Hawaiian	7	77	84	83.2
47		14	M.	Japanese	7	70	70	70
48		2	F.	Japanese	7	70	70	70
49		1	M.	Portuguese	7	70	70	70
50	Total	70			7	70	84	80

a And board.

b Irregular.

c Not including 1 employee whose hours are irregular.

d Three employees work 6 days and 1 works 7 days per week.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Concluded.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
			a1								a \$1.72½	1
			a1								a 1.72½	2
			a2								a 1.72½	3
			a4								a 1.72½	4
			a1								a 1.72½	5
			a2								a 1.72½	6
			a7								a 1.72½	7
			a3	a3	a5	a1	a1				a 3.07	8
				a1							a 2.34½	9
									a1		a 4.83½	10
			a3	a3	a6	a1	a1		a1		a 2.80	11
		a1									a 1.33½	12
		a16									a 1.24½	13
		a1									a 1.33½	14
		a1									a 1.33½	15
		a3									a 1.33½	16
		a22									a 1.27	17
		a145									a 1.30½	18
		a64									a 1.30½	19
		a209									a 1.30½	20
	a114										a .83½	21
	a51										a .83½	22
	a165										a .83½	23
							1				3.83½	24
							1				3.83½	25
		a3	a9	a2							a 1.68	26
				a1							a 2.00	27
				a1							a 2.00	28
			a1	a1							a 2.07	29
		a3	a10	a5							a 1.76	30
				1							2.30	31
										1	9.58½	32
										2	8.62½	33
	a3	a21									a 1.01½	34
		a11									a 1.06½	35
		a2									a 1.00	36
	a3	a34									a 1.02½	37

STOCK RANCHES (3 ESTABLISHMENTS).

		1									\$1.15	38
	1	a1									.72½	39
							1				a 1.15	40
	a1	3									3.29	41
		1									e 1.09½	42
											1.15½	43
	a1	4					1				e 1.47	44
		a39									a 1.00	45
f50	a3										f.49½	46
	14										.65½	47
2											.33	48
	1										.79	49
g52	h18										g.52½	50

e One employee also receives board.
f Including 2 boys; also receive board.

g See notes to details.
h Three employees also receive board.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
STREET RAILWAY (1 ESTABLISHMENT).

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Blacksmith.....	1	M.	Portuguese.....	6	63	63	63
2	Blacksmith's helpers.....	2	M.	Portuguese.....	6	63	63	63
3	Bookkeeper.....	1	M.	American.....	6	63	63	63
4	Car cleaners.....	2	M.	Chinese.....	6	63	63	63
5	Carpenter.....	1	M.	American.....	6	63	63	63
6	Car receiver.....	1	M.	American.....	6	63	63	63
7	Conductors.....	24	M.	American.....	6	63	63	63
8		1	M.	Canadian.....	6	63	63	63
9		3	M.	English.....	6	63	63	63
10		1	M.	German.....	6	63	63	63
11		8	M.	Hawaiian.....	6	63	63	63
12		1	M.	Irish.....	6	63	63	63
13		2	M.	Scotch.....	6	63	63	63
14	Total.....	35	M.		6	63	63	63
15	Draymen.....	2	M.	Portuguese.....	6	63	63	63
16	Engineers, civil.....	2	M.	American.....	6	63	63	63
17	Engineer, civil, assistant.....	1	M.	Portuguese.....	6	63	63	63
18	Engineers, power house.....	1	M.	American.....	6	63	63	63
19		2	M.	English.....	6	63	63	63
20	Total.....	3	M.		6	63	63	63
21	Engineer, rock crusher.....	1	M.	American.....	6	63	63	63
22	Firemen, power house.....	2	M.	American.....	6	63	63	63
23	Fireman, rock crusher.....	1	M.	Japanese.....	6	63	63	63
24	Foreman, linemen.....	1	M.	American.....	6	63	63	63
25	Foreman, rock crusher.....	1	M.	Part-Hawaiian.....	6	63	63	63
26	Foreman, shop.....	2	M.	American.....	6	63	63	63
27	Foreman, track.....	1	M.	American.....	6	63	63	63
28	Laborers, rock crusher.....	30	M.	Japanese.....	6	63	63	63
29	Laborers, track.....	6	M.	American.....	6	63	63	63
30		104	M.	Japanese.....	6	63	63	63
31	Total.....	110	M.		6	63	63	63
32	Linemen.....	1	M.	Hawaiian.....	6	63	63	63
33		3	M.	Swedish.....	6	63	63	63
34	Total.....	4	M.		6	63	63	63
35	Machinists.....	2	M.	American.....	6	63	63	63
36		1	M.	Hawaiian.....	6	63	63	63
37		1	M.	Swedish.....	6	63	63	63
38	Total.....	4	M.		6	63	63	63
39	Machinists' helper.....	1	M.	American.....	6	63	63	63
40	Motormen.....	22	M.	American.....	6	63	63	63
41		1	M.	English.....	6	63	63	63
42		3	M.	Irish.....	6	63	63	63
43		1	M.	Scotch.....	6	63	63	63
44		1	M.	Swedish.....	6	63	63	63
45	Total.....	28	M.		6	63	63	63
46	Oilier, power house.....	1	M.	Japanese.....	6	63	63	63
47	Painter.....	1	M.	American.....	6	63	63	63
48	Painter's helper.....	1	M.	American.....	6	63	63	63
49	Storekeeper.....	1	M.	English.....	6	63	63	63
50	Superintendent, general.....	1	M.	Scotch.....	6	63	63	63
51	Superintendent, linemen.....	1	M.	American.....	6	63	63	63
52	Superintendent, track.....	1	M.	American.....	6	63	63	63
53	Timekeeper.....	1	M.	American.....	6	63	63	63

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

STREET RAILWAY (1 ESTABLISHMENT).

Classified wages per day.												Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.			
						1						\$3.00	1
			2									1.50	2
										1		5.75	3
		2										1.25	4
								1				4.00	5
					1							2.87½	6
						24						3.15	7
						1						3.15	8
						3						3.15	9
						1						3.15	10
						3						3.15	11
						1						3.15	12
						2						3.15	13
						35						3.15	14
			2			1			1			1.50	15
					1							3.89½	16
												2.50	17
					1							2.87½	18
									1	1		5.89½	19
					1				1	1		4.55½	20
							1					3.50	21
					2							2.87½	22
		1										1.25	23
										1		6.71	24
							1					3.50	25
								2				4.21½	26
		30								1		6.00	27
												1.00	28
			6									1.75	29
			104									1.50	30
			110									1.51½	31
						1						3.00	32
				1		1	1					2.83½	33
				1		2	1					2.87½	34
			1			1						2.68½	35
					1							2.87½	36
						1						3.45	37
			1			1	2					2.92½	38
			1									1.50	39
						22						3.15	40
						1						3.15	41
						3						3.15	42
						1						3.15	43
						1						3.15	44
						28						3.15	45
		1							1			1.25	46
			1									4.00	47
										1		1.50	48
												4.79	49
										1		5.75	50
											1	6.71	51
										1		4.79	52
						1						3.45	53

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS).

Marginal number.	Occupation.	Employees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low-est.	High-est.	Average.
1	Blacksmiths.....	18	M.	American	6	60	60	60
2		1	M.	Chinese	6	60	60	60
3		1	M.	English	6	60	60	60
4		1	M.	French	6	60	60	60
5		5	M.	German	6	60	60	60
6		9	M.	Hawaiian	6	60	60	60
7		3	M.	Part-Hawaiian ..	6	60	60	60
8		18	M.	Japanese	6	60	60	60
9		2	M.	Norwegian	6	60	60	60
10		1	M.	Polish	6	60	60	60
11		1	M.	Porto Rican	6	60	60	60
12		10	M.	Portuguese	6	60	60	60
13		10	M.	Scotch	6	60	60	60
14		1	M.	Swedish	6	60	60	60
15		1	M.	W. Indian Negro ..	6	60	60	60
16	Total	82	M.		6	60	60	60
17	Blacksmiths' helpers.....	2	M.	American	6	60	60	60
18		1	M.	Chinese	6	60	60	60
19		2	M.	German	6	60	60	60
20		5	M.	Hawaiian	6	60	60	60
21		1	M.	Part-Hawaiian ..	6	60	60	60
22		71	M.	Japanese	6	60	60	60
23		2	M.	Porto Rican	6	60	60	60
24		16	M.	Portuguese	6	60	60	60
25	Total	100	M.		6	60	60	60
26	Boatmen	10	M.	Hawaiian	6	60	60	60
27	Boiler makers.....	4	M.	American	6	60	63	60.8
28		1	M.	Hawaiian	6	60	60	60
29		1	M.	Irish	6	54	54	54
30		6	M.	Japanese	6	60	60	60
31		1	M.	Scotch.....	6	60	60	60
32	Total	13	M.		6	54	63	59.8
33	Boiler makers' helpers	5	M.	Hawaiian	6	60	60	60
34		25	M.	Japanese	6	60	60	60
35	Total	30	M.		6	60	60	60
36	Bookkeepers	31	M.	American	6	60	60	60
37		1	M.	Australian	6	60	60	60
38		4	M.	Canadian	6	60	60	60
39		1	M.	Danish	6	60	60	60
40		10	M.	English	6	60	66	60.6
41		^a 4	M.	German	6	60	72	63
42		1	M.	Irish	6	60	60	60
43		6	M.	Scotch.....	6	60	60	60
44	Total	^c 58	M.		6	60	72	60.3
45	Bookkeepers, assistant	9	M.	American	6	60	60	60
46		1	M.	Canadian	6	60	60	60
47		1	M.	Danish	2	60	60	60
48		2	M.	English	6	60	60	60
49		2	M.	German	6	60	60	60
50		4	M.	Hawaiian	6	60	60	60
51		1	M.	Japanese	6	60	60	60
52		5	M.	Scotch.....	6	^d 60	^d 60	^d 60
53	Total	25	M.		6	^d 60	^d 60	^d 60
54	Brakemen, railroad	18	M.	Hawaiian	6	60	60	60
55		6	M.	Japanese	6	60	60	60
56		1	M.	Porto Rican	6	60	60	60
57		13	M.	Portuguese	6	60	60	60
58	Total	38	M.		6	60	60	60

^a And bonus.

^b See note ^a.

^c Including 2 boys.

^d And board.

^e See notes to details.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS).

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
			1	1	1	3	a 2	3	7		b \$3.82 ¹	1
			1								1.58 ²	2
									1		4.60	3
		1			1				1		4.56	4
	1	2	2	1		1	2		1		3.22	5
		7	7	2	1		2				2.12	6
				2	2						2.39	7
			1	1	1						1.63 ⁸	8
											2.40	9
	1										1.72 ¹⁰	10
		3	2	1		1	1	1		1	.89 ¹¹	11
						1	3	1	4	1	2.61 ¹²	12
			1								4.33	13
	1										1.91 ¹⁴	14
											.92 ¹⁵	15
	3	13	15	8	6	6	b 10	5	14	2	b 2.81 ¹⁶	16
	1	1									.84 ¹⁷	17
		1									1.25	18
		1	1								1.32 ¹⁹	19
	2	2									1.14	20
	1										.84 ²¹	21
	37	31	3								.96	22
	1	1									.94 ²³	23
	c 7	6	2	1							c 1.07 ²⁴	24
	c 49	43	7	1							c .98 ²⁵	25
				10							2.00	26
								1		a 3	b 5.52 ²⁷	27
							1			d 1	3.75	28
			5	1							d 6.00	29
										d 1	1.58 ³⁰	30
											d 5.00	31
			5	1			1	1		e 5	e 3.56 ³²	32
		5									1.07 ³³	33
	3	21	1								1.17	34
	3	26	1								1.15 ³⁵	35
				2		3	2		f 5	g 19	e 5.71 ³⁶	36
										1	5.75	37
					1					3	5.86 ³⁸	38
										1	5.75	39
						1	1		2	a 6	b 5.40 ⁴⁰	40
									2	2	5.51	41
				1			1		1	3	5.36 ⁴²	42
											4.98 ⁴³	43
				3	1	4	4		f 10	e 36	e 5.57 ⁴⁴	44
			a 2	1	2	1	2		1		b 3.09	45
									1		5.75	46
											4.79	47
						1	1				3.45	48
				1	1						2.58 ⁴⁹	49
			2				1	1			2.87 ⁵⁰	50
						1					3.33 ⁵¹	51
	f 1		2		1				1		k 2.26 ⁵²	52
	f 1		b 6	2	4	3	4	1	3	1	e 3.06	53
											1.03 ⁵⁴	54
	4	14									1.05 ⁵⁵	55
	2	4									.92 ⁵⁶	56
	1										.93 ⁵⁷	57
	6	7										
	13	25									1.00	58

f One employee also receives board.

g One employee also receives board, and 2 also receive shares of net profits.

h One employee is also a sugar boiler.

i Not including 1 employee whose hours are irregular.

j And earnings as postmaster.

k Not including earnings of 1 employee as postmaster.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Bricklayers	1	M.	American	6	60	60	60
2		1	M.	Japanese	6	60	60	60
3	Total	2	M.		6	60	60	60
4	Butchers	2	M.	American Negro	6	(a)	(a)	(a)
5		3	M.	Hawaiian	6	(a)	(a)	(a)
6		1	M.	Portuguese	6	(a)	(a)	(a)
7	Total	6	M.		6	(a)	(a)	(a)
8	Cane cutters	255	M.	Chinese	6	b 60	b 60	b 60
9		285	M.	Chinese and Japanese	6	(a)	(a)	(a)
10		1,153	M.	Japanese	6	d 60	d 60	d 60
11		30	M.	Porto Rican	6	e 60	e 60	e 60
12		16	M.	Portuguese	6	60	60	60
13		9	M.	S. Sea Islander	6	60	60	60
14	Total	1,748	M.		6	f 60	f 60	f 60
15	Cane cutters and loaders	478	M.	Japanese	6	h 60	h 60	h 60
16		14	F.	Japanese	6	(a)	(a)	(a)
17	Total	492			6	j 60	j 60	j 60
18	Cane loaders	43	M.	Chinese	6	(a)	(a)	(a)
19		1,156	M.	Japanese	6	l 60	l 60	l 60
20		31	F.	Japanese	6	m 60	m 60	m 60
21		21	M.	Portuguese	6	60	72	61.7
22	Total	1,251			6	n 60	n 72	m 60.1
23	Cane weighers	2	M.	American	6	60	72	66
24		1	M.	Australian	6	72	72	72
25		1	M.	Canadian	6	72	72	72
26		4	M.	German	6	72	72	72
27		2	M.	Hawaiian	6	60	72	66
28		1	M.	Part-Hawaiian	6	72	72	72
29		5	M.	Japanese	6	60	72	67.2
30		7	M.	Portuguese	6	72	72	72
31	Total	23	M.		6	60	72	69.9
32	Carpenters	11	M.	American	6	60	60	60
33		2	M.	Canadian	6	60	60	60
34		24	M.	Chinese	6	60	60	60
35		1	M.	English	6	60	60	60
36		1	M.	Filipino	6	60	60	60
37		6	M.	German	6	60	60	60
38		23	M.	Hawaiian	6	60	60	60
39		4	M.	Part-Hawaiian	6	60	60	60
40		322	M.	Japanese	6	60	60	60
41		5	M.	Porto Rican	6	60	60	60
42		34	M.	Portuguese	6	60	60	60
43		5	M.	Scotch	6	60	60	60
44		1	M.	S. Sea Islander	6	60	60	60
45		1	M.	W. Indian Negro	6	60	60	60
46	Total	440	M.		6	60	60	60
47	Carpenters' helpers	2	M.	Chinese	6	60	60	60
48		1	M.	German	6	60	60	60
49		2	M.	Hawaiian	6	60	60	60
50		105	M.	Japanese	6	60	60	60
51		1	M.	Norwegian	6	60	60	60
52		3	M.	Porto Rican	6	60	60	60
53		5	M.	Portuguese	6	60	60	60
54	Total	119	M.		6	60	60	60

a Irregular.

b Not including 251 employees whose hours are irregular.

c 19½ cents per ton.

d Not including 740 employees whose hours are irregular.

e Not including 10 employees whose hours are irregular.

f Not including 1,286 employees whose hours are irregular.

g Not including 285 employees paid by the ton.

h Not including 398 employees whose hours are irregular.

i Not reported.

j Not including 412 employees whose hours are irregular.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (56 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3.00 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
		1								1	\$7.00	1
											1.25	2
		1								1	4.12½	3
					1						1.57½	4
	1	1	1								1.23½	5
		1									1.00	6
	1	3	1	1							1.31	7
	129	126									.89½	8
											(°)	9
	781	372									.78	10
	20	10									.79½	11
	16										.96	12
	9										.69	13
	9 955	9 508									9.80	14
(†)	80	398									.94	15
	(†)	(†)	(†)	(†)	(†)	(†)	(†)	(†)	(†)	(†)	(†)	16
	k 80	k 398									k 0.94	17
		43									1.00	18
	564	592									.90	19
	31										.71	20
	18	2	1								1.01½	21
	613	637	1								.90	22
			1	1							1.91½	23
			1								1.91½	24
			1								1.91½	25
		1		2							1.83	26
		1	1								1.84½	27
		1	1								1.34½	28
	4	1									.94½	29
	2	3	2								1.13	30
	6	7	7	3							1.37½	31
				1			2	1	5	0 2	0 4.38½	32
							1	1			3.91½	33
	2	5	16		1						1.56	34
										1	5.75	35
				1							2.00	36
		2					1		2		3.51	37
	4	6	9	3				1			1.49½	38
		1	1					1			3.52½	39
	78	195	38	6	4	1		2	1		1.17	40
	1	4									1.03	41
	3	5	10	6	7	1	2				1.98	42
		1						8	1		3.69	43
									1		4.98½	44
				1							2.00	45
	88	216	76	18	12	2	6	9	10	0 3	0 1.47	46
p 1		1									9.69½	47
		1									1.34½	48
	2										.76½	49
	45	57	3								1.03½	50
		1									1.15½	51
	q 2	1									9.74½	52
	2	q 3									9.95½	53
p 1	q 51	q 64	3								r 1.02	54

k Not including 14 females, wages not reported.

† Not including 845 employees whose hours are irregular.

m Not including 25 employees whose hours are irregular.

n Not including 913 employees whose hours are irregular.

° One employee also receives share of net profits.

p Boy.

q Including 1 boy.

r Including 3 boys.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Chemists	5	M.	American	6	(a)	(a)	(a)
2		1	M.	English	6	(a)	(a)	(a)
3		1	M.	Canadian	6	(a)	(a)	(a)
4		1	M.	Dutch	6	(a)	(a)	(a)
5		4	M.	German	6	(a)	(a)	(a)
6		1	M.	Scotch	6	(a)	(a)	(a)
7		1	M.	Swedish	6	(a)	(a)	(a)
8	Total	14	M.	.....	6	(a)	(a)	(a)
9	Chemists, assistant	1	M.	American	6	(a)	(a)	(a)
10		1	M.	English	6	(a)	(a)	(a)
11	Total	2	M.	.....	6	(a)	(a)	(a)
12	Chemists' helpers	1	M.	Chinese	6	(a)	(a)	(a)
13		1	M.	German	6	(a)	(a)	(a)
14		1	M.	Japanese	6	(a)	(a)	(a)
15	Total	3	M.	.....	6	(a)	(a)	(a)
16	Clerks, freight	3	M.	American	6	60	60	60
17		1	M.	English	6	60	60	60
18		1	M.	Jamaican	6	60	60	60
19	Total	5	M.	.....	6	60	60	60
20	Clerks, mill	1	M.	American	6	72	72	72
21		2	M.	Hawaiian	6	72	72	72
22		1	M.	Japanese	6	72	72	72
23	Total	4	M.	.....	6	72	72	72
24	Clerks, store	7	M.	American	6	60	60	60
25		2	M.	Canadian	6	60	60	60
26		10	M.	Chinese	6	60	67.2	61.3
27		1	M.	English	6	60	60	60
28		1	M.	German	6	72	72	72
29		3	M.	Hawaiian	6	60	60	60
30		2	M.	Part-Hawaiian	6	60	60	60
31		101	M.	Japanese	6	60	67.2	60.5
32		1	F.	Japanese	6	60	60	60
33		1	F.	Norwegian	6	60	60	60
34		3	M.	Porto Rican	6	60	60	60
35		37	M.	Portuguese	6	60	67.2	61.4
36		3	M.	Scotch	6	60	60	60
37		1	M.	Spanish	6	72	72	72
38	Total	173	.....	.....	6	60	67.2	60.8
39	Clerks, sugar	1	M.	American	6	72	72	72
40		1	M.	German	6	72	72	72
41		1	M.	Hawaiian	6	72	72	72
42	Total	3	M.	.....	6	72	72	72
43	Clerks, wharf	4	M.	American	6	60	60	60
44		1	M.	Canadian	6	60	60	60
45		2	M.	Scotch	6	60	60	60
46	Total	7	M.	.....	6	60	60	60
47	Coachman	1	M.	American Negro	7	(a)	(a)	(a)
48	Coal passers	18	M.	Chinese	6	60	60	60
49		30	M.	Japanese	6	60	60	60
50		1	M.	Porto Rican	6	60	60	60
51	Total	49	M.	.....	6	60	60	60

^a Irregular.

^b One employee also receives share of net profits.

^c Boys.

^d Including 1 boy.

^e And share of net profits.

^f See notes to details.

^g Not including 1 employee whose hours are not reported.

^h Not including 3 employees whose hours are not reported.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal numbers.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
									1	b 4	b \$6.18½	1
									1	1	5.75	2
											4.79	3
										1	6.71	4
										4	6.74	5
							1				3.88½	6
										1	13.80	7
							1		2	b 11	b 6.62½	8
										1	5.75	9
				1							2.30	10
				1						1	4.02½	11
c 1	1										.96	12
	1										c .38½	13
											.81	14
c 1	2										d .72	15
		c 1		1		1					d 2.17½	16
		e 1		1							2.11	17
											e 1.34½	18
		f 2		2		1					f 1.99½	19
				1	1						2.30	20
				1	1						1.91½	21
				1							1.91½	22
			2	2							2.01½	23
			2		3	2					2.60	24
			1				1				2.77½	25
	4	3	3								1.17	26
		1									1.15½	27
		1						1			3.88½	28
		1	2								1.47	29
a 2	1	1									.96½	30
	49	34	16								f 1.05	31
	e 1										e .57½	32
		1									1.15½	33
		1									1.62½	34
c 3	f 8	b 12	8	3	2	1					f 1.40	35
				3							2.36½	36
				1							2.30	37
i 5	f 64	b 54	32	7	6	3	2				f 1.27½	38
				1							2.11	39
				1							1.91½	40
				1							2.30	41
			1	2							2.11	42
			1		1	1		1			3.02	43
			m 1								m 1.53½	44
			m 1	1							n 2.10½	45
			o 3	1	1	1		1			o 2.54½	46
		1									1.15	47
		18									1.00	48
	30										.88½	49
	1										.94	50
	31	18									.93	51

i Three employees also receive share of net profits.

f Including 2 boys.

* Not including 7 employees whose hours are not reported.

l Including 4 boys.

m And board.

n One employee also receives board.

o Two employees also receive board.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Employees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low-est.	High-est.	Average.
1	Coal weigher.....	1	M.	German	6	72	72	72
2	Contract cultivators.....	a 1,884	M.	Chinese	6	60	66	60
3		40	M.	Hawaiian	6	60	66	61.7
4		2	F.	Hawaiian	6	66	66	66
5		d 8,160	M.	Japanese	6	60	66	60
6		59	F.	Japanese	6	60	66	60.5
7		23	M.	Porto Rican	6	60	60	60
8		60	M.	Portuguese	6	60	60	60
9	Total	f 10,228			6	60	66	60
10	Cooks.....	19	M.	Chinese	7	(h)	(h)	(h)
11		8	M.	Japanese	7	(h)	(h)	(h)
12	Total	27	M.		7	(h)	(h)	(h)
13	Cooks' helpers.....	1	M.	Chinese	7	(h)	(h)	(h)
14		1	M.	Japanese	7	(h)	(h)	(h)
15	Total	2	M.		7	(h)	(h)	(h)
16	Dairyman	1	M.	Portuguese	7	70	70	70
17	Ditch men.....	50	M.	Chinese	6	60	60	60
18		1	M.	German	6	60	60	60
19		31	M.	Hawaiian	6	60	60	60
20		1	M.	Part-Hawaiian	6	60	60	60
21		328	M.	Japanese	6	60	60	60
22		1	M.	Norwegian	6	60	60	60
23		34	M.	Portuguese	6	60	60	60
24		1	M.	Swedish	6	60	60	60
25	Total	447	M.		6	60	60	60
26	Electricians	3	M.	American	6	60	60	60
27		1	M.	German	6	(h)	(h)	(h)
28		1	M.	Scotch.....	6	60	60	60
29	Total	5	M.		6	60	60	60
30	Electricians' helpers	3	M.	Hawaiian	6	60	60	60
31		2	M.	Japanese	6	60	60	60
32	Total	5	M.		6	60	60	60
33	Engineer, chief.....	1	M.	American	6	72	72	72
34	Engineers, donkey engine	2	M.	American	6	(h)	(h)	(h)
35		1	M.	Canadian	6	(h)	(h)	(h)
36		2	M.	Chinese	6	(h)	(h)	(h)
37		1	M.	German	6	(h)	(h)	(h)
38		1	M.	Japanese	6	(h)	(h)	(h)
39		1	M.	Polish	6	(h)	(h)	(h)
40		3	M.	Portuguese	6	(h)	(h)	(h)
41		1	M.	Scotch.....	6	(h)	(h)	(h)
42	Total	12	M.		6	(h)	(h)	(h)
43	Engineers' helpers, locomotive.....	2	M.	Japanese	6	60	60	60
44	Engineers' helpers, mill.....	1	M.	American	6	72	72	72
45		5	M.	Chinese	6	72	72	72
46		1	M.	English	6	72	72	72
47		1	M.	Hawaiian	6	72	72	72
48		8	M.	Japanese	6	72	72	72
49		1	M.	Norwegian	6	72	72	72
50		2	M.	Portuguese	6	72	72	72
51	Total	19	M.		6	72	72	72

a Including 104 employees whose wages are not reported.

b Estimate; based on earnings of companies whose contracts were closed at time of agent's visit.

c Estimate; based on earnings of companies whose contracts were closed at time of agent's visit.

Not including 104 employees whose wages are not reported.

d Including 777 employees whose wages are not reported.

e Estimate; based on earnings of companies whose contracts were closed at time of agent's visit.

Not including 777 employees whose wages are not reported.

f Including 881 employees whose wages are not reported.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
			1								\$1.53½	1
	b 945	b 895									c. 94	2
	b 27	b 13									b. 84½	3
	b 2										b. 77	4
	b2, 976	b4, 407									e 1.01	5
	b 14	b 45									b. 91½	6
		b 23									b 1.00	7
	b 37	b 23									b. 92½	8
	b4, 001	b5, 346									g. 99½	9
	19										.76½	10
	8										.73½	11
	27										.75½	12
	1										.59	13
	1										.38	14
	1										.46	15
		1									1.15	16
	9	41									1.04	17
	1										.84½	18
	† 23	7	1								†. 90	19
			1								1.72½	20
	274	54									.88	21
			1								1.72½	22
‡ 1	8	‡ 11	10	3	1						§ 1.36	23
							1				3.83½	24
‡ 1	† 315	‡ 113	13	3	1		1				g. 94½	25
					2		1				3.13	26
			1								1.91½	27
					1						2.87½	28
			1		3		1				2.83½	29
		2	1								1.46	30
		2									1.02	31
		4	1								1.23½	32
										1	8.62½	33
				1	1						2.58½	34
						1					3.06½	35
		2									1.00	36
					1						2.60½	37
		1									1.10	38
		1									1.34½	39
	1	1	1								1.28	40
					1						2.68½	41
	1	5	1	1	3	1					1.82	42
			2								1.50	43
		1									1.91½	44
	4	1									.93	45
		1									1.00	46
		1									1.00	47
	5	2	1								1.12	48
		1									1.34½	49
		1	1								1.48½	50
	9	7	3								1.15	51

§ See notes to details.

‡ Irregular.

† Including 1 boy.

‡ Boy.

‡ One employee also receives share of net profits.

‡ Not including 1 employee whose hours are irregular.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Engineers' helpers, steam plow	2	M.	Hawaiian	6	60	60	60
2		6	M.	Japanese	6	60	60	60
3		4	M.	Portuguese	6	60	60	60
4	Total	12	M.		6	60	60	60
5	Engineers, locomotive	5	M.	American	6	60	60	60
6		2	M.	Canadian	6	60	60	60
7		1	M.	Chinese	6	60	60	60
8		2	M.	English	6	60	60	60
9		1	M.	Filipino	6	60	60	60
10		4	M.	German	6	60	60	60
11		25	M.	Hawaiian	6	60	60	60
12		3	M.	Part-Hawaiian	6	60	60	60
13		9	M.	Japanese	6	60	60	60
14		1	M.	Norwegian	6	60	60	60
15		22	M.	Portuguese	6	60	60	60
16		1	M.	Russian	6	60	60	60
17		2	M.	Scotch	6	60	60	60
18	Total	78	M.		6	60	60	60
19	Engineers, machine shop	2	M.	German	6	60	60	60
20		2	M.	Japanese	6	60	60	60
21	Total	4	M.		6	60	60	60
22	Engineers, mill	18	M.	American	6	72	72	72
23		2	M.	Canadian	6	72	72	72
24		2	M.	Chinese	6	72	72	72
25		8	M.	English	6	72	72	72
26		1	M.	French	6	72	72	72
27		5	M.	German	6	72	72	72
28		4	M.	Japanese	6	72	72	72
29		1	M.	New Zealander	6	72	72	72
30		2	M.	Portuguese	6	72	72	72
31		9	M.	Scotch	6	72	72	72
32		1	M.	Swedish	6	72	72	72
33	Total	53	M.		6	72	72	72
34	Engineers, mill, assistant	4	M.	American	6	72	72	72
35		3	M.	Chinese	6	72	72	72
36		1	M.	English	6	72	72	72
37		2	M.	Hawaiian	6	72	72	72
38		14	M.	Japanese	6	72	72	72
39		14	M.	Portuguese	6	72	72	72
40		1	M.	Scotch	6	72	72	72
41	Total	39	M.		6	72	72	72
42	Engineers, mill, chief	3	M.	American	6	72	72	72
43		1	M.	Canadian	6	72	72	72
44		2	M.	English	6	72	72	72
45		4	M.	German	6	72	72	72
46		1	M.	Scotch	6	72	72	72
47	Total	11	M.		6	72	72	72
48	Engineers, pump	21	M.	American	7	84	84	84
49		6	M.	Chinese	7	84	84	84
50		2	M.	English	7	84	84	84
51		2	M.	German	7	84	84	84
52		8	M.	Hawaiian	(f)	72	72	80.6
53		20	M.	Japanese	7	84	84	84
54		3	M.	Norwegian	7	84	84	84
55		7	M.	Portuguese	7	84	84	84
56	Total	69	M.			72	84	83.6

^a And share of net profits.

^b One employee also receives share of net profits.

^c Two employees also receive share of net profits.

^d Three employees also receive share of net profits.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
		2 6 3									\$1.07 ¹ 1.17 1.14 ¹	1 2 3
	1	11									1.14 ¹	4
			1	1	3	1	1				3.08 ¹ 2.39 ¹ .84 ¹	5 6 7
	1						1				4.79 ¹ 1.72 ¹ 1.34 ¹	8 9 10
		4 10	10	1	2	1	1	1			1.75 ¹ 2.75 ¹ 1.19 ¹	11 12 13
	2	6	1	1	1						2.68 ¹ 1.98 ¹ 2.49 ¹	14 15 16
		2	13	3	2	2					2.01 ¹	17
			1	a1	1						b2.01 ¹	18
	3	22	27	b7	10	4	3	1		1	b1.95 ¹	19
	1	1									1.08 ¹ 1.00	20 21
	1	3									1.01 ¹	22
							1		2	c15	c6.84 ¹ 6.23 ¹ 2.39 ¹	23 24 25
		1				1		1	2	5	5.39 ¹ 5.75 ¹ 3.95 ¹	26 27 28
		3	2			1	1			2	1.76 ¹ 8.62 ¹ b2.78 ¹	29 30 31
					b2		1			8	6.11 ¹ 5.75 ¹	32 33
		4	2		b2	2	4		4	c35	d5.32 ¹	34
	1	1				1		1	2	1	4.84 ¹ 1.76 ¹ 3.45 ¹	35 36 37
	5	1 7 1	1 2 6		5	1	1	1			1.44 ¹ 1.14 ¹ 2.10 ¹ 2.87 ¹	38 39 40 41
	6	10	9	5	1	3		2	2	1	2.03 ¹	42
									1	2	6.71 ¹ 6.71 ¹ 7.82 ¹ 7.19 ¹ 5.75 ¹	43 44 45 46 47
									1	10	7.00	48
			a2 2	6		2		b8	b2	1	c3.49 ¹ 1.37 ¹ 2.96 ¹ 1.64 ¹ b1.67 ¹ 1.12 ¹ 3.55 ¹ 1.76 ¹	49 50 51 52 53 54 55
	8	10	b3 2	1	1			1				56
	1	2	3			2	1					
	9	20	d13	7	3	5		b9	b2	1	h2.17	57

e Four employees also receive share of net profits.

f Six employees work 7 days and 2 work 6 days.

g Not including 1 employee whose hours are irregular.

h Five employees also receive share of net profits.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Engineers, pump, assistant.....	4	M.	American	7	84	84	84
2		1	M.	English.....	7	84	84	84
3		1	M.	Hawaiian	6	60	60	60
4		4	M.	Japanese	7	84	84	84
5		1	M.	Norwegian	7	84	84	84
6		2	M.	Portuguese	7	84	84	84
7	Total	13	M.	.....	.....	60	84	82.2
8	Engineers, pump, chief	1	M.	American	7	84	84	84
9		1	M.	English.....	7	84	84	84
10		1	M.	Scotch.....	7	84	84	84
11	Total	3	M.	.....	7	84	84	84
12	Engineers, steam plow	2	M.	American	6	60	66	63
13		1	M.	English.....	6	60	60	60
14		9	M.	German	6	60	60	60
15		3	M.	Hawaiian	6	60	60	60
16		1	M.	Part-Hawaiian	6	60	60	60
17		32	M.	Japanese	6	60	60	60
18		5	M.	Norwegian	6	60	60	60
19		27	M.	Portuguese	6	60	60	60
20		3	M.	Scotch.....	6	60	60	60
21		1	M.	Swedish	6	60	60	60
22	Total	84	M.	.....	6	60	66	60.1
23	Engineers, steam plow, assistant.....	1	M.	Hawaiian	6	60	60	60
24		5	M.	Japanese	6	60	60	60
25		2	M.	Portuguese	6	60	60	60
26	Total	8	M.	.....	6	60	60	60
27	Engineer, traction	1	M.	Portuguese	6	60	60	60
28	Engineers, traction, assistant	2	M.	Portuguese	6	60	60	60
29	Fence men.....	1	M.	Chinese	6	60	60	60
30		3	M.	Hawaiian	6	60	60	60
31		11	M.	Japanese	6	60	60	60
32		4	M.	Porto Rican	6	60	60	60
33		25	M.	Portuguese	6	60	60	60
34	Total	44	M.	.....	6	60	60	60
35	Field hands	6	M.	American Negro	6	60	60	60
36		2	M.	Austrian	6	60	60	60
37		1,113	M.	Chinese	6	60	60	60
38		4	M.	Filipino	6	60	60	60
39		14	M.	German	6	60	60	60
40		355	M.	Hawaiian	6	60	60	60
41		24	F.	Hawaiian	6	60	60	60
42		114	(g)	Hawaiian	6	60	60	60
43		14	M.	Italian	6	60	60	60
44		11,245	M.	Japanese	6	60	60	60
45		2,432	F.	Japanese	6	60	60	60
46		160	M.	Japanese and Chinese	6	60	60	60
47		8	M.	Polish	6	60	60	60
48		1,679	M.	Porto Rican	6	60	60	60
49		175	F.	Porto Rican	6	60	60	60
50		1,083	M.	Portuguese	6	60	60	60
51		100	F.	Portuguese	6	60	60	60
52		7	M.	S. Sea Islander	6	60	60	60
53		1	M.	Spanish	6	60	60	60
54	Total	18,536	.....	.....	6	60	60	60
55	Fireman, donkey engine	1	M.	Japanese	6	(t)	(t)	(t)

a One employee also receives share of net profits.

b Including 1 boy.

c Including 1 pensioner.

d Boys.

e Including 4 boys.

f Including 7 boys.

g Children.

h Including 3 boys.

i Including 124 boys.

j Including 24 boys.

k Including 148 boys.

l Including 5 girls.

m Including 147 boys.

n Including 76 boys and 1 pensioner.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
.....	.....	.....	.....	1	1	2	.....	.....	.....	.....	\$2.92	1
.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	2.96	2
.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	2.00	3
.....	.....	3	.....	1	.....	.....	.....	.....	.....	.....	1.48	4
.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	2.96	5
.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	2.63	6
.....	.....	3	.....	4	4	2	.....	.....	.....	.....	2.36½	7
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	6.57½	8
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	7.39½	9
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	7.39½	10
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	7.12	11
.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	5.27½	12
.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	5.75	13
.....	.....	.....	5	.....	1	.....	.....	.....	1	1	2.75	14
.....	.....	2	.....	1	.....	.....	.....	.....	.....	.....	1.33½	15
.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	2.87½	16
.....	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.21½	17
.....	.....	.....	.....	.....	.....	.....	a 3	.....	1	1	a 4.29½	18
.....	16	4	.....	6	.....	.....	1	.....	.....	.....	1.61	19
.....	.....	.....	.....	2	.....	.....	.....	.....	.....	1	4.26	20
.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	3.83½	21
.....	.....	49	9	10	2	.....	a 7	.....	2	5	a 2.00½	22
.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1.00	23
.....	4	1	.....	.....	.....	.....	.....	.....	.....	.....	1.15½	24
.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	1.38½	25
.....	6	2	.....	.....	.....	.....	.....	.....	.....	.....	1.19	26
.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1.91½	27
.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.00	28
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.78	29
.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.73½	30
.....	10	1	.....	.....	.....	.....	.....	.....	.....	.....	.80	31
.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.66½	32
.....	b 8	17	.....	.....	.....	.....	.....	.....	.....	.....	b 1.02½	33
.....	b 26	18	.....	.....	.....	.....	.....	.....	.....	.....	b .90½	34
.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.83½	35
.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.86½	36
.....	c 1,111	2	.....	.....	.....	.....	.....	.....	.....	.....	c .68	37
.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.78	38
.....	9	5	.....	.....	.....	.....	.....	.....	.....	.....	.91	39
.....	d 3	e 344	8	.....	.....	.....	.....	.....	.....	.....	f .72	40
.....	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.52½	41
.....	o 34	o 80	.....	.....	.....	.....	.....	.....	.....	.....	o .47	42
.....	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.84½	43
.....	h 4	11,147	94	.....	.....	.....	.....	.....	.....	.....	h .67½	44
.....	1,989	498	.....	.....	.....	.....	.....	.....	.....	.....	.44½	45
.....	160	.....	.....	.....	.....	.....	.....	.....	.....	.....	.65½	46
.....	b 5	3	.....	.....	.....	.....	.....	.....	.....	.....	b .90½	47
.....	i 133	j 1,546	.....	.....	.....	.....	.....	.....	.....	.....	k .61½	48
.....	l 150	25	.....	.....	.....	.....	.....	.....	.....	.....	l .42½	49
.....	m 185	n 805	92	1	.....	.....	.....	.....	.....	.....	o .74	50
.....	p 44	56	.....	.....	.....	.....	.....	.....	.....	.....	p .47	51
.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.68½	52
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.92½	53
.....	22,492	r 15,889	204	1	.....	.....	.....	.....	.....	.....	s .64	54
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.84½	55

o Including 223 boys and 1 pensioner.

p Including 2 girls.

q Including 277 boys, 7 girls, and 34 children (sex not reported).

r Including 105 boys, 2 pensioners, and 80 children (sex not reported).

s Including 382 boys, 7 girls, 2 pensioners, and 114 children (sex not reported).

t Irregular.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Firemen, locomotive	1	M.	Chinese	6	60	60	60
2		4	M.	German	6	60	60	60
3		18	M.	Hawaiian	6	60	60	60
4		21	M.	Japanese	6	60	60	60
5		14	M.	Portuguese	6	60	72	60.9
6	Total	58	M.		6	60	72	60.2
7	Firemen, mill	1	M.	American	6	72	72	72
8		43	M.	Chinese	6	72	72	72
9		191	M.	Japanese	6	72	72	72
10		2	M.	Portuguese	6	72	72	72
11	Total	237	M.		6	72	72	72
12	Firemen, mill, chief	2	M.	Japanese	6	72	72	72
13	Firemen, pump	4	M.	Chinese	7	84	84	84
14		7	M.	Hawaiian	(a)	60	84	80.6
15		73	M.	Japanese	(b)	60	84	83.7
16		1	M.	Portuguese	7	84	84	84
17	Total	85	M.			60	84	83.4
18	Flume men	86	M.	Japanese	6	72	72	72
19		1	M.	Portuguese	6	72	72	72
20	Total	87	M.		6	72	72	72
21	Foremen, carpenters	3	M.	American	6	60	60	60
22		1	M.	Hawaiian	6	60	60	60
23		1	M.	Part-Hawaiian	6	60	60	60
24	Total	5	M.		6	60	60	60
25	Foremen, ditch men	1	M.	American	6	60	60	60
26		1	M.	Portuguese	6	60	60	60
27	Total	2	M.		6	60	60	60
28	Foreman, flume men	1	M.	Japanese	6	60	60	60
29	Foremen, laborers, railroad	1	M.	American	6	60	60	60
30		3	M.	Chinese	6	60	60	60
31		2	M.	German	6	60	60	60
32		1	M.	Hawaiian	6	60	60	60
33		10	M.	Japanese	6	60	60	60
34		3	M.	Portuguese	6	60	60	60
35	Total	20	M.		6	60	60	60
36	Foreman, masons	1	M.	American	6	60	60	60
37	Foremen, mill	6	M.	Japanese	6	72	72	72
38	Foreman, painters	1	M.	Hawaiian	6	60	60	60
39	Foremen, stable men (d)	8	M.	American	6	72	72	72
40		1	M.	German	6	72	72	72
41		2	M.	Hawaiian	6	72	72	72
42		1	M.	Part-Hawaiian	6	72	72	72
43		6	M.	Japanese	6	72	72	72
44		6	M.	Portuguese	6	72	72	72
45		1	M.	Scotch	6	72	72	72
46	Total	25	M.		6	72	72	72
47	Foremen, teamsters	6	M.	American	6	66	66	66
48		2	M.	Danish	6	66	66	66
49		3	M.	English	6	66	66	66
50		3	M.	German	6	66	66	66
51		10	M.	Hawaiian	6	66	66	66
52		1	M.	Part-Hawaiian	6	66	66	66
53		1	M.	Japanese	6	66	66	66
54		17	M.	Portuguese	6	66	66	66

^a One employee works 6 days and 6 work 7 days per week.

^b One employee works 6 days and 72 work 7 days per week.

^c One employee also receives share of net profits.

**TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.**

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Foremen, teamsters (concluded)	13	M.	Scotch	6	66	66	66
2		1	M.	Swedish	6	66	66	66
3	Total	57	M.		6	66	66	66
4	Foreman, teamsters, assistant	1	M.	Hawaiian	6	66	66	66
5	Foreman, tramway	1	M.	Portuguese	6	60	60	60
6	Freight handlers	11	M.	Hawaiian	6	60	60	60
7	Harness makers	1	M.	American	6	60	60	60
8		3	M.	Chinese	6	60	60	60
9		1	M.	English	6	60	60	60
10		1	M.	German	6	60	60	60
11		1	M.	Hawaiian	6	(b)	(b)	(b)
12		4	M.	Japanese	6	60	60	60
13		9	M.	Portuguese	6	60	60	60
14		1	M.	Spanish	6	60	60	60
15	Total	21	M.		6	e 60	e 60	e 60
16	Hospital nurses	4	F.	American	7	70	70	70
17		1	M.	American Negro	7	70	70	70
18		16	M.	Japanese	7	e 70	e 84	e 71
19		1	F.	Scotch	7	70	70	70
20	Total	22			7	e 70	e 84	e 70.7
21	Interpreters	8	M.	Japanese	6	(b)	(b)	(b)
22	Laborers, general	1	M.	American Negro	6	60	60	60
23		24	M.	Chinese	6	60	72	64.5
24		32	M.	Hawaiian	6	60	72	61.5
25		191	M.	Japanese	6	60	72	62.2
26		3	F.	Japanese	6	60	72	68
27		4	M.	Norwegian	6	60	60	60
28		3	M.	Polish	6	60	60	60
29		2	F.	Polish	6	60	60	60
30		18	M.	Porto Rican	6	60	60	60
31		1	F.	Porto Rican	6	60	60	60
32		80	M.	Portuguese	6	60	60	60
33		1	F.	Portuguese	6	60	60	60
34		1	M.	Samoan	6	60	60	60
35		1	M.	S. Sea Islander	6	60	60	60
36	Total	362			6	60	72	61.7
37	Laborers, mill	2	M.	American	6	72	72	72
38		214	M.	Chinese	6	72	72	72
39		3	M.	German	6	72	72	72
40		19	M.	Hawaiian	6	72	72	72
41		1	M.	Part-Hawaiian	6	72	72	72
42		1,373	M.	Japanese	6	72	72	72
43		10	F.	Japanese	6	72	72	72
44		7	M.	Polish	6	72	72	72
45		9	M.	Porto Rican	6	72	72	72
46		1	F.	Porto Rican	6	72	72	72
47		27	M.	Portuguese	6	72	72	72
48		1	M.	Spanish	6	72	72	72
49	Total	1,667			6	72	72	72
50	Laborers, mill repairs	2	M.	Part-Hawaiian	6	60	60	60
51		120	M.	Japanese	6	60	60	60
52	Total	122	M.		6	60	60	60
53	Laborers, pump	36	M.	Chinese	6	60	60	60
54		21	M.	Japanese	(x)	60	84	77.1
55		1	M.	Portuguese	7	84	84	84
56	Total	58	M.			60	84	66.6

a Two employees also receive share of net profits.

b Irregular.

c Not including 1 employee whose hours are irregular.

d And board.

e Not including 2 employees whose hours are irregular.

f One employee also receives share of net profits.

g Pensioner.

h Including 1 pensioner.

i Boys.

j Including 4 boys and 1 pensioner.

k Including 9 boys and 1 pensioner.

l Including 1 boy.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
				2	10	1		1			\$2.83	1
											3.06½	2
		11	13	a 10	16	4	2	1			a 2.23½	3
			1								1.72½	4
		1									1.34½	5
		10	1								1.09	6
				1							2.00	7
	2	1			1						.81	8
				1							2.00	9
					1						2.50	10
				1							2.00	11
	2	1	1								1.03	12
	1	5	3								1.27	13
	1	1	3								1.00	14
	5	8	4	3	1						1.31	15
	d 1		d 1	d 2							d 1.85	16
	d 1										d .85½	17
	d 15										d .72	18
		d 1									d 1.31½	19
	d 1	d 17	d 1	d 1	d 2						d .96	20
1	1	1	f 5								f 1.34½	21
	1										.69	22
g 1	22	1									h .82½	23
h 5	f 23	4									k .69	24
	170	21									l .79½	25
3											.40	26
	2	2									.86½	27
	i 3										i .50	28
	2										.69	29
j 2	m 15	1									n .62	30
	1										.65½	31
o 13	p 59	7	1								q .76½	32
	g 1										o .57½	33
	1										.77	34
	g 1										o .57½	35
r 24	s 301	36	1								t .76½	36
	1				1						1.72½	37
	200	11	3								.81½	38
	1	2									.96	39
	16	1	2								.93½	40
	1										.92½	41
	1,274	93	6								.80½	42
10											.43½	43
	4	3									.96½	44
	9										.70	45
	1										.61½	46
	u 17	7	3								u .96½	47
	v 1										v .61½	48
10	w 1,525	117	14		1						w .81	49
		2									1.00	50
	120										.80½	51
	120	2									.81	52
	26	10									.93	53
	14	6	1								.91	54
	1										.79	55
	41	16	1								.92	56

m Including 7 boys.

n Including 9 boys.

o 12 boys and 1 pensioner.

p Including 2 boys and 1 pensioner.

q Including 14 boys and 2 pensioners.

r Including 19 boys and 2 pensioners.

s Including 17 boys and 4 pensioners.

t Including 36 boys and 6 pensioners.

u Including 2 boys.

v And bonus.

w See notes to details.

x Six employees work 6 days and 15 work 7 days per week.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Laborers, railroad	1	M.	American	6	60	60	60
2		17	M.	Chinese	6	60	60	60
3		13	M.	Hawaiian	6	60	60	60
4		206	M.	Japanese	6	60	60	60
5		13	M.	Porto Rican	6	60	60	60
6		24	M.	Portuguese	6	60	60	60
7	Total	274	M.		6	60	60	60
8	Laborers, steam plow	13	M.	German	6	60	60	60
9		5	M.	Hawaiian	6	60	60	60
10		155	M.	Japanese	6	60	60	60
11		6	M.	Porto Rican	6	60	60	60
12		26	M.	Portuguese	6	60	60	60
13		4	M.	W. Indian Negro	6	60	60	60
14	Total	209	M.		6	60	60	60
15	Laborers, tramway	6	M.	Portuguese	6	60	60	60
16	Land clearers	9	M.	Chinese	6	60	60	60
17		17	M.	Japanese	6	60	60	60
18	Total	26	M.		6	60	60	60
19	Land preparers	70	M.	Japanese	6	60	60	60
20	Lime burners	2	M.	Portuguese	6	60	60	60
21	Machinists	13	M.	American	6	60	60	60
22		1	M.	Canadian	6	60	60	60
23		1	M.	English	6	60	60	60
24		2	M.	German	6	60	60	60
25		3	M.	Hawaiian	6	60	60	60
26		3	M.	Part-Hawaiian	6	60	60	60
27		6	M.	Japanese	6	60	60	60
28		5	M.	Portuguese	6	60	60	60
29		2	M.	Scotch	6	60	60	60
30	Total	36	M.		6	60	60	60
31	Machinists' helpers	2	M.	American	6	60	60	60
32		1	M.	Chinese	6	60	60	60
33		3	M.	Hawaiian	6	60	60	60
34		14	M.	Japanese	6	60	60	60
35		1	M.	Norwegian	6	60	60	60
36		4	M.	Portuguese	6	60	60	60
37		1	M.	Scotch	6	60	60	60
38		1	M.	Spanish	6	60	60	60
39	Total	27	M.		6	60	60	60
40	Masons	2	M.	German	6	60	60	60
41		2	M.	Hawaiian	6	60	60	60
42		8	M.	Japanese	6	60	60	60
43		23	M.	Portuguese	6	60	60	60
44	Total	35	M.		6	60	60	60
45	Masons' helpers	2	M.	German	6	60	60	60
46		17	M.	Japanese	6	60	60	60
47		2	M.	Porto Rican	6	60	60	60
48		16	M.	Portuguese	6	60	60	60
49	Total	37	M.		6	60	60	60
50	Master mechanic	1	M.	English	6	60	60	60
51	Office boys	1	M.	Chinese	6	60	60	60
52		1	M.	Porto Rican	6	60	60	60
53	Total	2	M.		6	60	60	60

a Including 2 boys.

b \$1 per day average earnings as contract men.

c Three employees also receive board.

d One employee also receives board, and 2 also receive share of net profits.

e Four employees also receive board, and 2 also receive share of net profits.

f And board.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
			1								\$1.53½	1
	17										.84	2
	10	3									.82½	3
	155	51									.87	4
	13										.74½	5
	21	3									.87½	6
	216	57	1								.86½	7
	12	1									.81½	8
	2	3									.96	9
	133	22									.86½	10
	6										.65½	11
	a 22	4									a .85½	12
	4										.88½	13
	a 179	30									a .85½	14
		6									1.00	15
	9										.69	16
	4	b 13									.93½	17
	13	b 13									.85	18
	70										.65½	19
			2								1.63½	20
					1			c 5	3	d 4	e 4.56½	21
								f 1			f 4.00	22
										g 1	g 5.75	23
				h 2							h 2.00	24
				1			1	1			3.29½	25
					1		1	f 1			h 3.57	26
			3	2		1					2.08½	27
			2	3				f 1			1.86	28
									1		h 4.50	29
			5	h 8	2	1	2	i 9	3	j 6	h 3.46	30
			1		1						2.01½	31
	1										.96	32
		1	1		1						1.68	33
	2	10	1	1							1.13½	34
		1									1.34½	35
	1	2		1							1.82½	36
					1						2.50	37
		1									1.25	38
	4	15	3	2	3						1.34½	39
					1		1				3.35½	40
				2							2.00	41
		3	2	2	1						1.68½	42
		7	8	3	3	2					1.76½	43
		10	10	7	5	2	1				1.85½	44
	2										.84½	45
	16	1									.78	46
	2										.84½	47
	7	6	3								1.08	48
	27	7	3								.91½	49
									1		4.60	50
1											.17½	51
	1										.57½	52
1	1										.37½	53

g And share of net profits.

h One employee also receives board.

i Six employees also receive board.

j One employee also receives board and 3 also receive share of net profits.

k Eight employees also receive board, and 3 also receive share of net profits.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Oilers, car	2	M.	Japanese	6	60	60	60
2	Oilers, locomotive	2	M.	Hawaiian	6	60	60	60
3		1	M.	Japanese	6	60	60	60
4	Total	3	M.		6	60	60	60
5	Oilers, mill	4	M.	Chinese	6	72	72	72
6		2	M.	Hawaiian	6	72	72	72
7		7	M.	Japanese	6	72	72	72
8	Total	13	M.		6	72	72	72
9	Oilers, pump	2	M.	Hawaiian	7	84	84	84
10		39	M.	Japanese	7	84	84	84
11	Total	41	M.		7	84	84	84
12	Overseers	97	M.	American	6	60	60	60
13		2	M.	Austrian	6	60	60	60
14		2	M.	Canadian	6	60	60	60
15		24	M.	Chinese	6	60	60	60
16		3	M.	Danish	6	60	60	60
17		9	M.	English	6	60	60	60
18		3	M.	French	6	60	60	60
19		54	M.	German	6	60	60	60
20		73	M.	Hawaiian	6	60	60	60
21		5	M.	Part-Hawaiian	6	60	60	60
22		2	M.	Irish	6	60	60	60
23		103	M.	Japanese	6	60	60	60
24		1	M.	New Zealander	6	60	60	60
25		9	M.	Norwegian	6	60	60	60
26		4	M.	Polish	6	60	60	60
27		11	M.	Porto Rican	6	60	60	60
28		164	M.	Portuguese	6	60	60	60
29		23	M.	Scotch	6	60	60	60
30		1	M.	South American	6	60	60	60
31		2	M.	Spanish	6	60	60	60
32		3	M.	Swedish	6	60	60	60
33		1	M.	Welsh	6	60	60	60
34	Total	596	M.		6	60	60	60
35	Overseers, assistant	1	M.	American	6	60	60	60
36		2	M.	German	6	60	60	60
37		5	M.	Hawaiian	6	60	60	60
38		1	M.	Part-Hawaiian	6	60	60	60
39		1	M.	Japanese	6	60	60	60
40		1	M.	Norwegian	6	60	60	60
41		9	M.	Portuguese	6	60	60	60
42		1	M.	Russian	6	60	60	60
43		1	M.	Scotch	6	60	60	60
44	Total	22	M.		6	60	60	60
45	Overseers, head	22	M.	American	6	60	60	60
46		2	M.	Canadian	6	60	60	60
47		1	M.	Chinese	6	60	60	60
48		1	M.	Danish	6	60	60	60
49		2	M.	English	6	60	60	60
50		2	M.	French	6	60	60	60
51		6	M.	German	6	60	60	60
52		1	M.	Part-Hawaiian	6	60	60	60
53		1	M.	Norwegian	6	60	60	60
54		1	M.	Portuguese	6	60	60	60
55		16	M.	Scotch	6	60	60	60
56		1	M.	Swedish	6	60	60	60
57	Total	56	M.		6	60	60	60

^a One employee also receives share of net profits.

^b Two employees also receive share of net profits.

^c One employee also receives board.

^d One employee also receives board, and 1 also receives share of net profits.

^e Three employees also receive share of net profits.

^f Three employees also receive board.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
	2										\$0.84 $\frac{1}{2}$	1
		2									1.15 $\frac{1}{2}$	2
	1										.96	3
	1	2									1.09	4
	1	3									1.20	5
	1	1									.88 $\frac{1}{2}$	6
	3	4									.93 $\frac{1}{2}$	7
	5	8									1.01	8
	2										.85 $\frac{1}{2}$	9
	39										.77 $\frac{1}{2}$	10
	41										.78	11
		3	13	55	10	4	a 8		a 3	1	b 2.54 $\frac{1}{2}$	12
			1		1						2.39 $\frac{1}{2}$	13
						1	1				3.64 $\frac{1}{2}$	14
	3	17	4								1.18 $\frac{1}{2}$	15
				1	1		1				3.00 $\frac{1}{2}$	16
				3	4	1				1	2.95 $\frac{1}{2}$	17
				2	1						2.43	18
		9	c 12	a 17	8	5	3				d 2.27	19
	3	32	28	e 9		1					e 1.67	20
		1	1	2			1				2.34	21
				1	1						2.58 $\frac{1}{2}$	22
	5	82	11	3	1	1					1.24	23
				1							2.30	24
				5							2.53 $\frac{1}{2}$	25
			1		2	1	1				1.53 $\frac{1}{2}$	26
	2	3			1						1.16 $\frac{1}{2}$	27
		64	c 71	a 24	4	1					d 1.62 $\frac{1}{2}$	28
			e 5	11	4	2	1				e 2.44	29
				1							2.30	30
			2								1.91 $\frac{1}{2}$	31
				2	1						2.43	32
				1							2.30	33
	13	218	f 151	g 138	39	17	a 15		a 3	2	h 1.83 $\frac{1}{2}$	34
				i 1							i 2.30	35
				1					1		3.54 $\frac{1}{2}$	36
		1	e 4	1							e 1.72 $\frac{1}{2}$	37
			1								1.72 $\frac{1}{2}$	38
	1										.77	39
				1							2.22 $\frac{1}{2}$	40
		4	3	2							1.68 $\frac{1}{2}$	41
				1							2.30	42
				1							2.49	43
	1	5	e 8	a 7					1		f 1.94	44
			k 1				1		a 4	b 16	i 6.20	45
										2	6.23	46
										1	5.75	47
										1	5.75	48
										1	7.66 $\frac{1}{2}$	49
						1				1	5.36 $\frac{1}{2}$	50
					1					5	6.75	51
										1	9.58 $\frac{1}{2}$	52
										1	5.75	53
						1					3.45	54
							1				6.68	55
										15	7.67	56
			k 1	1		2	2		a 4	b 46	i 6.43	57

g Five employees also receive share of net profits.

h Three employees also receive board, and 7 also receive share of net profits.

i And share of net profits.

j Four employees also receive share of net profits.

k And board.

l One employee also receives board, and 3 also receive share of net profits.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Employees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low-est.	High-est.	Average.
1	Overseers, head assistant.....	9	M.	American	6	60	60	60
2		1	M.	English	6	60	60	60
3		8	M.	German	6	60	60	60
4		2	M.	Part-Hawaiian ..	6	60	60	60
5		1	M.	Polish	6	60	60	60
6		7	M.	Scotch	6	60	60	60
7		2	M.	Swedish	6	60	60	60
8	Total	30	M.		6	60	60	60
9	Overseer, mill	1	M.	American	6	60	60	60
10	Overseers, steam plow.....	1	M.	American	6	60	60	60
11		2	M.	English	6	60	60	60
12		1	M.	Portuguese.....	6	60	60	60
13		1	M.	Scotch	6	60	60	60
14	Total	5	M.		6	60	60	60
15	Overseers, stock	1	M.	German	6	60	60	60
16		1	M.	Japanese	6	60	60	60
17	Total	2	M.		6	60	60	60
18	Pack-train men	2	M.	Japanese	6	66	66	66
19	Painters (c)	3	M.	American	6	60	60	60
20		1	M.	Filipino	6	60	60	60
21		1	M.	German	6	60	60	60
22		8	M.	Hawaiian	6	60	60	60
23		15	M.	Japanese	6	60	60	60
24		1	M.	Porto Rican	6	60	60	60
25		1	M.	Portuguese	6	60	60	60
26	Total	30	M.		6	60	60	60
27	Pipe men.....	2	M.	Hawaiian	6	60	60	60
28	Plowmen.....	12	M.	Hawaiian	6	66	66	66
29		25	M.	Japanese	6	66	66	66
30		10	M.	Portuguese	6	66	66	66
31	Total	47	M.		6	66	66	66
32	Plowmen and cultivators	59	M.	Japanese	6	66	66	66
33		40	M.	Portuguese	6	66	66	66
34	Total	99	M.		6	66	66	66
35	Plumber.....	1	M.	German	6	(d)	(d)	(d)
36	Policemen.....	1	M.	American	7	70	70	70
37		1	M.	American negro ..	7	70	70	70
38		7	M.	Hawaiian	7	70	84	72
39		1	M.	Japanese	7	70	70	70
40	Total	10	M.		7	70	84	71.4
41	Reservoir men	1	M.	German	7	70	70	70
42		1	M.	Hawaiian	7	70	70	70
43		35	M.	Japanese	(h)	60	70	67.4
44		2	M.	Portuguese.....	7	70	70	70
45	Total	39	M.		.....	60	70	67.7
46	Riggers.....	1	M.	American	6	60	60	60
47		1	M.	Hawaiian	6	63	63	63
48		1	M.	Japanese.....	6	60	60	60
49		1	M.	Scotch.....	6	60	60	60
50	Total	4	M.		6	60	63	60.8

^a And share of net profits.

^b One employee also receives share of net profits.

^c Including house painters.

^d Irregular.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
						a 1	3		3	2	b \$4.62	1
										1	5.75	2
					3					5	4.96	3
											4.50½	4
								1			4.79	5
									1		4.38	6
						1	1		1	1	3.64½	7
					3	b 2	9	1	6	9	b 4.62½	8
										a 1	a 6.71	9
									a 1		a 4.79	10
						1				2	6.71	11
											3.26	12
									1		4.60	13
						1			b 2	2	b 5.21½	14
					1						2.87½	15
		1									1.15½	16
		1			1						2.01½	17
	2										.77	18
		1			1	1					2.29	19
		1									1.25	20
		3									1.25	21
	5	10	2		2			1			1.90½	22
		1									1.05½	23
				1							1.00	24
											2.00	25
	5	17	2	1	3	1		1			1.45	26
	1					1					1.96½	27
	1	8	3								1.11½	28
	25	10									.78	29
											1.07½	30
	26	18	3								.93	31
	59										.73	32
	1	39									1.01	33
	60	39									.84	34
			1								1.72½	35
						1					3.12½	36
				1							2.30	37
e 1	f 5				1						σ .93½	38
		1									1.15	39
e 1	f 5	1		1	1	1					σ 1.35	40
				1							2.30	41
		1									1.15	42
	25	10									.91½	43
	1	1									1.03½	44
	26	12		1							.96½	45
						1					3.00	46
		1									1.15½	47
				1							2.30	48
						1					3.25	49
		1		1		2					2.42½	50

e And additional salary from Government.

f Two employees receive additional salary from Government.

σ Three employees receive additional salary from Government.

½ Nine persons work 6 days and 26 work 7 days per week.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Shaft diggers.....	20	M.	Chinese.....	6	60	60	60
2		^a 319	M.	Japanese.....	6	60	60	60
3		1	M.	Portuguese.....	6	60	60	60
4	Total.....	^a 340	M.		6	60	60	60
5	Stable men (c).....	1	M.	American.....	6	72	72	72
6		5	M.	Chinese.....	6	72	72	72
7		1	M.	German.....	6	72	72	72
8		17	M.	Hawaiian.....	6	72	72	72
9		210	M.	Japanese.....	6	72	72	72
10		2	M.	Polish.....	6	72	72	72
11		1	M.	Porto Rican.....	6	72	72	72
12		39	M.	Portuguese.....	6	72	72	72
13	Total.....	276	M.		6	72	72	72
14	Steerers, steam plow.....	2	M.	German.....	6	60	60	60
15		4	M.	Hawaiian.....	6	60	60	60
16		37	M.	Japanese.....	6	60	66	60.3
17		11	M.	Portuguese.....	6	60	60	60
18	Total.....	54	M.		6	60	66	60.2
19	Stenographer.....	1	M.	American.....	6	66	66	66
20	Stock herders.....	1	M.	American.....	7	70	70	70
21		22	M.	Hawaiian.....	7	70	70	70
22		12	M.	Japanese.....	7	70	70	70
23		5	M.	Portuguese.....	7	70	70	70
24	Total.....	40	M.		7	70	70	70
25	Stock herders and butchers.....	1	M.	German.....	7	70	70	70
26		3	M.	Hawaiian.....	7	70	70	70
27		1	M.	Japanese.....	7	70	70	70
28	Total.....	5	M.		7	70	70	70
29	Stockman.....	1	M.	Scotch.....	7	70	70	70
30	Storekeepers.....	20	M.	American.....	6	60	72	60.6
31		1	M.	Canadian.....	6	60	60	60
32		6	M.	English.....	6	60	60	60
33		3	M.	Hawaiian.....	6	60	60	60
34		1	M.	New Zealander.....	6	60	60	60
35		1	M.	Portuguese.....	6	60	60	60
36		2	M.	Scotch.....	6	60	60	60
37	Total.....	34	M.		6	60	72	60.4
38	Storekeeper, assistant.....	1	M.	American.....	6	60	60	60
39	Sugar boilers.....	13	M.	American.....	6	72	72	72
40		1	M.	Canadian.....	6	72	72	72
41		1	M.	Danish.....	6	72	72	72
42		^r 6	M.	English.....	6	72	72	72
43		1	M.	French.....	6	72	72	72
44		13	M.	German.....	6	72	72	72
45		1	M.	Hawaiian.....	6	72	72	72
46		3	M.	Part-Hawaiian.....	6	72	72	72
47		1	M.	Irish.....	6	72	72	72
48		1	M.	New Zealander.....	6	72	72	72
49		1	M.	Portuguese.....	6	72	72	72

^a Including 8 employees who receive \$3 per foot.

^b Not including 8 employees who receive \$3 per foot.

^c A small amount of work done on Sundays is not considered in time or rate.

^d Including 2 boys.

^e Including 3 boys.

^f Including 5 boys.

^g Not including 1 employee whose hours are irregular.

^h Including 1 boy.

ⁱ Not including 7 employees whose hours are irregular.

^j One employee also receives board.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
		20									\$1.25	1
	4	307									b 1.24½	2
		1									1.07½	3
	4	328									b 1.24½	4
		1									1.34½	5
	3	1	1								.99	6
					1						2.87½	7
	16	1									.79½	8
	153	56	1								.87	9
	1	1									1.00	10
	1										.77	11
d 3	e 16	15	5								f .99	12
d 3	e 190	75	7		1						f .89½	13
		2									1.15½	14
	4										.84½	15
	24	13									.94½	16
	1	10									1.06½	17
	29	25									.97	18
							1				3.83½	19
	1										.85½	20
	h 17	3	2								h .94½	21
	j 11	1									j .75½	22
k 1	4										h .76	23
k 1	m 33	4	2								m .86½	24
					1						2.63	25
		3									1.00	26
	1										.56	27
	1	3			1						1.24	28
									1		4.60	29
				1	1	1	4		8	5	4.69	30
					1				2	2	5.75	31
			1	1			1			1	4.74	32
							1				3.19½	33
				1							3.83½	34
					n 1						2.11	35
										1	o 4.69½	36
			1	3	o 3	1	6		10	10	o 4.49½	37
				1							2.49	38
							2		p 3	p 8	q 5.33½	39
									1		4.79	40
										1	6.39	41
						1				4	s 5.65½	42
									1		4.98½	43
							1		3	9	5.94½	44
										t 1	t 6.39	45
									1	2	5.30	46
									1		4.98½	47
										1	5.75	48
										1	5.75	49

k Boy.

l Not including 8 employees whose hours are irregular.

m See notes to details.

n Engaged only part of time.

o One employee engaged only part of time.

p One employee also receives share of net profits.

q Two employees also receive share of net profits.

r Including 1 employee who receives \$1,000 per crop.

s Not including 1 employee who receives \$1,000 per crop.

t And share of net profits.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Sugar boilers (concluded).....	1	M.	Scotch.....	6	72	72	72
2		a 3	M.	Welsh.....	6	72	72	72
3	Total.....	c 46	M.		6	72	72	72
4	Sugar boilers, assistant.....	4	M.	American.....	6	72	72	72
5		13	M.	Chinese.....	6	72	72	72
6		2	M.	English.....	6	72	72	72
7		1	M.	German.....	6	72	72	72
8		1	M.	Hawaiian.....	6	72	72	72
9		22	M.	Japanese.....	6	72	72	72
10		10	M.	Portuguese.....	6	72	72	72
11		1	M.	Welsh.....	6	72	72	72
12	Total.....	54	M.		6	72	72	72
13	Superintending engineers.....	2	M.	American.....	6	72	72	72
14		1	M.	English.....	6	72	72	72
15	Total.....	3	M.		6	72	72	72
16	Surveyors.....	10	M.	American.....	(f) 6	(g) 60	(g) 60	(g) 60
17		1	M.	Danish.....	6	(g) 60	(g) 60	(g) 60
18		1	M.	Irish.....	6	(g) 60	(g) 60	(g) 60
19		1	M.	Norwegian.....	6	(g) 60	(g) 60	(g) 60
20		1	M.	Portuguese.....	6	(g) 60	(g) 60	(g) 60
21	Total.....	14	M.			(g) 60	(g) 60	(g) 60
22	Surveyor, assistant.....	1	M.	American.....	(g) 6	(g) 60	(g) 60	(g) 60
23	Surveyors' helpers.....	8	M.	Hawaiian.....	(j) 6	k 60	k 60	k 60
24		10	M.	Japanese.....	(l) 6	m 60	m 60	m 60
25		3	M.	Portuguese.....	6	(o) 60	(o) 60	(o) 60
26	Total.....	21	M.			o 60	o 60	o 60
27	Teachers, kindergarten.....	2	F.	American.....	5	30	30	30
28	Teachers, kindergarten, assistant.....	2	F.	Hawaiian.....	5	30	30	30
29	Teamsters.....	2	M.	American.....	6	66	66	66
30		11	M.	Chinese.....	6	66	66	66
31		264	M.	Hawaiian.....	6	66	66	66
32		2	M.	Part-Hawaiian.....	6	66	66	66
33		680	M.	Japanese.....	6	66	66	66
34		8	M.	Polish.....	6	66	66	66
35		26	M.	Porto Rican.....	6	66	66	66
36		346	M.	Portuguese.....	6	66	66	66
37	Total.....	1,339	M.		6	66	66	66
38	Teamsters and cultivators.....	113	M.	Hawaiian.....	6	66	66	66
39		379	M.	Japanese.....	6	66	66	66
40		3	M.	Porto Rican.....	6	66	66	66
41		149	M.	Portuguese.....	6	66	66	66
42		1	M.	South American.....	6	66	66	66
43	Total.....	645	M.		6	66	66	66
44	Timekeepers.....	14	M.	American.....	6	60	60	60
45		1	M.	Austrian.....	6	60	60	60
46		2	M.	English.....	6	60	60	60
47		6	M.	German.....	6	60	60	60
48		4	M.	Hawaiian.....	6	60	60	60
49		5	M.	Part-Hawaiian.....	6	60	60	60

a Including 1 employee who receives \$2,000 per crop.

b Not including 1 employee who receives \$2,000 per crop.

c See notes to details.

d One employee also receives share of net profits.

e Two employees also receive share of net profits.

f Eight employees work 6 days and 2 irregular.

g Irregular.

h And board.

i One employee also receives board.

j Four employees work 6 days and 4 irregular.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
							1			1	\$5.56	1
										1	b 4.69½	2
						1	4		d 10	e 29	c 5.56½	3
			1	1	1	1					2.63½	4
	1	6	3	3							1.58½	5
				1					1		3.54½	6
							1				3.83½	7
							1				3.83½	8
		13	8	1							1.43½	9
	1	d 5	1	2	1						d 1.61	10
										1	5.36½	11
	2	d 24	13	8	2	1	2		1	1	d 1.83	12
										2	9.96½	13
										1	15.97½	14
										3	11.97	15
					1				2	7	6.94	16
									1		4.60	17
										h 1	h 10.00	18
								1		1	7.67	19
											4.23½	20
					1			1	3	i 9	i 6.85	21
							1				3.83½	22
	1	6	1								1.08	23
	3	4	3								1.16	24
	n 2	1									n .93½	25
	n 6	11	4								n 1.10	26
					1		1				3.12½	27
	2										.62½	28
		1	1								1.89½	29
	3	8									.99½	30
	154	110									.92	31
		1	1								1.34½	32
	522	158									.85½	33
	7	1									.94½	34
	25	1									.80	35
	p 165	180	1								p .97½	36
	p 876	460	3								p .90	37
	68	45									.89½	38
	348	31									.81	39
	3										.73	40
	q 8	r 103	38								s .88½	41
		1									.84½	42
	q 8	r 523	114								s .84	43
		1		f 3	3	3	1	2	1		f 3.09½	44
					1						2.68½	45
					d 2						d 2.68½	46
			h 1	2	1	1				1	h 2.97	47
		3									1.32½	48
			2	2		1					2.37½	49

k Not including 5 employees whose hours are irregular.

l Nine employees work 6 days and 1 irregular.

m Not including 6 employees whose hours are irregular.

n Including 1 boy.

o Not including 14 employees whose hours are irregular.

p Including 2 boys.

q Boys.

r Including 9 boys.

s Including 17 boys.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days, per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Timekeepers (concluded)	2	M.	Norwegian	6	60	72	66
2		1	M.	Portuguese	6	60	60	60
3		5	M.	Scotch	6	60	60	60
4	Total	40	M.		6	60	72	60.3
5	Tinsmith	1	M.	German	6	60	60	60
6	Waiter	1	M.	Japanese	7	70	70	70
7	Warehousemen	2	M.	American	6	60	60	60
8		5	M.	Hawaiian	6	60	60	60
9		17	M.	Japanese	6	60	60	60
10		3	M.	Portuguese	6	60	60	60
11	Total	27	M.		6	60	60	60
12	Watchmen	4	M.	American	7	70	84	73.5
13		1	M.	American Negro	7	84	84	84
14		2	M.	Chinese	7	70	84	77
15		1	M.	English	7	84	84	84
16		5	M.	German	7	<i>e</i> 70	<i>e</i> 70	<i>e</i> 70
17		4	M.	Hawaiian	7	70	70	70
18		33	M.	Japanese	(<i>g</i>)	<i>h</i> 60	<i>h</i> 84	<i>h</i> 73.8
19		1	M.	Norwegian	7	84	84	84
20		24	M.	Portuguese	7	70	84	71.8
21		1	M.	Scotch	7	70	70	70
22	Total	76	M.			<i>i</i> 60	<i>i</i> 84	<i>i</i> 73.1
23	Water tenders, mill	7	M.	Japanese	6	72	72	72
24		3	M.	Portuguese	6	72	72	72
25	Total	10	M.		6	72	72	72
26	Water tenders, steam plow	2	M.	Chinese	6	66	66	66
27		8	M.	Japanese	6	66	66	66
28		8	M.	Portuguese	6	66	66	66
29	Total	18	M.		6	66	66	66
30	Well borers	7	M.	American	6	60	60	60
31		1	M.	Norwegian	6	60	60	60
32		5	M.	Portuguese	6	60	60	60
33	Total	13	M.		6	60	60	60
34	Wharf hands	1	M.	American	6	60	60	60
35		3	M.	German	6	<i>e</i> 60	<i>e</i> 60	<i>e</i> 60
36		47	M.	Hawaiian	6	(<i>j</i>)	(<i>j</i>)	(<i>j</i>)
37		68	M.	Japanese	6	(<i>j</i>)	(<i>j</i>)	(<i>j</i>)
38		15	M.	Porto Rican	6	<i>k</i> 60	<i>k</i> 60	<i>k</i> 60
39		4	M.	Portuguese	6	<i>l</i> 60	<i>l</i> 60	<i>l</i> 60
40	Total	138	M.		6	<i>m</i> 60	<i>m</i> 60	<i>m</i> 60
41	Wharfingers	1	M.	Dutch	6	60	60	60
42		1	M.	Hawaiian	6	60	60	60
43		1	M.	Russian	6	60	60	60
44		2	M.	Scotch	6	60	60	60
45		1	M.	Swede	6	60	60	60
46	Total	6	M.		6	60	60	60
47	Whitewashers	3	M.	Japanese	6	60	60	60
48	Wipers and oilers, locomotive	1	M.	Hawaiian	6	60	60	60
49		18	M.	Japanese	6	60	60	60
50		3	M.	Portuguese	6	60	60	60
51	Total	22	M.		6	60	60	60

a One employee also receives share of net profits.

b One employee also receives board.

c Two employees also receive share of net profits.

d Two employees also receive board, and 2 also receive share of net profits.

e Not including 1 employee whose hours are irregular.

f Two employees also receive board.

g One employee works 1 day (Sunday), 2 work 6 days, and 30 work 7 days.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
				1		1					\$2.68 ^k	1
				1							2.30	2
			1		a 3		1				a 2.80	3
		4	b 5	b 9	c 10	6	2	2	1	1	d 2.70	4
				1							2.00	5
	1										.66	6
		3	2	1							2.20 ^k	7
	17										1.38 ^k	8
		3									.88 ^k	9
											1.13 ^k	10
	17	6	3	1							1.10	11
	1	1	1	1							1.49	12
			1								1.50	13
	2										.69 ^k	14
		1									1.31 ^k	15
b 3	b 2										f 1.08 ^k	16
2	2										1.03 ^k	17
21	12										.88 ^k	18
	1										1.15 ^k	19
	9	13	2								1.04 ^k	20
			1								1.64 ^k	21
	b 38	b 32	5	1							f 1.01	22
	2		1								1.02 ^k	23
	1	4									1.00 ^k	24
	3	6	1								1.02	25
		2									1.00	26
	7	1									.92	27
	2	6									.98	28
	9	9									.95 ^k	29
			1	1	1		2	1	1		3.30	30
					1						2.50	31
		4		1							1.30 ^k	32
		4	1	2	2		2	1	1		2.47 ^k	33
				1							2.11	34
		1	2								1.53 ^k	35
	12	26	8	1							1.13	36
	46	21	1								.94 ^k	37
	15										.76	38
	1		3								1.49	39
	74	48	14	2							1.02 ^k	40
				1							2.30	41
					1						2.68 ^k	42
				1							2.30	43
							1	1			3.93	44
				1							2.39 ^k	45
				3	1		1	1			2.92 ^k	46
		3									1.00	47
		1									1.00	48
	13	5									.95	49
	1	2									1.08	50
	14	8									.97	15

^k Not including 1 employee who works Sunday only (10 hours).^j Not including 1 employee whose hours are irregular and 1 who works Sunday only.ⁱ Irregular.^k Not including 8 employees whose hours are irregular.^l Not including 3 employees whose hours are irregular.^m Not including 127 employees whose hours are irregular.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Concluded.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Wiper and oiler, mill.....	1	M.	Chinese	6	72	72	72
2	Wood choppers.....	1	M.	Hawaiian	6	60	60	60
3		6	M.	Japanese	6	60	60	60
4	Total	7	M.	.....	6	60	60	60
5	Yard boys	3	M.	Japanese	6	60	60	60
6		1	M.	Porto Rican	6	60	60	60
7	Total	4	M.	.....	6	60	60	60

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1902—Concluded.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Concluded.

Classified wages per day.											Average wages per day.	Mar- ginal num- ber.
Under \$0.50.	\$0.50 or un- der \$1.	\$1 or under \$1.50.	\$1.50 or under \$2.	\$2 or under \$2.50.	\$2.50 or under \$3.	\$3 or under \$3.50.	\$3.50 or under \$4.	\$4 or under \$4.50.	\$4.50 or under \$5.	\$5 or over.		
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$0.96	1
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.80	2
.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.65½	3
.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.67½	4
2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.47½	5
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.81	6
3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.43½	7

TABLE II.—OCCUPATIONS, AVERAGE WAGES AND HOURS OF LABOR, AND NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1900-1901 AND 1902.

BAKERY AND CONFECTIONERY (1 ESTABLISHMENT).

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Baker.....	Japanese.....	M.	.....	.....	.....	1	54	\$1.72½
Baker's helpers.....	Japanese.....	M.	.....	.....	.....	3	54	1.00
Confectioners.....	Japanese.....	M.	.....	.....	.....	2	54	.86½
Cooks.....	Chinese.....	M.	.....	.....	.....	3	(a)	.76½
Drivers.....	Italian.....	M.	.....	.....	.....	1	54	2.30
	Portuguese.....	M.	.....	.....	.....	2	54	1.15
Total.....		M.	.....	.....	.....	3	54	1.53½
House boys.....	Japanese.....	M.	.....	.....	.....	2	54	b.51½
Launderer.....	Chinese.....	M.	.....	.....	.....	1	54	.76½
Salesmen.....	American.....	M.	.....	.....	.....	2	54	1.34½
Waiters.....	Japanese.....	M.	.....	.....	.....	2	54	.86½

BREWERY (1 ESTABLISHMENT).

Bottlers.....	Chinese.....	M.	.....	.....	.....	1	54	\$1.16½
	Hawaiian.....	M.	.....	.....	.....	13	54	1.16½
	Portuguese.....	M.	.....	.....	.....	11	54	1.66½
Total.....		M.	.....	.....	.....	25	54	1.38½
Brewer, assistant.....	American.....	M.	.....	.....	.....	1	54	3.83½
Brewer, head.....	American.....	M.	.....	.....	.....	1	54	3.62½
Engineer.....	American.....	M.	.....	.....	.....	1	63	4.93
Engineer, assistant.....	American.....	M.	.....	.....	.....	1	63	3.29
Firemen.....	Norwegian.....	M.	.....	.....	.....	2	63	2.50
Foreman, bottlers.....	American.....	M.	.....	.....	.....	1	54	3.83½
Ice pullers.....	American.....	M.	.....	.....	.....	1	54	b1.50
	Japanese.....	M.	.....	.....	.....	1	54	1.75
	S. Sea Islander.....	M.	.....	.....	.....	1	54	1.75
Total.....		M.	.....	.....	.....	3	54	c1.66½
Operatives.....	American.....	M.	.....	.....	.....	2	54	3.00
	Hawaiian.....	M.	.....	.....	.....	8	54	1.81½
	Japanese.....	M.	.....	.....	.....	3	54	1.50
	Norwegian.....	M.	.....	.....	.....	2	54	2.50
	Portuguese.....	M.	.....	.....	.....	2	54	1.75
Total.....		M.	.....	.....	.....	17	54	1.97

BUILDING (9 ESTABLISHMENTS).

[Data for 1900-1901 are for 8 establishments.]

Bookkeepers.....	American.....	M.	.....	.....	.....	1	47	\$1.91½
	German.....	M.	.....	.....	.....	1	47	3.83½
Total.....		M.	.....	.....	.....	2	47	2.87½
Bricklayers.....	American.....	M.	5	48	\$5.50	.....	.....	.....
	English.....	M.	2	48	6.00	.....	.....	.....
	Irish.....	M.	2	48	6.00	.....	.....	.....
	Scotch.....	M.	2	48	6.00	.....	.....	.....
Total.....		M.	11	48	5.77½	.....	.....	.....

a Irregular.

b Wages of boys.

c Including wages of 1 boy.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

BUILDING (9 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 8 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Bricklayers' helpers	Hawaiian	M.	4	48	\$2.50			
	Part-Hawaiian	M.	5	48	2.50			
	Portuguese	M.	14	48	2.14½			
Total		M.	23	48	2.28½			
Carpenters	American	M.	30	48	3.98½	33	47.9	\$4.18
	Danish	M.				1	47	4.00
	English	M.	1	48	4.00	1	48	4.50
	German	M.	9	48	3.72	1	47	4.00
	Hawaiian	M.	8	48	3.00			
	Part-Hawaiian	M.	6	48	2.87½	10	48	2.95
	Irish	M.	4	48	4.00			
	Japanese	M.				1	47	1.50
	Portuguese	M.	9	48	2.97	8	47.5	2.87½
Total		M.	67	48	3.59½	55	47.8	3.72
Carpenters' helpers	Portuguese	M.				6	48	1.50
Carvers, stone	English	M.	1	48	7.00			
	Italian	M.	1	48	6.00			
Total		M.	2	48	6.50			
Concrete workers	American	M.				2	48	5.00
Cornice maker	German	M.	1	47	4.00			
Drillers and blasters	Japanese	M.	5	48	1.50			
Driver	Part-Hawaiian	M.				1	48	1.50
Excavators	Japanese	M.	27	48	1.10			
Foremen, bricklayers	American	M.				1	48	8.00
	English	M.	1	48	7.00			
Foremen, carpenters	American	M.	8	48	5.81½	3	48	6.50
	English	M.	1	48	7.00			
Total		M.	9	48	5.50	3	48	6.50
Foremen, excavators	Part-Hawaiian	M.	1	48	2.50			
	Portuguese	M.	1	48	2.50			
Total		M.	2	48	2.50			
Foremen, painters, house	American	M.	2	47.5	4.00			
	Australian	M.	1	47	5.00			
	Hawaiian	M.	1	48	4.00			
Total		M.	4	47.5	4.25			
Foreman, plasterers	English	M.	1	48	6.00			
Foremen, plumbers	American	M.	2	47	6.00	1	47	7.50
	English	M.				1	47	6.90
Total		M.	2	47	6.00	2	47	7.20
Foremen, stone masons	American	M.				1	48	7.00
	Portuguese	M.	1	48	5.00			
	Scotch	M.	1	48	7.00			
Total		M.	2	48	6.00	1	48	7.00
Foreman, tinsmiths	Bulgarian	M.	1	47	4.00			
Ironworkers	American	M.				2	48	5.50
Laborers	American	M.	7	48.7	1.89½			
	English	M.	3	48	2.00			
	Hawaiian	M.	7	51.6	1.86			
	Irish	M.	6	48	2.00			
	Japanese	M.	24	49.3	1.00	28	52.2	1.37
	Portuguese	M.	34	49.3	1.37½	6	47.8	1.50
Total		M.	81	49.3	1.37½	29	51.3	1.39½

a Including wages of 1 boy.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

BUILDING (9 ESTABLISHMENTS)—Concluded.

[Data for 1900-1901 are for 8 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Manager, plumber's establishment.....	American	M.	.....	.....	.....	1	47	\$5.75
Masons.....	Portuguese	M.	.....	.....	.....	2	48	4.50
Masons' helpers.....	Japanese	M.	30	48	\$1.25	.....	.....	.....
	Portuguese	M.	15	48	2.00	.....	.....	.....
Total.....	.....	M.	45	48	1.50	.....	.....	.....
Masons, stone.....	American	M.	15	48	4.93½	.....	.....	.....
	German	M.	2	48	4.25	.....	.....	.....
	Japanese	M.	16	48	2.43½	.....	.....	.....
	Portuguese	M.	20	48	3.00	.....	.....	.....
Total.....	.....	M.	53	48	3.42½	.....	.....	.....
Painters	American	M.	6	47.5	3.33½	12	47.9	3.50
	American Negro	M.	.....	.....	.....	1	47	2.50
	Belgian	M.	1	47	3.00	.....	.....	.....
	German	M.	1	47	3.00	.....	.....	.....
	Hawaiian	M.	20	47.3	2.57½	19	47.7	2.56½
	Part-Hawaiian	M.	20	47.2	2.62½	.....	.....	.....
	Norwegian	M.	1	47	3.50	.....	.....	.....
	Portuguese	M.	9	47	2.72	3	48	2.75
Total.....	.....	M.	58	47.2	2.72½	35	47.8	2.90
Painters' apprentice.....	Portuguese	M.	.....	.....	.....	1	48	1.66½
Plasterers	American	M.	2	48	5.50	2	48	6.00
	English	M.	2	48	5.00	.....	.....	.....
	Hawaiian	M.	1	48	6.00	.....	.....	.....
	Irish	M.	4	48	5.00	.....	.....	.....
	Scotch.....	M.	1	48	6.00	.....	.....	.....
Total.....	.....	M.	10	48	5.30	2	48	6.00
Plasterers' helpers.....	Portuguese	M.	5	48	2.00	.....	.....	.....
Plumbers	American	M.	13	47	5.00	5	47	5.50
	Irish.....	M.	3	47	5.00	.....	.....	.....
Total.....	.....	M.	16	47	5.00	5	47	5.50
Plumbers' apprentice.....	Portuguese	M.	.....	.....	.....	1	47	a. 66½
Plumbers' helpers	American	M.	.....	.....	.....	3	47	b. 94½
	Hawaiian	M.	5	47	1.20	2	47	2.50
	Part-Hawaiian	M.	1	47	1.00	.....	.....	.....
	Portuguese	M.	.....	.....	.....	3	47	2.00
Total.....	.....	M.	6	47	1.16½	8	47	b1.73
Teamsters	Portuguese	M.	.....	.....	.....	4	48	1.50
Tinsmiths.....	American	M.	2	47	3.75	1	47	3.50
	German	M.	.....	.....	.....	1	47	3.00
	Hawaiian	M.	2	47	2.00	.....	.....	.....
	Part-Hawaiian	M.	1	47	3.00	.....	.....	.....
	Portuguese	M.	3	47	2.50	4	47	2.93½
	Spanish	M.	1	47	2.75	.....	.....	.....
Total.....	.....	M.	9	47	2.75	6	47	3.04
Tinsmiths' helpers.....	German	M.	1	47	1.50	.....	.....	.....
	Hawaiian	M.	1	47	2.00	.....	.....	.....
	Portuguese	M.	.....	.....	.....	4	47	1.50
Total.....	.....	M.	2	47	1.75	4	47	1.50

a Wages of boy.

b Including wages of 1 boy.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

CARRIAGE MAKING (1 ESTABLISHMENT).

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Blacksmiths	American	M.	3	53	\$4.00	1	53	\$5.00
	German	M.	1	53	4.00	1	53	4.00
	Portuguese	M.	1	53	3.25	1	53	3.25
Total		M.	5	53	3.85	3	53	4.08½
Blacksmiths' helpers	American	M.	1	53	1.50	3	53	2.00
	Hawaiian	M.	5	53	1.53½	4	53	1.29
	Portuguese	M.	3	53	1.55½			
Total		M.	9	53	1.53½	7	53	1.59½
Bookkeeper	Hawaiian	M.				1	53	1.72½
Foremen, blacksmiths	American	M.	1	53	4.79	1	53	4.79
Foremen, painters	Chinese	M.	1	53	3.50	1	53	3.00
Foremen, trimmers	German	M.	1	53	4.79	1	53	4.79
Foreman, woodworkers	English	M.	1	53	4.41			
Laborers	Portuguese	M.	2	53	1.50			
Managers	American	M.	1	53	8.62½	1	53	8.62½
Office boy	American	M.	1	53	1.34			
Painters	Chinese	M.	6	53	1.90½	5	53	1.53½
Trimmers	Hawaiian	M.	1	53	1.25	2	53	1.91½
	Portuguese	M.	1	53	.83½			
Total		M.	2	53	1.04½	2	53	1.91½
Woodworkers	American	M.	2	53	3.75			
	German	M.				1	53	4.00
	Hawaiian	M.				2	53	1.04½
	Portuguese	M.	2	53	2.16½	1	53	4.00
Total		M.	4	53	2.96	4	53	2.52

COFFEE PLANTATIONS (2 ESTABLISHMENTS).

Cultivators	Hawaiian	M.				1	60	\$1.00
	Japanese	M.				19	60	.77
	Portuguese	M.				2	60	1.00
Total		M.				22	60	.80
Overseer	Japanese	M.				1	60	1.07½
Pickers	(d)	(e)				65	(f)	(g)

DRESSMAKING AND MILLINERY (1 ESTABLISHMENT).

Dressmaker	American	M.				1	54	\$5.00
Dressmaker's apprentices	Portuguese	F.				5	54	1.34
Dressmakers, assistant	Part-Hawaiian	F.				1	54	2.00
	Portuguese	F.				7	54	1.14½
Total		F.				8	54	1.25
Manager	South American	M.				1	54	4.16½
Messenger	Portuguese	M.				1	54	1.00
Milliner	American	F.				1	54	4.16½
Milliner, assistant	Canadian	F.				1	54	2.00
Sewing machine operators	Chinese	M.				6	54	1.20½

a Including wages of 2 boys.

b Wages of boys.

c Including wages of 1 boy.

d Principally Japanese and Portuguese.

e Men, women, and children.

f Irregular.

g Receive 50 cents per cwt. of coffee in the berry. Earnings, \$0.50 to \$2 per day.

h Wages of girls.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

ELECTRIC LIGHT AND ICE (1 ESTABLISHMENT).

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Coal passers.....	Japanese.....	M.	.....	.....	.....	2	66	\$1.34
Cold-storage men.....	American.....	M.	.....	.....	.....	2	66	2.87½
	Japanese.....	M.	.....	.....	.....	1	66	1.15
Total.....	.....	M.	.....	.....	.....	3	66	2.30
Engineers, assistant.....	American.....	M.	.....	.....	.....	3	66	4.60
Engineer, chief.....	American.....	M.	.....	.....	.....	1	66	6.90
Firemen.....	American.....	M.	.....	.....	.....	4	66	2.87½
Foreman, cold storage.....	American.....	M.	.....	.....	.....	1	66	3.06½
Foreman, construction.....	American.....	M.	.....	.....	.....	1	48	5.75
Foreman, linemen.....	American.....	M.	.....	.....	.....	1	48	3.88½
House wireman, electric fitter.....	American.....	M.	.....	.....	.....	1	48	3.50
Ice-machine tenders.....	Japanese.....	M.	.....	.....	.....	3	66	1.00
	Portuguese.....	M.	.....	.....	.....	1	66	2.00
Total.....	.....	M.	.....	.....	.....	4	66	1.25
Ice-tank men.....	American.....	M.	.....	.....	.....	2	66	2.87½
Linemen.....	American.....	M.	.....	.....	.....	2	48	2.50
	Hawaiian.....	M.	.....	.....	.....	4	48	2.18½
Total.....	.....	M.	.....	.....	.....	6	48	2.29
Meter man.....	American.....	M.	.....	.....	.....	1	48	3.45
Meter men, assistant.....	American.....	M.	.....	.....	.....	2	48	2.49½
Oilers.....	Japanese.....	M.	.....	.....	.....	4	66	1.43½
Stable men.....	American.....	M.	.....	.....	.....	1	a 66	a2.35
	Japanese.....	M.	.....	.....	.....	2	a 66	a1.15
Total.....	.....	M.	.....	.....	.....	3	a 66	a1.55
Storekeeper.....	American.....	M.	.....	.....	.....	1	48	3.83½
Superintendent, ice factory.....	American.....	M.	.....	.....	.....	1	66	4.47½
Switchman.....	American.....	M.	.....	.....	.....	1	48	2.11
Teamster.....	American.....	M.	.....	.....	.....	1	66	1.53½
Teamsters, ice wagon.....	American.....	M.	.....	.....	.....	8	66	2.71
Wiper.....	Japanese.....	M.	.....	.....	.....	1	66	1.15
Wire men.....	American.....	M.	.....	.....	.....	5	48	2.90
Wire men's helpers.....	Part-Hawaiian.....	M.	.....	.....	.....	1	48	1.25
	Portuguese.....	M.	.....	.....	.....	3	48	1.58½
Total.....	.....	M.	.....	.....	.....	4	48	1.50

FERTILIZERS (1 ESTABLISHMENT).

Bookkeeper.....	German.....	M.	.....	.....	.....	1	58	\$2.87½
Chemist.....	German.....	M.	.....	.....	.....	1	58	7.67
Engineer.....	American.....	M.	.....	.....	.....	1	58	5.75
Engine-room men and firemen.....	Japanese.....	M.	.....	.....	.....	10	58	1.25
Laborers.....	Chinese.....	M.	.....	.....	.....	1	58	1.25
	Japanese.....	M.	.....	.....	.....	37	58	1.25
Total.....	.....	M.	.....	.....	.....	38	58	1.25
Overseers.....	Japanese.....	M.	.....	.....	.....	3	58	1.50
Superintendent, acid works.....	German.....	M.	.....	.....	.....	1	58	7.67
Superintendent, factory.....	German.....	M.	.....	.....	.....	1	58	11.50
Watchman.....	German.....	M.	.....	.....	.....	1	84	1.64½

a A small amount of work done on Sunday is not considered in time or rate.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

FOUNDRY AND MACHINE SHOP (1 ESTABLISHMENT).

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Blacksmiths	American	M.	.....	.....	.....	1	53	\$4.50
	Canadian	M.	2	53	\$4.50	.....	.....	.....
	Hawaiian	M.	1	53	4.25	3	53	2.75
	Portuguese	M.	.....	.....	.....	1	53	2.00
	Scotch	M.	1	53	4.50	.....	.....	.....
Total		M.	4	53	4.43½	5	53	2.95
Blacksmiths' apprentices	Dutch	M.	1	53	1.66½	.....	.....	.....
	Scotch	M.	1	53	1.16½	.....	.....	.....
Total		M.	2	53	1.41½	.....	.....	.....
Blacksmiths' helpers	Hawaiian	M.	6	53	1.64	1	53	2.16½
	Portuguese	M.	3	53	1.55½	2	53	1.41½
Total		M.	9	53	1.61	3	53	1.66½
Boiler makers	American	M.	7	53	4.50	8	53	4.50
	Canadian	M.	1	53	4.50	.....	.....	.....
	English	M.	3	53	4.50	.....	.....	.....
	Hawaiian	M.	.....	.....	.....	4	53	2.12½
	Irish	M.	1	53	4.50	.....	.....	.....
	Scotch	M.	1	53	4.50	.....	.....	.....
	Swedish	M.	1	53	4.50	.....	.....	.....
Total		M.	14	53	4.50	12	53	3.71
Boiler makers' helpers	Hawaiian	M.	32	53	1.59	13	53	1.46
	Portuguese	M.	2	53	1.41½	1	53	1.16½
	Spanish	M.	1	53	1.66½	.....	.....	.....
Total		M.	35	53	1.58	14	53	1.44
Carpenters	American	M.	2	53	4.50	.....	.....	.....
	German	M.	1	53	4.50	.....	.....	.....
	Hawaiian	M.	7	53	3.29½	1	53	3.00
	Portuguese	M.	2	53	2.77½	.....	.....	.....
	Scotch	M.	2	53	4.50	.....	.....	.....
Total		M.	14	53	3.65	1	53	3.00
Chippers	German	M.	1	53	1.50	.....	.....	.....
	Scotch	M.	1	53	3.50	.....	.....	.....
Total		M.	2	53	2.50	.....	.....	.....
Coppersmith	Hawaiian	M.	1	53	3.00	.....	.....	.....
Coppersmith's helper	Hawaiian	M.	1	53	1.33½	.....	.....	.....
Engineer, stationary	Swedish	M.	1	53	3.00	.....	.....	.....
Engineer's helper, stationary	Norwegian	M.	1	53	1.50	.....	.....	.....
Firemen	German	M.	1	53	2.00	.....	.....	.....
	Hawaiian	M.	1	53	2.00	.....	.....	.....
	Portuguese	M.	1	53	3.00	.....	.....	.....
Total		M.	3	53	2.33½	.....	.....	.....
Foremen, blacksmiths	American	M.	.....	.....	.....	1	53	7.00
	English	M.	1	53	7.00	.....	.....	.....
Foremen, boiler makers	American	M.	.....	.....	.....	1	53	7.00
	Canadian	M.	1	53	7.00	.....	.....	.....
Foreman, carpenters	American	M.	1	53	4.80	.....	.....	.....
Foremen, laborers	American	M.	1	53	2.50	.....	.....	.....
	English	M.	2	53	3.00	.....	.....	.....
	German	M.	1	53	2.25	.....	.....	.....
	Hawaiian	M.	2	53	3.00	.....	.....	.....
	Portuguese	M.	2	53	2.75	.....	.....	.....
Total		M.	8	53	2.78	.....	.....	.....

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

FOUNDRY AND MACHINE SHOP (1 ESTABLISHMENT)—Continued.

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Foremen, machinists	American	M.				1	53	\$7.00
	Scotch	M.	1	53	\$7.00			
Foreman, machinists, assistant	American	M.				1	53	5.25
Foremen, molders	American	M.				1	53	7.00
	Scotch	M.	1	53	7.00			
Foremen, pattern makers	American	M.				1	53	7.00
	Scotch	M.	1	53	7.00			
Laborers	African	M.	1	53	1.50			
	American	M.	7	53	1.33 $\frac{1}{2}$			
	Filipino	M.	3	53	1.66 $\frac{1}{2}$			
	German	M.	2	53	2.00			
	Hawaiian	M.	90	53	1.42 $\frac{1}{2}$	3	53	2.05 $\frac{1}{2}$
	Portuguese	M.	48	53	1.45	6	53	1.80 $\frac{1}{2}$
	Russian	M.	1	53	2.00			
	Samoan	M.	1	53	1.66 $\frac{1}{2}$			
Total		M.	153	53	1.45	9	53	1.89
Machinists	American	M.	14	53	3.96 $\frac{1}{2}$	22	53	4.15
	English	M.	2	53	5.00			
	German	M.	2	53	4.12 $\frac{1}{2}$			
	Hawaiian	M.	6	53	3.58 $\frac{1}{2}$	14	53	2.41
	Irish	M.	1	53	4.50			
	Italian	M.	1	53	4.50			
	Norwegian	M.				1	53	4.25
	Polish	M.	1	53	3.00			
	Portuguese	M.				4	53	2.25
	Scotch	M.	3	53	3.66 $\frac{1}{2}$			
	Swedish	M.	1	53	4.25			
Total		M.	31	53	3.95	41	53	3.37
Machinists' apprentices	American	M.	3	53	.89			
	English	M.	1	53	.58 $\frac{1}{2}$			
	German	M.	3	53	1.08 $\frac{1}{2}$			
	Guam Islander	M.	1	53	1.66 $\frac{1}{2}$			
	Hawaiian	M.	9	53	.83	24	53	1.03
	Irish	M.	1	53	.91 $\frac{1}{2}$			
	Norwegian	M.	2	53	.53 $\frac{1}{2}$	1	53	.91 $\frac{1}{2}$
	Portuguese	M.	3	53	.83 $\frac{1}{2}$	4	53	1.41 $\frac{1}{2}$
Total		M.	23	53	.90	29	53	1.08
Machinists' helpers	American	M.	2	53	2.00			
	Hawaiian	M.	2	53	2.00			
	Hungarian	M.	1	53	2.00			
Total		M.	5	53	2.00			
Molders	American	M.	12	53	4.40	6	53	4.08 $\frac{1}{2}$
	Hawaiian	M.	6	53	3.30	8	53	2.73
	Irish	M.	1	53	4.40			
	Portuguese	M.				1	53	3.00
	Scotch	M.	1	53	4.95			
Total		M.	20	53	4.09 $\frac{1}{2}$	15	53	3.31 $\frac{1}{2}$
Molders' apprentices	English	M.	1	53	1.16 $\frac{1}{2}$			
	Hawaiian	M.	1	53	.50	1	53	1.08 $\frac{1}{2}$
	Portuguese	M.	1	53	1.00	2	53	a. 66 $\frac{1}{2}$
Total		M.	3	53	.89	3	53	a. 80 $\frac{1}{2}$
Molders' helpers	Hawaiian	M.	14	53	1.63	18	53	1.60
	Portuguese	M.	6	53	1.50	10	53	1.58 $\frac{1}{2}$
Total		M.	20	53	1.59	28	53	1.59 $\frac{1}{2}$
Office boy	Portuguese	M.				1	53	a. 66 $\frac{1}{2}$

a Wages of boys.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

FOUNDRY AND MACHINE SHOP (1 ESTABLISHMENT)—Concluded.

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Pattern makers	American	M.				1	53	\$4.50
	English	M.	1	53	\$4.00			
	Hawaiian	M.	1	53	2.50	3	53	3.50
	Portuguese	M.	3	53	3.33 $\frac{1}{2}$	3	53	3.75
	Scotch	M.	2	53	4.00			
	Swedish	M.	1	53	4.00			
Total		M.	8	53	3.56 $\frac{1}{2}$	7	53	3.75
Pattern makers' apprentices	Hawaiian	M.	1	53	.66 $\frac{1}{2}$	3	53	1.05 $\frac{1}{2}$
	Portuguese	M.	3	53	.55 $\frac{1}{2}$			
Total		M.	4	53	.58 $\frac{1}{2}$	3	53	1.05 $\frac{1}{2}$
Porters	Hawaiian	M.				14	53	1.74
	Portuguese	M.				5	53	1.76 $\frac{1}{2}$
Total		M.				19	53	1.74 $\frac{1}{2}$
Rivet heaters	Hawaiian	M.	4	53	.91 $\frac{1}{2}$			
	Portuguese	M.	1	53	1.00			
Total		M.	5	53	.93 $\frac{1}{2}$			
Structural-iron workers	American	M.	1	53	3.50			
	Norwegian	M.	1	53	3.25			
Total		M.	2	53	3.37 $\frac{1}{2}$			
Teamsters	Hawaiian	M.	3	53	1.50			
Watchman	Hawaiian	M.	1	53	2.00			

LAUNDRY (1 ESTABLISHMENT).

Clerk	American	F.				1	60	\$2.00
Drivers	American	M.				3	60	2.61
	Part-Hawaiian	M.				1	60	1.66 $\frac{1}{2}$
Total		M.				4	60	2.37 $\frac{1}{2}$
Engineer	German	M.				1	60	3.33 $\frac{1}{2}$
Fireman	Polish	M.				1	60	1.66 $\frac{1}{2}$
Forewoman, mangle	Part-Hawaiian	F.				1	60	1.66 $\frac{1}{2}$
Forewoman, polishers	Hawaiian	F.				1	60	2.00
Ironer, collars	Portuguese	F.				1	60	1.33 $\frac{1}{2}$
Machine hands	American Negro	F.				2	60	.75
	Hawaiian	F.				6	60	a .86
	Polish	F.				1	60	.66 $\frac{1}{2}$
	Portuguese	F.				11	60	b .77
Total		F.				20	60	c .79
Markers	American	M.				2	60	3.00
Starchers	American	M.				1	60	d .75
	Portuguese	M.				1	60	1.33 $\frac{1}{2}$
Total		M.				2	60	e 1.04 $\frac{1}{2}$
Superintendent	American	M.				1	60	4.79
Towel boy	Hawaiian	M.				1	60	.63 $\frac{1}{2}$
Wringer boy	American	M.				1	60	1.00

a Including wages of 1 girl.
b Including wages of 2 girls.
c Including wages of 3 girls.

d Wages of boy.
e Including wages of 1 boy.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

PLANING MILL (1 ESTABLISHMENT).

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Engineers	Portuguese	M.	1	48	\$2.00	1	47	\$2.25
Foreman	American	M.	1	48	.....	1	47	5.50
Laborers	Hawaiian	M.	5	48	1.43	2	47	1.50
	Part-Hawaiian	M.	1	48	^a .83	.....	.....	.....
	Portuguese	M.	5	48	^b 1.28	5	47	1.50
Total .....	.....	M.	11	48	^c 1.31	7	47	1.50
Machine hands	American	M.	1	48	4.25	1	47	4.00
Planer hands	American	M.	1	48	4.50	1	47	4.50
Sticker hands	American	M.	1	48	5.00	1	47	5.00
Teamster	Portuguese	M.	.....	.....	.....	1	47	1.50
Turners	American	M.	.....	.....	.....	1	47	4.00
	German	M.	1	48	4.00	.....	.....	.....

PRINTING (1 ESTABLISHMENT).

Bookbinders	Hawaiian	M.	2	53	\$1.91 ¹	2	53	\$1.91 ¹
Bookkeepers	American	M.	1	53	2.08 ¹	1	53	2.08 ¹
Compositors	American	M.	2	53	3.00	2	53	3.00
	American	F.	1	53	1.66 ¹	1	53	1.66 ¹
	Hawaiian	M.	2	53	2.00	2	53	2.00
Total .....	.....	.....	5	53	2.33 ¹	5	53	2.33 ¹
Folders	American	F.	.....	.....	.....	1	53	.50
	Hawaiian	M.	1	53	.83 ¹	1	53	.83 ¹
	Hawaiian	F.	1	53	.50	.....	.....	.....
	Scotch	F.	1	53	.83 ¹	1	53	.83 ¹
Total .....	.....	.....	3	53	.72 ¹	3	53	.72 ¹
Office boys	Hawaiian	M.	1	53	.83 ¹	1	53	.83 ¹
Press feeders	American	M.	1	53	1.66 ¹	1	53	1.66 ¹
	Portuguese	M.	1	53	.83 ¹	1	53	.83 ¹
Total .....	.....	M.	2	53	1.25	2	53	1.25
Pressmen	American	M.	1	53	2.75	1	53	2.75

RICE PLANTATION (1 ESTABLISHMENT).

Engineer, mill	Chinese	M.	.....	.....	.....	1	72	\$1.15
Field hands	Chinese	M.	.....	.....	.....	140	84	^d .69
Fireman, mill	Chinese	M.	.....	.....	.....	1	72	.76 ¹
Foreman, mill	Chinese	M.	.....	.....	.....	1	72	1.15
Laborers, mill	Chinese	M.	.....	.....	.....	3	72	.76 ¹

^a Wages of boy.^b Including wages of 1 boy.^c Including wages of 2 boys.^d Estimated earnings; receive three-tenths of crop, with board.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SODA WATER AND SOFT DRINKS (1 ESTABLISHMENT).

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Bookkeeper.....	Hawaiian.....	M.	.....	.....	.....	1	47	\$2.30
Bottlers.....	Hawaiian.....	M.	5	53	\$1.33½	2	47	1.33½
	Japanese.....	M.	2	53	1.16½	2	47	1.25
Total.....	.....	M.	7	53	1.23½	4	47	1.29
Bottle washers.....	Hawaiian.....	M.	2	53	1.00	1	47	1.00
	Japanese.....	M.	7	53	1.00	6	47	1.00
Total.....	.....	M.	9	53	1.00	7	47	1.00
Collector.....	Hawaiian.....	M.	1	53	1.91½	.....	.....	.....
Drivers.....	American.....	M.	2	53	2.87½	2	47	\$2.68½
	Hawaiian.....	M.	2	53	2.09½	2	47	2.17½
Total.....	.....	M.	4	53	2.45½	4	47	\$2.43
Machine hand.....	Hawaiian.....	M.	.....	.....	.....	1	47	1.16½
Manager.....	American.....	M.	.....	.....	.....	1	47	6.71
Sirup mixers.....	American.....	M.	1	53	2.30	.....	.....	.....
	Hawaiian.....	M.	.....	.....	.....	1	47	1.50

STEAM RAILROADS (3 ESTABLISHMENTS).

[Data for 1900-1901 are for 1 establishment.]

Agent, express.....	American.....	M.	.....	.....	.....	1	54	\$1.91½
Agent, freight.....	American.....	M.	.....	.....	.....	1	54	5.75
Agents, station.....	American.....	M.	2	54	\$1.91½	11	(c)	1.91
	English.....	M.	.....	.....	.....	1	(c)	\$2.87½
	German.....	M.	3	54	\$2.23½	.....	.....	.....
	Hawaiian.....	M.	3	54	\$1.91½	4	(c)	\$2.39½
	Portuguese.....	M.	.....	.....	.....	1	(c)	\$2.68½
Total.....	.....	M.	8	54	\$2.03½	17	(c)	\$2.12½
Agent, ticket.....	American.....	M.	.....	.....	.....	1	54	4.79
Ballast men.....	Japanese.....	M.	26	54	1.00	10	53	1.00
Blacksmiths.....	American.....	M.	1	54	4.00	3	53.3	4.50
	Portuguese.....	M.	2	54	2.80½	2	53.5	\$2.97½
Total.....	.....	M.	3	54	3.20½	5	53.4	\$3.89
Blacksmiths' helpers.....	Hawaiian.....	M.	.....	.....	.....	2	53	2.35
	Irish.....	M.	1	54	1.75½	.....	.....	.....
	Japanese.....	M.	2	54	1.50	.....	.....	.....
	Portuguese.....	M.	.....	.....	.....	2	53.5	2.00
Total.....	.....	M.	3	54	1.58½	4	53.3	2.17

a One employee also furnished with house.

b And lodging.

c Irregular.

d And house, fuel, water, transportation of children to school, and medical attendance.

e Two employees also furnished with lodging.

f Two employees also furnished with house, fuel, water, transportation of children to school, and medical attendance.

g Seven employees also furnished with lodging.

h Four employees also furnished with house, fuel, water, transportation of children to school, and medical attendance.

i One employee also furnished with house, fuel, water, transportation of children to school, and medical attendance.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAM RAILROADS (3 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 1 establishment.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Boiler maker	American	M.	1	54	\$4.50	.....	.....	.....
Boiler maker's helper	Irish	M.	1	54	1.85	.....	.....	.....
Bookkeepers	American	M.	.....	.....	.....	1	54	\$5.75
.....	Australian	M.	.....	.....	.....	1	54	\$5.75
Total .....	.....	M.	.....	.....	.....	2	54	\$5.75
Bookkeeper, assistant	German	M.	.....	.....	.....	1	54	\$4.21½
Brakemen	Hawaiian	M.	.....	.....	.....	2	54	1.72½
Brakemen, freight	Hawaiian	M.	13	54	1.21	10	53	1.50
Brakemen, passenger	American	M.	.....	.....	.....	3	54	2.00
.....	Hawaiian	M.	3	54	1.50	3	53	1.50
Total .....	.....	M.	3	54	1.50	6	53.5	1.75
Captain, tug	American	M.	.....	.....	.....	1	54	\$4.79
Car cleaners	Japanese	M.	6	54	1.00	6	53	1.00
Car inspector	American	M.	.....	.....	.....	1	53	3.00
Carpenters	American	M.	15	54	3.40	8	53.3	3.73
.....	German	M.	2	54	3.65	.....	.....	.....
.....	Hawaiian	M.	10	54	2.16½	4	53.5	2.42½
.....	Irish	M.	3	54	2.66½	.....	.....	.....
.....	Japanese	M.	17	54	1.33½	3	54	\$2.00
.....	Portuguese	M.	9	54	2.38	8	53	2.48½
.....	Swedish	M.	3	54	3.00	.....	.....	.....
Total .....	.....	M.	59	54	2.40½	23	53.3	\$2.84½
Carpenters' helper	Japanese	M.	.....	.....	.....	1	54	1.75
Carpenters, work train	Japanese	M.	2	54	1.62½	2	53	1.75
Car porter	Chinese	M.	.....	.....	.....	1	54	1.34
Car repairer	Portuguese	M.	.....	.....	.....	1	54	2.25
Clerks, freight	American	M.	.....	.....	.....	6	53.2	3.13
.....	American	F.	1	54	1.91½	.....	.....	.....
Total .....	.....	.....	1	54	1.91½	6	53.2	3.13
Clerk, lumber	Hawaiian	M.	.....	.....	.....	1	54	\$2.30
Clerks, office	American	M.	.....	.....	.....	2	53	2.58½
.....	Irish	M.	1	54	2.49	.....	.....	.....
Clerks, roundhouse	American	M.	1	54	1.91½	1	53	2.11
Conductors	American	M.	.....	.....	.....	4	54	\$3.35½
.....	Italian	M.	.....	.....	.....	1	54	3.45
Total .....	.....	M.	.....	.....	.....	5	54	\$3.37½
Conductors, freight	American	M.	3	54	3.45	3	53	3.45
Conductors, passenger	American	M.	3	54	3.70½	3	53	3.83½
Cook, work train	Chinese	M.	1	54	1.07½	.....	.....	.....
Engineers, locomotive	American	M.	8	54	4.14½	14	53.4	\$4.01
.....	Hawaiian	M.	.....	.....	.....	1	54	\$1.91½
.....	Portuguese	M.	4	54	2.82½	3	53.3	\$2.62
Total .....	.....	M.	12	54	3.70½	18	53.4	\$3.66½
Engineer, tug	American	M.	.....	.....	.....	1	54	\$4.79

a And house, fuel, water, transportation of children to school, and medical attendance.

b One employee also furnished with house, fuel, water, transportation of children to school, and medical attendance.

c Two employees also furnished with house, fuel, water, transportation of children to school, and medical attendance.

d Three employees also furnished with house, fuel, water, transportation of children to school, and medical attendance.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAM RAILROADS (3 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 1 establishment.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Firemen, locomotive	American	M.	5	54	\$1.99	4	53.3	\$2.11
	Hawaiian	M.	1	54	2.36	12	53.5	\$1.84
	Part-Hawaiian	M.	1	54	1.75 ^a	2	53.5	2.10 ^a
	Portuguese	M.	7	54	1.75 ^a	2	53.5	2.10 ^a
Total		M.	13	54	1.88 ^a	18	53.4	\$1.93
Fireman, shop	Portuguese	M.	1	54	1.50	1	54	1.50
Fireman, tug	Hawaiian	M.	1	54	\$2.11	1	54	\$2.11
Foremen, ballast men	Japanese	M.	1	54	1.55	1	53	1.55
Foremen, car cleaners	American	M.	1	54	2.50	1	53	2.50
	Swedish	M.	1	54	2.50	1	53	2.50
Foremen, car shops	American	M.	1	(c)	4.50	1	53	5.00
	Irish	M.	1	(c)	4.50	1	53	5.00
Foreman, dredge	English	M.	1	(c)	3.83 ^a	1	54	4.98 ^a
Foreman, foundry	American	M.	1	54	3.06 ^a	1	54	3.06 ^a
Foreman, freight handlers	American	M.	1	54	3.83 ^a	1	54	3.83 ^a
Foreman, general	Hawaiian	M.	1	54	3.83 ^a	1	54	3.83 ^a
Foremen, hostlers, locomotive	American	M.	1	54	2.87 ^a	1	53	2.87 ^a
	Irish	M.	2	54	2.49 ^a	1	53	2.11
	Portuguese	M.	1	54	2.11	1	53	2.11
Total		M.	2	54	2.49 ^a	2	53	2.49 ^a
Foremen, laborers, yard	American	M.	1	54	3.83 ^a	1	53	3.83 ^a
	Irish	M.	1	54	3.83 ^a	1	53	3.83 ^a
Foreman, laborers, yard, assistant	Irish	M.	1	54	3.00	1	53	3.00
Foreman, painters	American	M.	1	54	4.00	1	53	4.25
Foremen, pile drivers	American	M.	1	54	5.00	1	53	5.00
	German	M.	1	54	5.00	1	53	5.00
	Swedish	M.	1	54	6.00	1	53	6.00
Total		M.	3	54	5.33 ^a	3	53	5.33 ^a
Foremen, roundhouse	American	M.	1	54	4.79	1	53	4.50
Foremen, section men	Chinese	M.	1	54	62.00	1	54	62.00
	Hawaiian	M.	1	54	1.72 ^a	1	54	1.72 ^a
	Irish	M.	1	54	1.72 ^a	1	54	1.72 ^a
	Japanese	M.	10	54	1.63	15	53.3	1.69
Total		M.	11	54	1.63 ^a	18	53.4	\$1.71 ^a
Foremen, wharf	American	M.	1	54	3.00	4	53	3.00
	Irish	M.	6	54	2.91 ^a	4	53	3.00
	Japanese	M.	1	54	1.50	4	53	3.00
Total		M.	7	54	2.71 ^a	4	53	3.00
Foremen, work train	German	M.	1	54	2.30	1	54	2.30
	Japanese	M.	1	54	1.34	1	54	1.34
Total		M.	2	54	1.82	2	54	1.82
Freight handlers	American	M.	3	54	2.87 ^a	3	54	2.87 ^a
	Hawaiian	M.	1	54	1.50	2	54	1.50
	Part-Hawaiian	M.	1	54	2.30	2	54	2.30
	Japanese	M.	15	54	1.01 ^a	81	53.4	1.17 ^a
	Portuguese	M.	5	54	1.50	5	54	1.50
Total		M.	20	54	1.33 ^a	38	53.5	1.23 ^a

^a Four employees also furnished with house, fuel, water, transportation of children to school, and medical attendance.^b And house, fuel, water, transportation of children to school, and medical attendance.^c Irregular.^d One employee also furnished with house, fuel, water, transportation of children to school, and medical attendance.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAM RAILROADS (3 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 1 establishment.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Hostlers, locomotive	American	M.	3	54	\$1.53 $\frac{1}{2}$	.....	.....	.....
	Hawaiian	M.	3	54	1.47	.....	.....	.....
	Portuguese	M.	3	54	1.53 $\frac{1}{2}$	7	53	\$1.53 $\frac{1}{2}$
Total		M.	9	54	1.51 $\frac{1}{2}$	7	53	1.53 $\frac{1}{2}$
Laborers	Hawaiian	M.	.....	.....	.....	53	54	\$1.25
	Japanese	M.	.....	.....	.....	72	54	\$1.25
Total		M.	.....	.....	.....	125	54	\$1.25
Laborers, dredge	American	M.	3	72	2.56	.....	.....	.....
	Japanese	M.	8	72	1.37 $\frac{1}{2}$	.....	.....	.....
	Swedish	M.	2	72	3.00	.....	.....	.....
Total		M.	13	72	1.90	.....	.....	.....
Laborers, wharf	Japanese	M.	125	54	1.11 $\frac{1}{2}$	75	53	1.15
Laborers, work train	Japanese	M.	36	54	1.00	.....	.....	.....
Laborers, yard	Japanese	M.	52	54	1.00 $\frac{1}{2}$	.....	.....	.....
Machinists	American	M.	3	54	3.57	6	53.7	3.96
	Hawaiian	M.	.....	.....	.....	2	53	3.00
	Part-Hawaiian	M.	1	54	2.70	.....	.....	.....
	Irish	M.	1	54	4.00 $\frac{1}{2}$	.....	.....	.....
Total		M.	5	54	3.48 $\frac{1}{2}$	8	53.5	3.72
Machinists' apprentices	Norwegian	M.	.....	.....	.....	1	54	1.50
	Portuguese	M.	.....	.....	.....	1	54	1.25
Total		M.	.....	.....	.....	2	54	1.37 $\frac{1}{2}$
Machinists' helpers	American	M.	3	54	2.08 $\frac{1}{2}$	1	54	2.00
	Hawaiian	M.	1	54	1.57 $\frac{1}{2}$	2	53	2.00
	Portuguese	M.	4	54	1.66 $\frac{1}{2}$	.....	.....	.....
Total		M.	8	54	1.81	3	53.3	2.00
Master car builders	American	M.	.....	.....	.....	2	53.5	6.71
	Irish	M.	1	(b)	6.71	.....	.....	.....
Total		M.	1	(b)	6.71	2	53.5	6.71
Master mechanics	American	M.	1	(b)	7.67	3	53.7	\$6.39
Mechanics' apprentices	Portuguese	M.	.....	.....	.....	2	54	\$1.24 $\frac{1}{2}$
Messenger	American	M.	1	54	1.34	.....	.....	.....
Molders	Hawaiian	M.	.....	.....	.....	2	53	2.25
	Russian	M.	.....	.....	.....	1	54	2.00
	Scotch	M.	2	54	4.00	1	54	4.00
Total		M.	2	54	4.00	4	53.5	2.62 $\frac{1}{2}$
Molders' apprentices	Hawaiian	M.	.....	.....	.....	2	54	1.50
Molders' helpers	Hawaiian	M.	2	54	1.85	3	54	1.58 $\frac{1}{2}$
	Japanese	M.	2	54	1.15	.....	.....	.....
	Portuguese	M.	1	54	2.00	2	53	1.50
Total		M.	5	54	1.60	5	53.6	1.55
Painters	American	M.	.....	.....	.....	1	53	3.00
	Chinese	M.	2	54	1.32 $\frac{1}{2}$	2	53	2.25
	Hawaiian	M.	1	54	2.25	2	53.5	2.12 $\frac{1}{2}$
Total		M.	3	54	2.03 $\frac{1}{2}$	5	53.2	2.35

^a\$1.10 a day; after 3 months, \$1.25; after 6 months, \$1.50. Also house, fuel, water, transportation of children to school, and medical attendance.

^bIrregular.

^cOne employee also furnished with house, fuel, water, transportation of children to school, and medical attendance.

^dWages of boys.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAM RAILROADS (3 ESTABLISHMENTS)—Concluded.

[Data for 1900-1901 are for 1 establishment.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Pattern makers	Portuguese	M.	1	54	\$4.50	1	53	\$4.50
	Swedish	M.				1	54	4.75
Total		M.	1	54	4.50	2	53.5	4.62½
Pattern maker's helper	Portuguese	M.	1	54	2.50			
Pile drivers	American	M.	8	54	2.68½			
	German	M.	3	54	3.50			
	Hawaiian	M.	1	54	2.00			
	Irish	M.	1	54	4.50			
	Japanese	M.	1	54	1.25			
	Portuguese	M.	1	54	2.50			
	Swedish	M.	5	54	2.50			
Total		M.	20	54	2.73½			
Porters, chair car	Chinese	M.	2	54	1.34	2	53	1.34
Porters, station	Japanese	M.	1	54	1.34	1	53	1.34
Road masters	American	M.	1	(a)	5.75	1	53	5.75
	Japanese	M.				1	53	2.87½
Total		M.	1	(a)	5.75	2	53	4.31½
Section men	Hawaiian	M.	1	54	1.00			
	Japanese	M.	118	54	1.00	183	53.4	1.02
	Portuguese	M.	3	54	1.11½			
Total		M.	122	54	1.00½	183	53.4	1.02
Signal man	Portuguese	M.	1	54	.96			
Stenographers	American	F.	1	54	2.87½	1	53	3.26
	Part-Hawaiian	M.				1	54	b1.91½
Total			1	54	2.87½	2	53.5	c2.59½
Superintendents, wharf	American	M.				1	53	5.75
	Swedish	M.	1	(a)	5.75			
Train dispatchers	American	M.				1	53	5.75
	English	M.	1	(a)	4.79			
Watchmen	Portuguese	M.				1	63	b1.91½
	Russian	M.				1	63	1.72½
Total		M.				2	63	c1.82
Weighmaster	American	M.	1	(a)	2.87½			
Wipers	Hawaiian	M.				2	54	1.53½
	Portuguese	M.				2	54	1.72½
Total		M.				4	54	1.63
Yard master	American	M.	1	(a)	5.17½	1	53	5.75

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS).

[Data for 1900-1901 are for 1 establishment.]

Blacksmiths	American	M.	1	53	\$5.00	1	53	\$5.00
	Portuguese	M.				1	53	3.00
Total		M.	1	53	5.00	2	53	4.00

a Irregular.

b And house, fuel, water, transportation of children to school, and medical attendance.

c One employee also furnished with house, fuel, water, transportation of children to school, and medical attendance.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 1 establishment.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Blacksmiths' helpers	Hawaiian	M.	.....	.....	.....	1	58	\$2.50
	Part-Hawaiian	M.	1	53	\$2.50	.....	.....	.....
	Japanese	M.	.....	.....	.....	1	53	1.50
Total .....	.....	M.	1	53	2.50	2	53	2.00
Boatswains	Hawaiian	M.	.....	.....	.....	5	66	\$1.72 ^a
Bookkeeper	American	M.	.....	.....	.....	1	53	8.33 ^a
Carpenters	American	M.	.....	.....	.....	7	58	4.21 ^a
	Portuguese	M.	.....	.....	.....	4	53	3.29
Total .....	.....	M.	.....	.....	.....	11	53	3.88
Clerk, freight	Hawaiian	M.	.....	.....	.....	1	66	\$2.30
Clerks, office	American	M.	.....	.....	.....	2	53	5.75
Clerks, ship	American	M.	.....	.....	.....	2	66	\$3.37 ^a
Clerk, wharf	American	M.	.....	.....	.....	1	66	4.79
Coal passers	American	M.	1	72	\$1.53 ^a	.....	.....	.....
	Hawaiian	M.	1	72	\$1.53 ^a	3	66	\$1.53 ^a
	Irish	M.	1	72	\$1.53 ^a	.....	.....	.....
Total .....	.....	M.	3	72	\$1.53 ^a	3	66	\$1.53 ^a
Cooks	Chinese	M.	.....	.....	.....	21	(b)	\$1.54
	Spanish	M.	.....	.....	.....	2	(b)	\$1.30 ^a
Total .....	.....	M.	.....	.....	.....	23	(b)	\$1.52
Cooks' helper	Chinese	M.	.....	.....	.....	1	(b)	\$1.50
Electricians	American	M.	.....	.....	.....	4	53	1.91 ^a
Engineers, assistant	American	M.	.....	.....	.....	5	66	\$3.72
	English	M.	.....	.....	.....	2	66	\$4.02 ^a
	Greek	M.	.....	.....	.....	1	66	\$4.02 ^a
	Scotch	M.	.....	.....	.....	1	66	\$4.02 ^a
Total .....	.....	M.	.....	.....	.....	9	66	\$3.85 ^a
Engineers, assistant, first	American	M.	.....	.....	.....	7	66	\$3.98
Engineers, assistant, second	American	M.	.....	.....	.....	4	66	\$3.56 ^a
Engineers, chief	American	M.	8	72	\$4.62 ^a	15	66	\$5.05 ^a
	English	M.	1	72	\$3.83 ^a	1	66	\$4.60
	German	M.	1	72	\$3.83 ^a	1	66	\$4.60
Total .....	.....	M.	10	72	\$4.46 ^a	17	66	\$5.00
Engineers, donkey engine	German	M.	.....	.....	.....	1	66	\$1.91 ^a
	Hawaiian	M.	1	72	\$1.53 ^a	5	66	\$1.75
Total .....	.....	M.	1	72	\$1.53 ^a	6	66	\$1.77 ^a
Engineers, steamship, second	American	M.	5	72	\$3.45	.....	.....	.....
	English	M.	2	72	\$3.83 ^a	.....	.....	.....
	Greek	M.	1	72	\$3.83 ^a	.....	.....	.....
	Scotch	M.	1	72	\$3.83 ^a	.....	.....	.....
Total .....	.....	M.	9	72	\$3.62	.....	.....	.....
Firemen	American	M.	3	72	\$1.72 ^a	12	66	\$1.72 ^a
	Chinese	M.	14	72	\$1.49 ^a	28	66	\$1.42
	German	M.	1	72	\$1.72 ^a	.....	.....	.....
	Part-Hawaiian	M.	2	72	\$1.72 ^a	.....	.....	.....
	Irish	M.	2	72	\$1.72 ^a	.....	.....	.....
	Swedish	M.	1	72	\$1.72 ^a	.....	.....	.....
Total .....	.....	M.	23	72	\$1.53 ^a	40	66	\$1.51 ^a
Foreman, stevedores	Hawaiian	M.	1	58	5.36 ^a	.....	.....	.....
Laborers	Hawaiian	M.	.....	.....	.....	(c)	66	(c)
Laborers, carpenters'	Hawaiian	M.	.....	.....	.....	3	53	1.75

^a And board.^b Irregular.^c Not reported.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 1 establishment.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Laborers, shop..	Chinese	M.	1	53	c. 83½	2	53	\$1.41½
	Hawaiian	M.				1	53	1.15
	Part-Hawaiian	M.	1	53	a. 83½			
	Japanese	M.	4	53	b1.00			
Total.....		M.	6	53	c. 94½	3	53	1.32½
Machinists.....	Hawaiian	M.				1	53	4.98½
	Part-Hawaiian	M.	1	53	4.00			
Machinist, assistant.....	Hawaiian	M.				1	53	2.68½
Machinists' helper.....	Chinese	M.	1	53	1.72½			
	Japanese	M.	1	53	1.25			
Total.....		M.	2	53	1.48½			
Masters.....	American	M.				7	66	b5.58½
	Dutch	M.				1	66	b5.75
	English	M.				1	66	b5.75
	Part-Hawaiian	M.				3	66	b5.94
	(d)	M.				4	66	b5.36½
Total.....		M.				16	66	b5.61½
Mates, first.....	American	M.				7	66	b3.46
	Part-Hawaiian	M.				1	66	b3.83½
	(d)	M.				9	66	b3.36½
Total.....		M.				17	66	b3.43
Mates, second.....	American	M.				7	66	b2.91½
	Part-Hawaiian	M.				8	66	b2.30
Total.....		M.				15	66	b2.58½
Mates, third.....	Part-Hawaiian	M.				1	66	b1.72½
	Swedish	M.				1	66	b1.72½
Total.....		M.				2	66	b1.72½
Oilers.....	American	M.	4	72	b1.72½	4	66	b1.72½
	German	M.	1	72	b1.72½	1	66	b1.72½
	Irish	M.	2	72	b1.72½	2	66	b1.72½
Total.....		M.	7	72	b1.72½	7	66	b1.72½
Pursers.....	American	M.				6	66	b3.07
	Hawaiian	M.				8	66	b2.34½
	Part-Hawaiian	M.				1	66	b4.83½
Total.....		M.				15	66	b2.80
Quartermasters.....	American	M.				1	66	b1.33½
	Hawaiian	M.				16	66	b1.24½
	Japanese	M.				1	66	b1.33½
	Norwegian	M.				1	66	b1.33½
	Portuguese	M.				3	66	b1.33½
Total.....		M.				22	66	b1.27
Sailors.....	Hawaiian	M.				145	66	b1.30½
	Japanese	M.				64	66	b1.30½
Total.....		M.				209	66	b1.30½
Seamen.....	Hawaiian	M.				114	66	b. 83½
	Japanese	M.				51	66	b. 83½
Total.....		M.				165	66	b. 83½
Statistician.....	American	M.				1	53	3.38½

a Wages of boy.
b And boardc See notes to details.
d Not reported.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Concluded.

[Data for 1900-1901 are for 1 establishment.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Stevedores	Hawaiian	M.	24	53	\$2.00	.....	.....	.....
	Part-Hawaiian	M.	6	53	2.00	.....	.....	.....
	Japanese	M.	22	53	1.00	.....	.....	.....
	Portuguese	M.	9	53	2.00	.....	.....	.....
Total		M.	61	53	1.64	.....	.....	.....
Stenographer	Part-Hawaiian	M.	.....	.....	.....	1	53	\$3.83½
Stewards	Chinese	M.	.....	.....	.....	14	66	\$1.68
	East Indian	M.	.....	.....	.....	1	66	\$2.00
	Portuguese	M.	.....	.....	.....	1	66	\$2.00
	Spanish	M.	.....	.....	.....	2	66	\$2.07
Total		M.	.....	.....	.....	18	66	\$1.76
Steward, port	American	M.	.....	.....	.....	1	(b)	2.30
Stock keeper	Part-Hawaiian	M.	1	53	2.87½	.....	.....	.....
Superintendent, engineers	American	M.	.....	.....	.....	1	(b)	9.58½
Superintendents, wharf	American	M.	.....	.....	.....	2	66	8.62½
Waiters	Chinese	M.	.....	.....	.....	24	(b)	\$1.01½
	Japanese	M.	.....	.....	.....	11	(b)	\$1.05½
	Portuguese	M.	.....	.....	.....	2	(b)	\$1.00
Total		M.	.....	.....	.....	37	(b)	\$1.02½

STOCK RANCHES (3 ESTABLISHMENTS).

Butcher	Chinese	M.	.....	.....	.....	1	66	\$1.15
Cook	Chinese	M.	.....	.....	.....	1	70	1.72½
Dairyman	Chinese	M.	.....	.....	.....	1	77	\$1.15
Overseers	American	M.	.....	.....	.....	1	84	3.29
	Hawaiian	M.	.....	.....	.....	4	64.3	\$1.09½
	Irish	M.	.....	.....	.....	1	60	1.15½
Total		M.	.....	.....	.....	6	66.3	\$1.47
Shearers	Hawaiian	M.	.....	.....	.....	39	72	\$1.00
Stock herders	Hawaiian	M.	.....	.....	.....	53	83.2	\$1.49½
	Japanese	M.	.....	.....	.....	14	70	.65½
	Japanese	F.	.....	.....	.....	2	70	.33
	Portuguese	M.	.....	.....	.....	1	70	.79
Total .....			.....	.....	.....	70	80	\$1.52½

STREET RAILWAY (1 ESTABLISHMENT).

Blacksmith	Portuguese	M.	.....	.....	.....	1	63	\$3.00
Blacksmith's helpers	Portuguese	M.	.....	.....	.....	2	63	1.50
Bookkeeper	American	M.	.....	.....	.....	1	63	5.75
Car cleaners	Chinese	M.	.....	.....	.....	2	63	1.25
Carpenter	American	M.	.....	.....	.....	1	63	4.00
Car receiver	American	M.	.....	.....	.....	1	63	2.87½

a And board.

b Irregular.

c Not including 1 employee whose hours are irregular.

d One employee also receives board.

e Including wages of 2 boys; also receive board.

f See note e.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STREET RAILWAY (1 ESTABLISHMENT)—Concluded.

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Conductors	American	M.				24	63	\$3.15
	Canadian	M.				1	63	3.15
	English	M.				3	63	3.15
	German	M.				1	63	3.15
	Hawaiian	M.				3	63	3.15
	Irish	M.				1	63	3.15
	Scotch	M.				2	63	3.15
Total		M.				35	63	3.15
Draymen	Portuguese	M.				2	63	1.50
Engineers, civil	American	M.				2	63	3.89½
Engineer, civil, assistant	Portuguese	M.				1	63	2.50
Engineers, power house	American	M.				1	63	2.87½
	English	M.				2	63	5.39½
Total		M.				3	63	4.55½
Engineer, rock crusher	American	M.				1	63	3.50
Firemen, power house	American	M.				2	63	2.87½
Fireman, rock crusher	Japanese	M.				1	63	1.25
Foreman, linemen	American	M.				1	63	6.71
Foreman, rock crusher	Part-Hawaiian	M.				1	63	3.50
Foreman, shop	American	M.				2	63	4.21½
Foreman, track	American	M.				1	63	6.00
Laborers, rock crusher	Japanese	M.				30	63	1.00
Laborers, track	American	M.				6	63	1.75
	Japanese	M.				104	63	1.50
Total		M.				110	63	1.51½
Linemen	Hawaiian	M.				1	63	3.00
	Swedish	M.				3	63	2.83½
Total		M.				4	63	2.87½
Machinists	American	M.				2	63	2.68½
	Hawaiian	M.				1	63	2.87½
	Swedish	M.				1	63	3.45
Total		M.				4	63	2.92½
Machinists' helper	American	M.				1	63	1.50
Motormen	American	M.				22	63	3.15
	English	M.				1	63	3.15
	Irish	M.				3	63	3.15
	Scotch	M.				1	63	3.15
	Swedish	M.				1	63	3.15
Total		M.				28	63	3.15
Oiler, power house	Japanese	M.				1	63	1.25
Painter	American	M.				1	63	4.00
Painter's helper	American	M.				1	63	1.50
Storekeeper	English	M.				1	63	4.79
Superintendent, general	Scotch	M.				1	63	5.75
Superintendent, linemen	American	M.				1	63	6.71
Superintendent, track	American	M.				1	63	4.79
Time keeper	American	M.				1	63	3.45

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS).

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Blacksmiths	American	M.	15	59.8	\$3.72	18	60	\$3.82½
	Canadian	M.	1	59	3.65½			
	Chinese	M.	1	60	1.00	1	60	1.53½
	English	M.	1	60	4.61½	1	60	4.60
	French	M.	1	60	4.57½	1	60	4.56
	German	M.	5	59.4	3.47	5	60	3.22
	Hawaiian	M.	1	62	2.69	9	60	2.12
	Part-Hawaiian	M.	4	59.5	2.94½	3	60	2.39
	Irish	M.	1	60	3.75			
	Japanese	M.	14	59.9	1.50	18	60	1.63½
	New Zealander	M.	1	60	4.00			
	Norwegian	M.				2	60	2.40
	Polish	M.	4	59.3	2.08½	1	60	1.72½
	Porto Rican	M.				1	60	.89½
	Portuguese	M.	8	59.6	2.37½	10	60	2.61½
	Scotch	M.	12	60	4.16	10	60	4.33
	Swedish	M.				1	60	1.91½
	W.Indian Negro	M.				1	60	.92½
	Total	M.	69	59.8	3.00½	82	60	\$2.81½
Blacksmiths' helpers	American	M.	1	60	1.00	2	60	.84½
	Chinese	M.	2	60	.85½	1	60	1.25
	French	M.	1	60	1.15½			
	German	M.	3	59	.84½	2	60	1.32½
	Hawaiian	M.	3	60	.97	5	60	1.14
	Part-Hawaiian	M.	1	59	.96	1	60	.84½
	Hawaiian, white	M.	1	59	.57½			
	Japanese	M.	68	59.7	.85	71	60	.95
	Polish	M.	2	60	1.00			
	Porto Rican	M.				2	60	.94½
	Portuguese	M.	16	60	1.06½	16	60	\$1.07½
	Total	M.	98	59.8	.91½	100	60	b.98½
Blacksmith and carpenter	Hawaiian	M.	1	59	1.50			
Blacksmith and carpenter's helper	Part-Hawaiian	M.	1	59	1.00			
Boatmen	Hawaiian	M.				10	60	2.00
Boiler makers	American	M.	5	59.4	5.11	4	60.8	\$5.52½
	English	M.	2	59	4.50			
	Hawaiian	M.	1	60	3.69	1	60	3.75
	Irish	M.	1	59	\$5.50	1	54	\$6.00
	Japanese	M.	4	59	2.18½	6	60	1.58½
	Scotch	M.	1	60	5.77	1	60	\$5.00
	Total	M.	14	59.3	\$4.16	13	59.8	\$3.56½
Boiler makers' helpers	Hawaiian	M.	3	58.7	1.33½	5	60	1.07½
	Japanese	M.	53	59.7	1.17½	25	60	1.17
	Portuguese	M.	2	60	.92½			
	Total	M.	58	59.7	1.17½	30	60	1.15½
Bookkeepers	American	M.	16	67½	\$5.84	31	60	\$5.71½
	American	F.	1	(j)	4.21½			
	Australian	M.	1	(j)	5.75	1	60	5.75
	Canadian	M.	4	(j)	6.18½	4	60	5.86½
	Danish	M.	1	(j)	5.75	1	60	5.75
	English	M.	5	67½	6.13½	10	60.6	\$5.40½
	Total	M.						

a Two employees also receive bonus.

b Including wages of 2 boys.

c Three employees also receive bonus.

d And board.

e One employee also receives board.

f See notes to details.

g Not including 13 employees whose hours are irregular.

h One employee also receives share of net profits.

i Two employees also receive board, and 2 also receive share of net profits.

j Irregular.

k Not including 4 employees whose hours are irregular.

l Six employees also receive bonus.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Bookkeepers (concluded).....	German	M.	4	(a)	\$5.70 ¹	4	63	\$5.51
	Part-Hawaiian	M.	2	b72	4.21 ¹			
	Hawaiian, white	F.	1	(a)	c.76 ¹			
	Irish	M.	1	65.3	5.36 ¹	1	60	5.36 ¹
	Japanese	M.	1	72	3.45			
	Scotch	M.	5	d67.7	e5.13 ¹	6	60	4.98 ¹
	Swiss	M.	1	(a)	6.39			
Total			43	f70	g5.52	58	h60.3	i5.57 ¹
Bookkeeper and superintendent, store.	Scotch	M.	1	(a)	7.67			
Bookkeepers, assistant.....	American	M.	8	i72	3.42 ¹	9	60	j3.09
	Canadian	M.				1	60	5.75
	Danish	M.	1	(a)	4.79	1	60	4.79
	English	M.	6	k68	3.88 ¹	2	60	3.45
	German	M.				2	60	2.58 ¹
	Hawaiian	M.	2	72	1.72 ¹	4	60	2.87 ¹
	Part-Hawaiian	M.	1	72	2.87 ¹			
	Hungarian	M.	1	72	2.87 ¹			
	Japanese	M.				1	60	3.33 ¹
	Portuguese	M.	2	b72	1.57 ¹			
	Scotch	M.	4	(a)	l2.00 ¹	5	m60	n2.26 ¹
Total		M.	25	n71	l2.91 ¹	25	o60	p3.06
Brakemen, railroad.....	Hawaiian	M.	5	59	.87	18	60	1.03 ¹
	Japanese	M.	33	61.7	.93	6	60	1.05 ¹
	Porto Rican	M.				1	30	.92 ¹
	Portuguese	M.	36	q70.1	.83	13	60	.93 ¹
Total		M.	74	r65.5	.88	33	60	1.00
Bricklayers	American	M.	8	59.4	7.29	1	60	7.00
	English	M.	1	60	7.77			
	Irish	M.	2	60	7.77			
	Japanese	M.				1	60	1.25
	Portuguese	M.	1	59	1.54			
Total		M.	12	59.5	6.93	2	60	4.12 ¹
Bricklayers' helpers	Japanese	M.	27	59.4	.78			
Butchers.....	American Negro	M.				2	(a)	1.57 ¹
	Hawaiian	M.				3	(a)	1.23 ¹
	Portuguese	M.				1	(a)	1.00
Total		M.				6	(a)	1.31
Cane cutters	Chinese	M.	1,036	o60	.96 ¹	255	p60	.89 ¹
	Chinese and Ja- panese	M.				285	(a)	(q)
	Japanese	M.	829	r59.7	.89	1,153	s60	.78

a Irregular.

b Not including 1 employee whose hours are irregular.

c And share of net profits.

d Not including 2 employees whose hours are irregular.

e Two employees also receive share of net profits.

f Not including 33 employees whose hours are irregular.

g Four employees also receive share of net profits.

h See notes to details.

i Not including 4 employees whose hours are irregular.

j Two employees also receive bonus.

k Not including 3 employees whose hours are irregular.

l One employee also receives share of net profits.

m Not including earnings of 1 employee as postmaster.

n Not including 13 employees whose hours are irregular.

o Not including 1,003 employees whose hours are not reported.

p Not including 251 employees whose hours are irregular.

q 19 $\frac{1}{2}$ cents per ton.

r Not including 712 employees whose hours are not reported.

s Not including 740 employees whose hours are irregular.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Cane cutters (concluded).....	Porto Rican	M.	.....	.....	.....	30	a60	\$0.79½
	Portuguese	M.	.....	.....	.....	16	60	.96
	S. Sea Islander	M.	.....	.....	.....	9	60	.69
Total.....		M.	1,865	b59.8	\$0.93	1,748	c60	d.80
Cane cutters and loaders	Japanese	M.	978	(e)	.98	478	f60	.94
	Japanese	F.	.....	.....	.....	14	(g)	(e)
Total.....			978	(e)	.98	492	h60	i.94
Cane hoers	Japanese	M.	35	(e)	.75	.....	.....	.....
Cane loaders.....	Chinese	M.	15	(e)	.95	43	(g)	1.00
	Hawaiian	M.	5	(e)	1.67	.....	.....	.....
	Japanese	M.	1,450	j60	1.98½	1,156	k60	.90
	Japanese	F.	.....	.....	.....	81	l60	.71
	Portuguese	M.	.....	.....	.....	21	61.7	1.01½
Total.....			1,470	m60	.98½	1,251	n60.1	.90
Cane loaders and flumers	Japanese	M.	31	(e)	1.00	.....	.....	.....
Cane planters.....	Japanese	M.	95	(e)	.85	.....	.....	.....
Cane strippers	Chinese	M.	39	(e)	.91½	.....	.....	.....
	Japanese	M.	253	(e)	.82½	.....	.....	.....
Total.....		M.	292	(e)	.83½	.....	.....	.....
Cane weighers.....	American	M.	1	72	1.34½	2	66	1.91½
	Australian	M.	.....	.....	.....	1	72	1.91½
	Canadian	M.	2	71	1.73	1	72	1.91½
	German	M.	2	72	1.32½	4	72	1.83
	Hawaiian	M.	3	71.7	1.05	2	66	1.34½
	Part-Hawaiian	M.	1	70	.81	1	72	1.34½
	Japanese	M.	4	71.8	.80	5	67.2	.94½
	Portuguese	M.	5	71.6	.97½	7	72	1.13
Total.....		M.	18	71.6	1.08½	23	69.9	1.87½
Carpenters	American	M.	13	60	3.67½	11	60	o4.38½
	Canadian	M.	1	60	3.84½	2	60	p.91½
	Chinese	M.	43	60	1.61	24	60	1.56
	English	M.	.....	.....	.....	1	60	5.75
	Filipino	M.	.....	.....	.....	1	60	2.00
	German	M.	5	59.2	2.36	6	60	3.51
	Hawaiian	M.	22	59.6	1.78½	23	60	1.49½
	Part-Hawaiian	M.	11	60.6	2.73	4	60	3.52½
	Hawaiian, white	M.	1	59	p.57½	.....	.....	.....
	Irish	M.	2	60	4.00	.....	.....	.....
	Japanese	M.	517	59.7	q1.09	322	60	1.17
	New Zealander	M.	2	60	4.61½	.....	.....	.....
	Norwegian	M.	2	60	4.00	.....	.....	.....
	Porto Rican	M.	.....	.....	.....	5	60	1.63
	Portuguese	M.	38	59.5	r1.54½	34	60	1.98

a Not including 10 employees whose hours are irregular.

b Not including 1,715 employees whose hours are not reported.

c Not including 1,286 employees whose hours are irregular.

d Not including wages of 285 employees paid by the ton.

e Not reported.

f Not including 398 employees whose hours are irregular.

g Irregular.

h Not including 412 employees whose hours are irregular.

i Not including 14 females, wages not reported.

j Not including 1,349 employees whose hours are not reported.

k Not including 845 employees whose hours are irregular.

l Not including 25 employees whose hours are irregular.

m Not including 1,369 employees whose hours are not reported.

n Not including 913 employees whose hours are irregular.

o One employee also receives share of net profits.

p Wages of boy.

q Including wages of 1 boy.

r Including wages of 3 boys.

TABLE II.—OCCUPATIONS, AVERAGE WAGES ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Carpenters (concluded)	Scotch.....	M.	2	59.5	\$2.90½	5	60	\$3.69
	Spanish.....	M.	1	60	2.25	.....	.....	.....
	S. Sea Islander.....	M.	.....	.....	.....	1	60	4.98½
	Swedish.....	M.	2	61	3.06½	.....	.....	.....
	Welsh.....	M.	1	60	5.00	.....	.....	.....
	W. Indian Negro.....	M.	.....	.....	.....	1	60	2.00
Total.....	.....	M.	663	59.7	d1.31	440	60	d1.47
Carpenters' helpers	Chinese.....	M.	.....	.....	.....	2	60	c. 69½
	German.....	M.	.....	.....	.....	1	60	1.34½
	Hawaiian.....	M.	.....	.....	.....	2	60	.76½
	Japanese.....	M.	.....	.....	.....	105	60	1.08½
	Norwegian.....	M.	.....	.....	.....	1	60	1.15½
	Porto Rican.....	M.	.....	.....	.....	3	60	c. 74½
	Portuguese.....	M.	.....	.....	.....	5	60	c. 95½
Total.....	.....	M.	.....	.....	.....	119	60	d1.02
Chemists.....	American.....	M.	5	71.7	b6.14	5	(f)	b6.18½
	Australian.....	M.	1	72	5.75	.....	.....	.....
	Canadian.....	M.	1	(f)	3.83½	1	(f)	4.79
	Dutch.....	M.	1	72	5.75	1	(f)	6.71
	English.....	M.	.....	.....	.....	1	(f)	5.75
	German.....	M.	3	(f)	3.51½	4	(f)	6.74
	Hawaiian, white.....	M.	1	71	95.36½	.....	.....	.....
	Scotch, white.....	M.	1	(f)	3.83½	1	(f)	3.83½
	Swedish.....	M.	.....	.....	.....	1	(f)	13.80
	Swiss.....	M.	1	(f)	3.83½	.....	.....	.....
Total.....	.....	M.	14	71.7	44.97	14	(f)	b6.62½
Chemists, assistant.....	American.....	M.	.....	.....	.....	1	(f)	5.75
	English.....	M.	.....	.....	.....	1	(f)	2.30
	German.....	M.	1	72	3.83½	.....	.....	.....
Total.....	.....	M.	1	72	3.83½	2	(f)	4.02½
Chemists' helpers	Chinese.....	M.	.....	.....	.....	1	(f)	.96
	German.....	M.	.....	.....	.....	1	(f)	f. 38½
	Japanese.....	M.	.....	.....	.....	1	(f)	.81
Total.....	.....	M.	.....	.....	.....	3	(f)	c. 72
Clerks, freight	American.....	M.	2	(f)	2.89½	3	60	c2.17½
	English.....	M.	.....	.....	.....	1	60	2.11
	Jamaican.....	M.	.....	.....	.....	1	60	d1.34½
	Russian.....	M.	1	(f)	1.53½	.....	.....	.....
Total.....	.....	M.	3	(f)	2.11	5	60	d1.99½
Clerks, mill	American.....	M.	.....	.....	.....	1	72	2.30½
	Hawaiian.....	M.	1	72	1.54	2	72	1.91
	Japanese.....	M.	.....	.....	.....	1	72	1.91½
Total.....	.....	M.	1	72	1.54	4	72	2.01½
Clerks, shipping	German.....	M.	2	72	1.07½	.....	.....	.....
	Part-Hawaiian.....	M.	1	72	2.30	.....	.....	.....
Total.....	.....	M.	3	72	1.48½	.....	.....	.....

a Including wages of 5 boys.

b One employee also receives share of net profits.

c Including wages of 1 boy.

d Including wages of 3 boys.

e Not including 2 employees whose hours are irregular.

f Irregular.

g And share of net profits.

h Not including 8 employees whose hours are irregular.

i Two employees also receive share of net profits.

j Wages of boy.

k See notes to details.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 88 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Clerks, store	American	M.	10	72	\$3.08	7	60	\$2.60
	Canadian	M.				2	60	2.77 [†]
	Chinese	M.	7	72	1.06 [‡]	10	61.8	1.17
	English	M.				1	60	1.15 [‡]
	German	M.				1	72	3.83 [‡]
	Hawaiian	M.				3	60	1.47
	Part-Hawaiian	M.	1	72	.77	2	60	.96 [‡]
	Hawaiian, white	M.	1	72	2.30			
	Japanese	M.	70	72.7	\$1.02	101	60.5	\$1.05
	Japanese	F.				1	60	1.57 [‡]
	New Zealander	M.	1	72	2.22 [‡]			
	Norwegian	F.				1	60	1.15 [‡]
	Porto Rican	M.				3	60	1.62 [‡]
	Portuguese	M.	21	72	\$1.16 [‡]	37	61.4	\$1.40
	Scotch	M.	1	72	2.68 [‡]	3	60	2.36 [‡]
	Spanish	M.	1	72	1.91 [‡]	1	72	2.30
Total			113	72.4	\$1.27	173	60.6	\$1.27
Clerks, sugar	American	M.				1	72	2.11
	German	M.				1	72	1.91 [‡]
	Hawaiian	M.				1	72	2.30
Total		M.				3	72	2.11
Clerks, wharf	American	M.				4	60	3.02
	Canadian	M.				1	60	\$1.53 [‡]
	Scotch	M.				2	60	\$2.10 [‡]
Total		M.				7	60	\$2.54 [‡]
Coachman	American Negro	M.				1	(^o)	1.15
Coal passers	Chinese	M.	18	84	.92 [‡]	18	60	1.00
	Japanese	M.	23	83	.80	30	60	.88 [‡]
	Porto Rican	M.				1	60	.94
Total		M.	41	83.4	.85 [‡]	49	60	.93
Coal weigher	German	M.				1	72	1.53 [‡]
Contract cultivators	Chinese	M.				1,884	60	p. 94
	Hawaiian	M.				40	61.7	q. 84 [‡]
	Hawaiian	F.				2	66	q. 77
	Japanese	M.				8,160	60	r. 1.01
	Japanese	F.				59	60.5	q. 91 [‡]
	Porto Rican	M.				23	60	q1.00
	Portuguese	M.				60	60	q. 92 [‡]
Total						10,228	60	f. 99 [‡]

^a Including wages of 1 boy.^b Not including 1 employee whose hours are not reported.^c Not including 1 employee whose hours are irregular.^d Four employees also receive share of net profits.^e Not including 3 employees whose hours are not reported.^f Including wages of 1 boy; 3 employees also receive share of net profits^g And share of net profits.^h Including wages of 3 boys; 3 employees also receive share of net profits.ⁱ Including wages of 5 boys; 1 employee also receives share of net profits.^j See notes to details.^k Not including 7 employees whose hours are not reported.^l And board.^m One employee also receives board.ⁿ Two employees also receive board.^o Irregular.^p Estimate; based on earnings of companies whose contracts were closed at time of agent's visit. Not including 104 employees whose wages are not reported.^q Estimate; based on earnings of companies whose contracts were closed at time of agent's visit.^r Estimate; based on earnings of companies whose contracts were closed at time of agent's visit. Not including 777 employees whose wages are not reported.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Cooks	Chinese	M.	.....	.....	.....	19	(a)	\$0.76½
	Japanese	M.	.....	.....	.....	8	(a)	.73½
Total		M.	.....	.....	.....	27	(a)	.75½
Cooks' helpers	Chinese	M.	.....	.....	.....	1	(a)	.59
	Japanese	M.	.....	.....	.....	1	(a)	.33
Total		M.	.....	.....	.....	2	(a)	.46
Dairyman	Portuguese	M.	.....	.....	.....	1	70	1.15
Ditch diggers	Japanese	M.	26	(b)	\$1.00	.....	.....	.....
Ditch men	Chinese	M.	4	59.5	.80½	50	60	1.04
	German	M.	.....	.....	.....	1	60	.84½
	Hawaiian	M.	7	59.4	.80½	31	60	c .90
	Part-Hawaiian	M.	.....	.....	.....	1	60	1.72½
	Japanese	M.	60	62.4	.88½	328	60	.88
	Norwegian	M.	.....	.....	.....	1	60	1.72½
	Portuguese	M.	26	63.1	1.23½	34	60	1.36
	Swedish	M.	.....	.....	.....	1	60	3.83½
Total		M.	97	62.2	1.97	447	60	1.94½
Dump-cart men	Japanese	M.	44	66	.75½	.....	.....	.....
Electricians	American	M.	2	72	4.91½	3	60	3.13
	Chinese	M.	1	71	1.15½	.....	.....	.....
	German	M.	.....	.....	.....	1	(a)	1.91½
	Irish	M.	1	72	2.87½	.....	.....	.....
	Scotch	M.	.....	.....	.....	1	60	2.87½
Total		M.	4	71.7	3.46½	5	60	2.83½
Electricians' helpers	Hawaiian	M.	.....	.....	.....	3	60	1.46
	Japanese	M.	1	72	.84½	2	60	1.02
Total		M.	1	72	.84½	5	60	1.28½
Engineer, chief	American	M.	.....	.....	.....	1	72	8.62½
Engineer, construction, chief	Scotch	M.	1	(a)	9.58½	.....	.....	.....
Engineers, donkey engine	American	M.	.....	.....	.....	2	(a)	2.58½
	Canadian	M.	.....	.....	.....	1	(a)	3.06½
	Chinese	M.	.....	.....	.....	2	(a)	1.00
	German	M.	.....	.....	.....	1	(a)	2.60½
	Hawaiian	M.	2	60	1.25	.....	.....	.....
	Japanese	M.	6	61.7	1.21	1	(a)	1.10
	Polish	M.	.....	.....	.....	1	(a)	1.34½
	Portuguese	M.	2	65.5	1.25	3	(a)	1.28
	Scotch	M.	.....	.....	.....	1	(a)	2.68½
Total		M.	10	62.1	1.22½	12	(a)	1.82
Engineers' helpers, locomotive	Japanese	M.	.....	.....	.....	2	60	1.50
Engineers' helpers, mill	American	M.	.....	.....	.....	1	72	1.91½
	American Negro	M.	1	71	1.00	.....	.....	.....
	Chinese	M.	6	70.9	1.23	5	72	.93
	English	M.	.....	.....	.....	1	72	1.00
	German	M.	5	72	1.58	.....	.....	.....
	Hawaiian	M.	3	71.3	1.05	1	72	1.00

a Irregular.

b Not reported.

c Including wages of 1 boy.

d Not including 3 employees whose hours are irregular.

e Not including 4 employees whose hours are irregular.

f Three employees also receive share of net profits.

g Including wages of 1 boy; 1 employee also receives share of net profits.

h Not including 7 employees whose hours are irregular.

i See notes to details.

j Not including 1 employee whose hours are irregular.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Engineers' helpers, mill (concluded)...	Part-Hawaiian	M.	1	68	\$1.00	.....	.....	.....
	Japanese	M.	53	70.9	1.00 ^a	8	72	\$1.12
	Norwegian	M.	2	71	1.00 ^a	1	72	1.34 ^a
	Portuguese	M.	9	70.3	1.05	2	72	1.43 ^a
	Spanish	M.	1	72	1.00	.....	.....	.....
Total.....		M.	81	70.9	1.06 ^a	19	72	1.15
Engineers' helpers, pump	Japanese	M.	2	84	1.54	.....	.....	.....
Engineers' helpers, steam plow	Hawaiian	M.	.....	.....	.....	2	60	1.07 ^a
	Japanese	M.	.....	.....	.....	6	60	1.17
	Portuguese	M.	.....	.....	.....	4	60	1.14 ^a
Total.....		M.	.....	.....	.....	12	60	1.14 ^a
Engineers, locomotive.....	American	M.	4	66	3.10 ^a	5	60	3.03
	Canadian	M.	.....	.....	.....	2	60	2.39 ^a
	Chinese	M.	1	65.3	1.00	1	60	84 ^a
	English	M.	.....	.....	.....	2	60	4.79 ^a
	Filipino	M.	1	60	1.53 ^a	1	60	1.72 ^a
	German	M.	9	70.5	1.71	4	60	1.34 ^a
	Hawaiian	M.	14	68.4	1.67	25	60	1.75 ^a
	Part-Hawaiian	M.	9	66.4	1.92	3	60	2.75
	Japanese	M.	6	66.6	1.23 ^a	9	60	1.19 ^a
	Norwegian	M.	.....	.....	.....	1	60	2.63 ^a
	Portuguese	M.	16	66.9	1.80	22	60	1.93 ^a
	Russian	M.	.....	.....	.....	1	60	2.49
	Scotch	M.	1	58	4.21 ^a	2	60	2.01 ^a
	Swedish	M.	2	66	2.49 ^a	.....	.....	.....
Total.....		M.	63	65.3	1.85	78	60	1.95 ^a
Engineers, machine shop.....	German	M.	.....	.....	.....	2	60	1.03
	Japanese	M.	.....	.....	.....	2	60	1.00
Total.....		M.	.....	.....	.....	4	60	1.01 ^a
Engineers, mill	American	M.	.....	.....	.....	18	72	6.34 ^a
	Canadian	M.	.....	.....	.....	2	72	6.23
	Chinese	M.	.....	.....	.....	2	72	2.39 ^a
	English	M.	.....	.....	.....	3	72	5.39
	French	M.	.....	.....	.....	1	72	5.75
	German	M.	.....	.....	.....	5	72	3.95
	Japanese	M.	.....	.....	.....	4	72	1.76 ^a
	New Zealander	M.	.....	.....	.....	1	72	8.62 ^a
	Portuguese	M.	.....	.....	.....	2	72	6.78
	Scotch	M.	.....	.....	.....	9	72	6.11 ^a
	Swedish	M.	.....	.....	.....	1	72	5.75
Total.....		M.	.....	.....	.....	58	72	5.32 ^a
Engineers, mill, assistant.....	American	M.	6	72	4.25	4	72	4.84
	Chinese	M.	3	69.4	1.65	3	72	1.76
	English	M.	.....	.....	.....	1	72	3.45
	German	M.	4	70.3	4.02 ^a	.....	.....	.....
	Hawaiian	M.	.....	.....	.....	2	72	1.44
	Part-Hawaiian	M.	1	72	3.06 ^a	.....	.....	.....
	Japanese	M.	4	72	2.06	14	72	1.14 ^a
	Portuguese	M.	10	71.9	2.22 ^a	14	72	2.10 ^a
	Scotch	M.	1	(h)	3.83 ^a	1	72	2.87 ^a
Total.....		M.	29	71.3	2.89 ^a	39	72	2.08 ^a

^a Not including 1 employee whose hours are irregular.^b Not including 2 employees whose hours are irregular.^c One employee also receives share of net profits.^d Not including 7 employees whose hours are irregular.^e Two employees also receive share of net profits.^f Three employees also receive share of net profits.^g Not including 3 employees whose hours are irregular.^h Irregular.ⁱ Not including 9 employees whose hours are irregular

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Engineers, mill, chief	American	M.	13	^a 72	\$67.27	3	72	\$6.71
	Australian	M.	1	(^c)	5.36 [‡]			
	Canadian	M.	2	(^c)	6.71	1	72	6.71
	English	M.	5	^d 71	66.98	2	72	7.82 [‡]
	German	M.	7	^e 72	6.84 [‡]	4	72	7.19
	Norwegian	M.	1	(^c)	6.71			
	Scotch	M.	6	^f 66.8	6.12	1	72	5.75
Total		M.	35	^g 69.2	\$6.84 [‡]	11	72	7.00
Engineers, pump	American	M.	13	^h 84	3.32 [‡]	21	84	\$3.49
	Chinese	M.	8	84	1.15 [‡]	6	84	1.37
	English	M.	3	ⁱ 84	\$4.50	2	84	2.96
	German	M.	7	84	3.19 [‡]	2	84	1.64 [‡]
	Hawaiian	M.	1	84	1.64 [‡]	8	^k 80.6	61.67
	Part-Hawaiian	M.	4	84	2.67			
	Irish	M.	1	84	2.96			
	Japanese	M.	10	^l 81.3	1.22	20	84	1.12 [‡]
	Norwegian	M.	3	^m 84	3.03	3	84	3.56 [‡]
	Portuguese	M.	6	80.9	1.81 [‡]	7	84	1.76
Total		M.	56	ⁿ 83.1	\$2.42 [‡]	69	^o 83.6	\$2.17
Engineers, pump, assistant	American	M.	1	84	5.75 [‡]	4	84	2.92
	English	M.	1	71	^p 2.30	1	84	2.96
	Hawaiian	M.	1	71	^q 1.91 [‡]	1	60	2.00
	Japanese	M.				4	84	1.48
	Norwegian	M.				1	84	2.96
	Portuguese	M.				2	84	2.63
	Spanish	M.	1	71	1.07 [‡]			
Total		M.	4	74.3	\$2.76	13	82.2	2.36 [‡]
Engineers, pump, chief	American	M.	3	(^c)	6.30	1	84	6.57 [‡]
	English	M.				1	84	7.39 [‡]
	Norwegian	M.	1	(^c)	7.39 [‡]			
	Scotch	M.	2	(^c)	6.08 [‡]	1	84	7.39 [‡]
Total		M.	6	(^c)	6.39 [‡]	3	84	7.12
Engineers, railroad, chief	American	M.	1	(^c)	4.79			
	English	M.	1	(^c)	9.58 [‡]			
	Hawaiian	M.	1	60	2.30			
	Portuguese	M.	1	72	3.06 [‡]			
Total		M.	4	^r 66	4.93 [‡]			
Engineers, sawmill	American	M.	2	60	3.75			
Engineers, steam plow	American	M.				2	63	5.27 [‡]
	Chinese	M.	1	65.3	1.00			
	English	M.				1	60	5.75
	German	M.	7	59	1.22	9	60	2.75
	Hawaiian	M.	3	61.3	1.11 [‡]	3	60	1.33 [‡]
	Part-Hawaiian	M.				1	60	2.87 [‡]
	Japanese	M.	57	60.9	1.14 [‡]	32	60	1.21 [‡]
	Norwegian	M.				5	60	\$4.29 [‡]
	Polish	M.	1	59	1.25			
	Portuguese	M.	20	60.8	1.30	27	60	1.61

^a Not including 11 employees whose hours are irregular.^b One employee also receives share of net profits.^c Irregular.^d Not including 4 employees whose hours are irregular.^e Not including 6 employees whose hours are irregular.^f Not including 3 employees whose hours are irregular.^g Not including 28 employees whose hours are irregular.^h Two employees also receive share of net profits.ⁱ Not including 2 employees whose hours are irregular.^j Four employees also receive share of net profits.^k Not including 1 employee whose hours are irregular.^l Five employees also receive share of net profits.^m And share of net profits.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Engineers, steam plow (concluded)....	Scotch.....	M.	.....	.....	.....	3	60	\$4.26
	Swedish.....	M.	.....	.....	.....	1	60	3.88½
Total.....		M.	89	60.8	\$1.18½	84	60.1	α2.00½
Engineers, steam plow, assistant.....	Hawaiian.....	M.	.....	.....	.....	1	60	1.00
	Japanese.....	M.	.....	.....	.....	5	60	1.15½
	Portuguese.....	M.	.....	.....	.....	2	60	1.38½
Total.....		M.	.....	.....	.....	8	60	1.19
Engineer, steam tug.....	Portuguese.....	M.	1	59	1.38	.....	.....	.....
Engineer, traction.....	Portuguese.....	M.	.....	.....	.....	1	60	1.91½
Engineers, traction, assistant.....	Portuguese.....	M.	.....	.....	.....	2	60	1.00
Fence men.....	Chinese.....	M.	.....	.....	.....	1	60	.73
	Hawaiian.....	M.	.....	.....	.....	3	60	.73½
	Japanese.....	M.	2	59.5	.76½	11	60	.80
	Porto Rican.....	M.	.....	.....	.....	4	60	.66½
	Portuguese.....	M.	7	59.9	.98	25	60	b1.02½
Total.....		M.	9	59.8	.93	44	60	b.90½
Fertilizers.....	Japanese.....	M.	10	(c)	1.00	.....	.....	.....
Field hands.....	American Negro.....	M.	16	59.1	.65½	6	60	.83½
	Austrian.....	M.	2	60	.85	2	60	.86½
	Chinese.....	M.	2,693	α59.5	.78	1,113	60	e.68
	Filipino.....	M.	.....	.....	.....	4	60	.73
	German.....	M.	30	59	f.77½	14	60	.91
	Hawaiian.....	M.	113	α59.3	h.78½	355	60	i.72
	Hawaiian.....	F.	.....	.....	.....	24	60	.52½
	Hawaiian.....	(c)	.....	.....	.....	114	60	j.47
	Italian.....	M.	22	59	.90	14	60	.84½
	Japanese.....	M.	15,997	k59.5	l.75½	11,245	60	m.67½
	Japanese.....	F.	1,418	n59.4	.43	2,432	60	.44½
	Japanese and Chinese.....	M.	.....	.....	.....	160	60	.65½
	Polish.....	M.	11	59.7	.85½	8	60	b.90½
	Polish.....	F.	2	59	.46	.....	.....	.....
	Porto Rican.....	M.	78	59	.68½	1,679	60	o.61½
	Porto Rican.....	F.	.....	.....	.....	175	60	p.42½
	Portuguese.....	M.	692	q59.2	r.76½	1,083	60	s.74
	Portuguese.....	F.	98	t59.1	u.47½	100	60	v.47
	S. Sea Islander.....	M.	.....	.....	.....	7	60	.63½
	Spanish.....	M.	7	59.9	.71½	1	60	.92½
	Spanish.....	F.	1	59	.50	.....	.....	.....
Total.....			21,180	u59.5	α.73½	18,536	60	v.64

α One employee also receives share of net profits.

b Including wages of 1 boy.

c Not reported.

d Not including 841 employees whose hours are not reported.

e Including wages of 1 pensioner.

f Including wages of 8 boys.

g Not including 13 employees whose hours are not reported.

h Including wages of 8 boys and 10 pensioners.

i Including wages of 7 boys.

j Wages of children.

k Not including 3,843 employees whose hours are not reported.

l Including wages of 4 boys.

m Including wages of 3 boys.

n Not including 30 employees whose hours are not reported.

o Including wages of 148 boys.

p Including wages of 5 girls.

q Not including 32 employees whose hours are not reported.

r Including wages of 109 boys.

s Including wages of 223 boys and 1 pensioner.

t Not including 25 employees whose hours are not reported.

u Including wages of 15 girls.

v Including wages of 2 girls.

w Not including 4,784 employees whose hours are not reported.

α Including wages of 129 boys, 15 girls, and 10 pensioners.

b Including wages of 382 boys, 7 girls, 2 pensioners, and 114 children (sex not reported).

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Fireman, donkey engine	Japanese	M.	.....	.....	.....	1	(a)	\$0.84 [†]
Firemen, locomotive	Chinese	M.	.....	.....	.....	1	60	.73
	German	M.	3	71.7	0.98 [†]	4	60	.79
	Hawaiian	M.	16	63.2	0.99 [†]	18	60	1.02 [†]
	Part-Hawaiian	M.	2	66	1.07 [†]
	Japanese	M.	23	65.4	.91	21	60	.93 [†]
	Portuguese	M.	8	66.8	.97	14	60.9	1.06 [†]
Total .....	.....	M.	52	65.2	e.95 [†]	58	60.2	.98
Firemen, mill	American	M.	.....	.....	.....	1	72	1.34 [†]
	Chinese	M.	34	71	.86 [†]	43	72	.91 [†]
	Hawaiian	M.	5	70.4	1.13	.....	.....	.....
	Japanese	M.	162	71.8	.84 [†]	191	72	.85 [†]
	Portuguese	M.	3	71.7	1.10 [†]	2	72	2.01 [†]
Total .....	.....	M.	204	71.2	.86	237	72	.88
Firemen, mill, assistant	Chinese	M.	13	72	.77 [†]
	Japanese	M.	24	72	.82	.....	.....	.....
Total .....	.....	M.	37	72	.80 [†]
Firemen, mill, chief	Chinese	M.	1	72	1.15 [†]
	Japanese	M.	2	72	1.44 [†]	2	72	1.50
	Portuguese	M.	3	72	1.18 [†]
Total .....	.....	M.	6	72	1.23 [†]	2	72	1.50
Firemen, pump	Chinese	M.	36	82.6	.93	4	84	.79
	Hawaiian	M.	.....	.....	.....	7	80.6	1.00
	Japanese	M.	63	82.8	.90	73	83.7	.84 [†]
	Portuguese	M.	2	84	.92	1	84	.85 [†]
Total .....	.....	M.	101	82.8	.91	85	83.4	.85 [†]
Flume men	Chinese	M.	1	59	.77	.....	.....	.....
	Japanese	M.	47	58.3	.94	86	72	.72
	Portuguese	M.	12	59.4	1.23 [†]	1	72	1.34 [†]
Total .....	.....	M.	60	58.4	1.00 [†]	87	72	.73
Foremen, carpenters	American	M.	6	59.3	5.49	8	60	45.24
	Canadian	M.	1	60	3.83 [†]
	Chinese	M.	1	59	1.91 [†]
	English	M.	1	60	4.56	.....	.....	.....
	German	M.	3	59.7	4.67 [†]
	Hawaiian	M.	2	59.5	3.64 [†]	1	60	3.83 [†]
	Part-Hawaiian	M.	2	59	3.49 [†]	1	60	3.83 [†]
	Irish	M.	1	60	4.98 [†]
	Japanese	M.	4	59.8	2.15 [†]
	Portuguese	M.	2	59.5	3.23 [†]
	Scotch	M.	1	60	4.98 [†]
Total .....	.....	M.	24	59.5	4.02 [†]	5	60	44.67 [†]
Foremen, carpenters, assistant	American	M.	2	59	4.23 [†]
	English	M.	1	59	3.83 [†]
	Japanese	M.	1	60	1.99 [†]
Total .....	.....	M.	4	59.3	3.57 [†]

a Irregular.

b Including wages of 1 boy.

c Not including 2 employees whose hours are irregular.

d Not including 4 employees whose hours are irregular.

e Including wages of 2 boys.

f Not including 13 employees whose hours are not reported.

g Not including 7 employees whose hours are not reported.

h Not including 20 employees whose hours are not reported.

i One employee also receives share of net profits.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 88 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Foremen, ditch men.....	American.....	M.	.....	.....	.....	1	60	\$3.83½
	Portuguese.....	M.	.....	.....	.....	1	60	4.10
Total.....		M.	.....	.....	.....	2	60	3.96½
Foreman, flume men.....	Japanese.....	M.	1	59	\$2.30	1	60	1.00
Foreman, laborers, mill construction.....	Norwegian.....	M.	.....	.....	.....	.....	.....	.....
Foremen, laborers, railroad.....	American.....	M.	2	60	2.97	1	60	3.64
	Chinese.....	M.	6	60	1.47	3	60	1.72½
	German.....	M.	1	(a)	5.66	2	60	2.17½
	Hawaiian.....	M.	1	59	1.91½	1	60	1.91½
	Japanese.....	M.	10	59.3	1.19½	10	60	1.26½
	Portuguese.....	M.	4	59.3	1.33½	3	60	1.19½
Total.....		M.	24	59.5	1.65	20	60	1.56½
Foreman, laborers, railroad, assistant.....	German.....	M.	1	59	2.30	.....	.....	.....
Foremen, masons.....	American.....	M.	.....	.....	.....	1	60	8.43½
	English.....	M.	1	60	7.74½	.....	.....	.....
Foremen, mill.....	Japanese.....	M.	.....	.....	.....	6	72	.75
Foremen, painters.....	Hawaiian.....	M.	.....	.....	.....	1	60	2.76
	Part-Hawaiian.....	M.	1	60	4.21½	.....	.....	.....
Foreman, plowmen.....	Scotch.....	M.	1	(a)	2.87½	.....	.....	.....
Foremen, plowmen, assistant.....	American.....	M.	1	(a)	2.87½	.....	.....	.....
	Norwegian.....	M.	1	(a)	2.87½	.....	.....	.....
Total.....		M.	2	(a)	2.87½	.....	.....	.....
Foremen, shaft diggers.....	American.....	M.	5	60	5.41½	.....	.....	.....
Foremen, stable men.....	American.....	M.	4	684	2.60½	8	72	2.59
	Belgian.....	M.	1	84	1.15	.....	.....	.....
	Canadian.....	M.	1	(a)	2.27	.....	.....	.....
	German.....	M.	1	70	1.91½	1	72	1.91½
	Hawaiian.....	M.	1	84	1.31½	2	72	1.21
	Part-Hawaiian.....	M.	.....	.....	.....	1	72	2.30
	Japanese.....	M.	2	684	1.15½	6	72	1.15½
	Norwegian.....	M.	1	(a)	2.07	.....	.....	.....
	Portuguese.....	M.	4	684	1.54	6	72	1.60
	Scotch.....	M.	.....	.....	.....	1	72	1.53½
	Swedish.....	M.	1	84	3.29	.....	.....	.....
Total.....		M.	16	682.3	1.93	25	72	1.81½
Foremen, stable men, assistant.....	American.....	M.	2	684	2.05½	.....	.....	.....
Foremen, teamsters.....	American.....	M.	10	60	\$3.39½	6	66	\$3.08½
	Canadian.....	M.	1	60	3.83½	.....	.....	.....
	Danish.....	M.	1	60	2.64½	2	66	2.49
	English.....	M.	.....	.....	.....	3	66	2.36½
	German.....	M.	4	59.5	2.95½	3	66	2.78½
	Hawaiian.....	M.	5	60	2.07	10	66	1.83
	Part-Hawaiian.....	M.	1	(a)	\$2.49	1	66	2.30
	Japanese.....	M.	1	72	1.72½	1	66	1.15½
	Norwegian.....	M.	1	59	1.91½	.....	.....	.....
	Portuguese.....	M.	4	62.5	1.71½	17	66	\$1.59½
	Scotch.....	M.	11	61	2.91	13	66	2.83
	Swedish.....	M.	.....	.....	.....	1	66	3.06½
Total.....		M.	39	61.2	\$2.76	57	66	\$2.15

a Irregular.

b Not including 1 employee whose hours are irregular.

c Not including 2 employees whose hours are irregular.

d Not including 3 employees whose hours are irregular.

e Not including 8 employees whose hours are irregular.

f One employee also receives share of net profits.

g And share of net profits.

h Not including 24 employees whose hours are irregular.

i Two employees also receive share of net profits.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Foremen, teamsters, assistant	American	M.	2	a60	\$2.56‡	1	66	1.34‡
	Hawaiian	M.	1	(b)	2.30	1	66	\$1.72‡
	Portuguese	M.	2	59.5	2.30			
Total.....		M.	5	c59.7	2.40‡	1	66	1.72‡
Foreman, tramway	Portuguese	M.				1	60	1.34‡
Freight handlers	Hawaiian	M.				11	60	1.09
Harness makers	American	M.				1	60	2.00
	Chinese	M.				3	60	.81
	English	M.				1	60	2.00
	German	M.	2	59	2.21‡	1	60	2.50
	Guam Islander	M.	1	60	1.50			
	Hawaiian	M.				1	(b)	2.00
	Japanese	M.	4	59.8	1.13‡	4	60	1.03
	Polish	M.	2	59.5	1.25			
	Portuguese	M.	10	59.4	1.16	9	60	1.27
	Spanish	M.	1	60	1.00	1	60	1.00
Total.....		M.	20	59.5	1.23	21	a60	1.31
Hospital nurses	American	F.				4	70	d1.85
	American Negro	M.				1	70	d.88‡
	Japanese	M.	13	c84	d.88‡	16	c71	d.72
	Japanese	F.	1	(b)	d.49‡			
	Portuguese	M.	1	(b)	d.66			
	Scotch	M.	1	(b)	d1.97‡			
	Scotch	F.				1	70	d1.31‡
Total.....			16	f84	d.87‡	22	c70.7	d.96
Hospital stewards	Japanese	M.	1	(b)	.66			
	Scotch	M.	1	(b)	2.30			
Total.....		M.	2	(b)	1.48			
Interpreters	Chinese	M.	1	(b)	.92‡			
	Japanese	M.	5	(b)	1.23	8	(b)	d1.34‡
Total.....		M.	6	(b)	1.13	8	(b)	d1.34‡
Laborers, general.	American Negro	M.	1	60	.77	1	60	.69
	Chinese	M.	1	65.3	.77	24	64.5	k.82‡
	Hawaiian	M.	54	58.3	1.78	32	61.5	f.69
	Part-Hawaiian	M.	4	58.3	.94‡			
	Japanese	M.	58	60.1	.78‡	191	62.2	k.79‡
	Japanese	F.				3	68	.40
	Norwegian	M.	2	59	.73	4	60	.86‡
	Polish	M.				3	60	1.50
	Polish	F.				2	60	.69
	Porto Rican	M.				18	60	m.62
	Porto Rican	F.				1	60	.65‡
	Portuguese	M.	15	59.8	n.86‡	80	60	o.76‡
	Portuguese	F.				1	60	p.57‡

d Not including 1 employee whose hours are irregular.

b Irregular.

c Not including 2 employees whose hours are irregular.

d And board.

e Not including 9 employees whose hours are irregular.

f Not including 12 employees whose hours are irregular.

g One employee also receives share of net profits.

h Including wages of 1 pensioner.

i Including wages of 3 boys.

j Including wages of 9 boys and 1 pensioner.

k Including wages of 1 boy.

l Wages of boys.

m Including wages of 9 boys.

n Including wages of 2 boys.

o Including wages of 14 boys and 2 pensioners.

p Wages of pensioner.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Laborers, general (concluded)	Samoan	M.	.....	.....	.....	1	60	\$0.77
	S. Sea Islander..	M.	.....	.....	.....	1	60	a. 57½
Total.....			135	59.3	b\$0.79½	362	61.7	c. 76½
Laborers, mill	American	M.	.....	.....	.....	2	72	1.72½
	Chinese	M.	188	70.8	.80½	214	72	.81½
	German	M.	.....	.....	.....	3	72	.96
	Hawaiian	M.	9	71	.86½	19	72	.93½
	Part-Hawaiian	M.	1	72	1.00	1	72	.92½
	Japanese	M.	1,646	71.5	d. 79	1,373	72	.80½
	Japanese	F.	43	71.7	.46½	10	72	.43½
	Polish	M.	.....	.....	.....	7	72	.96½
	Polish	F.	2	72	.50	.....	.....	.....
	Porto Rican	M.	4	71	.33½	9	72	.70
	Porto Rican	F.	.....	.....	.....	1	72	.61½
	Portuguese	F.	46	70.5	e. 85	27	72	f. 96½
	Portuguese	F.	2	72	.50	.....	.....	.....
	Spanish	M.	1	72	.92½	1	72	g. 61½
Total.....		M.	1,942	71.4	h. 78½	1,667	72	i. 81
Laborers, mill construction	Hawaiian	M.	16	59.7	1.50	.....	.....	.....
	Japanese	M.	93	59	1.79½	.....	.....	.....
	Portuguese	M.	6	59	1.08½	.....	.....	.....
Total.....		M.	115	59.1	.91	.....	.....	.....
Laborers, mill repairs	Part-Hawaiian	M.	.....	.....	.....	2	60	1.00
	Japanese	M.	.....	.....	.....	120	60	.80½
Total.....		M.	.....	.....	.....	122	60	.81
Laborers, pump.....	Chinese	M.	.....	.....	.....	36	60	.93
	Japanese	M.	105	72.9	.97½	21	77.1	.91
	Portuguese	M.	.....	.....	.....	1	84	.79
Total.....		M.	105	72.9	.97½	58	66.6	.92
Laborers, railroad	American	M.	.....	.....	.....	1	60	1.53½
	Chinese	M.	89	59.7	.87½	17	60	.84
	Hawaiian	M.	1	60	.77	13	60	.82½
	Japanese	M.	478	j59.5	.86½	206	60	.87
	Polish	M.	3	59	.97½	.....	.....	.....
	Porto Rican	M.	.....	.....	.....	13	60	.74½
	Portuguese	M.	16	59	.95	24	60	.87½
Total.....		M.	587	j59.5	.87	274	60	.86½
Laborers, sawmill.....	Japanese	M.	60	60	.74	.....	.....	.....
Laborers, steam plow	German	M.	4	59	.84½	13	60	.81½
	Hawaiian	M.	5	64.8	.77	5	60	.96
	Japanese	M.	118	60.6	1.00	155	60	.86½
	Polish	M.	4	59	1.00	.....	.....	.....
	Porto Rican	M.	.....	.....	.....	6	60	.65½
	Portuguese	M.	12	59.3	k. 78	26	60	f. 86½
	W.Indian Negro	M.	.....	.....	.....	4	60	.88½
Total.....		M.	143	60.5	k. 80½	209	60	f. 85½

a Wages of pensioner.

b Including wages of 5 boys.

c Including wages of 36 boys and 6 pensioners.

d Including wages of 1 boy.

e Including wages of 7 boys.

f Including wages of 2 boys.

g And bonus.

h Including wages of 8 boys.

i See notes to details.

j Not including 41 employees whose hours are not reported.

k Including wages of 3 boys.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Laborers, steam tug.....	Hawaiian	M.	3	59	\$1.30 ^a	.....	.....	.....
Laborers, tramway	Portuguese	M.	.....	.....	.....	6	60	\$1.00
Land clearers.....	Chinese	M.	118	^a 59	0.74	9	60	.69
	Japanese	M.	200	^b 59	.80 ¹	17	60	.93 ¹
Total.....		M.	318	^c 59	.78	26	60	.85
Land preparers	Japanese	M.	25	(^d)	.90	70	60	.65 ¹
Lime burners	Portuguese	M.	.....	.....	.....	2	60	1.58 ¹
Machinists.....	American	M.	12	59.8	^e 4.35	13	60	^f 4.56 ¹
	Canadian	M.	.....	.....	.....	1	60	^g 4.00
	English	M.	1	60	4.00	1	60	^h 5.75
	German	M.	3	59.7	3.15 ¹	2	60	ⁱ 2.00
	Hawaiian	M.	.....	.....	.....	3	60	3.29 ¹
	Part-Hawaiian	M.	2	59.5	2.98	3	60	^j 3.57
	Japanese	M.	3	60	2.47 ¹	6	60	2.08 ¹
	Portuguese	M.	.....	.....	.....	5	60	1.86
	Scotch	M.	2	59.5	4.49	2	60	^k 4.60
Total.....		M.	23	59.8	^l 3.82 ¹	36	60	^m 3.46
Machinists' helpers	American	M.	2	60	2.58 ¹	2	60	2.01 ¹
	Chinese	M.	2	59.5	1.37 ¹	1	60	.96
	German	M.	3	60	ⁿ 1.41	.....	.....	.....
	Hawaiian	M.	3	59.7	1.23	3	60	1.68
	Part-Hawaiian	M.	1	60	.69	.....	.....	.....
	Japanese	M.	30	59.8	.91	14	60	1.13 ¹
	Norwegian	M.	.....	.....	.....	1	60	1.34 ¹
	Polish	M.	1	60	.84 ¹	.....	.....	.....
	Portuguese	M.	8	59.4	^o 1.16	4	60	1.32 ¹
	Scotch	M.	2	59	1.00	1	60	2.50
	Spanish	M.	.....	.....	.....	1	60	1.25
Total.....		M.	52	59.7	^p 1.08	27	60	1.34 ¹
Masons.....	American	M.	4	59.3	^q 7.25	.....	.....	.....
	English	M.	1	59	^r 8.00	.....	.....	.....
	German	M.	2	59.5	3.92 ¹	2	60	3.35 ¹
	Hawaiian	M.	1	60	2.00	2	60	2.00
	Irish	M.	1	60	8.00	.....	.....	.....
	Japanese	M.	34	59	.97	8	60	1.68 ¹
	Portuguese	M.	23	59.7	2.23 ¹	23	60	1.76 ¹
	Swedish	M.	2	60	8.00	.....	.....	.....
Total.....		M.	68	59.4	^s 2.28	35	60	1.85 ¹
Masons' helpers.....	American	M.	1	60	1.00	.....	.....	.....
	German	M.	.....	.....	.....	2	60	.84 ¹
	Japanese	M.	75	59.8	.87 ¹	17	60	.78
	Porto Rican	M.	.....	.....	.....	2	60	.84 ¹
	Portuguese	M.	8	59.9	.96 ¹	16	60	1.08
Total.....		M.	84	59.8	.88 ¹	37	60	.91 ¹

^a Not including 20 employees whose hours are not reported.^b Not including 53 employees whose hours are not reported.^c Not including 73 employees whose hours are not reported.^d Not reported.^e Two employees also receive board.^f Four employees also receive board and 2 also receive share of net profits.^g And board.^h And share of net profits.ⁱ One employee also receives board.^j Eight employees also receive board, and 3 also receive share of net profits.^k Including wages of 1 boy.^l Including wages of 2 boys.^m Including wages of 3 boys.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Master mechanic	English	M.	.....	.....	.....	1	60	\$4.60
Office boys	Chinese	M.	.....	.....	.....	1	60	.17 ^a
	Porto Rican	M.	.....	.....	.....	1	60	.57 ^a
Total		M.	.....	.....	.....	2	60	.37 ^a
Oilers, car	Japanese	M.	.....	.....	.....	2	60	.84 ^a
Oilers, locomotive	Hawaiian	M.	.....	.....	.....	2	60	1.15 ^a
	Japanese	M.	.....	.....	.....	1	60	.96
Total		M.	.....	.....	.....	3	60	1.09
Oilers, mill	Chinese	M.	.....	.....	.....	4	72	1.20
	Hawaiian	M.	.....	.....	.....	2	72	.88 ^a
	Japanese	M.	.....	.....	.....	7	72	.98 ^a
Total		M.	.....	.....	.....	13	72	1.01
Oilers, pump	Chinese	M.	10	84	\$0.79 ^a	.....	.....	.....
	Hawaiian	M.	4	72	.77	2	84	.85 ^a
	Japanese	M.	61	82.3	.77	39	84	.77 ^a
Total		M.	75	82	.77 ^a	41	84	.78
Overseers	American	M.	53	\$59.5	\$2.57	97	60	\$2.54 ^a
	Australian	M.	1	60	2.30	.....	.....	.....
	Austrian	M.	2	59.5	2.39 ^a	2	60	2.59 ^a
	Boer	M.	1	60	2.49	.....	.....	.....
	Canadian	M.	2	60	3.24	2	60	3.64 ^a
	Chinese	M.	32	59.3	1.18 ^a	24	60	1.18 ^a
	Danish	M.	1	59	2.30	3	60	3.00 ^a
	English	M.	9	59.7	2.53	9	60	2.95 ^a
	French	M.	2	62.7	2.49 ^a	3	60	2.43
	German	M.	54	\$59.3	\$2.32	54	60	\$2.27
	Hawaiian	M.	40	59.1	\$1.44	78	60	\$1.57
	Part-Hawaiian	M.	22	60	1.98	5	60	2.34
	Hawaiian, white	M.	2	59	2.87 ^a	.....	.....	.....
	Irish	M.	4	60	3.02	2	60	2.58 ^a
	Italian	M.	2	60	2.49 ^a	.....	.....	.....
	Japanese	M.	66	\$59.4	1.18	103	60	1.24
	New Zealander	M.	1	60	2.30	1	60	2.30
	Norwegian	M.	13	60	2.53	9	60	2.53 ^a
	Polish	M.	.....	.....	.....	4	60	1.63 ^a
	Porto Rican	M.	1	59	1.15 ^a	11	60	1.16 ^a
	Portuguese	M.	154	\$59.5	\$1.69 ^a	164	60	\$1.62 ^a
	Russian	M.	1	59	2.30	.....	.....	.....
	Scotch	M.	33	\$59.2	\$2.48 ^a	23	60	\$2.44
	South American	M.	.....	.....	.....	1	60	2.30
	Spanish	M.	3	59.3	2.04 ^a	2	60	1.91 ^a
	Swedish	M.	4	\$59.3	2.73	3	60	2.43
	Welsh	M.	.....	.....	.....	1	60	2.30
Total		M.	503	\$59.6	\$1.87 ^a	596	60	\$1.83 ^a
Overseers, assistant	American	M.	.....	.....	.....	1	60	\$2.30
	German	M.	.....	.....	.....	2	60	3.54 ^a
	Hawaiian	M.	.....	.....	.....	5	60	\$1.72 ^a
	Part-Hawaiian	M.	.....	.....	.....	1	60	1.72 ^a
	Japanese	M.	.....	.....	.....	1	60	.77

^a Not including 2 employees whose hours are irregular.^b Three employees also receive share of net profits.^c Two employees also receive share of net profits.^d Not including 9 employees whose hours are irregular.^e One employee also receives share of net profits.^f One employee also receives board, and 1 also receives share of net profits.^g Not including 1 employee whose hours are irregular.^h One employee also receives board.ⁱ Not including 20 employees whose hours are irregular.^j Nine employees also receive share of net profits.^k Three employees also receive board, and 7 also receive share of net profits.^l And share of net profits.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Overseers, assistant (concluded)	Norwegian	M.	.....	.....	.....	1	60	\$2.22 ^a
	Portuguese	M.	.....	.....	.....	9	60	1.68 ^b
	Russian	M.	.....	.....	.....	1	60	2.30
	Scotch	M.	.....	.....	.....	1	60	2.49
Total		M.	.....	.....	.....	22	60	21.94
Overseers, head	American	M.	9	660	\$8.71	22	60	46.20
	Canadian	M.	4	(^c)	6.71	2	60	6.23
	Chinese	M.	.....	.....	.....	1	60	5.75
	Danish	M.	1	(^c)	9.58 ^d	1	60	5.75
	English	M.	2	(^e)	4.21 ^f	2	60	7.66 ^g
	French	M.	1	(^e)	7.67	2	60	5.36 ^h
	German	M.	3	(^e)	5.32 ⁱ	6	60	6.75
	Part-Hawaiian	M.	.....	.....	.....	1	60	9.58 ^j
	Hawaiian, white	M.	2	759	5.76	.....	.....	.....
	New Zealander	M.	1	(^e)	6.71	1	60	5.75
	Norwegian	M.	3	(^e)	7.03	.....	.....	.....
	Portuguese	M.	.....	.....	.....	1	60	3.45
	Scotch	M.	11	(^e)	6.79	16	60	6.68
	Swedish	M.	.....	.....	.....	1	60	7.67
Total		M.	37	259.5	6.56 ^k	56	60	46.43
Overseers, head, assistant	American	M.	3	(^e)	4.47	9	60	4.62
	English	M.	2	(^e)	5.75	1	60	5.75
	German	M.	3	(^e)	6.25 ^l	3	60	4.96
	Part-Hawaiian	M.	1	(^e)	4.21 ^f	2	60	4.50 ^m
	Polish	M.	.....	.....	.....	1	60	4.79
	Scotch	M.	4	(^e)	3.78 ⁿ	7	60	4.38
	Swedish	M.	.....	.....	.....	2	60	3.64 ^o
Total		M.	18	(^e)	5.24	30	60	4.62 ^p
Overseers, mill	American	M.	.....	.....	.....	1	60	46.71
Overseers, steam plow	American	M.	4	766.7	4.84	1	60	44.79
	English	M.	5	759.7	5.59 ^q	2	60	6.71
	German	M.	3	760	4.73	.....	.....	.....
	Hawaiian	M.	1	(^e)	3.45	.....	.....	.....
	Japanese	M.	1	65	1.15 ^r	.....	.....	.....
	Norwegian	M.	5	759.8	4.02 ^s	.....	.....	.....
	Portuguese	M.	1	(^e)	3.83 ^t	1	60	3.26
	Scotch	M.	1	60	4.79	1	60	4.60
Total		M.	21	661.8	4.52	5	60	5.21 ^u
Overseers, steam plow, assistant	German	M.	1	60	2.87 ^v	.....	.....	.....
	Portuguese	M.	2	760	1.82	.....	.....	.....
Total		M.	3	760	2.17	.....	.....	.....
Overseers, stock	German	M.	1	(^e)	2.30	1	60	2.87 ^w
	Japanese	M.	.....	.....	.....	1	60	1.15 ^x
Total		M.	1	(^e)	2.30	2	60	2.01 ^y
Pack-train men	Japanese	M.	90	62.9	.68	2	66	.77
	Portuguese	M.	4	60	1.00	.....	.....	.....
Total		M.	94	62.8	.69 ^z	2	66	.77

^a Four employees also receive share of net profits.^b Not including 8 employees whose hours are irregular.^c One employee also receives share of net profits.^d One employee also receives board, and 3 also receive share of net profits.^e Irregular.^f Not including 1 employee whose hours are irregular.^g Not including 35 employees whose hours are irregular.^h Two employees also receive share of net profits.ⁱ And share of net profits.^j Not including 2 employees whose hours are irregular.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Painters (a)	American	M.	1	60	\$3.50	3	60	\$2.29
	Chinese	M.	7	59.3	1.11			
	Filipino	M.				1	60	1.25
	German	M.	2	58	3.50	1	60	1.25
	Hawaiian	M.	2	59.5	1.50	8	60	1.90½
	Part-Hawaiian	M.	1	60	2.50			
	Japanese	M.	20	58.8	.96½	15	60	1.06½
	Porto Rican	M.				1	60	1.00
	Portuguese	M.	1	60	1.00	1	60	2.00
	Spanish	M.	1	60	.92½			
Total.....		M.	35	59.1	1.28½	30	60	1.45
Pipe men.....	Hawaiian	M.				2	60	1.96½
Plowmen	Chinese	M.	7	59.4	.71½			
	Hawaiian	M.	9	59.8	.95½	12	66	1.11½
	Japanese	M.	435	61	.75	25	66	.78
	Polish	M.	9	59.4	.84½			
	Portuguese	M.	71	59.9	.90	10	66	1.07½
Total.....		M.	531	60.8	.77½	47	66	.93
Plowmen and cultivators.....	Japanese	M.				59	66	.73
	Portuguese	M.				40	66	1.01
Total.....		M.				99	66	.84
Plumber	German	M.				1	(b)	1.72½
Police men	American	M.	2	c84	2.54½	1	70	3.12½
	American Negro	M.				1	70	2.30
	Hawaiian	M.	3	c84	1.42½	7	72	d.98½
	Japanese	M.				1	70	1.15
Total.....		M.	5	c84	1.87½	10	71.4	d1.35
Pump man.....	Hawaiian	M.	1	84	f. 42½			
Reservoir men	German	M.	2	e71	1.92½	1	70	2.30
	Hawaiian	M.	1	(b)	.61½	1	70	1.15
	Japanese	M.	29	e73.8	.78½	35	67.4	.91½
	Portuguese	M.	2	77.5	1.46½	2	70	1.08½
Total.....		M.	34	e73.9	.88½	39	67.7	.96½
Riggers	American	M.				1	60	3.00
	Hawaiian	M.				1	63	1.15½
	Japanese	M.				1	60	2.30
	Scotch.....	M.				1	60	3.25
Total.....		M.				4	60.3	2.42½
Riggers, sawmill.....	American	M.	2	60	3.25			
Riveters.....	Japanese	M.	14	59	1.00			
Sawyer, sawmill.....	American	M.	1	60	4.00			
Sawyer, sawmill, assistant.....	American	M.	1	60	2.50			
Seed cutters.....	Japanese	M.	113	(h)	.93½			
Seed cutters and planters.....	Chinese	M.	25	(h)	1.00			
Seed planters.....	Japanese	M.	21	(h)	1.10			
Shaft diggers.....	American	M.	13	60	4.25			
	Chinese	M.				20	60	1.25
	English.....	M.	2	60	5.00			
	Hawaiian	M.	10	60	1.25			
	Irish.....	M.	4	60	5.00			

a Including house painters.

b Irregular.

c Not including 1 employee whose hours are irregular.

d Three employees receive additional salary from Government.

e Not including 2 employees whose hours are irregular.

f Wages of boy.

g Not including 4 employees whose hours are irregular.

h Not reported.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Shaft diggers (concluded).....	Japanese	M.	142	58.3	\$1.25	319	60	a\$1.24½
	Portuguese	M.	4	54	1.16½	1	60	1.07½
Total.....		M.	175	58.5	1.60	340	60	a1.24½
Shaft diggers' helpers.....	Part-Hawaiian	M.	2	60	.77			
	Japanese	M.	15	60	.97			
	Portuguese	M.	2	60	.77			
Total.....		M.	19	60	.92½			
Skidway man, sawmill.....	German	M.	1	60	2.50			
Stable men	American	M.				1	72	1.34½
	Chinese	M.	10	84	.81½	5	72	.99
	German	M.				1	72	2.87½
	Guam Islander	M.	1	(b)	1.81½			
	Hawaiian	M.	13	73.8	c.72	17	72	.79½
	Part-Hawaiian	M.	1	84	.85½			
	Japanese	M.	126	80.7	.74	210	72	.87
	Polish	M.	2	84	.85½	2	72	1.00
	Porto Rican	M.				1	72	.77
	Portuguese	M.	26	81.8	c.87½	39	72	c.99
Total.....		M.	179	780.6	g.76½	276	72	c.89½
Steerers, steam plow.....	German	M.				2	60	1.15½
	Hawaiian	M.	3	67	.82	4	60	.84½
	Japanese	M.	40	60.7	.85	37	60.3	.94½
	Polish	M.	2	59	1.00			
	Portuguese	M.	1	59	1.00	11	60	1.06½
Total.....		M.	46	61	.86	54	60.2	.97
Stenographer	American	M.				1	66	3.83½
Stock herders.....	American	M.				1	70	.85½
	Hawaiian	M.	3	(b)	.94½	22	71.3	f.94½
	Japanese	M.				12	72.8	k.75½
	Portuguese	M.	1	(b)	1.81½	5	72.8	f.76
Total.....		M.	4	(b)	1.08½	40	71.8	m.86½
Stock herders and butchers.....	German	M.				1	70	2.63
	Hawaiian	M.				3	70	1.00
	Japanese	M.				1	70	.56
Total.....		M.				5	70	1.24
Stockman.....	Scotch.....	M.				1	70	4.60
Storekeepers	American	M.				20	60.6	4.69
	Canadian	M.				1	60	5.75
	English	M.				6	60	4.74
	Hawaiian	M.				3	60	3.18½
	New Zealander	M.				1	60	3.83½
	Portuguese	M.				1	60	2.11
	Scotch.....	M.				2	60	4.69½
Total.....		M.				34	60.4	4.49½

a Not including 8 employees who receive \$3 per foot.

b Irregular.

c Including wages of 2 boys.

d Not including 3 employees whose hours are irregular.

e Including wages of 5 boys.

f Not including 4 employees whose hours are irregular.

g Including wages of 7 boys.

h Not including 1 employee whose hours are irregular.

i Including wages of 1 boy.

j Not including 7 employees whose hours are irregular.

k One employee also receives board.

l Not including 8 employees whose hours are irregular.

m See notes to details.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Storekeeper, assistant.....	American	M.	.....	.....	.....	1	60	\$2.49
Sugar boilers.....	American	M.	7	71	\$5.61 ^a	13	72	\$5.33 ^a
	Austrian	M.	1	72	5.75	.....	.....	.....
	Canadian	M.	1	72	4.79	1	72	4.79
	Chinese	M.	3	72	1.66	.....	.....	.....
	Danish	M.	1	72	5.75	1	72	6.39
	English	M.	3	69.8	5.24	6	72	\$5.65 ^a
	French	M.	1	72	4.98 ^a	1	72	4.98 ^a
	German	M.	12	71.9	5.68	13	72	5.94 ^a
	Hawaiian	M.	.....	.....	.....	1	72	6.39
	Part-Hawaiian	M.	3	71.3	4.96 ^a	3	72	5.30
	Hawaiian, white	M.	1	72	4.79	.....	.....	.....
	Irish	M.	1	72	7.67	1	72	4.98 ^a
	New Zealander	M.	.....	.....	.....	1	72	5.75
	Portuguese	M.	1	72	3.83 ^a	1	72	5.75
	Scotch	M.	1	71	\$5.75	1	72	5.56
	Welsh	M.	2	66	5.11 ^a	3	72	\$4.69 ^a
Total.....	.....	M.	38	71.1	\$5.17 ^a	46	72	\$5.56 ^a
Sugar boilers, assistant	American	M.	3	71.3	3.00 ^a	4	72	2.63 ^a
	Canadian	M.	1	72	3.83 ^a	.....	.....	.....
	Chinese	M.	7	71	1.20	13	72	1.56 ^a
	English	M.	1	71	\$3.45	2	72	3.54 ^a
	German	M.	5	72	3.52 ^a	1	72	3.83 ^a
	Hawaiian	M.	2	68	.84 ^a	1	72	3.83 ^a
	Part-Hawaiian	M.	2	70	4.12	.....	.....	.....
	Irish	M.	1	72	2.87 ^a	.....	.....	.....
	Japanese	M.	22	71.9	1.44 ^a	22	72	1.43 ^a
	Norwegian	M.	1	72	2.87 ^a	.....	.....	.....
	Portuguese	M.	5	71.6	\$1.62	10	72	\$1.61
	Scotch	M.	1	72	2.30	.....	.....	.....
	Welsh	M.	.....	.....	.....	1	72	5.36 ^a
Total.....	.....	M.	51	71.5	\$1.96 ^a	54	72	\$1.83
Sugar boilers' helpers.....	Japanese	M.	6	68	1.22	.....	.....	.....
Superintendent, mill construction.....	American	M.	1	(^a)	6.32 ^a	.....	.....	.....
Superintendents, mill construction, assistant.	American	M.	2	59	2.24 ^a	.....	.....	.....
	English	M.	1	59	1.50	.....	.....	.....
Total.....	.....	M.	3	59	1.99 ^a	.....	.....	.....
Superintendent, sawmill	American	M.	1	60	4.25	.....	.....	.....
Superintendents, store.....	American	M.	9	75	\$4.58	.....	.....	.....
	Australian	M.	1	(^a)	\$4.79	.....	.....	.....
	English	M.	1	(^a)	3.83 ^a	.....	.....	.....
	Part-Hawaiian	M.	1	(^a)	5.17 ^a	.....	.....	.....
	Japanese	M.	1	(^a)	2.87 ^a	.....	.....	.....
	Portuguese	M.	2	72	3.96 ^a	.....	.....	.....
	Scotch	M.	3	(^a)	4.64	.....	.....	.....
Total.....	.....	M.	18	74	\$4.43	.....	.....	.....
Superintending engineers	American	M.	.....	.....	.....	2	72	9.96 ^a
	English	M.	.....	.....	.....	1	72	15.97 ^a
Total.....	.....	M.	.....	.....	.....	3	72	11.97

^a One employee also receives share of net profits.^b Two employees also receive share of net profits.^c Not including 1 employee who receives \$1,000 per crop.^d Not including 5 employees whose hours are irregular.^e And share of net profits.^f Not including 1 employee who receives \$2,000 per crop.^g See notes to details.^h Irregular.ⁱ Not including 1 employee whose hours are irregular.^j Not including 12 employees whose hours are irregular.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Surveyors	American	M.	9	(a)	\$6.58	10	(a)	\$6.94
	Danish	M.	1	(a)	3.83½	1	(a)	4.60
	German	M.	1	(a)	4.79	.....	.....	.....
	Hawaiian	M.	1	(a)	4.00	.....	.....	.....
	Part-Hawaiian	M.	1	(a)	2.30	.....	.....	.....
	Irish	M.	.....	.....	.....	1	(a)	\$10.00
	Norwegian	M.	.....	.....	.....	1	(a)	7.67
	Portuguese	M.	.....	.....	.....	1	(a)	4.23½
Total .....	.....	M.	13	(a)	5.70½	14	(a)	6.85
Surveyor, assistant	American	M.	.....	.....	.....	1	(a)	3.83½
Surveyors' helpers	American	M.	1	60	1.50	.....	.....	.....
	German	M.	1	(a)	4.57½	.....	.....	.....
	Hawaiian	M.	6	(a)	.84	8	60	1.08
	Part-Hawaiian	M.	1	60	1.53½	.....	.....	.....
	Japanese	M.	11	65.5	.90	10	60	1.16
	Portuguese	M.	4	672	1.02	3	(a)	1.98½
Total .....	.....	M.	24	66.3	1.94	21	60	1.10
Teachers, kindergarten	American	F.	.....	.....	.....	2	30	3.12½
Teachers, kindergarten, assistant	Hawaiian	F.	.....	.....	.....	2	30	62½
Teamsters	American	M.	2	65	1.63½	2	66	1.39½
	Austrian	M.	2	60	1.09½	.....	.....	.....
	Chinese	M.	22	68.4	1.07	11	66	.99½
	Hawaiian	M.	184	61.7	1.85½	264	66	.92
	Part-Hawaiian	M.	4	62.5	1.15½	2	66	1.34½
	Japanese	M.	528	661.7	.81½	680	66	.85½
	Polish	M.	7	59.3	.95	8	66	.94½
	Porto Rican	M.	.....	.....	.....	26	66	.80
	Portuguese	M.	359	61.2	1.90½	346	66	m. 97½
	Spanish	M.	2	60	.73	.....	.....	.....
	Welsh	M.	1	59	2.11½	.....	.....	.....
Total .....	.....	M.	1,111	661.6	1.86	1,339	66	m. 90
Teamsters and cultivators	Hawaiian	M.	.....	.....	.....	113	66	.89½
	Japanese	M.	.....	.....	.....	379	66	.81
	Porto Rican	M.	.....	.....	.....	3	66	.73
	Portuguese	M.	.....	.....	.....	149	66	1.88½
	South American	M.	.....	.....	.....	1	66	.84½
Total .....	.....	M.	.....	.....	.....	645	66	1.84
Timekeepers	American	M.	12	659	3.21½	14	60	3.09½
	Austrian	M.	.....	.....	.....	1	60	2.68½
	Bohemian	M.	1	(a)	2.30	.....	.....	.....
	English	M.	.....	.....	.....	2	60	22.68½
	German	M.	2	660	3.98½	6	60	2.97
	Hawaiian	M.	3	(a)	1.73	4	60	1.32½
	Part-Hawaiian	M.	2	660	2.08½	5	60	2.37½
	Hawaiian, white	M.	1	(a)	1.58½	.....	.....	.....
	Japanese	M.	1	(a)	1.58½	.....	.....	.....

a Irregular.

b And board.

c One employee also receives board.

d Wages of boy.

e Not including 5 employees whose hours are irregular.

f Not including 6 employees whose hours are irregular.

g Not including 1 employee whose hours are irregular.

h Including wages of 1 boy.

i Not including 13 employees whose hours are irregular.

j Not including 14 employees whose hours are irregular.

k Including wages of 4 boys.

l Including wages of 12 boys.

m Including wages of 2 boys.

n Including wages of 16 boys.

o Including wages of 17 boys.

p Not including 11 employees whose hours are irregular.

q One employee also receives share of net profits.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Continued.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wages per day.
Timekeepers (concluded)	Norwegian	M.	1	(a)	\$3.06½	2	66	\$2.68½
	Polish	M.	1	(a)	3.83½			2.30
	Portuguese	M.				1	60	2.30
	Scotch	M.	1	(a)	c2.68½	5	60	c2.80
Total		M.	25	d59.7	c2.83½	40	60.3	c2.70
Timekeepers, assistant	American	M.	2	(a)	2.10½			
Tinsmith	German	M.				1	60	2.00
Waiter	Japanese	M.				1	70	.66
Warehousemen	American	M.	2	f59	3.45	2	60	2.20½
	German	M.	4	f63.7	1.81½			
	Hawaiian	M.	5	61.6	1.50½	5	60	1.38
	Part-Hawaiian	M.	2	f60	1.72½			
	Jamaican	M.	1	59	1.34½			
	Japanese	M.				17	60	.88½
	Norwegian	M.	1	60	2.40½			
	Portuguese	M.	3	59.7	1.41	3	60	1.13½
	Scotch	M.	1	60	3.06½			
Total		M.	19	e61	e1.90½	27	60	1.10
Warehousemen's helper	Japanese	M.	1	60	.92½			
Watchmen	American	M.	3	84	1.53½	4	73.5	1.49
	American Negro	M.				1	84	1.50
	Canadian	M.	1	84	1.31½			
	Chinese	M.	1	84	.72	2	77	.69½
	English	M.				1	84	1.31½
	German	M.	4	84	1.40½	5	f70	1.08½
	Greek	M.	1	84	1.48			
	Hawaiian	M.	4	84	1.78½	4	70	1.03
	Part-Hawaiian	M.	2	84	1.25			
	Japanese	M.	11	84.6	1.70	33	f73.8	.88½
	Norwegian	M.	3	84	1.19	1	84	1.15
	Portuguese	M.	23	84	.95½	24	71.8	1.04½
	Scotch	M.				1	70	1.64½
	Spanish	M.	2	84	.92			
Total		M.	55	84.1	f.99	78	f73.1	1.01
Water tenders, mill	Japanese	M.				7	72	1.02½
	Portuguese	M.				3	72	1.00½
Total		M.				10	72	1.02
Water tenders, steam plow	Chinese	M.	1	59	.92½	2	66	1.00
	Hawaiian	M.	7	62.9	.81½			
	Japanese	M.	18	61.3	.92	8	66	.92
	Polish	M.	3	59	1.00			
	Portuguese	M.	7	59.9	.94½	8	66	.98
Total		M.	36	61.1	.91	18	66	.95½
Well borers	American	M.				7	60	3.30
	Norwegian	M.				1	60	2.50
	Portuguese	M.				5	60	1.30½
Total		M.				13	60	2.47½

a Irregular.

b And share of net profits.

c One employee also receives share of net profits.

d Not including 22 employees whose hours are irregular.

e Two employees also receive board, and 2 also receive share of net profits.

f Not including 1 employee whose hours are irregular.

g Not including 3 employees whose hours are irregular.

h Two employees also receive board.

i Including wages of 1 pensioner.

j Not including 1 employee who works Sunday only (10 hours).

k Not including 1 employee whose hours are irregular and 1 who works Sunday only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Concluded.

SUGAR PLANTATIONS (55 ESTABLISHMENTS)—Concluded.

[Data for 1900-1901 are for 38 establishments.]

Occupation.	Nationality.	Sex.	1900-1901.			1902.		
			Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.	Em- ploy- ees.	Aver- age hours per week	Aver- age wa- ges per day.
Wharf hands.....	American.....	M.	.....	.....	.....	1	60	\$2.11
	Chinese.....	M.	1	59	\$0.73	.....	.....	.....
	German.....	M.	.....	.....	.....	3	60	1.58½
	Hawaiian.....	M.	37	59.3	1.08	47	(b)	1.13
	Japanese.....	M.	102	59.2	.88	68	(b)	.94½
	Porto Rican.....	M.	.....	.....	.....	16	60	.76
Total.....	Portuguese.....	M.	.....	.....	.....	4	60	1.49
	.....	M.	140	59.2	.92	188	60	1.02½
Wharfingers.....	American.....	M.	2	60	2.01½	.....	.....	.....
	Canadian.....	M.	3	60	2.65½	.....	.....	.....
	Dutch.....	M.	1	60	2.30	1	60	2.30
	German.....	M.	2	(b)	2.26	.....	.....	.....
	Hawaiian.....	M.	1	60	2.24½	1	60	2.68½
	Portuguese.....	M.	3	60	1.98	.....	.....	.....
	Russian.....	M.	.....	.....	.....	1	60	2.30
	Scotch.....	M.	2	60	3.06½	2	60	3.98
	Swedish.....	M.	.....	.....	.....	1	60	2.39½
	Total.....	M.	14	59.9	2.37½	6	60	2.92½
Wheelwright.....	American.....	M.	1	58	4.00	.....	.....	.....
Wheelwright's helper.....	Japanese.....	M.	1	58	1.25	.....	.....	.....
Whitewashers.....	Japanese.....	M.	.....	.....	.....	8	60	1.00
Wipers and oilers, locomotive.....	Chinese.....	M.	1	66	.92½	.....	.....	.....
	Fijian.....	M.	1	60	1.00	.....	.....	.....
	German.....	M.	1	59	.84½	.....	.....	.....
	Hawaiian.....	M.	2	60	1.74	1	60	1.00
	Japanese.....	M.	15	65.5	.94	18	60	.95
	Portuguese.....	M.	3	63	1.05	3	60	1.08
Total.....	.....	M.	23	64.2	1.93½	22	60	.97
Wiper and oiler, mill.....	Chinese.....	M.	.....	.....	.....	1	72	.96
Wood choppers.....	Hawaiian.....	M.	.....	.....	.....	1	60	.80
	Japanese.....	M.	.....	.....	.....	6	60	.65½
Total.....	.....	M.	.....	.....	.....	7	60	.67½
Yard boys.....	Japanese.....	M.	.....	.....	.....	3	60	.47½
	Porto Rican.....	M.	.....	.....	.....	1	60	.31
Total.....	.....	M.	.....	.....	.....	4	60	.43½

a Not including 1 employee whose hours are irregular.

b Irregular.

c Not including 8 employees whose hours are irregular.

d Not including 3 employees whose hours are irregular.

e Not including 127 employees whose hours are irregular.

f Not including 5 employees whose hours are irregular.

g Including wages of 1 cripple.

TABLE III.—RETAIL PRICES OF FOOD, 1890 TO 1902.

Year.	Baking powder, "Royal," per pound.	Baking powder, "Royal," per pound.	Baking powder, "Royal," per pound.	Beans, white, per pound.	Beans, white, per pound.	Beans, white, per pound.	Beans, white, per pound.	Beans, white, per pound.	Butter.	Good table, per pound.	California creamery, per pound.	California creamery, per pound.
1890.....	\$0.600	\$0.6000	\$0.60	\$0.05	\$0.05	\$0.0500	\$0.0500	\$0.0500	\$0.3875	\$0.4167	\$0.4063	\$0.4750
1891.....	.600	.6000	.60	.05	.05	.0500	.0500	.0500	.4167	.4063	.4833	
1892.....	.600	.6000	.60	.05	.05	.0500	.0500	.0500	.4042	.4500	.5000	
1893.....	.600	.6000	.60	.05	.05	.0500	.0500	.0500	.3667	.4375	.5000	
1894.....	.600	.5417	.60	.05	.05	.6500	.0500	.0500	.3500	.4375	.5000	
1895.....	.600	.5000	.60	.05	.05	.0500	.0500	.0500	.3458	.3979	.5000	
1896.....	.600	.5000	.60	.05	.05	.0500	.0500	.0500	.3458	.4354	.5000	
1897.....	.600	.5000	.60	.05	.05	.0500	.0433	.0500	.2833	.3938	.5000	
1898.....	.525	.5000	.60	.05	.05	.0500	.0467	.0521	.3208	.4021	.5000	
1899.....	.500	.5000	.60	.05	.05	.0500	.0500	.0625	.3083	.3813	.5000	
1900.....	.500	.5000	.60	.05	.05	.0510	.0642	.0625	.3208	.4167	.5000	
1901.....	.500	.5000	.60	.06	.05	.0625	.0500	.0600	.3500	.4000	.4250	
1902.....	.500	.5000	.60	.06	.05	.0625	.0500	.0500	.3500	.4500	.4250	

Year.	Butter.			Cheese, California cream, per pound.	Cheese, California cream, per pound.	Cheese, California cream, per pound.	Cheese, California cream, per pound.	Cheese, California cream, per pound.	Cheese, California cream, per pound.	Coffee.	
	California creamery, per pound.	California creamery, per pound.	California creamery, per pound.							Native, green, per pound.	Native, green, per pound.
1890.....	\$0.40	\$0.50	\$0.4000	\$0.2458	\$0.20	\$0.2500	\$0.20	\$0.2500	\$0.25	\$0.2500	\$0.2500
1891.....	.40	.50	.4000	.2208	.20	.2500	.20	.2500	.25	.2500	.2500
1892.....	.40	.50	.4000	.2000	.20	.2500	.20	.2500	.25	.2500	.2458
1893.....	.40	.50	.4000	.2000	.20	.2500	.20	.2500	.25	.2500	.2500
1894.....	.40	.50	.4167	.2000	.20	.2500	.20	.2500	.25	.2500	.2500
1895.....	.40	.50	.4500	.2000	.20	.2125	.20	.2500	.25	.2500	.2500
1896.....	.40	.50	.4292	.2000	.20	.2000	.20	.2500	.25	.2500	.2500
1897.....	.40	.50	.4000	.2000	.20	.2000	.20	.2500	.25	.2500	.2500
1898.....	.40	.50	.4000	.2000	.20	.2000	.20	.2417	.25	.2500	.2458
1899.....	.40	.50	.4000	.2000	.20	.2000	.20	.2000	.25	.2500	.2000
1900.....	.40	.50	.4000	.2000	.20	.2000	.20	.2000	.25	.2167	.2000
1901.....	.40	.50	.4000	.1500	.20	.2000	.20	.2000	.20	.1400	.1500
1902.....	.40	.45	.4000	.1500	.20	.2000	.20	.2000	.20	.1400	.1500

Year.	Coffee.				Eggs, per dozen.	Eggs, per dozen.	Eggs, per dozen.	Fish.			
	Native, green, per pound.	Native, green, per pound.	Native, roasted and ground, per pound.	Native, roasted and ground, per pound.				Cod, salt, per pound.	Cod, salt, per pound.	Cod, salt, per pound.	Salmon, canned, per 1-pound can.
1890.....	\$0.2500	\$0.3042	\$0.3500	\$0.3583	\$0.5167	\$0.40	\$0.5000	\$0.100	\$0.1000	\$0.0833	\$0.200
1891.....	.2500	.3292	.3500	.4417	.5333	.40	.5000	.100	.1000	.0833	.200
1892.....	.2500	.3250	.3500	.4000	.5000	.40	.5000	.100	.1000	.0833	.200
1893.....	.2500	.3375	.3500	.3750	.4958	.40	.4875	.100	.1000	.0833	.200
1894.....	.2500	.2750	.3500	.3500	.5667	.40	.4500	.100	.1000	.0833	.200
1895.....	.2500	.2625	.3500	.3750	.5417	.40	.4500	.100	.1000	.0833	.200
1896.....	.2500	.2750	.3402	.3750	.5167	.40	.4000	.100	.1000	.0833	.200
1897.....	.2500	.2625	.3194	.3500	.5000	.40	.3708	.100	.1000	.0833	.200
1898.....	.2125	.2500	.3000	.3125	.5250	.40	.3500	.100	.1000	.0833	.200
1899.....	.2000	.2458	.3000	.3000	.5083	.40	.4000	.100	.0972	.0833	.200
1900.....	.1975	.2000	.3000	.3000	.5167	.40	.4292	.100	.0833	.0833	.200
1901.....	.2000	.2000	.2500	.2750	.5500	.50	.5000	.083	.0700	.0700	.145
1902.....	.1600	.2000	.2500	.2750	.5500	.50	.6000	.083	.0700	.0700	.145

TABLE III.—RETAIL PRICES OF FOOD, 1890 TO 1902—Continued.

Year.	Fish.			Flour, wheat.					Flour, Graham, per pound.	Fruit. Apples, evaporated, per pound.
	Salm-on, salt, per pound.	Salm-on, salt, per pound.	Salm-on, salt, per pound.	Best family, per pound.	Best family, in 48-pound bags, per pound.	No. 1 family, per pound.	No. 1 family, in 48-pound bags, per pound.	No. 1 family, in 48-pound bags, per pound.		
1890.....	\$0.1000	\$0.10	\$0.10	\$0.0300	\$0.0302	\$0.0300	\$0.0341	\$0.0367	\$0.0306	\$0.05
1891.....	.1000	.10	.10	.0300	.0309	.0333	.0349	.0375	.0342	.05
1892.....	.1000	.10	.10	.0300	.0351	.0321	.0347	.0365	.0334	.05
1893.....	.1000	.10	.10	.0300	.0313	.0279	.0333	.0331	.0293	.05
1894.....	.1000	.10	.10	.0292	.0310	.0250	.0326	.0333	.0255	.05
1895.....	.1000	.10	.10	.0271	.0276	.0250	.0296	.0306	.0254	.05
1896.....	.1000	.10	.10	.0267	.0298	.0250	.0278	.0292	.0269	.05
1897.....	.1000	.10	.10	.0329	.0340	.0292	.0333	.0296	.0324	.05
1898.....	.1000	.10	.10	.0300	.0346	.0333	.0355	.0308	.0324	.05
1899.....	.1042	.10	.10	.0271	.0299	.0300	.0296	.0292	.0264	.05
1900.....	.1250	.10	.10	.0250	.0292	.0271	.0306	.0292	.0265	.05
1901.....	.0900	.08	.10	.0250	.0250	.0250	.0280	.0260	.0240	.05
1902.....	.0900	.08	.10	.0250	.0250	.0250	.0280	.0250	.0270	.05

Year.	Fruit.		Lard, per pound.	Lard, per pound.	Lard, per pound.	Lard, per pound.	Lard, per pound.	Lard, per pound.	Macaroni, per pound.	Meal.	
	Apples, evaporated, per pound.	Prunes, dried, per pound.								Corn, per pound.	Corn, per pound.
1890.....	\$0.2000	\$0.2000	\$0.1483	\$0.150	\$0.1300	\$0.1417	\$0.1500	\$0.1233	\$0.10	\$0.04	\$0.0500
1891.....	.2000	.2000	.1408	.150	.1300	.1271	.1500	.1275	.10	.04	.0500
1892.....	.2000	.2000	.1392	.150	.1300	.1250	.1500	.1300	.10	.04	.0500
1893.....	.2000	.2000	.1517	.150	.1300	.1479	.1479	.1300	.10	.04	.0500
1894.....	.2000	.2000	.1400	.150	.1375	.1375	.1250	.1300	.10	.04	.0500
1895.....	.2000	.2000	.1400	.150	.1400	.1250	.1250	.1367	.10	.04	.0433
1896.....	.2000	.2000	.1300	.150	.1400	.1179	.1242	.1325	.10	.04	.0400
1897.....	.1875	.2000	.1000	.145	.1400	.1142	.1200	.1450	.10	.04	.0400
1898.....	.1500	.1500	.1000	.130	.1325	.1183	.1200	.1467	.10	.04	.0400
1899.....	.1500	.1313	.1000	.150	.1300	.1167	.1204	.1400	.10	.04	.0400
1900.....	.1500	.1250	.1033	.150	.1300	.1100	.1250	.1483	.10	.04	.0358
1901.....	.1750	.1250	.1000	.150	.1100	.1100	.1250	.1500	.15	.04	.0400
1902.....	.1750	.1250	.1200	.190	.1100	.1100	.1250	.1700	.15	.04	.0400

Year.	Meal.						Meat, beef and veal, fresh.				
	Corn, per pound.	Corn, per pound.	Corn, per pound.	Oat, per pound.	Oat, per pound.	Rye, per pound.	Beef, choice cuts, per pound.	Beef, common cuts, per pound.	Beef, common cuts, per pound.	Beef, loin roast, per pound.	Beef, loin steak, per pound.
1890.....	\$0.05	\$0.045	\$0.050	\$0.0700	\$0.0783	\$0.05	\$0.08	\$0.070	\$0.0600	\$0.1500	\$0.1250
1891.....	.05	.045	.050	.0700	.0725	.05	.10	.070	.0600	.1500	.1250
1892.....	.05	.045	.045	.0700	.0733	.05	.10	.070	.0600	.1500	.1250
1893.....	.05	.045	.045	.0700	.0700	.05	.08	.050	.0600	.1500	.1250
1894.....	.05	.045	.045	.0700	.0600	.05	.08	.050	.0600	.1500	.1250
1895.....	.05	.045	.045	.0675	.0600	.05	.08	.050	.0600	.1500	.1250
1896.....	.05	.045	.045	.0600	.0617	.05	.10	.070	.0600	.1500	.1500
1897.....	.05	.045	.045	.0600	.0800	.05	.10	.070	.0600	.1500	.1500
1898.....	.05	.045	.045	.0600	.0650	.05	.10	.070	.0733	.1800	.1500
1899.....	.05	.045	.045	.0600	.0500	.05	.15	.100	.0933	.2100	.1500
1900.....	.05	.045	.045	.0600	.0500	.05	.15	.100	.1000	.1875	.1875
1901.....	.04	.040	.045	.0550	.0600	.05	.15	.100	.1250	.2250	.2250
1902.....	.04	.040	.045	.0550	.0600	.05	.18	.125	.1250	.2250	.2250

TABLE III.—RETAIL PRICES OF FOOD, 1890 TO 1902—Continued.

Year.	Meat, beef and veal, fresh.						Meat, beef, corned.		Meat, lamb and mutton, fresh.	
	Beef, rib roast, per pound.	Beef, round steak, per pound.	Beef, shoulder roast, per pound.	Veal, cutlets, per pound.	Veal, loin roast, per pound.	Veal, rib roast, per pound.	Beef, corned, per pound.	Beef, corned, canned, per 2-lb. can.	Lamb, fore quarter, per pound.	Lamb, hind quarter, per pound.
1890.....	\$0.125	\$0.1000	\$0.1000	\$0.125	\$0.15	\$0.125	\$0.1000	\$0.2500	\$0.18	\$0.20
1891.....	.125	.1000	.1000	.125	.15	.125	.1000	.2500	.18	.20
1892.....	.125	.1000	.1000	.125	.15	.125	.1000	.2500	.18	.20
1893.....	.125	.1000	.1000	.125	.15	.125	.1000	.2500	.18	.20
1894.....	.125	.1000	.1000	.125	.15	.125	.1000	.2500	.18	.20
1895.....	.125	.1000	.1000	.150	.15	.125	.1000	.2500	.18	.20
1896.....	.100	.1000	.0800	.150	.15	.150	.1000	.2500	.18	.20
1897.....	.100	.1000	.0800	.150	.15	.150	.1000	.2500	.18	.20
1898.....	.125	.1000	.1000	.150	.15	.150	.1000	.2500	.18	.20
1899.....	.150	.1000	.1250	.180	.18	.180	.1083	.2875	.18	.20
1900.....	.165	.1492	.1479	.200	.20	.200	.1458	.3000	.18	.20
1901.....	.220	.1500	.1250	.220	.22	.200	.1250	.2500	.15	.20
1902.....	.200	.1500	.1250	.210	.22	.200	.1250	.2500	.15	.20

Year.	Meat, lamb and mutton, fresh.			Meat, pork, fresh.			Meat, pork, salt and cured.				
	Mutton chops, per pound.	Mutton leg, per pound.	Mutton roast, per pound.	Pork chops, per pound.	Pork roast, per pound.	Sausage, per pound.	Bacon, break-fast, per pound.	Bacon, break-fast, per pound.	Bacon, break-fast, per pound.	Bacon, break-fast, per pound.	Ham, sugar-cured, per pound.
1890.....	\$0.150	\$0.15	\$0.150	\$0.25	\$0.2500	\$0.2500	\$0.2000	\$0.2000	\$0.22	\$0.1900	\$0.2000
1891.....	.150	.15	.150	.25	.2500	.2500	.2000	.2000	.22	.1958	.2000
1892.....	.150	.15	.150	.25	.2500	.2500	.2000	.2000	.22	.1942	.2000
1893.....	.150	.15	.150	.25	.2500	.2500	.2100	.1850	.22	.2008	.2000
1894.....	.150	.15	.150	.25	.2500	.2500	.2017	.1900	.21	.2008	.1950
1895.....	.150	.15	.150	.25	.2500	.2500	.1800	.2000	.20	.1900	.1800
1896.....	.175	.15	.175	.25	.2333	.2500	.1800	.1817	.20	.1717	.1800
1897.....	.175	.15	.175	.25	.2000	.2500	.1800	.1917	.20	.1675	.1725
1898.....	.175	.15	.175	.20	.2000	.2208	.1800	.1842	.20	.1533	.1750
1899.....	.175	.15	.175	.20	.1900	.2000	.1800	.1892	.20	.1525	.1800
1900.....	.175	.15	.175	.20	.1800	.2000	.1800	.1850	.20	.1933	.1742
1901.....	.200	.18	.200	.22	.2200	.2000	.1900	.1800	.20	.2000	.1800
1902.....	.200	.18	.200	.22	.2200	.2000	.2100	.2100	.20	.2000	.2000

Year.	Meat, pork, salt and cured.					Milk, condensed.		Molasses, New Orleans, per gallon.	Pease, dried, per pound.	Rice, per pound.	Rice, per pound.
	Ham, sugar-cured, per pound.	Ham, sugar-cured, per pound.	Pork, salt, per pound.	Pork, salt, per pound.	Pork, salt, per pound.	Best grade, per 1-lb. can.	"Eagle," per 1-lb. can.				
1890.....	\$0.1850	\$0.1900	\$0.20	\$0.20	\$0.1313	\$0.25	\$0.2500	\$1.000	\$0.060	\$0.0644	\$0.0525
1891.....	.1900	.1958	.20	.20	.1396	.25	.2500	1.000	.060	.0750	.0513
1892.....	.2150	.1983	.20	.20	.1417	.25	.2500	1.000	.060	.0825	.0500
1893.....	.2200	.2150	.20	.20	.1500	.25	.2500	1.000	.060	.0508	.0567
1894.....	.1983	.2100	.20	.20	.1479	.25	.2500	1.000	.060	.0517	.0550
1895.....	.1800	.2000	.20	.20	.1500	.25	.2708	1.000	.060	.0500	.0475
1896.....	.1800	.1842	.20	.20	.1458	.25	.3000	1.000	.060	.0475	.0454
1897.....	.1800	.1750	.20	.20	.1250	.25	.3000	1.000	.055	.0500	.0542
1898.....	.1800	.1600	.20	.20	.1250	.25	.2625	1.000	.050	.0575	.0558
1899.....	.1800	.1600	.20	.20	.1458	.25	.2250	1.000	.050	.0642	.0633
1900.....	.1800	.1600	.20	.20	.1500	.25	.2000	1.000	.050	.0700	.0700
1901.....	.1900	.1800	.20	.20	.1250	.20	.1850	.875	.050	.0575	.0525
1902.....	.2000	.1800	.20	.20	.1500	.20	.1850	.875	.050	.0575	.0550

TABLE III.—RETAIL PRICES OF FOOD, 1890 TO 1902—Continued.

Year.	Rice, per pound.	Rice, in 100-lb. bags, per pound.	Rice, in 100-lb. bags, per pound.	Rice, in 100-lb. bags, per pound.	Salt, table, per pound.	Salt, table, per pound.	Sirup, maple, per gallon.	Spices.		
								Mustard, ground, per pound.	Pepper, ground, per pound.	Pepper, ground, per pound.
1890	\$0.0500	\$0.0517	\$0.0500	\$0.0440	\$0.025	\$0.025	\$1.75	\$0.75	\$0.50	\$0.50
1891 .....	.0500	.0595	.0500	.0440	.025	.025	1.75	.75	.50	.50
1892 .....	.0500	.0497	.0442	.0490	.025	.025	1.75	.75	.50	.50
1893 .....	.0463	.0431	.0425	.0415	.025	.025	1.75	.75	.50	.50
1894 .....	.0502	.0449	.0450	.0440	.025	.025	1.75	.75	.50	.40
1895 .....	.0500	.0472	.0400	.0442	.025	.025	1.75	.75	.50	.40
1896 .....	.0425	.0408	.0400	.0400	.025	.025	1.75	.75	.50	.40
1897 .....	.0475	.0473	.0450	.0493	.025	.025	1.75	.75	.50	.40
1898 .....	.0600	.0556	.0500	.0525	.025	.025	1.75	.75	.40	.40
1899 .....	.0625	.0604	.0500	.0565	.025	.025	1.75	.70	.40	.40
1900 .....	.0642	.0592	.0467	.0575	.025	.025	1.75	.65	.40	.40
1901 .....	.0475	.0550	.0450	.0500	.025	.025	1.75	.80	.40	.50
1902 .....	.0475	.0500	.0450	.0450	.025	.025	1.75	.80	.40	.50

Year.	Sugar.								Tea.	
	Brown, No. 1, per pound.	Brown, No. 1, per pound.	Brown, No. 1, per pound.	Brown, No. 1, per pound.	Brown, No. 1, per pound.	Brown, No. 1, per pound.	Brown, No. 1, in 125-lb. bags, per pound.	Granulated, per pound.	Granulated, per pound.	English breakfast, per pound.
1890	\$0.05	\$0.05	\$0.0625	\$0.050	\$0.0550	\$0.0550	\$0.0560	\$0.0600	\$0.0800	\$1.0000
1891 .....	.05	.05	.0625	.050	.0550	.0550	.0560	.0617	.0800	1.0000
1892 .....	.05	.05	.0604	.050	.0550	.0533	.0547	.0700	.0800	1.0000
1893 .....	.05	.05	.0500	.050	.0500	.0500	.0480	.0700	.0800	1.0000
1894 .....	.05	.05	.0475	.050	.0500	.0500	.0467	.0700	.0800	1.0000
1895 .....	.05	.05	.0400	.050	.0500	.0500	.0400	.0667	.0763	1.0000
1896 .....	.05	.05	.0475	.050	.0500	.0500	.0400	.0600	.0783	.9583
1897 .....	.05	.05	.0500	.050	.0500	.0500	.0400	.0600	.0725	.9000
1898 .....	.05	.05	.0500	.050	.0500	.0500	.0400	.0600	.0750	.9000
1899 .....	.05	.05	.0500	.050	.0500	.0500	.0420	.0567	.0700	.9000
1900 .....	.05	.05	.0500	.050	.0525	.0542	.0480	.0692	.0742	.9000
1901 .....	.04	.05	.0550	.045	.0450	.0500	.0480	.0650	.0625	.7000
1902 .....	.04	.05	.0550	.045	.0450	.0500	.0480	.0700	.0575	.7000

Year.	Tea.		Vegetables.							
	English breakfast, per pound.	Japan, low grade, per pound.	Corn, canned, per pound.	Onions, per pound.	Onions, per pound.	Onions, per pound.	Onions, per pound.	Onions, per pound.	Onions, per pound.	Potatoes, Irish, per pound.
1890	\$0.75	\$0.1250	\$0.200	\$0.05	\$0.0625	\$0.05	\$0.05	\$0.0650	\$0.0383	\$0.080
1891 .....	.75	.1250	.200	.05	.0625	.05	.05	.0592	.0442	.080
1892 .....	.75	.1250	.200	.05	.0625	.05	.05	.0583	.0467	.080
1893 .....	.75	.1250	.200	.05	.0625	.05	.05	.0500	.0450	.080
1894 .....	.75	.1250	.200	.05	.0583	.05	.05	.0517	.0458	.080
1895 .....	.75	.1250	.200	.05	.0500	.05	.05	.0500	.0450	.080
1896 .....	.75	.1250	.200	.05	.0500	.05	.05	.0467	.0450	.080
1897 .....	.75	.1250	.200	.05	.0500	.05	.05	.0500	.0450	.080
1898 .....	.75	.1250	.200	.05	.0542	.05	.05	.0500	.0450	.080
1899 .....	.75	.1250	.200	.05	.0625	.05	.05	.0500	.0450	.080
1900 .....	.75	.1688	.200	.05	.0625	.05	.05	.0467	.0450	.080
1901 .....	.75	.2500	.145	.05	.0425	.05	.05	.0550	.0500	.025
1902 .....	.75	.2500	.145	.05	.0425	.05	.05	.0550	.0500	.025

TABLE III.—RETAIL PRICES OF FOOD, 1890 TO 1902—Concluded.

Year.	Vegetables.						Vinegar, cider, per quart.	Wheat, cracked, per pound.
	Pota- toes, Irish, per pound.	Pota- toes, Irish, per pound.	Pota- toes, Irish, per pound.	Pota- toes, Irish, per pound.	Pota- toes, Irish, per pound.	Toma- toes, canned, per can.		
1890.....	\$0.025	\$0.0200	\$0.0213	\$0.0292	\$0.025	\$0.1500	\$0.10	\$0.06
1891.....	.025	.0213	.0244	.0250	.025	.1500	.10	.06
1892.....	.025	.0250	.0183	.0250	.025	.1500	.10	.06
1893.....	.026	.0250	.0148	.0250	.025	.1500	.10	.06
1894.....	.025	.0250	.0131	.0242	.025	.1458	.10	.06
1895.....	.025	.0250	.0133	.0200	.025	.1250	.10	.06
1896.....	.025	.0250	.0140	.0200	.025	.1250	.10	.06
1897.....	.025	.0250	.0158	.0200	.025	.1250	.10	.06
1898.....	.025	.0250	.0131	.0229	.025	.1250	.10	.06
1899.....	.025	.0250	.0146	.0250	.025	.1250	.10	.06
1900.....	.025	.0250	.0225	.0250	.025	.1250	.10	.06
1901.....	.025	.0275	.0250	.0275	.020	.1250	.10	.05
1902.....	.030	.0275	.0250	.0275	.020	.1250	.10	.05

TABLE IV.—RELATIVE PRICES OF FOOD, 1890 TO 1902.

[The number of quotations on which the relative price is based is shown in parentheses following the description.]

Year.	Baking pow- der, "Roy- al."	Beans, white.	Butter.	Cheese, Califor- nia cream.	Coffee.			Eggs.	Fish.			
	(8)	(5)	(6)	(6)	Native, green.	Native, roasted and ground.	Aver- age.		Cod, salt.	Salmon, canned	Salmon, salt.	Aver- age.
	(8)	(5)	(6)	(6)	(4)	(2)	(6)	(3)	(3)	(1)	(3)	(7)
1890...	104.4	99.8	102.6	105.3	103.0	101.4	102.2	104.2	100.1	100.0	99.9	100.0
1891...	104.4	99.8	101.6	103.3	105.2	112.8	109.0	105.3	100.1	100.0	99.9	100.0
1892...	104.4	99.8	103.3	101.6	104.4	107.1	105.8	103.2	100.1	100.0	99.9	100.0
1893...	104.4	99.8	101.0	101.6	105.9	108.7	104.8	102.0	100.1	100.0	99.9	100.0
1894...	100.8	99.8	100.9	101.6	100.5	100.2	100.4	103.7	100.1	100.0	99.9	100.0
1895...	98.3	99.8	100.5	98.9	99.4	103.7	101.6	102.1	100.1	100.0	99.9	100.0
1896...	98.3	99.8	101.2	97.9	100.5	102.2	101.4	96.7	100.1	100.0	99.9	100.0
1897...	98.3	97.1	95.4	97.9	99.4	95.7	97.6	93.4	100.1	100.0	99.9	100.0
1898...	94.0	99.3	97.5	97.4	94.0	87.6	90.8	93.4	100.1	100.0	99.9	100.0
1899...	92.6	104.7	96.1	94.5	87.6	85.9	86.8	96.1	99.2	100.0	101.3	100.2
1900...	92.6	110.9	98.1	94.5	80.1	85.9	83.0	93.9	94.5	100.0	108.2	100.9
1901...	92.6	112.7	96.3	87.2	67.5	75.0	71.3	114.7	79.1	72.5	89.9	80.5
1902...	92.6	108.8	96.6	87.2	63.4	75.0	69.2	122.3	79.1	72.5	89.9	80.5

Year.	Flour, wheat, family.	Flour, Gra- ham.	Fruit, apples, evap- orated.	Fruit, prunes, dried.	Lard.	Macar- oni.	Meal, corn.	Meal, oat.	Meal, rye.
	(6)	(1)	(2)	(1)	(6)	(1)	(5)	(2)	(1)
1890.....	103.5	100.0	103.0	106.3	104.9	100.0	103.8	111.6	100.0
1891.....	110.2	100.0	103.0	106.3	102.6	100.0	103.8	107.2	100.0
1892.....	109.1	100.0	103.0	106.3	102.4	100.0	101.6	107.8	100.0
1893.....	99.9	100.0	103.0	106.3	106.8	100.0	101.6	105.4	100.0
1894.....	95.2	100.0	103.0	106.3	102.0	100.0	101.6	97.9	100.0
1895.....	89.3	100.0	103.0	106.3	101.5	100.0	98.7	96.0	100.0
1896.....	89.4	100.0	103.0	106.3	98.6	100.0	97.2	91.6	100.0
1897.....	103.7	100.0	99.7	106.3	94.7	100.0	97.2	105.2	100.0
1898.....	106.4	100.0	89.7	79.7	82.8	100.0	97.2	94.1	100.0
1899.....	93.2	100.0	89.7	69.8	80.8	100.0	97.2	82.9	100.0
1900.....	90.5	100.0	89.7	66.5	94.9	100.0	96.4	82.9	100.0
1901.....	82.3	100.0	96.4	66.5	82.2	150.0	91.0	86.5	100.0
1902.....	84.0	100.0	96.4	66.5	101.8	150.0	91.0	86.5	100.0

TABLE IV.—RELATIVE PRICES OF FOOD, 1890 TO 1902—Continued.

Year.	Meat, beef and veal, fresh.										
	Beef, choice cuts. (1)	Beef, common cuts. (2)	Beef, loin roast. (1)	Beef, loin steak. (1)	Beef, rib roast. (1)	Beef, round steak. (1)	Beef, shoulder roast. (1)	Veal, cutlets. (1)	Veal, loin roast. (1)	Veal, rib roast. (1)	Average. (11)
1890.....	82.5	98.6	94.3	92.6	102.0	100.0	101.5	89.0	98.0	90.6	94.9
1891.....	103.1	98.6	94.3	92.6	102.0	100.0	101.5	89.0	98.0	90.6	97.0
1892.....	103.1	98.6	94.3	92.6	102.0	100.0	101.5	89.0	98.0	90.6	97.0
1893.....	82.5	83.7	94.3	92.6	102.0	100.0	101.5	89.0	98.0	90.6	93.4
1894.....	82.5	83.7	94.3	92.6	102.0	100.0	101.5	89.0	98.0	90.6	93.4
1895.....	82.5	83.7	94.3	92.6	102.0	100.0	101.5	106.8	98.0	90.6	96.2
1896.....	103.1	98.6	94.3	111.1	81.6	100.0	81.2	106.8	98.0	103.7	98.3
1897.....	103.1	98.6	94.3	111.1	81.6	100.0	81.2	106.8	98.0	103.7	98.3
1898.....	103.1	108.9	113.2	111.1	102.0	100.0	101.5	106.8	98.0	103.7	105.3
1899.....	154.6	146.8	132.1	111.1	122.4	100.0	126.9	123.1	117.6	130.4	127.0
1900.....	154.6	152.0	117.9	138.9	134.7	149.2	150.2	142.3	130.7	144.9	141.5
1901.....	154.6	171.3	141.5	166.7	179.6	150.0	126.9	156.6	143.8	144.9	153.6
1902.....	135.6	189.9	141.5	166.7	163.3	150.0	126.9	149.5	143.8	144.9	156.2

Year.	Meat, beef, corned.			Meat, lamb and mutton, fresh.					
	Beef, corned. (1)	Beef, corned, canned (1)	Average. (2)	Lamb, fore quarter (1)	Lamb, hind quarter (1)	Mutton chops. (1)	Mutton leg. (1)	Mutton roast. (1)	Average. (5)
1890.....	99.2	98.5	98.9	100.0	100.0	93.8	100.0	93.8	97.5
1891.....	99.2	98.5	98.9	100.0	100.0	93.8	100.0	93.8	97.5
1892.....	99.2	98.5	98.9	100.0	100.0	93.8	100.0	93.8	97.5
1893.....	99.2	98.5	98.9	100.0	100.0	93.8	100.0	93.8	97.5
1894.....	99.2	98.5	98.9	100.0	100.0	93.8	100.0	93.8	97.5
1895.....	99.2	98.5	98.9	100.0	100.0	93.8	100.0	93.8	97.5
1896.....	99.2	98.5	98.9	100.0	100.0	109.4	100.0	109.4	103.8
1897.....	99.2	98.5	98.9	100.0	100.0	109.4	100.0	109.4	103.8
1898.....	99.2	98.5	98.9	100.0	100.0	109.4	100.0	109.4	103.8
1899.....	107.4	113.3	110.4	100.0	100.0	109.4	100.0	109.4	103.8
1900.....	144.6	118.2	131.4	100.0	100.0	109.4	100.0	109.4	103.8
1901.....	124.0	98.5	111.3	83.3	100.0	125.0	120.0	125.0	110.7
1902.....	124.0	98.5	111.3	83.3	100.0	125.0	120.0	125.0	110.7

Year.	Meat, pork, fresh.				Meat, pork, salt and cured.				Milk, condensed. (2)	Molasses, New Orleans. (1)	Pease, dried. (1)
	Pork chops. (1)	Pork roast. (1)	Sausage. (1)	Average. (3)	Bacon, breakfast. (4)	Ham, sugar-cured. (3)	Pork, salt. (3)	Average. (10)			
1890.....	104.2	107.6	103.3	105.0	104.7	101.3	97.9	101.3	98.0	100.0	104.3
1891.....	104.2	107.6	103.3	105.0	105.5	103.2	99.9	102.9	98.0	100.0	104.3
1892.....	104.2	107.6	103.3	105.0	105.2	108.0	100.4	104.5	98.0	100.0	104.3
1893.....	104.2	107.6	103.3	105.0	105.5	111.8	102.3	106.5	98.0	100.0	104.3
1894.....	104.2	107.6	103.3	105.0	103.9	106.2	101.8	104.0	98.0	100.0	104.3
1895.....	104.2	107.6	103.3	105.0	99.6	98.6	102.3	100.2	101.9	100.0	104.7
1896.....	104.2	100.4	103.3	102.6	94.7	95.8	101.3	97.3	107.5	100.0	104.0
1897.....	104.2	86.1	103.3	97.9	95.4	92.9	96.4	94.9	107.5	100.0	95.0
1898.....	83.3	86.1	91.2	86.9	92.5	90.6	96.4	93.2	100.4	100.0	87.0
1899.....	83.3	81.8	82.6	82.6	93.0	91.5	101.3	95.3	93.2	100.0	87.0
1900.....	83.3	77.5	82.6	81.1	98.1	90.5	102.3	97.0	88.4	100.0	87.0
1901.....	91.7	94.7	82.6	89.7	99.7	96.8	96.4	97.6	75.5	87.5	87.0
1902.....	91.7	94.7	82.6	89.7	106.2	102.1	102.3	103.5	75.5	87.5	87.0

TABLE IV.—RELATIVE PRICES OF FOOD, 1890 TO 1902—Concluded.

Year.	Rice. (6)	Salt, table. (2)	Sirup, maple. (1)	Spices, mustard, ground. (1)	Spices, pepper, ground. (2)	Sugar.			Tea.		
						Brown, No. 1. (7)	Granu- lated. (2)	Aver- age. (9)	English break- fast. (3)	Japan, low grade. (1)	Aver- age. (4)
1890.....	102.5	100.0	100.0	100.7	108.9	107.9	99.0	103.5	101.2	100.0	100.6
1891.....	107.8	100.0	100.0	100.7	108.9	107.9	100.4	104.2	101.2	100.0	100.6
1892.....	100.2	100.0	100.0	100.7	108.9	106.5	106.9	106.7	101.2	100.0	100.6
1893.....	92.2	100.0	100.0	100.7	108.9	99.2	106.9	103.1	101.2	100.0	100.6
1894.....	95.6	100.0	100.0	100.7	97.6	98.1	106.9	102.5	101.2	100.0	100.6
1895.....	91.7	100.0	100.0	100.7	97.6	94.0	101.9	98.0	101.2	100.0	100.6
1896.....	84.3	100.0	100.0	100.7	97.6	96.0	98.2	97.1	99.7	100.0	99.9
1897.....	96.7	100.0	100.0	100.7	97.6	96.7	94.2	95.5	97.7	100.0	98.9
1898.....	110.1	100.0	100.0	100.7	87.1	96.7	95.8	96.3	97.7	100.0	98.9
1899.....	118.8	100.0	100.0	94.0	87.1	97.3	90.0	93.7	97.7	100.0	98.9
1900.....	120.3	100.0	100.0	87.2	87.1	101.0	102.5	101.8	97.7	135.0	116.4
1901.....	101.1	100.0	100.0	107.4	98.5	94.9	91.7	93.3	90.8	200.0	145.4
1902.....	98.5	100.0	100.0	107.4	98.5	94.9	92.3	93.6	90.8	200.0	145.4

Year.	Vege- tables, corn, canned. (1)	Vege- tables, onions. (6)	Vege- tables, potato- es, Irish. (6)	Vege- tables, toma- toes, canned. (1)	Vine- gar, cider. (1)	Wheat, crack- ed. (1)	Aver- age, food. (137)
1890.....	100.0	103.1	106.2	109.4	100.0	100.0	100.8
1891.....	100.0	103.4	107.3	109.4	100.0	100.0	101.6
1892.....	100.0	102.5	103.7	109.4	100.0	100.0	101.3
1893.....	100.0	100.8	100.1	109.4	100.0	100.0	100.3
1894.....	100.0	100.4	97.8	106.3	100.0	100.0	99.4
1895.....	100.0	97.2	95.0	91.2	100.0	100.0	98.8
1896.....	100.0	96.2	95.7	91.2	100.0	100.0	99.2
1897.....	100.0	97.2	97.6	91.2	100.0	100.0	98.9
1898.....	100.0	98.4	96.9	91.2	100.0	100.0	98.3
1899.....	100.0	100.8	99.9	91.2	100.0	100.0	101.4
1900.....	100.0	99.8	107.9	91.2	100.0	100.0	105.3
1901.....	72.5	98.5	107.9	91.2	100.0	83.3	106.9
1902.....	72.5	98.5	111.2	91.2	100.0	83.3	107.8

AGREEMENTS BETWEEN EMPLOYERS AND EMPLOYEES.

[It is the purpose of this Department to publish from time to time important agreements made between large bodies of employers and employees with regard to wages, hours of labor, etc. The Department would be pleased to receive copies of such agreements whenever made.]

ARBITRATION AGREEMENT BETWEEN CHICAGO MASONS AND BUILDERS' ASSOCIATION AND BRICKLAYERS AND STONE MASONS' UNION, APRIL 1, 1903, TO MAY 1, 1905.

This agreement, made this the 6th day of February, 1903, by and between the Chicago Masons and Builders' Association, party of the first part, and the United Order of American Bricklayers and Stone Masons No. 21 of the Bricklayers and Mason's International Union, party of the second part, for the purpose of preventing strikes and lockouts and facilitating a peaceful adjustment of all grievances and disputes which may, from time to time, arise between the employers and mechanics in the mason trade, witnesseth:

That both parties to this agreement hereby covenant and agree that they will not tolerate nor recognize any right of any other association, union, council, or body of men not direct parties to this agreement to order a strike or lockout, or otherwise interfere or dictate, and that work can be stopped only by an order signed jointly by the presidents of the association and union, parties hereto, or the joint arbitration board elected in accordance with this agreement, and that they will compel their members to comply with the arbitration agreement and working rules as jointly agreed upon and adopted, and that where a member, or members, affiliated with either of the two parties to this agreement refuse to do so, they shall be suspended from membership in the association or union to which they belong.

Arbitration board.—Both parties hereto agree that they will at their annual election of each year elect an arbitration committee to serve for one year, or until their successors are elected and qualified. In case of death, expulsion, removal, or disqualification of a member or members of the arbitration committee, such vacancy shall be filled by the association or union at its next regular meeting.

Number of members.—The arbitration committee for each of the two parties hereto shall consist of five members, and they shall meet not later than the fourth Thursday of January each year in joint session, when they shall organize a joint arbitration board by electing a president, secretary, treasurer, and umpire.

Qualifications of members of the arbitration board.—No member who is not actively engaged in the mason trade or occupies any other office in his association or union except the office of president, or holds a public office, either elective or appointive, under the municipal, county, State, or National governments shall be eligible to act as the representa-

tive in this trade joint arbitration board; and any member shall become disqualified to act as a member of this trade joint arbitration board and cease to be a member thereof immediately upon his election or appointment to any other office in his association or union, or to any public office or employment. This clause, however, may be waived by unanimous consent of the joint arbitration board.

Umpire.—An umpire shall be selected who is in nowise affiliated or identified with the building industry, and who is not an employee nor an employer of labor, nor an incumbent of a political elective office.

Power of board.—The joint arbitration board shall have full power to enforce this agreement entered into between the parties hereto, and to make and enforce all working rules governing both parties. No strikes or lockouts shall be resorted to, pending the decision of the joint arbitration board.

Time of meeting.—The joint arbitration board shall meet to transact routine business the first Wednesday in each month, but special meetings may be called on three days' notice by the president on application of three members.

Rules for procedure.—When a dispute or grievance arises between a journeyman and his employer (parties hereto), or an apprentice and his employer, the question at issue shall be submitted in writing to the presidents of the two organizations, and upon their failure to agree and settle it, or if one party to the dispute is dissatisfied with their decision, it shall then be submitted to the joint arbitration board at their next regular meeting. They shall hear the evidence and decide in accordance therewith. All verdicts shall be decided by majority vote, by secret ballot, be rendered in writing and be final and binding on both parties. If the joint arbitration board is unable to agree, the umpire shall be requested to sit with them, and after he has heard the evidence cast the deciding vote.

Power to summon members.—The joint arbitration board has the right to summon any member or members affiliated with either party hereto against whom complaint is lodged for breaking this joint arbitration agreement or working rules, and also appear as witnesses. The summons shall be handed to the president of the association or union to which the member belongs, and he shall cause the member or members to be notified to appear before the joint board on the date set. Failure to appear when notified, except (in the opinion of the board) valid excuse is given, shall subject a member to a fine of \$25 for the first default, \$50 for the second, and suspension for the third.

Salary.—The salary of a representative on the joint arbitration board shall be paid by the association or union he represents.

Stopping of work and penalties.—No member or members affiliated with second party shall leave his work because nonunion men in some other line of work or trade are employed on the building or job, or because nonunion men in any line or trade are employed on any other building or job, or stop, or cause to be stopped, any work under construction for any member or members affiliated with the first party, except upon written order signed by the presidents of the association and union (parties hereto) or the joint arbitration board, under penalty of a fine of not less than \$25. Any member or members affiliated with either of the two parties hereto violating any part of this agreement or the working rules established by the joint arbitration board shall be subject to a fine of from \$10 to \$200, which fine shall be collected by the president of the association or union to which the offend-

ing member or members belong and by him paid to the treasurer of the joint arbitration board not later than thirty days after the date of levying of the fine.

Collection of penalties and suspensions.—If the fine is not paid by the offender or offenders, it shall be paid out of the treasury of the association or union of which the offender or offenders were members at the time the fine was levied against him or them, and within sixty days from date of levying same, or in lieu thereof the association or union to which he or they belong shall suspend the offender or offenders and officially certify such suspension to the joint arbitration board within sixty days from the time of fining, and the joint arbitration board shall cause a suspension decree to be read by the presidents of both the association and union at their next regular meetings. No one who has been suspended from membership in the association or union for neglect or refusal to abide by the decision of the joint arbitration board can be again admitted to membership except by paying his fine or by unanimous consent of the joint arbitration board.

Division of fines.—All fines assessed by the joint arbitration board and collected during the year shall be equally divided between the two parties hereto by the joint arbitration board at the last regular meeting in December.

Quorum.—Seven members present shall constitute a quorum in the joint arbitration board, but the chairman of each of the two arbitration committees shall have the right to cast a vote in the joint arbitration board for any absent member of his committee.

Principles governing arbitration board.—Both parties to this agreement hereby adopt the following principles as an absolute basis for their joint working rules to govern the actions of the joint arbitration board as hereinafter provided for.

No limitation of work.—There shall be no limitation as to the amount of work a man shall perform during his working day. Men employed in this trade shall each do a fair and honest day's work.

Unrestricted use of machinery and tools.—There shall be no restriction of the use of machinery or tools; all tools or machinery of whatsoever kind may be used in all trades or in the manufacture of any materials entering into the construction of buildings.

Unrestricted use of materials.—There shall be no restriction of the use of any manufactured material. Any material may be used, no matter where or by whom it is made, except prison-made.

No interference with workmen.—No person shall have the right to interfere with the workmen during working hours. No person shall have the right to give orders to the men during working hours on the building or job except the employer or his foreman.

(See section with reference to presidents visiting jobs.)

Apprentices.—The use of apprentices shall not be prohibited; it being understood that apprentices shall not be subjected to union rules, and shall at all times be under the control of the employer, but subject to the rules of the joint arbitration board.

Right to work.—Workmen are at liberty to work for whomsoever they see fit, but they shall demand and receive the wages agreed upon by the joint arbitration board in this trade under all circumstances.

Right to employ.—Employers are at liberty to employ and discharge whomsoever they see fit, but all workmen shall be paid the full wages agreed upon in this trade under all circumstances.

Foreman.—The foreman shall be the agent of the employer. The foreman shall not be subject to union rules while acting as foreman, and no fine shall be entered against him by any union while acting in such capacity; it being understood that a foreman shall be a competent mechanic in this trade and subject only to the rules and decisions of the joint arbitration board.

Steward.—The steward shall represent the journeymen. He shall be elected by and from among the men in this trade working on the same building or job, and shall, while acting as steward, be subject only to the rules and decisions of the joint arbitration board. No salary shall be paid to a journeyman for acting as steward. He shall not leave his work or interfere with workmen during working hours. He shall always while at work carry a copy of the working rules with him.

Rights of presidents to visit jobs.—The presidents or their representatives, carrying proper credentials, shall be allowed to visit jobs during working hours to interview the contractor, steward, or men at work, but they shall in no way hinder the progress of the work.

Conflicting rules.—No by-laws or rules conflicting with this arbitration agreement or the working rules agreed upon shall be passed or enforced by either party hereto against any of its affiliated members.

Affiliations.—Both parties to this agreement hereby agree that they will not affiliate or connect themselves with any other body whose rules or by-laws now or in the future conflict with this agreement.

WORKING RULES.

[In effect April 1, 1908, to May 1, 1905.]

SECTION 1. *Working hours.*—Eight hours shall constitute a day's work, to be performed between the hours of 8 a. m. and 5 p. m., except on Saturdays, during the months of May, June, July, August, September, and October, when work may stop at 12 o'clock noon, with four hours pay for that day.

SEC. 2. *Night work.*—Eight hours shall constitute a night's work, which shall commence at 7 p. m., when two gangs are employed only, but when three gangs are employed, one shift may follow the other immediately, and in that way work may be continuous.

SEC. 3. *Overtime.*—Time and one-half to be paid for overtime. Work done between the hours of 5 p. m. and 8 a. m., and also on Saturday afternoons during the months of May, June, July, August, September, and October, shall be paid for as overtime, when only one shift of men are employed on the job. No contractor shall work his men overtime except in case of actual necessity, the contractor to be the judge of the necessity, and for such overtime time and one-half shall be paid.

SEC. 4. *Double time—Holidays.*—Double time to be paid for work on Sundays throughout the year, and also for work done on the following four holidays (or days celebrated as such): New Year's Day, Fourth of July, Thanksgiving Day, and Christmas Day.

SEC. 5. *Shift work.*—Where work is carried on with two or three shifts of men, working eight hours each, then only single time shall be paid for both night and day work during week days and double time for Sundays and the above-mentioned holidays; this does not apply to cupola lining, retort or conduit work. No work shall be done on Labor Day.

Work done between the hours of 12 o'clock Saturday night to 12 o'clock Sunday night shall be considered as Sunday work and be paid for at the rate of double time. This applies also to the four holidays before mentioned.

SEC. 6. *Wages*.—The minimum rate of wages to be paid bricklayers and stone masons shall be 60 cents per hour, payable in lawful money of the United States.

SEC. 7. *Reduction of premium wages*.—Hereafter, when more than the minimum rate of wages is paid, no employer shall make a reduction in the wages of a bricklayer or stone mason without giving said man or men due notice the day previous to making said reduction. If an employee upon receiving such notice desires to terminate his employment, he shall be paid the same as though he had been discharged.

SEC. 8. *Pay day*.—It is hereby agreed that the journeymen shall be paid, on the job, and before the regular quitting time, once every two weeks, and not later than Tuesday. When a journeyman is discharged, he shall be paid in full, and also when he is laid off, if he demands it, except when the lay-off is caused by bad weather or joists-high. When a journeyman quits of his own accord, he shall receive his pay on the next regular pay day.

SEC. 9. *Time checks*.—Time checks, payable at the office of employer, shall be considered valid, providing the journeyman be allowed a half hour's extra time for each mile he has to travel to get to the office; said traveling time shall be added to the time check by person issuing same. If he is not paid promptly upon his arrival at the office, and if he shall remain there during working hours until he is paid, he shall be paid the regular wages for such waiting time.

SEC. 10. *Branches of work*.—The following branches of work are covered by this agreement: Laying of rubble stone and bridge masonry; all kinds of brickwork (except main sewer work); setting of cut stone and setting and trimming of terra cotta.

SEC. 11. *Stonework*.—The stone masons shall cut and trim all broken ashlar, range, rock-faced, and worm work, and all rough jambs and coins in building work, and all rough, pitched-face, bridge, viaduct, and pier work, cut from limestone in the county of Cook, provided that there can be had a sufficient number of competent stone masons to do said work; otherwise the contractor or contractors, after giving previous notice to the president of the U. O. of A. B. and S. M., No. 21, of Illinois, of the B. and M. I. U., to furnish said men, has the right to employ stonecutters to finish said job.

SEC. 12. The leveling off of all footing stone shall be done by stone masons. No stone cut by convict labor will be set.

SEC. 13. Cutting of all windows and door openings in brick, stone or tile walls, and bedding of all iron plates shall be done by a practical mason.

SEC. 14. The line on brickwork shall be put up but one course at a time, except in cases of obstructions or piers, and then only with the consent of the masons doing the work.

SEC. 15. Members of the U. O. of A. B. and S. M., No. 21, of Illinois, of the B. and M. I. U., holding a bricklayer's card, will not lay stone, and those holding a stone mason's card will not lay brick, but the foreman and apprentices may do both. The exceptions to this rule are in case of areas, or step or pier foundations, that do not

exceed one cord of stone, and then only in case no stone mason is at hand, when a bricklayer may lay the stone in said areas, step or pier foundation. Plastering and pointing of stone walls shall be done by stone masons, but may be done by bricklayers if stone masons are not on the job when the above work is ready to be done.

SEC. 16. No setting of cut stone trimmings shall be done by sub-contract.

No cut stone setting contractor that does not employ one journeyman stone setter shall set stone himself.

SEC. 17. Foundations and walls, either of brick, stone, or concrete, shall be done under the supervision of a practical mason.

SEC. 18. Members of the U. O. of A. B. and S. M., No. 21, of Illinois, of the B. and M. I. U., will not work on any building for any contractor or firms where two or more members in the same firm work on the wall laying brick, rubble, or dimension stone or set cut stone or terra cotta. The contractor or the member of the firm working must be a practical mason.

SEC. 19. Each employer shall have the right to teach his trade to apprentices, but no contractor or firm shall take more than one new apprentice each year, and they shall serve for a period of not less than four years, as prescribed in the apprentice rules attached hereto, and be subject to the control of the joint board of arbitration.

It is agreed by the parties hereto that this agreement and working rules shall be in force between the parties hereto until May 1, 1905.

Signed by the Joint Arbitration Board of the Chicago Masons and Builders' Association and the United Order of American Bricklayers and Stone Masons No. 21 of the B. and M. I. U.

To take effect April 1, 1903.

GEORGE WILLIAMS,
A. LANQUIST,
ADDISON E. WELLS,
JOHN C. THOMPSON,
DAVID COEY, Jr.,

By GEORGE WILLIAMS, *President,*
Committee from the C. M. and B. A.

JOHN J. CORCORAN,
GEO. HOBAN,
HUGH P. WARD,
THOS. J. M. S. NICHOLS,
E. H. RATLEDGE,

Committee from the U. O. of A. B. and S. M., B. and M. I. U.

APPRENTICE RULES.

All apprentices in this trade working for or with parties to this agreement shall be indentured by and be under the jurisdiction of the joint arbitration board, which has the authority to control them and protect their interests, subject to approved indentures entered into with their employers and the rules adopted by the joint board.

The applicant for apprenticeship shall be under seventeen years of age and shall serve for a period of four years.

A contractor or firm can take only one new apprentice each year.

The contractor taking an apprentice shall engage to keep him at work for nine consecutive months in each year and see to it that during the remaining three months of the year the apprentice attends school. The apprentice shall, during the months of January, February, and March, each year, attend a technical school acceptable to the joint board, and a certificate that he has done so will be required before he is allowed to work during the year.

A contractor taking an apprentice shall keep him steadily at work or school, or, failing to do so, shall pay him the same as though he had worked for him or attended school. In case an apprentice at the end of his term, for some cause, is not a proficient workman, he may be required to serve another year if the joint board, after a thorough investigation, so decides.

A contractor entitled to an apprentice may take one on trial for two weeks, provided the applicant holds a permit from the joint board, and if after trial the boy is unsatisfactory, he need not enter into indentures, but shall pay the boy \$5 per week for the two weeks. No boy will be allowed a trial with more than two contractors.

The minimum wages of an apprentice shall be not less than \$260 for the first year, \$300 for the second year, \$350 for the third year, and \$400 for the fourth year, payable semimonthly.

The issuing of permits for an apprentice to work for another contractor when the one to whom he is indentured has no work shall be left for decision to the joint arbitration board.

For every day an apprentice is tardy or disorderly at school one day's work without pay shall be added to his apprenticeship term.

Every day an apprentice fails to attend school during the school term (except in the opinion of the board valid excuse is given) two days' work without pay shall be added to his apprenticeship term.

Any contractor who prevents his apprentice from attending school during the months of January, February, or March will be fined \$5 per day for each and every day.

Any member working on any building or job during the months of January, February, and March where an apprentice is working shall be fined \$5 per day.

All apprentices indentured and working for or with members to this agreement shall report to the joint arbitration board on the first Wednesday in January, April, July, and October, to receive their new quarterly cards. Any apprentice not carrying the proper quarterly card will not be permitted to work.

GEORGE WILLIAMS,
A. LANQUIST,
ADDISON E. WELLS,
JOHN C. THOMPSON,
DAVID COEY, Jr.,

By GEORGE WILLIAMS, *President*.
JOHN J. CORCORAN.
GEO. HOBAN.
HUGH P. WARD.
THOS. J. M. S. NICHOLS.
E. H. RATLEDGE.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

CALIFORNIA.

Tenth Biennial Report of the Bureau of Labor Statistics of the State of California, for the years 1901-1902. F. V. Meyers, Commissioner. 149 pp.

This report presents the following subjects: Agricultural labor, 6 pages; wages and hours of labor of miners, 9 pages; the lumber industry, 4 pages; Japanese in California, 3 pages; enforcement of labor laws, 14 pages; children of wage-earners and higher education, 17 pages; hours and wages, 1900 and 1902, 4 pages; labor organizations, 13 pages; conciliation and arbitration, 57 pages; financial statement, 4 pages; labor laws, 9 pages.

AGRICULTURAL LABOR.—This relates to labor employed in sowing, cultivating, harvesting, and marketing the cereals of the State. The number of hours worked per day by white wage-earners during sowing season average from 10 to 11, and during harvesting season from 12 to 13. Daily wages during sowing season range from \$1 to \$1.15 with board, and during harvesting season from \$1.50 to \$2 with board. In the few cases where Chinese are employed on grain farms their hours of labor per day are practically the same as those of white labor. Their wages per day during sowing season are about \$1, and during harvesting season from \$1.15 to \$1.25, and board is generally furnished. Where Mexicans are employed their hours of labor per day are the same as those previously given, and their wages per day are about \$1 during sowing season and \$1 to \$1.15 during harvesting season, with board.

WAGES AND HOURS OF LABOR OF MINERS.—About 18,000 wage-earners were employed in the mines and quarries of the State, of whom about 12,000 were employed in gold mines. Wages in the several kinds of mines ranged from \$2.50 to \$4 per day, 10 hours usually constituting a day's work. In a few cases, however, the hours were 8 and 9 per day.

THE LUMBER INDUSTRY.—Data gathered during 1901 showed that about 15,000 persons were employed at the lumber camps and mills of the State, 57 per cent at the camps and 43 per cent at the mills. There

was paid out in wages \$9,000,000. Wages ranged from \$40 to \$60 per month, or from \$1.50 to \$2.75 per day, usually with board. For most occupations the hours of labor per day were 10½.

JAPANESE IN CALIFORNIA.—The report shows that 1,806 Japanese immigrants arrived in California in 1899, 3,751 in 1900, 1,568 in 1901, and up to September 1, 1902, 1,228, or, with the same ratio maintained, 1,850 for the year. There was no appreciable change in the occupations of Japanese during the period covered.

HOURS AND WAGES, 1900 AND 1902.—This is a comparison of the hours of labor per day and wages paid in various occupations during 1900 with like data for 1902. The comparison shows in many cases quite decided improvement in the condition of the wage-earner, and in but few cases retrogression.

LABOR ORGANIZATIONS.—A complete list of the labor organizations of the State is presented, together with the address of each body. The list shows 495 organizations, exclusive of 40 central labor bodies and 6 federal labor unions. The total membership is estimated at 67,500, representing 149 occupations. As compared with the period covered by the previous biennial report, the number of labor unions throughout the State has increased 75 per cent.

CONCILIATION AND ARBITRATION.—This is a consideration of the settlement of wage and other disputes between capital and labor by conciliation and arbitration, together with a reproduction of the conciliation and arbitration laws of New Zealand, the United States, and the several States of the Union possessing such legislation.

LABOR LAWS.—In an appendix to the report is contained a reprint of the labor laws of the State enacted since the year 1900.

COLORADO.

Eighth Biennial Report of the Bureau of Labor Statistics of the State of Colorado, 1901-1902. James T. Smith, Deputy Commissioner. 456 pp.

Among the most important subjects presented in this report are women wage-earners, labor organizations, wages, strikes and lockouts, child labor, cooperation, mines and mining, and labor laws.

WOMEN WAGE-EARNERS.—This part of the report consists of returns from 558 female wage-earners of the State during 1901-1902 regarding nativity, age, conjugal condition, occupation, earnings, time employed, cost of living, number belonging to labor organizations, owning their homes, carrying life insurance, etc. The following table presents detailed statistics for some of the items of inquiry.

STATISTICS OF WOMEN WAGE-EARNERS, 1901-1902.

Occupations.	Number reporting.	Number native born.	Average age.	Number married.	Average yearly earnings.	Number who have saved money.
Barbers and hairdressers.....	19	16	24.6	3	(a)	8
Bindery girls.....	32	32	24.8	3	\$347.79	11
Bookkeepers.....	18	18	31.3	3	595.06	10
Clerks and saleswomen.....	98	89	25.4	7	369.01	13
Cooks.....	15	9	34.1	7	383.66	4
Cracker packers.....	7	7	(b)	8	288.31	-----
Chambermaids.....	23	19	31.2	-----	201.76	4
Factory operatives.....	53	37	21.6	7	251.43	5
Garment workers.....	37	30	28.9	6	308.77	8
Housemaids.....	31	24	28.8	2	185.63	5
Laundry girls.....	48	39	25.1	7	300.35	4
Milliners.....	11	11	25.8	-----	398.20	5
Nurses.....	7	7	29.7	2	531.38	2
Printers.....	9	8	28.2	3	316.35	-----
Seamstresses.....	17	14	27.3	4	318.97	3
Stenographers and typewriters.....	31	29	25.7	6	535.39	14
Tailoresses.....	13	10	33.7	2	503.44	7
Telephone girls.....	30	26	23.6	2	484.50	13
Waitresses.....	59	50	24.2	8	285.05	27
All occupations.....	558	475	27.4	75	371.63	143

a Barbers, \$494.05; hairdressers, \$333.56.

b Not reported.

The average monthly cost of living for married women was \$36.28 and for single women \$29.43. Thirty-five women reported as owning their homes and 444 rented homes at an average monthly rental of \$9.83. Of the total reporting, 199 belonged to labor organizations and 150 carried life insurance.

LABOR ORGANIZATIONS.—This chapter gives the name, location, membership, etc., of the various labor unions of the State and an account of the condition of organized labor. In 1902 there were 426 unions with a membership of 46,946. Fifty-four were railroad organizations with 4,506 members; 42 were miners', smeltermen's, etc., unions with 15,549 members, and 20 were coal miners' unions with 2,470 members. The figures for 1902 show a large advance over those for 1900.

WAGES.—Under this caption is presented a schedule of the wages paid in 119 specified occupations. Little change in average rate has taken place during the last two years.

STRIKES AND LOCKOUTS.—An account is given of each labor dispute occurring in the State during the years 1901 and 1902. There were 51 strikes declared during 1901, and in 1902, up to November 1, there were 29. Several of the strikes embraced features of the boycott and of the lockout.

CHILD LABOR.—Child labor in general and its employment in Colorado are considered under this title.

COOPERATION.—Brief accounts are given of the cooperative colony at Pinon and the colony at Amity founded by the Salvation Army.

MINES AND MINING.—The value of the mineral product of Colorado for the year 1901 was \$46,303,240, divided as follows: Gold, \$27,679,445; silver, \$10,901,366; lead, \$6,419,132; copper, \$1,303,297. The value of each of the four metals was less than that for the pre-

ceding year, except in the case of copper, which shows a slight increase. There were 37,260 mine employees in 1901 and 35,118 in 1902. These comprise miners, smeltermen, and all employed in any capacity in and around metalliferous mines and smelters. The wages of miners vary from \$2.50 to \$4 per day, \$3, however, being considered miners' wages at most mining camps. In a considerable number of mining camps the 8-hour work day has come into general use for those working under ground. The output of coal for 1901 was 5,978,410 tons. There were 98 mines in operation, with about 8,000 workmen employed in and around them. Miners received 90 cents per ton for screened lump coal and 66 cents per ton for run of mine. The approximate production of coal for 1902 was 7,000,000 tons.

LABOR LAWS.—This is a reprint of the labor laws passed by the general assembly at its session in 1901.

MISSOURI.

Twenty-fourth Annual Report of the Bureau of Labor Statistics and Inspection of the State of Missouri for the year ending November 5, 1902. William Anderson, Commissioner. 440 pp.

The following subjects are treated of in this report: Industrial statistics, 59 pages; agriculture in Missouri, 27 pages; contracting garment workers (sweat shops), 9 pages; labor organizations, 47 pages; Government lands in Missouri, 3 pages; free employment offices, 4 pages; statistics of manufactures, 249 pages; court decisions affecting labor, 33 pages.

INDUSTRIAL STATISTICS.—Under this head are given for each county of the State the population and surplus products shipped in 1901. A summary table presents for the State the quantity of each product and its value.

CONTRACTING GARMENT WORKERS.—Returns from 165 garment-working establishments in St. Louis are summarized in the following tables. The first table shows the number of employees according to sex, their average weekly wages, and their hours of labor per day. The second table shows the number of garments manufactured per week in the 165 establishments and the average contract price and labor cost for each garment.

AVERAGE WAGES AND HOURS OF LABOR OF EMPLOYEES IN 165 GARMENT-WORKING ESTABLISHMENTS IN ST. LOUIS, BY SEX, 1902.

Sex.	Employees.	Average wages per week.	Average hours of labor per day.
Males.....	360	\$10.19	9.47
Females.....	1,026	5.31	9.34

CONTRACT PRICE AND LABOR COST OF GARMENTS MADE IN 165 ESTABLISHMENTS IN ST. LOUIS, 1902.

Kind of garments manufactured.	Garments made per week.	Average contract price per garment.	Average labor cost per garment.
Cloaks	460	\$0.78 $\frac{1}{2}$	\$0.70
Coats	5,788	1.92	.94 $\frac{3}{4}$
Jackets	1,260	.20	.04
Overalls	2,200	.14	.05
Pants	16,572	.47 $\frac{1}{2}$	.28 $\frac{1}{4}$
Shirts	720	.06	(a)
Vests	6,877	.42 $\frac{1}{4}$	.22

(a) Not reported.

LABOR ORGANIZATIONS.—Information is presented pertaining to 410 labor organizations and relating to membership, including initiation fees and annual cost to members, hours of labor, and wages, strikes, accidents, attitude of unions toward arbitration, etc. The following statements summarize certain of the foregoing facts:

NUMBER AND MEMBERSHIP OF LABOR ORGANIZATIONS, AND AVERAGE INITIATION FEE AND ANNUAL COST PER MEMBER, IN THE THREE PRINCIPAL CITIES AND IN THE STATE OUTSIDE, 1901.

Locality.	Organizations.	Members.			Average initiation fee.	Average annual cost per member.
		Male.	Female.	Total.		
St. Louis	202	35,369	999	36,368	\$10.44	\$7.80
Kansas City	64	6,185	58	6,188	9.65	9.90
St. Joseph	41	2,741	311	3,052	9.61	9.90
State outside	108	6,803	15	6,818	7.87	9.23
Total	410	51,048	1,378	52,426	9.39	9.06

AVERAGE HOURS CONSTITUTING A DAY'S WORK IN THE THREE PRINCIPAL CITIES AND IN THE STATE OUTSIDE, 1890 TO 1901.

Locality.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
St. Louis	10.13	11.00	10.02	9.97	9.93	9.85	9.88	9.84	9.86	9.52	9.40	9.07
Kansas City	10.18	10.13	10.13	10.05	9.87	9.87	9.89	9.52	9.32	9.48	9.17	9.19
St. Joseph	10.18	10.18	10.18	9.91	9.91	9.91	9.86	9.82	9.88	9.64	9.41	9.31
State outside	9.85	9.85	9.87	9.84	9.82	9.80	9.72	9.83	9.52	9.40	9.24	10.23
Average	10.08	10.29	10.05	9.94	9.88	9.86	9.84	9.75	9.64	9.51	9.30	9.45

AVERAGE WAGES PER HOUR IN THE THREE PRINCIPAL CITIES AND IN THE STATE OUTSIDE, 1890 TO 1901.

Locality.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
St. Louis	\$0.2482	\$0.2518	\$0.2552	\$0.2579	\$0.2534	\$0.2554	\$0.2526	\$0.2539	\$0.2568	\$0.2781	\$0.2873	\$0.3120
Kansas City .....	.2615	.2595	.2704	.2727	.2750	.2800	.2905	.2975	.2920	.2950	.3055	.3175
St. Joseph .....	.2727	.2714	.2756	.2756	.2761	.2761	.2869	.2922	.2952	.3033	.2994	.2985
State outside .....	.2230	.2279	.2284	.2295	.2286	.2502	.2521	.2573	.2361	.2444	.2944	.2642
Average .....	.2526	.2526	.2574	.2589	.2583	.2654	.2705	.2752	.2700	.2802	.2966	.2980

The average number of days worked by members of labor organizations in 1901 was 268.79. Members in 1901 were involved in 177 strikes, of which 119 were settled satisfactorily, the others being com-

promised, lost, or still pending. Accidents to members in 1901 numbered 852, of which 101 were fatal and 751 nonfatal. Of the 410 organizations, 362 reported as favoring arbitration, of which 198 favored arbitration by a State board and 120 by compulsion. During the year 37 unions had appealed for arbitration.

FREE EMPLOYMENT OFFICES.—Returns from the office at St. Louis for the year ending September 30, 1902, and the Kansas City and St. Joseph offices for the year ending October 1, 1902, show the following summarized results:

STATISTICS OF THE ST. LOUIS, KANSAS CITY, AND ST. JOSEPH FREE EMPLOYMENT OFFICES, 1902.

Kind of application.	St. Louis.		Kansas City.		St. Joseph.	
	Males.	Females.	Males.	Females.	Males.	Females.
Applications for employment.....	5,052	632	3,713	756	1,324	309
Number filled.....	2,199	589	2,751	562	939	223
Applications for help.....	2,741	1,067	3,687	1,445	5,624	1,380
Number filled.....	2,199	589	2,751	562	939	223

Of the total number of persons of both sexes seeking employment in St. Louis, 48.6 per cent secured places, and of the total applications for help 73.2 per cent were filled. In Kansas City, 74.1 per cent of the applications for employment were filled and 64.5 per cent of the applications for help. In St. Joseph, 71.1 per cent of the applications for employment were filled, but only 16.6 per cent of the applications for help. The small percentage of applications for help filled in St. Joseph seems to have been due to the inability to supply the great demand for harvest hands, ordinary laborers, railroad employees, and factory workers. Of the 2,631 applications for harvest hands only 200 were filled, of the 1,316 for laborers only 411 were filled, of the 850 for railroad employees only 10 were filled, and of the 944 for factory workers only 2 were filled.

STATISTICS OF MANUFACTURES.—Fifty-nine tables, embracing as many industries, give the returns for 1,666 manufacturing establishments. The total product for the year 1901 was valued at \$253,711,595, being an increase of \$77,053,963 over the product reported for 1900. Including clerical help, the average number employed each month during 1901 was 101,433, of whom 80,610 were males and 20,823 were females, an increase over the number reported for 1900 of 27,890. The wages paid to all classes of wage-earners in 1901 by the establishments reporting amounted to \$46,809,729, an increase over the amount reported for the previous year of \$13,748,198.

COURT DECISIONS AFFECTING LABOR.—This section reproduces a number of decisions from the Bulletins of the United States Department of Labor and one decision from the Missouri court reports.

NEW YORK.

Nineteenth Annual Report of the Bureau of Labor Statistics, for the year ended September 30, 1901. Transmitted to the legislature February 3, 1902. John McMackin, Commissioner. xii, 768 pp.

By an act which became a law February 7, 1901, the bureau of labor statistics, office of factory inspection, and State board of mediation and arbitration were consolidated into a department of labor. The present report is for the bureau relating to labor statistics, and the subjects presented are as follows: Part I, the economic condition of organized labor, 640 pages; Part II, the labor laws of New York, 120 pages.

THE ECONOMIC CONDITION OF ORGANIZED LABOR.—The report on this subject is based on quarterly returns from the labor organizations of the State relating to membership, hours of labor, rates of wages, working time and earnings, and number of unemployed members. This system of report was begun in 1897. The following table shows, by industries, the number and membership of organizations September 30, 1900, and September 30, 1901, and the increase for the year:

NUMBER AND MEMBERSHIP OF LABOR ORGANIZATIONS, BY INDUSTRIES, SEPTEMBER 30, 1900, AND SEPTEMBER 30, 1901.

Industries.	Organizations.			Membership.		
	Sept. 30, 1900.	Sept. 30, 1901.	Increase.	Sept. 30, 1900.	Sept. 30, 1901.	Increase.
Building, stone working, etc.....	472	515	43	80,441	85,401	4,960
Clothing and textiles	124	150	26	28,866	41,883	13,017
Metals, machinery, etc.....	292	323	31	31,271	35,562	4,291
Transportation	205	240	35	30,854	34,371	3,517
Printing, binding, etc.....	91	99	8	17,117	17,986	869
Tobacco	55	57	2	12,349	10,210	^a 2,139
Food and liquors.....	103	120	17	9,430	9,451	21
Theaters and music.....	32	38	6	9,698	11,688	1,990
Woodworking and furniture	65	71	6	8,176	8,260	84
Restaurants and retail trade	56	83	27	5,303	6,804	1,501
Public employment.....	58	81	23	7,148	8,142	994
Miscellaneous.....	82	94	12	4,728	6,383	1,655
Total	1,635	1,871	236	245,381	276,141	30,760

^a Decrease.

Of the total of 1,871 organizations in existence in the State on September 30, 1901, 515 were in New York City and 1,356 in other places; of the 276,141 members of those organizations 174,022 were in New York City and 102,119 in other places. The number of female members in all labor organizations was 14,618, of whom 10,418 were in New York City and 4,200 in other places. The organizations in the clothing and textile industries showed the largest female membership, this membership being 10,157, of which New York City had 6,810.

The following table exhibits the membership of the labor organizations in the State, by industries, for each year from 1894 to 1901:

MEMBERSHIP OF LABOR ORGANIZATIONS, BY INDUSTRIES, 1894 TO 1901.

Industries.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Building, stone working, etc.	49,056	53,613	56,294	53,273	59,641	71,067	80,441	85,401
Clothing and textiles	39,162	51,921	30,093	32,147	26,433	29,714	28,866	41,883
Metals, machinery, etc.	9,860	11,376	13,010	13,991	16,236	24,014	31,271	35,562
Transportation	18,197	18,191	23,031	23,014	18,090	24,668	30,854	34,371
Printing, binding, etc.	11,059	11,998	13,848	13,313	15,045	16,023	17,117	17,986
Tobacco	8,722	9,089	9,799	9,097	8,889	8,886	12,349	10,210
Food and liquors	5,661	6,541	7,503	6,995	6,812	8,391	9,430	9,451
Theaters and music	5,688	7,327	7,306	6,920	9,346	9,518	9,698	11,688
Woodworking and furniture	5,329	4,652	4,218	4,205	4,584	6,683	8,176	8,260
Restaurants and retail trade	1,243	1,529	2,087	1,843	2,174	3,207	5,303	6,804
Public employment	1,964	1,964	993	1,667	1,880	3,727	7,148	8,142
Miscellaneous	1,256	2,080	2,114	1,989	1,937	3,122	4,728	6,388
Total	157,197	180,231	170,296	168,454	171,067	209,020	245,381	276,141

Percentages of unemployment for the year covered by the report are presented by industries in the table following, and a comparison afforded of each quarter with the corresponding quarter of the year previous; also separate totals for New York City and for the State outside:

PER CENT OF MEMBERS OF LABOR ORGANIZATIONS UNEMPLOYED AT END OF EACH QUARTER, DECEMBER, 1899, TO SEPTEMBER, 1901.

Industries.	Per cent of members of labor organizations unemployed on—							
	December 31.		March 31.		June 30.		September 30.	
	1899.	1900.	1900.	1901.	1900.	1901.	1900.	1901.
Building, stone working, etc.	28.8	32.0	33.0	27.2	24.0	12.2	14.9	7.3
Clothing and textiles	31.9	36.8	22.1	21.5	44.7	28.2	29.2	9.7
Metals, machinery, etc.	9.0	11.6	7.0	9.4	10.5	10.4	6.2	4.6
Transportation	15.0	21.7	23.1	23.6	12.0	5.7	8.5	4.8
Printing, binding, etc.	8.5	8.4	7.5	8.2	8.0	9.2	11.1	6.9
Tobacco	8.8	18.2	12.3	13.0	28.4	6.8	17.4	4.6
Food and liquors	7.6	13.9	10.2	13.2	12.2	8.3	14.6	7.6
Theaters and music	9.9	7.3	8.2	9.5	26.4	16.2	8.4	23.9
Woodworking and furniture	11.8	11.2	11.3	13.3	21.0	11.0	7.2	7.0
Restaurants and retail trade	12.8	9.7	7.0	9.6	4.7	2.9	8.4	3.1
Public employment	3.1	4.2	1.9	1.6	2.0	5.7	2.0	.8
Miscellaneous	5.9	16.1	6.2	17.9	10.1	8.3	4.2	3.5
Total	19.4	22.0	20.0	18.5	20.6	11.9	13.3	6.9
Total, New York City	20.6	23.4	21.0	19.7	25.5	14.1	16.7	7.6
Total, State outside city	17.1	19.8	18.1	16.8	12.6	8.6	7.5	5.9

The changes in wages reported by members of labor organizations and the number of members affected by those changes for the year ending September 30, 1901, are shown in the table following.

CHANGES IN WAGES OF MEMBERS OF LABOR ORGANIZATIONS AND MEMBERS AFFECTED,
YEAR ENDING SEPTEMBER 30, 1901.

Industries.	Increases.		Decreases.		Net changes.		
	Members affected.	Average weekly gain.	Members affected.	Average weekly loss.	Members affected.	Aggregate weekly increase.	Average weekly gain.
Building, stone working, etc.	17,480	\$2.09	884	\$0.91	17,864	\$36,168	\$2.02
Clothing and textiles	22,891	1.99	1,620	3.65	24,511	39,708	1.62
Metals, machinery, etc.	1,585	1.19	282	.85	1,867	1,647	.88
Transportation	1,967	1.53	253	1.62	2,220	2,609	1.18
Printing, binding, etc.	206	2.30	.....	.....	206	474	2.30
Tobacco	520	1.22	.....	.....	520	635	1.22
Food and liquors	501	1.52	.....	.....	501	762	1.52
Theaters and music .....	.....	.....	.....	.....	.....	.....	.....
Woodworking and furniture.	775	2.80	.....	.....	775	2,167	2.80
Restaurants and retail trade.	160	.79	18	4.00	178	54	.80
Public employment	611	3.01	.....	.....	611	1,839	3.01
Miscellaneous	889	.98	111	1.17	1,000	744	.74
All industries	47,585	1.97	2,668	2.67	50,253	86,807	1.73

During the year covered by the report very little of the ground gained for a shorter working day had been lost, the returns showing but six instances where there had been a reversion to a longer working day. The working time of 319 members of labor organizations was increased an average of 4 hours per week, while, on the other hand, 26,147 members had their working time decreased by an average of 8 hours per week. The greatest aggregate gains, both as to time saved and numbers benefited, were made by members of unions in the clothing trades, followed by members of unions in the metal-working and in the building trades.

THE LABOR LAWS OF NEW YORK.—This is a reprint of the labor laws of the State, including the enactments of 1902.

WASHINGTON.

Third Biennial Report of the Bureau of Labor of the State of Washington, 1901-1902. William Blackman, Commissioner. 318 pp.

A number of subjects are presented in this report. The following are the most important of those containing information relating to labor conditions: City and town statistics, 15 pages; condition of real estate and of farm labor, 11 pages; lumber mills, 4 pages; steam and street railways, 10 pages; organized labor, 27 pages; wage-earners, 11 pages; strikes, lockouts, and boycotts, 11 pages; miscellaneous, 166 pages.

CITY AND TOWN STATISTICS.—Sixty-two cities and towns of the State are listed, giving population, value of public buildings, amount of city indebtedness, expenditures on public improvements during 1901, etc. In 24 of the cities and towns all public work was done by day labor and in 13 by contract. No reports from 25 towns were received on this point. The average daily wage for day laborers was \$1.96; for man and team, \$3.80.

CONDITION OF REAL ESTATE AND OF FARM LABOR.—This part of the report treats of the condition of real estate in Washington and the proportion of laboring men buying real property. The average wages per day for farm labor are \$1; the average per month, \$26.50; average per day for man and team, \$2.62. In these averages board for men and teams is included.

LUMBER MILLS.—In the lumber industry wages paid all classes of labor have increased as compared with returns made for previous reports. Following are the hours of labor and the average daily wages paid to mill and logging employees, compiled from returns received from all parts of the State:

HOURS OF LABOR AND WAGES OF MILL AND LOGGING EMPLOYEES, 1901-1902.

Occupations.	Hours of labor.	Average daily wages.	
		Amount.	Per cen of in-crease.
Foremen	10	\$4.22	0.19
Bookkeepers	10	2.93	.10
Engineers	10 and 12	2.90	.13
Firemen	10 and 12	2.26	.10
Sawyers	10	4.08	.10
Knot sawyers	10	8.25	.....
Shingle packers	10	2.74	.....
Filers	10	4.32	.....
Planer men	10	2.44	.....
Other machine men	10	2.77	.....
Tallymen	10	2.49	.10
Blacksmiths	10	2.92	.10
Boom men	10	2.42	.10
Teamsters	10	2.14	.10
Cooks and waiters	10 and 14	1.94	.10
Laborers	10	1.95	.10
Loggers	10	2.10 to 3.25	.10

STEAM AND STREET RAILWAYS.—Under steam railroads is presented the wages paid the 15,406 employees of the various lines of the State, and under street railways the wages paid the 1,486 employees of six lines. The following table gives the average daily wages for each occupation:

AVERAGE DAILY WAGES OF STEAM AND STREET RAILWAY EMPLOYEES, 1901-1902.

Occupations.	Average daily wages.	Occupations.	Average daily wages.
STEAM RAILROADS.		STEAM RAILROADS—concluded.	
Passenger conductors	\$3.75	Carpenters	\$2.64
Freight conductors	2.97	Train dispatchers	3.95
Passenger brakemen	2.00	Train operators	2.00
Freight brakemen	2.24	Station agents	2.29
Passenger engineers	3.80	Office help	2.89
Freight engineers	3.77		
Switch engineers	3.00	STREET RAILWAYS.	
Road firemen	2.55	Conductors, gripmen, and motormen ..	2.12
Switch firemen	1.84	Electricians	2.74
Switchmen	2.72	Engineers	3.00
Machinists	2.97	Firemen	2.10
Boiler makers	3.15	Machinists	3.05
Blacksmiths	3.05	Blacksmiths	3.10
Car repairers	2.16	Other help	2.12
Section foremen	2.15		
Bridge and building foremen	3.31		

ORGANIZED LABOR.—One hundred and thirty labor organizations of the State, with an aggregate membership of 11,593, present statistics relative to date of organization, initiation fees, dues, strike, sick and funeral benefits, hours of labor, wages, rules governing apprenticeship, etc.

WAGE-EARNERS.—This is the result of a canvass of about 100 wage-earners in different parts of the State, representative of their respective occupations. Their average rate of wages per day was \$3.05; average income per year, \$848; average expenditure per year, \$659.37. Two-sixths of the number canvassed owned their homes, three-sixths rented at an average rental of \$12.11 per month, and one-sixth boarded at an average expense of \$5.12 per week. Two-thirds of the total reported yearly savings, which averaged \$189.92 per individual. The days of employment per year averaged 286.

STRIKES, LOCKOUTS, AND BOYCOTTS.—Accounts, arranged chronologically, of the labor disputes taking place in the State during 1901 and 1902 are presented under this title. Nineteen disturbances are recorded as arising in the former year and twenty in the latter.

MISCELLANEOUS.—The following presentations have been grouped under this head: Testimony from the investigation, made by the Commissioner of Labor, of the strike of the butchers and of the strike of the longshoremen of Seattle; testimony from the investigation into the employment of girl messengers; violations of the ten-hour law for females, and correspondence on the law; supreme court decisions affecting labor; manual training; suggestions in the interest of the laboring classes, and recommendations for legislative action.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

BELGIUM.

Recensement général des Industries et des Métiers, 31 Octobre, 1896.
Office du Travail, Ministère de l'Industrie et du Travail. 1901-1902.
Volumes VI to XVIII.

The above-named volumes conclude the series which contains the results of the Belgian industrial census of 1896. A brief account of the scope and methods of the census has been given in Bulletin No. 41.

The last volume of the report is a general summary of the detailed information contained in the preceding volumes. The information here presented has been obtained from the summary. As explained in Bulletin No. 41, the information for establishments was taken on Schedule A, and that for industrial employees on Schedule B. Considerable variation in the statistics in regard to the number and sex of wage-workers is noticeable in many industries in comparing the results of the two enumerations. The method followed in the classification of workmen's returns (Schedule B) accounts for a large part of the variation. Again, workmen living in Belgium but working outside the country, and also several thousand workmen out of employment were enumerated on the B but not on the A schedules. All the following information, except that relating to age and conjugal condition of industrial employees, was derived from the A schedules.

Two classes of industry are distinguished in the census: First, the centralized production, or industry proper, which includes all industry where the proprietor carries on productive operations, either alone or with assistants, on the premises of the establishment; second, decentralized production, which is divided into two forms, domestic industry (*industrie à domicile*) and industry in public shops (*ateliers publics*). Domestic industry is defined as that system of production in which the proprietor employs persons to work for him at their homes. "Industry in public shops" closely resembles the domestic system, differing from it in that, instead of working at home, the employee rents quarters, often with power, in buildings or shops (*ateliers publics*) which provide such facilities.

In round numbers there were 330,000 industrial enterprises in Belgium, and the total industrial population was composed of 247,000 proprietors, 41,000 managers, agents, salaried employees, etc., 690,000

wage workers employed in factories, workshops, mines, etc., 101,000 home workers, and 51,000 family members of proprietors of establishments and of home workers, making a total of 1,130,000 persons. This number includes only persons engaged in private industry. Agricultural and commercial employees are, of course, not considered. The large number of persons engaged in domestic industry is especially worthy of notice.

The term "establishment" means industrial enterprises of all sizes. In undertakings which carry on several distinct classes of work, each department or branch is counted as a separate establishment. In both forms of decentralized production the premises of the employers and the homes or shops of the workmen appear as separate establishments in the tables.

Reckoned on this basis the total number of establishments in existence on the census date was 337,395, including 323,287 single enterprises and 6,676 concerns having 14,108 subdivisions. The total number of establishments and branches in operation was 326,089. This number included 231,420 establishments in industry proper and 94,669 establishments in domestic industry (including 7,150 premises of employers and their agents and 335 places rented by workmen in public shops). The total number of persons engaged in the establishments in operation was as follows:

NUMBER OF PERSONS IN INDUSTRIAL ESTABLISHMENTS, BY CLASSES OF OCCUPATIONS AND SEX.

Classes of occupations.	Males.	Females.	Total.
Proprietors	168,699	69,296	237,995
Managers, agents, salaried employees, etc	37,946	2,529	40,475
Wage workers in industry proper	561,295	110,301	^a 671,596
Home workers	41,259	76,058	^b 117,317
Workmen in public shops	390	10	400
Members of families of proprietors working in factories, workshops, mines, etc	27,688	6,783	34,471
Total	837,267	264,977	1,102,244

^a Including 7,661 wage workers employed in establishments belonging to domestic industry.

^b Including children and other family members helping workmen.

INDUSTRY PROPER.—Counting enterprises having separate divisions as single establishments it was found that there were about 236,000 concerns in industry proper. This number includes establishments not in activity on the census date. The total force of these establishments comprised, in round numbers, 241,500 proprietors, 38,500 managers, salaried employees, etc., 34,000 members of proprietors' families occupied as workmen, and 682,000 other workmen or employees. The great majority of the establishments were small. About 165,000 were conducted by the proprietors alone or aided only by members of their families, and 54,500 others occupied less than 5 workmen each. In about 200 establishments 500 or more workmen were

employed. Of the 682,000 workmen (exclusive of members of proprietors' families) employed in these establishments, 14 per cent were found in establishments occupying less than 5 workmen, 26 per cent in those occupying from 5 to 49 workmen, and 60 per cent in establishments occupying 50 workmen or over. About 23½ per cent of the 682,000 workmen were employed in the 200 establishments occupying 500 workmen or over.

The foregoing figures are based partly on estimates, and are used here only to give a general idea of the subject. More definite information is given in the following table, which shows, by industries, the number of industrial establishments proper in operation on October 31, 1896, and the number of wage workers employed therein, classified according to size of establishment:

ESTABLISHMENTS AND EMPLOYEES IN INDUSTRY PROPER, BY SIZE OF ESTABLISHMENT AND BY INDUSTRIES.

Industries.	Establishments in operation Oct. 31, 1896.		Establishments having no employees or only members of proprietors' families.	Establishments having less than 5 employees.		Establishments having from 5 to 49 employees.		Establishments having 50 or more employees.	
	Number.	Employees.		Number.	Employees.	Number.	Employees.	Number.	Employees.
Art, instruments of precision, etc.	1,253	6,502	557	409	898	271	3,371	16	2,238
Building	24,880	62,607	14,720	7,199	13,754	2,819	33,446	142	15,407
Ceramics	278	7,043	33	69	173	146	2,167	30	4,703
Chemicals	1,135	17,622	158	491	1,064	403	5,911	83	10,647
Clothing	78,685	37,210	59,446	12,791	21,864	1,420	12,440	28	2,906
Food products	23,382	57,359	12,588	9,073	15,396	1,542	15,963	179	26,000
Glass	49	21,699	—	—	—	3	109	46	21,590
Hides and leather	22,091	17,590	17,642	3,943	6,375	559	6,202	47	5,013
Metals	15,606	98,955	8,437	5,432	8,707	1,400	21,112	337	69,136
Mining	665	121,993	—	11	30	188	4,257	466	117,706
Paper	274	8,370	83	58	125	93	1,569	40	6,676
Printing and publishing	2,147	10,706	724	882	1,881	516	6,772	25	2,103
Quarrying	1,776	35,102	285	595	1,417	753	12,772	143	20,913
Textiles	3,020	81,103	1,437	430	949	774	14,051	379	66,103
Tobacco	1,251	9,731	638	338	620	226	3,482	49	5,629
Transportation	18,296	16,959	15,298	2,445	3,905	492	6,195	56	6,859
Wood and furniture	36,614	39,726	24,782	9,911	17,141	1,883	18,610	38	3,975
Other industries	5,028	13,658	3,697	919	1,677	360	4,542	52	7,439
Total	231,420	663,985	160,420	54,996	95,926	13,848	172,971	2,156	395,038

THE DOMESTIC INDUSTRY.—Of the 94,334 establishments in domestic industry, not including premises rented by workmen in public shops, 5,835 belonged to employers, 1,315 were premises of employers' agents or intermediaries, and 87,184 were the homes or workshops of the home workers. In 4,940 employers' establishments, or nearly 85 per cent of the total number, no workmen were employed. The employers in these instances depended entirely on outside or home workers. In the 895 other employers' establishments both classes of workmen were employed, so that in 656 instances from 1 to 4 workmen and in 239 instances 5 or more workmen were employed in the establishment.

In only 7 instances were 50 or more workmen employed in establishments of this class. Altogether 3,762 workmen were employed in the 895 establishments. Of the 1,315 establishments of the agents or intermediaries 1,222, or 93 per cent, did not employ inside workmen and the other 93 establishments had each less than 50 such workmen. Altogether 376 workmen were employed in these establishments. In 86,323, or 99 per cent, of the so-called establishments of the home workers the workman proprietor employed no other workmen and in 75,665 instances such proprietors were not even aided by their children or other family members. The proprietors of the other 861 establishments, however, were employers of labor. In 803 instances there were from 1 to 4 and in 58 instances there were 5 or more who paid workmen. In all, 2,679 such workmen were reported on the A schedules. Home workers engaged in gun manufacture, tailoring, dressmaking, shoemaking, and cabinetmaking most frequently employed paid workmen.

The system of renting working places, such as benches, lathes, looms, etc., in buildings and shops which are equipped for this purpose, is confined almost entirely to the woolen industry of Verviers and the diamond-cutting industry of Antwerp. There were 87 such weaving establishments or installations and 248 diamond-cutting establishments.

EMPLOYMENT OF WOMEN AND CHILDREN.—Of the 110,301 females employed in industry proper 84,647 were over 16 years of age and 25,654 were under 16. Of the total number of industrial establishments proper in which workmen are employed 77.87 per cent employed men only, 16.51 per cent employed women only, while 5.62 per cent employed both men and women. More than nine-tenths of the establishments employing women only were engaged in the production of clothing.

The total number of children under 16 years of age employed in industry proper was 76,147; of these about one-third, or 25,654, as aforementioned, were girls, while two-thirds, or 50,493, were boys. Children compose over 11 per cent of the working force employed in industrial establishments proper. The largest numbers of children were found in the following industries: Textiles, 11,863; coal mining, 10,167; manufacture of clothing, 9,674, and glass industries, 4,429. The ages of the children were as follows:

CHILDREN EMPLOYED IN INDUSTRY PROPER, BY SEX AND AGE.

Age.	Boys.	Girls.	Total.
Under 12 years	248	191	439
12 or under 14 years	13,814	6,948	20,762
14 or under 16 years	36,481	18,515	54,996
Total	50,493	25,654	76,147

HOURS OF LABOR.—The hours of labor, as given in the tables below, show the actual working time and do not include recesses for meals or rest. They are also the usual and customary hours of work in the establishments and make no allowance for overtime or extra work due to exceptional business conditions. In the case of seasonal industries, in which the hours of labor fluctuate, the establishments were requested to report the hours of labor on the census date. Because of the special conditions which prevailed therein, the hours of labor for the coal-mining industry are given separately.

Aside from the coal-mining industry there were 72,535 industrial establishments in activity on the census date, in which 555,172 wage workers were employed. Of these wage workers 3,039 worked at night only, and about 54,000 worked in shifts in establishments which were kept in activity day and night. In most instances the night and day shifts alternated, so that the greater portion of these employees were on night work for a part of the time. The other employees, amounting to about 498,000, worked only during the day.

The following table shows the classified daily hours of activity in 63,430 establishments and the classified daily hours of labor of 504,304 employees for whom the facts were reported. Day workers, night workers, and workers in shifts are tabulated separately.

EMPLOYEES IN INDUSTRIAL ESTABLISHMENTS ENGAGED IN DAY WORK, IN NIGHT WORK, AND IN SHIFTS, BY CLASSIFIED HOURS OF LABOR PER DAY.

[Employees in the coal-mining industry are not included in this table.]

Hours per day.	Establishments.		Total employees.		Day work.		Night work.		Shifts (day and night work).	
	Number.	Per cent.	Number.	Per cent.	Employees.	Per cent.	Employees.	Per cent.	Employees.	Per cent.
8 or under.....	3,770	5.94	19,138	3.79	18,195	3.92	93	4.41	850	2.23
9 or over 8.....	5,770	9.10	34,741	6.89	34,685	7.47	56	2.65		
10 or over 9.....	18,317	28.58	172,012	34.11	147,192	31.71	979	46.40	23,841	62.68
10½ or over 10.....	8,438	13.30	77,854	15.44	67,525	14.55	580	27.49	9,749	25.63
11 or over 10½.....	13,882	21.89	88,166	17.48	85,218	18.36	280	13.27	2,668	7.01
11½ or over 11.....	5,164	8.14	70,898	14.06	69,942	15.07	43	2.04	931	2.45
12 or over 11½.....	5,809	9.16	30,951	6.14	30,868	6.65	65	3.08		
Over 12.....	2,280	3.59	10,544	2.09	10,530	2.27	14	.66		
Total.....	63,430	100.00	504,304	100.00	464,155	100.00	2,110	100.00	38,039	100.00

About 55 per cent of all employees for whom the hours were reported worked more than 10 hours per day.

The hours of labor of 72,103 women and of 61,652 children under 16 years of age employed in industrial establishments (not including those employed in coal mining) are separately reported in the table following.

WOMEN AND CHILDREN EMPLOYED IN INDUSTRIAL ESTABLISHMENTS, BY CLASSIFIED HOURS OF LABOR.

[Employees in the coal-mining industry are not included in this table.]

Hours per day.	Children under 16 years of age.						Women.	
	Boys.		Girls.		Total.			
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
8 or under	1,852	4.66	1,262	5.76	3,114	5.05	1,207	1.67
9 or over 8	2,559	6.44	1,827	8.33	4,386	7.11	3,402	4.72
10 or over 9	14,337	36.09	6,682	30.48	21,019	34.09	20,260	28.10
10½ or over 10	5,958	15.00	3,168	14.45	9,126	14.80	11,549	16.02
11 or over 10½	6,751	16.99	2,826	12.89	9,577	15.54	10,603	14.71
11½ or over 11	5,962	15.01	5,313	24.24	11,275	18.29	20,668	28.66
12 or over 11½	1,810	4.55	612	2.79	2,422	3.98	3,458	4.79
Over 12	501	1.26	232	1.06	733	1.19	956	1.33
Total	39,730	100.00	21,922	100.00	61,652	100.00	72,103	100.00

The above table shows that over 65 per cent of the women and nearly 54 per cent of the children work over 10 hours per day.

HOURS OF LABOR IN COAL MINES.—The hours of labor were reported for 97,813 of the 116,274 employees in coal mines. The hours of inside workers were counted from the time of entering the mine to the time of leaving it. Without distinguishing as to inside or outside work or as to sex or age of the employees, the hours were as follows:

EMPLOYEES IN COAL MINES, BY CLASSIFIED HOURS OF LABOR.

Hours per day.	Employees.	Per cent.
8 or under	7,748	7.92
9 or over 8	7,293	7.45
10 or over 9	43,054	44.02
10½ or over 10	16,127	16.49
11 or over 10½	9,735	9.95
11½ or over 11	4,029	4.12
12 or over 11½	7,481	7.65
Over 12	2,346	2.40
Total	97,813	100.00

Of the total coal-mine employees for whom the hours were reported, 53,095, or 59.4 per cent, worked 10 hours or less per day, 25,862, or 26.4 per cent, worked 11 or over 10 hours, while 13,856, or 14.2 per cent, worked over 11 hours per day. Considerably more than half the inside employees worked 10 hours or under per day, their time being counted from the moment of entrance to that of exit from the mines.

RATES OF WAGES.—The rates of wages were taken from the account books of the various establishments, and are based upon the last wage payment previous to October 31, 1896. Information was secured for 612,892 out of a total of 671,596 wage workers employed in industrial establishments; for all practical purposes, therefore, this part of the report is a census of wage rates for that portion of the industrial population.

The classified rates of wages of men and women, and of children of both sexes under 16 years of age are shown in the following table:

EMPLOYEES IN INDUSTRIAL ESTABLISHMENTS, BY CLASSIFIED RATES OF WAGES.

[The sum of the items shown in the three classes of rates ranging from 1 to 2.49 fr. (\$.0193 to \$.0481) does not agree with the totals shown. In obtaining these totals three-fourths of the girls receiving 1 fr. (\$.0193) or over were arbitrarily classified as having earned from 1 to 1.49 fr. (\$.0193 to \$.0288) and the other one-fourth as having earned from 1.50 to 1.99 fr. (\$.029 to \$.0384), while of the boys who received 1.50 fr. (\$.029) or over two-thirds were classified as having earned from 1.50 to 1.99 fr. (\$.029 to \$.0384), and one-third as having earned from 2 to 2.49 fr. (\$.0386 to \$.0481).]

Wages per day.	Men.	Women.	Boys under 16 years of age.	Girls under 16 years of age.	All wage workers reporting.	
					Number.	Per cent.
No wages received	1,398	2,218	2,844	6,141	12,596	2.06
Under 0.50 fr. (\$.0097)			4,667	3,577	8,244	1.35
0.50 to 0.99 fr. (\$.0097 to \$.0191)		a 6,570	12,748	c 8,444	a 27,762	4.53
1.00 to 1.49 fr. (\$.0193 to \$.0288)	b 20,883	22,398	15,090	c 6,949	b 63,583	10.37
1.50 to 1.99 fr. (\$.029 to \$.0384)	28,644	21,400	d 10,228		58,600	9.56
2.00 to 2.49 fr. (\$.0386 to \$.0481)	62,191	13,434			79,084	12.90
2.50 to 2.99 fr. (\$.0483 to \$.0577)	37,015	5,362			92,377	15.07
3.00 to 3.49 fr. (\$.0579 to \$.0674)	100,392	2,233			102,625	16.75
3.50 to 3.99 fr. (\$.0676 to \$.077)	65,615	652			66,267	10.81
4.00 to 4.49 fr. (\$.0772 to \$.0867)	50,887	241			51,128	8.34
4.50 to 4.99 fr. (\$.0869 to \$.0963)	21,134	80			21,214	3.46
5.00 to 5.49 fr. (\$.0965 to \$.106)	13,984	43			13,977	2.28
5.50 to 5.99 fr. (\$.1062 to \$.1156)	5,776	10			5,786	.94
6.00 to 6.49 fr. (\$.1158 to \$.1253)	3,668	9			3,677	.60
6.50 to 6.99 fr. (\$.1255 to \$.1349)	1,653	3			1,656	.27
7.00 to 7.49 fr. (\$.1351 to \$.1446)	1,127	e 9			e 1,136	.19
7.50 to 7.99 fr. (\$.1448 to \$.1542)	650				650	.11
8.00 to 8.49 fr. (\$.1544 to \$.1639)	593				593	.10
8.50 to 8.99 fr. (\$.1641 to \$.1735)	316				316	.05
9.00 to 9.49 fr. (\$.1737 to \$.1832)	326				326	.05
9.50 to 9.99 fr. (\$.1834 to \$.1928)	223				223	.04
10.00 to 10.49 fr. (\$.193 to \$.2025)	243				243	.04
10.50 to 10.99 fr. (\$.2027 to \$.2121)	145				145	.02
11.00 to 11.49 fr. (\$.2123 to \$.2218)	135				135	.02
11.50 to 11.99 fr. (\$.222 to \$.2314)	71				71	.01
12.00 to 12.49 fr. (\$.2316 to \$.2411)	68				68	.01
12.50 to 12.99 fr. (\$.2413 to \$.2507)	69				69	.01
13.00 fr. (\$.2509) or over	391				391	.06
Total	467,542	74,662	45,577	25,111	612,892	100.00

a Including all women who earned less than 1 franc (\$.0193).

b Including all men who earned less than 1.50 francs (\$.029).

c Including all girls who earned 1 fr. (\$.0193) or over per day.

d Including all boys who earned 1.50 fr. (\$.029) or over per day.

e Including all women who earned 7 fr. (\$.1351) or over per day.

USE OF POWER.—Private industrial establishments employed 13,207 steam engines, 1,166 gas or petroleum motors, 1,080 water motors, 892 wind motors, and 76 electric motors—a total of 16,421. The total horsepower of steam engines and of gas and petroleum motors was 628,253½. The horsepower of other motors was not reported.

AGE AND CONJUGAL CONDITION OF INDUSTRIAL EMPLOYEES.—The following table shows the conjugal condition of the population employed in industrial establishments and in domestic industry. It does not include children or relatives of owners of establishments who are employed by the latter in the workshops. Both this table and the one following it are based on the returns from the workers themselves (Schedule B), and naturally differ from the figures obtained from the schedules for establishments (Schedule A).

WAGE WORKERS IN INDUSTRY PROPER AND DOMESTIC WORKERS, BY AGE GROUPS AND CONJUGAL CONDITION.

Age groups and conjugal condition.	Industry proper. (a)			Domestic industry.		
	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.
Under 21 years:						
Single	150,968	62,888	213,856	7,000	22,419	29,419
Married	2,409	920	3,329	110	667	777
Widowed or divorced	67	84	101	1	14	15
Total	153,444	63,842	217,286	7,111	23,100	30,211
From 21 to 30 years:						
Single	81,477	18,473	99,950	5,217	12,201	17,418
Married	73,268	6,858	80,126	3,710	7,727	11,437
Widowed or divorced	1,311	279	1,590	49	144	193
Total	156,056	25,610	181,666	8,976	20,072	29,048
From 30 to 50 years:						
Single	81,141	4,954	86,095	2,915	6,289	9,204
Married	170,964	6,217	177,181	10,469	13,058	23,517
Widowed or divorced	8,381	1,323	9,709	569	1,338	1,907
Total	210,486	12,499	222,985	13,943	20,685	34,628
50 years or over:						
Single	6,351	901	7,252	1,173	2,950	4,123
Married	58,480	868	59,348	6,352	4,587	10,939
Widowed or divorced	10,838	990	11,823	1,383	2,670	4,053
Total	75,669	2,759	78,428	8,908	10,207	19,115
All ages:						
Single	269,987	87,216	357,153	16,305	43,859	60,164
Married	305,121	14,863	319,984	20,631	26,039	46,670
Widowed or divorced	20,597	2,631	23,223	2,002	4,166	6,168
Total	595,655	104,710	700,365	38,938	74,064	113,002

^aIncluding workmen employed in public shops (*ateliers publics*).

The proportion of married, widowed, or divorced females in industry proper was less than 17 per cent of the total females, while in the domestic industry it was nearly 41 per cent. This difference is sufficiently explained by the nature of the work done in the homes of working women.

On comparing figures derived from this table with those shown by the general census of 1890 the conclusion is reached that males of the industrial population marry at an earlier age than those of the general population. The general census showed that about 85½ per cent of all males over 30 years of age and about 63 per cent of all males over 21 years of age were married, widowed, or divorced. According to the figures shown in the table for these respective age divisions, the proportions are about 87 per cent and 73 per cent for males in industry proper, and 82 per cent and 71 per cent for males in the domestic industries. In other words, the percentage of married, widowed, or divorced males 21 years of age or over was much larger for both classes of industry than for the total population, while the percentage of males 30 years of age or over was only slightly larger for industry proper and considerably less for domestic industry than for the total population.

The following table shows the ages of the working population. Children and relatives of proprietors of establishments employed by the latter in the workshops are not included.

WAGE WORKERS IN INDUSTRY PROPER AND DOMESTIC WORKERS, BY CLASSIFIED AGE GROUPS.

Age groups.	Industry proper.			Domestic industry.			Total.
	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.	
Under 16 years	58,589	27,569	86,108	2,512	9,586	12,098	98,206
16 or under 21 years	94,905	36,273	131,178	4,599	13,514	18,113	149,291
21 or under 30 years	156,066	25,610	181,666	8,976	20,072	29,048	210,714
30 or under 35 years	69,965	5,265	75,220	4,242	7,205	11,447	86,667
35 or under 40 years	58,694	3,501	62,195	3,695	5,765	9,460	71,655
40 or under 45 years	45,599	2,238	47,837	3,230	4,151	7,381	55,218
45 or under 50 years	36,238	1,496	37,733	2,776	3,564	6,340	44,073
50 or under 55 years	31,248	1,084	32,332	2,860	3,456	6,316	38,648
55 or under 60 years	21,927	749	22,676	2,502	2,776	5,278	27,954
60 or under 65 years	12,895	486	13,381	1,645	1,778	3,423	16,804
65 or under 70 years	6,311	261	6,572	1,026	1,093	2,119	8,691
70 years or over	3,288	179	3,467	875	1,104	1,979	5,446
Total	595,655	104,710	700,365	38,938	74,064	113,002	813,367

Of the total employees in industry proper nearly 52 per cent of the males and over 85 per cent of the females were less than 30 years of age, over 35 per cent of the males and less than 12 per cent of the females were from 30 to 50 years of age, while the remaining 13 per cent of the males and less than 3 per cent of the females were distributed through the age groups above 50. In domestic industry over 41 per cent of the males and 58 per cent of the females were under 30 years of age, about 36 per cent of the males and about 28 per cent of the females were from 30 to 50 years of age, while 23 per cent of the males and 14 per cent of the females were 50 years of age or over. Hence, the relative number of employees in the higher age groups was larger in domestic industry than in industry proper.

FINLAND.

Industri-Statistik, 16. År 1899. Industri-Statistik, 17. År 1900. Bidrag till Findlands Officiella Statistik, XVIII. Förra Delen. Bergshandtering och Maskinindustri; Mynt- och Kontrollverket. 1901. 55 pp. 1902. 58 pp.

This is the first part of the sixteenth and of the seventeenth annual reports on industrial statistics of Finland, and relates to the mining and metal working industries, and to coinage. The second part of the latter report, relating to the factory and hand-working industries, has been digested in Bulletin No. 44. The reports contain an analysis and summary of the statistics, followed by detailed tables showing the facts for each industry and for each district. The two following tables show the quantity and value of the gold, silver, and copper produced for each year from 1890 to 1900, and the value of iron mined and manufactured in the years 1898, 1899, and 1900, respectively.

PRODUCTION OF GOLD, SILVER, AND COPPER IN FINLAND, 1890 TO 1900.

Year.	Gold.		Silver.		Copper.	
	Weight (ounces).	Value.	Weight (ounces).	Approximate value.	Weight (ounces).	Approximate value.
1890	574	\$11,090	26,287	\$15,440	9,401,843	\$92,640
1891	282	5,415	33,383	19,300	13,240,643	129,310
1892	155	2,969	29,579	17,370	10,798,017	96,500
1893	133	2,545	28,577	16,984	8,983,433	81,060
1894	208	3,977	28,213	16,791	10,895,811	88,780
1895	319	6,131	14,494	8,685	11,712,126	135,100
1896	229	4,394	12,087	7,141	12,670,798	139,925
1897	148	3,010	12,256	6,755	11,454,439	129,310
1898	149	3,026	14,647	9,480	8,139,926	117,151
1899	84	1,618	7,853	5,013	7,208,198	115,414
1900	70	1,843	8,054	5,318	7,041,014	109,894

VALUE OF PRODUCT OF IRON MINES AND PRINCIPAL IRON WORKING INDUSTRIES IN FINLAND, 1898, 1899, AND 1900.

Character of product.	Value of product.		
	1898.	1899.	1900.
Iron ore from mines (a)	\$23,371	\$37,753	\$88,329
Bog iron ore	93,949	123,137	138,558
Pig iron	501,800	521,100	598,300
Wrought iron	212,300	198,000	164,050
Rolled iron	482,500	492,150	482,500
Hammered iron (Martin)	714,100	723,750	405,300
Black iron and castings	537,206	711,611	1,071,754
Machine shops and foundries (private)	3,680,449	4,680,119	4,587,375
Machine shops and foundries (State railway)	578,907	634,518	778,741
Total	6,819,582	8,317,138	8,304,907

a Not including iron from copper and tin mines at Pitkäranta.

The number of establishments in the mining and metal working industries was 1,474 in 1899 and 1,361 in 1900. The number of workers employed was 18,134 in 1899 and 18,205 in 1900. The value of the product was 51,358,461 marks (\$9,912,182.97) in 1899 and 52,492,981 marks (\$10,131,145.33) in 1900. The following table shows these facts for each trade or industry for 1899 and 1900:

ESTABLISHMENTS, EMPLOYEES, AND VALUE OF PRODUCT OF THE MINING AND METAL WORKING INDUSTRIES OF FINLAND, 1899 AND 1900.

Trade or industry.	1899.			1900.		
	Estab-lish-ments.	Em-ploy-ees.	Value of product.	Estab-lish-ments.	Em-ploy-ees.	Value of product.
Blacksmithing and fine iron working	855	2,085	\$482,018	748	1,953	\$588,566
Coppersmithing	73	379	147,162	77	375	139,983
Shot making	1	25	15,440	1	10	9,766
Type founding	1	3	1,254	2	5	3,648
Engraving	1	5	1,787	2	10	5,771
Gold and silver smithing	85	401	221,892	82	403	239,320
Brass founding	24	99	42,711	20	92	39,565
Gilding and plating	6	25	15,961	10	40	25,683
Galvanizing	1	39	24,125	1	39	27,020
Tin and sheet-iron working	126	618	274,292	116	601	257,462
File cutting	7	32	5,925	5	22	6,658
Metal card making	9	35	8,994	9	87	8,511
Needle making	2	2	289	3	20	3,899
Ship and boat building	5	173	65,273	5	156	59,386
Watch and clock making	145	333	111,303	153	349	107,790
Organ building	9	64	22,697	12	77	29,471
Musical instrument making	2	4	4,979	4	6	3,513
Optical instrument making	5	21	5,327	6	29	9,592
Electrical apparatus	6	63	26,634	6	70	44,660
Total for metal working trades	1,363	4,356	1,478,013	1,262	4,294	1,608,269
Mines, foundries, machine shops' and State railway shops	111	13,778	8,434,170	99	13,911	8,522,876
Total for all industries	1,474	18,134	9,912,183	1,361	18,205	10,131,145

The next table shows the number of employees engaged in these industries in 1900, classified according to sex and age. In the same industries in 1899 there were employed 17,997 males and 137 females.

EMPLOYEES IN THE MINING AND METAL WORKING INDUSTRIES OF FINLAND, BY SEX AND BY AGE GROUPS, 1900.

Trade or industry.	Male employees.				Female employees.				Total of both sexes.
	Under 15.	15 to 18.	Over 18.	Total.	Under 15.	15 to 18.	Over 18.	Total.	
Blacksmithing and fine iron working..	25	148	1,762	1,935	.....	2	16	18	1,953
Coppersmithing	5	67	301	373	.....	2	2	2	375
Shot making .....	.....	.....	2	2	.....	5	3	8	10
Type founding .....	.....	1	3	4	.....	1	.....	1	5
Engraving .....	.....	2	8	10	.....	.....	.....	.....	10
Gold and silver smithing	9	57	289	355	.....	3	45	48	408
Brass founding	2	12	75	89	.....	1	2	3	92
Gilding and plating .....	.....	4	36	40	.....	.....	.....	.....	40
Galvanizing .....	.....	6	33	39	.....	.....	.....	.....	39
Tin and sheet-iron working	10	80	504	594	.....	.....	7	7	601
File cutting .....	.....	3	18	21	.....	.....	1	1	22
Metal card making	1	.....	17	18	.....	1	18	19	37
Needle making .....	.....	2	5	7	6	3	4	13	20
Ship and boat building .....	.....	5	149	154	.....	.....	2	2	156
Watch and clock making	15	58	265	338	1	1	9	11	349
Organ building	3	3	70	76	.....	1	.....	1	77
Musical instrument making .....	.....	.....	6	6	.....	.....	.....	.....	6
Optical instrument making .....	.....	7	21	28	.....	.....	1	1	29
Electrical apparatus	1	2	45	48	.....	.....	22	22	70
Total for metal working trades ..	71	457	3,609	4,137	7	18	132	157	4,294
Mines, foundries, and machine shops..	99	809	11,759	12,667	.....	.....	.....	.....	12,667
State railway shops	3	50	1,191	1,244	.....	.....	.....	.....	1,244
Total for all industries	173	1,316	16,559	18,048	7	18	132	157	18,205

GREAT BRITAIN.

Report on Workmen's Cooperative Societies in the United Kingdom.
1901. xlviii, 252 pp. (Published by the Labor Department of the British Board of Trade.)

This report and the accompanying statistical tables relating to workmen's cooperative societies in the United Kingdom is the first on such societies issued by the Labor Department. The various classes of workmen's cooperative societies considered are grouped as follows:

1. Cooperative distribution in Great Britain: (a) By retail distributive societies, (b) by wholesale societies.
2. Cooperative production in Great Britain: (a) By retail distributive societies, (b) by wholesale societies, (c) by associations for production, (d) by corn-mill societies.
3. Cooperation in Ireland.
4. Provision of dwellings by cooperative societies.
5. Associations for credit: (a) Building societies, (b) cooperative credit societies and banks, (c) labor loan societies.
6. Cooperative insurance.
7. Propagandist organizations.

During recent years the progress made by cooperation in the United Kingdom has been continuous and remarkable. Between 1874 and 1899 the recorded membership of all classes of cooperative societies increased from 403,010 to 1,681,342, the percentage which cooperators formed of the total population rising from 1.2 to 4.1. The increase of the total yearly transactions of these societies has been quite as

rapid as that of their membership, the aggregate business for 1874 being valued at about £15,000,000 (\$72,997,500), while that for 1899 amounted to more than four-and-a-half times as much.

The majority of cooperative societies (1,446 out of 1,858 in 1899) are associations established primarily for retail distribution, and these embraced more than nine-tenths of the total membership and two-thirds of the total transactions. The value, however, of the commodities produced by the various societies was considerable, amounting in 1899 to nearly £11,000,000 (\$53,531,500), of which more than a third was produced by the workshops attached to societies for retail distribution, a third by the "wholesale" societies which supply the retail stores, and the remainder by independent societies established expressly for production.

The progress made by cooperative societies established primarily for production since 1882, the first year for which figures are given, has been considerable. Excluding corn (wheat) milling societies, the output of which in 1899 was valued at over £1,000,000 (\$4,866,500), returns for 1882 showed 16 such societies with sales amounting to £137,848 (\$670,837), while in 1899 the number of societies was 259 with sales amounting to £2,191,785 (\$10,666,322).

The following summary table shows for the years 1862 to 1899 the membership, capital, and amount of sales of the workmen's cooperative distributive and productive societies of the United Kingdom:

MEMBERSHIP, CAPITAL, AND AMOUNT OF SALES OF WORKMEN'S COOPERATIVE, DISTRIBUTIVE, AND PRODUCTIVE SOCIETIES, 1862 to 1899.

Year.	Societies making returns.	Members in societies.	Capital.		Amount of sales.
			Share.	Loan.	
1862 (a)	331	88,948	\$1,767,532	\$252,858	\$10,990,299
1863 (a)	380	109,546	2,454,619	315,987	12,476,154
1864 (a)	393	127,673	2,889,864	363,727	13,280,045
1865 (a)	402	122,886	3,644,385	440,321	15,767,226
1866 (a)	440	142,258	4,642,261	476,795	21,027,324
1867 (a)	575	168,975	6,720,432	572,296	23,129,664
1868 (a)	673	211,781	8,329,711	864,806	34,660,965
1869 (a)	754	229,861	8,840,834	871,366	35,785,141
1870 (a)	745	243,785	9,402,428	904,950	36,703,255
1871 (a)	741	255,782	10,743,329	998,513	42,147,837
1872	930	323,609	14,070,254	1,636,594	53,817,629
1873	964	378,865	16,838,105	2,098,235	70,736,873
1874	1,001	402,946	18,386,902	2,413,386	73,737,865
1875	1,126	465,663	20,251,210	3,388,729	83,908,461
1876	1,112	493,100	24,235,944	3,671,886	90,319,666
1877	1,100	515,359	25,923,627	4,367,791	98,040,577
1878	1,128	545,470	26,792,779	4,782,777	96,120,573
1879	1,080	552,305	26,924,305	5,015,055	90,099,836
1880	1,103	586,211	29,180,702	5,456,325	104,318,012
1881	1,166	625,682	31,379,367	6,477,136	113,062,806
1882	1,074	623,202	32,766,592	6,189,954	117,559,155
1883	1,083	647,176	34,019,186	6,339,866	125,062,246
1884	1,167	717,301	35,806,670	8,031,243	131,449,343
1885	1,189	768,401	40,106,520	8,847,707	133,650,957
1886	1,198	796,951	42,425,188	9,258,380	140,257,070
1887	1,205	851,157	45,737,657	9,249,489	147,135,176
1888	1,263	891,077	47,483,750	10,315,194	163,671,500
1889	1,370	957,768	50,751,823	11,026,457	179,645,534
1890	1,320	985,096	55,201,167	12,704,203	188,121,833
1891	1,408	1,069,480	60,500,343	13,915,922	216,368,123
1892	1,541	1,153,916	65,495,381	15,346,595	229,519,061
1893	1,562	1,198,499	67,644,932	16,100,781	228,008,423
1894	1,588	1,245,066	71,127,182	16,702,402	228,465,400
1895	1,605	1,311,143	76,285,234	19,613,912	242,968,680
1896	1,664	1,399,891	82,938,421	19,931,344	264,892,948
1897	1,708	1,511,423	88,061,668	23,185,831	290,339,419
1898	1,767	1,593,600	93,792,746	24,228,425	308,584,629
1899	1,802	1,677,018	101,669,677	26,637,941	330,512,907

a Figures are for England and Wales only.

In the provision of dwelling houses for their members, 224 cooperative societies, up to the end of 1899, had expended a total of £5,147,526 (\$25,050,435) for this purpose. Of this amount £917,397 (\$4,464,513) had been expended by 179 societies in building 4,247 houses of the average value of £216 (\$1,051), all of which are owned by the societies and rented to members; 89 societies had expended £827,823 (\$4,028,601) upon the building of 3,709 houses of the average value of £223 (\$1,085), which have been sold to members, and 139 societies had advanced £3,402,306 (\$16,557,322) upon 16,082 houses, which have been built or purchased by members, the average amount loaned per house being £211 10s. (\$1,029.26).

Ten of the societies advanced funds up to 95 per cent of the value of the houses mortgaged, 59 societies up to 90 per cent, and the remaining societies in various proportions from 50 to 92½ per cent. The rate of interest charged for advances by 34 per cent of the societies was 4 per cent per annum, by 27 per cent of the societies 5 per cent, while the charge by the remaining societies was at various other rates, but in no case reaching 5 per cent. With few exceptions the terms of repayment of advances ranged from 2s. to 5s. (\$0.49 to \$1.22) per week per £100 (\$486.65) advanced.

The three classes of workmen's cooperative associations for credit (building societies, credit societies and banks, and labor loan societies) making returns for the year 1899 show the following as to their membership and funds:

MEMBERSHIP AND FUNDS OF ASSOCIATIONS FOR CREDIT, 1899.

Kind of association.	Number making returns.	Membership.	Funds.
Building societies:			
Incorporated	2,325	551,210	\$222,658,829
Unincorporated	65	51,771	73,115,547
Credit societies and banks	55	3,892	234,395
Labor loan societies	269	31,542	1,169,449
Total	2,714	638,415	297,172,720

The building societies, like the American building and loan associations, are largely used by workmen for obtaining funds with which to purchase dwelling houses, the repayments by installments of such funds being usually spread over a term of from 10 to 20 years. However, some of the societies probably consist largely of capitalists who use them simply as a means of investment. At the end of 1899 the share capital due to members of the 2,325 incorporated societies making returns amounted to £31,645,414 (\$154,002,407), while the share capital due to members of the 65 unincorporated societies making returns amounted to £3,460,790 (\$16,841,935).

The labor loan societies, the object of which is "the establishing a fund for making loans to the industrial classes, and taking payments

of the same by installments," present the following summary figures for 1899: There were 269 societies, with a membership of 31,542, which made returns. The borrowers numbered 55,420 and the amount in their hands at the end of the year aggregated £193,385 (\$941,108). There was due depositors and shareholders the sum of £240,306 (\$1,169,449). The net profits for the year were £11,354 (\$55,254). Returns since 1883 show these societies to be steadily decreasing in number.

The Cooperative Insurance Society was established in 1867 for the purpose of (a) insuring against fire any property, whether belonging to its members or not, (b) guaranteeing the honesty of persons employed by cooperative societies, and (c) insuring the lives of members of cooperative societies. At the end of 1900 the Insurance Society had 456 cooperative societies holding its shares, and over 1,000 cooperative societies insured by it. The subscribed share capital of the Insurance Society was £48,140 (\$234,273), of which but £10,797 (\$52,544) had been paid up, yet its accumulated funds had reached the sum of £99,794 (\$485,647), made up as follows:

Life insurance fund.....	\$137,391
Fire insurance fund.....	237,276
Accident and fidelity insurance fund.....	32,036
General reserve fund	68,131
Undivided balance	10,813
Total	485,647

Of propagandist organizations, there were seven central organizations for purposes of propaganda and organization, and the defense of cooperative interests.

In appendices to the report are given a list of the cooperative congresses held from 1869 to 1900, with number of delegates and societies represented at each congress; a tabular statement of the weekly hours of labor of employees of retail distributive societies in 1896, and a reprint of the general rules for a cooperative productive society.

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, has been continued in successive issues. All material parts of the decisions are reproduced in the words of the courts, indicated when short by quotation marks, and when long by being printed solid. In order to save space, matter needed simply by way of explanation is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

ASSIGNMENT OF FUTURE WAGES—CONSTITUTIONALITY OF STATUTE—*International Text-Book Company v. Weissinger et al.*, *Supreme Court of Indiana*, 65 *Northeastern Reporter*, page 521.—In this case the International Text-Book Company had sued Horace L. Weissinger and his employer, the American Car and Foundry Company, to recover the amount of \$61.25, assigned to the first-named company as payment for a course of instruction in the International Correspondence Schools. The assignment was in the form of an order directing the American Car and Foundry Company to pay the proprietors of the International Correspondence Schools the sum of two dollars per month from wages earned by Weissinger until the amount named should be paid in full. The circuit court of Clark County returned judgment in favor of Weissinger, on the ground that this order was an assignment of future wages, and as such was forbidden by the act of February 28, 1899 (Burns' Rev. St. 1901, 7059 to 7059d), which provides in its first section for weekly payments for the full amount due for the labor or service of employees of all persons, companies, corporations, or associations employing laborers for hire, while section 4 prohibits the assignment of future wages to become due such employees.

The plaintiffs, the International Text-Book Company, carried the case to the supreme court, where the decision of the court below was affirmed. The plaintiffs made the claim that these sections were in violation of the constitutions, both of the State and of the United States, in that they limited the right of a citizen of Indiana to make contracts. The question, therefore, was entirely as to the validity of the law.

On this point Judge Dowling, speaking for the court, used in part the following language:

If it can be said that these sections contain unreasonable restraints upon the liberty of the citizen, or that they deprive any person of property without due process of law, then they fall within the express prohibition of section 1, art. 1, of the constitution of this State, or of

section 1 of the fourteenth amendment of the Constitution of the United States. These sections do, unquestionably, limit and restrict in a very marked degree the liberty of the citizen to enter into contracts which, in the absence of the statute, he would have the right to make. By section 4 he is absolutely disabled from making an assignment of future wages to be earned by him. Such a prohibition can be sustained only on the ground that some public interest is involved, and that it is of such a character as to render it a legitimate subject of legislative regulation or control. The wages of laborers have been the subject of legislative solicitude and action in this State for many years, and in a great variety of forms. The reasons for such legislative supervision and control are readily found in the number and situation of ordinary laborers and employees. A large proportion of the persons affected by these statutes of labor are dependent upon their daily or weekly wages for the maintenance of themselves and their families. Delay of payment or loss of wages results in deprivation of the necessities of life, suffering, inability to meet just obligations to others, and, in many cases, may make the wage-earner a charge upon the public. The situation of these persons renders them peculiarly liable to imposition and injustice at the hands of employers, unscrupulous tradesmen, and others who are willing to take advantage of their condition. Where future wages may be assigned, the temptation to anticipate their payment, and to sacrifice them for an inadequate consideration, is often very great. Such assignments would, in many cases, leave the laborer or wage-earner without present or future means of support. By removing the strongest incentive to faithful service—the expectation of pecuniary reward in the near future—their effect would be alike injurious to the laborer and his employer. It is clear that the object of the act of 1899, *supra*, was the protection of wage-earners from oppression, extortion, or fraud on the part of others, and from the consequences of their own weakness, folly, or improvidence. We can not say that no just ground existed for such legislative interference for so commendable a purpose.

Judge Dowling referred to other statutes regulating contracts and the payment of wages, quoting from a decision of the Supreme Court of the United States in which a statute of Tennessee requiring the redemption in cash of store orders, etc., issued by employers in payment of wages was held valid. In conclusion he said:

If the legislature, in the exercise of its general police power, to secure the safety and welfare of the State may deprive the laborer and his employer of the right to contract for the payment of wages in anything else than legal notes or other lawful money, we do not perceive why it may not, also, in the exercise of that power, prohibit the assignment of wages before they are earned. The reason and public necessity are as clear and cogent in the one case as in the other. The purpose of the legislation in each is to protect a large and important class of citizens from imposition, unfair dealing, and the consequences of their own improvidence. The act of February 28, 1899, applies equally to all citizens, and is not subject to the objection of a partial or improper classification. The sections before us do not extend to wages which have been earned, but merely suspend the right to dis-

pose of wages by assignment until they are earned. They render void an agreement into which no prudent man ordinarily would wish to enter.

The court did not err in sustaining the demurrer to the complaint. Judgment affirmed.

ASSIGNMENT OF WAGES—PAYMENT IN SCRIP—REDEMPTION—CONSTITUTIONALITY OF STATUTE—*Dixon v. Poe, Supreme Court of Indiana, 65 Northeastern Reporter, page 518.*—In this case a miner, Walsh, had assigned his wages to Nathan G. Dixon, receiving in return therefor four metallic tokens or checks calling for and payable in goods at the store of the said Dixon. Walsh afterwards disposed of these tokens to one James H. Poe. Poe sued in the circuit court of Sullivan County to recover the value of these tokens in cash, relying on the provisions of the act of March 11, 1901 (Burns' Rev. St. 1901, Sec. 7448a). Poe was awarded a recovery in the circuit court, from which judgment Dixon appealed and obtained a reversal on the grounds of the unconstitutionality of the statute. The statute provided that whenever any merchant or dealer in goods or merchandise or any other person should take from any employee or laborer for wages who labors in or about any coal mine in this State an assignment of such employee's wages and should give in return therefor any order or check other than a check on a solvent bank, or any token or device redeemable in merchandise or anything else than lawful money of the United States, such checks or tokens should at once become due and payable in cash to the full amount of their face.

In discussing this law, Judge Dowling, who delivered the opinion of the court, spoke in part as follows:

We shall consider the act solely with reference to that clause of the constitution which interdicts class legislation, or the grant to any citizen, or class of citizens, of special privileges or special immunities. The body of the act mentions and includes "any merchant or dealer in goods or merchandise, or any other person," upon the one hand, and "any employee or laborer for wages who labors in and about any coal mine in this State" upon the other. So far, then, as the classification first mentioned is concerned, it is comprehensive enough to include all of the citizens of the State, treating all alike, conferring no special privileges or immunities upon any, and subjecting none to restrictions in trade or business, to deprivation of property rights, or to penalties which are not equally and impartially imposed upon all other citizens similarly situated. But an examination of the title of the act discloses that its subject, as expressed therein, is not coextensive with the act itself. It is in these words: "An act concerning the issuance of checks, tickets, tokens, or other devices payable in merchandise, or anything other than lawful money by merchants, in payment for the assignment or transfer of wages of employees in coal mines, and repealing all laws in conflict therewith." So that, as the title refers only to merchants who issue "checks, tickets, tokens, or other devices," no persons, nat-

ural or artificial, can be brought within the scope of the act who do not belong to the particular class designated in the title as "merchants." (Const. art. 4, sec. 19.) The statute, therefore, must be treated as an enactment operative only upon two classes of persons, merchants and employees in coal mines. All other persons, copartnerships, and corporations in the State may issue checks, tickets, tokens, or other devices payable in merchandise, or anything other than lawful money, in payment for the transfer of the wages of employees in coal mines, but no merchant in this State is permitted to do so. Is a distribution of the citizens of the State in an act concerning the transfer of a claim for wages, which puts the merchants of the State in one class and all other citizens in another, a reasonable and constitutional arrangement? Again, is the classification of the supposed beneficiaries of the act a reasonable and legal one? They are described as "any employee or laborer for wages who labor in and about any coal mine in this State." This classification seems to rest upon no sound or proper basis. The law does not embrace all of the class to which it is naturally related. It creates a preference, and establishes an inequality among a class of citizens all of whom are equally meritorious. It applies to persons in certain situations, and excludes from its effect other persons who are not dissimilar in these respects. Leaving the miner and the merchant free to deal with all other citizens, the act disqualifies them from contracting with each other. We do not wish to be understood as saying that statutes free from any constitutional infirmity may not be enacted, which apply exclusively to merchants, coal miners, bankers, physicians, dairymen, druggists, or persons engaged in other particular occupations. Such a classification may, in some cases, be a legitimate one. But in every instance of this kind where such statutes have been upheld the classification has rested upon some quality, condition, or state of things peculiar to the occupation itself, or upon some consideration of public policy, which made it proper or necessary to regulate, control, license, tax, or prohibit it. It is with great reluctance that we declare an act of the legislature invalid; but the act of 1901, *supra*, so plainly violates the rule of the constitution forbidding the grant of special privileges and immunities to a favored class of citizens, and subjecting another class to special disabilities and restrictions, that we have no choice but to adjudge it void.

DISCHARGE OF EMPLOYEE BECAUSE OF MEMBERSHIP IN LABOR ORGANIZATION—CONSTITUTIONALITY OF STATUTE—*State ex rel. Zimmer, Sheriff, v. Kreutzberg, Supreme Court of Wisconsin, 90 Northwestern Reporter, page 1098.*—This case arose under chapter 332, laws of Wisconsin, 1899, which forbids the discharge of employees because of membership in any labor organization. Louis J. Kreutzberg had discharged an employee because of his membership in a labor organization and was arrested and committed for trial. He sued out a writ of habeas corpus against the sheriff, claiming that this act was unconstitutional, violating the provisions of the constitution of Wisconsin. These provisions relate to the right of individuals to life, liberty, and the pursuit of happiness and declare that no person shall be deprived of

life, liberty, or property without due process of law, this last provision being also found in the fourteenth amendment to the Constitution of the United States. The superior court of Milwaukee County held that the law was unconstitutional as claimed, and ordered the discharge of Kreutzberg from imprisonment, whereupon the sheriff of Milwaukee County and the State of Wisconsin brought the case before the supreme court on a writ of error. The supreme court affirmed the decision of the court below, holding the statute to be in contravention of the constitutional provisions referred to.

From the remarks of Judge Dodge, who gave the opinion of the court, the following is quoted:

Free will in making private contracts, and even in greater degree in refusing to make them, is one of the most important and sacred of the individual rights intended to be protected. That the present act curtails it directly, seriously, and prejudicially, can not be doubted. The success in life of the employer depends on the efficiency, fidelity, and loyalty of his employees. Without enlarging upon or debating the relative advantages or disadvantages of the labor union, either to its members or to the community at large, it is axiomatic that an employer can not have undivided fidelity, loyalty, and devotion to his interests from an employee who has given to an association right to control his conduct. He may by its decisions be required to limit the amount of his daily product. He may be restrained from teaching his art to others. He may be forbidden to work in association with other men whose service the employer desires. He may not be at liberty to work with such machines or upon such materials or products as the employer deems essential to his success. In all these respects he may be disabled from the full degree of usefulness attributable to the same abilities in another who had not yielded up to an association any right to restrain his freedom of will and exertion in his employer's behalf according to the latter's wishes. Such considerations an employer has a right to deem valid reasons for preferring not to jeopardize his success by employing members of organizations. A man who has by agreement or otherwise shackled any of his faculties—even his freedom of will—may well be considered less useful or less desirable by some employers than if free and untrammelled. Whether the workman can find in his membership in such organizations advantages and compensations to offset his lessened desirability in the industrial market is a question each must decide for himself. His right to freedom in so doing is of the same grade and sacredness as that of the employer to consent or refuse to employ him according to the decision he makes.

The nearest parallel we have found to the act in question are laws enacted in Missouri and Illinois, nearly identical with our law as it existed before the amendment of 1899, namely, making criminal attempts to coerce employees against membership in labor unions, by discharge or otherwise. In *State v. Julow*, 129 Mo. 163, 31 S. W. 781, such law was held unconstitutional, as unduly invading the liberty of the employer to make or refuse to make contracts with whom he pleased. In that case the act committed was merely discharging an employee, and it was contended that it was prohibited by the law. The court said: "If an owner," etc., "obeys the law on which this

prosecution rests, he is thereby deprived of a right and a liberty to contract or terminate a contract as all others may. * * * We deny the power of the legislature to do this; to brand as an offense that which the constitution designates and declares to be right, and therefore an innocent act." And further: "Nor can the statute escape censure by assuming the label of a police regulation. It has none of the elements or attributes which pertain to such a regulation, for it does not, in terms or by implication, promote, or tend to promote, the public health, welfare, comfort, or safety; and, if it did, the State would not be allowed, under the guise and pretense of police regulation, to encroach or trample upon any of the just rights of the citizens, which the constitution intended to secure against diminution or abridgment." In *Gillespie v. People*, 188 Ill. 176, 58 N. E. 1007 [see Bulletin of the Department of Labor, No. 35, page 797], was considered a similar act, claimed to be breached by discharging an employee because he was a member of a certain labor organization. That court also held the act unconstitutional, adopting substantially the views of the Missouri court in the preceding case.

In considering our own statute under which relator is committed, it must first be noted that we are concerned only with that portion added to pre-existing statutes (section 4466b, Rev. St. 1898) by the act of 1899, "No person or corporation shall discharge an employee because he is a member of any labor organization," for the relator is not charged with breach of any other of the provisions of that act. Confining ourselves, then, to the act so charged, and the statutory prohibition involved, is it within the legislative power to make criminal the refusal to contract with another for his labor for any reason which the employer deems cogent? We speak of refusal to contract, for, while the act mentions only discharge, it is in no wise limited to situations where there is any contract or other right to continuance of employment, and is obviously intended by the framers to apply generally to the relation of employer and employee, where, as common knowledge assures us, there is usually no term of employment, and each day constitutes a new contract. As each morning comes, the employee is free to decide not to work, the employer to decide not to receive him, but for this statute. That the act in question invades the liberty of the employer in an extreme degree and in a respect entitled to be held sacred, except for the most cogent and urgent countervailing considerations, we have pointed out. Hardly any of the personal civil rights is higher than that of free will in forming and continuing the relation of master and servant. If that may be denied by law, the result is legalized thrall-dom, not liberty,—certainly not to the laboring men of the country. This aspect of the subject is too clear to warrant further discussion. Is there any conceivable reason to warrant such extreme invasion of individual liberty? Can it be necessary to the reasonable liberty of others under the law? The act here charged as criminal clearly does not deprive any other person of any private or civil right. Its utmost effect is to deny privilege of contract, but no right exists to enter into contract with another against his will. As the legislation clearly and beyond doubt invades the natural liberty of the individual, it must be void, unless we can discover both the existence of a public need, and at least tendency of the statute to provide therefor. In the search for such need and purpose we must and do concede to the legislative branch of the government the fullest exercise of discretion within the

realm of reason, and, if a public purpose can be conceived which might rationally be deemed to justify the act, the court can not further weigh the adequacy of the need or the wisdom of the method. When, however, after all diligence and reflection, we are unable to discover any such public need or purpose, we have no alternative conclusion, save that the legislature has, "under the guise of protecting public interests, arbitrarily interfered with private business, and imposed unusual and unnecessary restrictions upon lawful occupations," which it may not do.

We agree with the trial court that the enactment under consideration exceeded the limitations imposed by the constitution of Wisconsin upon the legislature. It is therefore void, and conferred no power upon the magistrate to make the commitment under which petitioner was held in custody.

EIGHT-HOUR LAW—MUNICIPAL CORPORATION—FREEDOM OF CONTRACT—CONSTITUTIONALITY OF STATUTE—*City of Cleveland v. Clements Brothers Construction Co., Supreme Court of Ohio, 65 North-eastern Reporter, page 885.*—In this case the city of Cleveland had withheld from money due on a contract with Clements Brothers Construction Company the sum of \$320, claiming this amount as a penalty incurred by the violation by the construction company of the so-called eight-hour law of the State of Ohio. This law provides in its first section that the service of all laborers, workmen, and mechanics employed upon any public works of, or work done for, the State of Ohio, or for any political subdivision thereof, whether done by contract or otherwise, shall be restricted to eight hours in one calendar day, with certain exceptions in cases of emergency, etc. The second section provides that this stipulation shall be inserted in every contract, and that for any violation of this provision the officer whose duty it is to see that the provisions of the contract are complied with shall report to the contracting officer, who shall thereupon withhold from the contractor \$10 for each laborer for each and every day in which he shall labor more than eight hours. The third section requires the officer thus to act under penalty of fine or imprisonment or both at the discretion of the court.

The construction company had contracted for the construction of a sewer in the city of Cleveland, and at the completion of the work had received payment as per contract with the exception of the amount withheld stated above, it being declared that 32 laborers had been required to work more than eight hours on one certain day. The contractor sued in the court of common pleas, where the law was held constitutional and judgment was given for the city. On an appeal to the circuit court of Cuyahoga County this ruling was reversed, and judgment was rendered against the city of Cleveland for the full amount claimed by the plaintiffs. The case was then brought before

the supreme court of Ohio on the single question of the constitutionality of the statute.

Judge Crew, having first stated the facts as above given, announced the opinion of the court, using in part the following language:

This court has more than once been called upon to consider and determine the constitutionality of statutes which were somewhat analogous to the statute under consideration, in that they had for their purpose, or did, in effect, limit and restrict the right of contract between employer and employee; and in every instance such statutes have been declared and held by this court to be unconstitutional. Counsel for plaintiff in error in this case * * * contend that the statute here in question is not an attempt by the legislature of Ohio to restrict or interfere with the right of liberty to contract, but is only in the nature of a direction by a principal to his agent, and therefore within the legislative authority, and matter of concern to the principal and agent only. They argue that the several municipal governments of the State are not in themselves independent and sovereign, but are subdivisions of the general government, created by it with enumerated powers, and with no powers except such as may be fairly drawn from their charters or creation. Hence they contend that, being mere subdivisions of the State, and deriving their powers from the State, such municipalities may be lawfully directed by the legislative will as to what contracts they may make, and what provisions and stipulations their contracts shall contain; and that, in the contract here in question the city of Cleveland being a mere agency and instrument of the State, the State had the right by and through its legislature to direct and require the city, as its agent and representative, to insert in this contract the stipulations and provisions therein found. The fallacy of this contention lies in the assumption that the compulsory authority of the legislature over municipal corporations is so absolute and arbitrary that it may dictate the specific terms upon which such municipality shall contract, and may prescribe what stipulations and conditions its contracts shall contain, although such contracts may, as in this case, relate only to matters of purely local improvement. This is a misapprehension of the legislative authority, for no such right or power has been delegated to, or is possessed by, the general assembly. Again, counsel for plaintiff in error are mistaken in the assumption that the statute here under consideration is, and should be regarded as, a mere direction by the sovereign authority, the State of Ohio, to one of its agents, the city of Cleveland, that contracts made by said city in certain cases and for a certain character of work, are to be made in a particular way. In the case of *People v. Coler*, 166 N. Y. 1, 59 N. E. 716, 52 L. R. A. 814, 82 Am. St. Rep. 605 [see Bulletin of the Department of Labor, No. 35, page 805], a statute distinguishable in no essential feature from the statute here under consideration was before the court of appeals of that State for review, its constitutionality having been challenged. O'Brien, J., in that case, in discussing the proposition we are now considering, speaking for the majority of the court, says: "It is true enough that a city is an agency of the State to discharge some of the functions of government, but these terms do not adequately describe its true relation to the State or the people. A municipal officer directing a local improvement is not the agent of the State. He is the agent of the city, and the city alone is responsible for his negligence or misconduct. If the authorities in

charge of the streets of a city are agents of the State, the city ought not to be held liable for their acts or omissions. * * * The city is a corporation possessing all the powers of corporations generally, and can not be deprived of its property without its consent or due process of law any more than a private corporation can; and, since its revenues must be used for municipal purposes, it is difficult to see how the legislature can make contracts for it which involve the expenditure of these revenues without its consent." And further in the same opinion it is said: "The right which is conceded to every private individual and every private corporation in the State to make their own contracts and their own bargains is (by this statute) denied to cities and to contractors for city work; and, moreover, if the latter attempt to assert such right, the money earned on the contract is declared forfeited to the city without the intervention of any legal process or judicial decree. * * * The exercise of such a power is inconsistent with the principles of civil liberty, the preservation and enforcement of which was the main purpose in view when the constitution was enacted. If the legislature has power to deprive cities and their contractors of the right to agree with their workmen upon rates of compensation (or the number of hours that shall constitute a day's labor), why has it not the same power with respect to all private persons and private corporations?"

As suggested by counsel for defendant in error, the statute here under consideration absolutely ignores the fact that municipal corporations in their property rights, and their power to make contracts for local improvements for the benefit of their own citizens, are entitled to the same immunities and are protected by the same constitutional guaranties which shield the property of individuals or private corporations from legislative aggression. In considering the rights and powers of municipal corporations in the case of *New Orleans, M. & C. R. Co. v. City of New Orleans*, 26 La. Ann. 481, the supreme court of Louisiana says: "A municipal corporation possesses two classes of powers and two classes of rights—public and private. In all that relates to one class, it is merely the agent of the State, and subject to its control. In the other it is the agent of the inhabitants of the place, the corporators; maintains the character and relations of individuals, and is not subject to the absolute control of the legislature, its creator."

After citing a number of other cases, the court said:

The liberal quotations, in this opinion, from the authorities above cited need no further apology upon our part than to say that, if the principles there announced and the conclusions there reached are correct—and we believe they are, and adopt them—they conclusively refute and answer the contention of plaintiff in error that the statute under consideration in this case does not restrict the right of liberty to contract, and is in the nature only of a direction by a principal to its agent.

Again, stripped of its provisions, except so far as they relate to contractors and subcontractors, the first section of the statute under consideration reads as follows: "It shall be unlawful for any contractor, or subcontractor for any part of any public works of, or work done for such State, or political subdivision thereof, or any person, corporation or association whose duty it shall be to employ or to direct and control the services of such laborers, workmen or mechanics, or who

has in fact, the direction or control of the services of such laborers, workmen or mechanics, to require or permit them, or any of them, to labor more than eight hours in any one calendar day." Thus it is apparent that this statute, which is peremptory in terms, is more than a mere direction by a principal to an agent, and that its provisions apply not only to officers and agents of the State of Ohio, but that they apply with equal force to all persons who would enter into contracts with the State or any of its political subdivisions, and undertakes to limit and restrict such persons in their right to contract by prohibiting the making of contracts for day's work of more than eight hours. What the terms and stipulations of a contract shall be is matter to be determined by the contracting parties, and the right has not been delegated to, nor is it within the power of, the general assembly by mandatory laws to prescribe the terms and provisions that shall be inserted in contracts that may be made between persons legally competent to contract. Doubtless the legislature might, in the absence of contract between the parties, prescribe the number of hours' labor that should constitute a day's work; but it is not in the power of the legislature by the enactment of a positive law to abridge the right of parties to fix by contract the number of hours that shall constitute a day's work, nor to deny effect to the stipulations and agreements of the parties themselves touching such matter, except only as the exercise of such power may be authorized for the common welfare; and the right to so exercise this power of restraint extends only to matters affecting the public welfare or the health, safety, and morals of the community. The number of hours' labor that shall be performed in a day is an important factor, and constitutes an essential part of every contract of service, and to deny effect to the stipulations or agreements between employer and employee touching the number of hours the employee shall labor each day is, in effect, either to impair the obligation of their contract or to deny to them the right to stipulate or contract touching that matter.

There is one other claim of counsel for plaintiff in error upon which they seem to place some reliance that should perhaps be briefly noticed, and that is as to the matter of estoppel on the part of defendant in error. Counsel for plaintiff in error say in their brief: "It is plain that the municipality itself can not complain, for, as has been shown above, it is merely an agency of a higher power, to wit, the State, and can only contract as it is authorized by that power to do; nor can the contractor be heard to complain, for the city, in pursuance of its granted powers, and under restrictions imposed by the act in question, in effect said to him and all others, when it invited bids for the performance of the work, 'The statute is one of the conditions which must be complied with, and an obligation which must be assumed by the contracting party.' The contracting party (the Clements Bros. Construction Co.) was not compelled to bid. It did so voluntarily, with full knowledge, and, when awarded the contract, executed it voluntarily, knowing all its provisions, and assumed the obligations and conditions imposed by the statute." It would, perhaps be a sufficient answer to this claim of plaintiff in error to say that the stipulation referred to became a part of the contract not because of any voluntary agreement between the parties that it should be inserted therein, but because the statute forcibly injected it. But, further, upon this proposition, as especially pertinent, we quote again from the opinion of

Justice O'Brien in the case of *People v. Coler*, above cited. He says: "The fact that certain provisions of the labor law were actually incorporated into the contract signed by the contractor can not change or add anything to the strength of the position assumed by the city. The relator is not estopped by the agreement when there is no element of estoppel in the case, and the question is with respect to the validity of the statute, and not the construction or effect of the contract in that regard. If the law is valid, it governs the contract and the rights of the parties, whether actually incorporated into writing or not, since all contracts are assumed to be made with a view to existing laws on the subject. If it is not valid, the contractor has not made it so by stipulating in writing to obey it, and prescribing the penalty for his own obedience, which is the forfeiture of all rights under the agreement. It is not in the power of the legislature to protect an invalid law from judicial scrutiny by providing that it must receive the assent of the parties to every contract to which it relates."

Our conclusion in this case is that the statute relied upon and pleaded by plaintiff in error as a defense to the claim of defendant in error is unconstitutional, because in conflict with sections 1 and 19 of the bill of rights. And therefore such statute can not avail the city as a defense to shield it from liability to defendant in error for the amount due said defendant in error under its contract.

EMPLOYERS' LIABILITY—PLEADING STATUTE OF LIMITATIONS—ESTOPPEL—*Chesapeake and Nashville Railway Company v. Speakman, Court of Appeals of Kentucky, 71 Southwestern Reporter, page 633.*—This case came before the court of appeals from the circuit court of Allen County, which had given judgment for Speakman for injuries received while in the employment of the railroad company above named. The accident which caused the injury had occurred in July, 1899, and the action was not filed until in January, 1901. The railroad company maintained that Speakman's right of action had expired under the statute, which requires such actions to be brought within one year from the time the right accrues. It appeared from the testimony for the plaintiff, Speakman, that shortly after he was hurt, while he was sick, the railroad's superintendent gave him to understand that if he would not sue the company they would pay him for his injuries and that he would be retained in its employment as long as he lived or as long as the superintendent remained on the road. His wages were also paid until he recovered. These promises were renewed from time to time until after the end of the year from the date of his injury, when he was discharged and told that the company would pay him nothing and that his claim was barred by limitations. The court of appeals held that the company was estopped from pleading the statute of limitations and affirmed the judgment of the court below.

Judge Hobson, speaking for the court, used in part the following language:

It is earnestly insisted for appellant that a promise to pay can only revive a contract debt, and that an acknowledgment of liability for a tort that is barred by limitation can not revive it. This is true, but the promises and representations here relied on were made before the claim was barred by limitation, and the question is, may the defendant be estopped, by conduct like this, from relying on the lapse of time during which, by such means, it prevented the bringing of the action? Section 2532, Ky. St., is as follows: "When a cause of action mentioned in the third article of this chapter accrues against a resident of this State, and he, by departing therefrom or by absconding or concealing himself, or by any other indirect means obstructs the prosecution of the action, the time of the continuance of such absence from the State or obstruction shall not be computed as any part of the period within which the action may be commenced." In *Armstrong v. Levan*, 109 Pa. 177, 1 Atl. 204, which was an action of tort like this, where there was a plea of limitation, and a similar matter in avoidance relied on, the court said: "The plaintiff in error has given us an elaborate argument to show that a promise to pay after the statute has run will not revive a tort, and has cited numerous authorities in support of this proposition. We concede his law to be sound. His authorities fully sustain his point. The difficulty in his way is that they do not meet his case. It was not the question of the revival of a tort by a promise to pay made after six years. The conversation referred to occurred before the statute had run, and it was a distinct promise to pay in consideration that the plaintiff below would not sue. If, therefore, she relied upon this promise; if she was thereby lulled into security, and thus allowed the six years to go by before she commenced her suit,—with what grace can the defendant now set up the statute? The promise operated, not to revive a dead tort, but as by way of estoppel. It has all the elements of an estoppel. The plaintiff relied and acted upon it. She has been misled to her injury. But for the defendant's promise, she would have commenced her action before the six years had expired." In the case before us appellee was retained in the service, in accordance with the promise. This was the inducement for him to forbear from bringing his action, and after the end of the year he was discharged from service. The suit here was brought on the original cause of action. The defense of limitation could not be presented by demurrer, and it was, therefore, unnecessary for the plaintiff to anticipate this defense in his petition, for the defendant might have chosen not to plead the statute. When it did plead it, it was proper for the plaintiff to reply, and set up the matter in avoidance of the plea, showing that the statute had not run.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—EXTENSION OF LAW BEYOND STATE BOUNDARIES—CONSTITUTIONALITY OF STATUTE—*Baltimore and Ohio Southwestern Railway Company v. Read*, Supreme Court of Indiana, 62 *Northeastern Reporter*, page 488.—Clement W. Read was injured while in the employment of the above-named company, the accident occurring in the State of Illinois. Read was a

citizen of Indiana and claimed damages under the provisions of the fellow-servant law of that State. Section 7086 of Burns' Revised Statutes, 1901, provides that in case a citizen of Indiana is injured in another State by the negligence of a fellow-servant on a railway operating a line into or through the former State, the railway may not offer as defense the decisions or statutes of the State where the injury occurred. In the circuit court of Pike County, Read recovered a judgment for damages. The case came before the supreme court on an appeal and was reversed, on the ground of the unconstitutionality of the section referred to.

Judge Jordan, in announcing the opinion of the court, spoke in part as follows:

Whatever the purpose of the legislature in the enactment of this section may have been, it is manifest that it can not be invoked to give appellee a right of action against appellant for an injury sustained by him in the State of Illinois, if such right does not exist under the law of that State. Such an act of the legislature would evidently operate as an unconstitutional confiscation of property rights. The law recognizes that a vested right of defense to an action is, in a sense, property—as much so as is a vested right of action—and is equally protected as is the latter against an attempt of the legislature to destroy or take it away. The doctrine in respect to the vested right of defense is stated in Cooley on Torts, at top of page 552, as follows: "But it is agreed that to support an action the act must have been wrongful or punishable where it took place, and that whatever would have been a good defense to the action if brought there must be a good defense anywhere." It must follow, then, for the reasons stated, that so far as section 4 [section 7086 Burns' Rev. St. 1901], in controversy, can be said to deprive or preclude appellant from asserting on demurrer to the complaint of appellee that the facts alleged therein do not entitle him to a recovery, or that it cuts off and deprives such railroad company from availing itself of any legitimate right or cause of defense in bar of the action existing under the laws of the State of Illinois, such legislation must be held to be an invalid exercise of legislative power.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—INTERSTATE TRAFFIC—*Malott v. Hood, Supreme Court of Illinois, 66 Northeastern Reporter, page 247.*—This is an action brought by J. B. Hood against V. T. Malott, receiver of the Terre Haute and Indianapolis Railroad Company, for injuries received by Hood while employed as a brakeman on the above-named railroad. Hood was attempting to couple one of the cars which had been placed in the train at East St. Louis, Ill., to make the trip to Indianapolis, the train being loaded with stock and merchandise for that point. It was in evidence that the car was not properly supplied with grab irons and hand holds, as required by section 4 of an act of Congress approved March 2, 1893, which

relates to safety appliances on cars engaged in interstate commerce. Other points were involved which will not be mentioned here. Judgment was in favor of Hood, and from this an appeal was taken to the supreme court of Illinois, where the judgment was affirmed. The railroad company made the contention that the evidence was not conclusive as to whether or not this particular car was loaded with matter intended for interstate traffic. As to this, Judge Boggs, speaking for the court, said:

It appeared in the proof the receiver was operating a line of railway from East St. Louis, in the State of Illinois, to Indianapolis, in the State of Indiana, and that the car in question was placed in the train at East St. Louis, and was to be transported or hauled to Indianapolis. The evidence tended to show that the train was loaded with stock and merchandise, and it is insisted the inference fairly arose that the car was loaded either with stock or merchandise. The danger to brakemen which the Federal statute was designed to obviate is the same, whether the car be loaded or empty. The statute applies not only to cars that are loaded, but to all cars, whether empty or loaded, which are being "used" in interstate commerce.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—OPERATION OF RAILROAD—CONSTRUCTION OF STATUTE—*Callahan v. St. Louis Merchants' Bridge Terminal Railway Company, Supreme Court of Missouri, 71 Southwestern Reporter, page 208.*—In this case Thomas Callahan had sued the above-named company in the circuit court of St. Louis and had recovered damages for an injury received while in its employ, from which judgment the railroad company appealed. The result of this hearing was that the judgment of the court below was affirmed. It appeared that Callahan was a member of a section gang employed in repairing a bridge which crossed a street in the city of St. Louis, at an elevation of about 50 feet. It was Callahan's duty to warn passers-by in the street below of the danger from the ties which were thrown down by the workmen on the bridge, and also to remove such ties as would interfere with the use of the street. While he was so engaged a small child appeared on the street. Callahan went to her, and while engaged in removing her from a place of danger the men on the bridge threw down a tie without warning and struck Callahan on the leg, requiring it to be amputated. It had been the custom for the workmen to notify Callahan when they were ready to throw down a tie and then wait until he should answer that the way was clear. The action was brought under the provisions of section 2873, Revised Statutes of 1899.

Judge Marshall, who announced the decision of the court, spoke in part as follows:

Two legal propositions present themselves upon this record: First, who are embraced in the provisions of section 2873, Rev. St. 1899?

and, second, does the plaintiff come within such classes? and of these in their order.

1. Who are embraced in the provisions of section 2873, Rev. St. 1899? That section is as follows: "That every railroad corporation owning or operating a railroad in this State shall be liable for all damages sustained by any agent or servant thereof while engaged in the work of operating such railroad, by reason of the negligence of any other agent or servant thereof: provided, that it may be shown that the person injured was guilty of negligence contributing as a proximate cause to produce the injury." The defendant contends that this law does not embrace every employee of a railroad, but that it applies only to such employees of a railroad as are subjected, by the character of the work they are employed to do, to the hazards incident to the running of a train. And, furthermore, the defendant contends that, if the law is construed to cover railroad employees who are not subjected to such hazards, but are only subject to such risks as would be incurred by the employees of any other person or corporation when engaged in similar work, then the law violates the equality clause of the Federal Constitution, in that it subjects the defendant to a liability to its employees that is not imposed upon any other person or company under similar conditions. It is all-important to keep in mind the language of the statute. It is that the railroad shall be liable for all damages sustained by any agent or servant thereof "while engaged in the work of operating such railroad" by reason of the negligence of any other agent or servant thereof. Defendant contends that this statute was taken from the laws of Iowa, and that the interpretation of the courts of that State construing their law must be borrowed from that State along with the law itself, and that the court of Iowa hold that the law only embraces such employees as are injured by the actual moving of trains, and therefore the same construction should be placed upon our statute. Under the Iowa cases, any employee who is injured by another employee's negligence while moving a train can recover. It matters not what work the injured employee is doing. The test is, was he injured in consequence of the negligence of another employee or engineer in moving a train? Under our statute, to entitle the injured servant to recover, it must be shown that he sustained his injuries, "while engaged in the work of operating such railroad," "by reason of the negligence of any other agent or servant." This is very different from the Iowa statute. Here the injured person must be injured "while engaged in the work of operating such railroad;" injured, not necessarily by the negligence of another employee or engineer while actually moving a train, but injured by the negligence of any other employee of the railroad. In Iowa the injury must have been inflicted by the moving of a train. In Missouri the person injured must have been actually engaged in the work of operating such railroad, not necessarily in operating the train. The two statutes, therefore, are almost the antitheses of each other, and our law can not properly be said to have been taken from or modeled after the Iowa law.

Judge Marshall then discussed the provisions of the statutes of a number of States and the decisions relative to the same, after which he said:

It thus appears that everywhere, except in Iowa and Minnesota, the adjudications agree that it is not essential that the injury should have been inflicted by reason of the negligence of a fellow-servant while actually engaged in running a car, but that the injured employee may recover if injured by the negligence of a fellow-servant while they are engaged in doing any work for the railroad which was directly necessary for the operation of the railroad, * * * Under the language of our statute it is necessary for the injured employee to show that he was injured "while engaged in the work of operating such railroad." Construed either by its own terms or in the light of the cases cited from other jurisdictions, it results in holding that the right to recover is not limited to cases where the injury is inflicted by reason of the negligence of a fellow-servant while actually moving a train or engine, but that the law embraces all cases where the injury is inflicted upon an employee while engaged in the work of operating a railroad by reason of the negligence of any fellow-servant who is likewise engaged in the work of operating a railroad, and that the term "operating such railroad" includes all work that is directly necessary for running trains over a track, and that it includes section hands who are engaged in working upon, repairing, or putting in shape the track, roadbed, bridges, etc., over which the trains must run.

2. The next question is whether the plaintiff falls within the class embraced in the act. Section gangs are included. The plaintiff was a member of the section gang that was doing the work. The work being done was directly necessary for the operation of the road. The particular work the plaintiff was doing was to warn passers-by of the danger incident to the negligent manner in which this work was being done, and to remove the ties from the street after the other members of the section gang had thrown them from the bridge to the street. Therefore the work the plaintiff was doing was a part of the work being done by the section gang of which he was a member. It was negligence for the gang to throw the ties from the bridge down onto the street without first learning from the plaintiff that it was safe to do so. The practice before the accident was for them to first ascertain that fact from the plaintiff. In this instance they did not do so. They were negligent. The child was in a place of peril. The plaintiff went to it to remove it. He had a right to rely upon it that no ties would be thrown down until he notified the gang that it was safe to do so. He was, therefore, in the discharge of his duty. He was engaged in the work of operating the railroad. He was within the protection of the law. He was not guilty of contributory negligence. He is therefore entitled to recover, and therefore the verdict and judgment of the trial court is right.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—SAFETY COUPLERS—ASSUMPTION OF RISK—CONSTRUCTION OF STATUTE—*Bryce v. Burlington, Cedar Rapids and Northern Railway Company*, Supreme Court of Iowa, 93 Northwestern Reporter, page 275.—In this case the plaintiff, Bryce, had been injured while attempting, in the line of duty, to effect a coupling between a switch engine and a car, both the property of the above-named company. Action was brought under the provisions of sections 2079 to 2083 of the Code. Sections 2079

and 2080 provide that railway companies shall not, under certain conditions, use any "car" not equipped with automatic couplers. The next section provides against the use of any locomotive without a certain kind of brake. Section 2082 requires that every train shall have enough cars equipped with power brakes to enable the engineer to control the train by their use. Section 2083 provides that an employee by remaining in the service of a company violating the preceding sections shall not thereby waive his rights to recover damages. The superior court of Cedar Rapids gave a judgment for the plaintiff on the general question of the negligence of the company in its failure to provide automatic couplers. The case was appealed to the supreme court of the State, where the judgment of the court below was reversed on the ground that the statute controlling does not require locomotives to be equipped with safety couplers.

Judge Sherwin, after stating the facts and quoting the statutes referred to, gave the judgment of the court in the following language:

It is manifest that the words "cars," used in sections 2079, 2080, and 2082, were used alone advisedly, and for the purpose of distinguishing them from engines and their tenders, because section 2081 of this same act expressly provides for the equipment of all "engines" with a "proper and efficient power brake, commonly called a 'driver brake,'" and, if it had been the legislative intent to require engines to be equipped with automatic couplers in addition to the brake, it would have been so expressed in plain language. At the time this statute was originally enacted, no action had been taken by Congress requiring self-couplers and air brakes on all cars used in interstate commerce, and it was a matter of common knowledge that freight cars with all kinds of couplers and drawheads were in use on all of the railroads in the United States, and that cars belonging to the many different roads were widely scattered. Engines must be used in handling these foreign cars, and the increased danger and inconvenience of making a coupling where the engine or tender was automatically equipped and the car to which it was to be coupled was not was undoubtedly in the minds of the legislators. That the distinction which we have pointed out was clearly made and intended is manifested further by the language of sections 5 and 6 of the original act. Section 5 required railroad companies to "include in their annual report to the State railroad commissioners the number of locomotive engines and cars used in this State and what number is equipped with automatic safety power brakes and what number of cars equipped with automatic safety couplers and the kind of brakes and couplers used." Section 6 (2083 of the Code) provided that a railroad company "operating a railroad in this State and using a locomotive engine, or running a train of cars, or using any freight, way or other car contrary to the provisions" of the preceding "sections shall be guilty of a misdemeanor," the prohibited use of the engine clearly referring to the section requiring a power brake. The last section referred to provides that "any railway employee who may be injured by the running of such engine * * * contrary to the provisions of said sections shall not be considered as waiving his right to recover damages by continuing in the employ of the company;" hence, if the statute were con-

strued as contended for by the appellee, the question of the assumption of risk would be eliminated from the case. But we can not so construe it, and, as there was evidence tending to support that claim of the appellant, there was prejudicial error in not instructing thereon, and in not directing the jury that the statute requiring cars to be provided with the automatic couplers did not apply to engines and their tenders. The instructions given did not, therefore, define the issues clearly, nor direct the jury what the material allegations thereof were. It is not, in our judgment, negligence per se not to equip engines and tenders with the latest devices for coupling, but we think it may properly be shown that such devices are practical in the operation of the road, and that they tend to promote the safety of employees, and that such evidence may be properly considered by the jury in determining the question of negligence in using some older or different appliance. (2 Thomp. Neg. Sec. 2258.) But without this showing of practicability and additional safety it is not, as we view it, competent to show that such appliances are in general use by other roads.

EMPLOYERS' LIABILITY—RAILROADS—STREET RAILWAYS—FELLOW-SERVANT LAW—*Stocks v. St. Louis Transit Company*, *Court of Appeals of St. Louis*, 71 *Southwestern Reporter*, page 730.—In this case John Stocks had recovered damages in the circuit court of St. Louis for injuries received while employed by the above-named company as conductor of an electric car. He was struck by another car, and the questions of negligence and contributory negligence were considered and under the evidence were resolved in favor of the plaintiff, Stocks, the judgment of the court below being affirmed. Section 2873 of the Revised Statutes was relied upon by Stocks, while the company maintained that it did not apply. This statute provides "that every railroad corporation owning or operating a railroad in this State shall be liable for all damages sustained by any agent or servant thereof while engaged in the work of operating such railroad by reason of the negligence of any other agent or servant thereof, provided that it may be shown in defense that the person injured was guilty of negligence contributing as proximate cause to produce the injury."

On this point Judge Bland, for the court, used in part the following language:

The contention of defendant is that corporations owning and operating steam railroads are the only class of railroads embraced in the section. A railroad is defined to be "a road graded and having rails of iron or other material for the wheels of railroad cars to run upon." (Bouv. Law Dict.) Webster defines a railroad as "a road or way consisting of one or more series of iron or steel rails patterned and adjusted to be tracks for wheels of vehicles suitably supported on a bed or substructure." In *Bloxham v. Railroad Co.* (Fla.) 18 South. 444, 29 L. R. A. 507, 51 Am. St. Rep. 44, it is said the word "railroad" in its broadest significance includes a street railway. When the word is used in a statute, there is no definite rule of construction

as to whether it includes street railways. It may or it may not include them. The meaning of a word must depend on the context and the general intent of the statute in which it is used. The words of the act of 1897 describing railroad corporations owning or operating a railroad are broad enough under the ordinary meaning of the word "railroad" to include every corporation that owns or operates a railroad of any class, and should be construed to include street railroads, unless the context of the statute manifests a different intent. The argument that the act should be construed to apply to steam railroads only, for the reason that the hazard of moving trains on this class of railroads is greater than that of moving cars on a street railroad, leaves out of view the fact that employees of these corporations, other than those engaged in the actual moving of trains, are entitled to the benefit of the act; i. e., employees engaged in repairing the track of the road, such as section hands.

At the time the act was passed street railroads were in operation in all the cities and principal towns of the State, and their use and operation was as familiar to the members of the legislature as was the operating of steam railroads, and it can not be assumed that they were not in the minds of the legislature when the act was passed; on the contrary, it seems to us that, having used the word "railroad" without qualification, or in any restrictive sense, the act should be construed to include every corporation owning or operating a railroad of any kind. It is a fellow-servant act, intended for the benefit of the employees of railroad corporations, and designed to place them on the same footing, as to the right to recover damages caused by the negligence of their coemployees, as nonemployees. The act confers on a class of employees of railroad corporations a right of action which they did not have before, and we can see no sound reason for confining the benefits of the act to but one class of railroad employees.

EMPLOYERS' LIABILITY—RELATIONS OF OWNER AND CONTRACTOR—ACTS OF THIRD PARTIES—*Appel v. Eaton & Prince Company, Court of Appeals of St. Louis, 71 Southwestern Reporter, page 741.*—This was an action by Margaretha Appel against the Eaton & Prince Company and the Mississippi Valley Trust Company for the death of her husband, which occurred while he was in the employ of the first-named company. The action was brought under section 2865, statutes of 1899, which provides for a right of action in case of death caused by negligence.

The Mississippi Valley Trust Company owned a large office building in St. Louis which was undergoing a course of general repairing. The carpenter work had been let to one McClure, in whose employ Mr. Appel was at the time of his decease. The Eaton & Prince Company had the contract for the elevator work in the building and by their contract they were to have the uninterrupted use of the hatchways and so much of the building as might be necessary to get the machinery and elevators into position, but one elevator was to be kept in operation for the use of tenants and the handling of material.

The owners of the building were represented by Mr. A. E. Benoist, who occupied an office in the building and exercised general supervision of the work. The Eaton & Prince Company had for its superintendent Mr. Jacob Hirsch, and had in its employ also a workman by the name of Van Sickle, who was designated as assistant superintendent. On the day of the accident causing the death of Mr. Appel the elevators were nearly finished. The east elevator was in operation for the convenience of the tenants of the building, but the west elevator was not in common use. These were hydraulic elevators, controlled by an engineer employed by the Mississippi Valley Trust Company. To stop the elevators it would have been necessary to turn off the steam and water entirely. Mr. Appel with other carpenters had been at work casing the elevator shafts, and in the performance of this work a scaffold had been built across the west shaft, upon which the workmen stood. The work progressed from the top of the building downward, and on the day of the accident the men were engaged between the seventh and eighth floors in the west shaft. On that day some of the carpenters and their employer, McClure, had requested Mr. Benoist to have the east elevator stop running for passenger use so that they could work at the casing of that shaft. This he declined to do, replying that it was required for the convenience of the tenants of the building. While the west elevator was not in general use for passengers it had been operated eight or ten times during the day by workmen engaged in wiring the annunciators. These men testified that they had been cautioned against running the elevators so high or so far as to strike the scaffold upon which the carpenters were working. At the close of their work these workmen lowered the elevator to the basement and told the engineer to turn off the steam, but Mr. Van Sickle said that he wanted to use the elevator a while and took charge of it to finish the elevator pit, as he had been directed to do by his superiors. At this time a Mr. Loewenstein, a former employee of the Eaton & Prince Company, entered the building and came to where Mr. Van Sickle was at work. Van Sickle asked Loewenstein to take the elevator out of the basement, so that it would be out of his way in completing his work in the pit. Mr. Loewenstein ran the elevator to the third floor, when a stranger asked him to take him upstairs. Loewenstein replied that the elevator was not in use, and told him to take the east elevator. The man said he was in a hurry, and Loewenstein then took him to the seventh floor, when the elevator struck the scaffold on which Appel was at work, so injuring him that he died nine days afterwards.

The St. Louis circuit court gave judgment against the two companies, from which an appeal was taken to the court of appeals, where the judgment of the lower court was sustained. From the remarks of Judge Barclay who spoke for the court, the following is quoted:

1. Each of the defendants insists that there is no liability on its part. As to the trust company, the facts admitted, or shown by its own testimony, make out a perfectly clear case of liability. The plaintiff's husband was in the employ of Mr. McClure, the chief contractor for the work being done upon the building. It is clear, however, that, whatever may have been the actual terms of the contract on that point, the trust company was exercising a direct supervision and control over the execution of the very work on which Mr. Appel was engaged at the time of his injury. Mr. Benoist was entirely frank in his statement of the facts. His interview with the Messrs. McClure and Appel in regard to the placing of the scaffold on which Mr. Appel was working when the accident happened was quite sufficient testimony to prove that he was authorized to direct, and did in fact direct, the manner and mode of performing that special work. These facts enlarge the liability of the trust company (in respect of the particular work to which its direction or control was extended) far beyond the limits which would bound it if Mr. Appel had been indeed the servant of a truly independent contractor. (*Burgess v. Gray*, 1 C. B. 578; *Oil Co. v. Gilson*, 63 Pa. 146.) The trust company, having full knowledge of the work at which Mr. Appel was engaged, was charged with the duty of exercising reasonable care in the circumstances not to permit the west elevator to run into the scaffold on which Mr. Appel was working. The engine and power of the trust company were essential to any movement of the elevators. The movements of the west elevator could have been so supervised by reasonable care as to prevent any such catastrophe as occurred. The Eaton & Prince Company had the "uninterrupted use" of the hatchway or elevator shaft, so far as might be necessary to put the machinery and elevators in position; but that company had nearly concluded its part of the improvements. Evidently it did not claim, nor was it allowed, the exclusive use or control of the elevator shaft or well wherein the accident took place. The measure of reasonable care is to be marked by the circumstances of each particular case. Juridically it is at last such care as the person whose conduct is in question should have exercised in the particular emergency in the opinion of the final judge or judges of each case. If there is reasonable room for variation of opinion on that subject, then the criterion is that measure or degree of care which a jury regards as obligatory upon that person in the circumstances of the case in hand. The care which one owes to another is by no means dependent on a contractual relation between them, although the obligation of care often arises from contract supplementing or enlarging the duty otherwise imposed by law. Ordinary care required that the place where Mr. Appel was at work should be maintained in a condition of reasonable safety against such hazards as befell him. He had a right to rely on the assurance involved in his assignment to do the work at which he was engaged when the catastrophe happened. It is part of an employer's duty to use ordinary care to make the place where his employee is to work reasonably safe. In this instance the manager of the building was charged with that duty, in the peculiar circumstances already described. We hold that there was ample evidence to support the verdict for plaintiff as against the trust company, and that there was no error in refusing the peremptory instruction in its favor.

2. There is testimony tending to show that Mr. Van Sickle was a workman authorized to represent the Eaton & Prince Company in finishing the work remaining to be done by it in the elevator shaft or hatchway. He was empowered to take such necessary steps as appertained to the proper and complete performance of the work which had been assigned to him by Mr. Hirsch, the superintendent, whose general authority to act for the Eaton & Prince Company is unquestioned. The work allotted to Mr. Van Sickle was to lay some brick at the bottom of the pit in the west shaft, to fill some holes there, to clean out the shaft, and to gather up the company's tools. It may be inferred that he had authority to move the elevator, or to cause it to be moved, so far as might be necessary to his work, and that, when the entire work was finished; he might move the elevator sufficiently to see that it could be operated properly. His employer had guaranteed by its contract of construction that the elevator work should be so finished. In this situation of affairs Mr. Van Sickle requested Mr. Loewenstein to run the elevator out of his way. Mr. Loewenstein was a former employee of the Eaton & Prince Company, who happened to be there on an errand of his own, as already described. His act in operating the elevator caused the injury as has been already narrated, but not as agent for said company. The testimony for this defendant tends to show that neither Mr. Van Sickle nor Mr. Loewenstein knew that Mr. Appel was at work in the elevator shaft on the scaffold. Yet the facts in evidence from other sources strongly tend to prove that Mr. Van Sickle had such knowledge. He certainly had ample means of knowledge; and it is often a fair and reasonable inference, in cases at law as well as in equity, that from facts which point distinctly toward knowledge of another fact such knowledge may be inferred. The circumstance that the party sought to be charged with knowledge denies it does not conclude the matter. Despite the denial the fact may be found upon a proper exhibit of testimony which justifies the inference. According to everybody's testimony, Mr. Van Sickle was in charge of the unfinished work to be done by that company on the day of the accident. If, as the jury found, Mr. Van Sickle was aware of the position of Mr. Appel, or that workmen were at work upon the scaffold in the upper part of the shaft, that fact was entitled to weight in ascertaining whether he used ordinary care in performing the service for his employer, which the jury might reasonably have found to include such movements of the elevator cab itself as might be convenient or necessary to make sure that the general work of the Eaton & Prince Company had been fully performed. The benefit of every reasonable inference of fact which the evidence will bear must be given to plaintiff in determining the question whether the testimony tends to prove negligence on the part of a defendant. Giving to plaintiff the weight of every inference we can glean from the facts in this record, we must concede that Mr. Van Sickle knew of the dangerous position of plaintiff's husband, and that he might be found to have had authority to run the elevator in the shaft as part of the final steps of the work he then had in charge. In this state of the case he put Mr. Loewenstein in charge of the elevator, with the direction to run it out of his (Van Sickle's) way, and gave him no directions to go any particular distance. It was the duty of the Eaton & Prince Company's agent on the ground, to whom the use of the elevator was intrusted (by the contract in evi-

dence), to caution Mr. Loewenstein not to run the elevator up the shaft far enough to collide with the workmen there engaged, and the omission of such precaution was a failure to exercise reasonable care in the circumstances. The different relationship of service between the man who did the damage with the elevator and Mr. Appel precludes the application of the rule of exemption of the master from liability to a servant for injury by his fellow-servant. These men were not fellow-servants within the meaning of that rule. The right to use the elevator shaft which the Eaton & Prince Company undoubtedly had at the time required it and its employees to use reasonable care not to injure others who might be properly at work in the shaft for other employers.

Without further taking up the various points of exception in detail, we are convinced, after a full rehearing of the appeal, that the cause was properly submitted in the trial court, and that the judgment should be affirmed as to both defendants.

EXAMINATION AND LICENSING OF BARBERS—ALIENS—CONSTITUTIONALITY OF STATUTE—*Templar v. Michigan State Board of Examiners of Barbers*, *Supreme Court of Michigan*, 90 *Northwestern Reporter*, page 1058.—Act No. 212 of the public acts of 1899 of the Michigan legislature provides for the examination and licensing of barbers. The fifth section defines the examination to be taken, and provides that no person shall receive a certificate to practice as a barber who at the time of his examination is an alien. Arthur G. Templar was refused a certificate on the ground of his being an alien, and applied to the supreme court for a mandamus directing the State board of examiners to admit him to examination, contending that the provision as to citizenship violates the provisions of the fourteenth amendment of the Constitution of the United States, which declares that no State shall deprive any person of life, liberty, or property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws. The request was granted, the court holding that this clause was unconstitutional.

Judge Montgomery gave the conclusion of the court in the following language:

To hold that he [Templar] is not entitled to practice this calling, because not a full citizen of the United States, is to deny to him rights which we think are preserved by the fourteenth amendment. It is not contended that the elimination of this provision will defeat the purposes of the law wholly, but it is very properly assumed by both sides that the statute may still be operative, with this provision eliminated, if otherwise valid.

The writ of mandamus will issue as prayed.

SEAMEN—ASSIGNMENT OF WAGES—PENALTY FOR DELAYED PAYMENT—*The George W. Wells—United States District Court, District of Massachusetts*, 118 *Federal Reporter*, page 761.—In this case certain

seamen sued for recovery of wages. The facts appear sufficiently in the opinion of the court as given by Judge Lowell. The provisions of section 4536, referred to in the remarks of the judge, are as follows: "No assignment of wages * * * made prior to the accruing thereof shall bind the party making the same," with certain exceptions not applicable here. Section 4529 requires payment of wages to a seaman on a coasting vessel within two days after the termination of the agreement under which he shipped or at the time such seaman is discharged, whichever first happens, and prescribes a penalty of a day's pay for each and every day during which payment is delayed without sufficient cause. The language of the judge is as follows:

The libelants were hired at Newport News March 7, 1902, and served on a voyage from Newport News to Boston. The amount of wages earned by each libelant was \$8.16. Before leaving Newport News each libelant signed a paper as follows:

"\$6.00

NEWPORT NEWS, VA., *March 7th, 1902.*

"Captain and owners schr. George W. Wells will please pay to John Mitchell the sum of \$6.00 for board and supplies, to be paid when due for services as sailor on board the schr. George W. Wells and to be charged to my account at the end of the voyage or when duly discharged from said vessel.

[Signed]

ANDREW BERNTSEN.

Witness to signature:

CH. BROWNE."

These papers were signed in the presence of the master of the vessel, who told Mitchell that the money would be paid him after it was earned, either on the arrival of the vessel in Boston, or, if she was delayed on her voyage, then seven days after she had sailed, inasmuch as more than \$6 would have been earned in that time. Before the crew was paid off in Boston on March 13th, the vessel's agent in Newport News had paid the money to Mitchell, taken up the orders, and forwarded them to the master of the vessel in Boston, where they were received by him before the vessel was docked. At the proper time he called the libelants to him, showed them the papers, and offered to each \$2.16, being the balance due. This they refused to take, alleging that the orders were of no effect. The captain thereupon paid the balance to the shipping commissioner. Until the conversation last mentioned, the seamen made no attempt to revoke the order or assignment.

The question to be decided concerns the interpretation of Rev. St. Sec. 4536. Was the paper signed at Newport News an assignment of wages made prior to the accruing thereof? Counsel for the claimant has argued that this was no assignment, but a mere order, in its nature revocable even after it had been verbally accepted by the master. It appears to me, however, that the whole transaction amounted to an assignment of wages within the fair intent of the statute, and that to recognize it as valid would be to do that which the statute was passed to forbid. (See *Tripp v. Brownell*, 12 Cush. 376.)

It remains next to consider if the libelants are entitled to the additional payment provided for in Rev. St. Sec. 4529, as amended by section 4, c. 28, Acts 1898; 30 Stat. 756. Was the payment of the wages delayed

"without sufficient cause?" That the cause of delay was insufficient in law has just been determined, but to construe the language thus narrowly is contrary to its reasonable intent. Congress can hardly have intended that in every controversy, however doubtful, which finally results in the seaman's favor, he shall be entitled to additional compensation so large. It is easy to perceive that the construction of the statute urged by the libelant would encourage seamen to speculate upon controversies between themselves and the ship. The phrase "without sufficient cause" should rather be construed as equivalent to "without reasonable cause." In this sense there was reasonable cause in the case at bar for the delay in the payment.

Decree for the libelants for the amount of wages due and costs.

UNION LABEL ON PUBLIC PRINTING—CONSTITUTIONALITY OF CITY ORDINANCE—EFFECT ON CONTRACT—*Marshall & Bruce Company v. City of Nashville, Supreme Court of Tennessee, 71 Southwestern Reporter, page 815.*—In this case the Marshall & Bruce Company brought a bill against the mayor and city council of Nashville to recover \$83.05 and interest for stationery furnished and printed for the city. The chancery court of Davidson County had allowed the bill, but on appeal the decree ordering payment had been reversed by the court of chancery appeals, and from this second decree the Marshall & Bruce Company carried the case to the supreme court. There was no dispute as to the amount of the contract and the correctness of the items and accounts. The city council of Nashville had passed an ordinance requiring that all city printing should bear the union label of the Nashville Allied Trades Council or the label enacted by the International Typographical Union. The printing furnished by the Marshall & Bruce Company did not bear either of these labels, and it was on this ground that the city refused to pay the bill. The chancellor at the first hearing had declared the ordinance null and void because in conflict with the provisions of the charter of the city.

This view was adopted by the supreme court, the judgment being announced by Judge Wilkes. The following is quoted from his remarks:

The charter of the city requires that all goods and supplies furnished the city, amounting to over \$50, must be let out at competitive biddings to the lowest responsible bidder. We are of opinion that the ordinance in question is clearly in conflict with the spirit, purpose, and letter of the charter, and is invalid and void. It is, moreover, class legislation, contrary to public policy and to the constitution of the State, because plainly discriminative in its character. All the authorities to which we have access so hold in regard to similar ordinances and statutes, and we have been able to find none to the contrary.

After making a number of citations, the court continued:

This ordinance in question violates section 1 of the fourteenth amendment to the Constitution of the United States, which declares that "no

State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty or property, without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws." And it violates the constitution of the State of Tennessee (article 1, Sec. 17). This ordinance limits the right of the board of public works to contract for the public printing for such of the city's offices as use printed matter with the union label impressed on it. It limits competition, and was so intended, and of necessity increases the price for all such work, and hence is against public policy.

The ordinance under discussion does not undertake to fix a standard of quality, but it singles out a certain class, and requires the board of public works to purchase from that class, and from no other. This is an arbitrary discrimination, and the city has no authority or power to pass such an ordinance. [Cases cited.] The various reasons assigned in these cases are that such ordinances tend to create a monopoly; that they are class legislation, discriminative in their character; that they prevent parties from an equal enjoyment of their property and business, and deprive persons of their property rights, in violation of the constitution, by restricting trade and the free use of property on equal terms with others. Municipal corporations have power to pass ordinances, but, in order to be enforceable, they must be legal, reasonable, constitutional, and not contrary to valid charter provisions; and, if they do not comply with these requirements, they will be set aside by the courts as invalid and illegal. The basic idea underlying all these decisions is that municipal powers are delegated to and held in trust by the corporation, to be exercised for the benefit of all the inhabitants of the municipality, equally and impartially.

It is insisted, however, for the city, that, if the ordinance is invalid (and its invalidity is now virtually conceded), still the complainants contracted to furnish the material with the label upon it, and, not having complied with this contract, they can not recover upon it. The court is of opinion that the provision in the contract and advertisement that the goods would bear the union label was invalid, illegal, and void, and that bidders were not bound by the provision, but might ignore the same in making their bids, and refuse to comply with the same in executing their contract. The majority of the court is further of opinion that the insertion of this provision in the contract and advertisement can not, in the absence of proof, be presumed to have interfered with the competitive bidding, since all bidders must be assumed to have known that the provision was illegal and could not be enforced. This being so, the contract and bidding must be treated as though no such condition was attached to them, and the complainants having made the lowest bid, and having been awarded the contract, and having executed the same in all respects according to the specifications, except the requirement as to the label, the city is legally obligated and bound to accept and pay for the goods, and complainants are entitled to recover the stipulated price; and the decree of the court of chancery appeals is reversed, and the decree of the chancellor is affirmed and the city will pay all the costs of the same.

DECISIONS UNDER COMMON LAW.

DISCHARGE OF EMPLOYEE—ACCEPTANCE OF PAYMENT FOR SERVICES—ACCORD AND SATISFACTION—*Walston v. F. D. Calkins Company, Supreme Court of Iowa, 93 Northwestern Reporter, page 49.*—This was an action to recover damages for breach of contract of employment. The district court of Kossuth County had directed a verdict for the defendant company, from which the plaintiff, Walston, appealed, obtaining a reversal of the court below.

The facts appear in the opinion of the court as announced by Judge Sherwin, who spoke as follows:

The plaintiff alleged employment by the defendant for the term of six months, and a wrongful discharge at the end of three months. The defendant pleaded an accord and satisfaction, based upon the fact that it had paid to the plaintiff the balance due him for the time he did work; and, the evidence showing such payment and the receipt of the money by the plaintiff, the court directed a verdict for the defendant. There was no dispute between the parties as to the service which the plaintiff had rendered, nor as to the balance due him therefor. The only claim made by the plaintiff was for damages for his wrongful discharge. There can be no accord unless there is an express or implied agreement between the parties, supported by a sufficient consideration, whereby one "undertakes to give or perform, and the other to accept in satisfaction of a claim, something other than or different from what he is or considers himself entitled to," and there can be no satisfaction until the agreement is executed. (1 Cyc. Pl. & Prac. 307.) It does not operate as a bar to matters not contemplated by the parties in their agreement, nor is it valid and binding if wholly without consideration. The acceptance of the agreed balance due for work already performed, for which the plaintiff was admittedly liable, can, under no theory of accord and satisfaction to which our attention has been called, bar the plaintiff's claim. Furthermore, under the facts here, even if it had been expressly agreed that the amount so paid would be accepted in full satisfaction of the damages, it would have rested on no sufficient consideration, and could not have been a bar to this action.

The court erred in directing a verdict for the defendant. Reversed.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—NEGLIGENCE OF ENGINEER—NATURE OF OCCUPATION AS AFFECTING MEASURE OF DAMAGES—*Louisville and Nashville Railway Company v. Gordan, Court of Appeals of Kentucky, 72 Southwestern Reporter, page 311.*—In the circuit court of Logan County damages had been awarded Gordan, a brakeman on the above-named road for an injury received by being thrown from the top of a freight car and run over by a caboose. It appeared that the train had slowed up for the purpose of receiving a signal from a way station and on being signaled to proceed the engineer suddenly applied steam in such a manner as to jerk the cars forward without giving notice. The rules required that when

running slack the engineer should give two sharp whistles before increasing his speed. Gordan contended that the failure of the engineer to give this warning was the cause of his being taken by surprise and thrown from the train and injured. An appeal was taken to the court of appeals, the railroad company contending that on the evidence there should have been a peremptory instruction in favor of the defendants. On this point the court of appeals held that the charge of negligence was for the jury to determine on the evidence submitted and refused to discuss the question. In the lower court, Gordan's counsel had introduced a life insurance agent for the purpose of establishing approximately his expectancy of life from the American Tables of Mortality. In the charge to the jury the court had defined compensatory damages as meaning "such sum of money as will barely and reasonably compensate the plaintiff for mental and physical suffering, and permanent impairment of his ability to labor and earn money, as were the direct and natural result of defendant's gross negligence, if any." The railroad company requested such instructions as would modify the amount of damages in view of the probable duration of the life of the plaintiff, Gordan, considering the nature and character of his business as a railroad employee.

On this point Judge Burnam, speaking for the court, said:

We think the court properly refused the instruction asked by appellant. It was contradictory to the instruction already given, in leaving out mental and physical suffering as an element of damage. And it was also objectionable as it called the attention of the jury to this particular fact [i. e. the probable duration of life] in the testimony. Appellant was permitted to prove that the employment in which appellee was engaged was more hazardous to life than ordinary avocations in which men engaged, and this fact was before the jury for their consideration. Besides, there is nothing in the evidence to show that appellee intended permanently to pursue the business of railroad-ing. He might, and in all probability would, in course of time, have sought other employment. In fact, more than half of the witnesses who had testified in this case had formerly been in the railroad service, and had abandoned it for less precarious employment in other pursuits. We therefore conclude that the court did not err in refusing the instruction offered by appellant on this point. The judgment must be affirmed.

EMPLOYERS' LIABILITY—SAFE AND SUITABLE APPLIANCES—BLOCKING GUARD RAIL—ERROR IN JUDGMENT—*O'Neill v. Chicago, Rock Island and Pacific Railway Company, Supreme Court of Nebraska, 92 Northwestern Reporter, page 731.*—This case was before the court on rehearing, the point of the employers' duty to furnish certain safety appliances being the chief point under discussion. O'Neill was a brakeman in the employ of the above-named company and received an injury while attempting to uncouple moving cars by his foot becom-

ing caught under an unblocked guard rail. The first decision of the supreme court rested on the grounds of the railway company's negligence in failing to block the rail. On the rehearing it was concluded that the performance of this duty rested in the judgment of the company, and that they were not therefore liable as for negligence. The remarks of Commissioner Ames, who announced the opinion of the court, are in part as follows:

A more thorough examination of the record, aided by a more complete analysis thereof by counsel than we were favored with on the former hearing, has disclosed that there were wide differences of opinion between railway companies and their skilled managers with respect to the relative safety to their servants and to the public of the blocked and unblocked guard rails; that a very large number—perhaps a majority—of the principal railway systems of the country continue the use of unblocked rails; and that in some instances the managers of the companies have used the blocked and unblocked, alternately, because of an inability to satisfy their own minds which, upon the whole, is the safer and more prudent course to pursue. There is also some evidence that in the opinion of some managers the relative safety of the use of the device of blocking, and the contrary, is dependent upon the situation of the road to which it may be applied, and to the character of the soil over which the road extends, and the liability of the spaces between the rails becoming filled up with drifting sand and dirt. But the plaintiff offered no evidence to prove what is the effect, if any, of the use of blocks upon the safety of the transportation of persons and property over the railways, or the facility of moving trains. Upon this state of the record can it be properly said that a railroad company is negligent because of using or of failing to use the block? We think not. It is a case not analogous to the use of defective machinery, or of omitting the use of a device generally approved, and obviously adapted to prevent or lessen a known and specific danger. The rule of law is that in such cases the employer must exercise such care and skill as, under the circumstances, reasonable and ordinary prudence requires to be used. The phraseology by which the rule is variously stated is somewhat indeterminate, because the idea sought to be expressed is in like degree vague, and its application in any case depends in a great measure upon the attendant facts; but it may be said generally that a man can not be held responsible in damages for the consequences of an error in judgment, carefully formed after an intelligent survey of all the elements entering into the problem which he is called upon to solve. The servant assumes the risks incident to the nature of his employment. Among these is the danger of error of judgment by his employer in the choice of tools and mechanism with which his tasks are to be performed, and he can not be held civilly liable in choosing one of two or more mechanisms regarded by those called on to use such devices, and competent to judge of their safety from long use and experience in their operations, as among the best in use, even though an accident may happen to an employee in the use of the one selected, that could not have occurred in the same manner, had another kind been chosen. When experts skilled and experienced in their profession differ with respect to the choice of the means, remedies, or mechanisms best adapted or adapta-

ble to the accomplishment of a given end, especially if that end be not simple and single, but is itself compounded of many elements, courts and juries are incompetent to decide between them.

As having a direct application to cases like the one at bar, we quote the following authorities: Thus, in *Titus v. Railroad Co.*, 136 Pa., 618, 626; 20 Atl., 518; 20 Am. St. Rep., 944, the court say: "All the cases agree that the master is not bound to use the newest and best appliances. He performs his duty when he furnishes those of ordinary character and reasonable safety, and the former is the test of the latter; for, in regard to the style of implement, or nature of the mode of performance of any work 'reasonably safe' means safe according to the usages, habits, and ordinary risks of the business. Absolute safety is unattainable, and employers are not insurers. They are liable for the consequences, not of danger, but of negligence; and the unbending test of negligence in methods, machinery and appliances is the ordinary usage of the business."

And in *Harley v. Manufacturing Co.*, 142 N. Y., 31, 34; 36 N. E., 813:

"The master does not guaranty the safety of his servants. He is not bound to furnish them an absolutely safe place to work in, but is bound simply to use reasonable care and prudence in providing such a place. He is not bound to furnish the best known appliances, but only such as are reasonably fit and safe. He satisfies the requirements of the law if in the selection of machinery and appliances he uses that degree of care which a man of ordinary prudence would use, having regard to his own safety, if he were supplying them for his own personal use. It is culpable negligence which makes the master liable, not a mere error of judgment."

Other citations were made, after which the court concluded as follows:

We think that the foregoing decisions establish beyond controversy, both upon reason and authority, that an employer is not liable in damages for the consequences of mere error in judgment in furnishing structures, machinery, and appliances for the use of his servants in the prosecution of his business, unless it is shown that such error is itself the result of negligent or willful ignorance or inattention. Of this latter there is no evidence in this case.

LABOR ORGANIZATIONS—CHARTER—JURISDICTION OF COURT—
RESTRAINT OF TRADE.—*O'Brien et al. v. Musical Mutual Protective and Benevolent Union, Local No. 14, National League of Musicians, et al.*, *Court of Chancery of New Jersey*, 54 *Atlantic Reporter*, page 150.—In this case O'Brien and others asked from the court of chancery an injunction against the Musical Mutual Protective and Benevolent Union, Local No. 14, National League of Musicians, and others. O'Brien and his associates had obtained from the American Federation of Musicians, a general national federation, a charter as a local association (No. 179) of the federation in Paterson. Both the federation and the local were unincorporated unions. In the application for the

charter a request was made for exclusive authority for the local association for a territory including the whole of the city of Paterson and some adjacent territory. The constitution of the federation provides that locals shall be entitled to such jurisdiction as they claim at the time of applying for the charter, but the "certificate of affiliation," which was the only charter granted, provides that the organizers of the local union shall be authorized "to constitute a local association for the purpose of a thorough organization of the federation of all musicians," and the association, being duly formed, is authorized to initiate members according to its own by-laws. Some time after the charter was issued the local association was directed by the executive board of the federation to reopen its charter for 30 days in order that all musicians in its jurisdiction might join as charter members, thus securing certain terms and privileges more favorable than those allowed to members who should be admitted subsequently. After some delay this order was complied with and publication made of the fact. One object in reopening the charter was to allow the admission as charter members of a local organization then existing in Paterson known as "Local No. 14, National League of Musicians," now the defendants in this suit. This latter local was incorporated under the laws of New Jersey. Application was made that its total membership (149 in number) be received in a body as charter members. The executive officer of the federation in charge of the district in which Paterson is located testified that he directed that the applicants should be received according to their request. This O'Brien and his associates deny, but the court held that the defendants were entitled to the benefits of their statements under oath. The local association, No. 179, refused to receive the members of the local, No. 14, and by reason of this action the national federation revoked its charter. No appeal from this decision was taken, nor have any steps been taken indicating a purpose to make such an appeal. O'Brien and his associates now claim, however, that the repeal was illegal. Subsequently Local Union No. 14 of the National League of Musicians was granted a charter by the American Federation, and it is to prevent an organization under this charter that the injunction is sought in this action.

Vice-Chancellor Emory, before whom the matter was heard, refused the injunction on the grounds appearing in the following statements quoted from his remarks:

Complainants claim that the charter confers a property right, the right being the exclusive right of membership in the federation within a certain district, and the right to the use of the name of the association. But, manifestly, the charter, or more properly "the certificate of affiliation," does not convey or purport to convey any property right, either in the name or otherwise, but is only the method by which, under their rules and regulations, the right of membership in the federal association and in the local is evidenced. These rights of membership

evidenced by the charter are not, in my judgment, in any sense themselves property rights, but are personal rights only. A member of a local association may have or acquire, as against the federation, rights which are recognized property rights, such as a right to a share of its funds, or to the use or enjoyment of its common property; but the rules and regulations as to membership can not, in any proper sense, be properly said to confer a property right, and are essentially, in their nature, only rules and regulations describing or defining the method of their voluntary association, with its terms and conditions. Being thus personal rights only, and being also purely voluntary, the enforcement of such rules and regulations governing mere membership, and such of the relations and privileges of the members and of the local and national associations as do not involve property rights, must be left entirely to the association itself, and the penalty of expulsion, which it may enforce. But courts, either of law or equity, do not, on the application of either or any party, enforce, either by decrees for specific performance, injunction, or otherwise, the continuance of the association or the performance of duties and privileges, which, under their rules, the members or the association, national or local, as mere members, owe to each other. A recalcitrant member or local may be dismissed for violation of the rules of the association. A member of an association improperly expelled may, by action of the courts, be protected in his rights to the common property. But the mere continuance of the relationship itself, as between all concerned, is voluntary, not legal. If a member or local desired to withdraw, the withdrawal could not be prevented by injunction or otherwise, on the theory that the agreement of membership created a contract for the performance of the duties resulting from membership, which a court would enforce by compelling the performance of the rules regulating the duties. And if the national or general association refuses to continue association with a local, whether for a valid or an invalid reason, a court of equity can not, in the absence of any question of property right, enforce the continuance of the relations voluntarily assumed. In this respect the rights of members of an unincorporated association differ from those of the members of an incorporated association. As was said by Lord Cranworth in *Forbes v. Eden*, L. Rep. 1 H. L. Scotch App. 568 (1867): "Save for the due disposal and administration of property there is no authority in the courts, either of England or Scotland, to take cognizance of the rules of a voluntary association, entered into merely for the regulation of its own affairs. * * * There is no direct power in the courts to decide whether A or B holds a particular station according to the rules of a voluntary association. But if a fund held in trust has to be paid over to the person who, according to the rules of the society, fills that character, then the court must make itself master of the question necessary to enable it to decide whether A or B is the party entitled." This was a case involving alleged rights of membership in a voluntary religious association, but the general principle thus laid down has ever since been followed in relation to the merely personal rights of membership in all voluntary associations. (*Rigby v. Connol*, E. L. R. 14 Ch. Div. 482, 487 (Jessel, M. R., 1880); *Baird v. Wells*, 44 Ch. Div. 661, 675 (Stirling, J., 1890); 1 Bacon, Benef. Soc. sec. 108, 2d Ed.)

There is another objection to giving the aid of a court of equity to the enforcement in any manner of this alleged privilege of exclusive membership. One of the objects, if not the principal object, of a labor

union association, such as the complainants claim to be, and the main result of membership in it, is the control or regulation by the association or combination of the individual action of its members in matters of contract or trade relating to their occupation or profession. The design of these common regulations controlling individual members is to secure, so far as practicable, or as is deemed advisable by the common association or body, the control of the employment of musicians within the respective local districts, and the exclusion from such employment of those who are not members—"nonunion men," as they are called. Complainants' bill and affidavits allege the advantages and benefits of the membership for this purpose of excluding others from employment within this district, and that this membership gives to defendants these advantages which they wish to secure for themselves. If their claim is well founded, the court, by compelling the continuance of the membership, and enforcing by injunction or otherwise the agreements as to exclusive jurisdiction and rights of membership adopted by this voluntary association, would, as it seems to me, give a compulsory legal sanction to those rules and regulations of a voluntary association or combination of individuals which are intended to impose restrictive conditions on the individual right of contract and on the conduct of a trade, and to secure within a certain district the monopoly, so far as possible, of a particular kind of labor. While these rules and regulations made between the members or the locals of a trade union association for the purpose of restricting or tending to restrict the freedom of contract or of trade may not be unlawful, they are certainly altogether voluntary, as between the persons who enter into them, either personally or through local associations; and courts will not, either directly or indirectly, compel their performance. To compel, by injunction or otherwise, the continuance of association or of membership in these voluntary trade unions, either local or general, would, in my judgment, result in enforcing the performance of their restrictive regulations, and it would, therefore, be an unjustifiable interference with the freedom of contract and of trade.

For both these reasons the application for injunction will be denied.

STRIKES—PICKETING—INJUNCTION—*Union Pacific Railway Company v. Ruef, United States Circuit Court for the District of Nebraska, 120 Federal Reporter, page 102.*—This was a bill in equity brought by the railway company, asking that the defendants be enjoined from in any manner interfering with the complainant's property, with its business, or with its employees. The complainant company is a corporation of the State of Utah. The defendants are all citizens of the State of Nebraska excepting three, one of whom is a citizen of Wyoming, one of Illinois, and one of the State of Ohio, but these three entered a general appearance, becoming subject to the decision of the court the same as the residents of the State. On the petition a restraining order was issued as prayed, and the case set for hearing at an early day as to whether a temporary injunction should issue. It was then ordered that the evidence should be taken before examiners, and a large amount of testimony was thus obtained. The case was then

argued before District Judges Munger and McPherson, each of whom delivered an opinion.

The facts appear in the citations that will be made from the opinion of Judge McPherson. In his introductory remarks he said:

The impression seems to prevail among many men, otherwise informed, that the issuance of injunctions is confined to the Federal courts, while the State courts do not recognize "government by injunction" as it is termed. There is no other fallacy so generally entertained by a reading people, and occasionally by lawyers. But if all cases similar to this were presented with the high purpose that has been displayed by counsel on both sides in the case at bar we would have but little denunciation of the courts, and hear less about "government by injunction." Although counsel have so nearly agreed as to what the law is, thereby making substantial controverted questions in the case at bar questions of fact, it is incumbent upon us to each state both the law and the facts of the case as we understand them.

And this duty is the more obligatory because counsel have agreed that this hearing shall result in a final decree. The right to the great writ of injunction is precisely the same in the Federal court as in the State court. But this court, before it can exercise jurisdiction, must have a case between parties of diverse citizenship, or this court must have a case presenting a "federal question." A federal question is presented in this case, because of the allegations that it is the purpose of defendants to impair the powers of the complainant to serve the public in carrying interstate commerce and in carrying the United States mail. And in both instances the amount involved must be in excess of \$2,000. But under the stipulations of the parties, and the undisputed evidence, this court takes jurisdiction on both grounds, and, the jurisdictional amount being involved, the question of how this case should be considered, and how decided, is precisely the same, whether in one court or another.

He then cited a large number of cases which had been decided by the Federal courts both in the branches having original cognizance and in the appellate branches, as well as in the State courts, involving questions of a similar nature. Citations of considerable length were made from some of these cases supporting the authority and duty of courts to issue writs of injunction against violence to persons and property, against intimidation, and against interfering with business or the rights of contract and liberty. He then discussed the constitutional provisions on which objections to "government by injunction," so called, are grounded, speaking, in part, as follows:

The Constitution of the United States provides: "In all criminal prosecutions the accused shall enjoy the right to a speedy and public trial." (Amend. art. 6.) And by another provision: "In suits at common law, where the value in the controversy shall exceed twenty dollars, the right of trial by jury shall be preserved." (Amend. art. 7.) And the constitution of the State of Nebraska (article I, sec. 6), the same as in Iowa, provides that "the right of trial by jury shall remain inviolate."

By reason of these and similar constitutional provisions, there has been within the last few years a great deal of inflammatory public speech and literature, all proclaiming that in no proceeding other than by jury trial can any person be subjected to a fine or imprisonment; and it is no wonder that so many persons have been deceived, and made to believe that the courts are usurping authority in dealing by injunction with those who interfere with the rights of others. If any case, English or American, Federal or State, could be found upholding such a claim, it could be said to be debatable. But no such case exists. When these constitutions were adopted courts of equity existed, and equity jurisprudence was recognized. And as plain as are these constitutional provisions, they are continuously misunderstood, because they are not correctly read. The provision above quoted from the United States Constitution does not say that in all cases the right of trial by jury shall exist. But in the one case it shall exist in all criminal prosecutions, and in the other the right of trial by jury in common-law actions shall be preserved.

In the Nebraska constitution (article I, sec. 6) the provision is "the right of trial by jury shall remain inviolate." In neither case is the right to be enlarged. In the one case it shall be preserved, and in the other remain as it was. And whether to be preserved or remain as at common law, or as of the date of the adoption of the constitutional provisions, is not now material. But the cases cited have to all lawyers and all courts forever put these matters at rest.

The fifth amendment to the Constitution of the United States provides that "no person shall be deprived of life, liberty or property without due process of law;" thereby meaning that neither Congress nor any other governmental agency shall ever deprive any person of either liberty or property excepting by due process of law. And the fourteenth amendment to the Constitution of the United States provides that "no State shall deprive any person of life, liberty or property without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws." And the word "person" means also a corporation, as many times decided by the United States Supreme Court.

And that one's business is his or its property is likewise elementary, and is conceded by all. And that liberty means the right to do as he pleases, when he interferes with the rights of no other person, and the right to make contracts with all persons upon all subjects-matter, save and excepting with reference to immoral and unlawful matters, is also conceded by all who know anything of the propositions. And as to what the rights of property mean, and of what liberty of contract consists, of all that has been written upon these all-important and most vital questions there is no paper of greater ability, evidencing more learning, than the very recent opinion of the supreme court of Wisconsin in the case of *State v. Kreutzberg*, 90 N. W. 1098. [See page 938, supra.]

Continuing, the court said:

I believe, and that without a doubt, that, in so far as propositions are involved in this case, the law is as follows:

(1) The defendants acted within their right when they went out on a strike. Whether with good cause, or without any cause or reason, they had the right to quit work for the Union Pacific Railroad Company, and their reasons for quitting work were reasons they need not

give to any one. And that they all went out in a body, by agreement or preconcerted arrangement, does not militate against them or affect this case in any way.

(2) Such rights are reciprocal, and the company had the right to discharge any or all of the defendants, with or without cause, and it can not be inquired into as to what the cause was.

(3) It is immaterial whether the defendants are not now in the service of the company because of a strike or a lockout.

(4) The defendants have the right to combine and work together in whatsoever way they believe will increase their earnings, shorten their hours, lessen their labor, or better their condition, and it is for them, and them only, to say whether they will work by the day or by piece work. All such is part of their liberty. And they can so conclude as individuals, or as organizations, or as unions.

(5) And the right is also reciprocal. The railroad company has the right to have its work done by the premium or piece system, without molestation or interference by defendants or others. This is liberty for the company, and the company alone has the right to determine as to that matter.

(6) When the defendants went on a strike, or when put out on a lockout, their relations with the company were at an end; they were no longer employees of the company; and the places they once occupied in the shops were no longer their places, and never can be again, excepting by mutual agreement between the defendants and the company.

(7) No one of the defendants can be compelled by any law, or by any order of any court, to again work for the company on any terms or under any conditions.

(8) The company can not be compelled to employ again any of defendants, or any other person, by any law, or by any order of any court, on any terms, or under any conditions.

(9) Each, all, and every of the foregoing matters between the company and the defendants are precisely the same, whether applied to the company or to the defendants.

(10) The company has the right to employ others to take the places once filled by defendants; and in employing others the defendants are not to be consulted, and it is of no lawful concern to them, and they can make no lawful complaint by reason thereof. And it makes no difference whether such new employees are citizens of Omaha or of some other city or State. A citizen of Chicago, or from any State in the Union, has the same rights as to work in Omaha as has a citizen of Omaha.

(11) Defendants have the right to argue or discuss with the new employees the question whether the new employees should work for the company. They have the right to persuade them if they can. But in presenting the matter they have no right to use force or violence. They have no right to terrorize or intimidate the new employees. The new employees have the right to come and go as they please, without fear or molestation, and without being compelled to discuss this or any other question, and without being guarded or picketed; and persistent and continued and objectionable persuasion by numbers is of itself intimidating, and not allowable.

(12) Picketing in proximity to the shops or elsewhere on the streets of the city, if in fact it annoys or intimidates the new employees, is not allowable. The streets are for public use, and the new employee has the same right, neither more nor less, to go back and forth, freely

and without molestation, and without being harassed by so-called arguments, and without being picketed, as has a defendant or other person. In short, the rights of all parties are one and the same.

It remains to examine the evidence, and ascertain whether any of the foregoing matters and things and rights have been trampled upon by the defendants, and, if so, by whom, and who are responsible.

The complainant, with its thousands of miles of railroad, has shops at various places, and a large one at Omaha, where much work is done on its cars, engines, and other appliances. Most of the defendants were employees in the Omaha shops. About May 12, 1902, certain shopmen, through committees, presented to the company what they claimed were grievances. Conferences were held, but without result. About that time the company determined to carry on the work in its shops, and pay by the piece or by premium. The argument for the company is, I assume to be, that all employees would get at least a minimum price per day. And those of experience, and the sober and industrious, and skilled and rapid, would get such additional price as might thus be earned by the piece or premium, thereby giving recognition to merit and efficiency, while those who were without experience, and not sober, and not industrious, and not rapid, and the laggard, would get the minimum only per day.

On the other hand, I assume that the strikers make the argument that it is better that the less capable and less efficient, as well as the best, be paid the same sum per day, and that labor would thereby be elevated, and be for the common good of laboring men. But it resulted, as some say in a strike, and as others call it a lockout. Notices were given and posted by the company that the outgoing employees must return at once to their work. They did not return, but from that time on they all continued on the strike, and the strike is still on. The company employed many new men for the shops, some of them citizens of Omaha, and some from other States, to take the places once occupied by the strikers. The strikers have almost daily had meetings in a hall. A system of pickets from their own number was organized. These pickets were officered by captains and lieutenants, to place the pickets and command them. These pickets were sometimes placed singly, but generally in squads. They were placed in close proximity to the shops, and more particularly at the gates leading to the shops. Sometimes they would be on the streets some blocks away from the gates, but at points where it was known the present employees must, or probably would, pass.

The officers of the pickets gave orders that the pickets must reason and argue with the new men, and those refusing to go on the strike, and try to persuade them that they were fighting labor, and in working for the company they were in hostility to the interests of the laboring men, and that they ought to quit. The defendants' position is, as they admit in evidence, that, if they could take from the company all men from the shops, the engines would not be repaired, and that the motive power would be destroyed. Such is their avowed purpose. Then the company would either be compelled to cease carrying passengers, freights, and mail, or, if it continued in business, would be compelled to reemploy the strikers on the terms named by the strikers.

The question of fact in this case is this: Have the methods to destroy the motive power of the company been by argument and persuasion

and by peaceable methods? If so, the writ of injunction, under the law as evidenced by the authorities cited, should be denied. Or have the methods to destroy the motive power of the company been attended with assaults and violence and intimidations and terrorizing? It is undisputed that, so far as known at least, the orders of the lodges, and by the officers, were to use none but peaceful methods, by argument and persuasion. Directions were given that all pickets must not drink liquor, and to wholly refrain from all improper conduct, under penalties of discipline, including fines. The evidence shows that many of defendants are peaceable and orderly men, and that many of them in person have committed no assaults, nor have they been guilty of any acts of violence or intimidation. And many of defendants named in the bill, in my judgment, should not be named in the permanent injunction to be issued herein, for the reason there is no evidence to warrant such holding against them. It is contended that the writ should issue, even though the evidence is meager or wholly lacking. And statements to that effect can be found in some of the cases of the Federal trial courts; "that the writ of injunction can do no harm to a law-abiding man, even though not warranted by the evidence." I do not so believe. I would resist such an application for two reasons. (1) I should not be mulcted in the costs. (2) I should not be humiliated by having an injunction run against me, when there is no evidence that I have done, or, so far as evidence shows, am not likely to do, any of the things complained of, and am not acquiescing, by silence or otherwise, in what my collaborators, or men in a class to which I belong, are doing. There must either be evidence against such parties, or the evidence must show that such parties belong to the class or to the organization of those to be enjoined.

Certain parties, to be mentioned in the decree, will be dismissed from the case. But they will be held to have knowledge of this opinion and of the decree herein. And those in any way related in a business way to the other defendants; those who are servants, agents, or employees of the defendants who are enjoined; and those who are fellows or companions of defendants, who are strikers, are and will be bound by the writ of injunction issued herein, to the same extent and as fully as if named in the writ. (In *re* Reese, 47 C. C. A. 87, 107 Fed. 942; *Ex parte* Lennon, 166 U. S. 548, 17 Sup. Ct. 658, 41 L. Ed. 1110. [See Bulletin of the Department of Labor, No. 11, page 532].) And any action by those dismissed from the case, as well as all others, in any way in conflict or in violation of the writ of injunction, will subject themselves to the same penalties as though they were named in the writ of injunction. So that the order of injunction herein will not include by name those against whom there is no evidence, yet the writ will include, in effect, all those who quit the company's service, and are engaged in the strike, with the purpose of compelling the company to reemploy them by attempting to impair the motive power of the company or otherwise cripple its service. In other words, the class of men will be controlled by the injunction, and the class of men above alluded to will not violate the writ, excepting at their peril.

And the writ of injunction will be read by all in the light of this opinion. Some of the defendants, as the evidence shows, have been guilty of most inexcusable offenses, and some of the conduct the most outrageous and brutal, in carrying on the general design of destroying the motive power of the road by preventing its repair or replacement. In some instances those guilty of misconduct and intimidation and

terrorizing and brutalities were not identified, and it can not be said that all were done by the strikers, because part of it was done by sympathizers.

Much of the intimidation was by language so low and coarse and brutal and vulgar and obscene that no one of the counsel in this case would excuse me if I were to repeat it. Suffice it to say that never before have I been compelled to read anything so villainously vulgar and obscene as in this case. And this vulgarity was invariably prefixed with the most execrable oaths. More than this can not be said as to the language of intimidation, unless I should recite the language itself. The evidence is in the record of the case, and can be read by those who desire to do so. This language was used by a limited number of defendants, and invariably, or at least generally so, in the presence of part of the other defendants. Some of the pickets at times were under the influence of liquor. But it is a fact to be regretted that, of the many acts of drunkenness, vile language, and assaults, not in a single instance, so far as the evidence shows, was a party thus guilty informed against before the municipal authorities by any striker, or was he subjected to any kind of discipline by the lodges or officers of the strikers. It is one thing to advise peace and good order and gentlemanly conduct. But talking about and advising peace and good order and gentlemanly conduct, and then taking no action against violence and drunkenness and assaults and blackguardism and profanity, to me do not square themselves.

Details of a number of acts of violence, including the killing of an employee, were recited, and Judge McPherson then said:

No man who has read the 1,186 pages of evidence which I have read can have the slightest doubt but that these assaults, and these acts of violence, and these threats, and these blasphemous denunciations would not have occurred but for this picketing. Many of the defendants took no part in them, being honorable men. No doubt whatever is there in my mind but that a great many of the defendants deprecate it. But deprecation ought to be accompanied by words of denunciation. But both deprecation and denunciation ought to be accompanied by some affirmative acts to stop it, or at least to cut loose from such men.

Picketing, as evidenced by the facts in this case, is wrong, and can not be countenanced by law-abiding men, and such picketing can not but be condemned by any court. As said before, the rights and duties and obligations of employer and employee are reciprocal and the same in requiring fair treatment. And, if one unfairly treats the other, such other can not retaliate by some other unlawful act. Suppose the company would arm all of its employees in the shops, and with the guards would go to assaulting and threatening and vilifying and intimidating the pickets; would any self-respecting man indorse it? Would we not then surely have a reign of terror in Omaha? Suppose the company would place pickets in front of the residences of the strikers, and on the streets they pass, to and from their homes; would any one indorse it?

The defendants claim to have the belief that physical violence alone is to be condemned. But all persons know that intimidation by words, menaces, by numbers, by position, and by many things is just as effective as by using clubs or brass knuckles or knives. Aggressive or daring employees would be deterred by none of the unlawful acts. But there are two classes of employees who are deterred. One class is the frail and the timid. And they are entitled to protection. Another

class, comprising the greater part of men of this country, the law-abiding, peaceable men, those who do not engage in brawls, and who never fight excepting when driven to the wall. They are entitled to the protection of the law, and the complainant has the right to have them protected.

This "picketing" has been condemned by every court having the matter under consideration. It is a pretense for "persuasion", but is intended for intimidation. Gentlemen never seek to compel and force another to listen to the art of persuasion. To stop another on the street, get in his road, follow him from one side of the street to another, pursue him wherever he goes, stand in front of his residence, is not persuasion. Intimidation can not be defined. Neither can fraud be defined. But every person knows whether his acts are fraudulent, and he knows whether his acts are intimidating. And the courts, when the facts are presented, adjudge accordingly. And so in this case. And this court retains jurisdiction of this case, and, should the necessity require, will from time to time adjudge whether the acts of defendants, or any of them, are of an intimidating character, and any man who respects the rights of others will have no fear of the result; and those, should there be any, who do not respect the rights of his fellow man, will be controlled by the injunction.

Are all the foregoing facts, supplemented with the brutal murder, evidence of intimidation and terrorizing? If not, what can be? In some instances the employees were drunk and quarrelsome. But very few of the assaults were provoked or brought on by the employees. It is the system of picketing that did it, and it is unlawful, and must be enjoined.

The restraining order prohibits the strikers from "following" the employees to their homes or on the streets. It is contended that one man has the right to walk on the streets in the same direction another man is going. But that is not "following", as every one understands what "following" means. No striker can fail to understand what it means. But, to avoid criticism, the injunction will be so worded as to be understood by all. And the writ of permanent injunction will issue, and the unlawful picketing and the wrongful interference with the rights of others brought to an end.

Judge Munger reviewed a portion of the evidence, setting forth the facts mentioned by Judge McPherson, and stated that 56 of the defendants would have their names stricken from the bill. As to the responsibility of the labor organization for the establishment of the picket, he quoted from the evidence of one of the striking machinists and an officer of the local lodge, who testified as follows:

"These meetings thus composed have placed pickets in the streets where they would meet men passing in and out of the shop. The duties of these pickets was discussed at our meetings. The object of the picketing was to get all the machinists that would come in there and take our places to stop work, so that the company would not have men to do its work unless it came to the International Union. The pickets were instructed on seeing men passing in or out of the yards to inform them there was a strike, and that they would not be loyal to fellow-workmen if they took the work under those conditions; and they were further instructed by them, if possible, not to accept a job while the strike was on. They have succeeded in persuading a great many not

to do so. A great many men have been shipped in here who did not know that a strike was on. It was our aim to inform them of the strike, and to persuade them not to go to work. The pickets were further instructed that if they committed any acts of violence their strike benefits would be stopped, and that we would not allow anything of the kind. They were instructed not to use vile words, blasphemy or abuse, sauce, or anything of the kind. They were told nothing could be gained by improper conduct, and that it would only bring us into disrepute."

Continuing, Judge Munger said:

Had all the respondents fully adhered to the instructions thus given, it is quite probable that this court would not have been called upon by complainant for relief. But the directions thus given, the evidence abundantly shows, were not heeded. Assaults were frequently made upon those endeavoring to work, and vile, threatening, and opprobrious epithets continuously applied to them by numerous of the respondents, as well as by others who had not been in the employ of the complainant, and who did not belong to the unions. The evidence does not disclose that any of these unlawful acts and acts of violence were ever disapproved of by respondents, that the guilty ones were remonstrated with, that their strike benefits had been stopped, or any protest had been made against such unlawful acts. On the contrary, the evidence shows that William Richilieu, who appears not only to have been an instigator, but an actual participant, in several assaults, was thereafter placed in charge of the pickets as captain.

After citations, Judge Munger continued as follows:

In the light of these authorities, it seems clear that all of the respondents who were members of the various organizations which established and maintained the picket line, as well as those who are shown by the evidence to have personally participated in the assaults and various acts of intimidation, must in this action be held chargeable with the results naturally flowing therefrom. I am fully convinced that the majority of the strikers in this case are upright, honorable men, worthy and well-disposed citizens, but they voluntarily put into operation a system of espionage which history shows is almost universally accompanied by intimidation, force, and violence. Can it be doubted for a moment that, had there been no strike and no picketing, there would have been no assaults, no threats, and no intimidation? It is not to be inferred from this that strikes and picketing are either necessarily wrong or harmful. As before stated, to strike and quit work when no contract obligation is violated is not unlawful. No person is required to perform labor except upon terms and upon conditions satisfactory to himself. On the other hand, any person has a right to labor unmolested upon terms and under conditions which are satisfactory to himself. When picketing interferes with this right to labor, it becomes unlawful. If picketing is only done to obtain information, to reason with and peacefully persuade a fellow-being to cease his employment it is not unlawful; but when, as shown by the evidence in this case, it is extended to coercion by violence, threats, and intimidation, it is unlawful, and all parties who participate in the maintenance of the picket after it has become unlawful and while it is so unlawfully conducted, can not relieve themselves from civil liability by showing that at its inception it was intended to be conducted lawfully.

The notion seems to prevail among a large number of the laboring class that, if they quit work because of unsatisfactory conditions, those who take the places vacated are doing a wrong, an injustice, to the families and persons of those who quit. Whatever force there may be, if any, to this proposition from the ethical standpoint of the laborer, it has no legal support. If A, for the welfare of himself and family, leaves an employment, and B, seeking the welfare of himself and family, takes the place voluntarily vacated by A, no legal wrong has been done A; and the court, being no respecter of persons, will protect the rights of B as fully as those of A.

Labor unions, when lawfully conducted to promote the welfare of the individual members, are not only commendable, but should be encouraged. It must, however, be remembered that every man has a right to decide his own course, and no body of men have a right to force their rules or their desires upon another against his wish. The union laborers on account of being in a majority have no more right to direct the action and conduct of the nonunion laborer than the non-union, if in the majority, to dictate that of the members of the union. Combinations of labor and of capital are not inherently evil. Combination means association, and when conducted simply to advance the legitimate interests of those belonging to the combination it is difficult to perceive how evil can result therefrom, but when conducted in a manner to interfere with individual liberty or as a menace to the public peace and welfare they place themselves without the protecting shield of the law.

A decree will be entered for complainant as follows:

It is ordered, adjudged, and decreed that each and all of the respondents not dismissed as aforesaid, and any and all other persons associated with them in committing the acts and grievances complained of in said bill, and they are hereby, ordered and commanded to desist and refrain from in any manner interfering with the free use and occupation by complainant of any and all of its property or premises of every kind and character; and from entering upon the grounds or premises of complainant for the purpose of interfering with, hindering, or obstructing its business; and from compelling or inducing, or attempting to compel or induce, by threats, intimidation, force, or violence, any of the employees of complainant to refuse or fail to perform their duties as such employees; and from compelling or inducing, or attempting to compel or induce, by threats, intimidation, force, or violence, any of the employees of complainant to leave the service of complainant; and from preventing, or attempting to prevent, any person or persons, by threats, intimidation, force, or violence, from entering the service of complainant; or from preventing, by violence or in any manner of intimidation, any person or persons from going to or upon the premises of complainant for any lawful purpose whatever, or from aiding, assisting, or abetting any person or persons to commit any or either of the acts aforesaid; and the said respondents, each and all of them, are forbidden and restrained from congregating at or near the premises of complainant for the purpose of intimidating its employees or coercing said employees, or preventing them from rendering their service to said complainant; and from inducing, by intimidation, coercion, or threats, any employee to leave the employment of said complainant, or from attacking, assaulting, threatening, or by use of abusive language, or in any manner of intimidation, at

any place within the city of Omaha, attempting to prevent any of the employees of complainant from continuing in its service, or any person or persons from engaging in the service of complainant; and each and all of them are enjoined and restrained from going, either singly or collectively, to the homes of complainant's employees, or any of them, for the purpose of intimidating or coercing any or all of them to leave the employment of complainant, or from entering complainant's employ, and as well from intimidating or threatening in any manner the wives and families of said employees for the purpose of preventing any employee from remaining in the service of complainant.

It is impossible, as well as impracticable, for the court in advance to specify all the acts and things which shall or may constitute intimidation or coercion. This must be left to the wisdom and intelligence of respondents. Any violation of the order will, however, be done at the party's peril.

LAWS OF VARIOUS STATES RELATING TO LABOR ENACTED SINCE JANUARY 1, 1896.

[The Second Special Report of the Department contains all laws of the various States and Territories and of the United States relating to labor in force January 1, 1896. Later enactments are reproduced in successive issues of the Bulletin from time to time as published.]

NEW JERSEY.

ACTS OF 1902.

CHAPTER 104.—*Tenement houses—Inspection, etc.*

SECTION 1. Whenever it shall be certified to the board of health of any city by the health inspector or other sanitary officer thereof, that any tenement house or room therein being without sufficient ventilation is so overcrowded that there shall be afforded less than four hundred cubic feet of air to each adult, and one hundred and fifty cubic feet of air to each child under twelve years of age, occupying such building or room, the said board of health shall issue an order requiring the number of occupants of such building or room to be reduced in accordance with this act; whenever there shall be more than eight families living in any tenement house in which the owner thereof does not reside, there shall be a janitor, housekeeper or some other responsible person who shall reside in said house and have charge thereof, if the board of health shall so require by notice in writing; any person, persons or corporation failing or refusing to comply with the provisions of this act for the period of ten days after receiving notice in writing from the local board of health of any such city in this State, shall be liable to a fine of twenty-five dollars, and five dollars per day for each and every day after the said ten days in which the provisions of this act or such notice shall not be complied with.

SEC. 2. This act shall be a public act and take effect immediately.

Approved April 3, 1902.

CHAPTER 271.—*Employment of women and children—Hours of labor—Inspector.*

SECTION 1. The governor shall have power to appoint seven suitable persons as deputy inspectors of factories and workshops, who shall each receive an annual salary of one thousand dollars, to be paid in monthly installments, and each of whom shall hold office for three years and until his or her successor is appointed, unless sooner discharged by the inspector of factories and workshops as hereinafter provided, and who shall have like power as the inspector under the act to which this is a supplement and any supplement thereto, but shall at all times be governed by and subject to the control of the inspector; and the salary of said inspector of factories and workshops shall be twenty-five hundred dollars per year, and the said inspector of factories and workshops shall hold office for five years and until his successor is appointed.

SEC. 2. Every deputy inspector shall devote at least eight hours of every working day, except public holidays, and four hours on Saturdays, to the discharge of his or her duties, as such deputy inspector, unless prevented by illness or other disability, and no deputy inspector shall engage in any business, occupation or employment during his or her term of office that will in any way interfere with or prevent the full and faithful performance of such duties, and any violation of this requirement shall subject the person violating the same to immediate suspension by the factory and workshop inspector and loss of pay for such time as he may think proper, and to discharge by the factory and workshop inspector with the consent of the governor; but any such deputy inspector shall have an opportunity to make a statement and present evidence in his defense to the factory and workshop inspector or the governor before suspension or discharge.

SEC. 3. The inspector of factories and workshops shall have power to discharge any deputy inspector for cause, and upon such discharge the term of the said deputy inspector shall cease: *Provided*, That no deputy inspector shall be discharged without the consent of the governor.

SEC. 4. All necessary expenses incurred by the inspector and his deputies in the discharge of their duties shall be paid from the funds of the State upon presentation of proper vouchers of the same by the inspector: *Provided*, That not more than three thousand five hundred dollars shall be expended in any one year.

SEC. 5. All acts and parts of acts inconsistent with the provisions of this act be and the same are hereby repealed.

SEC. 6. This act shall take effect immediately.

Approved April 24, 1902.

PHILIPPINE ISLANDS.

LAWS OF UNITED STATES PHILIPPINE COMMISSION.

1900-1901.

ACT No. 5.—*Civil-service law.*

SECTION 1. The commission shall appoint three persons to be members of a board to be called the Philippine civil-service board. * * *

SEC. 6. The rules to be adopted by the board shall provide—

(d) For the selection of laborers, skilled and unskilled, according to the priority of their applications, by such noncompetitive examinations as may be practicable, and which need not, if the board shall so limit them, relate to more than the capacity of the applicants to labor, their habits of industry and sobriety, and their honesty.

SEC. 19. In the appointment of officers and employees under the provisions of this act, the appointing officer in his selection from the list of eligibles to be furnished him by the board shall, where other qualifications are equal, prefer:

First. Natives of the Philippine Islands.

Second. All honorably discharged soldiers, sailors, and marines of the United States.

Enacted September 19, 1900.

ACT No. 7.—*Bureau of statistics.*

SECTION 1. There shall be established a bureau of statistics for the Philippine Islands, the central office of which shall be located in the city of Manila. The chief officer of this bureau shall be denominated the chief statistician. He shall be appointed by the Commission, under the limitations which are applicable to the appointment of the heads of other departments by virtue of section 20 of the civil-service act. He shall superintend and direct the collection, compilation, and publication of such statistical information concerning the Philippine Islands as may be required by law, and shall perform his duties under the general supervision of the military governor.

SEC. 3. All information collected by the bureau concerning the affairs of private persons, firms or corporations shall be strictly confidential, and shall not be published or communicated in such a way as to reveal the identity of the persons concerned to any other than the employees of the bureau. The violation of this requirement by the chief statistician, or by any assistant, clerk, special agent, enumerator or other employee of the bureau shall be a misdemeanor, the punishment for which shall be a fine not exceeding five hundred dollars, or imprisonment for a term not exceeding one year, or both fine and imprisonment, in the discretion of the court.

SEC. 8. Every person more than eighteen years of age residing in these islands shall be required, if thereto requested by the chief statistician or his duly authorized representative, to render a true account, to the best of his or her knowledge, of the various items of information possessed by him or her and required for any authorized statistical investigation; and whosoever shall willfully fail or refuse to render such a true account shall be guilty of a misdemeanor, and, upon conviction thereof, shall be fined in a sum not exceeding one hundred dollars, or imprisonment for a term not exceeding three months, or by both fine and imprisonment, in the discretion of the court.

SEC. 9. Every president, treasurer, secretary, director, agent, or manager of any corporation or of any establishment of productive industry or commercial organization, whether conducted as a corporate body, limited liability company, or by private persons, from whom answers to any schedules, inquiries, or statistical interrogatories are required as herein provided, who shall, if thereto requested by the chief statistician or any of his duly authorized representatives, willfully neglect or refuse to give true and complete answers to said authorized inquiries, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined in a sum not exceeding five hundred dollars, or imprisonment not exceeding one year, or by both fine and imprisonment, in the discretion of the court.

Enacted September 26, 1900.

PORTO RICO.

REVISED STATUTES, 1902.

Employment of children.

SECTION 166. No child of either sex, under sixteen years shall be compelled to work in agricultural factories and manufacturing establishments over six hours per day, three in the morning and three in the afternoon. All persons who shall violate this provision shall be fined in a sum of from five to fifteen dollars, or imprisonment not to exceed thirty days for each offense.

SEC. 167. No foreman, teacher or other person having under his charge the work, care or education of a minor under sixteen years of age, shall resort to inhumane treatment to compel such minor to work or to study. Any violation of the provisions hereof shall be punished with a fine of from five to fifteen dollars, or imprisonment not to exceed thirty days for each offense.

Approved February 25, 1902.

Protection of employees as voters.

SECTION 289. * * * If an employer of laborers or an agent of such employer threatens to withhold the wages of, or to dismiss from service any laborer in his employment, or refuse to allow to any such employee the time to attend at the place of election and vote, [he] shall be guilty of a felony, and disfranchised and rendered incapable of holding any office of trust or profit for any determinate period.

Approved March 1, 1902.

Liability of employers for injuries to employees.

SECTION 322. Where, after the passage of this act, personal injury is caused to an employee who is himself in the exercise of due care and diligence at the time:

1. By reason of any defect in the condition of the ways, works, or machinery, connected with, or used in the business of the employer, which arose from or had not been discovered or remedied owing to the negligence of the employer or of any person in the service of the employer and entrusted by him with the duty of seeing that the ways, works, or machinery, were in proper condition; or

2. By reason of the negligence of any person in the service of the employer entrusted with the exercising of superintendence whose sole or principal duty is that of superintendence; or

3. By reason of the negligence of any person in the service of the employer who has charge of, or physically controls, any signal switch, locomotive engine, car or train in motion, whether attached to an engine or not, upon a railroad, the employee, or, in case the injury results in death, his widow or children, or both of them, and if there be no such widow and children, then his parents (provided that said parents were dependent upon such employee for support) may maintain an action for damages against the employer, pursuant to the provisions of this act.

SEC. 323. When an employee receives a personal injury under any of the conditions enumerated in section 1 [322] hereof, he may bring an action against his employer before the proper district court, to recover damages for such injury. The damages so recovered shall not exceed the sum of two thousand dollars, and in assessing the amount of such damages the court shall take into consideration the degree of culpability of the employer, or of the person for whose negligence the employer is liable hereunder, the sums expended by the employee for medical attendance, for drugs, medicines and similar necessary expenses, and the loss of wages while recovering from the injury; the court shall also take into consideration the physical pain and suffering caused by the injury. If the injury be of such character as to permanently impair the earning capacity of the employee, the court shall include in the damages awarded an allowance for such loss. In case the injury results in a temporary impairment of his earning capacity, the court, in addition to pain and suffering and the expenditures for medical services and drugs, shall take into consideration the average rate of wages which, under ordinary conditions, he might have earned if not injured.

SEC. 324. In case of the death of the employee before the termination of the action so brought against the employer, it may be continued in the name of his widow or children, and if there be no such widow or children, then in the name of his parents, if they, or either of them, were dependent upon such employee for support at the time of the injury. If it shall appear in any action so continued in the name of the widow, children or parents of a deceased injured employee that the death was the result of the injury, damages shall be assessed by the court in a sum not to exceed three thousand dollars; and the court shall estimate such damages in accordance with:

(a) The degree of culpability of the employer or of the person for whose negligence the employer is liable.

(b) The material damage incurred by the claimant or claimants through the death of the employee in accordance with the actual needs that said claimant or claimants had to depend upon the wages of such employee for their support, taking into consideration his earning capacity and his probabilities of life, at the time of the accident.

SEC. 325. When, before having commenced an action hereunder, an employee dies as the result of personal injury received under any of the conditions enumerated under section 1 [322] hereof, his widow, children, or both of them, or if there be no such widow or children, then his parents, provided such parents were dependent upon such employee for support at the time of the injury, may maintain an action against the employer before the proper district court, for damages caused by the death of such employee. Such damages shall not exceed the sum of three thousand dollars and shall be fixed by the court in accordance with:

(a) The degree of culpability of the employer or of the person for whose negligence the employer is liable.

(b) The material damage incurred by the claimant or claimants through the death of the employee in accordance with the actual needs that such claimant or claimants had to depend upon the wages of such employee for their support, taking into consideration his earning capacity and his probabilities of life, at the time of the accident.

SEC. 326. The court, when fixing the amount of damages to be paid in case of death by personal injury under this act, shall determine the amount due to each of the claimants in proportion to the material damages incurred by each of them in accordance with the actual needs which each of them had to depend upon the wages of the employee whose death was caused by accident.

SEC. 327. No action for the recovery of damages for injury or death under the provisions of this act shall be maintained unless notice of the time, place and cause of the injury is given to the employer within thirty days after the injury is received or unless it is commenced within six months from the date of the injury. The notice required by this section shall be in writing, signed by the person injured or by some one in his behalf; but if from physical or mental incapacity it is impossible for the person injured to give the notice within the time provided in said section, he may give the same within ten days after the incapacity is removed, and in case of his death without having given the notice and without having been at any time after his injury of sufficient capacity to give the notice the person or persons entitled to claim compensation pursuant to the provisions of this act, or their representatives, may give such notice within thirty days after the death of such employee. But no notice given under the provisions of this section shall be deemed to be invalid or insufficient solely by reason of any inaccuracy in stating the time, place or cause of the injury: *Provided*, It is shown that there was no intention to mislead, and that the party entitled to notice was not in fact misled thereby.

SEC. 328. Whenever an employee [employer] enters into a contract, either written or verbal, with an independent contractor to do part of such employer's work, or whenever such contractor enters into a contract with a subcontractor to do all or any part of the work comprised in such contractor's contract with the employer, such contract or subcontract shall not bar the liability of the employer for injuries to the employees of such contractor or subcontractor, by reason of any defect in the condition of the ways, works, machinery, or plant, if they are the property of the employer, or furnished by him, and if such defect arose or had not been discovered or remedied through the negligence of the employer or of some person entrusted by him with the duty of seeing that they were in proper condition.

SEC. 329. No employee, or his widow or children, or either of them, or his parents, if there be no such widow or children, shall be entitled under this act to any right of compensation or remedy against the employer in any case where such employee knew of the defect or negligence which caused the injury, and failed within a reasonable time to give, or cause to be given, information thereof to the employer, or to some person superior to himself in the service of the employer who had entrusted to him some general superintendence.

SEC. 330. Any employer who shall have contributed to an insurance fund created and maintained for the mutual purpose of indemnifying an employee for personal injuries for which compensation may be recovered under this act, or who has insured the said employee in any insurance company against the accidents of labor, shall be entitled to have deducted from the sum which he shall have to pay as compensation under the provisions of this act, the amount that shall have been received by the person injured, or by his widow, or children, or both of them, or by the parents, if there be no such widow and children, from the aforesaid fund or from the insurance company, by reason of the same accident.

SEC. 331. This act shall not apply to injuries caused to domestic servants, or farm laborers, by fellow-employees.

Approved March 1, 1902.

Contracts of employment—Enforcement.

SECTION 369. Every person who shall bring an action for the fulfillment of any obligation, may obtain an order from the court having cognizance of the suit providing that the proper measures be taken to secure the effectiveness of the judgment as the case may require it, should it be rendered in his favor.

SEC. 370. The effectiveness of the judgment shall be secured in the following manner:

(c) If the obligation consists in the doing of a thing an attachment shall be issued against the person who is under such obligation for a sum necessary to execute the work left undone or done otherwise than as provided in the agreement.

Approved March 1, 1902.

Labor combinations not unlawful.

SECTION 553. The orderly and peaceable assembling or cooperation of persons employed in any calling, trade or handicraft, for the purpose of obtaining an advance in the rate of wages or compensation, or of maintaining such rate, shall not be unlawful, nor shall it be unlawful for such persons to organize trade or labor assemblies or unions for the purpose of bettering the mental and material condition of the members thereof by lawful peaceable means.

Approved March 1, 1902.

Intimidation of employees.

SECTION 554. The employment of force, violence, intimidation or menace, or any form of coercion, by any person, or by persons associated together, against any other person or persons, whether with the object of preventing them from freely pursuing their employments, professions or trades or whether with the object of influencing the price or remuneration paid for their work, shall be a misdemeanor, and any person convicted thereof shall be imprisoned not less than thirty days nor more than one year, or fined not less than ten dollars nor more than five hundred dollars, or both fined and imprisoned.

Approved March 1, 1902.

Hours of labor, etc., on public works.

SECTION 624. * * * No laborers shall be compelled to work more than eight hours per day, and they shall be, if possible, residents of the municipality.

Approved March 1, 1902.

Examination and licensing of plumbers.

SECTION 760. It shall be the duty of the board [of health] * * *

SEC. 764. To establish rules * * * for examination and licensing of plumbers * * *

Approved March 1, 1902.

SOUTH CAROLINA.

ACTS OF 1902.

Act No. 573.—Protection of employees on street railways—Inclosed platforms.

SECTION 1. Electric street railway companies shall affix to their cars or coaches suitable vestibules for the protection of the motormen during the months of December, January, February and March. Any corporation running and operating electric street railway cars or coaches who fails to comply with the provisions of this act within six months shall be subject to a penalty of ten dollars per day, to be recovered by any citizen in the city or town where such corporation does business, for the benefit of the State: *Provided, however,* Owing to climatic conditions this bill shall not apply to Charleston County.

Approved the 25th day of February, A. D. 1902.

LEADING ARTICLES IN PAST NUMBERS OF THE BULLETIN.

- No. 1. Private and public debt in the United States, by George K. Holmes.
Employer and employee under the common law, by V. H. Olmsted and S. D. Fessenden.
- No. 2. The poor colonies of Holland, by J. Howard Gore, Ph. D.
The industrial revolution in Japan, by William Eleroy Curtis.
Notes concerning the money of the U. S. and other countries, by W. C. Hunt.
The wealth and receipts and expenses of the U. S., by W. M. Steuart.
- No. 3. Industrial communities: Coal Mining Co. of Anzin, by W. F. Willoughby.
- No. 4. Industrial communities: Coal Mining Co. of Blanzy, by W. F. Willoughby.
The sweating system, by Henry White.
- No. 5. Convict labor.
Industrial communities: Krupp Iron and Steel Works, by W. F. Willoughby.
- No. 6. Industrial communities: Familistère Society of Guise, by W. F. Willoughby.
Cooperative distribution, by Edward W. Bemis, Ph. D.
- No. 7. Industrial communities: Various communities, by W. F. Willoughby.
Rates of wages paid under public and private contract, by Ethelbert Stewart.
- No. 8. Conciliation and arbitration in the boot and shoe industry, by T. A. Carroll.
Railway relief departments, by Emory R. Johnson, Ph. D.
- No. 9. The padrone system and padrone banks, by John Koren.
The Dutch Society for General Welfare, by J. Howard Gore, Ph. D.
- No. 10. Condition of the Negro in various cities.
Building and loan associations.
- No. 11. Workers at gainful occupations at censuses of 1870, 1880, and 1890, by W. C. Hunt.
Public baths in Europe, by Edward Mussey Hartwell, Ph. D., M. D.
- No. 12. The inspection of factories and workshops in the U. S., by W. F. Willoughby.
Mutual rights and duties of parents and children, guardianship, etc., under the law, by F. J. Stimson.
The municipal or cooperative restaurant of Grenoble, France, by C. O. Ward.
- No. 13. The anthracite mine laborers, by G. O. Virtue, Ph. D.
- No. 14. The Negroes of Farmville, Va.: A social study, by W. E. B. Du Bois, Ph. D.
- No. 15. Incomes, wages, and rents in Montreal, by Herbert Brown Ames, B. A.
- No. 16. Boarding homes and clubs for working women, by Mary S. Fergusson.
The trade-union label, by John Graham Brooks.
- No. 17. Alaskan gold fields and opportunities for capital and labor, by S. C. Dunham.
- No. 18. Brotherhood relief and insurance of railway employees, by E. R. Johnson, Ph. D.
The nations of Antwerp, by J. Howard Gore, Ph. D.
- No. 19. Wages in the United States and Europe, 1870 to 1898.
Alaskan gold fields and opportunities for capital and labor, by S. C. Dunham.
- No. 20. Mutual relief and benefit associations in the printing trade, by W. S. Waudby.
- No. 21. Condition of railway labor in Europe, by Walter E. Weyl, Ph. D.
- No. 22. Pawnbroking in Europe and the United States, by W. R. Patterson, Ph. D.
- No. 23. Benefit features of American trade unions, by Edward W. Bemis, Ph. D.
The Negro in the black belt: Some social sketches, by W. E. B. Du Bois, Ph. D.
Wages in Lyon, France, 1870 to 1896.
- No. 24. Attitude of women's clubs, etc., toward social economics, by Ellen M. Herrobin.
The production of paper and pulp in the U. S. from Jan. 1 to June 30, 1898.
- No. 25. Statistics of cities.
- No. 26. Foreign labor laws: Great Britain and France, by W. F. Willoughby.
Protection of workmen in their employment, by Stephen D. Fessenden.
Foreign labor laws: Belgium and Switzerland, by W. F. Willoughby.

- No. 27. Wholesale prices: 1890 to 1899, by Roland P. Falkner, Ph. D.
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Labor Day, by Miss M. C. de Graffenried.
- No. 30. Trend of wages from 1891 to 1900.
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- No. 31. Betterment of industrial conditions, by V. H. Olmsted.
Present status of employers' liability in the U. S., by S. D. Fessenden.
Condition of railway labor in Italy, by Dr. Luigi Einaudi.
- No. 32. Accidents to labor as regulated by law in the U. S., by W. F. Willoughby.
Prices of commodities and rates of wages in Manila.
The Negroes of Sandy Spring, Md.: A social study, by W. T. Thom, Ph. D.
The British workmen's compensation act and its operation, by A. M. Low.
- No. 33. Foreign labor laws: Australasia and Canada, by W. F. Willoughby.
The British conspiracy and protection of property act and its operation, by A. M. Low.
- No. 34. Labor conditions in Porto Rico, by Azel Ames, M. D.
Social economics at the Paris Exposition, by Prof. N. P. Gilman.
The workmen's compensation act of Holland.
- No. 35. Cooperative communities in the United States, by Rev. Alexander Kent.
The Negro landholder of Georgia, by W. E. B. Du Bois, Ph. D.
- No. 36. Statistics of cities.
Statistics of Honolulu, H. I.
- No. 37. Railway employees in the United States, by Samuel McCune Lindsay, Ph. D.
The Negroes of Litwalton, Va.: A social study of the "Oyster Negro," by William Taylor Thom, Ph. D.
- No. 38. Labor conditions in Mexico, by Walter E. Weyl, Ph. D.
The Negroes of Cinclare Central Factory and Calumet Plantation, La., by J. Bradford Laws.
- No. 39. Course of wholesale prices, 1890 to 1901.
- No. 40. Present condition of the hand-working and domestic industries of Germany, by Henry J. Harris, Ph. D.
Workmen's compensation acts of foreign countries, by Adna F. Weber.
- No. 41. Labor conditions in Cuba, by Victor S. Clark, Ph. D.
Beef prices, by Fred C. Croxton.
- No. 42. Statistics of cities.
Labor conditions in Cuba.
- No. 43. Report to the President on anthracite coal strike, by Carroll D. Wright.
- No. 44. Factory sanitation and labor protection, by C. F. W. Doebling, Ph. D.
- No. 45. Course of wholesale prices, 1890 to 1902.
- No. 46. Report of Anthracite Coal Strike Commission.