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CONTENTS.

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Effectiveness of Mechanical Elevator Interlocks in Prevention of Accidents.[1]

By CLAYTON W. OLD, Vice President of the Shur-Loc Elevator Safety Co. (Inc.), New York City.

THE subject assigned for this paper is "Mechanical elevator interlocks—Their effectiveness," being an inquiry as to the extent to which the mechanical interlock reduces or eliminates the hazards surrounding the use of the elevator-shaft door.

What are these hazards? Under what conditions, under what class or set of circumstances, are men injured or killed at the elevator door? An answer will give the basis for an orderly reply to this inquiry. At the last appearance of the writer before the American Society of Safety Engineers, he quoted the result of a careful inquiry into and analysis of the 1,122 fatal elevator accidents which had occurred on the elevators of Chicago and of Manhattan during approximately 11 years preceding. Each case having been studied directly from the coroner's record, the data and averages derived were and are still of unusual importance. From them it should be possible to draw very definite conclusions as to the safety measures necessary to prevent their recurrence.

The first thing learned was that of these 1,122 tragedies, 953 or 85 per cent occurred at the shaft door. The remaining 15 per cent occurred within the shaft: Men engaged in construction work dropped from scaffolding; others, on top of the car, were crushed by the "overheads," or in the pit by the descending car or counterweight, etc. With these this paper has nothing to do, save with one fairly infrequent type to which reference will be made later.

It was next found that of the 632 victims of fatal shaft-door accidents in Manhattan, 292 (46 per cent) fell into the shaft and 340 (54 per cent) were crushed while entering or leaving the car. In Chicago, where a total of 321 fatal accidents occurred, 169 persons (53 per cent) were killed by falling into the shaft and 152 (47 per cent) were crushed. The average is practically 50 per cent for each of the two types of accident.

Here is something to start on. It is apparently about equally important, if the shaft door is to be made safe, that men be prevented from falling into the shaft and from being crushed between the car and the doorsill or lintel.

[1] Paper read at joint meeting of the engineering section of the National Safety Congress and the American Society of Safety Engineers, New York, Feb. 18, 1923.

Accidents Caused by Falling into the Shaft.

HOW do so many men manage to fall into elevator shafts and under what conditions are they crushed? An analysis shows that there are three outstanding conditions responsible for the first type of accident. They are given in the order of their importance:

(*a*) The operator fails to latch the door or, even though he closes it entirely, the latch fails to hold and the door rebounds and stands slightly open. The impatiently waiting passenger, pulling it open, looks down the shaft to see where the car is. The descending elevator hits him on the head and down the shaft he goes. From the number of such cases reported, and their similarity, it is evident that people seldom look up the shaft under such circumstances but usually down.

It is astonishing also how many cases are reported of people who, in the dark, mistake the elevator door for another door, open it, and walk into the shaft. This usually happens where swing doors are used. The following illustration is taken from the Trenton, N. J., Times: "Mrs. Elizabeth Insman last night walked into the elevator shaft at St. James Hospital where she was a patient, sustaining injuries which caused her death. She mistook the door for that which led to the bathroom."

(*b*) The elevator on the up trip, starting too quickly, throws the entering passenger backward onto the landing. He, attempting to regain his balance, pitches down the shaft. A case of this kind occurred about three years ago on the service elevator of the Gotham Hotel in this city (New York). A serving maid was thus thrown backward, and a passenger standing on the very front edge of the car leaned outward to pull her in and was himself crushed to death between the car and the door lintel. The maid was found dead at the bottom of the shaft.

(*c*) An employee in a building authorized to carry a key to the elevator doors believing, mistakenly, that the elevator is standing at a certain floor, unlocks and opens the shaft door and walks into—space. Some one has taken the car to another floor. This is called the "key door accident." In a recent paper read by the writer before the American Society of Safety Engineers, 23 such cases were quoted, among them being the superintendent of the new A. T. & T. Building, the superintendent of the McGraw Building, and the watchman of the Equitable Building, all of this city. Such accidents are very frequent.

Before leaving this particular phase of the subject, mention should be made of the so-called "safety gate" of the factory elevator. The reference is not to the self-closing vertical gate, which is a veritable death trap, but to the common hand-operated wood-slat up-and-down substitute for a decently protective, fully inclosing door. It slides in wood guides and not only warps, twists, and tilts so that its latch seldom engages, but it can not be effectively protected by any known type of interlock, electrical or mechanical. It is the regular practice of factory hands to lift these gates not only to look up and down the shaft but also to jump on and off the passing car. You all know this to be the case, yet to the amazement of safety engineers the insurance companies continue to urge the use of such gates and illustrate them

in their safety handbooks. Seldom does a week pass that the clipping bureaus fail to report fatal accidents for which these gates are directly and solely responsible. A typical one is quoted from the Gloversville (N. Y.) Leader. "Hanson raised the gate of the elevator and was just stepping on the platform when a workman on an upper floor set the elevator in motion. Its upward movement released the gate, which struck him on the head and knocked him down the shaft."

On a recent trip through the factory towns of New York State the writer fairly threw up his hands at what he saw. Without an exception the users of wooden "safety gates" (and 9 out of 10 use them) were advised to save their money rather than to spend it in an attempt to safeguard such gates with interlocks. A code will be incomplete indeed if it fails to include a prohibition of the further use or extension of this type of guard.

So much for the "falling into the shaft" accident.

Accidents Caused by Crushing.

ACCIDENTS by "crushing" are found to be of almost equal importance. The cause being the starting of the car before the door is closed, the remedy is, of course, to prevent the operator from so doing. All types of safety equipment, whether or not they prevent the other hazards mentioned, are primarily designed to cover this one.

Causes frequently contributory to accidents of this kind are the automatic and the semiautomatic gates. The former are those gates which gradually open as the car approaches the floor level and close as the car leaves. The latter must be manually raised and are held up by a latch which is tripped by the car as it ascends, the gate then falling to a closed position. Both types of gate are veritable mantraps, and their use should be prohibited by law. The trouble is, of course, that the victims of the very large number of accidents due to the use of these gates jump on or off the car as it passes and, not being quick enough, are caught and crushed. Often, too, the gate, in falling, catches the passenger and holds him while the car crushes him. In illustration, the following case of an accident at the Woolworth Store, Chicago, is quoted from the Tribune: "Donald Meade, a clerk, couldn't understand why the elevator was so slow. He opened the safety gate and looked up the shaft. The descending car pushed down the gate, pinned him to the floor and crushed him to death." Again, at the Sorg Paper Mill, Middletown, Ohio, as reported in the press: "Arp was riding on the elevator with his helper. When the third floor was reached, an automatic gate dropped, striking Arp on the head. Before he could regain his feet the floor of the elevator reached the third floor and his life was crushed out."

The National Safety Council recently issued an illustrated bulletin (No. 545) urging special caution with gates of this type.

Frequent accidents are also due to the use of power-closed doors actuated usually by pneumatic pressure. Read the report of the fatal accident at Cincinnati's largest hotel: "As he reached the elevator door the automatic doors began to close. He rushed to the door and thrust his arm through it in an attempt to get on the descending car. In another instant his body had jerked through the narrow

aperture, and his head was struck by the top of the car." The manager said, "The door closed automatically and he forced his way between them." Two fatal accidents of this kind occurred in the Marbridge Building, New York City, in the same year (1920). In both cases the victims were caught and held by the doors and crushed by the descending car.

A general criticism applying to all devices which close doors by power or air, unless they include an effective interlock, is that they actually encourage the operator to start his car sooner than he would without them. He no longer has to wait to close the door. Why should he? It will close anyhow. The result is as you see.

The Hazard of Tripping.

ANOTHER hazard is that of tripping. It is important that elevators be brought approximately level with the landing before the door can be opened. One reason is that if they are not, people trip and, falling, sprain their wrists, ankles or other muscles or bones. A man so injured is prevented from carrying on his usual occupation if he be a worker, and becomes a burden on somebody—usually the insurance company—until he recovers.

Such accidents not being reported in the city records or, as a rule, in the press, statistics regarding their frequency and seriousness are not obtainable, but, as an indication, quotation is made from a communication received from the assistant superintendent of the Travelers Insurance Co. on this point:

> Fatal elevator accidents reaching the casualty companies are relatively infrequent in comparison with those involving only partial disability. Of them a very large number, frequently involving extended disability, are due to stumbling and tripping on entering or leaving the car. Our experience is that the hazard is greatly reduced by interlocking devices which make it compulsory for the car to come approximately level with the floor before the doors can be opened.

In an opening paragraph reference was made to one type of accident happening inside the shaft with which we, of the interlock tribe, are concerned. Once in a while some person, standing on the front edge of an elevator, faints or loses his or her balance (for it usually is a woman), falls forward and is crushed. Such accidents are comparatively infrequent but they can and should be prevented by a properly interlocked inner car gate. Such an accident happened recently in a New York skyscraper, all the shaft doors of which (but not the car gate) were protected by mechanical interlocks.

Requisites of an Effective Interlock.

THIS hasty study is completed. A summary of the functions which it has been found that an effective interlock should perform in order to eliminate all the hazards which surround the use of the elevator-shaft door shows that—

(1) It should prevent the car from being started until the door at which it is standing is fully closed.

(2) It should prevent its movement until the door is securely locked.

(3) It should not depend, for the locking of the door, on the conventional door latch, but should include a lock, substantial in its

parts and so connected with the interlocking part of the equipment that, when the car is at the landing, the act of unlocking the door—not opening, but unlocking—renders the car inoperative.

(4) It should permit the unlocking of the door from the hall only when the car is standing immediately within and approximately at the same level.

(5) It should, in normal use, permit the unlocking of the door from the hoistway side only when the floor of the car is within a predetermined distance of that of the landing.

(6) It should prevent the movement of the car when the inner collapsible car gate is open.

(7) It should not be easily disconnected or put out of commission; it should be so substantial in construction as to stand the heavy usage of elevator service without undue depreciation, and it should provide constant and uninterrupted protection.

(8) Every interlock should be provided with a release, the purpose of which is to render the interlock inoperative in case of emergency.

Comparative Merits of Mechanical and Electromechanical Interlocks.

SUPPOSE a person be placed in the position of a designing engineer intrusted with the production of an interlock. If the result of the work is a device which fills all the above requirements, then there has been produced a 100 per cent safe interlock. If it fails in one, two, or three points which analysis and experience have shown to be essential to complete safety, its percentage drops in exact proportion to the importance of the conditions remaining uncovered. Shall the device be made mechanical or electromechanical?

Those of the mechanical school, with both types to choose from, have deliberately elected to be on the mechanical side because they are convinced that only thereby can they produce, guarantee, and sell 100 per cent safety. A good mechanical interlock, simply and sturdily made, its parts ample in cross-sectional area and of materials adapted to the hard usage they will receive, will not only cover every condition requisite to safety but should last as long as the elevator itself. Moreover, and particularly, such an interlock can not be readily tampered with or put out of commission. The electrician of a building, of course, infected with criminal speed mania and restive under the retardation essential to safety, can and sometimes does put them out of business.

The writer has intimated that only with a mechanical interlock can such results be assured. Had his assigned subject for to-day been a comparison between the electromechanical and the mechanical interlock he would give you the record of both types in this city as confirming his intimation. He does not, however, so conceive it. There is moreover a more serious purpose in appearing before you.

An examination yesterday of the electromechanical interlocks on the 4 elevators and 56 doors of the Film Building at Forty-ninth Street and Seventh Avenue showed that not one was in operative condition. All doors were without protection. On the other hand, it was observed recently that 17 out of the 41 mechanical interlocks on the elevators and doors of the second largest hotel in Richmond, Va., were so broken, worn, and twisted that they were completely

out of commission. The 17 doors were without protection and could even be opened from the hall.

A cheaply, flimsily made mechanical interlock is no better, nay, worse, than a well-made electromechanical interlock.

Note now that the interlocks in both of these installations would have conformed to the requirements of a code enumerating the functions performed in common by mechanical and electromechanical interlocks. It follows that if lives are to be saved by interlocks, required by codes, something more than definitions is necessary.

It may seem strange, but from the point of view of the financial interest of the company represented by the writer, and also of one interested in the public welfare, the adoption of an elevator safety code by a city or State is always regarded as an irreparable calamity.

All over the country the safety movement is making headway. The owners of public buildings and of manufacturing establishments, actuated by a desire to save life, are voluntarily safeguarding their elevators. With such a motive, they carefully and deliberately investigate the various devices offered them and finally purchase, not the cheapest they can buy, but the best they can find. This gives a market to the manufacturer who makes the best he knows, not the cheapest he can turn out.

On the other hand, it is announced, let us say, in a given city that a compulsory code is about to be adopted. Public hearings are held. The building owners appear in indignant protest against the iniquitous imposition of what they call "an enormous and useless expense." The writer very well remembers seeing the official representative of the building owners of New York tear his hair as he shouted to the aldermen, "Five million dollars, gentlemen—$5,000,000 for a lot of useless junk."

The owners are unable, however, to stem the tide of civic (and political) virtue, and a committee is appointed to confer with the city fathers, with the result that the proposed interlock law finally emerges from committee with the addition of the significant words "or an electric contact." It is passed, and all elevators must be equipped within a year.

Comparative Merits of the Interlock and the Electric Contact.

NOTE now the difference between an interlock, mechanical or electromechanical, and an electric contact. Interlocks interconnect the locking of the door with the control of the elevator. The car can not move until the door is not only closed, but locked. Both functions are embraced in and performed by the same device. Electric contacts, on the other hand, are simply switches which shut the power off until the door is closed, or nearly closed. The latch may be completely worn out or broken off. The two are entirely unrelated.

Well, the irate building owner, on the 1st of the eleventh month calls in his electrician and asks: "What do these interlocks cost?" The reply is: "Thirty-five or forty dollars a door." "Not on your life," says the owner; "how about these contacts?" "Oh, we can get them for a couple of dollars apiece." "Go to it," says the owner.

And he does. Now, the probability is that within a month one or more of these $2 contacts will burn out. The electrician must now short-circuit the contact line and, opening the boxes from top to bottom of the shaft, examine each switch until he locates the one which has burned out. This is no small job. Is he altogether to be blamed if, when it happens too often, he switches them off permanently? Reference can be made by city, street, and number, to several thousand doors in this condition. Is it asking a question of too broad implication to inquire why our city inspectors permit such conditions to continue?

It is believed that the only hope for elevator safety in our cities lies in the creation of some situation which will ultimately bring about the adoption of a universal, nonpolitical code similar to the boiler and electrical codes and the nonpolitical enforcement of the same.

The present situation, however, must be faced. On public demand, city and State ordinances are being enacted, and will continue to be, until most of the cities are covered. Can anything be done to insure their integrity and to see that the equipment, after it is installed, is kept in use? If not, then the two societies represented here had far better leave the elevator safety movement to take its own course than to urge the cities into action which will involve the building owners in expense of "$5,000,000, gentlemen, for useless junk."

Two years ago the situation would have been pronounced hopeless, but two things have since happened which offer hope.

Everyone here recognizes that for elevator safety he must have interlocks, not electric contacts. It will be recalled, however, that reference was made a little while ago to good and bad interlocks. Two years ago in this room when the American Society of Mechanical Engineers Code was under discussion the writer gave it as his opinion that however well that code might define the functions of the interlock it would be of little practical value unless some competent body, such as the Bureau of Standards or the Underwriters' Laboratory, were appointed to test the various devices offered as conforming to its requirements, so that the good and serviceable might be approved and those of inferior design and construction condemned. The suggestion was rejected.

Do you know what has since happened in Baltimore? An epidemic of elevator accidents having occurred, the public demanded a safety ordinance. The building owners, finally seeing the light, consented, but on one condition—that the Bureau of Standards should not only assist in drawing the code but thereafter thoroughly test and approve all apparatus which they should later be called upon to install. This was arranged.

The code in the main is a good one, but faulty in one particular. Contacts instead of interlocks are authorized for one limited class of doors. This should be changed, otherwise further accidents are bound to follow. The Bureau of Standards should not have consented to this departure from conservative practice, but should have refused the commission rather than put its seal on the establishment of so dangerous a precedent.

With respect to the testing of equipment, however, an important step forward has been taken, and the results will be watched with

great interest. The course of Baltimore should be widely advertised by your societies, and all cities should be urged to follow it except in the important particular mentioned, which should be promptly and widely condemned.

Let us now look forward, say three years. By that time the elevators of Baltimore will all have been equipped. Who will say that the interlocks will be maintained in operative condition? Those of the mechanical school believe that within a few months many a cross wire will have been run across the terminals of the electromechanical interlocks, rendering them inoperative. Some of the mechanical interlocks will also have been manhandled into inaction. To deny either would be contrary to observation and experience. What then? Most anything. Death, possibly.

The writer was speaking recently to an inspector of one of our largest insurance companies. A man was killed on an elevator of a new building in this city, only two blocks from his office. Being advised immediately by phone, the inspector grabbed his hat and ran to the building. Calling the electrician, he took the elevator to an upper floor. Opening the door, which was equipped with a thoroughly well-made interlock, he put the controller over and up shot the car. He turned to the electrician and asked, "What do you know about this?" "Absolutely nothing," was the reply. "Well," said the inspector, "let's take a look at the machine." When they reached the top floor the electrician ran up the stairs to the machine room. The inspector, running after him, arrived just in time to see him pull a jumper off the board and shove it into his pocket. "Now how about it?" said the inspector; and after many threats the electrician admitted that the short-circuiting wire had been there for several weeks. During this period both city and insurance inspections had doubtless been made, but this minor (!) condition had not been noted, or at least no protest had been made against it.

"An exception" do you say? Listen. Three years ago the writer submitted to the Bureau of Standards a list, by street and number, of over 2,000 elevator doors in New York City which, having been equipped with safety devices of various kinds and makes, were found just previously, on a hurried inspection, to be absolutely without protection. There is not the least doubt that 10 times that many could be located without much trouble.

A good code is important, but unless you can find some way to make certain that the interlocks you specify are kept in use you might just about as well save your trouble. The elevator men of our buildings, in the main faithful and efficient, are, after all, but human and when an interlocking equipment requires too frequent attention they are all too apt to side-step it by putting it permanently out of commission. Many of them also are too fond of speed in the service of their elevators and resent the retardation essential to safety.

The electrician of an uptown loft building where, at the end of the day, many big paper boxes must be brought down for shipment, told the other day of his simple method of getting home early. "I turn 'em off between 5 and 6," he said, "or I wouldn't get home till midnight."

"Turn 'em off" during the rush hour!

Well, who is going to make these men keep in operation the interlocks which you propose to make their bosses buy? The city inspectors? Never. With brilliant exceptions, for which we are duly thankful, it is a forlorn hope. Must this be proved? Listen, then, to the following from rule 14 of the present elevator code of New York City, passed July, 1918: "In future installations passenger elevator car gates shall be equipped with an approved device or devices that will prevent the operation of the car while the car gates are open." Such devices being called for, it is the duty of the city elevator inspectors to see that they are thereafter continuously maintained in operative condition. As a matter of fact, the car-gate contacts of elevators in the following buildings, all erected since 1918, were last week and, for the most part have been for many months and in some cases for years, either short-circuited or blocked up and entirely inoperative: Garment Centre Building, Bar Association Building, Ford Building, Gilbert Building, Arcade Building, 132 West Thirty-sixth Street, 244 Madison Avenue, and many others, the list of which might be continued almost indefinitely.

Conclusion.

THE writer is here for only one reason: Because he has been told that the insurance companies have at last been awakened and are going, unitedly, to get into the game. If they do, and you can secure their cooperation as you have it in the enforcement of your boiler and electric codes, you can safely go ahead. If not, it is really not worth while.

Their inspectors are everywhere. Not an elevator but they have their eyes on it. They have a way of writing out a little slip and leaving it with the owner intimating that if a certain dangerous condition is not fixed up within two days the insurance will cease. That is what counts.

Turn this army of watchers loose on your interlocks with the same instructions they now have on cables and safeties and you will see a drop in the death rate that will make the country, from coast to coast, sit up and take notice. With such a record as the basis of popular appeal, the politicians will not dare to resist your demands for a real code without any jokers attached.

At present the insurance companies blow neither hot nor cold with respect to elevator shaft-door safety. Having no basis for common, uniform action, each of them gets up its own set of recommendations, which it prints, distributes, and urges but can not enforce. If the rules of one are more drastic than those of another, or more vigorously enforced, the all-powerful broker simply takes the insurance of the entire building away from that company and places it with another. His job is to get the most indemnity—not safety—for his client, at the least cost. When the accident happens it is the insurance company that stands the damages, not he. Some of these brokers handle enormous volumes of business and it is a very serious matter to lose their trade.

Why should this matter of elevator safety, any more than that of boilers, be made the football of politicians? The statistics certainly do not warrant it. Thirteen States have adopted the American

Society of Mechanical Engineers Boiler Code and in those States every insurance inspector knows his job and does it. The other day the chief inspector of one of our largest companies was asked what would happen if he had 10 different boiler codes to enforce in 10 cities. "Riot and confusion," was his reply.

There is another aspect of the present situation which possibly only those who sell interlocks have the opportunity to observe. This is shown in the following illustration:

Just the other day there was occasion to tell the owner of a building now being erected that the equipment of his elevators with a good interlock would eliminate about 85 per cent of their danger to life and limb. "Such being the case," he replied, "to what extent would it reduce the cost of my insurance?" When he was told "not a cent," he said, "Evidently the insurance companies, who ought to know, do not altogether agree with you. Good day." He is now having a contact installed on the inner gate of each of his elevators, this being in full compliance with the requirements of our splendid New York safety code. These contacts will probably be blocked up as soon as the elevators are in service, so that he can get more speed out of his cars—and there you are again.

The writer has been in the elevator-safety game many years and has hundreds of times known building owners deliberately and conscientiously to refuse to interlock their elevators and doors on the ground of the apparent lack of confidence of the insurance companies in all interlocks as evidenced by their refusal to reduce their premiums on their account. Money talks louder than words.

It is not the purpose here, however, to urge or even to suggest that these rates be reduced; we are told that even the present rates do not pay. All that is wanted is to see interlocks included in standard door equipment just as safety valves are a part of the boiler equipment. Can you imagine the owner of a power plant asking for a reduced rate because he provides safety valves on his boilers?

The big thing for your associated societies to do is to collaborate in the production of a sound and safe elevator code which the associated insurance companies—every one of them—will be willing to adopt as the basis of their practice. Your great influence should then be brought to bear from the East to the Pacific to have the cities and States adopt the code and incorporate it unchanged, without rider or joker, into their laws.

The present American Society of Mechanical Engineers Code would serve well as a guide for your study in the preparation of one more fully protective. Its interlock sections are excellent, but their protective intent is nullified by frequent mention of electric contacts. Contacts are not interlocks and all reference to, and recognition of, them should be eliminated.

Finally, an official testing and approving requirement intrusted to the Bureau of Standards should be made a part of the entire scheme of operation. If it is not, the use of cheap and inferior equipment will still make possible the accidents which you seek to prevent and in so doing will destroy the confidence of the public in your work. Lacking this, your campaign will fail.

Organization and Policies of the Sailors' Union of the Pacific.[a]

By Paul S. Taylor.

THE Sailors' Union of the Pacific is, and always has been, the backbone of the International Seamen's Union of America (I. S. U. A.). Its treasury, its Journal, its leaders, have borne and continue to bear the brunt of the fight of the seamen's movement of this country.

Notwithstanding, or rather partly because of, the smaller number of sailors on the Pacific coast, permanent organization of seamen appeared there somewhat earlier than along the Atlantic. And even to-day, despite the fact that the Eastern and Gulf Union has enrolled as many as 19,000 members at one time, in contrast with some 6,500 on the Pacific (in 1919), the latter union exhibits the greater vitality and remains the bulwark of the International Seamen's Union. The comparative isolation of the Pacific coast (now largely removed by the Panama Canal); the comparative fewness of its ports, which results in bringing the sailors together for social intercourse more frequently; the great importance of its coastal lumber trade, unexposed to outside competition; and the fair degree of racial homogeneity of its sailors, have made possible the successful organization of sailors on the Pacific coast, and largely explains why the vitality of the organization may be expected to continue. To these factors should be added the remarkable leadership which the organization has produced, and the fact that the same man has been secretary of the union for the past 35 years.

Organization.

THE Coast Seamen's Union, founded in 1885, developed a unique type of organization, which is continued in the Sailors' Union of to-day.[1] Like most unions of shore workers, the Sailors' Union is based on craft lines, only members of the deck department of vessels being eligible. But unlike shore unions, it is not made up of independent locals. There is but one Sailors' Union for the entire Pacific coast, a centralized craft union with headquarters at San Francisco and branches at ports along the coast where crews are most commonly shipped.

The difference between headquarters and the branches is principally in the amount of authority possessed. The headquarters are the seat of the main offices of the union and are where the records are kept. Committees from headquarters ordinarily conduct the negotiations for agreements with shipowners. Branches are conducted by agents, elected by vote of the entire union membership, just as the other union officers are elected. Agents and branches are under the immediate jurisdiction of headquarters meetings. They are chiefly useful as a means of controlling the shipping of men in ports up and down the coast, and of providing a rendezvous for union seamen where they can meet, discuss union problems, and vote upon matters submitted

[a] This article is taken from a book by Paul S. Taylor on the Sailors' Union of the Pacific, which is in process of publication by the Ronald Press Co.

[1] The Sailors' Union of the Pacific was formed in 1891 by the amalgamation of the Coast Seamen's Union, composed chiefly of sailors on sailing vessels, and the Steamshipmen's Protective Union, founded in 1886 by sailors on the steam vessels, many of whom were also members of the Coast Seamen's Union. The separate history of the two unions was marred by frequent jurisdictional disputes, the desire to eliminate which was the chief reason for amalgamation.

to the entire membership. They also aid in keeping up the membership of the union by collecting dues and by inducing nonunionists to join. Branches have no power to call strikes, although members may vote in the branches on strikes or any other matters referred to the general vote of the union.

Most important of all in centralizing authority in the headquarters at San Francisco is the fact that the headquarters meeting possesses an absolute veto on the acts of the branches, and no action taken or rule adopted by a branch is valid until indorsed by the meeting at headquarters.[2]

The reason for this peculiar organization lies in the fact that the seaman is the most migratory of all workers. His calling takes him everywhere. In whatever port his voyage ends he must seek employment on another vessel. Obviously, any organization claiming jurisdiction over him must be coextensive with his field of employment. Among industrial workers this condition of successful organization is satisfied by the local union. Among the migratory agricultural laborers and lumberjacks, the universal I. W. W. makes headway where the local fails. Among sailors the centralized craft union has developed, with an unrestricted exchange of membership between bona fide seamen's unions of other coasts and nations.

In many ways, however, the sailors conduct their activities upon an industrial, rather than a craft, basis. This is accomplished through affiliation with the International Seamen's Union of America, which is, in effect, an industrial union. The Sailors' Union voluntarily cooperates with the Marine Firemen's Union, and the Marine Cooks' and Stewards' Union of the Pacific. This cooperation is informal and verbal, but close, because based upon community of interests and the fact that they are all members of the International Seamen's Union of America. The three unions, whose members work together on the same vessels, collaborate in their demands on the owners. They negotiate together and strike together, although the final agreements between the owners and each union are separate. Likewise their representatives have fought together for the same legislation improving the status of seamen.

The Sailors' Union also cooperates with the Atlantic and Lake Unions, especially the former. These unions also are affiliated with the International Seamen's Union. The cooperation in this case is not in making agreements with the owners, but in helping to unionize the crews of vessels coming from or going to the other coast. This mutual service is especially valuable in time of strikes. In 1921, when the Shipping Board and shipowners from all coasts stood together for a wage reduction, the seamen of all coasts likewise united in striking to oppose it.

The legislative policies of the sailors have always been carried on in the name of the International Seamen's Union of America, which was itself founded in 1892 by the Sailors' Union of the Pacific. The successes of this policy are registered in the Maguire Act of 1895, the White Act of 1898, and the seamen's act of 1915.

The Sailors' Union has always prided itself upon the democracy of its organization. There is no standing executive committee which

[2] Sailors' Union. Constitution and by-laws, 1922, Art. XVII, sec. 1.

passes on matters of policy and brings its recommendation to the meeting to be ratified. Matters must be threshed out in open meeting, or referred to a committee elected by the meeting to consider the particular proposal. The only regular committees are the banking, finance, and auditing committees, and an emergency committee composed of the officers, who act only when an urgent difficulty arises before a meeting can be called and whose actions are subject to review or change by the headquarters meeting.[3] This democracy gives all shades of opinion, including rebellious elements, the opportunity of airing their views and often hinders the expeditious transaction of business, but this is considered preferable to greater concentration of authority in the hands of a small group of officers. Until 1922 a chairman was elected at each meeting of the union. This was partly in the interests of democracy in the conduct of meetings and partly for the purpose of training as many members as possible in parliamentary procedure. As a matter of practice, however, the selection of presiding officer was generally made from the same group of 15 or 20 men who were most familiar with parliamentary rules, for it was difficult to induce inexperienced members to accept the position. Following the recent insurgent movement within the union, when the contests over the position of chairman for the evening were many and bitter, and when one of those elected was later found not to have been in good standing, the chairman has again been made a permanent official, elected at the same time as the other officers of the union.

The secretary is the executive officer of the union. In their respective localities the branch agents exercise a similar office.[4] The patrolmen, assigned to regular districts about the harbor, perform functions similar to those of walking delegates, ascertaining whether the crews of vessels in the harbor are members of the union in good standing, endeavoring to build up the membership of the union, and preventing the shipping of nonunion seamen. They also visit members who are sick in the hospital each week.[5] When the union had agreements with the owners, the patrolmen appointed from among the crew of each outbound vessel a member to act as ship's delegate. The duty of the ship's delegate was, when overtime was worked, to compare the time with the officer in charge, after knocking off.[6] He also acted as representative of the men in presenting grievances to the officers.

Benefits.

ALTHOUGH the Sailors' Union of the Pacific is not a benevolent association but primarily a labor organization of the business union type, it performs no inconsiderable services for its members which it classes as "benefits."[7] Reading rooms are maintained where members may gather to read or to discuss matters of common interest. Each member in good standing receives a copy of the Seamen's Journal, until 1922 published weekly. Since the internal troubles of 1921 over the question of industrial unionism, the Seamen's Journal has been

[3] Sailors' Union. Constitution and by-laws, 1922, Art. XVIII.
[4] Idem, Art. XV, secs. 2 and 5.
[5] Idem, sec. 6.
[6] Sailors' Union. Wages and working rules, 1919, sec. 16.
[7] Sailors' Union. Constitution and by-laws, 1922, Art. XXIV; also Art. XXV.

transferred to the International Seamen's Union of America, which now issues it as a monthly publication. While this is classed as a "benefit," and is one in a sense, still, the Journal is first and foremost the publicity weapon of the union. The value of its services can hardly be overestimated in maintaining the morale of the union in times of stress, in welding the members of the craft together for common purposes, in providing a channel for the dissemination of information and news affecting the seamen and organized labor in general, in expanding the organization of seamen, and in providing publicity for the cause of the seamen. A shipwreck benefit to aid members who have lost clothing in shipwrecks, fire, or similar accidents during the course of their employment is maintained for all members in good standing. Its purpose is not to provide complete insurance against loss, but merely to enable the shipwrecked sailor to buy sufficient clothes to go to sea again. This feature is as old as the Coast Seamen's Union, when the shipwreck fund was maintained on the basis of a voluntary contribution of 25 cents, and later $1, per year.[8] At the present time the shipwreck benefit, like all the other benefits, is included in the $1 per month dues. The maximum that can be paid under the benefit is now $75. Deceased members, if in good standing at the time of death, and if death occurs at or near headquarters or any branch, are buried by the union, the expense not to exceed $85. Members sick in hospitals are entitled to $1 per week for hospital supplies. Members who have been admitted to Sailors' Snug Harbor are entitled to transportation to New York. During strikes members out of employment for more than two weeks as a result of the strike, who report to the union daily and perform such duties as may be required of them are entitled to a strike benefit of not more than $5 weekly.

The Sailors' Union has frequently extended financial aid to other bodies of organized labor in trouble, although it has never asked money for itself. Its minutes are filled with records of donations to unions of all kinds, from bakers to steel workers, from longshoremen to their fellow seamen in the International Seamen's Union.[9]

Membership.

MEMBERSHIP in the Sailors' Union is limited to practical sailors who are either American citizens or are eligible to citizenship. Candidates are required to pass an examination in seamanship to determine their rating. If they do not qualify as able seamen, they may be admitted as ordinary seamen. But the policy of the union is to advise such men to sail as ordinary seamen until they can qualify as able seamen and join the union as such. The initiation fee is kept at the low figure of $5, and the dues at $1 a month, in order that no one may be kept out for financial reasons. In 1920 the seamen on the Pacific coast were practically 100 per cent organized, the union having a membership of 6,500.[10]

The union follows various methods of securing members. As already stated, it is one of the regular duties of the patrolmen to

[8] Coast Seamen's Union. Minutes, Jan. 17, 1887.
[9] The largest single donation was $25,000 to the Great Lakes seamen's unions. (Sailors' Union. Minutes, Feb. 11, 1911.) For the 17-year period 1891 to 1908, donations averaged slightly over $1,000 per year.
[10] Seamen's Journal, San Francisco, Jan. 14, and Mar. 10, 1920.

ascertain whether the members of the crews of all vessels are members of the union. If not, they attempt to induce them to become so. When "scabbing" becomes frequent and the patrolmen can not prevent it (or during a struggle with the shipowners), the device known as "dummies" or "the oracle" is sometimes resorted to.[11] This practice is essentially the same as a sudden strike in any shore occupation.

The closed shop is enforced wherever possible. At such times as it is in force, men desiring to sail come to the union office voluntarily and apply for membership. When union men find themselves aboard ship with nonunion men, they persuade the latter to join. If that fails (when the union is strong) they threaten to leave. This usually has the desired effect, for the captain does not wish to lose his crew, and unless the nonunion man does join he is likely to find himself out of a job.

If it is not possible to maintain the closed shop, union men are commonly allowed to sail with nonunion men with a view to persuading the latter to join the union and also to keep down the number of nonunion men sailing.

Organizers are sometimes sent out by the union to build up the membership. There are none on the Pacific at the present time, but when they are sent out, they serve in much the same way as the patrolmen, using the particular methods that seem best adapted to the situation.

In the winter of 1920–21 the union conducted a school in seamanship. It had difficulty, however, in arousing the interest of members, and on that account, and because of the strike which followed in May, 1921, the idea has not been revived.

Efforts for Remedial Legislation.

THE Sailors' Union has constantly sought the aid of legislation to maintain and protect the craft. The provisions of the seamen's act, which fix a three years' apprenticeship for able seamen [12] and stipulate that 65 per cent of the deck crew must be able seamen, are obviously intended to maintain seamanship as a skilled craft, and to prevent the displacement of able seamen by ordinary seamen or by landsmen. Legal protection against foreign sailors, particularly Asiatics, is aimed at in the provision that 75 per cent of the crew of each department must be able to understand any order given by the officers.

These provisions have not proved especially helpful to the sailors in practice. Of course, they were passed primarily to secure safety of life and property at sea. The fact that the safety argument is not touched upon here does not mean that it is to be ignored or even discounted. On the contrary, every fresh marine disaster

[11] This practice is described by Andrew Furuseth in the "oracle circular," Seamen's Journal, San Francisco, Feb. 15, 1922:

"The vessel is ready and the master orders the lines cast off. You cast your duds on the wharf and then follow the duds. The vessel is delayed. She must find another crew. This crew may do the same thing or go up the coast and leave her there. She is again delayed. How long will the shipowners stand for that, especially in passenger vessels."

[12] Except for graduates of school ships conducted under rules prescribed by the Department of Commerce, who may become able seamen after one year's sea experience and the passing of an examination prescribed by the Department of Commerce, or seamen of 18 months' experience who pass the examination prescribed by the Department of Commerce.

seems to reinforce the contentions of those who insist on a high standard of seamanship among the crew.

The seamen have persistently appealed for the repeal of laws binding them to involuntary servitude, for the maritime and statutory laws governing seamen have left them in a legal status which was distinctly not free. While the worker ashore has been concerning himself with the right of the group to strike, the sailor has had to start farther back and against great odds to secure the right of the individual to quit work when the vessel is in safe harbor. This was a necessary legal preliminary to the establishment of successful trade-unionism among sailors.

The seamen, as already indicated, have placed much reliance on Government aid through legislation. But the laws which they have sought are those which repeal old restrictions, or grant new freedom, or which enforce upon shipowners minimum standards of quarters, food, or crew requirements. Anything that smacks of State socialism, or even Government ownership of the merchant marine, the sailors abhor. As far back as 1894 the Sailors' Union went on record against the "collective ownership of the means of production and distribution." And to-day it opposes Government ownership or operation of ships. It takes the view that Government ownership of ships means Government ownership of the seamen; that the Government as shipowner will be its own inspector and supervisor and determine its own safety and manning rules; [13] and that when the seaman strikes, he will be striking against the Government. The strike of 1921, broken by the United States Shipping Board, demonstrated the helplessness of the men when struggling against the Government, and has only confirmed them in their opposition to Government ownership.

It is a fact, most frequently observed in the case of the tariff, that the workers in an industry commonly support the owners in seeking Government aid for that industry. In view of this, the opposition of American seamen to ship subsidies has seemed strange. Although the sailors favor a large American merchant marine they oppose ship subsidies as a means of establishing one, using the arguments generally urged against giving financial aid from the public treasury to any group of citizens. But there seem to be two especial reasons which explain the seaman's opposition. In the first place, although the higher American seaman's wage is urged as a reason for the subsidy, the ships on the Pacific which would receive the subsidy carry oriental and not American seamen.[14]

Thus American seamen would not be beneficiaries of an act for which their higher wages are prominently held forth as a reason. In the second place, the subsidy proposals, since they are urged largely for nationalistic reasons, usually provide that ships receiving the subsidy shall carry a certain proportion of naval reserve men. This feature is strenuously objected to, because it is regarded as but an entering wedge for the introduction of an *inscrit* maritime like that of France. With such a system, seamen are under naval regu-

[13] Seamen's Journal, San Francisco, Mar. 31, 1920.

[14] When the Hanna-Frye ship subsidy bill was before the Senate in 1906, an amendment was introduced providing that "no subvention, compensation, or subsidy provided for in this act shall be applied to any steamship or other ship that carries any Chinese as part of its deck force or crew." This was defeated by a vote of 47 to 17. (Congressional Record, 59th Cong., 1st sess., pp. 2532-2533.)

lations. Seamen fear that if this is introduced as a voluntary scheme, only a step is needed to make it compulsory, and in either case it means the death blow to the seamen's movement. To train merchant seamen for naval service in time of war, the sailors recommend short enlistment periods of six months, or at most a year, without any following period in the reserve. Nor does a proposal to exclude Chinese seamen from vessels of American registry, providing that the Government shall pay the difference between American and Chinese wages, meet with any greater favor. When such a measure was introduced in the House in 1904 the union promptly protested, declaring that such legislation for protecting American seamen should be on the grounds of principle, not of financial profit.[15] The sailors fear that such a scheme would be the means of lowering wages, first on the subsidized ships, then on other vessels.

Relations with Shipowners.

THE feeling between shipowners and seamen is not too friendly. For a number of years shipowners have complained, especially on the Pacific coast, of the power of the Sailors' Union. The sailors for their part believe the owners to be the most "rapacious" and "grasping" of employers. However, the union policy is to enter into working and wages agreements with the shipowners wherever possible on satisfactory terms.

The working and wage agreements of the union have been principally with the Shipowners' Association of the Pacific Coast. This is because the strength of the union membership has always been in the coasting lumber schooners, the owners of which are banded together in that association. With some of the larger steamship lines informal verbal agreements have been maintained, but none with the Pacific American Steamship Association, the organization with which most of the large steamship lines are affiliated.

The division of economic interest between the owners of the lumber schooners and the owners of the larger steamship lines is the key to the strength of the union on the Pacific coast. The owners of the lumber schooners are almost wholly lumbermen, for whom the interruption of transportation means stoppage of profits on the coastwise lumber trade, as well as loss of freights and laying up of ships. The lumber-carrying trade is practically free from outside competition. One reason for this is the peculiar type of vessel which has been developed for carrying lumber on this coast. Another is the comparative isolation of the coast. Furthermore, the lumber schooners require the best type of sailors, men who are strong physically and skilled in stowing lumber most advantageously, who will waste a minimum of space and will see to it that, when loaded, the ship is properly trimmed and the cargo secured to prevent shifting. This difference of interest among shipowners has manifested itself throughout the history of the union, down to the present time, and it will probably exist for a long time in the future. It is no mere accident that the men in the lumber schooners have always been the chief strength of the union; that the first agreements were made with the owners of lumber vessels, back in the sailing-ship days, and that in

[15] Sailors' Union. Minutes, Feb. 23, 1904.

the strike of 1921 the Shipowners' Association of the Pacific Coast broke away from the other shipowners to offer separate terms and a higher wage scale.

The agreements between union and shipowners have customarily been made to run for the period of one year and thereafter until canceled by 30 days' notice in writing. They have provided for the exclusive employment of union crews.

Certain difficulties have arisen from time to time in carrying out the union agreements. The owners complain of the fact that although the agreement set a certain wage scale, individual sailors at ports where men were scarce refused to sail at the union rate, but demanded higher wages, which the owners were forced to pay. The union did not deny this, but stated that it was unable to compel the men to sail at union rates if they were not individually willing to do so. To exercise compulsion, they said, would result in involuntary servitude. Since the union disciplines men who ship at rates below the union scale, the owners felt this position to be untenable and a violation of the spirit of the agreement.

A further difficulty experienced in carrying out agreements has been the practice sometimes indulged in of signing on, and then backing out at the last moment, perhaps causing the owner delay and making it difficult to find a union crew. This practice has been condemned as an offense against the union, punishable, for the first offense, by a fine of not less than $5. For the second, the offender is liable to expulsion.

Not only do individual members make it difficult for the union to carry out its agreements at times, but the branches themselves sometimes defy the authority of headquarters, ignore the union wage scale as fixed by agreement, and strike for higher wages. This difficulty, although it has arisen in the past with branches in the United States,[16] has, in recent times, been confined chiefly to the branches in British Columbia. The reasons for this independence of the Canadian branches appear to be national prejudice against authority of a headquarters in the United States, differences in ports and territory served, differences in temper of the shore unions with which the branches are affiliated, and differences in ownership of the vessels manned.

The union follows a conservative strike policy, using that weapon only as a last resort. No strike can be declared except by a two-thirds vote of the union, including both headquarters and branches. In case of a possible strike or lockout, no branch can take binding action without authority from headquarters.[17] In addition to these constitutional precautions of the Sailors' Union, the International Seamen's Union maintains district grievance committees, composed of two representatives from each affiliated union, whose duty it is to adjust grievances between unions and their employers.[18] Although the early history of the Sailors' Union was marked by almost annual strikes, since 1900 (except for the unauthorized action of a few

[16] See, for example, Coast Seamen's Union. Minutes, Nov. 1, 1886; and Report of the Commissioner of the Bureau of Labor Statistics of California on the San Pedro strike, Dec. 24, 1887, reprinted in the Seamen's Journal, Dec. 28, 1887.

[17] Sailors' Union. Constitution and by-laws, 1922, Art. XVII.

[18] International Seamen's Union of America. Constitution, 1917, Art. XIV

branches referred to above), it has engaged in only three strikes—in 1901, 1906, and 1921.

The union opposes sliding scales of wages based upon freights upon the ground that freights are beyond its control,[19] and that the amount of wages paid is, after all, of little moment to the shipowner so long as his competitor pays no less. It has been found that wages form but a small percentage of the operating costs of vessels;[20] and the seamen believe that the profits made by shipowners are large enough to enable them easily to pay good wages. Until 1917, wages of sailors varied with the type of vessel and the run in which it was engaged, being higher in steamers and coastwise vessels and lower in sailing ships and off-shore runs. On the lumber schooners wages varied also with the port. Outside or open-roadstead ports usually carried a $5 differential over vessels loading in inside or protected ports. In 1917, at the request of the union, these differentials were abolished. But since 1921 the union has had no agreement with the owners and the old differentials are reappearing.

Relations with Harbor Workers.

CONTRASTING sharply with the cordial relations existing between the various seamen's organizations is the distrust with which the harbor workers are regarded by the Sailors' Union.[21] Throughout the history of the Coast Seamen's and Sailors' Unions, bitter jurisdictional fights have been waged with the longshoremen, particularly along the north Pacific coast. The seaman believes that the harbor workers are usurpers of work which rightfully belongs to him, a usurpation at which the stevedore, rigging boss, and other shore contractors for work on vessels have connived.[22]

The seaman's claim to the work of the vessel in the harbor goes back to the days of imprisonment for desertion, when he could be, and was, sent to jail for refusing to do that very work. But to the argument of right and law, the sailors' spokesmen adds the following argument of advantage to the shipowner and to the Nation: Only when the work of keeping the vessel and all her gear in fit condition at all times is given to the seamen will skill in seamenship be developed. To the Nation, the significance of this is that sea power lies in the skill of the Nation's seamen. To the shipowner, a skilled crew means a ship well cared for and well navigated, which can be repaired

[19] Sailors' Union. Minutes, Nov. 28, 1901.

[20] Edward N. Hurley, in The New Merchant Marine, states that wage costs are about 12 per cent of operating costs.

[21] The views here stated are those which are expressed by Andrew Furuseth. His policy towards the longshoremen has been quite consistently followed by the union. However, as he himself says, members and the union itself have tried a more conciliatory policy. In 1921 there was a strong group within the union which threatened to reverse the Furuseth policy. This group was defeated, and many of its members were expelled from the organization. Nevertheless there is still strong sentiment particularly among the younger sailors for closer affiliation with the harbor workers.

[22] "The stevedore knew perfectly well that the seamen while on the vessel were a hindrance to him in getting such rates as he thought he ought to have, and he told the longshoremen that they ought to drive the seamen out of the vessels in order that the rates might be higher, the pay of the longshoremen better, and their work more steady. Of course the longshoremen understood and agreed. They insisted that they must do all the loading and discharging. The rigging boss and his employees acted in the same way and from the same motive.

When the steam began to be used the repair-shop owner and his men acted in the same spirit and from the same reason. And so on with every kind of work to be done. The painter wants all the painting, the sailmaker all the canvas work, the machinists all the work in the engine room, the steam fitter all the pipe fitting, the boiler maker all the repairing on boilers. The boiler scaler wants all the scaling, the carpenter refuses the seaman the right to calk the hatches, and so on." (Furuseth, Andrew: Second Message to Seamen, 1919, p. 15.)

by her own crew in any port of the world. Employment of the crew in discharging and loading means economy because of the high wage of the irregularly employed longshoremen and insures that men will be present to start loading or discharging immediately upon the arrival of the vessel in port.[23]

In the lumber trade the shipowners have quite consistently supported the seamen against the longshoremen, probably in recognition of the soundness of the economy argument.

The longshoremen not only favor the formation of a federation of transport workers (shore and marine), both local and national, but wish to unite "all watercraft organizations into one big militant body," [24] a policy to which the Sailors' Union is bitterly opposed.

The leaders of the seamen have opposed federation of shore and marine workers, refusing to subscribe to any arrangement which binds their union to strike except of its own volition. It is felt also that such federation is sought for the advantage of the shore workers, not of the seamen. In view of the long jurisdictional struggle of 15 years ago over the "Longshoremen, Marine, and Transport Workers" title, when the longshoremen claimed jurisdiction over all seamen aboard ship, except those of the deck department; the resolutions of longshoremen against the passage of the seamen's bill; and their protests against the repeal of the Oregon fugitive seamen's law penalizing with three months' imprisonment those who aided a seaman to desert, the seamen feel that the problems peculiar to themselves must not be intrusted in any way to the workers ashore.

The spokesman of the seamen feels that in order to secure legal freedom for sailors, his union must work alone. This legal freedom, it is felt, will be a means not only of improving his economic position, but also of raising his social standing, of raising him in the estimation of himself and others, and of restoring him to an honorable calling with the same rights and privileges as free workers ashore.

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[23] Furuseth, Andrew: Second Message to Seamen, 1919, pp. 2, 3, 7, 15–17.
[24] International Longshoremen's Association. Proceedings of Pacific district convention ,1912, pp. 13,40.

INDUSTRIAL RELATIONS AND LABOR CONDITIONS.

Economic Condition of the Negro in West Virginia.

THE first annual report of the West Virginia Bureau of Negro Welfare and Statistics contains considerable information concerning the changes in the colored population of the State, its industrial status, condition as to home ownership, and the lines along which special efforts are being made to improve the situation. The bureau was created by an act of the West Virginia Legislature in 1921, in response to a growing feeling that there was need of some agency to promote the economic and social condition of the colored people of the State, to aid those newly arrived from other States to adapt themselves to West Virginia conditions, and to promote harmonious relations between the races. It was pointed out that while there are numerous agencies supported by public funds or private philanthropy to promote the Americanization of foreigners, there was a great lack of assistance for the colored worker newly arrived from conditions almost as different from those of his new environment as if he were an immigrant instead of merely a migrant. This assistance, it was hoped, the newly created bureau would supply.

The negro population of the State, the report points out, has risen from 17,980 in 1870 to 86,345 in 1920, an increase of 380 per cent. The greater part of this increase has occurred since 1900, the increase for the last decade, 22,172, being more than the total negro population of 1870. More marked even than this increase is the change in occupation. In 1870 the negroes of the State were predominantly a farming people, "homogeneous, intelligent, not markedly excluded from the general life and engaged in occupations which made for thrift and a sound social order." Most of this native population has left the State and its place has been taken by negroes from more southern States, who have been brought in for mining and construction enterprises and who have not the old-time relations with the whites. Nevertheless, the tradition of harmony and reciprocal good will remains, and intense and bitter race feeling has not developed in West Virginia.

A study of the occupational distribution of the colored population showed that the negroes were largely employed in mining. In 1920, according to the census, the male colored population of the State, aged 21 or over, numbered 29,826; in 1921, according to the figures published by the bureau, 20,781 were engaged in mining. Undoubtedly many of those so employed were under 21 years of age, nevertheless it is apparent that mining overshadows all other industries of the State in the employment of colored labor. To learn the standing of colored workers with their employers, questionnaires were sent out to practically all coal companies doing business in the State asking for details as to occupations in which negroes were

employed, their efficiency as compared with workers of other races, and if none were employed, the reasons.

That the negro is an important factor in the mining of coal and has made good in the occupation in which in round numbers 21,000 of his race are engaged is shown by the answers of 111 coal company officials reporting for 256 operations which employ 6,483 negroes or more than one-third of the negroes working in the coal mining industry of the State, and 19 per cent of all negro males in the State 16 years of age and over. The answers of a majority of the officials show that the negro worker in the coal fields compares favorably in efficiency, regularity, and loyalty with the workers of other races so employed.

The 46 officials who do not employ negroes assign the following reasons: 14, no negroes in section in which mines are located; 12, no negroes applied; 10, "no reason"; 6, prefer native white labor; 2, not interested in negro labor; 2, negroes do not make good workmen.

The reports show that all of the largest producing companies in the State employ negroes, many of them working more than 50 per cent of that race, and that the negro is highly satisfactory.

The bureau, the report is careful to state, "has not taken sides in the controversy between the coal operators and the union miners except to advise the negro miners in union fields against lawlessness." It has, however, considered it only fair to take measures to protect the negroes introduced during the strike from summary dismissal when peace is made.

It came to the attention of the State bureau of negro welfare and statistics that many negroes were being placed upon mining operations which had not heretofore employed members of that race. The director held conferences with some of the owners and managers of the plants affected and secured agreements with them that however the strike is settled the negro miners now being employed would be retained, or, if they voluntarily leave the employment of the companies or are discharged for cause, that their places be filled by other negroes, if they are available. In case the operator can not secure other negroes to take the places made vacant, before employing men of other races to take the places vacated by negroes, that the State bureau of negro welfare and statistics be requested to supply qualified negroes.

An attempt was made to learn how extensively negroes were employed in some other industries of the State, but as the inquiry was made in what proved to be the dullest period of the business depression, in November and December, 1921, no conclusive results were looked for. The chief purpose of the attempt was to bring the question of the negro in industry before business men, and to open the way for the employment of colored workers as business revived. Along this line it is believed progress was made.

In the replies to our questionnaire, few of the heads of industries refused to consider the employment of negroes, and since business conditions have improved we have had several inquiries from companies engaged in the industries above mentioned concerning various phases relating to the employment of negro labor, and in some cases we have been requested to secure workers of that race.

During the year covered, the bureau began an active campaign to promote the purchase of farms and homes by negroes. Approximately 95 per cent of the negroes coming to West Virginia, it is said, come from the farms of southern States, but, settling in coal-mining towns, they have no opportunity either to secure farms for themselves or to work as farm laborers when not employed in the mines.

They know nothing about the farming possibilities of this State and practically nothing has been done toward enlightening them. In the communities in which most of them work, they can not buy a lot for a home because it is not for sale, and many hundreds of them think that this condition exists throughout the State. When the mines are shut down because of business depression, hundreds of negroes go to southern

States and work upon the farms. An effort is being made to divert this stream of workers to the farm land of this State. If this can be done, it will not only add to the fixed productive population of the State but will keep a large body of workers convenient to the industries. When business resumes, after the periodical shutdowns, operators can locate workers near at hand without the necessity of sending to Virginia, North Carolina, Alabama, and other southern States for them. The money received by these negroes from the industries of this State will be used to develop the farm resources of the State.

A campaign to promote home and farm ownership was carried on, as a direct result of which 107 negroes purchased tracts in West Virginia ranging from 10 to 60 acres of land, and 187 bought 237 lots in different sections of the State. Some 35 of the 107 purchasing farms made small crops that same year, while the others were busied in clearing the land and getting it ready for cultivation. As the census report for 1920 showed only 504 negro farmers in the State, a decrease of 204 within the decade, it is evident that this campaign has already effected a decided change in the trend.

A large majority of these purchasers did not own a foot of land before, and they now take pride in the ownership of a piece of land. The aggregate cost of the tracts of land and lots is $104,216. It is probable that a much larger number of persons purchased lots and homes as a result of the activities of this office in creating sentiment for home ownership.

A study of the housing situation in Charleston, as it affects the colored residents, includes a number of details. A colored population of 2,148 adults and 752 children occupied 681 houses, of which 45.8 per cent were held by colored owners. There were, on an average, 4.2 persons per home, which is somewhat less than the average, 5.1, given by the census of 1920 for the homes of the city as a whole. Of the adults occupying these homes, 75 per cent were wage earners.

The houses occupied by the owners are larger, less crowded, and kept in a better state of repair than those occupied by tenants. Rents have more than doubled during the past five years. More than 80 per cent of the negro tenants are paying from 25 per cent to 200 per cent more rent now than the same houses rented for five years ago, and notwithstanding the fact that wages have gone down in all occupations followed by negroes, there are only two cases of reduction in rent reported for the entire city, while on the other hand, there have been more than 20 increases.

The sanitary condition of the houses seems unusually good, this condition perhaps being aided by the fact that nearly all are "detached and with ample light and ventilation." About three-fourths had bathtubs with hot and cold water supply. The yards and walls were found to be generally clean, and the plumbing in good condition. The streets and alleys are well kept, and the general health of the colored population is good. "Infant mortality among the negroes of this city is lower than the average for cities of this size."

Labor Conditions in South Australia in 1921.

ACCORDING to a recent report[1] on general labor conditions in the State of South Australia there were, in 1921, 1,981 factories employing 1,459 employers working at their trades and 21,792 employees. The 48-hour week prevailed in a majority of trades though working weeks of from 40 hours to 60 hours were

[1] South Australia. Chief inspector of factories. Report for year ended Dec. 31, 1921. 18 pp. No. 46.

found in a few trades. The average weekly wage for males was £4 15s. 7d. ($23.26, par), representing an increase of 10.39 per cent over the average wage rate of 1920, while the average weekly wage rate for females was £2 1s. 6d. ($10.10, par), representing an increase of 8.26 per cent over the rate for the preceding year. The cost of food, groceries, and housing accommodations in the same time fell 16 per cent. During the year the industrial code amendment act, 1921, was passed, which provided for a revision of the living wage every six months instead of every 12 months as formerly. In accordance with this provision the daily living wage for males of 13s. 3d. ($3.22, par) was reduced on April 11, 1922, to 12s. 11d. ($3.14, par). On August 11, 1921, the basic wage for females was increased to 35s. ($8.52, par) per week.

Seventy-four industrial boards were appointed in 1921 to supersede the former wages boards. It was hoped, the report states, that the new system of industrial boards would prove a great improvement on the old system of wages boards, and while this is the case in many respects there is still room for improvement.

Licenses issued to aged, slow, and infirm workers during the year numbered 189 and those to inexperienced workers 132, the number of the latter showing a decrease from the 1920 figure. The number of accidents reported was 109 as compared with 151 during 1920. Many of the accidents, however, are not reported, so the figures do not cover all the accidents which really occurred. First-aid outfits were being installed in many factories and the report suggests that it would be advantageous to everyone concerned if employers installing these outfits would arrange for some of their employees to take training in first-aid in order that they may be able to render assistance in case of need. Much is being done, especially since the adoption of the industrial code of 1920, to promote safe and sanitary working conditions. Apprenticeship is receiving more and more attention. During the year 1921, 257 probationers' licenses were issued and 170 indentures received.

The report contains also several appendixes showing for different industries the number of workers employed, wages, accidents, and overtime.

PRICES AND COST OF LIVING.

Retail Prices of Food in the United States.

THE following tables are based on figures which have been received by the Bureau of Labor Statistics from retail dealers through monthly reports of actual selling prices.[1]

Table 1 shows for the United States retail prices of food on February 15, 1922, and on January 15 and February 15, 1923, as well as the percentage changes in the year and in the month. For example, the price of strictly fresh eggs per dozen was 48.4 cents on February 15, 1922; 55.7 cents on January 15, 1923; and 46.2 cents on February 15, 1923. These figures show a decrease of 5 per cent in the year and 17 per cent in the month.

The cost of the various articles of food,[2] combined, showed an increase of four-tenths of 1 per cent in February, 1923, as compared with February, 1922, but a decrease of 1 per cent in February, 1923, as compared with January, 1923.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE FEBRUARY 15, 1923, COMPARED WITH FEBRUARY 15, 1922, AND JANUARY 15, 1923.

(Percentage changes of five-tenths of 1 per cent and over are given in whole numbers.)

Article.	Unit.	Average retail price on—			Per cent of increase (+) or decrease (−) Feb. 15, 1923, compared with—	
		Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15, 1922.	Jan. 15, 1923.
		Cents.	*Cents.*	*Cents.*		
Sirloin steak	Pound	35.2	37.2	37.1	+5	−0.3
Round steak	do	30.2	31.6	31.5	+4	−0.3
Rib roast	do	26.5	27.5	27.5	+4	0
Chuck roast	do	18.9	19.6	19.5	+3	−1
Plate beef	do	12.8	12.9	12.8	0	−1
Pork chops	do	29.3	29.3	28.7	−2	−2
Bacon	do	37.9	39.8	39.4	+4	−1
Ham	do	46.5	45.1	45.0	−3	−0.2
Lamb, leg of	do	35.4	36.3	36.0	+2	−1
Hens	do	36.9	34.5	35.5	−4	+3
Salmon, canned, red	do	32.9	31.3	31.3	−5	0
Milk, fresh	Quart	13.2	13.7	13.7	+4	0
Milk, evaporated	15–16–oz. can	11.6	12.1	12.1	+4	0
Butter	Pound	45.9	59.1	57.7	+26	−2
Oleomargine	do	28.3	28.9	29.0	+2	+0.3
Nut margarine	do	27.5	26.7	26.7	−3	0

[1] In addition to monthly retail prices of food and coal, the bureau secures prices of gas and dry goods from each of 51 cities and for electricity from 32 cities. These prices are published at quarterly intervals in the MONTHLY LABOR REVIEW.

[2] The following 22 articles, weighted according to the consumption of the average family, have been used from January, 1913, to December, 1920: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea. The remainder of the 43 articles shown in Tables 1 and 2 have been included in the weighted aggregates for each month, beginning with January, 1921.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE FEBRUARY 15, 1923, COMPARED WITH FEBRUARY 15, 1922, AND JANUARY 15, 1923—Concluded.

Article.	Unit.	Average retail price on—			Per cent of increase (+) or decrease (−) Feb. 15, 1923, compared with—	
		Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15, 1922.	Jan. 15, 1923.
		Cents.	*Cents.*	*Cents.*		
Cheese	Pound	32.9	37.3	37.5	+14	+1
Lard	do	15.9	17.4	17.4	+9	0
Vegetable lard substitute	do	21.7	22.3	22.4	+3	+0.4
Eggs, strictly fresh	Dozen	48.4	55.7	46.2	−5	−17
Eggs, storage	do	39.1	40.0	42.4	+8	+6
Bread	Pound	8.6	8.7	8.7	+1	0
Flour	do	5.1	4.9	4.9	−4	0
Corn meal	do	3.9	4.0	4.0	+3	0
Rolled oats	do	8.9	8.8	8.7	−2	−1
Corn flakes	8-oz. pkg.	10.3	9.7	9.7	−6	0
Wheat cereal	28-oz. pkg.	26.2	25.0	24.8	−5	−1
Macaroni	Pound	20.2	19.9	19.8	−2	−1
Rice	do	9.3	9.5	9.4	+1	−1
Beans, navy	do	8.3	10.9	11.3	+36	+4
Potatoes	do	3.3	2.1	2.1	−36	0
Onions	do	10.9	5.1	5.3	−51	+4
Cabbage	do	5.7	4.0	4.7	−18	+18
Beans, baked	No. 2 can	13.3	13.1	13 1	−2	0
Corn, canned	do	15.9	15.3	15.4	−3	+1
Peas, canned	do	17.8	17.5	17.4	−2	−1
Tomatoes, canned	do	13.4	12.7	12.8	−4	+1
Sugar, granulated	Pound	6.4	8.3	8.7	+36	+5
Tea	do	67.8	68.7	68.9	+2	+0.3
Coffee	do	35.6	37.0	37.5	+5	+1
Prunes	do	18.8	20.0	19.9	+6	−1
Raisins	do	24.8	18.9	18.7	−25	−1
Bananas	Dozen	36.8	37.1	37.3	+1	+1
Oranges	do	48.5	46.8	47.1	−3	+1
All articles combined [1]					+0.4	−1

[1] See note 2, p. 25.

Table 2 shows for the United States average retail prices of specified food articles on February 15, 1913, and 1914, and on February 15 of each year from 1918 to 1923, together with the percentage changes in February of each of these specified years compared with February, 1913. For example, the price per pound of bread was 5.6 cents in February, 1913; 6.2 cents in February, 1914; 9.5 cents in February, 1918; 9.8 cents in February, 1919; 11.1 cents in February, 1920; 10.6 cents in February, 1921; 8.6 cents in February, 1922; and 8.7 cents in February, 1923. As compared with the average price in February, 1913, these figures show the following percentage increases: 11 per cent in February, 1914; 70 per cent in February, 1918; 75 per cent in February, 1919; 98 per cent in February, 1920, 89 per cent in February, 1921; 54 per cent in February, 1922; and 55 per cent in February, 1923.

The cost of the various articles of food, combined, showed an increase of 47 per cent in February, 1923, as compared with January, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE, FEBRUARY 15, OF CERTAIN SPECIFIED YEARS COMPARED WITH FEBRUARY 15, 1913.

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers.]

Article.	Unit.	Average retail price Feb. 15—								Per cent of increase (+) or decrease (−) Feb. 15 of each specified year compared with Feb. 15, 1913.						
		1913	1914	1918	1919	1920	1921	1922	1923	1914	1918	1919	1920	1921	1922	1923
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*							
Sirloin steak	Pound	23.9	25.3	33.4	41.2	40.6	38.3	35.2	37.1	+6	+40	+72	+70	+60	+47	+55
Round steak	...do...	20.6	22.9	31.4	38.8	37.2	34.2	30.2	31.5	+11	+52	+88	+81	+66	+47	+53
Rib roast	...do...	18.8	20.0	26.3	32.6	31.5	29.3	26.5	27.5	+6	+40	+73	+68	+56	+41	+46
Chuck roast	...do...	14.9	16.4	22.7	27.9	25.1	22.0	18.9	19.5	+10	+52	+87	+68	+48	+27	+31
Plate beef	...do...	11.3	12.4	17.7	21.9	18.4	15.6	12.8	12.8	+10	+57	+94	+63	+38	+13	+13
Pork chops	...do...	18.9	21.0	33.6	37.9	37.7	32.7	29.3	28.7	+11	+78	+101	+99	+73	+55	+52
Bacon	...do...	25.5	26.5	48.4	55.3	50.3	44.7	37.9	39.4	+4	+90	+117	+97	+75	+49	+55
Ham	...do...	25.4	26.5	43.8	51.8	50.7	48.2	46.5	45.0	+4	+72	+104	+100	+90	+83	+77
Lamb	...do...	18.5	18.9	31.4	36.4	39.0	34.2	35.4	36.0	+2	+70	+97	+111	+85	+91	+95
Hens	...do...	20.7	22.1	36.2	39.6	44.7	42.9	36.9	35.5	+7	+75	+91	+116	+107	+78	+71
Salmon (canned), red.	...do...	.....	.....	[1]29.1	[1]31.7	[1]37.6	39.1	32.9	31.3	.....	.....	.....	.....	.....	.....	.....
Milk, fresh	Quart	8.9	9.1	13.4	15.5	16.7	15.4	13.2	13.7	+2	+51	+74	+88	+73	+48	+54
Milk, evaporated	[2]	.....	.....	.....	16.4	16.2	14.7	11.6	12.1	.....	.....	.....	.....	.....	.....	.....
Butter	Pound	41.2	35.8	57.9	57.2	72.6	56.5	45.9	57.7	−13	+41	+39	+76	+37	+11	+40
Oleomargarine	...do...	.....	.....	.....	39.2	43.4	35.4	28.3	29.0	.....	.....	.....	.....	.....	.....	.....
Nut margarine	...do...	.....	.....	.....	35.9	36.1	32.3	27.5	26.7	.....	.....	.....	.....	.....	.....	.....
Cheese	...do...	22.2	23.0	34.9	40.9	43.3	38.4	32.9	37.5	+4	+57	+84	+95	+73	+48	+69
Lard	...do...	15.4	15.7	33.0	32.1	32.3	20.7	15.9	17.4	+2	+114	+108	+110	+34	+3	+13
Vegetable lard substitute.	...do...	.....	.....	.....	33.8	38.1	25.9	21.7	22.4	.....	.....	.....	.....	.....	.....	.....
Eggs, strictly fresh	Dozen	31.5	36.5	62.7	50.6	68.5	47.9	48.4	46.2	+16	+99	+61	+117	+52	+54	+47
Eggs, storage	...do...	23.5	32.6	54.7	46.8	59.4	44.4	39.1	42.4	+39	+133	+99	+153	+80	+66	+80
Bread	Pound	5.6	6.2	9.5	9.8	11.1	10.6	8.6	8.7	+11	+70	+75	+98	+89	+54	+55
Flour	...do...	3.3	3.3	6.6	6.7	8.1	6.5	5.1	4.9	0	+100	+103	+145	+97	+55	+48
Corn meal	...do...	2.9	3.1	7.0	6.0	6.5	5.0	3.9	4.0	+7	+141	+107	+124	+72	+34	+38
Rolled oats	...do...	.....	.....	.....	8.4	10.1	10.4	8.9	8.7	.....	.....	.....	.....	.....	.....	.....
Corn flakes	[3]	.....	.....	.....	14.1	14.1	14.0	10.3	9.7	.....	.....	.....	.....	.....	.....	.....
Wheat cereal	[4]	.....	.....	.....	25.1	29.3	30.0	26.2	24.8	.....	.....	.....	.....	.....	.....	.....
Macaroni	Pound	.....	.....	.....	19.4	20.0	21.3	20.2	19.8	.....	.....	.....	.....	.....	.....	.....
Rice	...do...	8.6	8.7	11.8	14.3	18.3	10.5	9.3	9.4	+1	+37	+66	+113	+ 22	+8	+9
Beans, navy	...do...	.....	.....	18.1	13.7	12.2	8.6	8.3	11.3	.....	.....	.....	.....	.....	.....	.....
Potatoes	...do...	1.5	1.8	3.2	3.1	6.0	2.6	3.3	2.1	+20	+113	+107	+300	+73	+120	+40
Onions	...do...	.....	.....	4.9	4.3	9.3	3.9	10.9	5.3	.....	.....	.....	.....	.....	.....	.....
Cabbage	...do...	.....	.....	.....	4.3	9.3	3.6	5.7	4.7	.....	.....	.....	.....	.....	.....	.....
Beans, baked	[5]	.....	.....	.....	18.6	16.9	15.3	13.3	13.1	.....	.....	.....	.....	.....	.....	.....
Corn, canned	[5]	.....	.....	.....	19.6	18.6	17.1	15.9	15.4	.....	.....	.....	.....	.....	.....	.....
Peas, canned	[5]	.....	.....	.....	19.2	19.1	18.2	17.8	17.4	.....	.....	.....	.....	.....	.....	.....
Tomatoes, canned	[5]	.....	.....	.....	17.0	15.2	12.2	13.4	12.8	.....	.....	.....	.....	.....	.....	.....
Sugar, granulated	Pound	5.5	5.2	10.6	10.7	18.8	8.9	6.4	8.7	−5	+93	+95	+242	+62	+16	+58
Tea	...do...	54.3	54.5	60.8	68.4	71.4	71.5	67.8	68.9	+0.4	+12	+26	+31	+32	+25	+27
Coffee	...do...	29.8	29.6	30.4	36.6	49.1	37.5	35.6	37.5	−1	+2	+23	+65	+26	+19	+26
Prunes	...do...	.....	.....	16.5	20.3	29.0	22.5	18.8	19.9	.....	.....	.....	.....	.....	.....	.....
Raisins	...do...	.....	.....	15.0	16.2	25.6	31.9	24.8	18.7	.....	.....	.....	.....	.....	.....	.....
Bananas	Dozen	.....	.....	.....	35.0	41.0	41.0	36.8	37.3	.....	.....	.....	.....	.....	.....	.....
Oranges	...do...	.....	.....	.....	46.8	53.4	45.3	48.5	47.1	.....	.....	.....	.....	.....	.....	.....
All articles combined.[6]	.....	.....	.....	.....	.....	.....	.....	.....	.....	+5	+67	+79	+108	+63	+46	+47

[1] Both pink and red.
[2] 15–15 ounce can.
[3] 8-ounce package.
[4] 28-ounce package.
[5] No. 2 can.
[6] See note 2, page 25.

Table 3 shows the changes in the retail price of each of 22 articles of food [3] as well as the changes in the amounts of these articles that could be purchased for $1, each year, 1913 to 1922, and in February, 1923.

TABLE 3.—AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF FOOD AND AMOUNT PURCHASABLE FOR $1, IN EACH YEAR, 1913 TO 1922, AND IN FEBRUARY, 1923.

Year.	Sirloin steak.		Round steak.		Rib roast.		Chuck roast.		Plate beef.		Pork chops.	
	Average retail price.	Amt. for $1.	Average retail price.	Amt. for $1.	Average retail price.	Amt. for $1.	Average retail price.	Amt. for $1.	Average retail price.	Amt. for $1.	Average retail price.	Amt. for $1.
	Per lb.	*Lbs.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*
1913	$0.254	3.9	$0.223	4.5	$0.198	5.1	$0.160	6.3	$0.121	8.3	$0.210	4.8
1914	.259	3.9	.236	4.2	.204	4.9	.167	6.0	.126	7.9	.220	4.5
1915	.257	3.9	.230	4.3	.201	5.0	.161	6.2	.121	8.3	.203	4.9
1916	.273	3.7	.245	4.1	.212	4.7	.171	5.8	.128	7.8	.227	4.4
1917	.315	3.2	.290	3.4	.249	4.0	.209	4.8	.157	6.4	.319	3.1
1918	.389	2.6	.369	2.7	.307	3.3	.266	3.8	.206	4.9	.390	2.6
1919	.417	2.4	.389	2.6	.325	3.1	.270	3.7	.202	5.0	.423	2.4
1920	.437	2.3	.395	2.5	.332	3.0	.262	3.8	.183	5.5	.423	2.4
1921	.388	2.6	.344	2.9	.291	3.4	.212	4.7	.143	7.0	.349	2.9
1922	.374	2.7	.323	3.1	.276	3.6	.197	5.1	.128	7.8	.330	3.0
1923: February	.371	2.7	.315	3.2	.275	3.6	.195	5.1	.128	7.8	.287	3.5

Year.	Bacon.		Ham.		Lard.		Hens.		Eggs.		Butter.	
	Per lb.	*Lbs.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*	*Per dz.*	*Dozs.*	*Per lb.*	*Lbs.*
1913	$0.270	3.7	$0.269	3.7	$0.158	6.3	$0.213	4.7	$0.345	2.9	$0.383	2.6
1914	.275	3.6	.273	3.7	.156	6.4	.218	4.6	.353	2.8	.362	2.8
1915	.269	3.7	.261	3.8	.148	6.8	.208	4.8	.341	2.9	.358	2.8
1916	.287	3.5	.294	3.4	.175	5.7	.236	4.2	.375	2.7	.394	2.5
1917	.410	2.4	.382	2.6	.276	3.6	.286	3.5	.481	2.1	.487	2.1
1918	.529	1.9	.479	2.1	.333	3.0	.377	2.7	.569	1.8	.577	1.7
1919	.554	1.8	.534	1.9	.369	2.7	.411	2.4	.628	1.6	.678	1.5
1920	.523	1.9	.555	1.8	.295	3.4	.447	2.2	.681	1.5	.701	1.4
1921	.427	2.3	.488	2.0	.180	5.6	.397	2.5	.509	2.0	.517	1.9
1922	.398	2.5	.488	2.0	.170	5.9	.360	2.8	.444	2.3	.479	2.1
1923: February	.394	2.5	.450	2.2	.174	5.7	.355	2.8	.462	2.2	.577	1.7

Year.	Cheese.		Milk.		Bread.		Flour.		Corn meal.		Rice.	
	Per lb.	*Lbs.*	*Per qt.*	*Qts.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*
1913	$0.221	4.5	$0.089	11.2	$0.056	17.9	$0.033	30.3	$0.030	33.3	$0.087	11.5
1914	.229	4.4	.089	11.2	.063	15.9	.034	29.4	.032	31.3	.088	11.4
1915	.233	4.3	.088	11.4	.070	14.3	.042	23.8	.033	30.3	.091	11.0
1916	.258	3.9	.091	11.0	.073	13.7	.044	22.7	.034	29.4	.091	11.0
1917	.332	3.0	.112	9.0	.092	10.9	.070	14.3	.058	17.2	.104	9.6
1918	.359	2.8	.139	7.2	.098	10.2	.067	14.9	.068	14.7	.129	7.8
1919	.426	2.3	.155	6.5	.100	10.0	.072	13.9	.064	15.6	.151	6.6
1920	.416	2.4	.167	6.0	.115	8.7	.081	12.3	.065	15.4	.174	5.7
1921	.340	2.9	.146	6.8	.099	10.1	.058	17.2	.045	22.2	.095	10.5
1922	.329	3.0	.131	7.6	.087	11.5	.051	19.6	.039	25.6	.095	10.5
1923: February	.375	2.7	.137	7.3	.087	11.5	.049	20.4	.040	25.0	.094	10.6

Year.	Potatoes.		Sugar.		Coffee.		Tea.	
	Per lb.	*Lbs.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*
1913	$0.017	58.8	$0.055	18.2	$0.298	3.4	$0.544	1.8
1914	.018	55.6	.059	16.9	.297	3.4	.546	1.8
1915	.015	66.7	.066	15.2	.300	3.3	.545	1.8
1916	.027	37.0	.080	12.5	.299	3.3	.546	1.8
1917	.043	23.3	.093	10.8	.302	3.3	.582	1.7
1918	.032	31.3	.097	10.3	.305	3.3	.648	1.5
1919	.038	26.3	.113	8.8	.433	2.3	.701	1.4
1920	.063	15.9	.194	5.2	.470	2.1	.733	1.4
1921	.031	32.3	.080	12.5	.363	2.8	.697	1.4
1922	.028	35.7	.073	13.7	.361	2.8	.681	1.5
1923: February	.021	47.6	.087	11.5	.375	2.7	.689	1.5

[3] Although monthly prices of 43 food articles have been secured since January, 1919, prices of only 22 of these articles have been secured each month since 1913.

Index Numbers of Retail Prices of Food in the United States.

IN TABLE 4 index numbers are given which show the changes in the retail prices of each of 22 food articles,[4] by years from 1907 to 1922, and by months for 1922,[5] and for January and February, 1923. These index numbers, or relative prices, are based on the year 1913 as 100 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of rib roast for the year 1920 was 168, which means that the average money price for the year 1920 was 68 per cent higher than the average money price for the year 1913. The relative price of bacon for the year 1919 was 205 and for the year 1920, 194, which figures show a drop of 11 points but a decrease of only 5 per cent in the year.

In the last column of Table 4 are given index numbers showing the changes in the retail cost of all articles of food combined. From January, 1913, to December, 1920, 22 articles have been included in the index, and beginning with January, 1921, 43 articles have been used.[4] For an explanation of the method used in making the link between the cost of the market basket of 22 articles, weighted according to the average family consumption in 1901, and the cost of the market basket based on 43 articles and weighted according to the consumption in 1918, see MONTHLY LABOR REVIEW for March, 1921 (p. 25).

The curve shown in the chart on page 31 pictures more readily to the eye the changes in the cost of the family market basket and the trend in the cost of the food budget than do the index numbers given in the table. The retail cost of the food articles included in the index has decreased since July, 1920, until the curve is brought down in February, 1923, to approximately where it was in April, 1917. The chart has been drawn on the logarithmic scale,[6] because the percentages of increase or decrease are more accurately shown than on the arithmetic scale.

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[4] See note 2, p. 25.

[5] For index numbers of each month, January, 1913, to December, 1920, see MONTHLY LABOR REVIEW for February, 1921, pp. 19–21.

[6] For a discussion of the logarithmic chart see article on "Comparison of arithmetic and ratio charts," by Lucian W. Chaney, MONTHLY LABOR REVIEW for March, 1919, pp. 20–34. Also, "The 'ratio' charts," by Prof. Irving Fisher, reprinted from Quarterly Publications of the American Statistical Association, June, 1917, 24 pp.

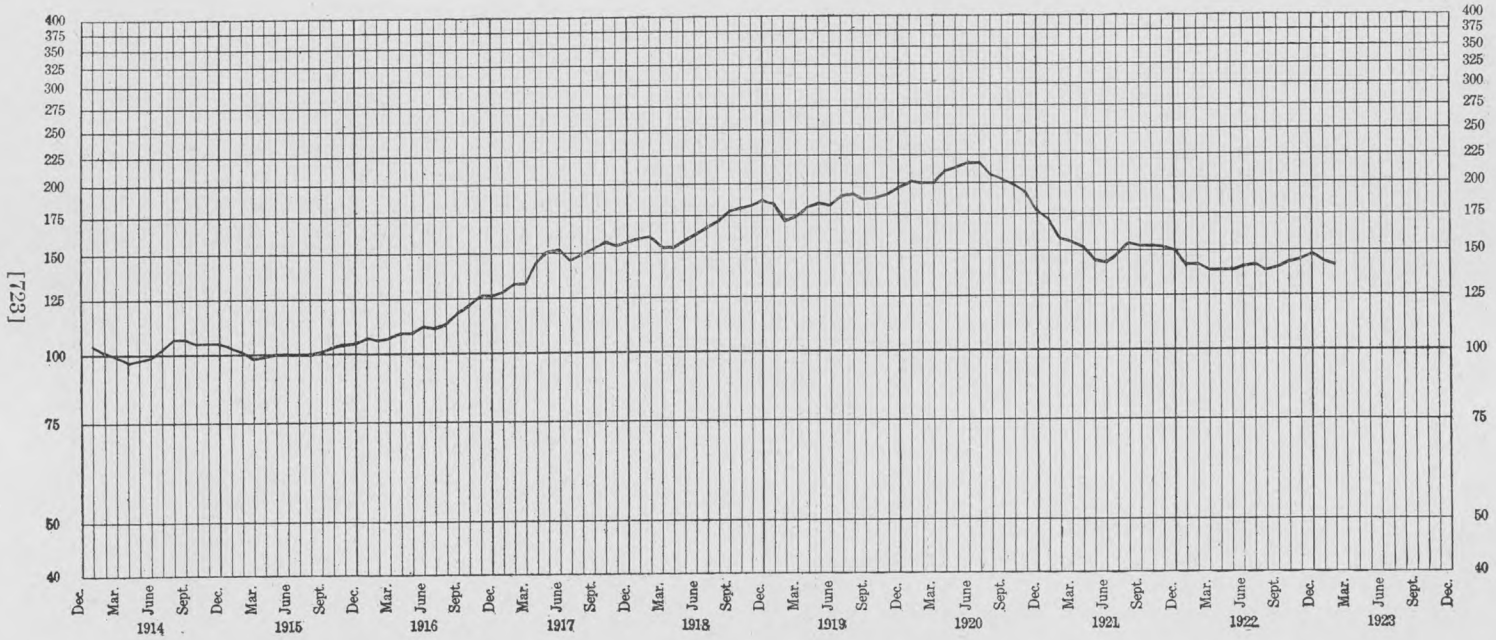
TABLE 4.—INDEX NUMBERS SHOWING CHANGES IN THE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, BY YEARS, 1907 TO 1922, BY MONTHS FOR 1922, AND FOR JANUARY AND FEBRUARY, 1923.

[Average for year 1913=100.]

Year and month.	Sirloin steak.	Round steak.	Rib roast.	Chuck roast.	Plate beef.	Pork chops.	Bacon.	Ham.	Lard.	Hens.	Eggs.	Butter.	Cheese.	Milk.	Bread.	Flour.	Corn meal.	Rice.	Potatoes.	Sugar.	Coffee.	Tea.	All articles combined.
1907	71	68	76	.....	.....	74	74	76	81	*81	84	85	.....	87	.....	95	88	.....	105	105	.....	.....	82
1908	73	71	78	.....	.....	76	77	78	80	83	86	86	.....	90	.....	102	92	.....	111	108	.....	.....	84
1909	77	74	81	.....	.....	83	83	82	90	89	93	90	.....	91	.....	109	94	.....	112	107	.....	.....	89
1910	80	78	85	.....	.....	92	95	91	104	94	98	94	.....	95	.....	108	95	.....	101	109	.....	.....	93
1911	81	79	85	.....	.....	85	91	89	88	91	94	88	.....	96	.....	102	94	.....	130	117	.....	.....	92
1912	91	89	94	.....	.....	91	91	91	94	93	99	98	.....	97	.....	105	102	.....	135	115	.....	.....	98
1913	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
1914	102	106	103	104	104	105	102	102	99	102	102	94	104	100	113	104	105	101	108	108	100	100	102
1915	101	103	101	101	100	96	100	97	93	97	99	93	105	99	125	126	108	104	89	120	101	100	101
1916	108	110	107	107	106	108	106	109	111	111	109	103	117	102	130	135	113	105	159	146	100	100	114
1917	124	130	126	131	130	152	152	142	175	134	139	127	150	125	164	211	192	119	253	169	101	107	146
1918	153	165	155	166	170	186	196	178	211	177	165	151	162	156	175	203	227	148	188	176	102	119	168
1919	164	174	164	169	167	201	205	199	234	193	182	177	193	174	179	218	213	174	224	205	145	129	186
1920	172	177	168	164	151	201	194	206	187	210	197	183	188	188	205	245	217	200	371	353	158	135	203
1921	153	154	147	133	118	166	158	181	114	186	148	135	154	164	177	176	150	109	182	145	122	128	153
1922: Av. for year	147	145	139	123	106	157	147	181	108	169	129	125	149	147	155	155	130	109	165	133	121	125	142
January	139	136	135	119	106	138	139	164	97	173	145	118	149	153	157	148	130	107	194	113	120	126	142
February	139	135	134	118	106	140	140	173	101	173	140	120	149	148	154	155	130	107	194	116	119	125	142
March	141	138	136	121	107	149	144	185	109	177	92	120	149	146	155	161	130	107	182	118	119	124	139
April	143	141	138	122	107	157	147	188	107	177	92	118	145	143	155	161	130	108	171	122	120	124	139
May	148	146	141	124	107	164	147	191	108	177	97	117	139	140	157	161	127	109	176	120	120	125	139
June	151	150	142	126	107	161	150	193	109	173	99	117	141	140	157	161	130	110	206	129	121	125	141
July	154	153	144	127	106	164	150	194	109	168	104	119	143	144	157	158	130	110	212	138	121	125	142
August	154	153	142	125	104	167	150	189	109	164	108	115	144	146	155	155	130	110	153	147	121	126	139
September	152	151	142	125	104	173	150	180	109	164	130	122	145	147	155	148	130	110	135	144	121	125	140
October	151	148	141	124	106	174	151	177	111	163	157	133	154	149	155	145	130	110	129	144	122	125	143
November	147	144	139	123	105	157	151	172	111	159	187	143	161	151	155	145	130	109	124	147	122	126	145
December	145	141	138	121	105	140	149	169	111	158	193	157	166	154	154	148	133	109	124	151	123	126	147
1923: January	146	142	139	123	107	140	147	168	110	162	161	154	169	154	155	148	133	109	124	151	124	126	144
February	146	141	139	122	106	137	146	167	110	167	134	151	170	154	155	148	133	108	124	158	126	127	142

TREND IN THE RETAIL COST OF ALL ARTICLES OF FOOD, COMBINED, FOR THE UNITED STATES, BY MONTHS, JANUARY, 1914, TO FEBRUARY, 1923.

[1913=100.]



Retail Prices of Food in 51

AVERAGE retail food prices are shown in Table 5 for 39 cities ruary 15, 1923. For 12 other cities prices are shown for the not scheduled by the bureau until after 1913.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

[The prices shown in this table are computed from reports sent monthly to the bureau by retail dealers.

Article.	Unit.	Atlanta, Ga.				Baltimore, Md.				Birmingham, Ala.			
		Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.
		1913	1922			1913	1922			1913	1922		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	22.6	32.6	33.2	32.7	20.7	32.9	35.8	35.7	24.9	32.0	33.2	33.6
Round steak	do	20.5	29.7	29.8	29.5	19.0	29.6	32.6	32.8	20.1	28.6	29.4	29.3
Rib roast	do	17.0	25.7	25.3	25.8	17.3	26.7	29.0	29.1	19.3	23.3	25.9	25.8
Chuck roast	do	13.0	17.6	19.0	18.8	14.7	18.8	19.5	19.5	15.6	17.8	20.0	20.3
Plate beef	do	9.8	11.6	11.9	11.2	11.6	12.8	13.3	13.0	10.0	11.5	12.3	12.4
Pork chops	do	19.5	28.9	28.2	27.6	17.3	28.7	30.3	28.5	19.4	28.0	28.4	28.8
Bacon, sliced	do	30.0	36.7	36.1	35.8	21.3	31.6	35.3	34.5	31.3	38.9	41.3	40.7
Ham, sliced	do	28.5	45.0	45.5	45.0	30.0	52.0	48.5	50.9	30.0	45.9	46.3	45.5
Lamb, leg of	do	20.0	34.0	35.9	35.9	18.0	35.8	37.8	37.9	18.8	35.8	36.7	36.3
Hens	do	20.0	32.4	31.1	31.1	19.8	39.1	36.6	38.4	19.3	31.9	31.4	31.4
Salmon, canned, red	do	.....	31.3	28.9	29.1	.....	27.7	26.4	26.6	.....	32.6	30.3	30.0
Milk, fresh	Quart	10.0	17.5	16.7	16.7	8.8	12.0	13.0	13.0	10.3	20.0	19.0	19.0
Milk, evaporated	15-16-oz. can	.....	14.3	13.9	14.0	.....	10.6	11.9	11.9	.....	12.7	13.2	13.4
Butter	Pound	41.7	48.2	58.1	58.1	42.3	51.1	64.1	63.0	44.0	48.0	60.0	60.7
Oleomargarine	do	.....	32.4	32.0	32.0	.....	26.9	25.8	25.8	.....	33.5	33.3	33.3
Nut margarine	do	.....	28.0	26.7	26.3	.....	26.8	26.1	26.9	.....	29.5	30.1	31.1
Cheese	do	25.0	32.6	37.3	36.5	23.3	33.3	37.1	37.5	23.0	31.2	37.8	37.2
Lard	do	14.8	17.4	17.8	18.0	13.5	15.7	17.0	16.7	15.4	16.0	17.8	17.5
Vegetable lard substitute	do	.....	21.9	19.8	20.1	.....	20.0	21.9	21.6	.....	20.7	18.6	19.2
Eggs, strictly fresh	Dozen	28.0	43.2	50.0	42.7	27.1	52.5	55.8	46.8	28.8	41.9	51.8	45.7
Eggs, storage	do	25.0	.....	41.0	35.0	23.0	37.5	37.5	36.8	25.0	29.3	42.2	.....
Bread	Pound	6.0	10.1	9.1	9.1	5.4	8.6	8.4	8.4	5.0	9.1	8.8	8.9
Flour	do	3.6	5.6	5.3	5.3	3.2	4.9	4.6	4.5	3.8	5.8	5.8	5.8
Corn meal	do	2.4	2.7	3.2	3.3	2.4	3.1	3.1	3.1	2.1	2.8	3.1	3.0
Rolled oats	do	.....	10.1	9.2	9.1	.....	8.8	8.9	8.4	.....	9.8	9.6	9.6
Corn flakes	8-oz. pkg	.....	10.1	9.6	9.7	.....	9.5	9.1	8.9	.....	10.4	10.1	9.9
Wheat cereal	28-oz. pkg	.....	26.8	26.0	25.9	.....	25.0	23.9	23.6	.....	27.8	26.6	27.0
Macaroni	Pound	.....	22.0	21.3	21.1	.....	20.1	19.4	19.2	.....	19.0	19.7	19.6
Rice	do	8.6	8.9	8.7	8.7	9.0	9.1	8.9	9.0	8.2	9.1	9.3	9.1
Beans, navy	do	.....	10.1	12.6	13.0	.....	8.1	10.9	11.0	.....	9.6	11.6	11.7
Potatoes	do	2.0	4.2	3.0	3.1	1.7	3.4	2.1	2.1	1.9	4.3	3.2	3.2
Onions	do	.....	11.3	6.9	7.0	.....	11.2	5.7	6.0	.....	11.1	5.9	5.9
Cabbage	do	.....	6.2	5.3	6.8	.....	5.2	4.5	6.0	.....	5.7	5.2	5.8
Beans, baked	No. 2 can	.....	13.4	13.6	13.5	.....	12.3	12.4	12.3	.....	14.9	14.6	14.4
Corn, canned	do	.....	16.1	15.9	16.0	.....	15.5	15.0	15.1	.....	16.6	15.7	16.2
Peas, canned	do	.....	17.0	17.8	17.7	.....	16.7	16.3	16.3	.....	19.9	20.1	20.4
Tomatoes, canned	do	.....	13.5	12.9	13.2	.....	12.2	11.6	11.9	.....	13.0	11.5	11.6
Sugar, granulated	Pound	6.0	6.9	8.7	9.1	5.0	5.7	7.5	8.0	5.3	6.4	8.4	8.8
Tea	do	60.0	86.3	89.4	91.1	56.0	66.3	65.8	66.7	61.3	80.1	82.4	82.0
Coffee	do	32.0	35.8	37.0	36.9	25.2	31.3	32.7	33.0	28.8	36.0	37.4	37.5
Prunes	do	.....	18.6	20.9	20.3	.....	18.1	18.5	18.1	.....	20.7	20.7	20.7
Raisins	do	.....	25.6	20.3	20.1	.....	23.5	16.6	16.3	.....	25.4	20.5	20.1
Bananas	Dozen	.....	25.7	24.1	25.3	.....	29.2	27.6	28.1	.....	33.8	34.2	33.6
Oranges	do	.....	38.6	37.5	39.2	.....	47.3	47.6	47.5	.....	43.2	37.8	39.1

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

Cities on Specified Dates.

for February 15, 1913 and 1922, and for January 15, 1923, and Feb- same dates with the exception of February, 1913, as these cities were

ARTICLES OF FOOD IN 51 CITIES, ON SPECIFIED DATES.

As some dealers occasionally fail to report, the number of quotations varies from month to month.]

Boston, Mass.				Bridgeport, Conn.			Buffalo, N. Y.				Butte, Mont.			Charleston, S. C.			
Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.
1913	1922						1913	1922						1913	1922		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
[1] 34.5	[1] 55.5	[1] 59.8	[1] 59.4	38.9	43.5	43.4	20.3	32.6	36.2	36.3	29.1	28.1	27.9	21.0	34.3	34.5	34.1
32.4	45.7	46.4	45.8	34.4	36.6	36.5	18.3	26.7	29.8	29.9	25.6	25.0	24.5	20.0	31.8	31.4	30.9
23.4	33.6	35.8	35.7	30.5	33.5	33.0	17.0	25.4	26.9	27.1	24.2	22.5	22.3	19.3	27.9	28.6	27.3
17.0	22.8	22.8	23.0	20.8	23.4	23.3	14.7	18.2	20.1	20.0	17.2	16.0	16.0	15.0	20.9	21.8	20.7
.....	15.2	15.0	14.8	9.7	10.5	10.5	10.7	11.9	12.3	12.1	12.3	11.3	11.1	11.4	15.5	14.3	14.3
20.6	31.5	31.8	31.7	28.9	30.1	29.7	19.3	30.6	31.0	30.1	28.2	29.6	27.0	23.0	31.8	30.5	29.1
24.6	35.4	38.4	37.6	41.8	46.2	45.0	20.3	31.0	34.1	33.2	48.3	46.8	45.9	23.0	34.0	37.9	37.4
28.3	52.8	50.6	49.9	55.8	53.5	53.8	24.0	47.4	45.9	45.6	52.9	51.8	50.0	26.7	45.0	43.5	41.9
21.8	38.5	39.6	37.8	36.1	37.5	38.1	17.5	30.6	32.2	32.0	28.0	31.0	29.5	21.3	39.5	44.4	40.6
22.8	40.1	39.7	39.6	40.1	38.7	39.0	20.0	36.9	35.5	36.1	35.4	30.5	30.5	21.4	38.9	36.9	36.0
.....	32.6	29.0	29.2	32.9	30.3	30.1	.....	28.7	27.5	27.6	37.1	36.8	36.8	.....	27.6	27.0	27.1
8.9	13.5	14.5	14.5	12.0	15.0	15.0	8.0	15.0	13.0	13.0	14.0	14.2	14.2	11.7	18.7	18.0	18.0
.....	12.4	12.5	12.6	12.1	12.3	12.5	.....	10.6	11.8	11.9	12.1	12.3	12.3	.....	11.5	12.0	12.0
38.9	45.7	59.6	59.8	45.8	56.9	57.9	41.2	45.9	60.0	58.4	44.3	56.5	55.7	39.8	43.6	57.5	56.1
.....	32.1	30.7	31.0	24.7	27.3	27.0	.....	27.3	27.6	28.0	27.5	30.5	30.5	.....	28.6	28.2	28.2
.....	28.5	26.0	26.0	24.3	27.3	27.8	.....	26.6	25.5	26.1	30.7	30.3	31.2	.....	28.0	28.0	28.0
22.9	33.8	38.5	38.4	32.9	37.4	37.8	21.5	31.9	35.8	36.4	35.6	38.3	37.9	21.0	30.1	36.0	36.6
15.3	16.2	18.1	18.2	14.9	17.3	17.3	13.9	14.9	16.6	16.6	20.3	21.4	20.9	14.8	16.8	18.6	18.8
.....	22.4	24.3	24.1	20.8	23.2	21.6	.....	20.1	21.3	21.1	24.9	26.7	26.7	.....	21.0	20.6	20.7
37.5	65.2	71.2	60.0	59.5	75.0	58.7	31.0	53.4	60.3	50.5	54.2	66.5	60.9	32.5	48.3	52.4	43.4
25.2	42.8	45.6	42.7	45.0	44.4	42.4	22.2	36.8	37.8	36.1	40.0	40.0	33.1	23.8	41.2	37.0	37.0
5.9	8.5	8.4	8.4	8.4	8.5	8.5	5.6	8.6	8.3	8.3	9.6	9.7	9.7	6.2	9.5	9.5	9.5
3.7	5.8	5.5	5.4	5.2	4.8	4.9	2.9	4.7	4.3	4.3	5.6	5.4	5.3	3.7	6.0	5.9	6.0
3.5	4.9	4.5	4.5	7.1	6.5	6.4	2.5	3.7	3.6	3.7	4.2	3.9	3.8	2.3	2.9	3.0	3.0
.....	8.5	8.4	8.6	9.0	8.4	8.3	.....	7.6	7.8	7.8	7.3	6.9	6.7	.....	9.5	9.5	9.5
.....	10.9	10.0	9.8	10.2	9.5	9.6	.....	9.7	9.3	9.2	12.1	11.9	11.9	.....	10.8	10.0	10.0
.....	26.1	25.0	25.2	25.3	24.0	24.4	.....	25.6	24.9	25.2	30.3	28.8	28.8	.....	25.3	25.0	25.0
.....	24.0	23.1	23.6	24.2	23.7	23.8	.....	22.5	21.7	21.8	22.8	22.2	22.2	.....	20.2	20.5	20.5
9.2	10.4	11.0	10.6	9.4	10.4	10.4	9.3	9.1	9.0	9.1	9.4	9.8	9.6	5.5	6.6	6.3	6.3
.....	8.1	10.5	10.5	8.9	11.4	11.4	.....	8.0	10.7	11.2	8.9	9.5	10.3	.....	9.5	11.5	12.0
1.7	3.2	2.2	2.4	3.3	2.2	2.3	1.4	2.7	1.7	1.7	1.8	1.2	1.2	2.0	3.9	2.7	2.6
.....	11.4	6.1	6.5	11.1	5.1	5.7	.....	11.4	5.1	5.2	10.4	3.7	4.1	.....	12.3	5.2	5.5
.....	7.0	5.0	6.8	6.5	4.3	4.6	.....	4.9	2.6	3.6	6.3	3.1	3.8	.....	5.4	3.8	3.8
.....	14.7	14.5	14.2	11.9	12.0	12.2	.....	11.2	11.2	11.1	19.4	17.9	17.7	.....	11.6	11.6	11.5
.....	19.0	18.6	19.0	18.5	18.4	18.9	.....	15.2	14.6	14.6	18.0	15.7	15.7	.....	14.7	14.6	14.6
.....	21.6	21.4	21.4	19.9	20.5	21.3	.....	17.1	16.0	16.2	17.2	16.5	16.5	.....	19.1	18.2	18.0
.....	13.4	14.1	12.8	12.9	12.6	12.9	.....	13.1	13.0	13.2	16.6	15.1	15.1	.....	11.8	10.5	10.8
5.4	6.0	8.2	8.7	6.0	7.9	8.1	5.3	6.0	8.0	8.6	8.4	9.7	10.3	5.0	6.0	7.8	7.9
58.6	68.1	68.4	69.0	57.0	57.1	57.0	45.0	58.4	61.2	61.2	78.3	80.0	80.0	50.0	74.6	71.4	70.7
33.0	41.6	42.8	42.8	34.6	34.6	35.3	29.3	33.3	34.9	35.3	45.8	45.0	45.0	26.0	31.5	32.6	32.7
.....	19.7	21.4	20.6	18.9	19.9	19.7	.....	18.7	18.9	19.0	19.5	20.6	20.4	.....	18.9	19.8	19.8
.....	23.0	18.4	18.0	25.0	18.3	18.1	.....	22.1	17.6	17.5	27.9	20.8	21.2	.....	24.9	18.5	18.6
.....	45.6	53.3	53.3	35.0	36.7	36.7	.....	44.4	46.8	46.5	[2] 15.3	[2] 15.3	[2] 15.5	.....	36.5	38.1	36.9
.....	50.8	53.6	53.3	50.8	47.7	48.7	.....	54.7	51.5	51.2	51.2	42.7	40.8	.....	37.3	36.8	33.3

[2] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article.	Unit.	Chicago, Ill.				Cincinnati, Ohio.				Cleveland, Ohio.			
		Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.
		1913	1922			1913	1922			1913	1922		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	20.9	34.3	38.1	37.6	21.3	30.7	33.0	33.2	22.3	30.2	34.2	33.7
Round steak	do	18.6	27.2	29.3	28.9	19.1	27.0	29.5	29.9	18.8	24.9	28.0	28.0
Rib roast	do	18.1	28.1	29.3	29.2	18.6	26.1	27.1	27.5	18.0	22.6	24.6	25.3
Chuck roast	do	13.9	18.2	19.4	18.8	13.9	16.5	17.7	17.7	14.7	17.6	19.3	19.3
Plate beef	do	11.0	11.5	12.3	12.0	11.6	13.7	14.2	14.3	10.6	11.3	11.3	11.0
Pork chops	do	16.3	26.9	25.6	24.8	19.2	28.2	27.3	27.0	18.3	27.4	28.4	28.2
Bacon, sliced	do	29.0	44.5	44.4	44.3	24.0	31.0	34.0	33.5	24.3	35.8	40.1	39.9
Ham, sliced	do	29.5	47.4	46.4	46.6	26.0	47.4	45.0	45.4	32.0	44.9	46.2	46.0
Lamb, leg of	do	19.1	35.8	34.0	34.2	16.6	33.8	34.3	34.2	18.7	33.6	34.1	33.6
Hens	do	19.4	35.5	31.1	34.0	22.6	37.5	34.0	36.7	20.6	36.9	36.3	37.1
Salmon, canned, red	do	.....	33.3	32.2	32.2	.....	29.1	27.9	27.9	.....	31.8	29.4	29.4
Milk, fresh	Quart	8.0	12.0	13.0	13.0	8.0	12.0	12.0	12.0	8.8	11.0	14.0	14.0
Milk, evaporated	15-16-oz. can	.....	10.7	11.2	11.4	.....	10.4	11.5	11.6	.....	10.6	11.7	11.7
Butter	Pound	39.9	42.8	58.3	56.4	42.3	43.5	59.0	56.8	43.6	48.8	61.6	60.2
Oleomargarine	do	.....	24.1	25.2	25.6	.....	28.2	29.6	29.7	.....	28.3	29.6	29.4
Nut margarine	do	.....	23.7	24.0	24.5	.....	27.1	27.4	27.6	.....	26.6	27.4	27.5
Cheese	do	25.0	35.0	39.8	40.4	21.6	34.3	38.0	38.4	23.0	32.5	36.4	36.3
Lard	do	14.7	15.2	17.0	16.4	13.7	14.0	15.6	15.4	15.8	16.2	17 9	17.8
Vegetable lard substitute	do	.....	21.9	22.8	23.0	.....	20.7	22.3	23.3	.....	21.5	23.5	23.7
Eggs, strictly fresh	Dozen	27.3	48.4	56.5	45.8	27.6	41.9	51.3	39.2	31.8	50.3	61.2	47.6
Eggs, storage	do	22.6	37.7	38.5	35.2	19.0	.....	36.6	29.0	.....	37.0	41.6	37.8
Bread	Pound	6.1	8.9	9.7	9.7	4.8	8.5	8.4	8.5	5.5	8.0	7.9	7.9
Flour	do	2.8	4.7	4.2	4.2	3.4	5.0	4.6	4.5	3.2	5.1	4.7	4.7
Corn meal	do	2.9	5.1	5.4	5.4	2.5	2.8	2.9	3.0	2.8	3.5	3.8	3.8
Rolled oats	do	.....	8.2	8.1	8.2	.....	8.5	8.7	8.7	.....	8.3	8.6	8.5
Corn flakes	8-oz. pkg	.....	10.0	9.6	9.6	.....	9.9	9.4	9.4	.....	10.7	9.9	9.9
Wheat cereal	28-oz. pkg	.....	25.5	23.9	24.2	.....	25.3	23.8	23.3	.....	25.3	24.7	24.4
Macaroni	Pound	.....	18.5	18.0	18.1	.....	18.0	16.5	16.0	.....	19.6	21.1	21.1
Rice	do	9.0	9.8	10.1	10.1	8.8	8.8	8 9	8.9	8.5	8.9	9.0	9.0
Beans, navy	do	.....	8.0	11.2	11.4	.....	7.1	10.5	10.8	.....	7.4	10.2	11.2
Potatoes	do	1.2	3.0	1.9	1.9	1.4	3.4	2.0	1.9	1.4	3.3	2.1	2.2
Onions	do	.....	9.6	4.8	5.0	.....	10.8	5.2	5.1	.....	10.6	4.7	4.8
Cabbage	do	.....	6.0	5.0	5.6	.....	5.3	3.8	4.4	.....	6.0	3.9	4.3
Beans, baked	No. 2 can	.....	12.5	13.0	13.0	.....	11.0	11.5	11.6	.....	12.0	12.7	12.7
Corn, canned	do	.....	14.6	14.3	14.4	.....	15.6	14.0	14.1	.....	16.5	16.1	15.9
Peas, canned	do	.....	15.6	15.9	15.8	.....	17.2	16.3	16.4	.....	17.7	17.1	17.3
Tomatoes, canned	do	.....	13.7	13.5	13.6	.....	12.9	12.4	12.4	.....	13.6	13.6	13.7
Sugar, granulated	Pound	5.0	5.9	7.7	8.2	5.2	6.3	8.0	8.5	5.5	6.4	8.2	8.5
Tea	do	53.3	64.4	69.2	70.0	60.0	71.9	68.1	70.1	50.0	63.7	69.3	69.1
Coffee	do	30.0	34.4	36.2	37.6	25.6	30.7	32.0	32.2	26.5	35.7	39.8	40.2
Prunes	do	.....	19.4	20.7	20.1	.....	19.2	19.9	19.9	.....	17.3	19.7	19.3
Raisins	do	.....	25.5	19.4	19.2	.....	22.4	18.7	18.3	.....	23.1	19.1	18.8
Bananas	Dozen	.....	35.7	38.1	37.8	.....	37.5	38.2	38.1	.....	45.8	48.5	48.9
Oranges	do	.....	49.7	51.8	51.8	.....	42.6	42.3	41.3	.....	48.5	49.7	49.7

[1] The steak for which prices are here quoted is called "rump" in this city, but in most of the cities included in this report it would be known as "porterhouse" steak.

ARTICLES OF FOOD IN 51 CITIES, ON SPECIFIED DATES—Continued.

Columbus, Ohio.			Dallas, Tex.				Denver, Colo.				Detroit, Mich.				Fall River, Mass.			
Feb. 15, 1922.	Jan. 15, 1923.	Feb 15, 1923	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.
			1913	1922			1913	1922			1913	1922			1913	1922		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
31.3	34.4	33.7	19.6	33.0	33.7	33.7	22.5	28.5	28.6	29.0	22.8	32.5	35.0	35.7	[1] 31.0	[1] 51.6	[1] 55.9	[1] 55.8
26.2	29.6	29.2	18.3	29.5	30.8	30.8	18.4	23.4	23.7	23.5	18.2	25.2	27.5	27.5	24.0	39.5	41.5	41.8
24.8	26.1	25.6	17.6	25.6	26.5	26.5	15.9	22.1	21.1	21.1	18.2	24.7	25.5	26.0	22.6	26.4	27.3	27.2
18.4	19.8	19.4	15.4	19.7	21.2	20.5	14.5	15.9	16.3	16.2	14.5	17.7	18.3	18.7	17.0	19.5	20.2	20.1
12.5	13.5	12.8	11.8	15.8	14.6	14.5	9.1	9.8	9.6	9.7	10.3	11.1	11.9	11.7	.....	12.2	12.5	11.5
25.5	27.6	26.3	20.4	32.5	29.7	27.5	16.5	26.5	27.2	26.6	16.8	29.5	28.6	28.0	17.7	27.3	28.4	27.5
33.5	36.6	38.3	36.0	42.6	40.4	39.7	26.3	41.7	42.6	42.5	22.4	37.4	39.6	39.8	24.8	37.4	38.7	38.1
45.5	44.5	45.3	28.8	54.2	50.0	50.0	27.0	52.5	49.2	48.8	24.0	53.5	47.4	48.6	28.7	46.8	47.0	46.8
34.0	36.9	34.7	20.5	37.5	40.0	44.2	15.5	31.4	33.9	34.7	16.7	36.9	37.2	36.9	19.0	36.9	38.6	38.1
35.0	32.0	33.0	18.7	31.1	29.1	30.8	20.0	30.3	28.4	29.3	20.0	36.7	34.6	36.3	24.8	43.8	43.2	42.2
32.9	31.6	31.6	.....	32.5	31.1	31.6	.....	36.5	33.8	33.2	.....	31.2	30.0	30.4	.....	32.7	30.5	31.1
11.0	12.0	12.0	10.0	12.0	15.0	15.0	8.4	9.8	11.8	11.8	8.8	13.0	14.0	14.0	9.0	14.0	14.0	14.0
11.0	11.9	12.1	.....	13.8	13.3	13.5	.....	11.5	11.6	11.7	.....	10.9	11.8	11.6	.....	13.4	13.1	13.6
44.6	58.6	57.1	39.0	45.2	55.5	56.5	40.0	37.2	54.2	53.1	40.4	44.4	60.5	58.3	38.4	44.4	56.3	56.8
25.3	27.2	27.6	.....	27.8	29.8	27.5	.....	28.7	28.2	28.0	.....	26.6	28.1	28.6	.....	28.7	30.7	30.0
25.0	25.6	26.1	.....	30.3	29.6	29.4	.....	28.2	28.0	28.3	.....	25.9	26.9	27.2	.....	30.0	29.0	27.7
30.4	36.8	36.9	20.0	33.8	37.1	36.9	26.1	35.4	38.7	38.9	21.3	31.3	37.5	37.0	23.6	33.8	37.4	37.6
13.7	15.3	15.2	16.0	19.0	20.4	20.6	16.3	17.7	19.1	19.3	15.9	15.7	17.2	17.1	14.8	15.2	16.8	16.7
21.6	22.1	22.4	.....	20.4	29.8	20.8	.....	23.6	21.9	21.9	.....	20.5	23.0	23.4	.....	21.8	23.0	23.0
39.7	54.0	41.5	26.3	44.6	44.5	41.2	29.0	43.5	49.0	42.3	31.2	50.7	62.2	48.5	37.7	66.4	83.8	68.3
.....	37.6	35.0	.....	.....	.....	.....	.....	35.0	38.7	32.5	24.8	39.5	40.2	37.0	25.0	42.6	45.1	43.1
7.9	7.9	7.7	5.6	9.1	9.0	8.9	5.3	8.2	8.2	8.2	5.6	8.6	8.6	8.6	6.2	9.7	9.1	9.1
4.8	4.6	4.6	3.3	4.8	4.8	4.7	2.7	4.0	3.8	3.9	3.2	4.8	4.4	4.4	3.3	5.1	5.1	5.0
3.1	3.2	3.0	2.6	3.3	3.6	3.5	2.5	2.9	3.4	3.2	2.7	4.0	4.4	4.3	3.4	6.4	6.0	5.8
8.8	9.9	9.0	.....	10.5	10.6	10.4	.....	9.3	8.9	8.8	.....	9.7	9.0	8.9	.....	10.2	9.6	9.7
9.5	9.8	10.1	.....	11.1	10.8	10.8	.....	10.6	9.9	9.9	.....	9.7	9.1	9.1	.....	11.8	10.0	9.9
25.9	24.8	24.4	.....	26.6	26.5	25.9	.....	25.8	25.1	24.7	.....	25.8	24.1	24.0	.....	27.2	27.5	27.7
19.7	19.6	19.0	.....	21.3	21.5	21.8	.....	21.0	20.5	20.8	.....	19.2	19.1	19.0	.....	23.7	24.0	24.0
10.4	10.0	10.4	9.3	11.0	10.2	9.9	8.6	9.3	9.5	9.4	8.4	9.1	9.9	9.6	10.0	9.6	9.9	10 3
7.7	10.7	11.0	.....	9.6	11.2	11.6	.....	9.1	11.5	11.9	.....	7.2	10.5	10.9	.....	8.2	10.9	10.8
3.2	1.8	1.9	2.0	4.4	3.3	3.3	1.1	2.7	1.7	1.5	1.3	2.6	1.3	1.3	1.8	3.4	2.3	2.3
11.9	5.5	5.9	.....	11.0	6.8	7.2	.....	11.5	3.7	3.8	.....	10.3	4.7	4.9	.....	11.8	6.1	5.8
6.3	4.4	5.1	.....	5.8	5.1	5.4	.....	5.2	2.4	3.3	.....	6.3	3.9	4.6	.....	7.8	5.3	6.6
13.1	13.4	13.2	.....	15.9	14.3	14.8	.....	14.9	14.3	14.4	.....	11.7	12.1	12.3	.....	13.7	13.1	13.4
13.1	12.6	12.5	.....	16.9	17.3	17.0	.....	15.0	14.6	14.4	.....	14.8	15.2	15.0	.....	16.6	16.6	16.3
15.9	15.1	14.5	.....	21.8	21.4	21.1	.....	17.7	16.2	16.2	.....	16.5	17.1	16.8	.....	18.2	18.2	18.2
13.8	13.5	13.1	.....	14.3	13.8	13.9	.....	13.4	12.9	13.1	.....	12.2	13.1	12.9	.....	13.6	13.2	13.1
6.5	8.2	8.8	5.9	6.6	9.0	9.5	5.4	7.1	8.9	9.3	5.1	6.1	8.0	8.6	5.3	6.5	8.4	8.8
77.4	76.7	76.7	66.7	88.9	91.4	92.7	52.8	69.8	68.3	68.3	43.3	60.4	66.5	66.5	44.2	53.9	57.2	57.2
35.1	36.5	36.6	36.7	40.4	42.0	42.7	29.4	34.9	36.4	35.9	29.3	35.3	37.8	38.0	33.0	39.1	38.4	39.2
19.5	21.3	20.8	.....	21.6	23.3	23.3	.....	19.9	21.1	21.1	.....	18.8	20.3	19.8	.....	18.5	18.3	18.4
24.4	19.1	18.5	.....	26.1	19.8	19.8	.....	25.3	20.0	19.7	.....	23.4	17.9	17.4	.....	25.4	19.3	19.3
37.7	39.1	41.8	.....	34.4	33.6	34.2	.....	[2] 13.4	[2] 13.8	[2] 13.8	.....	32.1	33.7	34.4	.....	[2] 10.4	[2] 10.9	[2] 10.7
46.2	43.5	45.6	.....	57.3	51.9	51.2	.....	49.2	48.7	51.0	.....	47.9	50.8	50.3	.....	45.3	47.9	50.9

[2] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article.	Unit.	Houston, Tex.			Indianapolis, Ind.				Jacksonville, Fla.			
		Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.
					1913	1922			1913	1922		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	30.4	30.3	30.0	23.5	32.6	34.4	34.4	25.8	33.1	33.5	33.6
Round steak	do	30.0	29.2	29.2	20.8	30.8	32.2	32.8	20.3	28.0	27.8	27.3
Rib roast	do	23.2	24.7	24.2	16.5	23.5	24.6	24.7	22.5	25.8	24.8	25.7
Chuck roast	do	20.4	20.3	19.9	14.6	20.2	21.1	20.9	14.3	17.0	17.1	17.5
Plate beef	do	15.7	15.5	15.9	11.2	14.1	14.1	14.0	10.3	9.9	11.3	11.5
Pork chops	do	29.6	27.2	27.4	18.0	28.1	27.0	27.6	23.0	29.5	29.5	28.6
Bacon, sliced	do	48.4	46.2	45.9	28.0	36.3	38.1	37.1	25.6	35.9	37.3	36.1
Ham, sliced	do	48.9	46.2	46.2	29.5	49.7	47.6	48.8	26.3	47.7	43.0	44.1
Lamb, leg of	do	35.0	34.3	35.0	17.7	37.9	40.0	40.0	19.5	38.3	35.5	35.8
Hens	do	31.0	32.3	34.5	21.0	34.6	31.5	32.4	22.0	35.4	34.1	33.9
Salmon, canned, red	do	32.2	30.7	31.0	.....	39.5	36.1	36.1	.....	32.0	30.5	30.5
Milk, fresh	Quart	16.5	15.8	15.8	8.0	11.0	12.0	12.0	12.5	17.7	17.7	17.7
Milk, evaporated	15–16-oz. can	12.3	12.8	12.9	.....	10.9	11.6	11.6	.....	12.7	12.5	12.6
Butter	Pound	42.9	56.3	53.9	41.8	44.4	57.8	55.5	43.8	47.9	59.3	58.9
Oleomargarine	do	29.6	33.0	32.5	.....	28.2	28.9	28.9	.....	27.7	29.2	29.1
Nut margarine	do	27.8	29.5	29.0	.....	27.5	26.3	26.5	.....	33.3	29.0	28.7
Cheese	do	31.1	36.5	36.8	21.0	33.6	38.6	38.5	22.5	31.6	37.0	36.3
Lard	do	16.8	19.0	18.9	15.0	13.9	14.7	14.7	15.3	16.1	17.4	17.8
Vegetable lard substitute	do	22.2	19.2	18.6	.....	21.0	23.3	23.4	.....	21.5	21.4	21.0
Eggs, strictly	Dozen	40.2	40.9	36.5	29.0	39.3	50.0	40.3	32.5	48.0	53.8	41.2
Eggs, storage	do	32.5	34.2	33.3	24.0	.....	35.0	34.0	.....	40.0	40.7	.....
Bread	Pound	7.0	7.2	7.2	5.1	8.6	8.4	8.4	6.5	10.4	10.6	10.6
Flour	do	5.1	5.1	5.1	3.2	4.8	4.7	4.7	3.7	6.1	5.7	5.7
Corn meal	do	3.5	3.7	3.6	2.6	2.8	3.0	3.1	2.8	3.0	3.1	3.2
Rolled oats	do	9.3	9.0	8.9	.....	7.9	7.8	7.8	.....	10.6	9.5	9.8
Corn flakes	8-oz. pkg	10.5	9.7	9.7	.....	9.8	9.1	9.2	.....	11.4	9.7	9.9
Wheat cereal	28-oz. pkg	25.2	24.5	24.3	.....	26.5	25.1	24.9	.....	27.4	23.8	23.8
Macaroni	Pound	20.3	20.4	20.2	.....	19.1	18.6	18.5	.....	19.6	19.6	19.6
Rice	do	7.8	7.8	7.8	9.2	9.6	10.2	10.1	6.6	9.1	8.8	9.0
Beans, navy	do	9.0	10.4	10.3	.....	7.8	11.4	11.4	.....	9.6	11.4	11.3
Potatoes	do	4.1	3.4	3.5	1.3	2.9	1.5	1.4	2.2	4.0	2.9	2.9
Onions	do	10.2	5.6	5.8	.....	11.0	4.9	4.9	.....	11.7	6.1	6.5
Cabbage	do	4.9	4.6	4.1	.....	5.7	4.1	4.2	.....	4.4	4.8	4.9
Beans, baked	No. 2 can	13.8	13.6	13.6	.....	13.4	13.3	13.8	.....	12.6	12.2	11.7
Corn, canned	do	13.9	13.8	13.9	.....	14.9	13.2	13.1	.....	17.5	16.1	16.1
Peas, canned	do	18.3	19.4	19.0	.....	15.7	15.4	15.2	.....	18.8	16.0	16.0
Tomatoes, canned	do	13.4	12.1	11.9	.....	14.3	13.8	13.9	.....	13.1	10.9	11.6
Sugar, granulated	Pound	6.1	8.0	8.9	5.9	6.6	8.7	9.1	6.1	6.7	8.3	8.4
Tea	do	71.9	70.2	69.8	60.0	75.7	76.1	77.5	60.0	89.8	84.0	84.4
Coffee	do	30.8	32.7	34.4	31.3	36.6	37.9	38.5	34.5	38.2	40.1	40.1
Prunes	do	19.3	20.4	20.1	.....	20.1	21.1	21.1	.....	18.6	21.2	21.1
Raisins	do	24.7	19.4	19.1	.....	26.8	19.8	19.6	.....	25.3	20.2	20.3
Bananas	Dozen	29.1	28.1	28.6	.....	30.0	30.3	30.3	.....	28.3	24.3	26.3
Oranges	do	47.7	45.2	45.2	.....	45.8	44.2	44.9	.....	34.0	29.5	30.9

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

ARTICLES OF FOOD IN 51 CITIES, ON SPECIFIED DATES—Continued.

Kansas City, Mo.				Little Rock, Ark.				Los Angeles, Calif.				Louisville, Ky.				Manchester, N. H.			
Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.
1913	1922			1913	1922			1913	1922			1913	1922			1913	1922		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
21.9	33.6	34.7	34.7	23.8	29.5	32.3	32.0	22.8	33.6	32.8	32.4	20.1	29.5	29.8	30.0	[1]34.0	[1]49.9	[1]50.8	[1]51.8
20.0	28.0	28.8	28.8	19.4	26.8	29.7	29.4	20.4	27.2	27.8	26.9	18.0	27.1	27.6	27.0	27.6	41.5	41.4	42.1
16.7	23.3	23.7	23.7	18.4	22.8	26.8	26.4	18.6	28.2	27.7	28.2	17.1	22.1	23.2	23.7	18.4	25.8	25.6	25.9
13.8	16.7	17.1	17.2	15.0	17.0	19.5	18.8	16.0	17.7	18.4	18.0	13.3	17.5	16.9	17.4	15.8	20.6	20.7	20.7
10.5	11.2	10.5	10.5	12.0	13.4	14.1	14.0	12.4	13.3	13.2	13.2	11.4	13.1	13.3	13.4	.....	15.4	14.7	14.6
17.3	25.7	25.3	24.9	19.0	28.9	30.0	29.4	24.4	37.7	37.1	35.8	17.4	25.1	22.5	22.3	18.2	26.5	27.6	27.5
28.4	42.6	41.2	41.2	34.0	40.3	41.5	40.9	33.8	50.1	50.8	48.7	26.6	31.8	34.1	34.3	22.2	31.9	34.5	34.1
27.5	50.9	44.8	45.0	28.8	48.1	45.9	46.9	35.0	58.5	58.8	58.7	26.1	42.4	40.1	41.3	27.2	43.4	39.7	40.2
16.3	31.5	31.8	31.5	18.8	35.9	35.6	36.1	19.2	31.2	33.7	33.0	17.6	36.3	34.3	34.3	17.8	35.3	35.5	26.4
16.1	31.6	29.2	31.4	17.6	29.0	29.2	30.9	28.3	44.6	40.1	40.5	21.5	34.6	32.0	33.8	23.0	44.3	42.1	42.0
.....	32.7	32.3	32.0	....	33.2	30.8	31.4	....	44.1	38.9	37.8	....	30.0	29.6	28.8	.....	32.0	29.4	29.8
8.7	14.0	13.3	13.3	10.0	13.3	15.7	15.7	10.0	14.0	15.0	15.0	8.8	9.0	13.0	12.0	8.0	13.0	13.0	13.0
.....	12.0	12.5	12.6	....	12.6	13.2	13.1	....	10.3	10.8	10.8	....	12.1	12.1	12.0	....	13.5	13.7	13.6
41.5	44.1	60.0	58.4	45.0	46.6	57.7	55.7	43.5	55.4	60.3	57.1	43.2	46.1	59.4	55.7	41.8	48.9	61.7	61.1
.....	28.4	26.9	26.9	....	31.0	30.6	30.6	....	31.3	31.1	31.9	....	27.8	27.8	28.4	.....	29.1	27.5	28.5
.....	28.2	27.0	27.3	....	29.6	28.7	28.8	....	28.7	28.8	29.0	....	27.3	26.5	26.8	.....	25.4	22.7	22.0
21.5	34.2	37.6	38.1	21.7	33.4	38.8	39.2	19.5	36.4	38.1	38.5	20.8	30.5	37.3	37.4	21.3	33.4	37.6	38.0
16.1	16.5	17.4	17.5	15.0	17.8	19.6	19.5	17.9	17.0	19.7	19.3	15.2	14.2	14.6	14.4	16.0	16.2	17.3	17.4
.....	23.7	21.9	21.8	....	21.7	19.7	20.1	....	21.7	22.8	22.7	....	22.8	22.7	23.1	.....	21.9	20.1	20.6
25.4	41.5	46.6	40.0	25.0	38.2	47.6	40.7	26.0	38.4	51.1	38.4	25.0	39.8	47.1	36.0	34.6	59.9	67.7	55.6
17.0	40.0	37.0	35.0	....	.....	45.0	40.0	....	35.0	.....	.....	20.1	31.0	35.0	27.0	25.0	44.3	43.2	41.2
5.9	6.4	8.2	8.2	6.0	8.4	8.2	8.2	6.2	9.0	8.8	8.8	5.7	8.6	8.4	8.4	5.9	8.0	8.4	8.4
3.0	4.7	4.6	4.6	3.6	5.5	5.3	5.3	3.6	4.7	4.9	4.8	3.6	5.4	5.4	5.5	3.4	5.4	5.2	5.2
2.6	4.7	4.5	4.4	2.4	2.7	3.0	3.0	3.4	3.9	4.7	4.2	2.2	2.1	2.8	2.9	3.6	5.0	4.7	4.6
.....	8.3	8.4	8.4	....	10.2	10.5	10.3	....	9.7	10.4	9.5	....	8.5	8.4	8.4	.....	8.6	8.6	8.8
.....	10.1	9.9	9 9	....	10.0	9.8	9.8	....	10 4	9.7	9.6	....	9.8	9.2	9.3	.....	10.2	9.6	9.7
.....	26.9	26.1	25.6	....	26.8	25.6	25.6	....	25.3	23.6	23.4	....	25.1	24.6	23.9	.....	26.9	26.0	25.3
.....	22.0	21.0	20.7	....	22.1	21.5	21.5	....	17.2	15.6	15.8	....	18.6	16.6	16.4	.....	25.5	24.5	24.9
8.7	8.9	9.1	9.5	8.3	8.2	8.1	8.2	7.7	9.6	10.0	9.6	8.1	8.8	8.5	8.2	8.5	8.8	8.8	8.9
.....	8.7	11.3	11.6	....	8.7	12.5	12.3	....	8.3	9.5	9.6	....	7.4	10.2	10.5	.....	7.8	10.9	11.1
1.4	3.1	2.1	2.1	1.7	3.5	2.4	2.4	1.0	3.4	2.4	2.2	1.5	2.6	1.6	1.6	1.4	3.1	1.9	2.1
.....	11.2	5.3	5.5	....	11.5	5.9	5.9	....	10.2	5.8	5.8	....	11.1	5.1	5.4	.....	11.2	4.9	5.2
.....	5.7	3.9	5.1	....	5.8	5.3	5.9	....	3.6	3.6	3.8	....	5.9	4.4	5.2	.....	6.2	4.1	4.3
.....	13.6	14.4	14.4	....	13.4	13.3	13.6	....	14.6	13.3	13.1	....	12.5	11.7	11.7	.....	15.7	14.6	14.9
.....	13.3	13.6	13.8	....	16.0	15.9	15.7	....	18.2	16.3	16.4	....	15.8	13.9	13.9	.....	18.9	17.6	17.5
.....	14.5	15.2	15.5	....	19.4	18.4	18.2	....	19.4	19.0	18.7	....	17.0	15.4	15.4	.....	22.2	20.5	20.6
.....	14.1	13.3	13.3	....	14.3	12.8	12.9	....	[2]15.6	[2]15.7	[2]15.4	....	13.3	11.0	11.2	.....	[3]19.5	[3]19.4	[3]20.1
5.6	6.7	8.7	9.4	5.5	7.2	9.2	9.4	5.4	6.3	8.4	9.3	5.2	6.5	8.1	8.6	5.4	6.5	8.6	9.0
54.0	76.8	80.0	80.0	50.0	90.2	91.8	91.8	54.5	66.6	70.2	69.5	60.0	77.6	71.0	71.0	45.0	57.2	56.4	56.4
27.8	35.9	38.2	38.9	30.8	38.9	40.5	41.2	36.3	36.7	39.8	39.0	27.5	33.5	35.3	35.1	32.0	38.5	38.8	39.0
.....	19.5	20.6	20.7	....	21.0	20.4	21.0	....	17.1	20.0	19.6	....	19.4	20.4	20.1	.....	19.5	19.6	19.1
.....	28.3	21.1	20.8	....	25.0	20.7	20.7	....	25.0	18.3	17.9	....	25.2	19.1	18.5	.....	24.1	18.5	18.4
.....	[4]11.5	[4]12.9	[4]13.0	....	[4]9.0	[4]10.1	[4]10.1	....	[4]10.9	[4]11.3	[4]11.3	....	35.5	37.1	38.6	.....	[4]9.9	[4]10.4	[4]10.4
.....	53.2	46.3	48.4	....	49.6	50.4	50.8	....	36.2	38.2	34.1	....	41.5	38.0	40.0	.....	53.3	50.1	51.0

[2] No. 2½ can. [3] No. 3 can. [4] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article.	Unit.	Memphis, Tenn.				Milwaukee, Wis.				Minneapolis, Minn.			
		Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.
		1913	1922			1913	1922			1913	1922		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	20.0	27.5	30.2	30.1	20.5	33.6	35.8	35.5	20.0	27.8	29.9	30.2
Round steak	do	16.8	24.2	26.4	26.3	18.5	29.5	31.2	31.1	18.0	24.6	25.1	24.9
Rib roast	do	18.2	22.3	22.4	22.6	17.3	26.0	26.2	26.4	17.7	22.1	23.4	24.0
Chuck roast	do	13.9	15.4	16.4	17.0	15.0	20.7	20.5	21.3	14.5	16.3	18.1	18.4
Plate beef	do	10.2	11.9	12.2	12.7	10.8	13.0	12.5	12.4	8.7	9.2	9.5	9.4
Pork chops	do	18.6	23.8	23.2	22.5	15.3	27.3	27.8	26.8	16.8	26.4	27.2	26.9
Bacon, sliced	do	29.1	36.1	38.2	37.3	26.3	39.6	40.4	40.6	25.0	40.7	42.6	42.5
Ham, sliced	do	26.4	45.4	45.4	44.6	26.8	44.7	43.5	44.0	27.5	46.6	45.8	45.6
Lamb, leg of	do	20.4	35.1	35.5	35.3	19.5	38.2	36.6	36.1	15.0	31.7	33.2	33.0
Hens	do	19.6	31.9	29.0	30.4	18.8	34.7	30.9	32.7	19.0	32.9	29.2	31.4
Salmon, canned, red	do	.....	40.0	36.1	37.2	.....	33.1	32.9	32.9	.....	38.5	36.9	37.4
Milk, fresh	Quart	10.0	15.0	15.0	15.0	7.0	9.0	10.0	10.0	7.0	10.0	11.0	11.0
Milk, evaporated	15-16-oz. can	.....	13.1	11.9	12.4	.....	11.1	11.3	11.4	.....	11.7	12.5	12.5
Butter	Pound	42.1	42.9	55.5	55.3	40.2	43.4	57.6	56.0	39.1	40.3	55.6	54.2
Oleomargarine	do	.....	29.9	30.0	28.3	.....	25.0	26.6	26.7	.....	26.8	26.4	26.4
Nut margarine	do	.....	28.7	26.2	24.6	.....	24.9	25.2	25.3	.....	25.5	24.9	24.9
Cheese	do	20.0	30.6	37.4	36.8	22.7	30.0	35.9	35.8	20.8	30.8	36.0	36.7
Lard	do	15.2	15.3	15.7	15.7	15.1	16.0	17.1	17.4	15.2	14.9	17.0	17.0
Vegetable lard substitute	do	.....	20.8	20.3	21.7	.....	21.3	22.5	22.5	.....	22.1	23.2	23.2
Eggs, strictly fresh	Dozen	29.3	44.4	49.5	40.2	29.0	44.5	51.0	42.5	28.1	45.2	49.9	43.1
Eggs, storage	do	20.0	.....	41.2	31.0	22.0	35.0	34.8	32.2	21.7	.....	33.6	29.5
Bread	Pound	6.0	9.3	9.1	9.0	5.6	8.4	8.9	8.9	5.7	8.4	9.0	9.0
Flour	do	3.6	5.6	5.4	5.5	3.1	4.7	4.3	4.3	2.9	5.1	4.6	4.7
Corn meal	do	2.1	2.5	2.9	2.9	3.3	3.8	3.9	3.8	2.4	3.8	4.0	3.8
Rolled oats	do	.....	9.6	9.1	9.2	.....	7.4	7.0	7.0	.....	7.9	8.7	8.5
Corn flakes	8-oz. pkg	.....	10.4	9.5	9.5	.....	9.6	9.2	9.1	.....	10.1	10.2	10.2
Wheat, cereal	28-oz. pkg	.....	26.5	24.9	23.8	.....	25.2	24.3	24.0	.....	25.2	25.0	24.9
Macaroni	Pound	.....	17.3	17.8	18.3	.....	17.7	17.9	17.5	.....	17.9	17.6	17.6
Rice	do	7.5	7.8	8.2	7.8	9.0	9.6	10.1	10.0	8.6	9.3	9.3	9.7
Beans, navy	do	.....	8.3	11.4	12.0	.....	7.7	11.0	11.5	.....	8.6	10.3	11.2
Potatoes	do	1.6	3.6	2.5	2.5	1.2	2.8	1.4	1.4	1.0	2.8	1.5	1.5
Onions	do	.....	11.1	5.0	4.8	.....	10.6	4.8	5.3	.....	10.9	4.9	4.6
Cabbage	do	.....	4.5	4.2	4.7	.....	5.9	2.5	3.8	.....	6.2	3.1	3.8
Beans, baked	No. 2 can	.....	14.5	13.3	13.0	.....	11.4	11.7	11.7	.....	14.8	13.8	13.8
Corn, canned	do	.....	14.8	14.3	14.5	.....	14.9	15.0	15.2	.....	14.1	13.6	13.6
Peas, canned	do	.....	17.7	17.6	17.5	.....	15.1	15.1	15.3	.....	15.7	15.8	15.8
Tomatoes, canned	do	.....	13.1	12.8	12.8	.....	14.1	13.6	13.4	.....	14.8	14.6	14.9
Sugar, granulated	Pound	5.5	6.7	8.3	8.8	5.4	6.2	7.9	8.2	5.6	6.6	8.4	9.3
Tea	do	63.8	86.0	82.3	82.3	50.0	68.4	69.8	70.2	45.0	63.4	65.5	65.5
Coffee	do	27.5	37.6	37.1	37.2	27.5	31.9	34.0	34.1	30.8	40.1	41.3	41.3
Prunes	do	.....	20.1	20.2	19.7	.....	19.5	19.9	20.4	.....	18.9	20.9	22.1
Raisins	do	.....	26.6	18.7	18.5	.....	25.4	18.5	18.2	.....	24.9	19.4	19.2
Bananas	Dozen	.....	30.0	33.1	34.4	.....	[3]10.1	[3]10.4	[3]10.3	.....	[3]11.1	[3]12.7	[3]12.5
Oranges	do	.....	46.0	41.2	39.8	.....	51.4	49.0	49.2	.....	52.1	52.5	49.7

[1] Whole. [2] No. 3 can. [3] Per pound.

ARTICLES OF FOOD IN 51 CITIES, ON SPECIFIED DATES—Continued.

Mobile, Ala.			Newark, N. J.				New Haven, Conn.				New Orleans, La.				New York, N. Y.			
Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.
			1913	1922			1913	1922			1913	1922			1913	1922		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
28.9	30.8	30.8	25.2	37.6	43.0	41.4	30.0	44.6	48.5	48.1	19.5	29.4	32.3	31.0	24.7	38.8	40.5	39.9
28.6	29.6	29.8	24.8	36.8	39.9	38.5	26.2	36.3	39.8	39.3	17.5	26.8	28.5	28.1	23.1	37.2	38.6	38.3
25.5	26.5	26.0	19.6	31.7	34.4	33.4	23.0	32.0	33.9	33.3	18.8	26.3	27.6	26.7	21.1	34.0	35.1	34.7
19.0	19.7	19.8	16.8	20.3	21.6	21.6	17.6	21.9	24.7	24.5	13.8	18.5	20.6	19.8	15.1	20.9	21.5	21.2
15.8	15.8	15.4	11.6	11.7	12.4	12.3	.....	13.4	14.2	14.7	10.8	16.0	16.8	16.3	14.0	18.1	17.9	17.8
31.1	35.0	35.0	19.6	29.2	30.2	29.9	18.4	27.6	29.4	27.6	20.1	30.6	32.0	30.8	19.8	32.3	32.2	31.7
41.5	41.0	41.0	22.0	33.6	37.9	37.8	26.2	39.5	41.5	41.0	29.5	39.5	41.6	41.1	23.1	36.1	38.6	37.7
44.6	45.4	44.6	[1] 18.6	[1] 30.1	[1] 27.0	[1] 27.1	30.0	51.5	52.7	51.3	26.0	46.0	43.0	42.3	27.8	52.6	49.8	47.2
32.8	36.1	34.4	20.8	37.8	38.3	37.2	18.8	35.4	37.3	36.8	20.1	39.1	39.7	39.4	16.5	35.0	34.9	34.9
37.3	36.0	35.5	21.8	37.5	37.8	37.9	22.2	40.9	40.0	39.2	20.7	36.7	36.2	39.3	20.4	36.8	35.9	36.6
31.9	30.0	30.0	.....	29.0	29.7	28.5	.....	36.1	32.9	32.5	.....	37.3	37.8	37.7	.....	30.3	28.9	28.3
15.0	15.0	15.0	9.0	17.0	17.5	16.0	9.0	15.0	15.0	15.0	10.0	14.7	14.0	14.0	9.0	15.0	16.0	15.0
11.9	12.9	12.9	.....	10.6	11.9	11.9	.....	11.3	12.2	12.2	.....	11.2	11.8	11.8	.....	10.4	11.7	11.8
49.4	61.1	60.4	44.0	45.6	62.4	59.1	38.7	44.2	56.4	56.7	41.8	46.8	59.5	58.8	41.5	45.8	60.9	58.0
29.3	30.5	30.7	.....	28.6	29.2	29.6	.....	28.6	30.8	31.0	.....	27.8	30.4	30.2	.....	27.2	28.6	28.7
29.1	28.1	28.1	.....	26.0	26.0	25.9	.....	26.1	27.7	27.3	.....	27.0	28.0	28.0	.....	25.5	24.8	25.1
31.4	39.9	39.0	24.5	33.5	38.2	38.8	22.0	33.1	37.4	38.6	22.0	31.8	37.7	37.2	20.0	33.1	36.6	37.5
16.5	17.8	18.0	15.7	15.3	17.0	16.6	14.7	15.3	17.0	17.0	14.7	14.5	16.7	16.9	15.7	16.0	17.4	17.8
21.9	18.8	18.0	.....	20.2	22.2	22.3	.....	19.8	21.6	21.7	.....	22.5	23.1	23.2	.....	20.0	23.2	23.2
40.8	50.0	37.8	43.0	58.5	68.4	57.1	38.0	61.1	75.4	62.1	29.1	44.2	49.5	39.7	38.0	58.0	64.2	55.0
30.0	43.0	.....	25.3	43.6	43.2	40.6	24.8	40.3	43.2	40.9	23.0	34.7	39.8	.....	26.0	43.4	42.1	41.9
8.4	8.6	8.6	5.6	8.5	8.5	8.5	6.0	8.4	8.1	8.1	5.1	8.0	7.7	7.7	6.0	9.0	9.7	9.7
5.2	5.3	5.4	3.5	5.0	4.7	4.7	3.2	5.1	4.8	4.7	3.8	5.8	5.7	5.8	3.2	5.1	4.9	4.0
3.0	3.2	3.2	3.6	5.6	6.0	6.0	3.2	5.9	5.8	5.8	2.6	2.8	3.2	3.1	3.4	5.4	5.5	5.9
10.2	8.9	8.9	.....	7.3	8.3	8.1	.....	9.0	8.7	8.7	.....	9.0	8.6	8.7	.....	7.8	7.9	8.7
10.2	9.3	9.3	.....	9.2	8.9	8.9	.....	9.9	9.5	9.5	.....	9.9	9.5	9.5	.....	9.2	8.8	8.7
25.9	23.8	23.8	.....	25.9	25.2	24.8	.....	25.4	24.4	24.4	.....	24.9	23.9	23.9	.....	25.3	23.9	23.2
20.0	20.2	20.2	.....	21.6	21.5	21.4	.....	22.1	22.2	22.3	.....	9.7	8.5	8.5	.....	21.2	20.6	20.3
8.4	8.5	8.4	9.0	8.5	8.7	9.1	9.3	9.1	10.0	9.7	7.4	8.2	8.6	8.6	8.0	9.0	9.3	9.6
9.0	11.7	12.5	.....	7.8	10.5	10.6	.....	8.0	10.7	11.4	.....	7.6	10.5	10.9	.....	8.5	11.1	11.5
3.6	2.9	2.6	2.5	3.7	2.5	2.7	1.7	3.3	2.3	2.4	1.9	4.1	2.7	2.7	2.5	4.2	2.8	2.8
11.4	5.2	5.4	.....	11.4	6.3	5.9	.....	10.3	5.4	5.9	.....	10.1	4.7	4.8	.....	10.8	5.6	5.5
3.9	3.6	3.8	.....	6.3	4.2	4.4	.....	6.8	4.1	4.4	.....	5.0	4.0	4.2	.....	5.2	3.6	4.5
13.2	12.5	12.7	.....	11.3	11.1	10.8	.....	12.7	12.2	12.4	.....	12.5	13.0	13.1	.....	12.2	11.6	11.7
16.3	14.8	14.8	.....	15.5	14.8	14.1	.....	18.1	17.5	17.7	.....	13.9	13.4	13.4	.....	14.5	14.9	15.0
17.2	15.8	15.8	.....	17.9	16.8	16.6	.....	21.4	21.5	20.9	.....	16.9	17.2	17.2	.....	16.1	16.5	16.5
13.1	12.3	12.4	.....	11.8	11.6	12.0	.....	[2] 22.7	[2] 21.4	[2] 21.8	.....	13.1	11.8	12.0	.....	12.2	11.0	11.2
6.7	8.5	8.9	5.3	5.6	7.7	7.8	5.2	6.0	8.1	8.3	5.3	6.0	7.7	8.4	4.9	5.4	7.7	8.0
71.4	76.7	76.4	53.8	49.8	51.2	51.2	55.0	54.7	58.0	57.6	62.1	70.9	71.4	71.7	43.3	49.8	51.1	52.0
34.6	34.7	37.3	29.3	32.6	33.3	34.8	33.8	38.0	38.9	39.6	26.4	31.1	32.5	33.0	27.5	31.7	33.3	35.4
16.7	20.6	19.7	.....	16.6	18.0	17.8	.....	17.9	19.5	19.4	.....	18.3	20.3	20.2	.....	18.0	18.6	18.5
25.3	19.7	20.2	.....	21.1	17.2	16.4	.....	23.6	18.1	18.0	.....	25.4	18.8	19.0	.....	23.4	17.5	17.0
25.9	26.7	27.1	.....	40.0	37.5	35.7	.....	34.6	33.1	32.7	.....	20.0	23.0	23.0	.....	44.1	42.9	43.1
45.0	43.5	38.2	.....	53.4	48.5	49.4	.....	49.9	49.1	50.5	.....	46.3	47.3	48.8	.....	55.0	51.3	53.7

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article.	Unit.	Norfolk, Va.			Omaha, Nebr.				Peoria, Ill.		
		Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.
					1913	1922					
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	36.0	36.3	36.3	23.0	32.0	33.8	33.2	29.6	30.7	30.4
Round steak	do	29.4	30.4	29.6	19.2	27.3	29.6	29.3	28.0	29.1	29.1
Rib roast	do	29.0	29.3	29.2	16.7	24.1	24.9	24.6	22.1	23.1	23.1
Chuck roast	do	19.8	19.0	18.7	13.5	18.7	18.8	18.9	18.1	19.2	18.4
Plate beef	do	13.2	13.4	13.8	9.5	10.4	10.7	9.8	11.7	12.4	12.5
Pork chops	do	26.5	28.3	28.1	16.5	27.2	25.7	25.9	26.4	26.1	26.0
Bacon, sliced	do	32.9	36.4	37.0	25.5	45.0	45.6	45.6	39.3	41.1	41.1
Ham, sliced	do	40.0	40.8	38.5	27.0	50.0	49.1	48.8	47.7	45.4	45.4
Lamb, leg of	do	37.5	37.5	37.6	16.5	35.1	34.6	34.8	34.6	32.8	33.9
Hens	do	37.2	36.8	37.2	16.9	32.1	27.6	30.4	33.3	27.8	28.9
Salmon, canned, red	do	30.4	29.8	29.7	.....	33.1	33.5	33.5	33.7	32.7	32.7
Milk, fresh	Quart	17.0	17.0	17.0	8.2	11.0	11.0	11.0	11.7	10.8	10.8
Milk, evaporated	15-16-oz.can.	11.1	11.3	11.2	.....	11.9	11.5	11.9	11.5	11.9	11.9
Butter	Pound	46.5	58.5	56.9	40.0	42.3	56.6	52.9	41.4	55.0	54.4
Oleomargarine	do	28.6	28.3	30.0	.....	29.1	28.9	28.7	28.1	29.2	29.5
Nut margarine	do	28.1	27.7	27.7	.....	28.1	27.5	27.4	27.5	27.3	27.1
Cheese	do	31.2	35.2	35.3	22.9	32.3	36.5	36.6	33.0	37.9	37.3
Lard	do	15.9	16.4	16.4	16.4	18.0	19.2	18.9	15.6	17.1	17.1
Vegetable lard substitute	do	20.3	18.0	17.7	.....	22.5	22.7	22.5	22.5	23.2	23.7
Eggs, strictly fresh	Dozen	50.2	46.1	42.6	25.0	41.0	43.9	38.2	39.1	48.6	38.7
Eggs, storage	do	38.3	38.0	35.7	.....	32.0	36.3	36.3	25.0	35.9	28.0
Bread	Pound	7.3	8.1	7.9	5.2	9.8	9.8	9.8	9.4	8.0	8.0
Flour	do	5.0	4.8	4.8	2.9	4.2	4.2	4.2	5.0	4.7	4.7
Corn meal	do	3.1	3.6	3.4	2.4	3.3	3.6	3.6	3.6	3.7	3.7
Rolled oats	do	8.2	7.9	8.1	.....	9.8	9.6	9.6	9.1	8.9	9.1
Corn flakes	8-oz. pkg.	10.1	9.5	9.6	.....	10.7	10.2	10.2	10.3	9.9	10.0
Wheat cereal	28-oz. pkg.	26.0	24.8	24.3	.....	25.9	24.7	24.3	27.8	26.2	26.4
Macaroni	Pound	19.6	19.6	19.8	.....	19.4	20.4	19.8	20.5	20.0	19.5
Rice	do	9.9	10.1	9.7	8.5	8.7	9.1	9.4	9.1	9.8	9.5
Beans, navy	do	8.5	10.5	10.7	.....	8.8	11.6	11.8	8.2	12.0	12.3
Potatoes	do	3.5	2.3	2.3	1.3	3.0	1.6	1.6	2.9	1.7	1.7
Onions	do	10.7	5.2	5.5	.....	11.8	4.4	4.4	10.9	5.2	5.6
Cabbage	do	5.3	4.1	4.2	.....	6.3	3.6	4.2	5.8	4.0	4.5
Beans, baked	No. 2 can	10.6	10.6	10.3	.....	14.5	15.4	15.4	13.2	13.5	13.3
Corn, canned	do	15.2	15.0	14.9	.....	15.5	16.9	16.6	15.1	14.2	13.8
Peas, canned	do	20.7	18.3	18.3	.....	16.5	16.9	17.1	16.6	16.9	17.1
Tomatoes, canned	do	12.4	12.1	12.3	.....	14.2	13.8	13.9	13.9	13.9	14.3
Sugar, granulated	Pound	6.1	7.7	7.9	5.7	6.4	8.5	8.7	6.8	8.9	9.2
Tea	do	74.8	76.4	75.4	56.0	70.6	74.1	74.2	61.4	61.1	61.1
Coffee	do	37.0	37.6	37.8	30.0	37.9	41.1	40.9	32.9	36.1	36.7
Prunes	do	18.8	19.2	19.4	.....	20.1	20.4	20.3	22.0	22.3	22.1
Raisins	do	24.9	17.9	18.0	.....	27.8	20 7	20.8	28.5	20.1	20.1
Bananas	Dozen	33.6	33.9	34.2	.....	[1] 10.5	[1] 12.5	[1] 12.6	[1] 10.4	[1] 11.3	[1] 11.1
Oranges	do	43.3	39.1	41.2	.....	50.4	50.4	51.5	48.4	43.6	48.2

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

ARTICLES OF FOOD IN 51 CITIES, ON SPECIFIED DATES—Continued.

Philadelphia, Pa.				Pittsburgh, Pa.				Portland, Me.			Portland, Oreg.				Providence, R. I.			
Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.
1913	1922			1913	1922						1913	1922			1913	1922		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
[1]28.3	[1]42.9	[1]47.6	[1]47.2	24.8	38.1	41.7	41.2	[1]51.7	[1]53.5	[1]55.3	22.4	28.2	27.4	27.8	[1]38.2	[1]60.8	[1]65.1	[1]64.6
23.4	33.9	37.0	36.8	21.4	31.6	34.5	34.6	40.2	43.6	43.4	19.5	25.5	24.5	24.5	28.2	44.4	46.6	45.6
21.4	29.7	31.8	31.9	20.6	28.9	31.0	30.8	27.3	27.9	28.3	18.7	24.0	23.4	23.4	23.0	33.9	35.7	35.4
16.5	18.5	19.3	19.8	15.6	19.7	21.3	20.8	18.2	18.3	18.5	15.8	17.2	16.3	16.4	17.4	24.6	25.3	25.3
11.3	10.2	9.9	9.8	11.0	11.0	11.4	11.1	13.1	13.7	13.8	12.4	12.7	12.2	12.6	.....	15.7	15.7	15.9
19.1	31.2	31.8	30.3	20.0	29.3	30.6	29.9	29.8	29.8	28.9	19.2	31.4	32.6	30.6	18.4	32.3	31.9	30.8
23.4	34.8	38.2	37.6	27.2	38.3	42.3	41.4	35.5	38.3	38.2	27.5	43.2	44.1	44.1	21.8	34.5	37.2	37.2
29.0	52.1	50.5	51.1	29.0	51.1	52.4	52.3	48.8	47.2	47.0	28.8	45.6	46.8	46.8	28.5	55.2	52.9	52.3
18.6	38.9	38.1	38.2	21.5	38.5	38.4	38.1	36.7	37.0	36.2	17.0	31.1	34.1	34.4	20.0	40.5	41.2	39.4
21.3	39.2	38.7	38.9	25.3	42.0	41.2	42.5	43.2	40.5	40.6	22.0	35.1	32.5	31.6	22.8	43.2	40.6	40.8
.....	28.0	27.0	27.1	.....	29.6	28.8	28.2	29.1	28.5	28.6	.....	41.4	38.2	36.8	.....	32.5	31.5	31.3
8.0	11.0	12.0	12.0	8.8	12.0	14.0	14.0	13.0	14.0	14.0	9.7	11.9	12.6	12.6	9.0	13.8	15.0	15.0
.....	11.6	12.2	12.3	.....	10.7	11.7	11.8	12.2	13.3	13.4	.....	11.6	12.0	12.0	.....	12.2	12.5	12.4
47.1	51.8	66.2	62.8	43.1	46.7	61.2	59.7	49.0	62.6	61.3	43.5	46.3	53.9	53.8	41.0	44.3	58.3	58.5
.....	26.6	29.3	29.0	.....	26.1	27.8	28.0	32.4	29.9	30.1	.....	29.7	29.8	27.8	.....	29.6	29.9	29.9
.....	26.8	27.5	27.8	.....	26.2	26.2	26.0	28.2	27.7	27.4	.....	28.6	27.5	28.0	.....	28.7	27.5	27.7
25.0	35.0	39.3	39.3	24.5	33.1	38.1	38.3	34.4	38.3	38.8	21.3	35.6	39.3	39.3	22.7	32.7	36.2	36.5
14.4	14.5	16.3	16.1	15.1	13.5	15.2	15.4	15.5	17.8	17.9	17.9	18.5	20.3	20.0	15.0	15.2	17.1	17.0
.....	20.0	22.7	22.8	.....	20.1	22.3	22.2	22.3	21.8	22.3	.....	24.2	25.1	24.7	.....	22.0	23.1	23.1
30.1	53.6	59.9	50.5	29.2	50.4	57.0	49.7	58.5	66.7	53.8	32.5	36.6	44.7	36.5	39.0	62.3	72.8	62.7
24.0	39.7	41.3	38.8	25.0	37.6	39.4	35.5	45.6	44.6	43.0	25.0	.....	40.0	40.0	25.4	.....	44.8	39.4
4.8	8.8	8.5	8.5	5.4	8.1	8.5	8.5	9.1	9.3	9.3	5.6	8.4	9.4	9.4	6.0	8.9	8.7	8.8
3.2	5.0	4.8	4.8	3.1	4.9	4.7	4.6	5.1	5.1	5.1	2.9	4.3	4.5	4.5	3.4	5.6	5.4	5.2
2.8	3.7	3.8	3.6	2.7	4.0	4.0	4.0	4.1	4.5	4.5	3.5	3.6	3.6	3.6	2.9	3.8	4.0	4.0
.....	8.0	7.9	8.0	.....	9.3	8.7	8.4	6.9	6.8	6.9	.....	9.3	9.3	9.4	.....	9.3	9.3	9.5
.....	9.9	9.0	9.1	.....	10.0	9.5	9.7	10.5	9.7	9.7	.....	12.1	11.4	11.3	.....	10.0	9.9	9.9
.....	25.3	24.3	24.5	.....	26.3	24.6	24.6	26.3	25.0	24.5	.....	29.1	27.7	27.4	.....	27.2	25.1	24.8
.....	21.2	21.2	21.1	.....	20.9	20.0	19.9	24.2	24.1	24.1	.....	17.5	19.9	18.7	.....	22.7	22.5	22.3
9.8	10.3	10.2	10.2	9.2	9.7	9.5	9.3	10.3	10.4	10.5	8.6	9.6	9.1	9.1	9.3	9.8	9.7	9.6
.....	8.3	11.3	11.6	.....	7.5	10.9	11.3	8.1	11.0	11.1	.....	7.9	9.6	9.8	.....	8.0	11.2	11.1
2.1	3.9	2.4	2.6	1.6	3.1	2.0	2.0	2.9	2.0	2.2	0.7	2.4	1.4	1.4	1.7	3.0	2.3	2.3
.....	10.3	4.9	5.0	.....	10.4	5.2	5.5	11.4	5.2	5.8	.....	9.3	3.9	4.3	.....	11.3	5.5	5.7
.....	5.8	3.7	4.1	.....	5.1	4.0	4.3	4.1	3.2	3.5	.....	5.3	3.5	4.3	.....	6.5	3.9	5.6
.....	11.7	11.5	11.4	.....	12.6	12.8	12.5	15.3	15.4	15.4	.....	17.7	16.8	16.4	.....	12.8	12.5	12.8
.....	15.2	14.8	14.9	.....	14.9	13.6	13.8	16.4	16.1	16.2	.....	18.0	16.9	16.9	.....	18.1	17.5	17.5
.....	16.5	16.2	16.4	.....	15.5	16.0	16.0	20.1	19.9	20.0	.....	18.6	16.7	16.4	.....	20.2	20.4	20.1
.....	12.3	12.5	12.3	.....	13.2	12.4	12.3	[2]22.2	[2]23.1	[2]22.8	.....	[3]15.2	[3]16.0	[3]15.9	.....	13.8	13.4	13.8
4.9	5.6	7.5	7.5	5.8	6.3	8.3	8.6	6.1	8.4	8.7	6.2	6.7	8.6	9.1	5.1	6.1	8.1	8.5
54.0	60.4	59.4	59.2	58.0	75.8	75.1	76.0	57.0	57.1	58.6	55.0	62.5	64.6	64.3	48.3	58.5	59.7	60.1
25.0	29.5	32.6	32.9	30.0	35.6	35.7	36.1	38.9	40.4	40.5	35.0	36.9	36.9	36.9	30.0	39.4	41.0	41.2
.....	16.6	17.9	17.6	.....	19.9	20.6	20.4	17.6	19.3	18.9	.....	14.8	14.1	14.6	.....	18.9	20.4	20.2
.....	23.2	18.5	18.2	.....	26.0	18.4	18.4	23.6	19.1	18.6	.....	24.6	19.0	18.8	.....	23.5	18.4	18.1
.....	34.0	33.6	33.4	.....	40.7	43.8	43.4	[4]10.2	[4]11.3	[4]11.4	.....	[4]13.3	[4]15.4	[4]15.5	.....	35.1	33.6	34.4
.....	48.7	48.0	48.6	.....	46.9	49.4	49.7	54.2	49.1	53.1	.....	49.6	45.0	41.1	.....	54.6	52.3	53.3

[2] No. 3 can. [3] No. 2½ can. [4] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article.	Unit.	Richmond, Va.				Rochester, N. Y.			St. Louis, Mo.			
		Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.
		1913	1922						1913	1922		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	21.8	36.9	37.4	37.4	34.4	36.7	36.2	22.8	31.5	33.6	33.3
Round steak	do	19.6	31.9	32.3	32.2	28.6	31.1	31.3	20.4	29.2	30.9	30.8
Rib roast	do	18.9	29.7	28.9	28.9	25.9	28.2	27.9	17.6	26.7	26.6	26.5
Chuck roast	do	14.3	21.3	21.3	21.8	20.5	22.3	21.7	14.2	18.9	18.0	17.7
Plate beef	do	11.4	16.4	15.4	15.5	11.5	12.1	12.0	10.2	13.1	13.1	12.9
Pork chops	do	18.4	28.9	28.9	28.4	31.6	32.1	31.3	17.1	24.3	24.2	23.5
Bacon, sliced	do	23.4	33.9	35.6	35.4	31.4	35.2	35.1	23.0	34.8	37.7	37.6
Ham, sliced	do	23.3	39.8	39.7	39.3	45.1	45.8	44.5	26.7	44.5	41.6	42.4
Lamb, leg of	do	18.7	40.6	42.4	42.1	35.7	36.9	37.8	17.8	34.4	33.6	34.6
Hens	do	20.0	37.5	35.2	36.1	40.9	38.7	40.0	17.4	33.2	29.7	32.7
Salmon, canned, red	do	.....	33.5	30.9	31.4	30.9	29.0	28.8	.....	32.2	31.6	31.4
Milk, fresh	Quart	10.0	14.0	14.0	14.0	13.5	13.5	13.0	8.0	10.0	13.0	13.0
Milk, evaporated	15–16-oz. can	.....	13.2	13.2	13.0	12.0	12.0	12.1	.....	10.1	11.5	11.5
Butter	Pound	43.4	53.2	65.4	64.6	45.7	59.4	58.9	40.4	45.6	60.7	58.9
Oleomargarine	do	.....	31.7	29.6	29.6	29.3	29.7	30.2	.....	26.5	26.9	27.2
Nut margarine	do	.....	28.1	27.9	27.9	27.6	26.1	26.2	.....	25.0	25.0	24.5
Cheese	do	22.3	33.1	38.2	38.1	33.9	36.5	37.3	20.8	31.2	36.2	36.5
Lard	do	15.0	17.2	17.6	17.7	15.5	17.0	17.2	13.2	12.4	13.9	13.8
Vegetable lard substitute	do	.....	21.8	22.2	22.2	20.9	19.8	19.4	.....	20.3	22.1	22.3
Eggs, strictly fresh	Dozen	26.8	54.4	49.4	46.7	53.4	70.5	52.3	24.4	43.3	48.4	41.3
Eggs, storage	do	20.0	42.8	39.3	40.0	35.4	39.6	37.6	20.0	38.0	37.1	35.0
Bread	Pound	5.4	9.1	9.1	9.1	8.1	8.0	8.0	5.5	9.6	8.9	8.9
Flour	do	3.3	5.2	5.0	5.0	4.9	4.9	5.0	3.0	4.5	4.2	4.1
Corn meal	do	2.0	3.9	4.0	3.9	4.9	4.8	4.8	2.1	2.6	3.0	3.0
Rolled oats	do	.....	10.4	9.2	9.4	6.9	7.8	7.5	.....	7.9	8.2	8.4
Corn flakes	8-oz. pkg	.....	10.7	9.6	9.7	9.9	9.7	9.7	.....	9.2	8.9	8.8
Wheat cereal	28-oz. pkg	.....	28.3	24.2	24.2	25.1	24.7	24.8	.....	25.1	23.5	23.3
Macaroni	Pound	.....	21.3	21.3	21.8	19.0	19.4	18.2	.....	21.3	19.5	19.5
Rice	do	9.8	11.8	11.3	10.8	9.3	9.3	9.4	8.6	8.4	8.9	8.5
Beans, navy	do	.....	9.5	11.1	11.8	8.1	10.5	11.2	.....	7.6	10.7	11.3
Potatoes	do	1.7	4.5	3.0	2.7	2.5	1.5	1.5	1.5	3.3	2.0	2.0
Onions	do	.....	10.9	5.7	5.9	9.9	4.9	5.1	.....	11.6	5.3	5.4
Cabbage	do	.....	6.6	4.2	5.3	4.7	2.8	3.4	.....	4.8	3.7	4.5
Beans, baked	No. 2 can	.....	12.4	11.8	11.8	11.3	11.4	11.4	.....	11.2	11.3	11.0
Corn, canned	do	.....	15.7	15.5	15.5	15.8	16.1	16.3	.....	14.8	14.7	15.1
Peas, canned	do	.....	19.6	19.1	19.1	19.3	18.7	18.9	.....	16.5	16.5	16.6
Tomatoes, canned	do	.....	13.4	12.3	12.2	12.5	13.0	13.4	.....	13.4	11.2	11.2
Sugar, granulated	Pound	5.3	6.6	8.4	8.4	6.0	7.9	8.4	5.1	6.1	8.0	8.6
Tea	do	56.0	79.8	78.5	78.5	60.3	62.2	62.3	55.0	69.0	66.8	65.9
Coffee	do	27.4	35.7	37.1	38.4	33.3	34.8	35.9	24.3	33.1	34.8	35.0
Prunes	do	.....	21.3	21.5	21.5	18.9	20.0	20.3	.....	19.1	22.1	21.9
Raisins	do	.....	24.1	18.5	18.5	25.6	17.7	17.7	.....	24.9	17.8	17.9
Bananas	Dozen	.....	38.8	38.8	38.1	41.3	42.3	43.7	.....	31.9	29.6	28.3
Oranges	do	.....	41.3	42.0	42.6	50.3	51.5	51.0	.....	46.3	44.7	47.6

[1] No. 2½ can.

ARTICLES OF FOOD IN 51 CITIES, ON SPECIFIED DATES—Continued.

St. Paul, Minn.			Salt Lake City, Utah.				San Francisco, Calif.				Savannah, Ga.			Scranton, Pa.			
Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.
			1913	1922			1913	1922						1913	1922		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
30.8	32.8	33.5	22.6	26.5	26.0	26.3	20.3	30.3	29.7	29.6	30.0	29.7	29.7	21.8	45.0	47.0	46.4
25.3	25.9	26.3	19.5	23.1	22.8	23.0	19.0	27.5	26.7	26.6	25.0	24.4	24.4	18.0	34.6	37.5	37.2
24.2	27.1	27.4	19.2	21.6	20.8	21.1	20.7	28.0	28.4	28.6	23.6	22.2	21.9	18.8	32.8	34.8	34.6
18.1	19.1	19.4	15.0	17.1	16.1	16.3	14.6	18.5	17.9	17.7	16.3	14.8	14.8	14.6	23.6	24.7	24.1
9.9	10.3	10.8	11.5	11.8	11.5	11.8	12.5	14.7	14.4	14.2	13.5	13.2	12.6	10.0	11.6	11.3	11.1
26.5	26.3	25.6	21.4	30.2	28.0	28.1	23.0	36.6	36.0	35.6	26.5	26.3	26.3	18.5	32.6	31.6	30.6
40.0	40.4	39.8	32.0	37.7	38.0	38.1	32.8	53.3	51.6	51.5	33.7	34.9	34.4	24.6	42.1	42.5	41.7
45.5	42.9	42.7	29.0	43.3	43.1	42.9	30.0	52.5	52.4	52.8	39.8	36.9	36.8	25.8	52.7	54.0	54.4
33.2	31.7	31.9	17.9	29.3	30.9	31.1	17.2	32.7	36.5	34.0	36.7	38.3	39.2	20.0	42.8	42.5	42.5
33.3	27.4	28.8	23.9	34.8	30.2	30.8	23.8	42.8	41.2	41.6	32.9	31.8	31.1	22.7	45.7	40.9	41.5
36.6	34.4	34.8	.....	36.5	33.8	32.8	.....	27.6	28.2	28.1	37.8	36.7	36.1	.....	38.1	36.5	36.9
10.0	11.0	11.0	8.9	9.0	10.0	10.0	10.0	13.0	13.0	13.0	18.0	18.0	18.0	8.8	13.0	13.0	13.0
12.0	11.9	12.1	.....	11.4	11.2	11.5	.....	10.6	10.7	10.9	10.5	11.6	11.9	.....	12.0	12.3	12.3
39.7	55.0	53.0	38.6	44.2	54.6	51.0	40.7	53.7	60.3	58.0	46.5	60.3	59.8	40.0	45.0	57.4	57.2
27.8	28.5	28.8	.....	.....	30.0	.....	.....	29.8	29.0	29.0	32.5	32.2	32.4	.....	28.0	30.3	30.7
27.0	26.8	26.8	.....	29.5	28.2	27.5	.....	27.7	28.7	28.7	31.3	29.3	29.9	.....	28.3	25.5	25.5
31.6	37.1	37.4	24.2	27.8	31.6	31.6	20.0	36.3	37.8	37.6	31.3	36.6	36.2	18.8	31.8	35.8	36.1
15.4	17.9	17.9	18.1	17.7	20.4	20.3	17.6	18.1	19.7	19.4	18.0	17.5	18.0	15.8	16.9	17.7	17.7
24.4	24.3	24.3	.....	24.8	26.2	26.4	.....	22.6	25.2	25.2	20.3	18.7	18.0	.....	22.4	21.4	22.4
44.9	48.2	40.9	31.4	43.0	41.5	33.0	25.0	35.8	46.1	35.7	39.8	51.8	39.8	32.5	56.6	65.9	53.9
.....	36.6	32.5	23.3	45.0	32.7	.....	.....	20.0	42.0	.....	32.0	41.1	36.7	23.5	39.0	41.2	37.0
8.4	9.4	9.4	5.9	9.4	9.8	9.6	5.7	8.5	9.0	9.0	8.0	8.4	8.7	5.5	9.6	8.7	8.7
5.2	4.9	4.8	2.5	3.2	3.4	3.4	3.3	5.1	5.2	5.2	5.5	5.5	5.6	3.5	5.7	5.4	5.3
3.7	3.6	3.7	3.4	3.5	3.7	3.7	3.4	4.9	4.7	4.7	2.6	2.8	2.8	.....	6.9	5.8	6.2
9.8	9.3	9.4	.....	9.9	9.3	9.3	.....	10.0	9.5	9.4	9.0	8.3	8.6	.....	10.3	9.8	9.5
10.7	9.9	9.9	.....	12.8	11.8	11.4	.....	11.7	10.6	10.6	9.3	9.1	9.1	.....	10.7	9.9	9.8
26.0	25.7	25.4	.....	27.3	26.2	25.4	.....	25.4	24.2	24.0	26.3	23.9	23.3	.....	28.0	25.9	26.8
18.5	18.8	18.8	.....	20.9	20.7	20.4	.....	12.7	14.4	14.6	19.0	17.7	17.9	.....	23.5	23.0	23.0
9.1	9.4	9.4	8.2	8.6	9.2	9.2	8.5	8.9	9.4	9.2	8.0	8.0	8.1	8.5	9.8	9.7	9.7
8.9	10.6	11.6	.....	8.7	10.1	10.5	.....	7.5	9.5	9.9	9.2	11.6	11.9	.....	9.6	11.6	11.8
2.8	1.4	1.5	1.0	2.1	1.2	1.2	1.5	3.4	2.3	2.3	3.6	2.5	2.5	1.7	3.1	2.1	2.1
9.7	3.8	4.2	.....	11.0	3.1	3.2	.....	8.8	3.6	3.9	11.6	5.8	6.2	.....	10.6	5.3	5.8
6.1	3.5	3.8	.....	6.3	2.9	3.1	.....	.....	.....	.....	6.4	4.5	4.5	.....	6.0	3.8	4.4
14.3	14.6	14.4	.....	17.7	16.0	15.6	.....	15.6	15.0	14.9	12.7	12.7	12.3	.....	12.9	12.5	12.1
15.4	14.7	14.7	.....	15.0	14.0	13.8	.....	17.1	16.7	16.7	15.5	14.7	14.3	.....	17.5	16.4	16.4
16.3	16.9	16.8	.....	15.2	15.7	15.3	.....	18.0	17.7	17.8	16.7	16.6	17.0	.....	17.7	17.6	17.6
14.1	14.1	14.1	.....	12.5	13.4	12.9	.....	[1] 14.1	[1] 14.6	[1] 14.6	12.7	10.3	11.0	.....	13.1	13.2	13.3
6.6	8.8	9.3	6.2	7.5	9.0	9.5	5.3	6.2	8.3	9.1	6.0	8.0	8.3	6.1	6.6	8.2	8.3
64.2	66.2	67.3	65.7	80.9	82.0	82.3	50.0	55.3	58.5	58.5	69.3	67.8	66.6	52.5	61.0	60.3	60.6
40.4	39.5	39.8	35.8	44.3	44.1	44.2	32.0	34.4	35.7	36.4	30.8	33.1	34.3	31.3	38.0	39.4	39.4
19.8	21.1	21.5	.....	16.6	18.5	18.7	.....	16.9	18.6	18.0	18.1	20.0	19.5	.....	17.5	18.9	18.5
27.2	19.5	19.5	.....	25.3	19.0	18.7	.....	22.6	18.9	18.7	23.7	18.0	17.8	.....	25.6	19.5	19.2
[2] 11.9	[2] 12.4	[2] 12.4	.....	[2] 16.1	[2] 14.7	[2] 15.0	.....	35.0	34.3	34.3	33.2	33.9	33.8	.....	35.6	33.2	33.2
55.4	60.5	60.5	.....	45.1	47.3	43.4	.....	52.3	45.3	43.4	41.2	38.2	38.3	.....	53.3	49.7	49.1

[2] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, ON SPECIED DATES—Concluded.

Article.	Unit.	Seattle, Wash.				Springfield, Ill.			Washington, D. C.			
		Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15, 1922.	Jan. 15, 1923.	Feb. 15, 1923.	Feb. 15—		Jan. 15, 1923.	Feb. 15, 1923.
		1913	1922						1913	1922		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	22.0	30.0	29.7	29.8	30.1	30.8	30.3	25.9	41.1	41.8	42.3
Round steak	do	20.0	26.4	26.0	25.8	29.4	30.2	29.7	21.8	33.9	34.7	35.1
Rib roast	do	18.4	23.3	23.9	23.9	21.0	21.8	22.5	20.0	31.7	32.7	33.5
Chuck roast	do	15.0	17.1	16.3	16.3	17.8	18.3	17.8	15.6	22.3	23.1	22.8
Plate beef	do	11.4	13.7	13.2	13.0	12.0	12.0	12.1	10.7	12.2	12.2	12.1
Pork chops	do	23.4	33.0	33.6	34.0	25.8	25.2	24.5	19.3	33.1	33.4	31.8
Bacon, sliced	do	30.0	47.0	47.5	47.9	37.2	38.7	38.9	23.3	35.5	38.9	38.8
Ham, sliced	do	29.2	49.3	49.8	49.4	44.8	41.8	42.1	28.2	53.8	54.5	54.2
Lamb, leg of	do	18.3	31.4	33.6	33.4	36.7	37.2	37.9	21.0	41.9	42.1	40.5
Hens	do	24.3	36.0	32.2	31.3	32.8	28.3	30.4	21.3	41.5	39.9	40.3
Salmon, canned, red	do	.....	31.5	31.2	31.2	34.9	32.1	32.4	.....	30.5	28.0	27.9
Milk, fresh	Quart	9.1	13.0	13.0	13.0	12.5	11.1	11.1	9.0	14.0	14.0	14.0
Milk, evaporated	15-16-oz.can	.....	10.7	11.1	11.2	12.4	12.8	12.7	.....	11.9	11.6	11.7
Butter	Pound	42.6	47.8	57.6	55.5	44.3	58.5	57.1	44.0	48.5	63.3	61.9
Oleomargarine	do	.....	29.0	28.8	28.8	28.9	28.6	28.4	.....	27.3	28.5	27.9
Nut margarine	do	.....	29.4	28.6	28.5	27.6	26.8	26.9	.....	27.3	26.8	27.0
Cheese	do	21.6	33.8	36.2	36.0	34.3	38.9	39.1	23.5	35.8	38.1	39.0
Lard	do	17.9	17.0	19.1	19.1	14.7	17.2	16.9	14.4	15.3	17.1	16.9
Vegetable lard substitute	do	.....	23.7	24.7	24.1	22.0	23.7	23.5	.....	21.5	23.2	23.3
Eggs, strictly fresh	Dozen	30.0	39.0	42.8	37.1	41.1	50.4	40.2	36.3	56.0	57.9	50.5
Eggs, storage	do	22.5	.....	40.0	.....	30.0	38.5	32.0	20.5	.....	41.6	40.0
Bread	Pound	5.4	8.1	8.6	8.6	9.6	9.3	9.3	5.5	8.6	8.2	8.2
Flour	do	3.0	4.6	4.7	4.7	5.3	5.1	5.0	3.7	5.4	5.2	5.2
Corn meal	do	3.1	3.7	4.0	4.0	4.2	4.7	4.5	2.5	3.6	3.7	3.8
Rolled oats	do	.....	8.4	8.5	8.6	11.0	10.6	10.4	.....	9.6	9.2	9.2
Corn flakes	8-oz. pkg	.....	12.3	11.8	11.8	10.7	9.7	9.8	.....	10.0	9.4	9.4
Wheat cereal	28-oz. pkg	.....	27.4	26.4	25.3	28.0	26.0	26.0	.....	26.0	25.1	24.7
Macaroni	Pound	.....	18.9	18.7	17.8	20.2	19.9	19.8	.....	21.8	22.0	22.3
Rice	do	7.7	10.5	10.9	10.8	9.4	9.8	9.8	9.6	10.0	10.5	10.5
Beans, navy	do	.....	8.1	10.1	10.8	7 9	11.4	11.9	.....	8.4	11.5	11.7
Potatoes	do	.09	2.6	1.6	1.6	3.1	2.0	1.9	1.5	3.9	2.4	2.5
Onions	do	.....	9.9	4.6	4.7	12.8	5.1	5.2	.....	12.0	5.6	5.7
Cabbage	do	.....	5.2	3.9	4.9	6.0	4.4	4.8	.....	6.4	4.1	6.0
Beans, baked	No. 2 can	.....	16.7	14.9	15.4	13.2	13.4	13.3	.....	11.6	12.0	12.0
Corn, canned	do	.....	17.8	17.0	17.2	15.3	14.6	14.3	.....	15.0	14.4	14.8
Peas, canned	do	.....	18.2	19.2	18.9	17.6	17.8	17.9	.....	16.4	15.9	16.0
Tomatoes, canned	do	6.1	[1] 15.6	[1] 15.5	[1] 15.7	14.9	14.6	14.4	5.2	13.3	11.3	11.9
Sugar, granulated	Pound	50.0	6.9	8.9	9.6	6.9	9.0	9.3	57.5	6.3	7.8	8.0
Tea	do	28.0	62.8	66.5	66.2	74.3	71.8	71.1	28.8	71.8	75.4	76.1
Coffee	do	.....	38.6	39.0	39.1	35.8	37.2	38.0	.....	31.6	34.8	35.0
Prunes	do	.....	17.7	18.1	18.5	19.5	21.0	21.9	.....	20.8	22.0	22.0
Raisins	do	.....	25.0	18.6	18.6	25.7	21.0	20.9	.....	24.4	19.6	18.7
Bananas	Dozen	.....	[2] 15.1	[2] 15.7	[2] 15.6	[2] 9.6	[2] 11.5	[2] 11.4	.....	40.0	37.5	37.9
Oranges	do	.....	49.4	44.2	43.4	51.0	52.4	58.2	.....	48.1	46.4	46.3

[1] No. 2½ can. [2] Per pound.

Comparison of Retail Food Costs in 51 Cities.

TABLE 6 shows for 39 cities the percentage of increase or decrease in the retail cost of food [7] in February, 1923, compared with the average cost in the year 1913, in February, 1922, and in January 1923. For 12 other cities comparisons are given for the one-year and the one-month periods. These cities have been scheduled by the bureau at different dates since 1913. These percentage changes are based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.[8]

[7] For list of articles, see note 2, p. 25.

[8] The consumption figure used from January, 1913, to December, 1920, for each article in each city is given in the MONTHLY LABOR REVIEW for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, are given in the MONTHLY LABOR REVIEW for March, 1921, p. 26.

Effort has been made by the bureau each month to have perfect reporting cities. For the month of February 99 per cent of all the firms reporting in the 51 cities sent in a report promptly. The following were perfect reporting cities; that is, every merchant in the following-named 39 cities who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Boston, Bridgeport, Buffalo, Butte, Charleston, Chicago, Cincinnati, Columbus, Dallas, Denver, Detroit, Indianapolis, Jacksonville, Kansas City, Little Rock, Los Angeles, Louisville, Manchester, Memphis, Milwaukee, Mobile, New Haven, New Orleans, Norfolk, Omaha, Peoria, Philadelphia, Pittsburgh, Portland, Me., Portland, Oreg., Providence, Richmond, St. Louis, St. Paul, Salt Lake City, San Francisco, and Scranton.

The following summary shows the promptness with which the merchants responded in February:

RETAIL PRICE REPORTS RECEIVED DURING FEBRUARY.

Item.	United States.	Geographical division.				
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.
Percentage of reports received	99	99	99	99.2	98	99
Number of cities in each section from which every report was received	39	10	6	11	6	6

TABLE 6.—PERCENTAGE CHANGES IN THE RETAIL COST OF FOOD IN FEBRUARY, 1923, COMPARED WITH THE COST IN JANUARY, 1923, FEBRUARY, 1922, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES.

City.	Percentage increase February, 1923, compared with year 1913.	Percentage increase February, 1923, compared with February, 1922.	Percentage decrease February, 1923, compared with January, 1923.	City.	Percentage increase February, 1923, compared with year 1913.	Percentage increase February, 1923, compared with February, 1922.	Percentage decrease February, 1923, compared with January, 1923.
Atlanta	40	[1] 1	1	Milwaukee	42	1	1
Baltimore	48	1	1	Minneapolis	42	2	0.4
Birmingham	46	1	0.4	Mobile	.....	1	2
Boston	47	2	1	Newark	40	0.2	4
Bridgeport	.....	4	2	New Haven	44	1	2
Buffalo	49	[1] 1	2	New Orleans	43	0	2
Butte	.....	1	1	New York	49	1	3
Charleston	45	[1] 2	2	Norfolk	.....	[1] 0.2	1
Chicago	47	3	1	Omaha	37	[1] 2	1
Cincinnati	38	[1] 1	2	Peoria	.....	[1] 3	1
Cleveland	41	4	2	Philadelphia	45	0.4	2
Columbus	.....	2	2	Pittsburgh	44	4	1
Dallas	42	1	0.4	Portland, Me.	.....	3	1
Denver	31	3	2	Portland, Oreg.	30	2	2
Detroit	46	1	2	Providence	50	2	1
Fall River	47	0	2	Richmond	53	[1] 2	0.4
Houston	.....	1	0.4	Rochester	.....	1	3
Indianapolis	37	[1] 0.3	2	St. Louis	42	1	1
Jacksonville	36	[1] 2	2	St. Paul	.....	1	1
Kansas City	39	2	0.4	Salt Lake City	21	[1] 2	3
Little Rock	37	3	1	San Francisco	37	0	2
Los Angeles	34	[1] 1	4	Savannah	.....	1	1
Louisville	32	1	2	Scranton	49	[1] 2	2
Manchester	44	[1] 0.3	1	Seattle	34	1	1
Memphis	35	[1] 1	1	Springfield, Ill.	.....	[1] 3	2
				Washington, D. C.	50	[1] 1	1

[1] Decrease.

Retail Prices of Coal in the United States.[a]

THE following table shows the average retail prices of coal on February 15, 1922, and on January 15 and February 15, 1923, for the United States and for each of the cities included in the total for the United States. Prices for coal are secured from the cities from which monthly retail prices of food are received.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds used. The coal dealers in each city are asked to quote prices on the kinds of bituminous coal usually sold for household use.

The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON FEBRUARY 15, 1922, AND JANUARY 15 AND FEBRUARY 15, 1923.

City, and kind of coal.	Feb. 15, 1922.	1923	
		Jan. 15.	Feb. 15.
United States:			
Pennsylvania anthracite—			
Stove	**$14.920**	**$15.427**	**$15.549**
Chestnut	**14.994**	**15.456**	**15.531**
Bituminous	**9.706**	**11.179**	**11.137**
Atlanta, Ga.:			
Bituminous	7.481	10.481	10.442
Baltimore, Md.:			
Pennsylvania anthracite—			
Stove	[1] 15.000	[1] 16.250	[1] 16.250
Chestnut	[1] 14.750	[1] 16.250	[1] 16.250
Bituminous	7.850	11.000	10.700
Birmingham, Ala.:			
Bituminous	6.720	8.407	8.357
Boston, Mass.:			
Pennsylvania anthracite—			
Stove	15.000	16.000	16.000
Chestnut	15.000	16.000	16.000
Bridgeport, Conn.:			
Pennsylvania anthracite—			
Stove	13.000	15.750	16.375
Chestnut	13.000	15.750	16.375
Buffalo, N. Y.:			
Pennsylvania anthracite—			
Stove	12.875	13.238	13.238
Chestnut	12.875	13.238	13.238
Butte, Mont.:			
Bituminous	11.519	11.494	11.154
Charleston, S. C.:			
Pennsylvania anthracite—			
Stove	[1] 17.000	[1] 17.000	[1] 17.000
Chestnut	[1] 17.100	[1] 17.100	[1] 17.100
Bituminous	12.000	12.000	12.000
Chicago, Ill.:			
Pennsylvania anthracite—			
Stove	15.410	16.180	16.180
Chestnut	15.380	16.050	16.050
Bituminous	8.500	10.980	10.790
Cincinnati, Ohio:			
Bituminous	6.667	9.638	9.423

[1] Per ton of 2,240 pounds

[a] Prices of coal were formerly secured semiannually and published in the March and September issues of the MONTHLY LABOR REVIEW. Since June, 1920, these prices have been secured and published monthly.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON FEBRUARY 15, 1922, AND JANUARY 15 AND FEBRUARY 15, 1923—Continued.

City, and kind of coal.	Feb. 15, 1922.	1923	
		Jan. 15.	Feb. 15.
Cleveland, Ohio:			
Pennsylvania anthracite—			
Stove	$14.375	$15.750	$15.750
Chestnut	14.438	15.750	15.750
Bituminous	8.033	11.322	11.364
Columbus, Ohio:			
Bituminous	7.207	9.848	9.895
Dallas, Tex.:			
Arkansas anthracite—			
Egg	18.250	18.125	18.125
Bituminous	15.423	15.375	15.375
Denver, Colo.:			
Colorado anthracite—			
Stove, 3 and 5 mixed	15.917	17.250	17.333
Furnace, 1 and 2 mixed	15.917	17.250	17.333
Bituminous	10.230	10.692	10.685
Detroit, Mich.:			
Pennsylvania anthracite—			
Stove	14.563	16.000	16.250
Chestnut	14.563	16.000	16.250
Bituminous	8.656	11.893	11.893
Fall River, Mass.:			
Pennsylvania anthracite—			
Stove	15.250	16.500	16.417
Chestnut	15.000	16.083	16.083
Houston, Tex.:			
Bituminous	12.000	12.833	12.833
Indianapolis, Ind.:			
Pennsylvania anthracite—			
Stove	15.625	15.750	15.750
Chestnut	15.667	15.750	15.750
Bituminous	7.420	9.610	9.623
Jacksonville, Fla.:			
Bituminous	13.000	15.000	15.000
Kansas City, Mo.:			
Arkansas anthracite—			
Furnace	17.214	16.929	16.929
Stove, or No. 4	18.125	17.750	17.875
Bituminous	8.688	8.900	8.883
Little Rock, Ark.:			
Arkansas anthracite—			
Egg	15.000	15.000	15.000
Bituminous	12.375	12.500	11.833
Los Angeles, Calif.:			
Bituminous	19.000	16.500	16.500
Louisville, Ky.:			
Bituminous	6.769	10.182	10.182
Manchester, N. H.:			
Pennsylvania anthracite—			
Stove	16.000	18.000	18.000
Chestnut	16.000	18.000	18.000
Memphis, Tenn.:			
Bituminous	7.786	9.411	9.411
Milwaukee, Wis.:			
Pennsylvania anthracite—			
Stove	15.980	16.650	16.634
Chestnut	15.950	16.625	16.614
Bituminous	10.357	12.716	12.759
Minneapolis, Minn.:			
Pennsylvania anthracite—			
Stove	17.750	17.710	17.980
Chestnut	17.750	17.670	17.930
Bituminous	11.775	13.913	13.588
Mobile, Ala.:			
Bituminous	10.063	10.929	11.000
Newark, N. J.:			
Pennsylvania anthracite—			
Stove	12.833	12.792	12.833
Chestnut	12.833	12.792	12.833
New Haven, Conn.:			
Pennsylvania anthracite—			
Stove	14.000	15.333	15.750
Chestnut	14.000	15.333	15.750
New Orleans, La.:			
Pennsylvania anthracite—			
Stove	17.500	21.500	21.750
Chestnut	17.667	21.500	21.750
Bituminous	10.313	11.208	11.208

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON FEBRUARY 15, 1922, AND JANUARY 15 AND FEBRUARY 15, 1923—Continued.

City, and kind of coal.	Feb. 15, 1922.	1923	
		Jan. 15.	Feb. 15.
New York, N. Y.:			
Pennsylvania anthracite—			
Stove	$13.142	$14.450	$15.000
Chestnut	13.142	14.450	14.900
Norfolk, Va.:			
Pennsylvania anthracite—			
Stove	14.000	16.000	17.000
Chestnut	14.000	16.000	17.000
Bituminous	9.238	12.429	13.381
Omaha, Nebr.:			
Bituminous	11.857	11.938	11.774
Peoria, Ill.:			
Bituminous	6.393	7.167	7.042
Philadelphia, Pa.:			
Pennsylvania anthracite			
Stove	[1] 14.094	[1] 15.094	[1] 15.125
Chestnut	[1] 14.094	[1] 15.094	[1] 15.125
Pittsburgh, Pa.:			
Pennsylvania anthracite—			
Stove	[1] 15.750	[1] 17.000	.....
Chestnut	[1] 15.667	[1] 17.000	[1] 17.750
Bituminous	6.781	8.156	8.321
Portland, Me.:			
Pennsylvania anthracite—			
Stove	15.843	15.843	15.843
Chestnut	15.843	15.843	15.843
Portland, Oreg.:			
Bituminous	12.896	14.522	14.522
Providence, R. I.:			
Pennsylvania anthracite—			
Stove	[2] 15.000	[2] 16.420	[2] 15.800
Chestnut	[2] 15.000	[2] 16.400	[2] 15.800
Richmond, Va.:			
Pennsylvania anthracite—			
Stove	14.250	16.500	16.500
Chestnut	14.250	16.500	16.500
Bituminous	9.846	13.100	13.300
Rochester, N. Y.:			
Pennsylvania anthracite—			
Stove	13.450	13.450	13.450
Chestnut	13.450	13.450	13.450
St. Louis, Mo.:			
Pennsylvania anthracite—			
Stove	16.063	16.583	16.563
Chestnut	16.250	16.583	16.563
Bituminous	7.013	8.355	8.276
St. Paul, Minn.:			
Pennsylvania anthracite—			
Stove	17.750	17.667	17.667
Chestnut	17.750	17.642	17.642
Bituminous	12.129	13.931	13.894
Salt Lake City, Utah:			
Colorado anthracite—			
Furnace, 1 and 2 mixed	19.125	20.000	.....
Stove, 3 and 5 mixed	20.000	20.000	.....
Bituminous	9.000	9.172	8.759
San Francisco, Calif.:			
New Mexico anthracite—			
Cerillos egg	27.250	26.750	26.750
Colorado anthracite—			
Egg	26.250	24,250	24.250
Bituminous	19.250	17.900	17.900
Savannah, Ga.:			
Pennsylvania anthracite—			
Stove	[3] 17.100	[3] 17.000	[3] 17.050
Chestnut	[3] 17.100	[3] 17.000	[3] 17.050
Bituminous	[3] 12.267	[3] 14.083	[3] 13.667

[1] Per ton of 2,240 pounds.

[2] Fifty cents per ton additional is charged for "binning." Most customers require binning or basketing the coal into the cellar.

[3] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above prices.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON FEBRUARY 15, 1922, AND JANUARY 15 AND FEBRUARY 15, 1923—Concluded.

City, and kind of coal.	Feb. 15, 1922.	1923	
		Jan. 15.	Feb. 15.
Scranton, Pa.:			
Pennsylvania anthracite—			
Stove	$9.700	$9.817	$9.817
Chestnut	9.700	9.825	9.317
Seattle, Wash.:			
Bituminous	[4] 10.107	[4] 10.271	[4] 10.289
Springfield, Ill.:			
Bituminous	4.450	5.325	4.925
Washington, D. C.:			
Pennsylvania anthracite—			
Stove	[1] 14.814	[1] 15.871	[1] 15.943
Chestnut	[1] 14.621	[1] 15.871	[1] 15.943
Bituminous	[1] 9.112	[1] 11.335	[1] 10.931

[1] Per ton of 2,240 pounds.
[4] Prices in zone A. The cartage charges in zone A were as follows: February, 1922, $1.75; January, 1923, $1.25 to $2.25; and February, 1923, $1.25 to $1.75. These charges have been included in the averages.

Comparison of Retail Price Changes in the United States and Foreign Countries.

THE index numbers of retail prices published by several foreign countries have been brought together with those of this bureau in the subjoined table after having been reduced to a common base, namely, prices for July, 1914, equal 100. This base was selected instead of the average for the year 1913, which is used in other tables of index numbers compiled by the bureau, because of the fact that in some instances satisfactory information for 1913 was not available. For Belgium, Denmark, Germany, Great Britain, Norway, Sweden, and the city of Rome, Italy, the index numbers are reproduced as published in the original sources. With three exceptions all these are shown on the July, 1914, base in the source from which the information is taken. The index numbers for Belgium are computed on April, 1914, as the base period, those for Germany on the average of October, 1913, January, April, and July, 1914, while those for Rome are based on the first half of 1914. The index numbers here shown for the remaining countries have been obtained by dividing the index for each month specified in the table by the index for July, 1914, or the nearest period thereto, as published. As shown in the table, the number of articles included in the index numbers for the different countries differs widely. These results should not, therefore, be considered as closely comparable with one another. In a few instances, also, the figures here shown are not absolutely comparable from month to month over the entire period, owing to slight changes in the list of commodities included at successive dates.

INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND CERTAIN OTHER COUNTRIES.

[July, 1914=100.]

Year and month.	United States: 22 foodstuffs, to December, 1920; since that time 43 foodstuffs; 51 cities (variable). Weighted.	Australia: 46 foodstuffs; 30 towns. Weighted.	Belgium: 56 articles (variable); 59 cities. Not weighted.	Canada: 29 foodstuffs; 60 cities. Weighted.	Denmark: Family food budget; 5 persons. Weighted.	France: Family budget, 13 articles.		Germany: Family food budget; 5 persons. Weighted. (Revised.)
						Cities over 10,000 population (except Paris). Weighted.	Paris only. Weighted.	
July, 1914	100	100	[1] 100	100	100	100	100	[2] 100
July, 1915	98	131	.....	105	128	[3] 123	120	.....
July, 1916	109	130	.....	114	146	[3] 141	129	.....
July, 1917	143	126	.....	157	166	[3] 184	183	.....
July, 1918	164	131	.....	175	187	[3] 244	206	.....
July, 1919	186	147	.....	186	212	[3] 289	261	.....
1920.								
July	215	194	453	227	253	[3] 388	373	1,267
August	203	194	463	221	.....	.....	373	1,170
September	199	197	471	215	.....	.....	407	1,166
October	194	192	477	213	.....	[3] 450	420	1,269
November	189	186	476	206	.....	.....	426	1,343
December	175	184	468	200	.....	.....	424	1,427
1921.								
January	169	186	450	195	276	[3] 429	410	1,423
February	155	184	434	190	.....	.....	382	1,362
March	153	181	411	178	.....	.....	359	1,352
April	149	173	399	171	.....	[3] 363	328	1,334
May	142	168	389	165	.....	.....	317	1,320
June	141	165	384	150	.....	.....	312	1,370
July	145	161	379	148	236	[3] 350	306	1,491
August	152	158	384	154	.....	.....	317	1,589
September	150	154	386	159	.....	.....	329	1,614
October	150	149	391	155	.....	[3] 348	331	1,757
November	149	146	394	149	.....	.....	326	2,189
December	147	143	393	148	.....	.....	323	2,357
1922.								
January	139	142	387	149	197	[3] 323	319	2,463
February	139	140	380	143	.....	.....	307	3,020
March	136	141	371	142	.....	.....	294	3,602
April	136	143	367	138	.....	[3] 315	304	4,356
May	136	146	365	138	.....	.....	318	4,680
June	138	146	366	137	.....	.....	307	5,119
July	139	148	366	138	184	[3] 312	297	6,836
August	136	149	366	141	.....	.....	289	9,746
September	137	149	371	139	.....	.....	291	15,417
October	140	146	376	138	.....	[3] 314	290	26,623
November	142	145	384	139	.....	.....	297	54,982
December	144	146	384	140	.....	.....	305	80,702

[1] April, 1914.
[2] Average for October, 1913, January, April, and July, 1914.
[3] Quarter beginning month specified.

INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND CERTAIN OTHER COUNTRIES—Concluded.

Year and month.	Great Britain: 21 foodstuffs; 600 towns. Weighted.	Italy: Family food budget; 5 persons; Rome. Weighted.	Netherlands: 27 foodstuffs; Amsterdam. Weighted.	New Zealand: 59 foodstuffs; 25 towns. Weighted.	Norway: Family food budget. Weighted.	South Africa: 18 foodstuffs 9 towns. Weighted.	Sweden: 21 articles; 44 towns. Weighted.	Switzerland: 9 groups of foodstuffs. Not weighted.
July, 1914	100	[4] 100	[5] 100	100	100	[6] 100	100	[7] 100
July, 1915	132½	95	.....	112	.....	[6] 107	[3] 124	[7] 119
July, 1916	161	111	.....	119	[8] 160	[6] 111	[3] 142	[7] 140
July, 1917	204	137	.....	127	.....	[6] 124	177	.....
July, 1918	210	203	.....	139	279	[6] 125	268	.....
July, 1919	209	206	210	144	289	[6] 136	310	.....
1920.								
July	258	318	217	167	319	[6] 178	297	246
August	262	322	219	171	333	.....	308	.....
September	267	324	223	173	336	.....	307	.....
October	270	341	226	177	340	.....	306	262
November	291	361	220	176	342	.....	303	.....
December	282	375	208	179	342	.....	294	.....
1921.								
January	278	367	199	178	334	[3] 166	283	243
February	263	376	200	175	308	.....	262	237
March	249	386	199	169	300	.....	253	234
April	238	432	193	169	300	[3] 151	248	231
May	232	421	189	167	292	.....	237	212
June	218	409	186	166	290	.....	234	210
July	220	402	185	164	292	[3] 136	232	214
August	226	416	184	163	297	.....	234	209
September	225	430	184	161	290	.....	228	206
October	210	452	173	156	288	[3] 128	218	200
November	200	459	159	152	281	.....	211	198
December	195	458	154	150	268	.....	202	192
1922.								
January	185	469	152	147	257	121	190	189
February	179	463	154	145	245	119	189	179
March	177	446	148	141	238	119	185	177
April	173	455	141	144	234	121	182	167
May	172	455	140	145	230	120	178	158
June	170	454	141	143	227	118	179	157
July	180	459	144	144	283	116	179	158
August	175	463	144	141	232	116	181	158
September	172	472	145	139	228	117	180	156
October	172	482	148	139	220	119	178	157
November	176	477	141	139	216	120	170	160
December	178	476	.....	.....	215	118	168	160

[3] Quarter beginning month specified.
[4] January-June.
[5] Year 1913.
[6] Year.
[7] Previous month.
[8] August.

Index Numbers of Wholesale Prices in February, 1923.

A SLIGHT rise in the general level of wholesale prices in February, as compared with the preceding month, is shown by information gathered by the United States Department of Labor through the Bureau of Labor Statistics in representative markets of the country. The Bureau's weighted index number, which includes 404 commodities or price series, stands at 157 for February, or one point higher than in January.

Metals and metal products averaged considerably higher than in the month before, due to advances in iron and steel, copper, lead, and tin. The increase in the group as a whole approximated 4½ per cent. Building materials also continued upward, with an increase of 2 per cent over the level of January. Smaller increases were recorded for the groups of cloths and clothing, chemicals and drugs, and miscellaneous commodities. In the last-named group there were appreciable advances in bran and millfeed middlings, linseed meal, manila rope, and rubber.

Farm products, on the contrary, showed a slight decline in average prices, due to decreases in cattle, hogs, sheep, eggs, hay, hides, and milk, which more than offset increases in grains, cotton, potatoes, and wool. Fuel and lighting materials, as a result of continued declines in bituminous coal and coke, averaged 2¾ per cent cheaper than in January. The groups of foodstuffs and house-furnishing goods showed no change in the general price level.

Of the 404 commodities or series of quotations for which comparable data for January and February were collected, increases were shown in 165 instances and decreases in 89 instances. In 150 instances no change in price was reported.

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES.

[1913=100.]

Commodity group.	1922	1923	
	February.	January.	February.
Farm products	131	143	142
Foods	135	141	141
Cloths and clothing	174	196	199
Fuel and lighting	191	218	212
Metals and metal products	110	133	139
Building materials	156	188	192
Chemicals and drugs	123	131	132
House-furnishing goods	177	184	184
Miscellaneous	117	124	126
All commodities	141	156	157

Comparing prices in February with those of a year ago, as measured by changes in the index numbers, it is seen that the general level has risen over 11 per cent. Metals and metal products show the largest increase, 26¼ per cent. Building materials follow next with an increase of 23 per cent. Cloths and clothing have increased 14¼ per cent, fuel and lighting 11 per cent, and farm products 8½ per cent in price in the year. Food articles, chemicals and drugs, house-furnishing goods, and miscellaneous commodities all show smaller increases compared with prices of a year ago.

Reduction of Cost of Living by Company Stores in Arizona.

CERTAIN features of what is called the "new idea of operating a company store for the benefit of the workers instead of the company" are outlined in a letter written by Mr. Hywel Davies, United States commissioner of conciliation for the copper industries of the West, to Dr. Charles P. Neill of the Coal Commission. During the war, it is stated, the question of cost of living in the isolated mining camps of Arizona became a serious matter, and it was to reduce the cost of living to employees that the new type of company store came into being.

The company places a valuation on its mercantile investment, covering the store building, warehouses, equipment, and stock of merchandise. This amount is entered on the company's books as a mercantile investment, bearing, usually, 6 per cent interest plus 4 per cent to provide a sinking fund. The goods are sold "at prices that compare with the best prices made by local merchants. It is generally admitted that the company store goods are superior in quality."

The average net profits on all sales after all operating expenses have been paid vary from 12½ to 18 per cent, and the annual sales of over $400,000 yield $50,000 to $60,000 profit. The only charges against this net profit are the two items of interest and sinking fund, which leaves a balance of $35,000 to $45,000 to be distributed to the employees as dividends on their store purchases. This dividend is paid semiannually to all employees of record on January 1 and July 1, and due to the fact that no dividend is paid to employees who leave the company's employment between these dates, and no dividend is paid to any outsider who trades in the company stores, the actual dividend paid to employees of record is generally equal to the net percentage profit on the sale of goods, viz., 12½ to 15 per cent.

These dividends have proved to be the nucleus of a savings fund in hundreds of cases, and have contributed no little toward better working relations between the company and its employees, as well as materially helping to reduce the labor turnover.

It has also developed keener competition, as the local merchant realizes that he has to meet a company store competition that appeals to the patronage of the worker who has been made a co-beneficiary in the final results of the store operation. This has cut out the tendency of profiteering on the part of the local merchant, and as the company stores do not undersell but merely meet his prices, he still has an opportunity to live but his success depends upon merit.

Some of the larger companies do not operate a store. It is stated that in a number of cases, however, the company has given its credit to the workmen's committees "so that they could purchase staple goods in carload lots and dispose of same in unbroken packages to their fellow workers at cost plus freight." In one case which is cited, by this means the price of flour was reduced from $11.50 per barrel to $6.40 f. o. b. cars on the company's sidetrack. This in turn reduced the local sales price from $11.50 to $7.50 in all the stores. The company did this as an emergency measure and not as a continuing policy.

Retail Prices of Food in Nevada, 1921 and 1922.[1]

THE following table shows the average retail prices of various articles of food in Nevada on June 15 and December 15, 1921, and 1922, and also the average retail prices for each of these years:

AVERAGE RETAIL PRICES OF FOOD IN NEVADA, 1921 AND 1922.

Article.	Unit.	1921			1922		
		June 15.	Dec. 15.	Year.	June 15.	Dec. 15.	Year.
		Cents.	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*
Sirloin steak	Pound	34.5	29.4	33.0	32.1	30.6	32.0
Round steak	do	29.8	25.0	25.8	27.9	26.9	26.9
Rib roast	do	28.6	23.4	26.9	25.9	25.4	25.3
Chuck roast	do	22.5	17.9	21.1	20.5	19.1	19.9
Plate beef	do	16.9	13.0	15.6	15.1	15.3	15.1
Pork chops	do	35.4	31.8	34.8	34.7	34.2	34.2
Bacon	do	52.1	45.9	51.0	50.1	49.2	49.6
Ham	do	53.7	46.7	52.8	54.9	51.7	53.3
Lamb	do	31.6	26.1	29.5	33.4	31.7	31.4
Hens	do	40.3	33.9	39.2	39.1	37.1	37.9
Salmon, canned	do	30.6	30.1	32.7	29.6	24.9	29.2
Milk, canned	16-oz can	15.7	14.7	15.5	13.0	13.9	13.4
Butter	Pound	46.4	55.6	53.5	49.2	58.3	52.4
Oleomargarine	do	31.6	32.7	32.8	31.9	31.8	31.4
Cheese	do	37.7	36.0	38.1	35.6	38.2	36.6
Lard	do	22.6	19.9	23.0	20.9	21.4	21.0
Vegetable lard, substitute	do	25.9	26.0	27.1	27.8	27.8	28.2
Eggs, fresh	Dozen	37.9	67.1	49.8	38.8	62.7	48.3
Flour	Pound	6.8	4.5	5.6	4.6	4.4	4.6
Corn meal	do	7.0	6.2	6.8	5.8	5.2	5.6
Rolled oats	do	9.0	8.1	8.5	7.6	7.7	7.9
Corn flakes	8-oz	14.8	15.0	15.1	14.5	14.5	14.0
Wheat cereal	28-oz	33.8	33.7	34.1	31.1	30.2	31.7
Macaroni	Pound	13.0	13.7	14.2	12.9	12.7	13.4
Rice	do	9.6	10.2	10.1	10.4	10.2	10.2
Beans, navy	do	9.7	10.1	9.9	10.9	11.5	10.8
Potatoes	do	3.2	3.1	3.2	3.2	1.8	2.7
Onions	do	4.7	7.5	5.6	7.8	5.2	7.0
Cabbage	do	6.4	5.4	5.6	6.2	4.8	5.7
Beans, canned	2-lb. can	20.4	20.0	20.9	20.0	19.1	20.0
Corn, canned	do	19.9	19.2	10.7	19.6	17.6	19.1
Peas, canned	do	21.1	20.3	21.3	21.3	19.5	20.3
Tomatoes, canned	do	16.2	18.1	17.4	18.9	17.4	18.3
Sugar, granulated	Pound	10.2	8.7	10.0	9.3	10.2	9.5
Tea	do	60.7	61.4	59.8	64.5	60.5	62.0
Coffee	do	35.7	36.2	46.1	37.3	34.9	35.9
Prunes	do	17.9	17.0	17.5	21.6	19.7	20.0
Bananas	Dozen	60.0	52.8	56.7	62.7	53.1	54.6
Oranges	do	68.8	73.5	71.4	86.8	86.8	84.7

[1] Nevada. Commissioner of Labor. Biennial report, 1921–22. Carson City, 1923, pp. 94 and 95.

Budget of a Berlin Workman's Family, Last Six Months of 1922.[1]

A BULLETIN recently issued by the intelligence service of the German trade-unions (*Gewerkschaftlicher Nachrichtendienst*) contained the following household budget of a Berlin workman's family of three persons for the six months ending December, 1922:

BUDGET OF A BERLIN WORKMAN'S FAMILY OF THREE PERSONS, JULY 1 TO DEC. 31, 1922.

[1 mark at par=23.8 cents.]

Item.	July.	August.	September.	October.	November.	December.	Total.	
							Amount.	Per cent.
	Marks.	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*	
Rent	[1] 1,849.60	78.10	152.50	231.00	221.30	177.50	[2] 2,710.00	1.0
Heat and light	725.00	1,047.50	2,967.20	1,642.15	1,437.80	7,553.00	15,372.65	5.5
Food	5,428.90	6,070.35	9,547.35	15,154.40	23,850.00	55,028.00	[3] 115,179.80	40.7
Clothing [4]	2,497.65	320.00	9,745.00	.....	32,077.25	9,666.00	[3] 54,303.90	19.3
Shoes [5]	930.00	15.50	386.75	36.00	400.00	25.00	1,793.25	.7
Shirts, underwear, etc.[4]	122.65	491.25	280.00	915.00	676.00	5,600.00	[3] 8,078.90	2.9
Toilet articles	132.00	174.00	104.00	286.50	631.00	707.00	2,034.50	.8
Beverages, tobacco, etc	763.40	2,950.00	2,251.00	1,213.00	2,063.50	10,023.00	19,263.90	6.9
Household furnishings	.....	8,819.00	72.50	80.00	535.00	4,125.00	13,631.50	4.9
Miscellaneous expenditures	1,685.75	1,374.05	5,512.50	7,280.60	11,362.80	23,541.50	[3] 50,757.30	17.3
Total	14,134.95	21,339.75	[3] 31,118.80	26,838.65	[3] 73,249.55	116,446.00	[3] 283,127.70	100.0

[1] Includes renovation of two rooms.
[2] Supplementary charges for housing are included only in part; payment for such charges will have to be made in January.
[3] This total is not the correct sum of the items, but is as given in the original table.
[4] Expenditures were relatively small because most of the clothing was made at home.
[5] The family was well provided with shoes, therefore no new shoes were bought during the 6 months under review.

The preceding table illustrates clearly the enormous rise of the cost of living in Germany during the last six months of 1922 and what proportion the principal items of expenditure form of the total household expenses. In December, 1922, the total expenditures were 8.2 times as large as in July, 1922, and those for food 10.1 times as large. The expenditures for rent, heat, light, and food formed 47.2 per cent of the six months' budget so that only 52.8 per cent was left to meet all other requirements.

[1] Metallarbeiter-Zeitung, Stuttgart, Jan. 27, 1923.

WAGES AND HOURS OF LABOR.

Wages and Hours of Labor in the Automobile Industry in 1922.

AVERAGE earnings per hour, average full-time hours per week, and average full-time earnings per week in 1922 are here presented for employees in the automobile industry in the United States. The compilation includes establishments engaged in the production of passenger cars, trucks, bodies, and parts. The averages were computed from individual hours and earnings of 56,309 employees.

The data were taken by agents of the bureau directly from the pay rolls and other records of 49 representative establishments located in Michigan, Ohio, New York, Indiana, Pennsylvania, Wisconsin, and Illinois, which States, according to the United States census of 1919, contain 92 per cent of the total number of wage earners in the automobile industry in the country. The number of wage earners for which averages are shown in the table following is 16 per cent of the total wage earners in the industry.

The automobile industry is comparatively new. In 1899 it was so unimportant that data concerning it were reported by the United States census as part of the carriage and wagon industry. Since 1899 its increase has been most phenomenal. The number of wage earners in the industry by years since 1899, according to the United States census, was 12,049 in 1904, 75,721 in 1909, 127,092 in 1914, and 343,115 in 1919. The number of wage earners in 1919 is more than 28 times the number in 1904. The average annual earnings per wage earner as computed from the United States census data increased from $594 in 1904 to $643 in 1909, to $802 in 1914, and to $1,431 in 1919.

The great majority of wage earners in the industry are pieceworkers with their average earnings per hour dependent therefor upon the number of pieces or jobs completed in a given period of time. Since 1899 the industry has passed through a period of many experiments and radical changes. Improved organization and the development and installation of improved machinery have greatly increased the output of the establishments and the average output per man per hour.

The data summarized in the following table were drawn from a representative pay roll of each establishment canvassed. The data were taken from the July records of 1 establishment; the August records of 2 establishments; the September records of 5 establishments; the October records of 24 establishments; the November records of 14 establishments; and the December records of 3 establishments. The great mass of the data, therefore, is as of October and November, 1922.

It will be observed at the end of the table below that averages are shown for 54,930 male employees in 49 establishments and for 1,379

females in 29 establishments; that the average earnings per hour of males in all occupations is $0.662 and of females $0.438; that the average full-time hours per week for both males and females are approximately 50; and that the average full-time earnings per week of males in all occupations are $33.19 and of females in all occupations, $22.05.

Studying the several occupations it is seen that the average earnings per hour of males (apprentices excepted) range from $0.495 for laborers to $0.931 for varnishers, stripers, and letterers, and of females from $0.352 for inspectors to $0.680 for "other skilled employees."

Average earnings per hour for each occupation were computed by dividing the total earnings of all employees in the occupation by the total hours worked by all employees in the occupation. Likewise, average full-time hours per week were found by dividing the total full-time hours per week of all employees by the total number of employees. Average full-time earnings per week were computed by multiplying the average earnings per hour by the average full-time hours per week.

The days of operation in the 12 months ending October 31, 1922, of 48 of the 49 establishments covered in 1922 range from 104 to 307, and the average is 283 days; 1 establishment did not begin operations until January 1, 1922. The difference between the average days of operation and a possible full time of 313 days was due to the following conditions: Two establishments did not operate any Saturday; 15 establishments were closed by lack of orders, business depression, or receivership from 2 to 203 days; 11 establishments were closed for inventory, the loss of time ranging from 2 to 16 days; 2 establishments were closed by lack of materials from 11 to 13 days; 48 establishments were closed for holidays from 5 to 8 days; and 8 establishments were closed for other causes from 1 to 6 days.

AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME EARNINGS PER WEEK IN THE AUTOMOBILE INDUSTRY, BY OCCUPATIONS AND SEX, 1922.

Occupation and sex.	Number of establishments.	Number of employees.	Average full-time hours per week.	Average earnings per hour.	Average full-time earnings per week.
Apprentices, male	19	300	52.5	$0.385	$20.21
Assemblers, axle and frame, male	37	1,127	49.6	.675	33.45
Assemblers, chassis, male	41	1,357	50.2	.647	32.48
Assemblers, final, male	46	3,108	50.3	.672	33.82
Assemblers, final, female	7	170	49.1	.621	30.52
Assemblers, motor, male	41	2,147	50.0	.661	33.03
Assemblers, motor, female	2	2	52.5	.485	25.47
Bench hands, machine shop, male	35	2,176	50.0	.670	33.47
Bench hands, machine shop, female	4	14	49.6	.546	27.10
Blacksmiths, skilled, male	34	388	50.0	.810	40.54
Blacksmiths, general, male	34	656	49.6	.698	34.62
Body builders, male	26	1,604	50.7	.718	36.41
Boring-mill operators, male	30	392	50.2	.701	35.22
Drill-press operators, male	42	3,443	49.6	.644	31.96
Drill-press operators, female	5	44	51.4	.447	22.99
Gear-cutter operators, male	30	497	50.2	.678	34.07
Grinding-machine operators, male	38	2,574	50.0	.710	35.47
Grinding-machine operators, female	2	3	52.9	.572	30.28
Hardeners, male	29	667	51.7	.676	34.97
Helpers, male	43	1,042	50.8	.531	26.95
Helpers, female	1	7	44.5	.381	16.95
Inspectors, male	44	2,808	50.1	.608	30.45
Inspectors, female	7	197	51.2	.352	18.03
Laborers, male	47	5,982	50.2	.495	24.86

AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME EARNINGS PER WEEK IN THE AUTOMOBILE INDUSTRY, BY OCCUPATIONS AND SEX, 1922—Concluded.

Occupation and sex.	Number of establishments.	Number of employees.	Average full-time hours per week.	Average earnings per hour.	Average full-time earnings per week.
Laborers, female	5	46	50.5	$0.385	$19.46
Lathe operators, male	41	2,950	49.5	.689	34.13
Lathe operators, female	3	12	52.0	.463	24.07
Machinists, male	41	1,291	50.0	.715	35.78
Milling-machine operators, male	39	1,591	50.0	.659	32.94
Milling-machine operators, female	3	14	50.7	.394	19.98
Painters, general, male	47	2,114	50.7	.733	37.17
Paint sprayers, male	34	177	50.6	.723	36.56
Planer and shaper operators, male	21	165	49.3	.738	36.40
Polishers and buffers, male	28	564	50.4	.756	38.08
Punch-press operators, male	27	1,096	49.4	.715	35.31
Sandblasters, male	32	480	50.6	.618	31.29
Screw-machine operators, male	34	1,673	50.2	.688	34.56
Screw-machine operators, female	1	10	50.0	.399	19.95
Sewing-machine operators, male	11	101	49.0	.748	36.65
Sewing-machine operators, female	27	505	50.5	.442	22.32
Sheet-metal workers, skilled, male	32	779	50.7	.780	39.53
Sheet-metal workers, general, male	35	1,304	50.2	.656	32.92
Testers, final and road, male	41	666	50.5	.610	30.80
Testers, motor, male	38	489	51.2	.633	32.43
Toolmakers, male	40	1,097	50.0	.769	38.47
Top builders, male	36	1,410	50.8	.778	39.55
Top builders, female	5	18	51.8	.468	24.26
Trim-bench hands, male	19	182	49.4	.595	29.40
Trim-bench hands, female	18	202	50.6	.438	22.14
Varnishers, stripers, and letterers, male	37	762	50.8	.931	47.26
Varnish rubbers, male	25	501	50.9	.870	44.27
Other skilled employees, male	37	1,659	49.5	.710	35.15
Other skilled employees, female	3	15	49.0	.680	33.34
Other employees, male	47	3,611	49.9	.644	32.13
Other employees, female	10	120	49.1	.471	23.15
All occupations, male	49	54,930	50.1	.662	33.19
All occupations, female	29	1,379	50.3	.438	22.05

Wages and Hours of Labor in Sheet Mills in 1922.

THE United States Department of Labor, through the Bureau of Labor Statistics, presents herewith summary figures on wages and hours of labor in representative sheet mills of the United States.

As shown by a combination of the data for the principal productive occupations the average earnings per hour in this branch of the iron and steel industry in 1922, as compared with 1920, show a decrease of 36 per cent; as compared with 1913, an increase of 47 per cent; and as compared with 1910, an increase of 75 per cent. The changes in average full-time weekly earnings in a general way followed the changes in hourly earnings.

Average customary full-time hours decreased 1 per cent between 1910 and 1920, with slight variations in intervening years.

Index numbers for customary full-time hours, hourly earnings, and full-time weekly earnings in the principal productive occupations of the industry combined, are shown below, based on the figures of 1913—that is, 1913 = 100.

INDEX NUMBERS OF WAGES AND HOURS IN SHEET MILLS, PRINCIPAL PRODUCTIVE OCCUPATIONS COMBINED.

[1913=100.]

Year.	Customary full-time hours per week.	Earnings per hour.	Full-time weekly earnings.
1910	102	84	85
1911	102	91	92
1912	101	93	94
1913	100	100	100
1914	100	101	101
1915	101	92	92
1917	104	178	183
1919	99	193	195
1920	100	229	240
1922	101	147	156

In the table that follows are shown the most significant facts concerning average hours and average earnings for each of the principal productive occupations in the sheet mills in the period from 1910 to 1922. Data for 1922 were obtained from 14 plants. In 1917 only 8 plants were covered. In certain years data were not collected. The index numbers above are computed from a combination of the data for the principal occupations here shown.

While the increase in hourly earnings in 1922 over 1913 is 47 per cent for the combined occupations as a whole, the figures naturally vary for the several occupations. Rollers show an increase of only 28 per cent, while shearmen's helpers show 156 per cent above 1913. Laborers are 87 per cent higher than in 1913 but 34 per cent lower than in 1920.

The table below also shows index numbers for customary full-time hours per week, earnings per hour, and full-time weekly earnings for each occupation concerning which data are available back to 1913, the base year. In addition percentage distribution is made of employees in the several occupations according to customary full-time hours per week.

AVERAGE CUSTOMARY FULL-TIME HOURS PER WEEK, AVERAGE EARNINGS PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN SHEET MILLS IN THE UNITED STATES, BY OCCUPATIONS, 1910 TO 1922.

[1913=100.]

Occupation and year.	Number of plants.	Number of employees.	Average full-time hours per week.	Average earnings per hour.	Average full-time weekly earnings.	Index numbers of—			Per cent of employees whose full-time hours per week were—						
						Full-time hours per week.	Earnings per hour.	Full-time weekly earnings.	48 and under.	Over 48 and under 60.	60	Over 60 and under 72.	72	Over 72 and under 84.	84
Pair heaters.															
1910	9	210	42.7	$0.466	$19.89	100	86	86	100						
1911	9	255	42.7	.502	21.42	100	92	92	100						
1912	9	249	42.7	.517	22.06	100	95	95	100						
1913	13	336	42.8	.543	23.23	100	100	100	100						
1914	15	399	42.8	.540	23.10	100	99	99	100						
1915	15	354	42.8	.518	22.17	100	95	95	100						
1917	8	276	43.7	1.038	45.48	102	191	195	100						
1919	11	382	43.4	1.046	45.40	101	193	195	100						
1920	13	521	43.4	1.386	60.13	101	255	259	100						
1922	14	576	43.3	.880	37.84	101	162	163	100						

AVERAGE CUSTOMARY FULL-TIME HOURS PER WEEK, AVERAGE EARNINGS PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN SHEET MILLS IN THE UNITED STATES, BY OCCUPATIONS, 1910 TO 1922—Continued.

[1913=100.]

Occupation and year.	Number of plants.	Number of employees.	Average full-time hours per week.	Average earnings per hour.	Average full-time weekly earnings.	Index numbers of—			Per cent of employees whose full-time hours per week were—					
						Full-time hours per week.	Earnings per hour.	Full-time weekly earnings.	48 and under.	Over 48 and under 60.	60	Over 60 and under 72.	72	Over 72 and under 84.	84
Rollers.															
1910	9	215	42.7	$1.242	$52.98	100	84	84	100	.....	.....	.....	.....	.....	.....
1911	9	259	42.7	1.380	58.89	100	93	93	100	.....	.....	.....	.....	.....	.....
1912	9	252	42.7	1.416	60.41	100	96	96	100	.....	.....	.....	.....	.....	.....
1913	13	335	42.8	1.476	63.21	100	100	100	100	.....	.....	.....	.....	.....	.....
1914	15	394	42.8	1.431	61.20	100	97	97	100	.....	.....	.....	.....	.....	.....
1915	15	348	42.9	1.280	54.80	100	87	87	100	.....	.....	.....	.....	.....	.....
1917	8	276	43.7	2.591	113.47	102	175	180	100	.....	.....	.....	.....	.....	.....
1919	11	342	43.5	2.536	110.32	102	172	175	100	.....	.....	.....	.....	.....	.....
1920	13	464	43.4	2.976	129.10	101	202	204	100	.....	.....	.....	.....	.....	.....
1922	14	501	43.8	1.894	82.84	102	128	131	100	.....	.....	.....	.....	.....	.....
Rollers, level-handed.															
1920	5	44	42.7	1.516	64.73	.....	.....	.....	100	.....	.....	.....	.....	.....	.....
1922	3	39	44.5	1.071	47.66	.....	.....	.....	100	.....	.....	.....	.....	.....	.....
Roller's helpers or finishers.															
1912	6	115	42.7	.474	20.21	100	94	94	100	.....	.....	.....	.....	.....	.....
1913	8	171	42.7	.503	21.48	100	100	100	100	.....	.....	.....	.....	.....	.....
1914	10	264	42.9	.555	23.77	100	110	111	100	.....	.....	.....	.....	.....	.....
1915	10	233	42.9	.461	19.77	100	92	92	100	.....	.....	.....	.....	.....	.....
1919	10	271	43.0	1.010	43.43	101	201	202	100	.....	.....	.....	.....	.....	.....
1920	11	437	42.8	1.092	46.80	100	217	218	100	.....	.....	.....	.....	.....	.....
1922	11	487	42.9	.721	30.90	100	143	144	100	.....	.....	.....	.....	.....	.....
Roughers.															
1910	9	215	42.7	.558	23.82	100	87	87	100	.....	.....	.....	.....	.....	.....
1911	9	255	42.7	.603	25.71	100	94	94	100	.....	.....	.....	.....	.....	.....
1912	9	252	42.7	.616	26.29	100	96	96	100	.....	.....	.....	.....	.....	.....
1913	13	335	42.8	.642	27.49	100	100	100	100	.....	.....	.....	.....	.....	.....
1914	15	399	42.8	.648	27.73	100	101	101	100	.....	.....	.....	.....	.....	.....
1915	15	353	42.8	.619	26.51	100	96	96	100	.....	.....	.....	.....	.....	.....
1917	8	276	43.7	1.285	56.27	102	200	205	100	.....	.....	.....	.....	.....	.....
1919	11	367	43.5	1.289	56.07	102	201	204	100	.....	.....	.....	.....	.....	.....
1920	13	528	43.4	1.584	68.69	101	247	250	100	.....	.....	.....	.....	.....	.....
1922	14	590	44.3	.994	43.80	104	155	159	100	.....	.....	.....	.....	.....	.....
Catchers.															
1910	9	215	42.7	.544	23.19	100	87	86	100	.....	.....	.....	.....	.....	.....
1911	9	258	42.7	.587	25.03	100	93	93	100	.....	.....	.....	.....	.....	.....
1912	9	252	42.7	.603	25.71	100	96	96	100	.....	.....	.....	.....	.....	.....
1913	13	336	42.8	.629	26.92	100	100	100	100	.....	.....	.....	.....	.....	.....
1914	15	399	42.8	.636	27.23	100	101	101	100	.....	.....	.....	.....	.....	.....
1915	15	350	42.8	.595	25.49	100	95	95	100	.....	.....	.....	.....	.....	.....
1917	8	276	43.7	1.256	54.92	102	200	204	100	.....	.....	.....	.....	.....	.....
1919	11	407	43.6	1.199	52.28	102	191	194	100	.....	.....	.....	.....	.....	.....
1920	13	552	43.4	1.532	66.43	101	244	247	100	.....	.....	.....	.....	.....	.....
1922	14	589	43.3	.962	41.57	101	153	154	100	.....	.....	.....	.....	.....	.....
Matchers.															
1910	9	210	42.7	.387	16.53	100	86	86	100	.....	.....	.....	.....	.....	.....
1911	9	255	42.7	.418	17.83	100	93	93	100	.....	.....	.....	.....	.....	.....
1912	9	249	42.7	.429	18.30	100	96	96	100	.....	.....	.....	.....	.....	.....
1913	13	336	42.8	.448	19.16	100	100	100	100	.....	.....	.....	.....	.....	.....
1914	15	399	42.8	.484	20.70	100	108	108	100	.....	.....	.....	.....	.....	.....
1915	15	354	42.8	.475	20.34	100	106	106	100	.....	.....	.....	.....	.....	.....
1917	8	276	43.7	.946	41.39	102	211	216	100	.....	.....	.....	.....	.....	.....
1919	11	398	43.5	.981	42.67	102	219	223	100	.....	.....	.....	.....	.....	.....
1920	13	642	43.4	1.225	53.12	101	273	277	100	.....	.....	.....	.....	.....	.....
1922	14	743	43.3	.791	34.06	101	177	179	100	.....	.....	.....	.....	.....	.....

AVERAGE CUSTOMARY FULL-TIME HOURS PER WEEK, AVERAGE EARNINGS PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN SHEET MILLS IN THE UNITED STATES, BY OCCUPATIONS, 1910 TO 1922—Continued.

[1913=100.]

Occupation and year.	Number of plants.	Number of employees.	Average full-time hours per week.	Average earnings per hour.	Average full-time weekly earnings.	Index numbers of—			Per cent of employees whose full-time hours per week were—						
						Full-time hours per week.	Earnings per hour.	Full-time weekly earnings.	48 and under.	Over 48 and under 60.	60	Over 60 and under 72.	72	Over 72 and under 84.	84
Doublers.															
1910	9	210	42.7	$0.372	$15.86	100	87	86	100						
1911	9	252	42.7	.401	17.10	100	93	93	100						
1912	9	246	42.7	.412	17.58	100	96	96	100						
1913	13	336	42.8	.429	18.34	100	100	100	100						
1914	15	399	42.8	.462	19.75	100	108	108	100						
1915	15	354	42.8	.453	19.42	100	106	106	100						
1917	8	276	43.7	.906	39.57	102	211	216	100						
1919	11	437	43.4	.921	39.97	101	215	218	100						
1920	13	658	43.4	1.206	52.32	101	281	285	100						
1922	14	731	43.3	.775	33.42	101	181	182	100						
Sheet heaters.															
1910	9	215	42.7	.883	37.68	100	89	89	100						
1911	9	259	42.7	.911	38.88	100	92	91	100						
1912	9	253	42.7	.949	40.51	100	96	95	100						
1913	12	307	42.8	.993	42.50	100	100	100	100						
1914	14	364	42.8	.966	41.34	100	97	97	100						
1915	14	324	42.9	.868	37.19	100	87	88	100						
1917	8	276	43.7	1.879	82.36	102	189	194	100						
1919	11	332	43.5	1.849	80.43	102	186	189	100						
1920	13	424	43.4	2.151	93.29	101	217	220	100						
1922	14	499	43.3	1.380	59.74	101	139	141	100						
Sheet heaters, level-handed.															
1913	2	14	42.7	.707	30.17	100	100	100	100						
1914	2	56	42.7	.762	32.65	100	108	108	100						
1915	2	34	42.7	.686	29.27	100	97	97	100						
1919	3	15	42.7	1.316	56.19	100	186	186	100						
1920	8	94	43.0	1.661	71.45	101	235	237	100						
1922	7	90	43.3	.995	41.33	101	141	137	100						
Sheet heaters' helpers.															
1910	8	174	42.7	.377	16.07	100	78	78	100						
1911	8	215	42.7	.436	18.59	100	90	90	100						
1912	8	208	42.7	.439	18.71	100	91	90	100						
1913	10	230	42.9	.483	20.70	100	100	100	100						
1914	13	309	42.8	.485	20.73	100	100	100	100						
1915	13	275	42.9	.458	19.60	100	95	95	100						
1917	6	216	43.2	.859	37.21	101	177	180	100						
1919	11	286	43.1	.926	39.91	100	192	193	100						
1920	12	367	42.7	1.140	48.68	100	236	235	100						
1922	13	454	42.8	.727	31.13	100	151	150	100						
Shearmen.															
1910	7	85	46.0	.689	30.79	107	85	88	86			14			
1911	7	104	44.9	.722	32.86	105	89	94	90			10			
1912	7	105	44.9	.768	34.67	105	94	99	90			10			
1913	8	114	42.9	.814	34.90	100	100	100	100						
1914	10	136	42.9	.860	36.84	100	106	106	100						
1915	10	115	43.0	.827	35.48	100	102	102	100						
1917	7	149	43.5	1.399	60.90	101	172	175	100						
1919	11	221	43.3	1.463	63.35	101	180	182	100						
1920	8	122	43.5	1.891	82.22	101	232	236	100						
1922	12	190	43.3	1.173	50.82	101	144	146	100						

AVERAGE CUSTOMARY FULL-TIME HOURS PER WEEK, AVERAGE EARNINGS PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN SHEET MILLS IN THE UNITED STATES, BY OCCUPATIONS, 1910 TO 1922—Concluded.

Occupation and year.	Number of plants.	Number of employees.	Average full-time hours per week.	Average earnings per hour.	Average full-time weekly earnings.	Index numbers of—			Per cent of employees whose full-time hours per week were—						
						Full-time hours per week.	Earnings per hour.	Full-time weekly earnings.	48 and under.	Over 48 and under 60.	60	Over 60 and under 72.	72	Over 72 and under 84.	84
Shearmen's helpers.															
1910	6	62	46.4	$0.261	$11.99	108	104	111	84	.....	....	16	....	.....	....
1911	6	83	44.9	.308	13.59	105	123	126	90	.....	....	10	....	.....	....
1912	6	77	45.1	.290	12.88	105	116	120	90	.....	....	10	....	.....	....
1913	7	111	42.9	.251	10.77	100	100	100	100	.....	....	.....	....	.....	....
1914	9	128	42.9	.282	12.09	100	112	112	100	.....	....	.....	....	.....	....
1915	9	146	43.8	.242	10.59	102	96	98	95	2	....	3	....	.....	....
1917	6	120	43.2	.533	23.06	101	220	214	100	.....	....	.....	....	.....	....
1919	11	196	43.7	.682	29.80	102	272	277	98	.....	....	2	....	.....	....
1920	7	155	43.7	.983	42.91	102	392	398	100	.....	....	.....	....	.....	....
1922	12	265	43.4	.642	27.69	101	256	257	100	.....	....	.....	....	.....	....
Openers.															
1910	7	138	46.0	.274	12.57	101	98	100	86	.....	....	14	....	.....	....
1911	7	167	45.2	.275	12.35	100	99	98	89	.....	....	11	....	.....	....
1912	7	180	45.8	.289	13.04	101	104	104	87	.....	....	13	....	.....	....
1913	6	168	45.4	.279	12.56	100	100	100	88	.....	....	12	....	.....	....
1914	9	200	42.8	.282	12.06	94	101	96	100	.....	....	.....	....	.....	....
1915	9	180	43.6	.273	11.93	96	98	95	96	2	....	2	....	.....	....
1917	6	175	43.3	.662	28.70	95	237	229	100	.....	....	.....	....	.....	....
1919	10	266	43.6	.656	28.60	96	235	228	99	.....	....	1	....	.....	....
1920	6	198	44.0	1.188	52.13	97	426	415	100	.....	....	.....	....	.....	....
1922	11	415	43.5	.731	31.23	96	262	249	100	.....	....	.....	....	.....	....
Openers, level-handed.															
1920	1	40	42.7	1.114	47.57	.....	.....	.....	100	.....	....	.....	....	.....	....
1922	4	45	42.7	.608	25.30	.....	.....	.....	100	.....	....	.....	....	.....	....
Picklers.															
1910	4	50	70.8	.181	12.75	104	84	88	.....	.....	10	.....	90	.....	....
1911	5	58	71.2	.177	12.54	105	82	87	.....	.....	9	16	69	.....	7
1912	5	39	71.7	.186	13.23	105	86	91	.....	.....	13	15	56	.....	15
1913	8	71	68.1	.216	14.49	100	100	100	11	.....	7	8	73	.....	....
1914	9	121	69.6	.211	14.55	102	98	100	7	.....	4	8	81	.....	....
1915	9	126	69.8	.209	14.44	102	97	100	6	.....	3	6	84	.....	....
1919	7	67	68.3	.600	40.98	100	278	283	.....	6	24	.....	70	.....	....
1920	7	65	51.5	.792	41.13	76	367	284	77	.....	5	17	2	.....	....
1922	11	106	65.9	.508	33.51	97	235	231	8	8	7	42	5	31	....
Feeders.															
1920	5	41	56.8	.704	39.39	.....	.....	.....	41	.....	20	39	....	.....	....
1922	8	119	61.4	.500	30.66	.....	.....	.....	32	7	10	30	9	12	....
Laborers.															
1910	9	347	63.1	.164	10.35	97	86	84	.....	4	64	13	16	1	3
1911	9	361	63.6	.166	10.54	98	87	86	.....	5	53	25	16	.....	2
1912	9	354	63.5	.169	10.72	98	89	87	.....	4	54	26	15	1	....
1913	13	351	64.9	.190	12.28	100	100	100	.....	17	37	13	28	4	1
1914	15	378	65.9	.188	12.37	102	99	101	.....	10	26	32	26	3	2
1915	15	394	65.0	.188	12.21	100	99	99	.....	10	32	30	18	8	1
1917	8	656	61.8	.331	20.46	95	174	167	.....	.....	73	26	2	.....	....
1919	9	270	64.5	.462	29.80	99	243	243	.....	8	51	13	28	.....	....
1920	11	866	59.5	.536	32.01	92	282	261	32	10	20	11	22	5	....
1922	13	808	65.2	.356	23.06	100	187	188	.....	29	31	8	32	.....	....

Wage Rate for Unskilled Labor in Connecticut.

THE Manufacturers' Association of Connecticut (Inc.), in its publication, Connecticut Industry, for March, 1923, gives some data concerning the course of hourly rates for common labor in that State.

According to a survey made by the association in cooperation with the secretaries of local associations in 12 industrial districts of the State, the average hourly hiring rate for unskilled or common male labor now averages 35 cents. The minimum hourly hiring rate is 20 cents and the maximum hiring rate is 40 cents. In the principal industrial districts it is safe to say that the average hourly hiring rate is between 35 cents and 40 cents per hour.

During the peak period hiring rates for common labor in 12 manufacturing districts averaged 46.7 cents per hour. During the year 1914 the average rate was 19.1 cents per hour. From the year 1914 to the peak period common labor hiring rates advanced 144.5 per cent. By April, 1922, the rate was reduced to an average of 30.7 cents per hour, or 60.7 per cent above the 1914 average. Between April, 1922, and February, 1923, the hiring rates advanced to an average of 35 cents per hour, or 14 per cent. Based on an average hourly rate of 35 cents, the rates as of February, 1923, are 83.2 per cent above the 1914 level.

Wages and Hours of Labor in Nevada.

THE following summary of employees, wages, and hours of labor in the industries of Nevada is that published in the fourth biennial report of the commissioner of labor of that State, 1921–1922.

AVERAGE DAILY WAGE AND HOURS OF LABOR OF EMPLOYEES, BY INDUSTRIES.

Industry.	Number of employees.	Average age of employees.	Average wages per day.	Average hours per day.	Average pay for October, 1921.	Average days worked in October, 1921.
Farming and stock raising	3,845	34.1	$2.44	9.3	$65.77	27.0
Mines, mills, and quarries	4,658	38.5	5.24	8.0	118.32	26.4
Manufacturing industries	1,024	36.1	5.34	8.0	133.40	24.7
Railroads	5,706	35.3	3.64	8.1	138.84	24.7
Trades and merchandise	2,369	34.1	4.80	8.0	125.84	25.9
Public service	1,478	36.7	5.18	7.5	136.95	25.6
Professional service	162	32.3	4.25	8.3	113.02	26.7
Hotels, cafés, and saloons	970	37.9	3.46	8.3	98.45	28.6
Telegraph and telephones	227	28.8	3.99	7.9	105.82	25.6
Transfers and garages	385	32.0	5.54	8.4	143.68	26.2
Laundries, dyers, cleaners	187	33.8	4.05	8.5	100.35	23.7
All industries	21,011	35.4	4.41	8.4	119.94	25.9

Total number of firms reporting	2,540
Average number of regular employees	22,157
Number of employees used in busy season	32,677
Minimum number of regular employees	16,714

Average Earnings in New York State Factories in January, 1923.

AVERAGE earnings declined slightly in January, 1923, in the New York State manufacturing industries, according to a recent press release from the State industrial commissioner. The reduction for all industries taken together was 18 cents. Average weekly earnings, however, in January, 1923, were $1.76 above those in January, 1922.

An unusually large number of wage rate increases was reported in January, some as high as 20 per cent. A general increase was granted in the printing establishments in New York City, and in the glove factories up-State, and scattering increases were reported, especially in the metal working industries. The wage increases affected over 27,000 employees. Wage rates were reduced in the fur garment factories, as usual in January. No important decreases in wage scales have been reported in several months.

The average weekly earnings for all manufacturing industries combined were $26.22 in January. The highest average earnings in any industry were those of $34.39 in the printing and publishing industry. Average weekly earnings of $30 or more were also reported in the iron and steel mills, the automobile and railway equipment factories and railway repair shops, in the fur industry, the breweries, the gas and electric plants, and, on account of the busy season, in the women's clothing factories. Average weekly earnings were less than $20 only in the knitting mills, the silk mills, the men's shirt and collar factories, the miscellaneous sewing industries, the laundries, and the cigar and cigarette factories.

In January most of the sewing trades are busy. The women's clothing factories reported the largest gain in weekly earnings ($2.88) during that month of the present year. The greatest decline in any industry in average weekly earnings was in the fur industry. The heaviest general reduction, however, took place in the industries furnishing the basic building materials, especially brick and cement.

Wages of Chinese Bakers in Hongkong.

A CONSULAR report dated January 2, 1923, gives the wage increases of workers in Chinese bakeries in Hongkong which were agreed upon as a result of a partial strike among these workers in December.

The wages, given in Hongkong currency ($1 = 51.51 cents, par), were to be increased 45 per cent for workers receiving monthly wages ranging from $2 to $5 on a stipulated date, 35 per cent for wages from $6 to $10, 25 per cent for wages from $11 to $20, 20 per cent for wages from $21 to $30, and 15 per cent for wages of $31 per month and over. The minimum wages of small boys were fixed at $2 per month.

Termination of Eight-Hour Working-Day Agreement in Denmark and of Agreements in Norway.

Denmark.

ACCORDING to Arbejdsgiveren, January 5, 1923 (pp. 2, 3), the Danish Employers' Association has given notice to the Confederated Trade Unions of the termination on April 1, 1923, of the eight-hour working day agreement concluded May 17, 1919, and extended April 4, 1922, by joint agreement between the two organizations.[1]

The reason given for this action is the resolution adopted in October, 1922, by the Confederated Trade Unions at their general meeting stating that "a general meeting can not conclude agreements concerning wages and working conditions on behalf of the unions affiliated or without their consent." According to the employers' notice the confederation still retains the right to conclude agreements on other questions of general interest, as, for example, the maximum working-day. The employers' association believes that the same considerations which led to the unions being given free scope with regard to wages should lead to their being given control with regard to all other questions respecting agreements, including working hours.

According to a report from the American legation at Copenhagen under date of December 30, 1922, the expiration of the collective agreement regarding the eight-hour day will have no practical effect on labor conditions in Denmark in 1923 as in practically all of the trades the agreements have been extended to the spring of 1924. The agreements are all based on the eight-hour working day.

Norway.

ARBEJDSGIVEREN, February 2, 1923 (Copenhagen), states that the Norwegian Employers' Association has notified the National Federation of Trade Unions of the termination of all arbitration awards and agreements which expire May 1 of this year. This is effective among others for the bakeries, breweries, mineral-water factories, mills, and wood manufactures. The employers have also terminated a number of agreements with leather and fur trades, the bookbinders, and carton factories. May notices affect 15,000 workers and notices issued a month ago for the April agreements affect 40,000 to 50,000 workers.

[1] See MONTHLY LABOR REVIEW, July, 1922, p. 177.

Wages in the Leather and Printing Industries in Paris, 1922.

THE Bulletin du Ministère du Travail, October–November–December, 1922 (pp. 420, 421), gives the wages in the saddlery and leather and printing industries in Paris and the Department of the Seine which were fixed by the interadministrative commission of the civil and military administrations after consultation with the joint commissions of employers and employees. The wage agreement in the saddlery and leather goods industries which was approved April 26, 1922, established for the skilled workers (cutters, finishers, saddle makers, and saddle sewers) an hourly wage of 3 francs (57.9 cents, par), which includes the cost-of-living bonus.

A similar agreement was reached by the civil and military interadministrative commission and the joint committees of employers and employees in the printing industry. For overtime worked by compositors, proof readers, and printers, the increases in the hourly rate amounts to 33 per cent for the first two hours, 50 per cent for the two hours following, and 100 per cent thereafter.

The following table shows the hourly rates and the cost-of-living bonus for the different occupations in the printing trades, effective July 8, 1922, and for unskilled workers in the saddlery and leather industry:

HOURLY WAGES IN PRINTING AND IN SADDLERY AND LEATHER INDUSTRY, IN PARIS AND THE SEINE, 1922.

[Franc at par=19.3 cents.]

Industry and occupation.	Hourly rate.	Industry and occupation.	Hourly rate.
Saddlery and leather.	*Francs.*	*Printing.*	*Francs.*
Finishers, assistant	[1] 2.25	Compositors	[2] 2.50
Hammerers	[1] 2.40	Proof readers	[2] 2.50
Laborers	[1] 2.10	Pressmen	[3] 2.50
Foot-machine operators, female	[1] 2.35	Platen-machine men	[3] 2.25
Power-machine operators, female	[1] 2.25	Feeders and layers-on	[2] 2.00
Trimmers	[1] 1.80	Receivers	[2] .80
Sewers	[1] 1.60	Pressmen, lithograph	[1] 3.70
Warehouse girls	[1] 1.45	Transfer makers, lithograph	[1] 3.70
Shop girls	[1] 0.70–1.50	Stitchers and binders, male	[1] 3.05
		Stitchers and binders, female	[1] 1.85

[1] Including cost-of-living bonus. [2] Plus cost-of-living bonus of 0.70 franc.
[3] Plus cost-of-living bonus of 0.70 franc, except for workers under 18 years of age, 0.25 franc.

Production and Wages in a German Steel Works, 1913 to 1921.

THE annual reports of the German factory inspection service for the year 1921 throw some light on the much discussed question as to how the eight-hour day has affected production in the iron and steel industry. The report, for instance, of the chief inspector for the district of Düsseldorf contains a table[1] which shows the movement of production and wages in a large iron and steel works during the period 1913 to 1921, giving data as to the average number of workers employed each month, the number of shifts worked per month, the amount of the monthly pay roll, the

[1] Germany. [Statistisches Reichsamt.] Jahresberichte der Gewerbe-Aufsichtsbeamten und Bergbehörden für das Jahr 1921. Berlin, 1922. Vol. I, pp. 525–528.

total monthly production of iron and steel, the average wage rate per hour, shift, and month, the increase of wages expressed in index numbers, the labor cost per metric ton of steel, and the per capita production of steel per shift and month. Part of these data are reproduced in the following table:

WAGES AND PER CAPITA OUTPUT OF A LARGE GERMAN STEEL WORKS, 1913 TO OCTOBER, 1921.

[1 mark at par=23.8 cents; 1 metric ton=2,204.6 pounds.]

Month and year.	Number of workers.	Hourly wage rate.		Labor cost per metric ton of steel.	Production of steel per worker per shift (metric tons).
		Amt.	Index number.		
		Mks.		*Mks.*	
1913 [1]	7,377	0.52	100	14.03	0.372
1914 [1]	6,618	.52	100	12.90	.403
1915 [1]	5,101	.55	106	13.86	.394
1916 [1]	6,075	.62	119	15.36	.400
1917 [1]	6,776	.81	156	22.79	.353
1918 [1]	6,977	.99	191	30.19	.329
1919 [1]	7,983	2.42	466	96.17	.177
1920:					
January	8,724	3.34	642	135.56	.196
February	8,225	4.23	813	140.40	.241
March	8,057	4.06	780	201.05	.162
April	7,672	5.60	1080	200.50	.224
May	8,210	6.79	1305	233.22	.233
June	8,528	6.56	1262	238.04	.220
July	8,821	6.47	1242	237.97	.218
August	8,668	6.53	1256	271.24	.192
September	8,828	6.46	1242	249.98	.206
1920:				*Mks.*	
October	8,835	6.56	1262	231.14	0.227
November	8,928	7.06	1358	224.35	.252
December	9,023	6.88	1323	232.68	.237
Average	8,543	5.92	1138	217.81	.217
1921:					
January	6,448	7.03	1352	318.94	.176
February	8,556	7.01	1348	213.08	.263
March	8,580	7.06	1358	225.28	.251
April	8,427	6.86	1319	237.67	.231
May	8,248	7.18	1381	241.70	.238
June	8,327	6.91	1329	224.14	.247
July	8,345	7.09	1363	232.83	.243
August	8,531	7.37	1417	227.10	.260
September	8,702	8.43	1621	258.03	.261
October	8,839	8.62	1658	294.94	.268

[1] Monthly average.

From the preceding table it will be seen that in the steel works in question the per capita production of steel reached its highest level during 1914, the first year of the war, with 0.403 metric ton per shift per worker. After the termination of the war the per capita production per shift fell to 0.177 ton in 1919. This decrease was in the first place due to the introduction of the 8-hour day in place of the 10-hour day, and, secondly, to the general decrease of working intensity and zest for work as an after-war effect. In March, 1920, the per capita production reached its lowest level (0.162 metric ton), owing to political disturbances (the Kapp coup d'état) and general strikes. Since then production has improved considerably, the upward turn being especially pronounced in 1921. In October, 1921, the production of iron in the plant investigated amounted to 59,880 metric tons as compared with a monthly average of 45,303 for 1920, and that of steel had during the same period increased from 50,363 to 68,639 metric tons. In the case of iron the increase in production was thus equivalent to 32 per cent and in that of steel to 36 per cent. It should, moreover, be considered that the number of workers employed in the plant in October, 1921, was only 3½ per cent in excess of the average number of workers employed in 1920. A comparison of the iron and steel production of the plant in October, 1921, with the average monthly production for the year 1913, the last year

before the outbreak of the war, shows that in October, 1921, the plant produced 59,880 metric tons of iron and 68,639 metric tons of steel, as against 64,487 and 71,931 metric tons, respectively, in 1913. The production of iron in October, 1921, thus amounted to 93 per cent of pre-war production and that of steel to 95 per cent.

During the period 1913 to 1921 the average hourly rate of wages of workers in the above plant had increased from 0.52 to 8.62 marks, or by 1558 per cent. The labor cost per metric ton of steel had risen from 14.03 to 294.94 marks during the same period.

The chief factory inspector making the report under review states that a definite opinion on the influence of the 8-hour day upon production can not yet be formed. On the basis of experiences during the last few years employers generally declare that it is impossible to expect the same per capita output in an 8-hour day as in a 10-hour day. They contend that the shortening of the working-day by two full hours is too great to make up by more intensive work for the consequent decrease in production. The same inspector points out, on the other hand, that production could be greatly increased by improved working methods and more modern plant equipment. In support of this assertion he states that a speedometer factory, through improved machinery and partial introduction of the Taylor system, has achieved threefold production in spite of a decrease of its working force from 200 workers to 80.

Working Hours and Production in British Engineering and Shipbuilding Industries.[1]

AT THE beginning of 1919 the British engineering and shipbuilding trades adopted a 47-hour working week and a one-break day. Shortly afterwards a demand was made for a further reduction of the length of the working week to 44 hours. This the employers opposed as economically impossible. As a result of their opposition the demand was withdrawn and a joint committee, consisting of six representatives of employers and six representatives of trade-unions, was appointed "to investigate the economic relation of production to hours of work, and, in this connection, the methods of manufacture in the shipbuilding and engineering industries in this [England] and other countries." Information was secured in four ways: (*a*) Questionnaires; (*b*) visits to works in June and July, 1920, when business was apparently good; (*c*) continental visits in April and May, 1921; and (*d*) visits to works in August, 1921, when trade was decidedly bad.

The report based upon these sources of information was published during 1922 and was signed by the representatives appointed by the Engineering and National Employers' Federation, Shipbuilding Employers' Federation, and the Unions' Negotiating Committee. Information was collected on a number of factors influencing production, including, in addition to hours, overtime and timekeeping, systems

[1] Joint investigation committee appointed by the Engineering and National Employers' Federation, the Shipbuilding Employers' Federation, and the Unions' Negotiating Committee. Report on working hours. London, 1922. 92 pp.

of payment and efficiency of production, canteens, first-aid equipment, welfare, number of employees, foreign trade and competition, equipment and plant, horsepower available, proportion of manual workers employed on machines, etc. The report presents only the facts found, no attempt being made to draw any deductions.

The first two sections of the report contain information on the shipbuilding and engineering industries during 1913 and 1919 obtained from the replies to the questionnaires.

Time Worked.

IN BOTH the engineering and shipbuilding industries the 53-hour week, with the two-break system, generally prevailed in 1913. In 1919 the working week had been reduced to 47 hours and the one-break system was almost universally used.

The following table shows the average working hours per employee per week during the years 1913 and 1919 and the average number of days lost each year on account of holidays, authorized and unauthorized:

WORKING HOURS PER WEEK AND HOLIDAYS PER YEAR IN SHIPBUILDING AND ENGINEERING INDUSTRIES, 1913 AND 1919.

Item.	Shipbuilding.		Engineering.	
	1913	1919	1913	1919
Average working hours per week:				
Timeworkers	48.42	43.83	49.6	44.8
Pieceworkers	42.49	40.98	48.9	44.3
All employees	45.90	42.50	49.5	44.7
Overtime	[1] 4.07	[1] 2.88	4.5	1.9
Total time worked	.....	.....	54.0	46.6
Days lost on account of holidays—				
Authorized	16.75	18.24	15.5	17.5
Unauthorized	3.35	6.29	.7	2.7

[1] Per cent of normal day-shift hours.

Efficiency in Production.

IN THE shipbuilding industry out of 36 firms replying to the questionnaire 34 report having in operation systems of payment by results. A number of examples were cited of comparisons of output where men were paid by time or by results and in each case the actual number of hours consumed was much greater on the time than on the piecework, resulting in a limitation of output. The report discussing this relationship says:

A considerable number of cases are reported of delay to pieceworkers due to waiting for other workers who work on time. This applies to joiners and carpenters, who work on time, holding up other departments. In one case it is stated that patternmakers working on time are responsible for delay in foundries, which in turn, hold up the machine shop. A number of cases are mentioned where output is restricted, due to the fact that assistants are paid on time. In one case it is mentioned that pieceworkers make habitual payments to their assistants in excess of their standard remuneration. When blacksmiths had changes from time to piece work, their assistants shared in earnings in a certain ratio, and, as a consequence, output has increased from 50 to 100 per cent.

Firms making returns on the efficiency of production reported that the tonnage launched per employee decreased from 17.9 tons in 1913 to 10.7 tons in 1919 while the tonnage repaired per employee decreased from 103.8 tons in 1913 to 60.4 tons in 1919.

As regards payment by results and efficiency of production in the British engineering trades the report says:

Payment by results.—Some system or other of payment by results is in operation to varying extents in practically all firms. Firms mention a number of cases where piecework would have been introduced but for objections raised by the trade-unions concerned, and this applies particularly to patternmakers and foundrymen.

Between 1913 and 1919 there have been a certain number of cases of changes from time-work to piecework. As a rule the change has been made on the initiative of the employers, but in some of the cases the application came from the workpeople. The result has been an increase in earnings and output.

It is reported that in a number of cases the efforts of the pieceworkers have been hampered through the fact that their assistants are not being paid by results, and in every case where it has been found possible to introduce payment by results for the assistants the result has been satisfactory. In most cases where it has been tested, it has been found that a system of individual payment by results is better than a system of collective payment by results.

Efficiency of production.—The efficiency of production in 1919 was adversely affected by a great number of factors, including the change over from war products and war conditions to peace products and peace conditions; shortage of supplies of all kinds and in particular of castings, owing to the molders' strike; shortage of certain classes of workpeople, notably patternmakers, molders, coremakers, sheet-metal workers, boilermakers and apprentices; shorter working hours; stoppage of overtime; decrease of effort; limitation of production; sectional strikers; and Government control.

Considerable space is devoted, in sections 3 and 4 of the report, to information collected during the visits of the committee to individual industries in the United Kingdom in the summer of 1920, and to industrial establishments in Belgium, Germany, and Holland in the spring of 1921. The reports are too detailed to be treated in a brief review. Owing to the depression in the engineering and shipbuilding industries of the United States the members of the committee, to their regret, did not think it advisable to visit American industries and stated, in the introduction to their report, that without a visit to the United States they regarded their work as incomplete.

MINIMUM WAGE.

Recent Minimum Wage Reports.

Massachusetts.

Report of Minimum Wage Investigating Committee.

THE Massachusetts Legislature of 1922, by a resolve of June 2 (ch. 43), established a special commission to investigate problems relating to unemployment, and also "the question of the operation and administration of the minimum wage law," including its effect on industries affected and employees therein, whether the law should be changed from one of recommendation only to one of mandatory effect, whether it should be otherwise expanded or amended, or whether it should be repealed. This commission organized on July 21, 1922, and has now made its report in typewritten form. The subjects were taken up separately, the minimum wage being first investigated.

The report presents first a history of the enactment of the law, following "a thorough and exhaustive study of the wage situation so far as it affected women and minors." This study was made by a commission appointed by the governor in 1911, which recommended the enactment of a law creating a minimum wage commission whose findings should be of mandatory effect. As the law was enacted in 1912 the mandatory provision was omitted, but the influence of public opinion was made available through advertising employers who refused to comply with the wage decree. Subsequent amendments established certain compulsory requirements, as for posting the notices of the commission's decrees, and the keeping of wage records in prescribed detail, such records to be open to inspection by the commission and its agents.

The constitutionality of the law was challenged, but upheld by the supreme court of the State.

During the period the law has been in operation 24 occupations employing women have been investigated. Wage decrees fixing minimum rates for women and girls have been rendered for 16 different occupations, employing 70,000 to 80,000 women employees. In many instances wage boards have been reconvened for the purpose of revising the decrees to meet the change in the cost of living. Approximately $161,000 has been spent during the 10 years the act has been in effect. This represents very nearly the total expense of administration.

Besides its own investigations, the commission reproduces a comprehensive review of the wage boards and their work, prepared and published by the Department of Labor and Industries.

The recommendations of the commission are prefaced by the statement that the law, in operation since 1912, has not had a fair trial under normal industrial conditions. In view of this conclusion the commission "recommends that the minimum wage law be con-

tinued in its present form until such time has elapsed as will demonstrate whether or not the legislation has justified its mission." It is believed that in a comparatively short time data will be available so as to render possible a decision as to "what efficacious results have followed its operations." The period during which the effects of the law were studied has been one of generally prevailing conditions of industrial activity. "The scale of wages paid in the various industries in which women and minors are employed, appears to be sufficiently high to guarantee an adequate wage."

Much testimony was offered in opposition to the law and in favor of its repeal; but "it is significant that much of this testimony has been given by those representing industries not affected by this law." The commission felt that small employers, and particularly proprietors of stores outside of Boston, had been "the most seriously affected by the law of any." A few instances of loss of employment on account of wage decrees were brought to the attention of the commission. Another point that was impressive was the divergence of opinion expressed by persons who had been members of the Minimum Wage Commission or had served on minimum wages boards. "Some have advocated continuing and making the law mandatory; others have expressed their disapproval of the measure and recommend its repeal."

As a matter of general policy, "the majority of the commission believe that it is not a wise policy for the Commonwealth to attempt to regulate by legislation the wages of any class of workers in industry. The successful development of our industries justifies the conclusion that the greater freedom allowed to prevail and the less interference by legislative restrictions, the better."

However, the Massachusetts law "does not establish wages in private employment," but only creates the machinery for a conference of representatives of employers, employees, and the public by which a recommended wage can be determined. A former member of the minimum wage commission of the State was quoted as admitting the end sought to be one "greatly to be desired," though he believed that "a minimum wage applied by law in any form is wrong in principle and will not accomplish the object sought, and if it produces any results at all toward that end, will do so at the expense of the law-abiding employer and to the apparent benefit of his unscrupulous competitor." Further, this former commissioner said that his own experience indicated that the law was "neither the panacea its zealous friends imagine nor the menace its frenzied enemies assert." Decrees followed by inspections "unquestionably improved conditions under some employers." The effect of posting a notice, or of an anticipated pay-roll examination influences employers to "examine and revise their pay-roll columns. Add to these gains the not inconsiderable benefit to an industry of having a group of fair-minded employers and employees exchange freely across the table their own problems and grievances in the presence of disinterested representatives of the public, and you have summed up, I believe, about all the benefits accruing from the law."

Difficulties of administration were referred to, including the problem of efficiency of the employee. Some employers object that the law does not "provide for the employee lacking in ability and below

normal efficiency," but it is pointed out that the law authorizes a special license to be issued in cases of physically defective workers, permitting employment at a lower wage. More difficulty was found with the situation arising from local differences in cost of living. "The proprietors of small stores in country districts maintain, and with some justification, that the cost of living is less outside of cities, and therefore women clerks should not receive the same scale of wages paid in the department stores of large cities." The establishment of different scales in the same occupation in different localities "would add to the complexity of administration," and the inquiries made by the commission as to the practice and experience of other States does not indicate a favorable attitude toward such distinctions.

In summing up, the majority report states that "while there is evidence that the condition of women working has been improved, the good results accruing from the law have not been sufficient to justify the commission in recommending at this time an extension of its provisions." Continuance of the law "for a period of possibly five years" is recommended, with instructions to the Department of Labor and Industries to secure in the meantime "such information and facts as will make it possible to determine more accurately whether the legislation is justified or required." The unpopularity of the law among most of the employers in the Commonwealth was indicated by an "almost united opposition." This, of course, handicapped the commission in administering the law; while the situation of different employers renders the penalty of advertising noncompliance of uncertain effect. "In some cases, advertising an employer may penalize him severely; in other occupations advertising may not affect an employer appreciably."

Apart from the matter of extension, the only recommendation made by the commission is that the law be amended so as to restrict the membership of boards to one representative of the public and such number of representatives of employers and employees as will bring the total up to not more than seven. This recommendation was made for the purpose of economy and a more ready arrival at decisions than is probable where larger bodies are brought together.

A minority report was submitted, signed by one member, who, while agreeing with the recommendation as to the number of members to serve on wage boards, was "firmly convinced that the benefits which have followed as a result of the operation of the law in Massachusetts fully justify not only a continuation of the law, but an amendment to it, making it mandatory." As the law now stands "it encourages the unscrupulous employer to ignore a decree; while the more honorably inclined employers comply." The impartial enforcement through mandatory legislation would "in my opinion assure the success of the act." It was pointed out that in every other jurisdiction having legislation of a like character provision is made for enforcement "in the same manner as for the enforcement of any law." Testimony and evidence submitted led "to the conclusion that no injurious effects on business have resulted from the operation of the present minimum wage law. Minimum wage legislation has passed the experimental state. Experience justifies the conclusion that the law is now a practicable and necessary measure."

Reference was made to the number of persons appearing in opposition to the law "who are not affected in the least degree by its provision." Their attitude is said to be significant "of a disposition to ignore the rights of women workers." Attention is called to the testimony of an employer of women in large numbers, his annual pay roll being around $2,000,000, Mr. Edward A. Filene. His opinion was that "high wages can not be maintained unless you have a minimum wage law. Wages tend to go down toward the scale set by the meanest standards, the most short-sighted employers."

This report concludes with the recommendation of an amendment making the law mandatory, "and giving to the commission charged with its administration and enforcement the moral support and encouragement which it merits and deserves."

Activities of Wage Boards, 1922.

During the year for which this report was made the Minimum Wage Commission of Massachusetts had arranged for nine wage boards, which were in session during the year; these include two boards whose sittings began in 1921—men's furnishings and retail stores. The other boards were for the brush, women's clothing, men's clothing and raincoat, paper box, muslin underwear, and laundry occupations. Part of these were reconvened boards, though those in the brush industry and for paper boxes were new boards called to revise existing rates. The paper box board was called on petition of the employers and the men's furnishings board on petition of the employees; other boards were called together by the commission on its own initiative.

Accounts have been given currently of the results of these boards, the latest being that establishing a rate in the brush industry, which is noted in the MONTHLY LABOR REVIEW for March, 1923. In summarizing the result of the year's work, and of having several boards in session at the same time, the commission reports that "greater uniformity in their findings has been brought about." Of the eight boards that reported early in the year, six submitted determinations that varied only 50 cents with respect to the cost of living and the minimum rate. The reports of two boards were rejected as giving too wide a variation from the findings of the majority. In five cases the findings were unanimous or practically so, while in three there were dissents, in two cases by employee representatives and in one by both employer and employee representatives. Of the six reports accepted by the commission, four increased former rates, to which should be added the later report of the second brush board, which also increased the earlier rate, but not in the amount reported by the first board. In the paper box and women's clothing occupations prior existing rates were decreased. Some of the rates increased had stood for a number of years, while those decreased were of more recent establishment.

Inspections have been made under 12 decrees, 6 being completed at the time of this report, while the others were still in process. Inspectors secured wage records for 42,316 women and girls in 2,422 establishments in the cities and towns of the State. In a number of cases additional visits were made to adjust conditions of noncom-

pliance and to interview applicants for special licenses. There were 4,465 cases unsettled at the close of the period covered by this report, somewhat more than 10 per cent of the entire number for whom wage records were secured. "The majority of these noncompliances came under the laundry and retail store decrees and form approximately one-fourth and one-seventh, respectively, of the women employed in the laundries and retail establishments inspected."

In 1,743 establishments employing 36,641 women the decrees were found to be fully complied with at the time of the inspection, while in 679 establishments 5,675 cases of noncompliance were found. Besides these, 168 cases came over from the previous year, of which 93 have been adjusted, leaving 75 unsettled—61 in paper box factories and 14 in office buildings. Of the 1,210 cases adjusted, 1,033 were disposed of by a raise in wages or an arrangement of the work that enabled the employees to earn more money. In 71 cases women voluntarily left employment and 10 women were discharged. Special licenses were issued in 11 cases and 85 are recorded as of special license type, or covered by the commission's piece rate ruling.

A comparison between the wage records of 82 retail stores before the decree became effective and after, which "indicates increases averaging $2 per week for women, representing 64.9 per cent of those employed in these establishments, with increases promised for 609 women, and 3,037 cases pending adjustment," shows that the greater part of the pending cases come under decrees where the inspection has not been completed and that "many of these will doubtless be adjusted" by the customary routine procedure. "However, the cases of noncompliance found at the time of inspection and those still pending at the close of the fiscal year are larger both in number and proportion than for any previous corresponding period." This is said to be in part due to the fact of substantial increases over obsolete rates by some of the decrees, but mainly "to the attitude with respect to the minimum wage of some employers and some organizations of employers." Some objected to the principle of the minimum wage, and others deferred compliance pending the report of the recess commission on unemployment and minimum wage and the action of the legislature thereon. However, the majority of the employers in all occupations covered "have voluntarily complied with the provisions of the decrees."

A short table is submitted showing the increases in wages paid retail store employees following the decrees effective June 1, 1922. The old rate was $8.50 per week, while the new one made a sharp advance to $14. It is obvious, however, that few of the employees were receiving the minimum rate fixed under the old decree. The table shows the result of a partial inspection, but 82 establishments with 8,514 women being covered. It was found that wages had been advanced in 1,340 cases. In 736 the amount was $2 and less than $2.50, and in 491, $1 and less than $1.50. There were but 60 cases in which the amount was $2.50 or more, 18 being found in which the increase was $4. A tabular summary of the inspections for 1922 showed complete compliance in the candy industry, in knit goods, and in wholesale millinery, though of these it must be said that the rates in wholesale millinery ($11) and in candy making ($12.50) are below the current standards that are being established. But 3

cases of noncompliance were pending in minor confectionery lines and 29 in the corset industry. As already stated, retail stores (3,037) and laundries (790) show the greatest degree of noncompliance. The inspection in retail stores was not complete at the time of this report.

An interesting comparison is available in a table presented showing the rates of wages of women and minors in 1920 in those industries in which no minimum wage decree has been established. These wages represent the period of highest returns, before the business depression of 1921 and 1922. The number of women employed in the industries noted ranged from 49,651 in cotton goods, 30,396 in boots and shoes, and 24,248 in woolen and worsted goods (no industry noted in which fewer than 500 women were employed) to 545 in sporting and athletic goods, and 560 in combs and hairpins, except those made from metal and rubber. In boots and shoes 13.3 per cent of the women at full-time work were receiving less than $14 per week, while in cotton goods but 5.5 per cent received less than this amount. In woolen and worsted goods the number was but 3.8 per cent, while in paper and wood pulp, of 4,034 employees but 2.8 per cent received less than $14 weekly. On the other hand, of the group making combs and hairpins, except those made from metal and rubber, 55.2 per cent were in this group, in patent medicines, etc., 52.5 per cent, and felt goods 51.8 per cent.

Of 45,165 minors under 18, 23,746 received less than $15 per week. Of these, 18,725 received less than $14 and 9,953 less than $12 weekly.

North Dakota.

THE minimum wage law of North Dakota is administered by a department of the workmen's compensation bureau, which office has issued a report on the subject of minimum wage, covering the period from July 1, 1920, to June 30, 1922.

Initial difficulty was experienced in the establishment of wage rates in this State by reason of defective organization of the bureau. Orders formulated were made the object of injunctive proceedings to prevent their enforcement, certain telephone companies and the laundrymen's association bringing the action. The basic constitutionality of the law was not questioned by the court, but the orders were held to be invalid because when adopted there was not a full board present. Though the attack was limited to designated orders, the ruling made it impossible for the bureau to attempt to enforce any order issued under like circumstances. In view of the industrial changes, rendering the rates inappropriate, the bureau decided not to appeal from the decision of the trial court, but "rather to start investigations with a view to establishing a new standard of wages for the year 1922." It was also found that "considerably over 50 per cent of the employers were paying minimum wages established by the bureau" in those employments which were not involved in the action against the bureau, and even in those employments represented by the petitioners many independent companies were complying with the wage orders.

While the bureau finds that there is still considerable opposition to the law, a number of employers still insisting that such laws will force women out of industry, "it has been encouraging for this

department to see that this group has appreciably decreased; and that in spite of the bureau's inability to enforce its orders, an appreciation of minimum wage legislation and the benefits to be derived therefrom, not only by employees but also by the employers, has already begun to develop." No basis was found for the argument that minimum wage and hours legislation will force women out of industry. Two obstacles to such a result stand out, first that women are particularly fitted by temperament and ability to certain classes of work; and, second, that even with the shortened working-day and an adequate minimum wage schedule established male labor is still more expensive to the employer. The bureau finds no such problem of congestion as exists in the large cities. Only three cities of the State can be classed as "even of moderate size, according to eastern standards," so that the problem is one of towns and villages. Yet, in many of these are found a "surprisingly large number of girls and women who are entirely dependent upon their own resources for their maintenance," whose welfare is equally as important, and for whom legislation "is as vital and necessary as it is, for instance, in Massachusetts or Wisconsin."

One of the difficult problems the bureau faces is not connected directly with the matter of wages, but is the enforcement of the eight-hour law, applicable to women employed in towns having a population of 500 or more. It undertakes, however, to secure standards of maximum working hours in towns not affected by the eight-hour law. In such places "it has not been considered by employers to be excessive to require their employees to be at their place of business 10, 12, and in telephone exchanges 24 hours a day, subject to call." Admitting the employer's contention that the employee does not "work" all the time, the necessity of "being on the job" offers a condition of hardship which demands amelioration and adjustment. "It is clearly a situation in which all must cooperate for the good of society, and the employer, the public, and the employee must be considerate of each other and grope their way to a more desirable standard for the common good."

Following the decision of the court above noted, the bureau decided upon "a thorough investigation in regard to working conditions, hours of employment, and the cost of living for women in the State." To this end the cooperation of the Women's Bureau of the United States Department of Labor was requested, and the industrial assistant of that bureau went to North Dakota to direct a cost of living survey. Investigations were made in 27 towns and cities, including a total of 594 women; of these, 171 were mercantile employees with an average weekly wage of $18.43; 113 telephone operators with an average of $14.50; 94 laundry employees, $13.81; 91 hotel and restaurant employees, $10.73 and board; 23 hotel and restaurant employees, $7.93 and board and room; 10 hotel and restaurant employees, $15.63; 47 factory employees, $15.11; and 45 office employees, $23.11.

The median wage of all women receiving full money wages was $16.15 per week as compared with the average of $11.11 found at the time of the first report of the department. The number receiving money wages only was 480, of whom but 3, or 0.6 per cent, received less than $10 per week. The largest group, 110, or 23 per cent of

the total, received $20 per week and over, while 103, or 21.5 per cent, received $14 and less than $16 per week. One hundred and forty, or 29 per cent, received from $16 to $20. Of those receiving $16 and over, 165 were office and mercantile employees, 29 were laundry workers, 26 telephone operators, and 20 factory workers.

A detailed analysis of cost of living is given, showing room rents for women living alone, for those with more than one in a room, and for those doing light housekeeping; also for women at home, showing cost of room and board; cost of board is also shown for women not at home, as well as laundry expenses, clothing costs, and sundry expenses. A further analysis is made on the basis of the amount of wages earned. It was found that single rooms ranged in price from under $10 per month (for 18 women) to over $18 (for 8), the largest group (30) paying $10 but under $11, while 25 paid $12 but under $14. Where there was more than one woman in a room 9 paid under $7 each and 5 paid over $15 each. The largest number (22) paid $10 and not more than $12 per month, 13 others paying $7 but under $8, and 12, $8 but under $10.

Rooms for light housekeeping range from under $10 per month in 18 cases to over $18 in 8 cases. Eight women were found to be paying $12 to $14 and 8 others $14 to $16; 7 others paid $10 to $12. Expenditures for food by these women ranged from less than $13 (for 2 women) to more than $24 (for 17); 14 women paid from $20 to $24, and 10 from $17 to $18 per month. Laundry expenses of 102 women having their entire work done outside showed a median cost of $1.14 per week. Of the 594 women interviewed 453 incurred expenses for doctor, dentist, or oculist at an average annual cost in all of $59.95. Doctor bills averaged $64.40 in 234 cases, a "probably phenomenal" record on account of the epidemic of influenza.

Clothing costs are shown for each group of workers, ranging from $187.65 per year for chambermaids to $361.68 for office workers, showing an average for all classes of $277.82. Of the women interviewed, 20 per cent contributed toward the support of others, several caring for two or more children, while 10 were the sole support of a dependent mother.

The average weekly expense for all items ranged from $19.61 for mercantile workers and $19.43 for office employees to $9.71 for maids, etc., waitresses spending an average of $11.56, laundry workers $16.88, factory employees $17.41 and telephone operators, $18.08.

LABOR AGREEMENTS, AWARDS, AND DECISIONS.

Paterson Industrial Conference Plan.

THERE are in Paterson, N. J., 574 establishments engaged in the manufacture of silk, having an invested capital of $69,188,327 and employing an average of 21,836 wage earners.[1]

Industrial unrest has become chronic in this industry—unrest on the part of the workers, which has resulted in frequent and bitter sporadic strikes, and unrest on the part of the manufacturers which has led to the removal by some of them of their plants from Paterson, and the avowed intention of others to do so. This dissatisfaction was augmented last spring and summer by the controversies over the working week and wages. There was at that time a move by some employers for an increase in hours from 44 to 48 on the ground that it was impossible to compete with Pennsylvania manufacturers operating on a 48 or 54 hour week. This move was in some instances accompanied by wage decreases. Later in the summer there was a strike of the broad-silk weavers for an increase of 20 per cent in their wages.

In an attempt to determine and eliminate the causes which have led to the constant recurrence of such conditions in the Paterson silk industry, the plan of an industrial relations conference for discussion of the pressing problems confronting the industry was launched last December, with the cooperation of manufacturers, workers, and the citizens of Paterson.

The scheme provided for a conference board of 75 members, 25 to be selected by the silk manufacturers, 25 by the organized and unorganized workers, and 25 to represent the public. Five members of the citizens' group were chosen by the workers, 5 by the manufacturers, and the remaining 15 by a committee of three business men's organizations of Paterson—Chamber of Commerce, the Rotary Club, and the Kiwanis Club.

The purpose of the conference is the discussion, in a conciliatory and cooperative spirit, of the economic factors affecting the industry, without recommendation, in order that differences may be thoroughly understood by both manufacturers and workers without commitment by either side to a definite policy. There is to be no voting.

The functions of the conference are mediatory only. The intent is not to discuss any form of arbitration or any system of the settlement of industrial disputes or any way to reach agreements, but by discussion and investigation to determine the causes of the peculiar conditions and evident unrest in the silk industry.

The unwieldiness of so large a body is mitigated somewhat by the appointment of a permanent steering committee, called the program committee, consisting of five representatives of manufacturers, five representatives of workers, and six citizens, two from each of the

[1] U. S. Census Bureau. Census of Manufactures, 1919.

business men's organizations interested. The chairman of this committee is elected at each meeting, from the citizens' group. This committee makes all plans for the meetings, including the arrangement of the flexible program of subjects to be discussed. Matters to be discussed are to include all questions of working conditions in the silk trade, and methods for bringing about a better understanding in the industry.

The following set of principles have been adopted by the conference:

All thought or idea of compulsion is entirely eliminated in the promotion or workings of this "conference."

At the "conference" there shall be no decisions reached on controversial subjects by voting. In other words, no voting is to be done during the conference on any subject in discussion.

It is not the object of the "conference" to reach "agreements," in the generally accepted use of the term as applied in industrial relations, but rather by understandings and mutual consent accepting certain conclusions.

It is not intended at this "general conference" to devise or institute a plan of permanent industrial arbitration.

The purpose of this "conference" is to bring about an intensive discussion of all the points or subjects properly coming before it in as clear and straightforward a way as possible, without unnecessary heat or passion, and without discrimination. If it is desired, a general survey of the silk industry may be instituted in Paterson and elsewhere, all this to be done in a helpful spirit of cooperation whereby the best interests of all may be served to the end that the silk manufacturer and silk worker, with the assistance of the citizens' group, by a natural and mutually acceptable process certain conclusions can be reached which will lay the foundation for a better understanding and appreciation of each others ideas, opinions and rights, and that more harmonious relations may exist which will be generally of benefit to the entire community.

This plan was originated by Commissioner Williams of the conciliation service of the United States Department of Labor and has been sponsored throughout by that department.

Approximately 5,000 of the silk workers in New Jersey are organized; 3,000 of these are members of the Associated Silk Workers Union. About 2,000 belong to the United Textile Workers Union. The United Textile Workers have agreed to the plan. The Associated Silk Workers have refused to join. It was the purpose of the originator of the plan to form some scheme of representation of the unorganized silk workers. To date, however, this has not been accomplished, and only 2,000 of the more than 20,000 workers in the city are represented in the conference.

The first meeting of the conference was held in January. Unfortunately, perhaps, for the immediate success of the plan the subject chosen for this meeting—the limitation of looms—is one of the most vital and controversial problems in the industry at the present time.

The ultimate result of the scheme is of course problematical. Undoubtedly, the plan takes cognizance of a fundamental need in the Paterson silk industry—the need for mutual understanding and the establishment of a common basis on which industrial relations can be stabilized. If the plan should fail, as a plan, it is quite possible that its influence may be felt in hastening a more general recognition of the need.

Electrotypers—Chicago.

THE renewed and revised agreement concluded December 31, 1922, by and between the Chicago Employing Electrotypers' Association and Chicago Electrotypers' Union No. 3 of the International Stereotypers' and Electrotypers' Union establishes a uniform or flat scale for all members of the union and eliminates the premium plan of wage payment heretofore prevailing in the industry in Chicago. The wages of both journeymen and apprentices are increased over the basic scale in the previous contract. A new section provides that if men are to be laid off, a definite schedule must be arranged that provides an equal period of time off for journeymen and apprentices, excepting foremen.

The new agreement, the arrangement of which evidences the effort of the printing trades unions to evolve a standard form of contract follows in full:

Identification.

This agreement made this 31st day of December, 1922, by and between the Chicago Employing Electrotypers' Association of Chicago and vicinity, hereinafter called the party of the first part, and the Chicago Electrotypers' Union No. 3, International Stereotypers' and Electrotypers' Union, hereinafter called the party of the second part.

Mutual agreement.

This agreement is entered into for the purpose of preventing misunderstandings between both parties; to establish a wage scale, working hours and working conditions, to prevent lockouts, boycotts, and strikes, and to provide for conciliation and arbitration, if necessary.

Duration.

The duration of this agreement shall be from the 1st day of January, 1923, for the period of one year and four months to the 30th day of April, 1924.

Scale of wages.

1. The scale of wages to be paid to the members of the party of the second part shall be:

2. From January 1 to April 30, 1923, $55; from May 1, 1923, to August 31, 1923, $57; from September 1, 1923, to April 30, 1924, $59.

3. For the purpose of establishing a uniform or flat scale for all members of the party of the second part, and thereby eliminating the premium evil now prevailing in the industry in this jurisdiction, both parties to this contract agree that the scale of wages herein set forth shall be the actual wage for which journeymen members of the party of the second part shall be employed and paid during the periods above set forth, and premiums now being paid are not to be added to the scale of wages as set forth in this contract, or to the wages now received. It is understood, however, that all members of the party of the second part now receiving premiums in excess of the scale of wages herein established shall not be reduced.

Working hours.

The parties hereto covenant and agree that 44 hours shall constitute a week's work. The working schedule to be regulated within the stipulated hours—8 a. m. to 5 p. m. each day, except Saturday to be between 8 a. m. and not later than 12 o'clock, noon.

Overtime.

1. All overtime to be paid at the rate of time and one-half for the first three and one-half hours after the regular schedule of hours, and double time thereafter. On Saturday, work after 1 p. m. shall be paid at double time rate. Overtime shall be construed to mean any time over the regular schedule of hours. When members of the party of the second part are required to work before the regular starting time, double

time shall be paid. When members of the party of the second part are required to work 1½ hours or more overtime they shall be allowed 30 minutes for lunch with pay.

2. No foreman shall be permitted to work overtime without at least one other journeyman working with him for such department where such overtime may be required.

Holidays.

1. Sundays and legal holidays shall be paid at double time rate. Legal holidays as recognized by both parties are: New Year's Day, Decoration Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas.

2. No work shall be permitted on Labor Day.

Short time.

1. If men are to be laid off, a definite schedule must be arranged that provides an equal period of time off for journeymen and apprentices, excepting foremen.

2. When working short hours, no distinction shall be drawn in the schedule of hours between the molding department and the finishing department, both departments to start at the same hour and cease labor at the same hour of the day.

3. In the event that men are to be laid off, such men shall be notified not later than 12 o'clock, noon, on the day previous to the day said lay off is to take effect.

Apprentices.

1. The number of apprentices shall be based upon the total number of journeymen regularly employed in each department.

2. Any foundry giving regular employment to three journeymen in the finishing department shall be allowed one apprentice, two apprentices for eight journeymen, and an additional apprentice for the next five journeymen.

3. Any foundry giving regular employment to three journeymen in the molding department shall be allowed one apprentice, two apprentices for eight journeymen, and an additional apprentice for the next five journeymen.

No more than three apprentices to be employed in either the finishing department or in the molding department of any one foundry.

5. All apprentices must appear before the executive board of the union for examination as to their qualifications before being recorded.

6. All apprentices must serve a probationary period of six months to demonstrate their fitness to become registered apprentices, and then serve the remaining period, of which not less than two years must be served at the bench or press.

7. Apprentices shall receive the following scale of wages per week of 44 hours:

First year	$18.00
Second year	24.00
Third year	30.00
Fourth year	36.00
Fifth year	42.00

8. Only in cases where journeymen are unable to work overtime shall apprentices be permitted to work beyond the ratio as established in paragraphs 2 and 3 of the apprenticeship section.

9. The employer and the executive board of this union, after the first six months of the boy's apprenticeship, shall mutually determine his fitness to continue as an apprentice.

10. All apprentices shall serve an apprenticeship of five years under instruction and shall not be less than 16 nor over 30 years.

11. Should an apprentice leave his position without the consent of his employer and the union, he shall forfeit all rights to finish his apprenticeship in any foundry within the jurisdiction of the party of the second part until after his term has expired.

12. Any duly registered apprentice who loses his position through no fault of his own shall be given the first apprenticeship vacancy occurring in any shop.

Jurisdiction.

1. All leveling, straightening, revising, correcting, chiseling, repairing of plates, mounting inserts into folders, pamphlets or book form blocks, registering, trimming, shaving, beveling, mortising, sweating on, routing, curving and squaring shall be performed by journeymen or their apprentices.

2. All molding in lead composition and all that pertains to it, keeping molding composition and solution in condition, cutting down, putting on connections, building, coating, hanging in and taking out cases, removing shells from case or lead mold, trimming, aciding, tinning and backing up shells, backing up all plates for solid or cored base, locking and unlocking all forms and cuts shall be performed by journeymen or their apprentices.

Notice.

All employees must give one day's notice to employer before leaving position, and the employer must give one day's notice to discharge an employee for an indefinite period, such notice to be given not later than 9 a. m.

General conditions.

1. The party of the second part reserves to its members the right to refuse to execute all struck work received from or destined for unfair employing electrotypers or stereotypers.
2. It is agreed between the parties hereto that negotiations for a new contract can be opened by either party 30 days previous to expiration of present contract.

Arbitration.

1. The parties hereto covenant and agree to submit to arbitration any question of dispute that may arise, but in no case shall the laws of the Chicago Electrotypers' Union No. 3, International Stereotypers' and Electrotypers' Union as ratified by this agreement, nor the International Stereotypers' and Electrotypers' Union laws, be subject to arbitration.
2. All question of dispute arising out of or concerning this contract, and all questions arising between any of the members of the party of the first part and his employees covered by this agreement, shall be taken up and disposed of by an arbitration committee, to consist of two members from each party, appointed by the respective presidents of each party. The said arbitration committee to select a fifth member to act in case of a tie vote.
3. Arbitration shall be held within 10 days after written request therefor has been made by either party to this agreement.
4. In all cases in dispute the conditions are to remain as they were previous to dispute arising, pending the finding of arbitration.
5. All verdicts, opinions, and findings shall be presented in writing to both parties interested, and duly attested by said arbitration board within three days after the last testimony or evidence has been taken.
6. Should any dispute or contention arise between the parties hereto over whether a dispute is arbitrable that either party sees fit to present for conciliation or arbitration, such question shall be immediately presented to an arbitration board, and the selection of arbitrators to determine the question shall be formed in accordance with paragraphs 1, 2, 3, 4, 5, and 6, of the arbitration section of this agreement.

Railroads—Decisions of the Railroad Labor Board.

Engine, Train, and Yard Service.

RECENT decisions (Nos. 1554 and 1558) of the Railroad Labor Board virtually remand for direct negotiation, to the carriers and employees involved, those disputes submitted to the board in dockets 1, 1300, and 1900, which had not already been withdrawn.

Submissions in docket No. 1 pertained to the request upon the part of the employees in engine, train, and yard service for the establishment of certain rules and working conditions. This case involved the engineers, firemen, and enginemen, trainmen, conductors, and switchmen, and practically one-hundred and fifty railroads and their subsidiary lines. Nearly all the carriers of the country subsequently submitted to the board, in dockets 1300 and 1900, controversies involv-

ing requests for reductions in rates of pay and a revision of rules and working conditions affecting the above-mentioned classes of employees.

Hearings were not held on these controversies in 1922 because of the fact that the parties had resumed their efforts to negotiate agreements. In the majority of cases agreements were reached by direct negotiation. The board set January 15 for hearing of those cases on dockets 1300 and 1900 in which no agreement had been reached. By January 15 the disputes on 95 per cent of the railway mileage of the country had been withdrawn, and only 18 carriers were involved in decision No. 1554, handed down on February 5.

Agreements reached by direct negotiation generally continued in effect the existing rules and rates for the period of one year, the date of expiration of the agreement varying on the different roads from September 1, 1923, to January 1, 1924, and thereafter subject to 30 days' written notice by either party of desire to negotiate changes. Since the rates and rules involved in the disputes on the 18 carriers involved were practically identical with those that had been extended by voluntary agreement on the carriers which concluded agreements, the board was of the opinion that it would be a disturbing factor in the present railway labor situation under the circumstances to establish rates and conditions on a few roads at variance with those prevailing on more than 95 per cent of the railway mileage of the country.

On the other hand, the right of each carrier to act upon its own initiative in the submission of such a dispute is recognized by the board.

It is therefore the judgment of the Railroad Labor Board that it is to the best interest of all concerned that a decision of these disputes upon their merits should not be rendered at this time, but that the cases should not be dismissed. Holding them on the docket will give both parties the benefit of all the evidence they have respectively filed, which could be supplemented by additional evidence if desired by either party and deemed advisable by the board.

The action of the Railroad Labor Board here taken must not be construed in any manner or degree to indicate its position one way or the other upon the merits of the questions at issue, or in any sense as an invitation to other carriers to join in these disputes.

Decision.—It is therefore decided that the disputes between the carriers and organizations named herein shall be held on the docket of the Railroad Labor Board until some date subsequent to October 1, 1923, when they will be taken up for further consideration and decision, unless in the meantime agreements have been reached.

In view of the fact that the controversies involved in docket No. 1 were closely related to those postponed in dockets 1300 and 1900, the board, in decision No. 1558, handed down on February 5, disposed of them in a similar manner, holding them on the docket until some date subsequent to October 1, 1923, when they will be taken up for further consideration unless in the meantime agreements have been reached.

Railroad Signalmen.

THROUGH the intervention of the Railroad Labor Board the railroad signalmen did not strike with the shopmen last July, but remained at work pending a rehearing of their case. Decision No. 1538 of the board, effective February 1, 1923, is the result of this rehearing. This decision affects 42 carriers, with their subsidiary lines and their employees in the railway signal service.

The signalmen, represented by the Brotherhood of Railroad Signalmen of America, asked for the restoration of the wage schedule in effect prior to July 1, 1921, made effective by decision No. 2 of the board, and for the elimination of certain inequalities in the hourly wage rate on certain western roads. The wages of this class of employees as determined by decision No. 2 had been decreased by approximately 8 cents an hour by decision No. 147 and a further 5 cents an hour by decision No. 1074.

The board denied the request for increases on the ground that the changes (since decision 1074 was issued) in the cost of living and the scale of wages paid for similar kinds of work in other industries, as well as the other elements contained in Title III of the transportation act were not sufficient to justify any changes in the wages of this class of workers. The board removed the inequalities by increasing the rate of some 500 signal maintainers from 68 cents to 72 cents per hour, which the majority of signal maintainers were receiving.

The request of the signalmen for the restoration of the eight-hour day with time and one-half for overtime, which decision No. 707 denied this class of workers, was granted by the board together with the following new proviso establishing the six-day week:

> Employees necessary to the continuous operation of the carrier and who are regularly assigned to such service will be assigned one regular day off in seven, Sunday if possible, and if required to work on such regularly assigned seventh day off duty will be paid at the rate of time and one-half time; when such assigned day off duty is not Sunday, work on Sunday will be paid for at straight-time rate.

Where practicable, employees assigned to the maintenance of a section who do not return to home station daily and employees regularly assigned to perform road work are allowed one day off in seven—Sunday if possible—without deduction in pay therefor.

A labor member of the board filed a dissenting opinion on that part of the decision denying a general wage increase to signalmen, on the ground that changes in the scale of wages paid for similar kinds of work in other industries as well as in the relation between wages and the cost of living justify, in his opinion, a general increase.

Clothing Industry—Decisions—Stoppages.

Rochester.

A FIRM in the Rochester men's clothing market complained of a three days' stoppage resulting in a loss of production of 32 coats for each worker. The case came to the impartial chairman of the market decision. He directed that the workers involved make up the loss immediately by working overtime at straight-time pay, the union and the firm in conference to arrange the necessary details in the carrying out of the decision.[1]

[1] Case No. 866. Feb. 16, 1923.

Chicago.

A SOMEWHAT similar case[2] arose in the Chicago men's clothing market wherein the firm requested the trade board to discipline the workers responsible for the stoppage of an entire floor.

In this case the board was convinced that the shop chairman was responsible for the stoppage and that he refused to order the workers back to work when told by the deputy of the union to do so. The board directed his discharge together with that of another worker, who, the board was convinced, was a party to the prearranged plan to call the stoppage, and assisted in bringing it about. With respect to the dismissal of the shop chairman the board says:

> Although his offense is in the capacity, primarily, of shop chairman, he has held that position for two years and would retain a measure of influence though removed as shop chairman. That influence would not be in the best interests of the workers [or] of the firm.

With respect to the conflicting and false testimony in this case the decision says further:

> It has not been the practice of the trade board to take action against witnesses for testifying falsely unless they were testifying in their behalf. If testimony on behalf of others has appeared false or inconsistent, it has been discounted or thrown out. However, in this case the testimony of one [of the workers] is so much at variance with other testimony and so contradictory in itself that the board can not permit it to pass. The board will not take further action, but it expects the union to make clear [to the workers] that the organization will not countenance false testimony.

Collective Agreements in the Netherlands, 1921.[a]

THE Central Statistical Office of the Netherlands publishes every two years statistics on the extent of collective bargaining in that country. The statistics recently published for the year 1921 indicate a considerable decrease in the number of collective agreements in force at the end of 1921 as compared with 1919 and in the number of establishments and workers covered by them. The falling off in collective bargaining was chiefly due to the unfavorable economic situation and to the fact that a number of the most important national collective agreements were allowed to lapse without renewal, owing to differences between employers' and workers' organizations.

The extent of collective bargaining by industry groups in 1921 as compared with 1919 is shown in the following table:

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[2] Trade board case No. 253 (new series), Feb. 3, 1923.

[a] Netherlands. Central Bureau voor de Statistiek. Overzicht van den omvang en den voornaamsten inhoud der collectieve arbeidsovereenkomsten op 1 Januari 1922. The Hague, 1922. 49 pp. Statistiek van nederland, No. 356.

EXTENT OF COLLECTIVE BARGAINING IN THE NETHERLANDS AT THE END OF 1919 AND 1921, BY INDUSTRY GROUPS.

Industry group.	Collective agreements.		Establishments covered.		Workers covered.	
	1919	1921	1919	1921	1919	1921
Pottery, glass, etc	20	25	27	69	4,491	10,289
Diamond cutting	2	2	451	125	11,450	8,436
Printing, paper, etc	9	5	1,627	1,559	20,002	20,452
Building and construction	237	67	8,508	8,335	55,366	67,979
Chemical industry	5	5	13	7	744	431
Woodworking	266	177	987	830	14,753	10,939
Clothing	45	128	1,408	898	20,301	16,187
Art industries	4	4	20	4	160	53
Leather	7	3	248	73	7,117	381
Mining, peat digging, etc	10	11	109	342	1,794	30,779
Metal working	80	32	2,054	1,016	62,718	3,106
Textile industry	11	3	101	4	12,293	353
Gas works	.....	1	.....	1	.....	35
Food industries	138	92	2,749	2,490	42,508	32,847
Agriculture	53	63	3,864	3,810	11,948	15,185
Fishing	1	3	56	65	600	1,337
Commerce	35	31	51	40	943	705
Transportation	52	48	262	1,290	6,930	37,999
Insurance	2	2	2	2	1	59
Professions	1	.....	1	.....	68	.....
Total	978	702	22,507	20,887	273,587	257,552

According to the preceding table the number of collective agreements in force at the end of 1921 was 702, covering 20,887 establishments, and 257,552 workers. The corresponding figures at the end of 1919 were 978, 22,507, and 273,587. The number of agreements in force has therefore decreased by 276, the number of establishments covered by 1,620, and the number of workers covered by 16,035. The relatively large decrease in the number of agreements was due to the nonrenewal of a number of lapsed agreements and also to greater consolidation in the conclusion of new agreements. The decrease of over 16,000 in the number of workers covered is due to the fact that the national agreement covering the metal-working industries and two agreements with textile workers were allowed to lapse. The lapsed agreements in these two industry groups covered 71,600 workers. This great loss was, however, partly offset by great increases in the mining (26,100) and transportation (32,100) groups.

On the average each collective agreement in force at the end of 1921 covered 30 establishments and 368 workers, as against 24 establishments and 295 workers at the end of 1919. Of the agreements in force at the end of 1921, 74.5 per cent were concluded by one or more unorganized employers, while only 25.5 per cent were concluded by employers' organizations. The latter kind of agreements covered, however, 96.5 per cent of all the establishments and 83.9 per cent of all the workers operating under collective agreement.

The number of national collective agreements in force at the end of 1921 was 22 (31 at the end of 1919). They covered 13,424 establishments (10,688 in 1919) and 128,353 workers (157,864 in 1919).

The table below shows the extent to which specified provisions have been incorporated in collective agreements.

PROVISIONS OF COLLECTIVE AGREEMENTS, AND NUMBER OF ESTABLISHMENTS AND WORKERS COVERED.

Provision of agreement.	Number of agreements containing specified provision.	Number of establishments covered.	Number of workers covered.	Provision of agreement.	Number of agreements containing specified provision.	Number of establishments covered.	Number of workers covered.
Period of validity:				Maximum hours per week:			
1 year and under	618	.....	167,400	Less than 45	19	139	1,158
Over 1 year to 2 years	40	.....	.....	45	453	10,284	166,336
Over 2 to 3 years	8	.....	.....	45½ to 47½	19	252	35,683
5 years and over	2	.....	.....	48	18	241	1,592
Indefinite period	34	.....	.....	48½ to 50	20	89	7,660
System of wage payment:				50½ to 55	19	175	4,349
Both time and piece work	398	5,988	103,918	Over 55	15	20	186
Piecework only	11	131	383	Vacations:			
Time work only	286	14,946	153,026	Duration—			
Pay for overtime:				1 to 5 days	236	2,943	36,886
No provision	99	3,213	31,691	6 to 11 days	270	5,863	83,079
No extra pay	15	1,712	8,777	12 days and over	27	100	6,249
Extra pay of—				Pay—			
Less than 25 per cent.	12	164	2,116	Full pay	428	6,438	95,223
25 to 50 per cent	530	14,667	182,544	Full pay plus special allowances	73	2,185	25,750
Over 50 per cent	4	131	450	Settlement of disputes by board of arbitration	416	18,007	231,377
Special provisions	42	1,213	31,874	Prohibition of strike or lockout during life of agreement	311	13,481	163,439
Pay for night work:				Restriction on right of discharge	218	8,378	101,148
Extra pay of—				Minimum standard of production	4	.....	20,484
50 per cent or less	135	10,833	121,424				
51 to 75 per cent	21	109	1,832				
Over 75 per cent	149	1,205	17,526				
Special provisions	10	314	15,855				
Pay for work on Sundays and holidays:							
Extra pay of—							
75 per cent or less	12	838	6,106				
Over 75 per cent	507	13,194	176,213				
Special provisions	26	889	33,669				

Other provisions found in varying numbers of agreements relate to the coverage of the agreement, special allowances to workers during sickness, notice of discharge or quitting work, number of apprentices, shop rules, use of alcoholic beverages, working for third parties during the working hours or in spare time, limit of hours of overtime, family allowances, revision of wages during the life of the agreement, home work, etc.

WOMEN IN INDUSTRY.

Women in the Candy Industry in Chicago and St. Louis.

A BULLETIN (No. 25) has recently been issued by the Women's Bureau, giving the results of a study of hours, wages, and working conditions of women in the candy industry in Chicago and St. Louis. The study was begun in the middle of February, 1921, and ended in April, 1921. Data were gathered concerning 31 factories in Chicago and 19 in St. Louis, employing, respectively, 2,070 and 632 women. The investigators secured information from employees and employers, and took wage data directly from the pay rolls. Individual yearly earnings for a number of women in each establishment were recorded on 52-week schedules, and earnings for a current week in 1921 and for a representative week during the slack season in 1920 were also taken. In the nativity of the workers there was a marked difference between St. Louis and Chicago, only 5.8 per cent in the first city against 34.3 per cent in the second being foreign born. In both cities young workers predominated, 35.8 per cent in Chicago and 47.6 per cent in St. Louis being under 20. However, 29.7 per cent in Chicago and 22.8 per cent in St. Louis were over 30 years old, and workers were found in every age group up to 60 years and over. In both cities close to one-fourth of the women had had five years or more of experience in the trade. Of the women reporting on conjugal condition, 62.6 per cent in Chicago and 75.8 per cent in St. Louis were single; 27.5 per cent in Chicago and 14.3 per cent in St. Louis were married, "while 10 per cent in round numbers in both Chicago and St. Louis were widowed, separated, or divorced."

The study was made in a time of industrial depression, and the candy industry showed the effects of the hard times. Employees had been laid off, in many cases wage rates had been cut, and part-time operation was common. In spite of this condition, a number of the Chicago establishments had recently lengthened their scheduled working week.

Although by the beginning of 1921 the industrial depression was crippling the industry, and although such a condition would seem incompatible with an increase in the working schedule, 22 of the plants had abandoned the 44-hour week for a longer weekly schedule, as the following summary shows:

8 factories increased from 44 hours to 50 hours.
1 factory increased from 44 hours to 49¾ hours.
1 factory increased from 44 hours to 49 hours.
11 factories increased from 44 hours to 48 hours.
1 factory increased from 44 hours to 47½ hours.
1 factory increased from 46½ hours to 48 hours.

Despite the adoption of such schedules a number of the plants were not putting them into force, but because of the need for restricted production were operating even less than 44 hours weekly by cutting down the number of working days a week. Evidently these factories were planning to use the new schedules when business in the industry again became normal.

Wages and earnings showed the results of the depression. Normally the time at which this investigation was made is the second busiest of the year, since it includes the preparation for the Easter trade, but in spite of this many factories were running only three or four days a week. Attendance and production bonuses had been discontinued, and "pieceworkers who formerly had been able to earn

$20 to $30 or more a week were obtaining at the time of the investigation not more than one-half of these amounts and even less." The median weekly earnings for 1,832 women reporting in Chicago were $14.65, the range being from a median of $13.75 for packers and wrappers to $26.20 for forewomen, and $17.45 for dippers. In St. Louis the median earnings for 579 women were $11.90, the range being from $10.80 for machine operators to $20.30 for forewomen and $12.85 for dippers. The distribution by earnings groups in the two cities was as follows:

NUMBER AND PER CENT OF WOMAN CANDY WORKERS IN CHICAGO AND ST. LOUIS CLASSIFIED BY WAGE GROUP.

Weekly earnings.	Chicago.		St. Louis.	
	Number.	Per cent.	Number.	Per cent.
Under $5	97	5.3	38	6.6
$5 and under $10	298	16.2	123	21.2
$10 and under $12	168	9.2	133	23.0
$12 and under $15	413	22.5	153	26.4
$15 and under $18	433	23.6	74	12.8
$18 and under $20	155	8.5	29	5.0
$20 and over	268	14.6	29	5.0
Total	1,832	100.0	579	100.0

St. Louis, with 50.8 per cent of the workers earning less than $12 a week, stands conspicuously below Chicago, which has only 30.7 per cent of its workers in this earnings group. This appears even more clearly when the median earnings by occupation are compared these being as follows:

MEDIAN EARNINGS OF WOMAN CANDY WORKERS IN CHICAGO AND ST. LOUIS, FOR ONE WEEK IN 1921.

Occupation.	Chicago.	St. Louis.
Forewomen	$26.20	$20.30
Dippers	16.90	12.80
Machine operators	14.50	10.70
Packers and wrappers	12.90	10.80
All other occupations reported	14.55	11.00
All occupations	14.35	11.45

In regard to hours, as well as in the matter of wages, the Chicago workers were likewise better off than those in St. Louis. The Illinois law permits a 70-hour week for women in factories, while the law of Missouri permits only a 54-hour week. Nevertheless, none of the Chicago factories visited had more than a 50-hour week for their women employees, and 22 establishments, employing almost two-thirds (65.1 per cent) of the women studied had a week of 48 hours or less, while in St. Louis 7 of the factories, employing more than half of the women, had a 54-hour week, and only 4, employing 17.6 per cent of the women, had a week of 48 hours or less. In Chicago 37.8 per cent of the women for whom hours were reported were in factories having a 9-hour day, while in St. Louis 75.2 per cent had a 9-hour day. "A Saturday half holiday was customary in 26 of the 31 Chicago plants and in only 3 of the 19 St. Louis plants."

On the whole, conditions of hazard and strain were not frequent in the candy industry. Complaint was sometimes heard from the

dippers who were required to work in uncomfortably cold rooms. "Women in 22 plants worked in a temperature below 66°, the minimum given by some managers as necessary for the preservation of the product. The lowest temperature reported, 50°, was obviously too cold for health or comfort." The matter of seating had not, apparently, been given sufficient consideration.

In 25 plants there was an insufficient number of seats for the women; in 39 the only seats provided were stools or benches without backs, while in 8 plants women were seen sitting on boxes and cans. In a number of instances women who could have performed their work equally well while sitting were compelled to stand all day, since no seats were available or the seats provided were not adjustable to work tables.

Also, in spite of the fact that workers in a food product need the most effective aids to cleanliness, only 14 of the 51 plants visited supplied for the workers' use hot water, soap, and individual towels, "essential features of sanitary washing facilities." Hospital rooms were found in seven plants and a nurse or a doctor was in attendance daily in seven.

Employment of Women in Nevada.

THE occupational distribution of woman workers, their average age, and certain statistics on wages and hours are given in the following tabular statement from the fourth biennial report of the commissioner of labor of Nevada, 1921–1922:

AVERAGE DAILY WAGES AND HOURS OF LABOR OF WOMAN WORKERS, BY OCCUPATIONS.

Occupation.	Number of woman workers.	Average age.	Daily wage.			Average hours worked per day.	Average pay for October, 1921.	Average days worked in October, 1921.
			Highest.	Lowest.	Average.			
Bookkeepers	125	26.4	$6.00	$0.50	$3.37	7.3	$99.08	26.4
Cooks	145	37.5	5.33	.80	2.28	9.1	65.45	28.1
Cashiers	16	24.6	5.77	2.88	5.07	7.6	131.66	26.0
Clerks	172	27.8	5.79	.58	3.21	7.5	86.12	28.9
Chambermaids	40	37.1	3.00	1.17	2.20	7.1	62.44	30.2
Deputies	13	28.1	6.67	3.46	4.71	7.5	161.92	25.6
Farmers	46	32.1	3.00	.75	2.06	8.7	46.07	21.9
Housekeepers	17	36.7	3.83	.66	1.86	7.8	56.01	29.9
Ironers	21	31.4	4.00	1.25	2.74	8.0	65.68	24.5
Janitresses	29	41.4	5.00	.25	1.51	3.3	30.81	23.1
Laundry workers	46	33.6	5.84	2.35	3.13	8.0	73.18	23.1
Matrons	10	38.0	8.00	2.45	3.65	10.3	100.10	30.5
Maids	55	39.1	5.00	.83	2.02	7.5	53.73	28.8
Mangle hands	28	33.0	5.00	2.50	3.23	8.0	68.09	22.1
Managers	56	35.3	19.25	2.31	6.85	7.3	158.33	22.9
Nurses	41	34.7	5.83	1.50	3.31	10.3	93.19	28.1
Operators, telephone and telegraph	102	25.6	6.86	1.00	3.15	7.9	83.33	25.5
Stenographers	156	24.4	7.38	1.25	3.96	7.3	103.52	25.6
Saleswomen	205	30.7	7.69	.77	2.85	7.9	72.51	25.7
School teachers	565	29.7	10.96	3.25	5.27	6.3	132.69	25.2
Waitresses	137	29.4	4.00	.50	2.42	7.9	64.14	26.9
All others	189	29.9	10.00	.38	2.77	7.0	71.53	27.2
Total and average	2,214	30.1	.....	.....	3.63	7.6	93.14	26.1

Nevada is reported as having few child wage earners. This fortunate situation is attributed to compulsory school attendance laws requiring pupils to complete 12 grades unless "special circumstances warrant a different rule in the interest of the child," to the prohibition of child labor under 16 in certain industries, and to the absence from the State of many child-employing industries.

HOUSING.

New Housing Loan Law of Denmark.[1]

DENMARK on December 23, 1922, enacted a new law governing loans for building purposes whereby financial assistance in the construction of houses is provided for until December 31, 1924.

Under the laws effective from September, 1920, to May, 1922, about 22,000,000 kroner ($5,896,000, par) was appropriated for State aid, with an equal municipal grant, and a State loan of approximately 25,000,000 kroner ($6,700,000, par), but it eventually became impossible both for the State and the municipalities to continue the large cash grants. However, public aid was considered necessary because of the expected decrease in the present high building costs (the index number being about 175 late in 1922 as against 100 in 1914), as buildings put up without public aid would be unable to compete in rental rates with those erected later. Furthermore, it was felt that a cessation in building activities would be disastrous because of the housing shortage in Copenhagen and the larger municipalities, aside from the unfortunate effect on the unemployment problem.

Under the new law the policy of joint contributions by the State and municipality for meeting the extraordinary housing needs is continued, but direct State and municipal grants are not made.

One of the main provisions of the law is that second mortgage loans may be made from the State housing fund for the construction of dwellings. The loan draws 5 per cent interest annually and is payable like an annuity in the course of about 36 years, payments on interest and principal amounting to 6 per cent annually. In addition a small payment amounting to about one-fifth of 1 per cent annually is made toward a reserve and amortization fund. The first and second mortgage loans together may not exceed 85 per cent—in exceptional cases 90 per cent—of the cost. The builder is required to furnish the remaining 15 per cent. The Government loan must not amount to more than 40 per cent of the total estimated cost of the building.

A loan is granted only when the municipality concerned gives security for one-half the amount of the loan. An exception is made where dwellings are to be occupied by tenants from some other municipality.

Ready money is provided by the issuance of 5 per cent State bonds through the Mortgage Bank of the Kingdom of Denmark which are sold in the open market by the borrower.

The State housing fund and the technical adviser under the Ministry of the Interior decide who shall receive loans. The total sum to be loaned by the State is determined semiannually by the Minister

[1] Denmark. Indenrigsministeriet. Meddelelser fra Socialraadets Sekretariat, Christiania, January, 1923, pp. 19–25.

of the Interior, the Minister of Finance, and the parliamentary committee on finance. Whether the building project receives a State loan depends upon the reasonableness of the estimated cost, its technical advantages or disadvantages, its rentability, and the housing need in the community. The use of Danish material to as large an extent as possible is required. While such buildings will be subject to some control as to house rents and giving notice, the State in order to encourage building does not claim part of the profits in any eventual sale at a gain.

The State loan fund must give its approval before a new owner can take over a loan but it is assumed that consent will be given unless special reasons make it inadvisable.

The State may make special arrangements when required with regard to an extension of time or remission of interest or payments.

Aid may be granted regardless of whether the builder is a building association, a municipality, or a private person. A board of 10 members, on which the building trades employers and workers, the municipalities, and associated building and loan societies are represented, will be appointed by the Minister of the Interior to see that the estimated building costs are kept within reasonable limits.

Government Loans for Housing in Formosa.

THE United States consul at Taihoku, Japan, under date of January 4, 1923, includes in his monthly résumé data concerning Government loans for housing purposes in the island of Formosa (Taiwan). To help solve the housing problem, the Government offers loans at 6½ per cent to individuals or associations wishing to buy or build for housing purposes. A sum of 800,000 yen ($398,800, par) is set aside for this use. Applications for the loans must be made at city or prefectural offices in the island and are thence transmitted to the Government officials in Japan. Here they are investigated and approved or rejected. Those which are approved are sent to the Bank of Taiwan (Ltd.), in Taihoku, which is the local agent for the Industrial Bank of Japan, and through this the loans are made. They must not exceed 60 per cent of the appraised value of the security offered, whether this be land or building, and are to be repaid within 20 years by annual installments. Preference is given to the smaller applicants who desire to build homes for themselves. Loans will be made to building associations, provided at least one-third of their capital is paid up before their application.

The purpose of the Government in making these loans at such exceptionally low interest is to utilize for the benefit of the inhabitants of Taiwan money deposited in post offices in Taiwan. Each year the Government arranges with the treasury authorities in Tokyo concerning an allotment of the "low interest funds" to Taiwan. For this allotment the Industrial Bank of Japan issues bonds, which are bought by the Treasury Department of Tokyo.

Government Housing for the Working Classes in Bombay.

THE Labor Gazette, the official organ of the Bombay Labor Office, contains in its issue for December, 1922, an account of the formal opening of the Bombay industrial housing scheme consisting of 20 chawls, or blocks, containing 1,600 tenements. This scheme is an example of a governmental enterprise in which dwellings have been constructed both more cheaply and more rapidly than was deemed possible when the original plans were adopted. The housing of the working classes in Bombay had long been a matter of public concern, but little progress was made in grappling with it until the Government undertook an extensive program for the improvement of Bombay and its suburbs, which included the provision of 50,000 one-room tenements for the workers. In a public address in 1920, outlining the plan, Sir George Lloyd, the Governor of Bombay, frankly declared that these tenements could not be provided on an economic basis: [1]

> Sir George Lloyd rightly said that "it will be quite clear to anyone conversant with the conditions of industrial life in Bombay that it is impossible to expect a return from the rent of these buildings which would meet the expenses incidental to a capital expenditure of this amount, much less the return of a profit." In other words, the Bombay Government is prepared to spend the general taxpayers' money for the benefit of the poor.
>
> The Governor of Bombay says that the scheme outlined by him will result in the loss to Government of 13½ lakhs of rupees ($1,350,000, par) year after year. The cardinal principle underlying the scheme is that the Government should be prepared to be out of pocket to some extent, and that the people's money should be spent on the project without expectation of a return for the outlay.

The program called for the construction of 625 chawls or blocks of tenements, each containing 80 one-room tenements, of which it was hoped that 15 chawls would be ready for occupancy during the year 1921–22. The work of construction was hindered by delay in obtaining the necessary land, the first plot not being secured until March, 1921, so that the fact that by December, 1922, chawls containing 1,600 tenements were opened for occupancy shows the speed of construction. In the opening address, it was pointed out that the management hoped to improve on its record. The chawls are constructed of concrete. The design provides for a skeleton framework, consisting of columns, beams, floors, and roofs, and these are poured in position. All other parts are constructed in standard sizes, and brought, ready-made, to the site. As a result of these and other economies, the cost of each block has been brought down from the original estimate of Rs. 124,500 ($28,262, par) to Rs. 99,500 ($22,587, par) and "further efforts are being and will continue to be made to reduce the time and cost of building." At the time of the opening, it was stated, "the rate of progress has now reached the equivalent of one chawl every five working-days." As each chawl contains 80 rooms, and each room is expected to house a family, provided it does not number more than five persons, the management feels that rapid progress is being made in relieving the housing shortage.

[1] Social Service Quarterly (Bombay), October, 1920, pp. 65, 67. Housing Reform in Bombay.

EMPLOYMENT AND UNEMPLOYMENT.

Employment in Selected Industries in February, 1923.

THE Bureau of Labor Statistics received and tabulated reports as to the volume of employment in February, 1923, from 4,848 representative establishments in 43 manufacturing industries, covering 1,924,372 employees whose total earnings during one week amounted to $48,618,824.

Identical establishments in January reported 1,881,109 employees and total pay rolls of $46,265,468. Therefore in February, as shown from these unweighted figures, for the 43 industries combined there was an increase over January of 2.3 per cent in the number of employees and an increase of 5.1 per cent in the total amount paid in wages.

Increases in the number of employees in February as compared with employees in identical establishments in January are shown in 32 of the 43 industries and decreases in 11. The largest increase, 17.3 per cent, is shown in the fertilizer industry, followed by agricultural implements with 12.3 per cent, and automobiles with 9.1 per cent.

The largest decreases in employment are shown in slaughtering and meat packing and in car building and repairing, being 4.4 per cent and 2.5 per cent, respectively.

Increases in the total amount of pay rolls in February as compared with January are shown in 34 of the 43 industries, leaving only 9 industries with decreased pay rolls. This reflects the end of the inventory season, which in January was largely responsible for the fact that only 12 industries showed increased pay rolls.[1]

The automobile industry leads in increased pay-roll totals with 20.8 per cent, followed by agricultural implements with 15.1 per cent, the fertilizer and women's clothing industries each with 9.1 per cent, automobile tires with 8.9 per cent, and hardware with 8.4 per cent. The pottery, hosiery, silk, foundry, baking, carriages, iron and steel, men's clothing, piano, and stove industries show gains ranging from 6.7 per cent to 5.6 per cent.

The slaughtering and meat-packing industry shows the largest decrease in pay-roll totals, 7.2 per cent, while chewing and smoking tobacco decreased 6.4 per cent and carpets 5.2 per cent.

[1] The greater number of industries with increased pay-roll totals in February is further illustrated by the table showing changes in per capita earnings. In February 28 of the 43 industries show increases in per capita earnings as compared with only 10 industries which showed such increases in the January report.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK IN JANUARY AND FEBRUARY, 1923.

Industry.	Establishments reporting for January and February.	Number on pay roll in one week.		Per cent of change.	Amount of pay roll in one week.		Per cent of change.
		January.	February.		January.	February.	
Agricultural implements	54	18,007	20,230	+12.3	$434,076	$499,768	+15.1
Automobiles	181	206,704	225,572	+9.1	6,006,614	7,254,714	+20.8
Automobile tires	76	44,688	46,811	+4.8	1,241,740	1,351,647	+8.9
Baking	169	25,980	27,259	+4.9	645,853	684,634	+6.0
Boots and shoes	153	85,183	85,911	+ .9	1,927,499	1,951,883	+1.3
Brick	193	14,996	14,907	− .6	344,155	339,000	−1.5
Car building and repairing	118	87,159	84,974	−2.5	2,318,498	2,307,070	− .5
Carpets	24	17,436	17,132	−1.7	469,469	445,080	−5.2
Carriages and wagons	34	2,640	2,748	+4.1	59,087	62,529	+5.8
Chemicals	96	19,683	20,082	+2.0	488,882	498,454	+2.0
Clothing, men's	143	49,503	50,700	+2.4	1,307,889	1,383,044	+5.7
Clothing, women's	149	14,218	14,900	+4.8	396,065	432,107	+9.1
Cotton finishing	25	15,986	15,784	−1.3	353,998	355,649	+ .5
Cotton manufacturing	157	126,970	127,478	+ .4	2,201,491	2,205,895	+ .2
Electrical machinery, apparatus, and supplies	91	71,396	73,239	+2.6	1,771,148	1,838,701	+3.8
Fertilizers	81	6,624	7,770	+17.3	110,913	121,006	+9.1
Flour	94	7,976	7,889	−1.1	198,577	195,849	−1.4
Foundries and machine shops	283	110,105	114,399	+3.9	2,983,022	3,167,969	+6.2
Furniture	156	28,597	29,055	+1.6	648,678	667,490	+2.9
Glass	107	31,146	31,676	+1.7	742,246	748,927	+ .9
Hardware	31	20,616	20,954	+1.6	450,212	487,807	+8.4
Hosiery and knit goods	136	49,088	49,657	+1.2	798,014	849,836	+6.5
Iron and steel	187	217,303	223,615	+2.9	5,968,489	6,308,584	+5.7
Leather	127	27,316	27,687	+1.4	631,174	654,486	+3.7
Lumber, millwork	178	23,526	23,801	+1.2	533,939	545,133	+2.1
Lumber, sawmills	243	64,600	66,303	+2.6	1,172,585	1,208,953	+3.1
Millinery and lace goods	47	6,986	7,254	+3.8	146,162	150,497	+3.0
Paper boxes	134	13,321	13,397	+ .6	255,886	259,110	+1.3
Paper and pulp	177	52,032	52,822	+1.5	1,274,084	1,305,468	+2.5
Petroleum	41	43,183	43,712	+1.2	1,352,895	1,355,756	+ .2
Pianos and organs	24	6,736	6,798	+ .9	173,720	183,588	+5.7
Pottery	50	10,878	11,184	+2.8	251,542	268,303	+6.7
Printing, book and job	134	21,730	21,792	+ .3	717,678	719,454	+ .2
Printing, newspapers	173	39,369	39,108	− .7	1,417,661	1,422,895	+ .4
Shipbuilding, steel	25	15,564	15,555	− .1	409,693	407,688	−.5
Shirts and collars	110	27,405	27,768	+1.3	408,105	406,973	−.3
Silk	132	41,556	42,460	+2.2	806,322	858,547	+6.5
Slaughtering and meat packing	85	89,143	85,259	−4.4	2,188,944	2,031,674	−7.2
Stamped ware	32	13,678	13,657	− .2	272,252	276,632	+1.6
Stoves	52	11,811	12,003	+1.6	300,022	316,748	+5.6
Tobacco, chewing and smoking	11	1,913	1,912	− .1	32,615	30,542	−6.4
Tobacco, cigars and cigarettes	170	32,282	32,081	− .6	586,614	563,689	−3.9
Woolen manufacturing	165	65,076	67,077	+1.5	1,466,960	1,495,045	+1.9

Comparative data relating to identical establishments in 13 manufacturing industries for February, 1923, and February, 1922, appear in the following table.

In this yearly comparison the number of employees increased in 11 industries and decreased in 2.

The largest increases were 47.3 per cent in the automobile industry, 45.2 per cent in car building and repairing, and 31.8 in the iron and steel industry.

Hosiery and knit goods and men's clothing show slight decreases.

The entire 13 industries show increased pay rolls in February, 1923, as compared with February, 1922. The iron and steel industry shows a gain of 84.6 per cent, the automobile industry of 79.2 per cent, car building and repairing of 47.4 per cent, cotton finishing of 31.8 per cent, and woolen manufacturing of 23.9 per cent.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK IN FEBRUARY, 1922, AND FEBRUARY, 1923.

Industry.	Establishments reporting for February, 1922, and February, 1923.	Number on pay roll in one week.		Per cent of change.	Amount of pay roll in one week.		Per cent of change.
		February, 1922.	February, 1923.		February, 1922.	February, 1923.	
Automobiles	43	93,285	137,407	+47.3	$2,517,473	$4,511,689	+79.2
Boots and shoes	74	56,338	57,435	+1.9	1,283,304	1,329,886	+3.6
Car building and repairing	56	38,756	56,265	+45.2	1,025,960	1,512,704	+47.4
Clothing, men's	43	29,471	29,320	−.5	813,674	875,015	+7.5
Cotton finishing	17	12,164	13,877	+14.1	234,596	309,207	+31.8
Cotton manufacturing	61	58,586	60,628	+3.5	979,461	1,075,469	+9.8
Hosiery and knit goods	76	30,495	30,172	−1.1	504,723	507,686	+.6
Iron and steel	108	119,463	157,430	+31.8	2,364,429	4,365,120	+84.6
Leather	32	11,470	12,394	+8.1	248,900	278,776	+12.0
Paper and pulp	48	23,068	24,568	+6.5	534,670	607,233	+13.6
Silk	43	17,523	17,647	+.7	366,641	385,064	+5.0
Tobacco, cigars and cigarettes	54	15,020	16,125	+7.4	253,036	282,256	+11.5
Woolen manufacturing	23	23,654	26,373	+11.5	499,905	619,383	+23.9

COMPARISON OF PER CAPITA EARNINGS IN FEBRUARY, 1923, WITH THOSE IN JANUARY, 1923.

Industry.	Per cent of increase (+) or decrease (−) in February, as compared with January.	Industry.	Per cent of increase (+) or decrease (−) in February, as compared with January.
Automobiles	+10.7	Printing, newspapers	+1.0
Hardware	+6.6	Lumber, millwork	+0.9
Hosiery and knit goods	+5.2	Paper and pulp	+0.9
Pianos and organs	+4.7	Paper boxes	+0.7
Silk	+4.2	Boots and shoes	+0.4
Clothing, women's	+4.1	Lumber, sawmills	+0.4
Automobile tires	+3.9	Woolen manufacturing	+0.4
Stoves	+3.9	Chemicals	−0.1
Pottery	+3.8	Printing, book and job	−0.1
Clothing, men's	+3.3	Cotton manufacturing	−0.2
Iron and steel	+2.7	Flour	−0.3
Agricultural implements	+2.4	Shipbuilding, steel	−0.4
Leather	+2.3	Glass	−0.8
Foundries and machine shops	+2.2	Millinery and lace goods	−0.8
Car building and repairing	+2.1	Brick	−0.9
Cotton finishing	+1.8	Petroleum	−1.0
Stamped ware	+1.8	Shirts and collars	−1.5
Carriages and wagons	+1.7	Slaughtering and meat packing	−3.0
Furniture	+1.3	Tobacco, cigars and cigarettes	−3.3
Electrical machinery, apparatus, and supplies	+1.2	Carpets	−3.5
Baking	+1.0	Tobacco, chewing and smoking	−6.3
		Fertilizers	−7.0

The amount of full-time and of part-time operation in February, 1923, in the establishments reporting as to their operating basis, is shown in the following table by industries.

A combined total of the reports in the 43 industries shows that 84 per cent of the establishments reporting were on a full-time basis, 14 per cent on a part-time basis, and 2 per cent were not in operation. A similar total of the reports received in January showed that 81 per cent of the establishments reporting were on a full-time basis. In February from 90 to 100 per cent of the establishments reporting

in 22 of the 43 industries were working full time, while in January only 16 industries were working 90 per cent or over of full time.

Women's clothing, pottery, and fertilizers show largely increased full-time operation and iron and steel plants reported a gain of 2 per cent in full-time operation.

FULL AND PART TIME OPERATION IN MANUFACTURING ESTABLISHMENTS IN FEBRUARY, 1923.

Industry.	Establishments reporting.			
	Total.	Per cent operating full time.	Per cent operating part time.	Per cent idle.
Agricultural implements	25	92	4	4
Automobiles	133	92	8	1
Automobile tires	70	71	23	6
Baking	119	97	3	.....
Boots and shoes	97	87	12	1
Brick	152	59	29	13
Car building and repairing	100	95	4	1
Carpets	18	100	.....	.....
Carriages and wagons	30	90	10	.....
Chemicals	64	92	8	.....
Clothing, men's	81	86	14	.....
Clothing, women's	51	96	4	.....
Cotton finishing	21	81	19	.....
Cotton, manufacturing	122	97	3	.....
Electrical machinery, apparatus, and supplies	44	95	5	.....
Fertilizers	76	76	17	7
Flour	72	28	72	.....
Foundries and machine shops	177	86	14	.....
Furniture	93	95	5	.....
Glass	88	57	31	13
Hardware	21	100	.....	.....
Hosiery and knit goods	82	79	21	.....
Iron and steel	137	71	21	8
Leather	77	84	14	1
Lumber, millwork	123	87	11	2
Lumber, sawmills	215	71	24	5
Millinery and lace goods	31	74	26	.....
Paper boxes	100	84	15	1
Paper and pulp	122	93	5	2
Petroleum	35	80	20	.....
Pianos and organs	12	100	.....	.....
Pottery	45	73	27	.....
Printing, book and job	86	95	5	.....
Printing, newspapers	120	100	.....	.....
Shipbuilding, steel	17	94	6	.....
Shirts and collars	71	94	6	.....
Silk	103	93	7	.....
Slaughtering and meat packing	53	92	6	2
Stamped ware	23	91	9	.....
Stoves	27	59	37	4
Tobacco, chewing and smoking	8	75	25	.....
Tobacco, cigars and cigarettes	122	82	17	1
Woolen manufacturing	142	97	3	.....

Wage changes effective between January 15 and February 15 were reported by 252 establishments in 40 of the 43 industries here considered. All these changes were increases except one—a decrease of 2.5 made by a newspaper printing establishment.

The greatest number of increases reported in any one industry, 28, was in foundries and machine shops, followed by 21 in sawmills, and 20 in iron and steel works. Car building and repairing and furniture establishments each reported 13 advances, and brick and leather plants each 11, followed by woolen manufacturing plants with 10.

WAGE ADJUSTMENTS OCCURRING BETWEEN JANUARY 15 AND FEBRUARY 15, 1923.

Industry.	Number of establishments.	Per cent of increase.	Per cent of total employees affected.
Agricultural implements	1	10.3	1
	1	10	14
	1	9.5	6
	1	7.5	50
Automobiles	1	11.1	22
	1	10	4
	1	6	7
	1	5	65
Automobile tires	2	10	100
	1	10	3
	1	5	2
Baking	1	10	16
	1	10	12
	1	9	3
Boots and shoes	1	10–15	2
Brick	1	18	100
	4	12.5	84
	1	10	100
	4	5	100
	1	5	(1)
Car building and repairing	1	15	12
	4	12.5	5
	4	12	5
	1	11.1	14
	1	11.1	2
	1	10	100
	1	8	9
Carpets	2	10	24
Carriages and wagons	1	12	7
	1	10	3
	1	7	6
	1	2.5–5	25
	1	(2)	10
Chemicals	1	10	85
	1	10	30
	1	8.2	7
	1	6	100
Clothing, men's	1	8	49
	1	5	33
Clothing, women's	1	15	41
	1	10	19
	1	10	16
	1	3.5	26
	1	1	4
Electrical machinery, apparatus, and supplies	1	16–20	11
	1	12.5	6
	2	10	25
	1	5	70
	1	5	7
	1	1	24
	1	(3)	100
Fertilizers	1	20	100
	1	20	55
	1	7	69
Flour	1	12	10
Foundries and machine shops	1	20	20
	1	16	5
	1	13	14
	1	13	3
	1	11	(1)
	2	10	100
	1	10	23
	1	10	17
	1	10	12
	1	10	5
	1	10	(1)
	1	9.4	14
	1	6.5	9
	1	6	75
Foundries and machine shops	1	5.5	4
	3	5	100
	1	5	93
	1	5	11
	2	5	10
	1	5	7
	1	3.5	7
	1	2	95
	1	(4)	100
	1	(3)	100
Furniture	1	12	24
	1	10	6
	1	10	4
	1	9	21
	1	9	4
	1	6.2	17
	1	6.1	16
	1	6	3
	1	5–15	15
	1	4	4
	2	(1)	7
	1	(1)	(1)
Glass	1	16	64
	1	13	100
	1	5	88
	1	3	100
	1	3	(1)
Hardware	1	10	3
	1	8.2	25
Hosiery and knit goods	1	10	12
	1	5	91
	1	5	46
Iron and steel	1	12.5	10
	1	12	54
	1	11.6	100
	1	11	3
	10	10	100
	1	8	100
	1	8	25
	1	7	50
	1	6	100
	1	5–10	38
	1	5	25
Leather	1	10	34
	1	8.3	24
	1	8	77
	1	8	30
	1	8	13
	1	7	100
	1	7	90
	1	7	20
	1	5–8	65
	1	5	8
	1	4	47
Lumber, millwork	1	10	100
	1	10	50
	1	10	16
	1	5–10	9
	1	5	95
	1	5	3
	1	(5)	100
	1	(6)	100
	1	(2)	88
Lumber, sawmills	7	10	100
	1	10	90
	1	10	81
	1	10	46
	1	10	30
	1	8	100
	1	8	90
	2	8	58
	1	5	95

[1] Not reported.
[2] 2½ to 5 cents per hour increase.
[3] 3 cents per hour increase.
[4] 5 cents per hour increase.
[5] 50 cents per day increase.
[6] 25 cents per day increase.

WAGE ADJUSTMENTS OCCURRING BETWEEN JANUARY 15 AND FEBRUARY 15, 1923—Concluded.

Industry.	Number of establishments.	Per cent of increase.	Per cent of total employees affected.
Lumber, sawmills	1	5	42
	1	(5)	100
	1	(6)	97
	1	(4)	93
	1	(1)	100
Millinery and lace goods	2	15	11
	2	7	13
Paper boxes	2	20	67
	1	12	35
	1	11.5	13
	1	10	16
	1	10	11
	1	10	10
	1	10	4
	1	7.2	3
Paper and pulp	1	13	100
	2	12	100
	2	7	100
	1	6	100
Petroleum	1	3.8	88
Pianos and organs	1	8	8
	1	5	10
Pottery	1	4.5	24
	3	3–10	18
Printing, book and job	1	13	17
	1	10	55
	1	10	6
	2	10	3
	1	7	20
	2	6.5	7
	1	3.5	70
Printing, newspapers	1	10.6	28
	1	4	7
	1	7 2.5	23
Shipbuilding, steel	1	10	88
Shirts and collars	1	10	100
	1	7	22
	1	6.5	72
Silk	1	10	47
	1	10	16
	1	8	54
	1	6	23
Slaughtering and meat packing	1	6	3
Stamped ware	1	14.5	7
	1	11.5	15
Stoves	1	15	17
	2	10	100
	1	10	49
	1	7.3	24
	2	5–16.6	100
Tobacco, cigars and cigarettes	1	12	67
	1	12	60
	1	10	100
	1	7	55
	1	10	59
Woolen manufacturing	1	10	9
	1	10	7
	1	10	3
	1	8	92
	1	5–10	11
	1	5–8	37
	1	5	100
	1	4.8	71
	1	(8)	28

[1] Not reported.
[4] 5 cents per hour increase.
[5] 50 cents per day increase.
[6] 25 cents per day increase.
[7] Decrease.
[8] $1 to $2 per week increase.

Index of Production in Selected Basic Industries, 1913 to February, 1923.

THE following index numbers of production in the United States have been issued by the Federal Reserve Board. These figures are a combination of the production figures for each of 22 industrial commodities. The items included are pig iron, steel ingots, flour, cotton, wool, sugar, animals slaughtered (4), lumber, bituminous coal, anthracite coal, copper, slab zinc, sole leather, newsprint paper, cement, crude petroleum, and tobacco (3).

Cotton is measured by consumption, and wool by machinery active. The figures for animals slaughtered cover hogs, cattle, calves, and sheep slaughtered under Federal inspection. Tobacco includes cigars, cigarettes, and manufactured tobacco and is measured by revenue stamps sold.

In the construction of the index the production of each commodity was weighted by both the value added to it in all processes of manufacture, and by the number of men working upon it in all stages of manufacture as shown by the census of 1919. The series of relative numbers for each of the commodities were corrected to allow for regular seasonal changes, thus eliminating the effect of such movement from the final index.

The monthly average for 1919 is taken as the base, or 100. While the commodities entering into the index are few in number it is believed that the index will be of much service.

It will be observed that 1923 opens with a volume of production greater than at any other time since May, 1917, thus indicating more employment in these industries than for a period of nearly six years. February, 1923, shows a production 63 per cent greater than July, 1921, the low-water mark of production in the period reported.

INDEX OF PRODUCTION IN BASIC INDUSTRIES—COMBINATION OF 22 INDIVIDUAL SERIES CORRECTED FOR SEASONAL VARIATIONS, 1913 TO FEBRUARY, 1923.

[Reported by Federal Reserve Board. Monthly average, 1919=100.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
January	102.6	89.9	78.1	112.1	118.8	104.0	107.3	115.8	83.9	86.5	120.7
February	100.2	92.7	88.5	116.2	113.8	105.3	100.3	114.8	84.3	90.5	120.6
March	94.6	93.8	87.2	113.9	116.1	111.6	96.2	114.5	81.0	94.9	.....
April	100.7	93.1	90.9	110.8	119.4	115.0	98.8	107.6	78.6	85.3	.....
May	99.0	88.6	89.9	113.6	122.6	115.1	92.9	105.4	76.7	92.1	.....
June	95.3	94.0	95.2	114.2	117.8	110.3	92.9	106.8	76.7	94.2	.....
July	96.4	89.4	97.3	109.0	112.0	115.9	101.6	104.9	74.1	94.8	.....
August	92.9	82.5	96.1	112.4	111.3	114.7	103.4	102.1	78.5	93.9	.....
September	96.2	85.5	102.8	113.3	110.2	111.7	104.6	101.7	79.1	99.9	.....
October	97.4	81.7	104.0	116.6	116.0	106.2	101.1	99.0	82.7	106.9	.....
November	91.7	77.1	108.5	120.7	118.2	106.3	97.9	95.3	85.6	115.5	.....
December	91.7	77.5	116.5	116.0	111.7	108.0	103.3	89.6	83.3	115.6	.....

Employment and Earnings of Railroad Employees, January and December, 1922, and January, 1923.

THE following tables show the number of employees and the earnings in various occupations among railroad employees in January, 1923, in comparison with employment and earnings in January and December, 1922.

These tables are in continuation of those given in the MONTHLY LABOR REVIEW for December, 1922, and March, 1923.

The figures are for class 1 roads—that is, all roads having operating revenues of $1,000,000 a year and over.

COMPARISON OF EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES IN JANUARY, 1923 WITH JANUARY AND DECEMBER, 1922.

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items shown under the respective groups.]

Month and year.	Professional, clerical, and general.			Maintenance of way and structures.		
	Clerks.	Stenographers and typists.	Total.	Laborers (extra gang and work train).	Track and roadway section laborers.	Total.
	Number of employees at middle of month.					
January, 1922	160,088	24,188	267,749	26,310	157,859	294,901
December, 1922	167,989	24,538	281,324	36,345	175,955	336,672
January, 1923	167,780	24,712	280,175	35,114	171,363	326,783
	Total compensation.					
January, 1922	$20,028,069	$2,865,767	$35,227,524	$1,875,416	$11,292,823	$26,944,728
December, 1922	20,792,662	2,850,009	36,745,836	2,503,090	11,883,581	29,335,680
January, 1923	21,013,980	2,900,003	36,943,092	2,589,461	12,274,376	29,955,984

COMPARISON OF EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES IN JANUARY, 1923, WITH JANUARY AND DECEMBER, 1922—Concluded.

	Maintenance of equipment and stores.					
	Carmen.	Machinists.	Skilled trades helpers.	Laborers (shops, engine houses, power plants, and stores).	Common laborers (shops, engine houses, power plants, and stores).	Total.
	Number of employees at middle of month.					
January, 1922	109,709	54,594	96,675	43,287	48,486	470,973
December, 1922	133,674	65,359	135,871	51,341	61,190	574,250
January, 1923	132,311	66,286	136,620	52,820	63,253	580,324
	Total compensation.					
January, 1922	$15,395,224	$8,196,498	$10,430,411	$4,096,261	$3,797,359	$59,407,104
December, 1922	19,225,517	11,684,552	15,842,979	5,090,296	4,951,332	77,476,636
January, 1923	19,409,896	11,958,617	15,940,584	5,217,408	5,205,802	78,755,708

	Transportation, other than train, engine, and yard.					Transportation (yardmasters, switch tenders, and hostlers).
	Station agents.	Telegraphers, telephoners, and towermen.	Truckers (stations, warehouses, and platforms).	Crossing and bridge flagmen and gatemen.	Total.	
	Number of employees at middle of month.					
January, 1922	31,568	26,164	32,428	22,279	194,890	22,973
December, 1922	31,502	27,519	42,109	21,693	212,707	25,849
January, 1923	31,560	27,507	38,884	21,682	207,924	26,130
	Total compensation.					
January, 1922	$4,683,035	$3,778,903	$2,918,974	$1,712,046	$23,102,019	$3,926,457
December, 1922	4,721,556	4,059,998	3,673,806	1,562,170	25,039,483	4,639,848
January, 1923	4,738,961	3,995,218	3,436,804	1,561,866	24,594,358	4,678,857

	Transportation, train and engine.					
	Road conductors.	Road brakemen and flagmen.	Yard brakemen and yard helpers.	Road engineers and motormen.	Road firemen and helpers.	Total.
	Number of employees at middle of month.					
January, 1922	32,995	68,836	43,858	40,005	42,291	285,270
December, 1922	38,295	79,907	54,785	46,911	49,282	341,751
January, 1923	38,211	79,777	55,062	47,251	49,243	342,062
	Total compensation.					
January, 1922	$7,004,924	$10,222,590	$6,578,427	$9,492,278	$7,008,877	$50,133,897
December, 1922	9,173,407	13,985,498	9,185,794	12,628,860	9,356,228	67,726,794
January, 1923	9,203,831	14,040,334	9,329,220	12,715,171	9,418,099	68,298,003

Extent of Operation of Bituminous Coal Mines, February 3–24, 1923.

CONTINUING a series of tables which have appeared in previous numbers of the MONTHLY LABOR REVIEW, the accompanying table shows for a large number of coal mines in the bituminous fields the number of mines closed the entire week and the number working certain classified hours per week from February 3, 1923, to February 24, 1923. The number of mines reporting varied each week, and the figures are not given as being a complete presentation of all mines but are believed fairly to represent the conditions as to regularity of work in the bituminous mines of the country. The mines included in this report ordinarily represent from 55 to 60 per cent of the total output of bituminous coal. The figures are based on data furnished the Bureau of Labor Statistics by the United States Geological Survey.

WORKING TIME IN BITUMINOUS COAL MINES IN THE UNITED STATES, BY WEEKS, FEBRUARY 3 TO FEBRUARY 24, 1923.

[The mines included ordinarily represent from 55 to 60 per cent of the total output. Prepared by the Bureau of Labor Statistics from data furnished by the United States Geological Survey.]

Week ending—	Number of mines reporting.	Mines—															
		Closed entire week.		Working less than 8 hours.		Working 8 and less than 16 hours.		Working 16 and less than 24 hours.		Working 24 and less than 32 hours.		Working 32 and less than 40 hours.		Working 40 and less than 48 hours.		Working full time of 48 hours or more.	
		No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Feb. 3...	2,468	146	5.9	233	9.4	797	32.3	595	24.1	303	12.3	161	6.5	122	4.9	111	4.5
10...	2,481	152	6.1	218	8.8	740	29.8	571	23.0	322	13.0	195	7.9	161	6.5	122	4.9
17...	2,513	212	8.4	281	11.2	757	30.1	511	20.3	306	12.2	182	7.2	140	5.6	124	4.9
24...	2,411	221	9.2	285	11.8	732	30.4	511	21.2	245	10.2	172	7.1	131	5.4	114	4.7

Recent Employment Statistics.

Illinois.

THE following figures showing changes in volume of employment in Illinois from December 15, 1922, to January 15, 1923, are taken from the Employment Bulletin of January, 1923, published by the State Department of Labor:

COURSE OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN 13 INDUSTRIAL GROUPS IN ILLINOIS FROM DECEMBER 15, 1922, TO JANUARY 15, 1923.

Industry.	Number of establishments.	Number of employees, Jan. 15, 1923.	Percentage of change Dec. 15, 1922, to Jan. 15, 1923.
Stone, clay, and glass products	76	10,659	−3.6
Metals, machinery, and conveyances	350	130,214	+1.1
Wood products	128	14,681	− .1
Furs and leather goods	61	14,717	+1.2
Chemicals, oils, paints, etc	58	10,865	+ .8
Paper	8	617	+1.0
Printing and paper goods	130	14,879	− .3
Textiles	24	4,959	0.0
Clothing, millinery, and laundering	127	29,112	−1.4
Food, beverages, and tobacco	207	40,882	−2.6
Total manufacturing industries	1,169	271,585	−1.0
Public utilities	66	71,710	− .1
Coal mining	64	18,001	+1.3
Building and contracting	191	8,509	−3.8
Grand total	1,490	369,805	− .1

Statistics on the activities of the Illinois free employment offices in the first and last months of 1922 are given below:

COMPARISON OF SUPPLY AND DEMAND FOR LABOR IN FREE STATE EMPLOYMENT OFFICES IN THE FIRST AND LAST MONTHS OF 1922.

Item.	January, 1922.	December, 1922.
Registrations	22,624	22,845
Help wanted	9,732	17 356
Referred	10,067	16,657
Reported placed	8,049	13,168

The number of building permits in January, 1922, in 12 Illinois cities was only 705, compared with 1,223 in December of that year and 1,451 in January, 1923. The estimated cost of the work represented by these permits was $9,028,672 in January, 1922; $35,450,657 in December, 1922; and $20,066,102 in January, 1923.

Iowa.[1]

GAIN in employment in 10 industrial groups in Iowa in December, 1922, as compared with January, 1922, and in January, 1923, as compared with January, 1922, are shown in the following statement:

[1] Iowa. Bureau of Labor Statistics. Iowa Employment Survey, Des Moines, January, 1923, p. 1.

PERCENTAGE OF GAIN IN EMPLOYMENT IN SPECIFIED INDUSTRIES IN IOWA IN DECEMBER, 1922, AND JANUARY, 1923, AS COMPARED WITH JANUARY, 1922.

Industry.	Percentage of gain.	
	December over January, 1922.	January, 1923, over January, 1922.
Food and kindred products	19.7	19.0
Textiles	7.2	13.1
Iron and steel work	110.0	113.8
Lumber products	30.0	31.0
Leather products	29.9	36.6
Paper products, printing and publishing	9.1	12.4
Patent medicines, chemicals, and compounds	17.3	18.4
Stone and clay products	86.1	85.8
Tobacco and cigars	9.0	9.4
Various industries	15.4	12.6
Total	33.1	45.7

There was a total gain of 2 per cent in January, 1923, over December, 1922, in 11 industrial groups.

In 12 Iowa cities, each with a population of 10,000 or over, the total building permits in January, 1922, numbered 260 with a valuation of $404,945, while in the corresponding month of the present year there were 409 such permits with a valuation of $1,257,991.

Minnesota.

IT WAS unprecedentedly difficult during February to secure men for the lumber camps in the northern section of Minnesota, according to a recent statement received from the Minnesota Industrial Commission. It was also exceptionally difficult to induce men to take jobs on farms, although hundreds of men reported daily at the Twin City offices in search of employment. In this connection the commissioner in charge of the public employment offices of the State declares that the situation is not easy to understand, especially when lumbermen and farmers are paying higher wages this year than in the preceding year, unless the condition is attributed to watchful waiting on labor's part for early employment in road and building construction work.

The State free employment bureaus in St. Paul, Minneapolis, and Duluth reported for February, 1923, 4,271 persons referred to positions and 3,497 verified placements. In the same month in 1922, 3,060 applicants were referred to positions and there were 2,299 verified placements. The number of persons registered for employment in the three cities in February, 1923, was 5,728, which was 1,457 in excess of the number referred to positions, despite the fact that there were over 500 unfilled orders for workers on farms and in lumber camps in the three bureaus at the end of the month.

Nevada.[1]

THE activities of employment agencies in Nevada for the last three years are shown in the following table:

STATISTICS OF FEE-CHARGING EMPLOYMENT AGENCIES IN NEVADA, 1920, 1921, AND 1922.

Year.	Number of persons engaged.		Fees refunded (position not secured).	Fees refunded (for cause).	Expenses refunded.	Fees charged.
	Male.	Female.				
1920	4,365	5	$105.00	$39.00	$5.84	$6,328.55
1921	1,728	.....	274.00	29.50	18.88	2,653.50
1922 (11 months)	2,008	12	129.00	.....	102.79	2,844.50

The farming industry of the State is recorded as having been "forced to supreme retrenchment" in the matter of labor employment in 1921. Building activities are reported as above normal in the biennium 1921–1922. Employment in transportation is said to be above pre-war numbers and the interstate haulage, indicative of "healthy business." The present situation seems to promise improvement in farm, mining, and transportation employment in 1923.

Regularizing Employment in the Building Trades in San Francisco.

THE Industrial Association of San Francisco, which has been conducting a campaign for the open shop, gives in its official organ, The American Plan, for January, 1923, some details concerning its assistance to workers whom, in pursuance of the campaign, it has brought into the city. This account incidentally casts some light on the amount of time lost by building workers for lack of an intelligent coordination of employment demands. Hunting for jobs and inability to work because of weather conditions cause a loss of time which, in the face of the growing scarcity of skilled workers, is damaging to the industry as well as to the workers. How this loss was diminished or entirely prevented is briefly described below:

> The representatives of our inspection and employment department also keep accurately informed as to the exact time when jobs will be completed and when new jobs will be commenced. Thus we are able to keep the men employed continuously, as we transfer them from one job to another, instead of forcing them to lose a half day or a day in going to the employment department. In this way we take up the "slack," and have been able to carry on a given amount of work with fewer mechanics than would otherwise have been possible, as in the past most mechanics have lost at least two days a month in going about to secure jobs. For example, 200 men in the plastering craft, forced to look for jobs in the old way, would mean the loss of 3,200 man-hours in a month—enough time lost to have completed two six-story buildings. Again, when the bricklayers and plasterers who were working in the open were laid off on account of the rain, representatives of the association's inspection and employment department found jobs for them immediately on inside work. In many cases the men did not lose even an hour, as they were taken from job to job in machines.

[1] Nevada. Commissioner of Labor. Biennial report, 1921–1922. Carson City, 1923, p. 98.

Increased Employment in New York State, as Indicated by Gains in Building Activity.[a]

THE plans for industrial buildings outside of Greater New York for 1922 are indicative of still further improvement in employment conditions, since not only will the construction work afford employment, but the buildings constructed will afford greater accommodations for industry. These plans represent an expenditure of approximately $6,400,000 above the amount for 1921, the total for the 513 plans in 1922 being $15,730,167 and for the 379 plans in 1921, $9,334,221. The aggregate estimated expenditure for new construction represented by the 1922 plans was $14,000,000; by the 1921 plans, $8,390,000. July was the record month of 1922, the plans submitted in that month calling for expenditures of nearly $3,000,000.

Progress in building in principal cities.—The estimates for authorized building work in the 10 largest cities of New York in November amounted to $60,430,976, which sum is $5,000,000 above the estimates for building work in the preceding month. The November figure exceeds that of any previous month in 1922, except June and March. There are no signs of a slackening of the present unusual building activity or even of the customary seasonal decline in the filing of plans for new enterprises. The estimated cost of authorized building was $12,000,000 higher in November, 1922, than in November, 1921. "The total estimated value of building work for 11 months of 1921 was over $450,000,000"; for 11 months of 1922, more than $600,000,000. An increase in the estimates for building work may mean a larger amount of work to be done or a rise in the cost of materials and labor—or possibly both of these factors. The average cost for the 1922 building season did not greatly differ from that of 1921.

Unemployment in Foreign Countries.[1]

SINCE the last publication in the MONTHLY LABOR REVIEW (January, 1923, pp. 125–134) of data on unemployment in foreign countries the situation as regards the state of employment has in most countries taken a turn for the worse. It is extremely difficult to give a sound and accurate survey of economic and employment conditions in Europe at the present time. The data contained in the present article refer in most instances to December, 1922, without reference to the developments during January, which alter considerably the significance of economic progress during the months immediately preceding. In general, during 1922 the countries in western Europe were working back to normal peace-time conditions in industry and commerce. Unemployment generally decreased, production was greater, consumption of foodstuffs and raw materials was increasing, and stocks correspondingly diminishing. However,

[a] New York. Industrial Commissioner. The Industrial Bulletin, Albany, December, 1922, pp. 64 and 66.

[1] Except where otherwise noted the sources from which this article is compiled are shown in the table on pp. — and —.

in spite of general improvement in economic conditions, unemployment, the most distinct sympton of the present economic world crisis, although diminishing in some countries, becomes at times more acute in other countries.

Briefly summarized, the situation in the individual countries at the latest date for which data are available is as follows:

Great Britain.—The employment situation in Great Britain is given in detail on pages 119 and 120 of this issue of the MONTHLY LABOR REVIEW.

Germany.—The Reichs-Arbeitsblatt of February 1, 1923, in its summary of employment conditions in December, 1922, states that the end of the year brings with it regularly a marked drop in employment. This was clearly so in December, but at the same time certain other causes were at work which were independent of the season. The inferences to be drawn from the various sets of statistical data relating to the labor market are not uniform in character. On the whole, employment appeared to be not so good, but in individual industries, such as the metal-working, electrical, and chemical industries, it was still satisfactory. Employment was less favorable, without being decidedly bad, in the textile industry. In the building trades, the food industries, and especially in the tobacco industry it was bad, as it was also to a somewhat lesser degree in the leather industry and in the printing trades.

Reports [2] from 1,653 typical establishments employing 1,316,000 workers show that employment on January 15, 1923, was good or fair in 74 per cent (as against 80 per cent on December 15, 1922) of the reporting establishments, and bad in the remaining 26 per cent (20 per cent on December 15, 1922). The prospects for the immediate future are considered good by 27 per cent of the reporting establishments, fair by 38 per cent, and bad by 32 per cent, 3 per cent of the establishments expressing no opinion.

Unemployment statistics published in the Reichs-Arbeitsblatt of of February 1, 1923, indicate a considerable increase in the number of totally unemployed persons who received unemployment donations, their number having risen from 42,860 on December 1 to 82,427 on January 1, or by 92 per cent. Male recipients increased by almost exactly 100 per cent and female by 60 per cent.

Returns from trade-unions also indicate a further increase of unemployment in December. Out of 6,455,475 organized workers covered by the statistics, 182,955, or 2.8 per cent, were out of work on the last day of the month, as against 2 per cent at the end of November. Reports from 37 federations (covering 5,600,000 members) on short-time work show that 492,711 members, or 8.7 per cent, were on short time in December, as against 7.5 per cent in November. The proportion of short-time workers was greater among women and girls (18.6 per cent) than among men (5.1 per cent).

At public employment exchanges 733,243 applications for employment were registered during December as against 797,348 in November, a decline of 8 per cent. The vacancies reported by employers, however, were 22 per cent less in number than in the pre-

[2] Reichs-Arbeitsblatt, Berlin, Feb. 16, 1923, p. 61.

ceding month, with the result that for every 100 vacancies for men there were 219 applicants (as against 175 in November), and for every 100 vacancies for women 155 applicants (as against 148 in November).

France.—In France unemployment is almost nonexistent, the total number of unemployed receiving benefits from departmental or municipal unemployment funds being only 2,690 on February 15, 1923, as against 91,225 in March, 1921, when unemployment was at the highest level in France. Unemployment funds exist now in 31 (approximately one-third) of the departments in France, in addition to 233 municipal funds. Of this total of 264 funds there are now only 41 (6 departmental and 35 municipal funds) in operation, thus indicating a general industrial improvement throughout the country, as compared with a year ago.

A cable from the American commercial attaché at Paris, dated February 9, 1923 (Commerce Reports, February 19, 1923), states that developments in the Ruhr are the outstanding factor in the French economic situation. Activity in iron and steel, the industry groups most immediately affected, has been cut down by inability to secure coke. A falling off is also noticed in the leather, cotton, and wool industries. It was estimated that on February 1 a total of approximately 15,000 workers were idle.

Italy.—According to a report received by the British Ministry of Labor from the British commercial secretary at Rome, 381,968 persons were reported to be totally unemployed on January 1, 1923, as compared with 354,238 on December 1, 1922. In addition, 42,558 were partially unemployed on January 1 as against 43,140 at the beginning of December.

A report from the American consul at Rome, dated January 19, 1923, states that unemployment has steadily increased in Italy during the last three months of the year, but unemployment always increases with the approach of winter in the predominatingly agricultural Provinces of Veneto, Emilia, Abruzzi, and Puglia. A slight decrease in unemployment for the entire year is, however, observable in the Provinces which are both agricultural and industrial, such as Piedmont, Liguria, Tuscany, Venezia Giulia, Lazio, Umbria, and the islands of Sicily and Sardinia. Unemployment maintained itself at a stationary level in Lombardy, Venezia Tridentina, Marche, Campania, Basilicata, and Calabria.

Belgium.—Official unemployment statistics for Belgium indicate that there is relatively little unemployment in that country, and that the number of unemployed at the end of December was practically the same as at the end of November. A joint report of the American commercial attaché and the American consuls at Ghent and Antwerp, dated February 17, 1923 (Commerce Reports, February 26, 1923), states, however, that the Belgian business situation presents many of the characteristics of an artificial boom period. The temporary removal of German competition is helping all industries, and the situation, although outwardly favorable, is therefore based on fundamentally unhealthy factors.

Since the occupation of the Ruhr the Belgian iron and steel industry is greatly handicapped, for it is dependent upon foreign deliveries of coking coal for about one-third of its supply. Hence,

reduced coke production is cutting down the number of blast furnaces in operation. Imports of coke are now subject to license, and projects of rationing domestic coke are now under consideration. The Belgian machinery and automobile industry are temporarily paralyzed by exchange developments.

An upward tendency of raw flax prices is noted, but high prices prevent buying on the part of local spinners. Cotton spinners are generally not in the market during the present exchange crisis, on account of uncertain yarn prices. While the future of flax and cotton textiles is uncertain, mills generally have sufficient stocks and orders to insure operation for about two months.

Plate-glass plants are operating to full capacity and are accepting no new orders. Special glass and mirror plants are fully occupied. Window glass manufacturing is handicapped by rising production costs. Nineteen furnaces are now in operation, and the oriental and American demand is active. The table and cut glass market is much improved, with decreased German exports aiding Belgian business.

The shipping situation has not materially changed, although some German traffic to Antwerp is being diverted to Dutch and German ports. The diamond industry has improved, and practically all cutters are working at full capacity.

The Netherlands.—According to official statistics the per cent of unemployed among members of unemployment funds was 15.8 on December 30, as against 12.5 on December 2. Unemployment was most extensive in the building trades, metal working, agriculture, transportation, woodworking, the diamond industry, tobacco industry, and among factory workers.

Some of the industries of the Netherlands, especially the leather, shoe, clothing, and tobacco industries, complain of heavy foreign competition and therefore demand a higher protective tariff or even an embargo on imports. In the shipbuilding industry many workers had to be discharged during the last few months owing to lack of new orders.

Switzerland.—Unemployment again slightly increased in Switzerland during January. The number of totally unemployed persons, inclusive of those employed on emergency relief works, rose from 53,463 at the end of December to 56,275 at the end of January. Considered by occupational groups there was an increase in the number of unemployed in the following groups: Textile industry (888), unskilled workers (778), woodworking and glass industries (253), building trades, building materials, and painting (662), commerce (212), hotels (194), agriculture and gardening (169), domestic service (155), clothing and leather industries (120), forestry and fishing (86), transportation (75), mining (60), chemical industry (35), printing trades and paper industry (12). The principal decreases in unemployment were reported by the metal-working, machinery, and electrical industries (399), the professions (219), the watch and jewelry industries (205), and the foodstuff and beverage industries (54).

As totally unemployed were also counted 12,264 persons employed on emergency relief works. The number of actually unemployed was therefore only 44,131 (37,988 men and 6,143 women). Of this number 23,853 received unemployment donations.

The number of short-time workers decreased from 20,429 at the end of December to 19,868 at the end of January. The principal increases in the number of short-time workers were reported by the textile industry (732) and the printing trades and paper industry (493). In most of the other groups there was a decrease in short-time work.

Denmark.—The employment situation in Danish agriculture has improved, but in industry unemployment again increased in December. Unemployment had steadily decreased up to the beginning of October, when the number of unemployed persons had fallen to 30,719. After that time it again increased to over 40,000 at the end of November and to 55,600 at the end of December. Corresponding to the season unemployment was especially acute in the building trades. Building trades workers formed 24.9 per cent of the unemployed at Copenhagen and 34 per cent in the Provinces.

Norway.—A report from the American assistant trade commissioner at Copenhagen dated February 17, 1923 (Commerce Reports, March 5, 1923), states that, although all industries are now moderately busy in Norway, the industrial situation in January remained unfavorable. The labor difficulties in Sweden are causing an increase in the demand for Norwegian paper pulp, and a rise in the price of this product. Fishing shows losses due to a serious drop in the Russian market.

Unemployment about the middle of February was placed at 30,000, as compared with 26,000 for January 14, while 15,000 men are being employed on emergency works. Unless the labor court act is extended it seems that serious labor disputes can not be avoided, as there is an evident intention in several industries to continue the struggle against wage reductions.

Sweden.—During 1922 Sweden experienced a general increase in production with a corresponding decrease in employment. The lumber, wood pulp, and paper industries were in good condition at the end of the year, with the iron industry improving slowly and textiles recovering very rapidly. The machinery industry suffers from German competition.

The State unemployment commission has recently submitted to the Ministry of Social Welfare a report on its activities during 1922, together with its program of relief for 1923. The report is summarized in Sociala Meddelanden (No. 1A, 1923, pp. 32–35). The report begins with a summary of the state of the labor market during 1922, and the measures which have been taken by the public authorities to alleviate unemployment. The crisis culminated at the end of January, 1922, when there were 163,000 unemployed. There was a marked improvement during the following months, but even in April the unemployed numbered more than 100,000. As the prospects for the future were also extremely uncertain, Parliament felt obliged to grant relief credits amounting to a total of 85,000,000 kronor ($22,780,000, par) for 1922, and 5,000,000 kronor ($1,340,000, par) for 1923. The state of the labor market, however, improved, and it became evident that the improvement was not merely a seasonal one but that a return to more normal conditions could be anticipated. During the latter part of the summer the

number of unemployed fell to 35,000, the improvement being particularly marked in the lumber and building industries.

Under these circumstances and in consideration of the fact that in the early months of the year the original relief program had been considerably exceeded, the commission considered it wise to take action to exclude from relief such labor as could find suitable occupation during the summer months. This exclusion was continued during the autumn months, owing to the steady improvement of the labor market. The grant of unemployment relief has been continued only to those classes of workers among whom there is extensive unemployment, in particular, miners, iron workers, machinists, and commercial employees. Unmarried persons have been totally excluded from relief by means of cash doles. As a result of the restrictions imposed by the commission relief activities have been considerably reduced. The maximum number receiving money relief during the winter was 65,000, and of persons employed on relief works, 31,000. During the late summer months the corresponding figures were 2,000 to 2,500 and 20,000, respectively, and have not since increased.

The commission points out that the aid granted by the State has to an increasing extent taken the form of relief works. The work done has been principally on roads—not less than 960 kilometers (596.5 miles) have been built or repaired during 1922. A considerable amount of work has also been done in the State forests and on irrigation works, land settlement schemes, recreation grounds, etc. The commission has endeavored to conform to the principle that the work, besides being of public utility and located near the unemployment centers (these factors have, of course, been decisive) should be such as did not require highly skilled labor and could be left unfinished if the number of unemployed decreased. The total of 70,000,000 kronor ($18,760,000, par) expended by the State during 1921 and 1922 on relief works of various kinds has, according to the commission, been really usefully employed.

As regards its wage policy the commission states that during the spring measures were taken to reduce the wages of relief workers so as to fix a lower rate than that paid to unskilled workers in the open labor market.

The expenditure of the commission during 1922 was 71,300,000 kronor ($19,108,400, par). A balance of 16,700,000 kronor ($4,475,600, par), plus the sum of 5,000,000 kronor ($1,340,000, par) provided by the 1922 Parliament for 1923, is available for the present year. Further, a sum of about 15,200,000 kronor ($4,073,600, par) can be counted on in the course of six quarters as payment falls due from municipalities, district road councils, etc., on the completion of the various works.

On this basis and on the assumption that unemployment in Sweden will continue gradually to decrease the commission is of the opinion that it is not necessary to ask Parliament for any grants in aid of unemployment relief during 1923. The commission has drawn up a program of relief activities for the period January 1, 1923, to May 1, 1924. It calculates that the number of persons needing relief for the first five months of 1923 will be about 24,000 and will gradually decrease to about 6,000 during the corresponding period of 1924. In

this case the expenditure up to May 1, 1924, should amount to about 29,400,000 kronor ($7,879,200, par). The commission considers that by the latter date there will no longer be any necessity for its further existence. The three labor members of the commission, however, consider the forecast of the majority too optimistic and dissent from the recommendation not to ask Parliament for further credits for 1923. They also consider that it will not be possible for the commission to discontinue its activities until the question of unemployment insurance has been dealt with.

At the end of December, 1922, the total number of unemployed was 45,900, of which 21,400 were in the cities and 24,500 in the country. This shows an increase of about 2,400, as compared with the month of November. A total of 6,200 unemployed persons were in receipt of unemployment doles on December 31, 1922; about 3,300 were employed on municipal relief works and about 13,800 on State relief works.

Finland.—A report from the American consul at Helsingfors, dated January 18, 1923, states that according to information furnished by the Labor Bureau of Finland unemployment in that country is much less now than it was a year ago, although it was not very great even at that time. It appears that the labor market in general in Finland will be more satisfactory this winter than before and that only the metal-working industries will experience difficulties. Unemployment in harbor work can never be completely eliminated in the wintertime, but this winter it is reduced to a smaller degree than previously. Unemployment will probably be more serious in the case of women, as it is more difficult for them to obtain work than for men, who can engage in forestry work. Considerable unemployment is expected in the Viborg district, where only a small amount of forestry work will be done.

Czechoslovakia.—Czechoslovakian industry suffered during 1922 from high wages and transport tariffs, which it was impossible to reduce in proportion to the continued appreciation of the crown. The resulting industrial depression continued throughout the year. The domestic demand for goods was considerable, but actual trade was hampered by high prices. These showed a downward tendency, however, toward the latter part of the year. Czechoslovakia's trade with its best customers—Austria and Germany—was naturally curtailed to a great extent on account of the high value of the Czechoslovak crown.

A report from the American trade commissioner at Prague (Commerce Reports, February 12, 1923), dated February 2, 1923, states that the effects of the industrial stagnation were still felt in Czechoslovakia during January. Slight improvement, however, in the textile, leather, shoe, and cement industries was experienced as a result of domestic replacement purchases. Further retrenchment was apparent in the hollow glass, porcelain, and machine industries. No general improvement in the export demand was evident, while increased restriction of imports and semimanufactured products continued. Manufacturers are demanding a further reduction of coal prices and freight rates.

Unemployment at the end of December amounted to 329,000 (the official Czechoslovakian estimate is 200,000), against 267,000 on Novem-

ber 1. Wage reductions occurred in the following industries: Glove and electrical, 20 per cent; sugar, 19 per cent; Bratislava building trades, 15 per cent; sawmills and bakeries, 10 per cent.

Austria.—Austrian industrial conditions continued unfavorable during January, with little improvement from the stagnation of recent months, according to a report from the American trade commissioner at Vienna, dated February 9 (Commerce Reports, February 19, 1923).

Grounds for hope, however, are found in the revival of buying during the month. The movement is not yet extensive enough to afford manufacturers relief; efforts to reduce production costs sufficiently to restore competitive ability have been largely unsuccessful, and the regaining of essential foreign markets must depend on external developments favorable to Austria.

The immediate effect of the Ruhr occupation is favorable to Austria, because part of the orders originally filled by the manufacturers of that region are now being given to Austrian manufacturers. Disorganization of German industry and transportation consequent to the occupation, together with the present tendency of German manufacturers to quote in foreign currencies, also lessens keen German competition, which has been depriving Austria of its neighboring trade, particularly with the Balkan markets.

The number of unemployed in the Vienna industrial district increased from 90,000 at the end of December to 101,000 at the end of January, 23 per cent of this number being metal workers. Total unemployment in Austria is estimated at 150,000. Extension of unemployment in the near future is, however, not expected.

At the present time the Government allowance to an idle workman is 10,000 kronen [3] daily, or 70,000 kronen per week. "Anybody can appreciate the distress of the unemployed on this allowance," says the Arbeiter-Zeitung, "with one loaf of bread costing 6,750 kronen." The social democrats have demanded as a minimum allowance 18,000 kronen daily, while the Government party has intimated that it would not object to an increase to 12,480 kronen daily. Since no compromise has been reached, the allowance remains unchanged.

Australia.—The only recent information available is a cable to the Commonwealth high commissioner in London, which states that the per cent of unemployed trade-union members in the fourth quarter of 1922 was 8.6, as compared with 9.6 per cent in the third quarter and 9.5 per cent in the fourth quarter of 1921.

Canada.—Statements of employers compiled by the Dominion Bureau of Statistics show that employment at the end of December suffered the usual heavy decline peculiar to the season. The actual shrinkage involved the release of a somewhat greater number of workers than that recorded during the corresponding period of the preceding year, but the percentage decline was not quite so large. The curve of employment which gained steadily from the end of April until the close of November, was considerably depressed at the close of the month under review, although it did not reach as low a level as in the corresponding month of the preceding year, when the index fell to a point over 8 points lower. It is expected that early in Janu-

[3] The par value of the krone is 20.3 cents, but at the present rate of exchange $1 will buy 70,000 kronen.

ary considerable revival will be indicated and that the curve will before long resume its upward movement.

Reports were tabulated from 6,221 employers with an aggregate pay roll of 733,067 persons, of whom 707,703 were actually working on December 30, as compared with 779,758 in the last report. The index number, which is based on the number of persons actually at work, therefore, declined from 95.1 at the end of November to 86.3 for the period under review. At the close of December, 1921, the index number had fallen to 77.9.

The only increases in activity as compared with the preceding month took place in logging and retail trade; both gains indicated seasonal activity. Substantial contractions were recorded in all other industries, the losses in the manufacturing group, in construction and transportation being especially heavy. Further declines occurred in mining, while the communication and service groups also showed some dullness.

Reductions in employment were reported in every district, those in Quebec and Ontario being the most extensive. Firms in all cities were forced to curtail operations. The decrease in employment in Montreal was especially pronounced, the temporary closing of the railway car shops over Christmas and the New Year causing large reductions in staff which were supplemented by important losses in other branches of the manufacturing industries, notably in textiles, tin, sugar, and tobacco factories, and in shipping and stevedoring, in construction, and on the street and electric railways. In Toronto large reductions in personnel were reported in garment, biscuit, chocolate, confectionery, lead, tin, and box factories. In construction industries, moreover, employment was much less and further losses were registered by the street railways. Sawmills in Ottawa reported another decrease; contractors also afforded less employment, while telephone staffs were somewhat reduced owing to the holidays. In Hamilton knitting mills, iron, steel, and tobacco works reported the bulk of the decrease in employment. Biscuit, confectionery, brick, and textile plants in Winnepeg recorded considerable declines in activity, while the construction trades also were slacker. In Vancouver the decreases were of a general character; tanneries, sawmills, and shipyards showed a less favorable employment situation and employment on building construction and on the street railways also declined.

A summary of the latest statistical reports on unemployment is given in the following table:

SUMMARY OF LATEST REPORTS ON UNEMPLOYMENT IN FOREIGN COUNTRIES.

Country.	Date.	Number or per cent of unemployed.	Source of data.	Remarks.
Great Britain and Northern Ireland.	Jan. 22, 1923	1,493,036 (number of unemployment books lodged), representing 12.7 per cent of all persons insured against unemployment.	Ministry of Labor Gazette, London, February, 1923.	Of the 1,493,036 having lodged their unemployment books, 1,228,334 were males and 264,702 were females. In addition, 60,147 persons, or 0.5 per cent of all insured persons, were systematic short-time workers entitled to out-of-work donation. The per cent of totally unemployed workers on Dec. 18, 1922, was 12.2 per cent, and that of short-time workers 0.5 per cent.
Do	Jan. 31, 1923	13.7 per cent of trade-union members	do	The corresponding per cent at the end of December, 1922, was 14, and 16.8 at the end of January, 1922.
Germany	Jan. 1, 1923	82,427 totally unemployed persons receiving unemployment donations.	Reichs-Arbeitsblatt, Berlin, Feb. 1, 1923.	Of the 82,427 persons receiving unemployment donations, 68,920 were males and 13,507 were females. On Dec. 1, 1922, the total number was 42,860, the increase on January 1 is thus equivalent to 92 per cent.
Do	Dec. 30, 1922	2.8 per cent of trade-union members	do	The per cent of unemployed trade-union members was 2.0 at the end of the last week of November, 1922, and 1.6 at the end of December, 1921.
France	Feb. 15, 1923	2,690 persons in receipt of unemployment benefits from departmental and municipal unemployment funds.	Bulletin du Marché du Travail, Paris, Feb. 16, 1923.	Of the 2,690 persons in receipt of unemployment benefits, 2,393 were males and 297 were females. At the end of the preceding week the number of persons receiving unemployment benefits was 2,665.
Do	Feb. 10, 1923	12,680 persons on the live register of employment exchanges.	do	Of the 12,680 persons on the live register of employment exchanges, 9,168 were males and 3,512 were females.
Italy	Jan. 1, 1923	381,968 persons totally unemployed and 42,558 short-time workers.	Ministry of Labor Gazette, London, February, 1923.	The corresponding figures on Dec. 1, 1922, were 354,238 totally unemployed and 43,140 short-time workers.
Do	do	72,812 persons receiving unemployment benefit.	do	The corresponding number on Dec. 1, 1922, was 69,300.
Belgium	Dec. 30, 1922	25,748 members of unemployment funds, or 3.8 per cent of the total membership, were either wholly unemployed or on short time.[1]	Revue du Travail, Brussels, January, 1923.	The corresponding per cent on Dec. 2, 1922, was the same. The aggregate days of unemployment in December, 1922, numbered 363,766 [1] as against 364,249 in November, 1922.
Do	Dec. 31, 1922	14,302 persons on live register of public employment exchanges.	do	The corresponding number at the end of November, 1922, was 17,913.
The Netherlands	Dec. 30, 1922	15.8 per cent of the members of unemployment funds were unemployed.	Maandschrift, The Hague, Jan. 31, 1922.	The corresponding per cent on Dec. 2, 1922, was 12.5.
Do	December, 1922	119,321 applicants for employment at public employment exchanges.	do	The corresponding number for November, 1922, was 115,383.
Switzerland	Jan. 31, 1923	56,275 totally unemployed (including 12,264 employed on relief works), 19,868 short-time workers.	Der Schweizerische Arbeitsmarkt, Bern, Feb. 15, 1923.	The corresponding figures for Dec. 31, 1922, were 53,463 totally unemployed (including 14,057 employed on relief works) and 20,429 short-time workers.
Do	do	23,853 persons received unemployment donations.	do	The corresponding number on Dec. 31, 1922, was 21,420.
Denmark	Dec. 29, 1922	20.3 per cent out of a total of 256,676 workers covered by returns of trade-unions and of the central employment exchange were unemployed.	Statistiske Efterretninger, Copenhagen, Jan. 20, 1923.	The corresponding per cent at the end of the last week of November was 15.2, and at the end of the last week of December, 1921, 25.2.

Norway	Dec. 27, 1922	26,600 unemployed persons	Sociale Meddelelser, Christiania, Nov. 1, 1923.	The corresponding number on Nov. 25, 1922, was 25,600.
Do	Dec. 31, 1922	12.9 per cent of trade-union members	Ministry of Labor Gazette, London, February, 1923.	The corresponding per cent on Nov. 30, 1922, was 10.6, and 18.3 on Dec. 31, 1921.
Sweden	do	21.7 per cent of trade-union members	Sociala Meddelanden, Nov. 2, 1923	The corresponding per cent on Nov. 30, 1922, was 17.2, and 33.2 on Dec. 31, 1921.
Do	do	45,900 persons unemployed (estimate of State unemployment commission).	do	
Finland	Dec. 30, 1922	1,293 unemployed (835 men and 458 women) registered at communal employment exchanges.	Bank of Finland Monthly Bulletin Helsingfors, November–December, 1922.	At the end of the last week of November, 1922, the number of unemployed was 1,427, and 2,127 at the end of the last week of December, 1921.
Czechoslovakia	Dec. 31, 1922	200,000 persons totally unemployed	Report of American consulate at Prague, dated Jan. 8, 1923.	This figure was furnished to the American consulate by the Minister of Social Welfare.
Do	Dec. 15, 1922	141,000 persons in receipt of State unemployment donations.	Report of American consulate at Prague, dated Jan. 1, 1922.	The corresponding figure for November, 1922, was 95,445, and 17,500 for December, 1921.
Austria	Jan. 29, 1923	150,000 persons totally unemployed (estimated).	Report of American consulate at Vienna, dated Jan. 29, 1923.	
Austria (Vienna)	Jan. 27, 1923	98,824 persons on live register of public employment exchanges.	Arbeit und Wirtschaft, Vienna, Feb. 15, 1923.	The number of persons on the live register of public employment exchanges has increased by 21 per cent as compared with Dec. 30, 1922, and by 412 per cent as compared with Dec. 31, 1921.
Do	do	82,813 persons in receipt of unemployment donations.	do	As compared with the corresponding number on Dec. 30, 1922, and Dec. 31, 1921, this figure represents an increase of 26 and 788 per cent, respectively.
Australia	Dec. 31, 1922	8.6 per cent of trade-union members	Ministry of Labor Gazette, London, February, 1923.	The corresponding per cent for the preceding quarter was 9.6, and 9.5 for the fourth quarter of 1921.
Canada	Jan. 1, 1923	6.4 per cent of trade-union members	Labor Gazette, Ottawa, February, 1923.	The corresponding per cent on Dec. 1, 1922, was 6.2, and 15.1 on Jan. 1, 1922.

[1809]

[1] Subject to revision.

New Regulation of Unemployment Relief in Germany.[1]

THE German law on unemployment relief of November 1, 1921, authorizes the Minister of Labor to order, with the approval of the Reichsrat, changes in the maximum rates of unemployment donations. In view of the further depreciation of German currency the Minister of Labor therefore has issued an order effective January 29, 1923, which fixes the maximum rates per day of unemployment donations as follows:

MAXIMUM DAILY RATES OF UNEMPLOYMENT DONATIONS, EFFECTIVE JANUARY 29, 1922.

[1 mark at par=23.8 cents.]

Sex and age.	Maximum rates per day, in localities of class [1]—			
	A.	B.	C.	D and E.
Males:				
Over 21 years of age—	*Marks.*	*Marks.*	*Marks.*	*Marks.*
Not members of a household	720	650	580	510
Members of a household	500	450	400	350
Under 21 years of age	250	230	200	170
Females:				
Over 21 years of age—				
Not members of a household	550	500	450	400
Members of a household	330	300	270	240
Under 21 years of age	200	180	160	140
Family allowance:				
For consort	330	300	270	240
For children and other dependent family members	250	230	200	170

[1] The assignment of a locality to one of the 5 classes is governed by the salary law for civil service employees which assigns each locality to one of these classes in accordance with the cost of living in the locality.

The order provides that the combined family allowances drawn by an unemployed person may not exceed double the amount of the unemployment donation received by him.

The determination of the rates of unemployment donation is left to the communes, but is is practically certain that no commune will fix rates lower than the maximum rates shown in the preceding table. In localities in which the cost of living is exceptionally high the communal authorities may, with the approval of the Minister of Labor, fix even higher rates for unemployment donation than the maximum rates provided in the present order. The period during which an unemployed person may draw unemployment donation is limited to 26 weeks. In cases of special distress the provincial president or the State central authorities may, however, extend this period. During the first week of unemployment no donation may be granted. Unemployment donations may be paid only if the unemployment is due to lack of work or other economic reasons. Persons quitting work voluntarily are not entitled to unemployment donation. In such cases donation may, however, be granted after four weeks of unemployment.

Short-time workers are entitled to unemployment donation if 50 per cent of their weekly or fortnightly earnings do not equal the sum paid during one or two weeks in unemployment donation to a

[1] Metallarbeiter-Zeitung, Stuttgart, Jan. 27, 1923; Reichs-Arbeitsblatt, Berlin, Feb. 1, 1923.

person who is totally unemployed. In such cases they are entitled to the difference between these two sums. Donations to short-time workers are to be paid by the communal authorities, but on demand of the latter they must be computed and paid by the employer. Short-time workers need not be in needy circumstances in order to be entitled to donations. If a short-time worker becomes totally unemployed he is entitled to unemployment donation from the first day of his unemployment, being thus exempt from the one-week waiting-period requirement.

Report of Employment Exchanges in Great Britain and Northern Ireland.

AS REPORTED by the British Labor Gazette for February, 1923, the operations of the employment exchanges for the five weeks ending January 8, 1923, are summarized as follows: The average daily number of applications from workpeople during the period was 26,773; of vacancies notified, 2,773; and of vacancies filled 2,355. This means over 9½ applications for every vacancy notified and over 11 applications for every vacancy filled.

Comparing the daily average of applications from workpeople for January, 1923, and December, 1922, an increase of 8.8 per cent is reported, while the daily average of vacancies notified shows a decrease of less than 1 per cent and of vacancies filled an increase of less than 1 per cent.

The average daily number of applications from adults was 24,232—17,519 men and 6,713 women. There were 2,390 average daily vacancies reported—1,564 for men and 826 for women. The average number of vacancies filled daily was 2,017—1,449 for men and 568 for women.

As regards juveniles, 33,229 applications were received from boys and 34,667 from girls. The number of vacancies notified for boys was 4,600, and 4,189 vacancies were filled. In the case of girls, 5,742 vacancies were notified and 4,944 were filled. Of the total vacancies filled by juveniles, 20.6 per cent were filled by applicants who obtained their first situation since leaving school.

Volume of Employment in the United Kingdom in January, 1923.

THE following statement as to the condition of employment in Great Britain and Ireland in January, 1923, as compared with January, 1922, and December, 1922, has been compiled from figures appearing in the British Labor Gazette for February 1923. Similar information for October, 1922, was published in the January, 1923, MONTHLY LABOR REVIEW.

Employment during January showed little general change as compared with previous months, but was better on the whole at the end of the month than at the end of December. It continued good in the coal-mining industry, in steel-sheet manufacture, and

in the worsted industry, fairly good in the tinplate trade, and fair in the woolen trade. In most of the other principal industries it was still very slack; but further improvement was reported at iron and steel works.

When the number of persons employed in January, 1923, is compared with the number employed in December, 1922, the largest increase, 32.2 per cent, appears for seamen, while iron mining shows an increase of 5.4 per cent. Employment among dock laborers during January was quiet and showed a small decline of 4.2 per cent as compared with the previous month. The cotton trade showed a decrease of 2 per cent.

Comparing the earnings for January, 1923, and December, 1922, the only increase shown, 2.6 per cent, was in the boot and shoe trade. Decreases of 3.4 per cent, 2.7 per cent, and 2.1 per cent were shown in the cotton, pottery, and brick trades, respectively.

When the number of persons employed in January, 1923, is compared with the number employed in January, 1922, iron mining showed the most important increase—70.6 per cent. An increase of 26.5 per cent appeared for seamen and one of 22.1 per cent for iron and steel. Respective percentage decreases of 8.7 and 5.9 appear in the brick trade and dock and riverside labor.

The aggregate earnings of employees in January, 1923, when compared with those for January, 1922, show an increase of 21.4 per cent in the woolen trade and 7.7 per cent in the boot and shoe trade. Brick shows a decrease of 13.8 per cent and pottery a decrease of 9.9 per cent.

VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN JANUARY, 1923, AS COMPARED WITH DECEMBER, 1922, AND JANUARY, 1922.

[Compiled from figures in the Labor Gazette, London, February, 1923.]

Industry, and basis of comparison.	Per cent of increase (+) or decrease (−) in January, 1923, as compared with—		Industry, and basis of comparison.	Per cent of increase (+) or decrease (−) in January, 1923, as compared with—	
	December, 1922.	January, 1922.		December, 1922.	January, 1922.
Coal mining:			Woolen trade:		
Average number of days worked	(1)	+0.4	Number of employees	+.8	+14.3
Number of employees	+0.5	+6.6	Earnings of employees	−1.9	+21.4
Iron mining:			Worsted trade:		
Average number of days worked	−.08	+.87	Number of employees	+.6	+11.1
Number of employees	+5.4	+70.6	Earnings of employees	−1.0	+.9
Pig iron:			Boot and shoe trade:		
Number of furnaces in blast	+8.3	+103.3	Number of employees	+.2	+6.1
Iron and steel works:			Earnings of employees	+2.6	+7.7
Number of employees	+4.5	+22.1	Brick trade:		
Number of shifts worked	+6.0	+34.0	Number of employees	+.1	−8.7
Tin-plate, steel, and galvanized sheet trades: Number of mills in operation	−.2	+14.7	Earnings of employees	−2.1	−13.8
Cotton trade:			Pottery trade:		
Number of employees	−2.0	+8.8	Number of employees	−.1	+2.0
Earnings of employees	−3.4	−7.0	Earnings of employees	−2.7	−9.9
			Dock and riverside labor:		
			Number of employees	−4.2	−5.9
			Seamen:		
			Number of employees	+32.2	+26.5

[1] No change

INDUSTRIAL ACCIDENTS AND HYGIENE.

Effects on Workers of Exposure to Arsenic Trichloride.

THE results of a study of the conditions under which arsenic trichloride is manufactured and of the hazards to which the workmen are exposed are published in The Journal of Industrial Hygiene, December, 1922 (pp. 346–364), and January, 1923 (pp. 410–423). The study, which involved extensive laboratory research and factory investigation, dealt with the local caustic action of arsenic trichloride, the absorption of the poison through the skin, the results of inhaling its vapor, and measures for avoiding risks to the workers.

The particular circumstance leading to this study occurred in England during the war, when a workman employed upon the commercial production of arsenic trichloride died following the accidental spilling of some of this fluid over his right leg.

A post-mortem examination revealed a large amount of arsenic, indicating that a soluble form of it had been freely distributed through the body, probably by the blood and lymph. The presence of a considerable amount in the lungs, which can not be explained in the same way, indicates that shortly before death the patient had inhaled air laden with arsenic. It was impossible to determine how much was absorbed through the skin, although the patient's death was due to acute arsenicism. The general condition of the organs, however, indicated that those engaged in the same work were exposed to very material danger even in the absence of a similar accident.

Commercial arsenic trichloride, which is formed by distilling a mixture of arsenic trioxide with sulphuric acid and sodium chloride, is an oily, very mobile fluid, which emits fumes and evaporates very rapidly when exposed to air. It is highly poisonous and has well-known caustic properties. The crude arsenic trichloride from a factory was used in all the experiments to ascertain its effects on the workers, while in the study of the mode of diffusion in air both the crude product and pure arsenic trichloride were used. The resemblance between the results with the two products was so close that it was considered that the effects observed were principally, if not entirely, due to the arsenic trichloride.

The animal experiments, which included direct application of undiluted arsenic trichloride to the skin and inhalation of air charged with fumes of arsenic trichloride, proved that the arsenic is absorbed by the tissues and is widely distributed throughout the body in a very short time. When it is applied to the skin it kills the tissues very rapidly, this action being somewhat retarded by washing the part affected within one minute of the time of application, although the final result is not affected. Within a few hours after such application arsenic can be recovered from most of the tissues or

organs of the body, there being a tendency to accumulation in such organs as the brain, liver, and kidneys. Inhalation of 1 part of arsenic trichloride to 40,000 parts of air killed mice in 5 minutes, while an air stream which distributed the mixture unequally affected the animals variously, some dying after a few hours while others appeared to recover completely. All the animals which died from the effects of the inhalation gave marked evidence of respiratory affection.

Experiments in regard to the evaporation of arsenic trichloride showed that it is very diffusible and enters readily into various combinations, forming visible particles where the air contains moisture. There is also evidence that when the air is unsaturated with water there are invisible vapors present.

It is obvious that where the amount of air is unlimited there is enough moisture in it to convert the invisible vapors of arsenic trichloride into visible fumes which are not very distinct when the air is nearly dry, but which are very conspicuous when the air is saturated with water. In very dry localities, however, arsenic trichloride might diffuse indefinitely without any visible trace of its presence being noticed, except at places where it came into contact with damp or wet surfaces (such as the mucous membranes of men or animals), or with moist air, such as expired air.

It is clear that the precipitate of oxychloride and allied products which form in the air have a great tendency to cling to the surface of solid objects with which they come in contact. This is one of the reasons why the hair of persons working in arsenic trichloride plants becomes so rapidly laden with arsenic. Arsenic trichloride is also rapidly absorbed by animal tissues.

The study of actual factory conditions was made in a plant in which the retorts and condensers were housed in a shed open on all sides. The openings through which the retorts were filled were located on a long upper platform and slightly below this was another platform on which arsenic trioxide and chloride of sodium were mixed. The retorts and furnaces were located below the upper platform and a conduit leading from the bottom of each retort carried the residue from the retort to trucks. A large tank was used for storing the arsenic trichloride and close to this tank there were rows of iron drums filled with the arsenic trichloride which were ready for shipping.

The salt and the arsenic trioxide were mixed just before being shoveled into the retorts, each of the men wearing a handkerchief over the mouth and nose to protect himself from the dust. Irritating fumes escaped in considerable amounts from various places about the retorts. Test plates were placed in different positions and at various distances from the retorts. The deposits on the plates showed that a material amount of arsenic could be obtained from the air near any of the retorts. Experiments as to protective measures showed that "special ventilating arrangements are needed to remove fumes which arise when arsenic trichloride is necessarily exposed to the air in the filling of drums or the sampling of their contents. Air containing fumes so removed could be purified by a fine water spray before being discharged in the atmosphere. All persons employed on this work should wear some impervious general clothing, and only experience can show whether they should not also wear suitable gas masks."

The persons conducting the experiments were subjected to accidental local and general exposure both in the laboratory and at the factory, and the following effects which confirmed the conclusions arrived at from the experiments were noted:

* * * On two occasions small necrotic lesions of the epidermis were experienced, which resembled those obtained experimentally with animals. Exposure to fumes was followed by pharyngeal and laryngeal irritation, headache, giddiness, nausea alternating with feelings of excessive hunger (gastric irritation), abdominal discomfort, pains in the thighs, legs, and feet, and edema of the feet. At the same time the urine, which normally contained as a maximum 5 mmg. of arsenic trioxide per 100 c. c. was found to contain 20 mmg.

Adequate Records of Lost Time from Sickness in Industry.

AN ARTICLE by Dr. L. R. Thompson and D. K. Brundage in the Nation's Health, February, 1923 (pp. 99, 100), outlines the need for complete reports and the careful analysis of industrial morbidity statistics in order successfully to carry out sickness prevention work in industry. As an example of the results of analysis of such statistics, the fact that coal dust is harmless and silica dust is dangerous as regards tuberculosis is cited, the study of mortality rates having shown that the coal miner has a lower death rate from tuberculosis than the average man, while that of the worker in silica is higher than the average.

Industrial employment, even in the least hazardous industries, must be considered to have some definite effect upon the workers. In order to determine the effects of employment upon health and to establish reasonable standards of protection it is necessary that the sickness records of industrial establishments should be standardized. Accurate comparison of the sickness records of different establishments thus would become possible, allowing any individual establishment to judge of the effectiveness of its efforts in reducing or eliminating its health hazards.

As a means of encouragement toward better recording of sickness, the United States Public Health Service has been cooperating to a limited extent, it is stated, in tabulating the data collected by private establishments and in analyzing the results. A recent tabulation of monthly reports from sick-benefit associations having a waiting period of one week compares the sickness frequency of certain of the large associations with that of all of the associations for the year 1921. Among 75,000 employees in industrial establishments the average sickness and nonindustrial accident rate for disability of 8 consecutive days or over was 98 per 1,000 persons. The lowest rate was 48 and the highest 349 per 1,000, indicating that for those establishments whose rate was much above the minimum rate there was an almost unlimited opportunity for reduction.

A case in point is that of a public utility company which was found to have a rate of 143 cases per 1,000. In order to ascertain whether the male or the female employees were causing this high rate the cases were tabulated by sex. Ordinarily the female sickness rate, it is stated, is about 50 per cent greater than the male rate, but in this case the rate for the men was 46 per cent above the average sickness frequency rate for males and that of the women 70 per cent above the average for females. In the classification of sickness by causes, the diseases which occasioned the high rate for the company proved to be the respiratory diseases, excepting pneumonia, and the health hazards which led to this high percentage

of respiratory troubles were found to be sudden variations in temperature, dampness, inorganic dust, and the use of acrolein amyl acetate, benzine, methyl alcohol, sulphuric acid, and turpentine.

The commonly accepted estimate of time lost per person per year is 8 days. The rate for a large company in Ohio having 1,300 office employees was 8.15 days for these employees during the year ending January 31, 1921, which coincided with the annual rate for the employees of the United States Public Health Service, based on 8 months' experience. Another large company in Ohio, however, had an average sickness rate of 1.5 days per person per year for its 6,000 office and factory employees. The company claimed an annual saving of $120,000, estimating that every employee-hour saved from sickness was worth 40 cents to them. This reduction of the morbidity rate, the writers believe, demonstrates the possibility of, and the necessity for, the establishment of minimum rates for different diseases and groups of diseases and of determining where the excess disability occurs.

Another point of interest in the recording of sickness is the influence of length of service upon the sickness rate. The sickness frequency rate for the workers in one establishment, whose service had been five years or over, was found to be only one-fourth of the rate for the group that had been employed less than three months, suggesting that there is a correlation between sickness and labor turnover which is yet to be determined.

Safety in Mines in California.

THE February, 1923, number of the California Safety News, a publication of the State industrial accident commission, is of particular interest because it contains the full report of the governor's special investigating committee on the Argonaut mine disaster. Among the findings of this committee are the following:

> The conditions which led to the fire resulting in the great loss of life were not exactly in strict accord with modern and up-to-date methods. It would further appear that attention to detail with regard to the training of men and the provision of safety devices to be utilized by trained men, in cases of disaster or necessity, was lacking. Also, that while the safety regulations according to law were perhaps complied with, insufficient attention was given to the provision of fire-fighting appliances such as could be used for the protection of life and property.
>
> If the men directly in charge of the several shifts at the mine, viz, the shift bosses, level bosses, and others, had been trained in the use of fire-fighting appliances under conditions that might overtake them at any time, a better-directed effort could have been made with a more satisfactory result than is shown by the record.
>
> In the above conclusions this committee is dealing with the period from Sunday night, August 27, 1922, when the fire started, until Wednesday, August 30, 1922, when the rescue work was taken over by the operating committee of three, * * * who were appointed with the unanimous approval of a large number of engineers of repute and operators of mining properties on the mother lode, as well as from elsewhere. This committee feels that as an operating committee directing the work of rescue, together with the rescue teams, the United States Bureau of Mines and all of their assistants, they did everything that was possible under the circumstances to rescue the entombed men. It is, therefore, not the intention of this committee to deal with the period covered as from Wednesday, August 30, * * * as they feel that everything within the power of man and at the disposal of those in charge, together with the rescue teams, was done in accordance with all the skill that could be directed toward this work.

It might further be said that the miners working in the headings driven for the purpose of connecting the Kennedy mine with the Argonaut mine, should be complimented on the work they performed because they evidently made four times more progress for 24 hours' work in hard ground than is made under normal conditions.

In the final paragraph of his letter of December 20, 1922, quoted in the February issue of the Safety News, the dean of the California College of Mining declares that—

The attention of the State legislature should be directed toward the inadequacy of the existing budget for the industrial accident commission. Ample appropriation should be made for the appointment of a sufficient number of capable mine inspectors, whose duty it shall be to visit mines, advise with mine operators, correct infractions of the mining law, and present, for the benefit of the mining industry of the State, reliable reports for the stimulation and betterment of mining in California.

Mine Fire Control Orders.[1]

THE California Industrial Accident Commission has adopted mine fire-control orders, effective March 15, 1923. These orders were formulated by committees of representative mine operators, of mine employees, of the United States Bureau of Mines, of the California Industrial Accident Commission, and of mining engineers for the industry at large who have been working at the problem for some four months.

A committee of nine mining men and two attorneys, appointed at the close of a hearing on December 8, 1922,[2] reported these orders unanimously and they were adopted. The chief points of such orders are here listed:

1. Fire drills and the organization of mine employees for fire prevention, fire control, and rescue of underground men.
2. Control of mine ventilation by means of fire doors or bulkheads underground to prevent smoke and gases cutting off the escape of men in the event of fire, in accordance with plans to be approved by the industrial accident commission.
3. Protection of underground employees against the hazard of all exits becoming impassable through fire or fire gases by fireproofing the main shaft and shaft stations or maintaining a connection with an adjoining mine, or by mechanical control of the air currents, or by the installing of a hoist in the second exit.
4. Fireproofing or protection of used mine openings and used underground shaft stations that are inflammable.
5. Weekly inspection and report of underground fire hazards in workings, also monthly reports of conditions in unfrequented portions of the mine.
6. Installation and regular testing of fire-fighting equipment in timbered mine shafts and stations, unless the timber is protected against fire.
7. Posting of a diagram showing exits, fire-fighting and ventilating equipment, etc.
8. Maintenance of auxiliary telephone and compressed air lines in second exits.
9. Maintenance of emergency fire-fighting equipment, including oxygen breathing apparatus, and trained men to use it.
10. Under certain conditions the maintenance of refuge places for men who may be trapped underground.
11. Use of stench warning through compressed air lines as a means of informing underground workers of fire.
12. Installation of surface fire-alarm signals.
13. Fireproofing of inflammable material near electrical equipment, such as motors, etc.

The superintendent of each mine must file with the industrial accident commission such additional reports, plans, diagrams, and maps relative to fire protection and prevention as may be required by the commission.

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[1] California. Industrial Accident Commission. Mimeographed report received Feb. 27, 1923.
[2] See MONTHLY LABOR REVIEW, January, 1923, p. 215.

Industrial Accidents to Children in New York.

THE New York State Department of Labor has recently issued a special bulletin (No. 116), prepared by the division of women in industry, dealing with accidents suffered by children industrially employed during the year ending June 30, 1920. The purpose of the study was primarily to add to the scanty body of data concerning such accidents, and in addition it was thought that it might suggest further methods of safeguarding children at work.

Under the New York law children under 14 may not be industrially employed, and the employment of those under 18 is subject to certain restrictions, these being more numerous for those under 16 than for the older group. The material for the study was secured from the records of the compensation cases. It is limited to accidents to children under 18 which entitled them to compensation, since it is for these only that an accurate statistical record is kept. The study is limited, therefore—

1. To those groups of workers under 18 in industries covered by the compensation law.
2. To those places of business subject to the law.
3. To those cases where the disability lasted more than two weeks.

This eliminates from consideration nearly all the children employed in agriculture and all of those in domestic service, as well as office boys and girls in certain industries, messengers, and errand boys and girls, since these are not under the compensation law. Also it ignores the great number of accidents in which the disability lasted less than two weeks, a number which usually greatly exceeds those lasting for more than two weeks. "As, for example, for the year ending June 30, 1920, 345,672 industrial accidents were reported to the industrial commission. Of this number, 51,099 were compensable." In other words, of the total number of accidents, only 14.8 per cent were compensable. If this proportion holds for children, it is evident that the study deals with but a small proportion of the accidents befalling workers under 18.

The number of accidents studied is 1,817, which affected 1,804 children, 13 of the children having had during the year two accidents apiece, each involving a disability of over two weeks. This is known to be less than the actual number of compensable accidents occurring during the year included. While the report was in preparation reports came in from district offices of 166 additional compensation accidents which had happened during the year, but which, since they were still being handled, had not been sent in early enough to be included in the study.

There is so little information available as to the number and distribution of working children that it was found impossible to compute accident rates from the figures concerning accidents, or to compare the relative hazard in different age, sex, and occupation groups. The age distribution of the children affected was as follows:

	Number.	Per cent.
Under 14	9	0.5
14 and under 16	146	8.0
16 and under 18	1,662	91.5
Total	1,817	100.0

NOTE.—In this and the following tabulations, 13 children who had two accidents apiece are counted twice.

The nine children under 14 were too young to be lawfully at work, but were compensated on the ground that their illegal employment gave a right to compensation. Attention is called to the fact that only 8.5 per cent of the accidents happened to children under 16.

This means that 9 out of every 10 accidents were suffered by minors between 16 and 18 years of age. The proportion of 16 and 17 year old children who work, to those under 16, is nothing like so high.

Eighty-one per cent (1,472) of the accidents happened to boys, only 345 befalling girls. Sixty-one per cent occurred in New York City against 39 per cent in the rest of the State. Manufacturing occupations were responsible for nearly four-fifths (79 per cent); transportation and public utilities, and trade accounted for 120 and 117, respectively; construction had 76 to its discredit; and no other occupational group showed as many as 50. Nearly three-fourths (74 per cent) were injuries to the hands or arms, including thumb and finger accidents; accidents to the lower extremities numbered 236; to the head, face, and neck, 81; and to the trunk, 106, "the injury being due to strain in 47 of these cases." Classified by nature of injury, the accidents showed the following grouping:

Bruises and contusions	413
Burns and scalds	68
Concussions	3
Cuts and lacerations	607
Punctures	122
Amputations	228
Dislocations	10
Fractures	270
Sprains and strains	81
All others	15
Total	1,817

There were 10 compensated death cases during the year. Of the victims, all of whom were boys, one was 15 years old, three were 16, and six were 17. One of these deaths was due to machinery, one to an automobile, four to falls, and four were elevator accidents.

It seems significant that 4 of these 10 deaths were due to elevator accidents, a type of accident which, with proper diligence, ought to be made not "difficult," but impossible.

Classified by causes, the accidents were grouped as follows:

Machinery	1,021
Vehicles	112
Explosions, electricity, fires, and hot substances	51
Poisonous and corrosive substances	10
Falls of persons	151
Stepping on or striking against objects	39
Falling objects	31
Handling of objects	280
Hand tools	68
Animals	3
Miscellaneous and unknown causes	51
Total	1,817

By far the larger number of the machine accidents, 923, were due to power-working machinery. Metal-working machines led in the number of accidents, 392 being attributed to them. Presses of various kinds seemed especially responsible for accidents. Elevator acci-

dents numbered 55, all of an extremely serious character, 4 causing death. Only 11 of these accidents occurred to the operators. Falling as a cause of accidents ranks third; 74 of these falls were from elevations, 7 were into excavations, pits, and shafts, and 70 were on a level. The majority of the accidents due to vehicles occurred in connection with automobiles and other power vehicles, and more than half of the automobile accidents were caused by cranking. Under the miscellaneous causes, the largest group, 36 accidents, resulted from "wrestling, sparring, and horseplay. In almost all of these cases, a boy or girl would taunt or tease another and an accident would result."

One of the recommendations made as a result of analyzing these accidents is that no child under 18 years of age be permitted to work on a cutting or stamping machine in the metal industry, since so large a number of accidents were found in connection with these machines. Another relates to accidents occurring to children illegally employed. Nine children, it is pointed out, met the accidents before they were 14, and therefore before they could be lawfully employed. Others were unlawfully employed in different ways.

It is impossible to state all the cases when a child was or was not employed illegally, because much depends upon the interpretation of section 146 of the labor law, but in addition to these 9 children who were under age, there were 19 children under 16 working on machines the operation of which, according to the law, was prohibited, and 15 cases of injury where the child was cleaning a machine while in motion. Small numbers in other occupations were working in violation of the law; for instance, one boy of 15, who was acting as an elevator operator. Ought not the State of New York to penalize the employer for employing a child illegally by the adoption of the treble-compensation plan?

Under this plan, it is explained, children who are illegally employed are to receive in compensation, if injured, three times the amount to which they would have been entitled if legally employed. Two-thirds of this amount shall be paid by the employer, who can not insure against the risk, but if he is insolvent, the insurance company shall be liable. If the child's employment has been secured under an illegal or fraudulent permit for which the employer is not responsible, the compensation is not to be increased. This plan has been found effective in Wisconsin in preventing illegal employment, and thereby diminishing the likelihood of accidents. "The Industrial Commission of Wisconsin states that treble compensation has been the most effective measure for the enforcement of the child-labor law which has ever been used in Wisconsin."

A further recommendation is that all who have to do with young workers pay particular attention to training them in safe and careful methods of handling their work and tools. Thirty-seven accidents were due to strain in handling heavy objects, and 52 were caused by dropping heavy objects. Of course, no growing child should be pushing or lifting objects so heavy that injury may result, but a knowledge of how to lift or push to best advantage and with least effort may do much to prevent accidents. Training in how to handle tools might also do much in preventing accidents.

Lead Poisoning in the Manufacture of Ceramic Transfer Pictures in Germany.

THE German Ministry of Labor has recently issued regulations for the protection of workers who are engaged in the manufacture of transfer papers used in impressing patterns on pottery. The colors used are largely lead colors, and while ordinarily the preparation of the transfer papers is done under a hood with an exhaust for removing the dust, a few colors, especially purple, are dusted on the paper by hand, small pieces of cotton being used for the dusting. The surplus of the lead compound is then removed by careful wiping. Workers engaged in this process are exposed to considerable quantities of lead-laden dust and the following regulations, published in Reichsarbeitsblatt, January 1, 1923, have been issued for their protection:

1. *Working rooms.*—This section of the regulations provides that rooms in which powdered lead compositions are used must be large enough to provide a minimum of 25 cubic meters (883 cubic feet) of space for each worker. They are to be separated from other workrooms by solid walls; entrances to the rooms must be kept closed during working hours and when the rooms are cleaned. The walls must have a hard, smooth surface, and must be whitewashed at least once a year, provided they are not painted with an oil paint. In the latter case, the paint is to be renewed as soon as it begins to crack or peel. Floors must be smooth in order to permit easy removal of dust.

The workrooms are to be cleaned at least twice a day, and they must not contain any equipment which is not necessary for the work in hand. Stocks of paper in excess of the daily requirement may not be stored in these rooms.

2. *Machines and equipment.*—All machinery used in preparing the pictures must be provided with hoods and equipped with suction devices. As the dust is removed, it must be conducted into a closed chamber, and must there be precipitated. The utmost care is to be used when it is necessary to clean the hoods or the suction devices. All brushes and cloths used in cleaning must be washed immediately after use. Where it is not possible, in a certain operation, for an employee to work under a hood, he must be furnished with a suitable device to protect his nose and mouth, and these protectors must be kept where they are free from dust, and they must be cleaned immediately after use.

3. *Dressing and wash rooms.*—All persons handling lead-containing powders must be provided with a place to dress and wash outside of the workroom. Their work clothes must be kept separate from their street clothes. Facilities must be provided for the workers to take a bath at least twice a month.

4. *Outfits for workmen.*—Workmen are to be furnished gratis with washable working clothes which must close tightly at the wrists and at the neck. Furthermore, each worker is to be supplied with a drinking glass, a brush for cleaning the finger nails, and a towel.

5. *Eating.*—Workmen may not take food into the workrooms, nor may they eat or drink there. They may not lunch in their working clothes, nor may they take their meals in another part of the factory until they have freed their hair from dust, carefully washed their hands and faces, and rinsed their mouths. It is recommended that smoking, chewing, or snuffing tobacco while working be prohibited.

6. *Selection and instruction of the workmen.*—It is recommended that the minimum age for persons employed in handling lead-containing powders be placed at 20 years. No worker may be employed for this type of work until he has had a physical examination and has been instructed by a physician as to the dangers of lead poisoning. Further, the employer must supply each workman with a memorandum upon the subject of the dangers of his occupation.

7. *Medical supervision of the workmen.*—The factory is to be visited not less than once in three months by a duly appointed physician, whose duty it shall be to examine all workmen and to examine closely those who give indication of lead poisoning. Upon the recommendation of the physician those workmen who are found to be suffering from poison are to be relieved from this type of work until they are wholly recovered, and those especially susceptible to lead poisoning are to be permanently excluded from work requiring contact with lead compounds.

The employer is obliged to keep a permanent record, either in the form of a book or of a card index, of the physical condition of each workman and of the changes in the personnel of the department. This record must be shown to the physician and to the factory inspection official, upon request. The employer is responsible for the completeness and accuracy of all entries made in the book or on cards of record. The record must contain the following information:

1. Name of the person keeping the record.
2. Name of the physician.
3. Family and Christian name, age, address, date of employment and of termination of services of each worker, as well as the kind of work done by him.
4. Result of the examination made at the time of employment.
5. Date and nature of each illness, together with a statement of the physician as to whether or not the illness was connected with lead poisoning.
6. Date of recovery.
7. Dates and results of the prescribed, regular examinations.

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE.

Compensable Occupational Diseases under Federal Employees' Compensation Act.

Ruling by Comptroller General and its Suspension by Joint Resolution of Congress.

THE United States Employees' Compensation Commission since its creation in 1916 has construed the terms of the law which it administers to cover disability from disease as well as from accident. The statute allows compensation for disability or death of an employee "resulting from a personal injury sustained while in the performance of his duty," and this language has been construed to be applicable to diseases found to have a direct causal relationship with the nature of the employment. By a ruling of September 23, 1922, the Comptroller General held that compensation may be paid under the law only for such disability as is the result of a personal injury of an accidental nature, or at least of a personal injury which is referable to some particular event capable of being fixed in point of time.

The matter was held under consideration for a time, and on January 13, 1923, a number of typical cases were submitted as illustrative of the practice of the commission in its construction of the term "personal injury" where disease was found to be causally connected with the employment; the final ruling of the Comptroller General is dated January 29. The cases submitted included those of a rural mail carrier frozen to death some time during the night of February 2, 1917; a T. N. T. worker who died of catarrhal jaundice, as the physician reported, but whose death was found by the commission to be due to poisoning contracted in the line of duty by the gradual inhalation or absorption of poisonous fumes; a painter stricken with cerebral hemorrhage, the diagnosis also indicating chronic interstitial nephritis, and a finding of chronic lead poisoning; a Public Health Service employee engaged in investigating spotted fever, who died of that disease; and a postal employee with the American Expeditionary Force in Siberia, who died of typhus fever, evidently contracted in vermin-infested cars in which he was required to travel. In all, 11 cases were submitted.

Of these, only the death of the mail carrier by freezing was found to have been compensable as due directly to injury, accidental or fortuitous, and occurring within certain definite limits of time. It was impossible to locate definitely the occurrence of the disabling injury in the case of the T. N. T. worker, or of the painter dying of lead poisoning, or of the entomologist contracting spotted fever, etc. They were therefore held not to be covered by the act. The case of the Health Service employee caused some additional discussion, as

"the disease was found to have resulted from an accidental infection in line of duty," and the case was "of such character that the exact time of the infection might perhaps be fixed but for the lack of evidence, which alone prevented the exact day and hour from being determined and reported."

* * * The case therefore puts directly at issue the question whether the term "personal injury" as used in the compensation law contemplates and covers disease resulting from accidental infection in line of duty.

If the intent of the law was to include among personal injuries cases of specific germ infection, it is most improbable that the requirement that the day and hour of the injury be shown would have been placed in the law. Clearly the time of injury was the time of infection and not the time the symptoms developed. There might be cases in which the exact time and means of infection are known, but I think such cases would be the exception and not the rule. Congress can not have meant to discriminate in favor of such cases. Furthermore, as hereinafter shown, the term "personal injury" as used in this law does not cover disease of this character. I must conclude, therefore, that all such cases are entirely outside of the law, and that there is no legal basis for an award of compensation in this case.

As to the postal employee who contracted typhus fever, "there is no contention that the disease was occupational, only that it was caused by insanitary conditions under which he was required to travel officially. The United States Government was in no way responsible for this condition."

The seriousness of this question is indicated by the fact that the last annual report of the compensation commission presented more than 300 cases of injury due to occupational disease as classified by the commission. The ruling of the Comptroller General limiting the statute to "direct injury to bodily tissue through some accidental or fortuitous happening definitely fixed in point of time, in contradistinction to the gradual organic changes or functional disturbances brought about by vocational or other diseases," will affect not only such number of claimants or dependents as were involved in that year, but the total number accumulated during the experience of the act. His opinion concludes:

In view of the past practice of the commission in awarding and paying compensation in cases of disease as well as of injury, and the practice of the accounting officers of the Treasury in allowing such payments, this office is warranted in recognizing that practice to the extent that all payments heretofore made shall be credited in accounts of the disbursing officer of the commission. I also feel warranted in permitting payments to continue under awards which have already been made for the remainder of the current fiscal year in order that time may be given for readjustment of the several awards, and for congressional action if the law as construed by this office does not carry out the will of Congress at this time. There should be no further awards of compensation in cases similar to those decided adversely herein, and no further payment in any such cases already awarded after June 30, 1923, unless such awards and payments shall hereafter be specifically authorized by law.

To meet the situation resulting from this ruling, an amendment was introduced in the House of Representatives on February 6 proposing to define the term "injury" so as to include, "in addition to injury by accident, any disease proximately caused by the employment."

This passed the House March 1, but the Senate Judiciary Committee felt that the time was too short, before adjournment on the 4th, to discuss the principles involved in the amendment; but it "seemed to the committee rather inhumane to deprive of compensation those people who were suffering from these diseases in cases which had been already adjudicated." An amendment was therefore adopted pro-

viding that "persons now receiving compensation upon an award made by the Compensation Commission shall, until March 1, 1924, be entitled to receive the amount awarded, unless the award so made shall by the commission be set aside."

This amendment has the effect of extending the period of benefits to March 1, 1924, instead of to June 30, 1923, as provided in the ruling of the Comptroller General, the announced purpose being merely to preserve the present status, "in order to give the next Congress the opportunity to consider whether or not they will adopt the policy" heretofore carried out by the Compensation Commission, or whether the rule of interpretation laid down by the Comptroller General will stand.

Amendments to Workmen's Compensation Law of Washington.

THE Legislature of Washington at its session of 1923 made a number of changes in its compensation law, largely in the way of increases in the amounts of compensation payable. A summary of the changes made has been furnished the bureau, and is reproduced herewith:

1. The waiting period was reduced from seven to flat three days on all cases.
2. Time awards for single men raised from $30 to $35.
3. Time awards for married men raised from $37.50 to $42.50; with one child, $52.50; with two children, $60, and $5 for each additional child.
4. Orphan children raised from $10 to $25 per month, with limit of $75.
5. Widow's monthly pension increased from $30 to $35 per month; with one child, $47.50; with two children, $55, and $5 for each additional child.
6. Permanent total disability: Pension for married men raised from $30 to $40 per month; with one child, $52.50; with two children, $60, and $5 for each additional child. Single men raised from $30 to $35.
7. Permanent partial disabilities increased 20 per cent, raising maximum from $2,000 to $2,400.
8. Abolished separate classes in accident reserve fund.
9. Preference lien for industrial insurance premium.
10. Provides penalty for misrepresentation of pay roll.
11. New elective adoption clause increasing coverage of act under certain stipulated conditions.
12. Small changes in administration of medical aid law.
13. Medical-aid contributions to be paid into one fund, consolidating five separate medical-aid class funds.
14. Merit rating law based solely upon compliance with all safety requirements and experience. Where cost is 76 to 90 per cent, a 10 per cent credit; 50 to 76 per cent, a 15 per cent credit; 25 to 50 per cent, a 20 per cent credit; below 25 per cent, a 30 per cent credit.

Accident Insurance in Finland, 1908 to 1919.

THE operation of the accident insurance law of Finland, with statistical data on accidents, compensation, fatality rates, etc., during the period 1908 to 1919 is summarized in Social Tidskrift, No. 12, 1922 (pp. 842–850), issued by the Ministry of Social Affairs and the Labor Bureau (*Socialministeriet och Socialstyrelsen*) of Finland.

With the passage of the workmen's accident insurance law on August 18, 1917, effective in 1918, the scope of compulsory accident insurance was considerably broadened. This law superseded the

employers' liability law of December, 1895. The table following summarizes the operations under the accident insurance law from 1908 to 1919.

OPERATIONS OF ACCIDENT INSURANCE LAW OF FINLAND, 1908 TO 1919.

[Mark at par=19.3 cents.]

Year.	Number of establishments insured.	Number of full-time workers.[1]	Total accidents.		Fatal accidents.		Invalidity annuities.		Death annuities.	
			Actual number.	Number per 1,000 full-time workers.	Actual number.	Number per 1,000 full-time workers.	Number.	Amount.	Number.	Amount.
								Marks.		*Marks.*
1908	3,099	97,494	3,252	27.2	39	0.3	331	31,138.95	30	6,822.18
1909	3,599	92,515	2,874	29.8	52	.5	296	30,699.55	32	7,489.86
1910	3,614	99,918	3,160	25.8	53	.4	275	27,413.51	24	5,649.00
1911	3,013	104,202	3,469	27.7	81	.7	327	35,015.40	38	8,000.00
1912	4,435	110,369	3,873	30.5	70	.6	326	29,845.97	33	7,488.00
1913	4,725	115,085	4,259	31.8	84	.5	337	35,414.84	45	10,293.00
1914	4,742	113,342	3,767	27.8	63	.5	356	36,972.56	26	6,120.00
1915	4,918	105,932	3,672	29.0	70	.6	333	33,259.83	29	6,742.48
1916	5,332	121,535	4,353	30.3	102	.7	410	43,610.89	37	8,352.00
1917	5,450	121,693	3,205	22.4	81	.6	465	51,035.05	45	9,828.00
1918	6,976	117,004	3,441	24.6	75	.5	337	54,932.31	36	34,721.85
1919	9,529	153,422	8,228	46.3	146	.8	167	42,374.97	81	110,962.28

[1] Not including State employees, full-time workers (22,636 in 1918 and 24,137 in 1919), and employees (11 in 1918 and 42 in 1919) of a company in Hango.

The number of establishments insured was 28 per cent more in 1918 and 74.8 per cent more in 1919 than in 1917. The decrease in the number of insured full-time workers in 1918 was due to the industrial stagnation which followed the revolution. The number of full-time workers in 1919 was 26.6 per cent greater than the corresponding figure for 1917. The effects of extending compulsory insurance were shown in the accident figures for 1919, which increased 156.7 per cent over the 1917 figures and 129.3 per cent over the average figure for the 10-year period 1908 to 1917. The number of deaths in 1919 was 80.4 per cent more than in 1917 and 110.1 per cent more than the annual average for the period 1908 to 1917. In 1918 compensation was paid in 597 permanent disability and 2,165 temporary disability cases. The corresponding figures for 1919 were 974 and 6,204. Of the total number of disabling accidents 78.4 per cent in 1918 and 86.4 per cent in 1919 were temporary, i. e., lasting for less than 120 days. The marked increase in the reported number of accidents in 1919 was due to the fact that minor injuries were probably more fully reported after the insurance applied to temporary disability and also because the waiting period decreased from 6 to 2 days.

Of the invalidity pensions awarded in 1918, 240, representing a sum of 25,307.75 marks ($4,884.40, par), were for accidents which had occurred in preceding years and were regulated by the old law. The increases fixed according to the 1917 regulations are not shown in the 1918 figures. The decrease in the number of terminated invalidity pensions in 1919 is due to the fact that after the new law became

effective most of the injuries which resulted in permanent disability were first classed as temporary and are not included in the table. In 1918, 250 temporary invalidity pensions, totaling 45,469.90 marks ($8,775.69, par), were paid and in 1919 there were 859, amounting to 223,744.24 marks ($43,182.64, par).

The accident frequency rates per 1,000 full-time workers in specified industries during the 12-year period under review are shown in the table below:

ACCIDENT FREQUENCY RATES (PER 1,000 FULL-TIME WORKERS) IN SPECIFIED INDUSTRIES IN FINLAND, 1908 TO 1919.

Industry.	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
Workshops	37.0	33.8	45.2	39.3	37.4	38.7	36.9	37.9	63.9	36.0	34.6	78.2
Saw-mills	42.8	41.2	49.5	49.8	55.2	53.6	41.1	50.6	52.0	34.7	60.3	102.8
Paper	35.5	28.9	32.2	31.5	30.7	31.6	29.5	30.8	24.7	19.9	34.6	77.2
Textile	13.9	10.9	10.6	11.5	11.9	14.9	9.9	11.0	12.4	11.1	15.2	24.2
Building trades	10.3	16.3	.....	7.8	6.8	13.6	37.1	26.2	18.1	29.9	22.2	49.9
Land transportation	8.5	9.6	6.9	9.2	9.5	8.6	8.3	10.8	15.3	8.2	12.3	14.9
Agriculture	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13.4	24.4

Amendment of German Workmen's Insurance Code and of Insurance Law for Salaried Employees.[1]

ON NOVEMBER 10, 1922, the Reichstag enacted a law amending both the workmen's insurance code (*Reichsversicherungsordnung*) and the insurance law for salaried employees.[2] The new law provides a number of essential changes in the basic provisions of these two insurance laws. In the case of many salaried employees the question whether they are subject to compulsory invalidity and old-age insurance under the workmen's insurance code or under the insurance law for salaried employees was hitherto very difficult of determination. The new law removes any doubt in this respect. It also contains new regulations regarding benefits and contributions, creates uniform insurance authorities and procedure for both branches of insurance, and although under the new law insurance of manual and of nonmanual workers are still separate branches of German social insurance, the law may nevertheless be considered as an initial step toward the ultimate consolidation of these two branches of insurance.

According to the new law all nonmanual workers belonging to the following classes whose annual salary does not exceed 840,000 marks [3] are subject to compulsory insurance under the salaried employees' insurance system:

1. Salaried employees in managing positions.
2. Officials, foremen, and other nonmanual workers in similar higher positions.
3. Office employees (in so far as they are not exclusively employed as messengers, cleaners, etc.), inclusive of office apprentices and clerks in workshops.

[1] Germany, Reichsarbeitsministerium, Reichs-Arbeitsblatt, Berlin, Jan. 1, 1923, pp. 8–10; Korrespondenzblatt des Allgemeinen Deutschen Gewerkschaftsbundes, Arbeiterrechts-Beilage No. 12, Berlin, Dec. 9, 1922.

[2] See U. S. Bureau of Labor Bulletin No. 96 for a full translation of the workmen's insurance code and Bulletin No. 107 for one of the insurance law for salaried employees.

[3] A decree of Dec. 21, 1922, has raised this limit to 1,200,000 marks.

4. Clerks and apprentices and other nonmanual workers in commercial establishments, pharmacists, and pharmacists' apprentices.
5. Actors and musicians, irrespective of the standard of their work from an artistic point of view.
6. Salaried employees in educational occupations, welfare work, and nursing.
7. Captains, deck and engineer officers, pursers, pursers' assistants, and other salaried employees in similar positions in maritime and inland navigation, irrespective of their training and education.

Members of the police and soldiers, if they request of their superiors that they be insured under the salaried employees' insurance system, as well as independent teachers and educators, are also subject to salaried employees' insurance.

The new law does away with the obligation of certain classes of persons to be insured under both insurance systems. Persons subject to compulsory insurance under the salaried employees' insurance system are no longer subject to invalidity insurance under the workmen's insurance code and vice versa.

The following persons are subject to compulsory insurance under the invalidity insurance scheme:

1. Unskilled manual workers, journeymen, and domestic servants.
2. Home workers.
3. The crews of German seagoing vessels and the crews of vessels engaged in inland navigation, with the exception of ships' officers.
4. Helpers and apprentices in so far as they are not subject to insurance under the salaried employees' insurance scheme or are exempted from insurance.

Members of the police force and soldiers, if they request that they be insured under the invalidity insurance system, are also subject to compulsory invalidity insurance. Such persons therefore may choose under which of the two insurance schemes they shall be insured.

Under both insurance schemes the insurability of persons is no longer dependent on their completion of the sixteenth year of age.

One who has ceased to be engaged in an employment subject to salaried employees' insurance and has paid dues for at least six contributory months because of being subject to the insurance, must continue the insurance voluntarily if he wants to retain for himself the right to benefits.

Persons who exercise on their own account one of the occupations subject to compulsory insurance under the salaried employees' insurance scheme, or are only temporarily employed in such an occupation, or serve in an employment for which only maintenance is granted as compensation, or who teach for pay during their training for a selected occupation may insure themselves voluntarily under the salaried employees' insurance scheme.

The new law establishes 13 uniform salary and wage classes for persons subject to insurance under either the salaried employees' insurance system or the invalidity insurance system of the workmen's insurance code and also sets up new regulations concerning the contributions for each of the two insurance schemes, as shown in the following table:

RATES OF CONTRIBUTION UNDER SALARIED EMPLOYEES' AND WORKMEN'S INVALIDITY INSURANCE SYSTEMS IN GERMANY, BY WAGE GROUPS.

[Mark at par=23.8 cents.]

Salary or wage group.	Rate of contribution.		Salary or wage group.	Rate of contribution.	
	Per week: Workmen's invalidity insurance.	Per month: Salaried employees' insurance.		Per week: Workmen's invalidity insurance.	Per month: Salaried employees' insurance.
	Marks.	*Marks.*		*Marks.*	*Marks.*
Under 7,200 marks	10	60	144,000 to 215,999 marks	110	1,150
7,200 to 13,399 marks	20	100	216,000 to 323,999 marks	145	1,690
14,400 to 28,799 marks	30	170	324,000 to 431,999 marks	180	2,340
28,800 to 50,399 marks	40	280	432,000 to 575,999 marks	225	3,100
50,400 to 71,999 marks	50	420	576,000 to 719,999 marks	270	3,970
72,000 to 107,999 marks	65	600	720,000 marks and over	320	4,840
108,000 to 143,999 marks	85	820			

The contributions continue to be payable in equal parts by the employer and the employed. They are to be paid by means of stamps which are to be pasted on the insurance card issued to each insured person. The employer has to pay the full amount of the weekly or monthly contribution and is authorized to deduct the share of the employee from the latter's salary or wage.

The new law does away with the double payment of benefits. Insured persons who have paid contributions during the full waiting period under both insurance systems must choose whether they wish to draw a retirement pension under the salaried employees' insurance or an invalidity pension under the workmen's invalidity insurance. The choice of one or the other insurance system is binding upon the insured person and his survivors.

No important change has been made in the provisions relating to the duration of the waiting period.

The new law discontinues old-age pensions under the workmen's invalidity insurance system, or rather commutes these pensions into invalidity pensions. It provides that each insured person who has completed his sixty-fifth year of age or has become a permanent invalid as the result of sickness or other infirmity shall receive an invalidity pension.

The computation of retirement and invalidity pensions is now being effected according to uniform principles, the sole difference being that pensioners under the invalidity insurance system receive a State subsidy of 50 marks per year and that, corresponding to the larger contributions, the pensions are higher in the salaried employees' insurance than in the invalidity insurance. Under both insurance systems the retirement and invalidity pensions are computed as follows: Under both systems the pensioner is allowed a basic pension of 720 marks, to which in the case of workmen insured under the invalidity insurance system there is added a State subsidy of 50 marks. According to the number of contributions made and the contributory class of the insured person a supplementary increase is allowed which in the salaried employees' insurance amounts for

each contributory month in salary class 1 to 5.40 marks, rising to 792 marks in salary class 13. In the invalidity insurance the supplementary increase amounts, for each contributory week, in wage class 1 to 0.72 mark, rising to 86.40 marks in wage class 13. If a person in receipt of a retirement pension has children under 18 years of age or orphaned grandchildren under 18 years of age, whom he supports wholly or largely, the pension is increased by 960 marks per year for each child or grandchild. In the case of invalidity pensions a like increase is granted if the pensioner has children under 15 years of age.

The widows' and the widowers' pensions in the salaried employees' insurance amount to two-fifths of the retirement pension and in the invalidity insurance to four-tenths of the basic amount and supplementary increases of the invalidity pension. In the salaried employees' insurance the widow is favored as compared with the invalidity insurance because she need not be an invalid in order to become entitled to a pension.

Formerly half orphans received each one-fifth and orphans each one-third of the widow's pension under the salaried employees' insurance. These shares have been doubled by the new law to two-fifths and two-thirds, respectively. In the invalidity insurance scheme no change has been made in this respect, each orphan receiving as hitherto half the widow's pension.

The new law provides for a cost-of-living bonus to each pensioner. In the case of persons in receipt of a retirement, invalidity, widows' or widowers' pension this bonus amounts to 9,000 marks per year, and in the case of persons in receipt of an orphan's pension, to 4,500 marks. Aliens living outside of Germany are not entitled to pension increases granted under the law nor to this bonus, unless the Minister of Labor grants an exception in their case.

The business administration and procedure of the salaried employees' insurance system has been changed by the new law to conform to the provisions of the workmen's insurance code.

Salaried employees who, on entering an employment subject to insurance, have completed their thirtieth year of age and have been insured with a private life insurance company for at least three years may on their application be exempted from payment of contributions to the salaried employees' insurance system, if the amount of the annual premium paid to the insurance company is at least equal to the contributions which they would have to pay under the new law.

The provisions of the new law relating to salaried employees' insurance came into force on November 1, 1922, and those relating to invalidity insurance on January 1, 1923.

Workmen's Compensation in Great Britain, 1921.

THE principal Secretary of State for the Home Office of Great Britain has issued a pamphlet setting forth the operations of the workmen's compensation act, 1906, and the employers' liability act, 1880, for the calendar year 1921. Statistics of compensation paid include payments under the war addition acts of 1917 and

1919, by which current or accruing awards were paid larger amounts, for limited periods, than were provided for by the original act.

Statistics are presented for the "seven great groups of industries in which returns are called for from employers under section 12 of the act." These are mines, quarries, railways, factories, docks, constructional work, and shipping. While these groups cover a large proportion of the chief industries, "they do not by any means cover the whole field." The act applies to commercial, clerical, and domestic employments, besides the industries of building, road transport, and agriculture, which are not embraced in the figures given. The reports in the seven groups named covered 146,946 employers, of whom 120,846 were included in mutual associations and insurance companies which made the returns on behalf of the employers included in or insured by them. Such returns covered 70.2 per cent of the fatal cases and 69.3 per cent of the compensation in such cases; also 72.4 per cent of the disability cases and 75.2 per cent of the compensation therefor. Of the total amount of compensation, £2,480,005 ($12,068,944, par), or 45 per cent, was paid by mutual associations; £1,632,405 ($7,944,099, par), or 30 per cent, by insurance companies, and £1,396,985 ($6,798,428, par), or 25 per cent, by uninsured employers. Separate returns from employers numbered 26,100, of which 23,810 showed no cases of payment of compensation under the act.

The number of persons under the act in the seven industries included in the report during this year was 7,315,866, a reduction of a little more than 1,000,000 from 1920, which latter figures were also somewhat less than for 1919. The figure called for is the average number employed throughout the year. Fatal cases during the year numbered 2,385—more than 1,100 less than in 1920; while nonfatal cases showed a falling off of more than 98,000, being 283,361 in 1921, as against 381,986 in 1920. Payments for compensation in fatal cases totaled £518,064 ($2,521,158, par), or an average of £217 ($1,056, par) per case, £3 ($14.60, par) more than in 1920, and £56 ($272.52, par) more than in 1914. The payments in nonfatal cases totaled £4,991,331 ($24,290,312, par). The falling off in the number of accidents in 1921 is explained by the increase of unemployment, while the reduction in wages which took place in many important industries is also influential. However, the "total amount of compensation paid in nonfatal cases is by no means commensurate with the fall in the number of cases." The number was reduced by 25.8 per cent, while the amount of compensation was but 4.4 per cent less. Lump-sum settlements in 1921 averaged £73 ($355, par), as against £62 ($302, par) in 1920, while the average amount in weekly payment cases advanced from £11 ($54, par) in 1920 to £13 ($63, par) in 1921. This increase was attributed to the depression in trade and consequent lack of employment, which delayed the return to work of disabled workmen either at full employment or at light work. This opinion is borne out by the figures showing the period of duration of disability, which was longer in 1921 than in 1920.

The foregoing figures do not include administration or medical and other expenses.

The following table shows the number of persons employed in each industry, the amounts paid for compensation, and the average rate per person employed.

PERSONS EMPLOYED, TOTAL COMPENSATION PAID, AND CHARGE PER PERSON EMPLOYED, BY INDUSTRIES, 1921.

[Conversions on basis of £ at par = $4.8665.]

Industry.	Number of persons employed.	Total compensation paid.	Charge per person employed.	
			1920	1921
Shipping	201,464	$761,729	$4.01	$3.77
Factories	5,218,311	11,989,995	2.25	2.29
Docks	127,844	1,028,705	7.16	8.05
Mines	1,109,023	10,986,177	9.06	9.92
Quarries	62,722	317,153	4.62	5.05
Constructional work	86,444	325,515	3.26	3.77
Railways	510,058	1,402,194	2.84	2.76
Total	7,315,866	26,811,470	3.49	3.67

The following brief table shows, for nonfatal accidents for the three years, 1919 to 1921, the per cent of cases of accident and of industrial disease, respectively, having each specified duration of disability payments:

PER CENT OF CASES OF ACCIDENTS AND INDUSTRIAL DISEASES IN WHICH COMPENSATION WAS PAID FOR EACH SPECIFIED PERIOD.

Year.	Per cent of cases receiving compensation for each period.							
	Accidents.				Industrial diseases.			
	Under 4 weeks.	4 and under 13 weeks.	13 and under 26 weeks.	26 weeks and over.	Under 4 weeks.	4 and under 13 weeks.	13 and under 26 weeks.	26 weeks and over.
1919	59.55	34.76	3.73	1.96	36.56	33.22	8.04	22.18
1920	58.21	35.62	4.00	2.17	31.70	30.25	10.52	27.53
1921	55.16	37.05	5.28	2.51	31.26	29.96	10.28	28.50

A survey of all accident cases for which weekly payments are made (i. e., not including lump-sum settlements) showed that compensation was paid for less than two weeks in 8.87 per cent of the total number of cases; for two weeks and less than 3, in 28.65 per cent; for 3 weeks and less than 4, in 17.64 per cent; for 4 weeks and less than 13, in 37.05 per cent; for 13 weeks and less than 26, in 5.28 per cent; and for 26 weeks and over, in 2.51 per cent. An examination of the brief table above shows a marked increase in the duration of disablement in both accident and industrial disease cases, particularly the latter. An explanation for this has already been noted.

Industrial disease cases occurred mainly in the mining industry, chiefly due to nystagmus, beat hand and beat knee. The report notes a striking growth in the number of cases of miner's nystagmus since 1908, the first full year after the disease was scheduled under the act. The number of new cases advanced from 386 in 1908 to 1,375

in 1911, 2,775 in 1914, 2,865 in 1920, falling off to 1,913 in 1921. The aggregate number of cases, i. e., those continuing from previous years, has shown an unbroken increase, reaching the maximum of 4,804 in 1921.

The number of applications for arbitration has almost uniformly decreased since the year 1912, which is the first year for which figures are shown. These represent disputes which call for outside intervention, and the figures disclose an interesting tendency to reach amicable adjustments. Thus in 1912 there were 11,042 applications for arbitration, falling off to 6,732 in 1915, 6,024 in 1918, 5,331 in 1920, and 5,232 in 1921.

The employers' liability act of 1880 offers a concurrent remedy at the option of the injured worker. However, its practical disuse is shown by the fact that while in 1912 there were 197 actions under this law, there were but 85 in 1916, 63 in 1918, and 27 in 1921.

Medico-Legal Examinations and the Workmen's Compensation Act, Great Britain.

DR. JOHN COLLIE, a medical examiner of wide experience under the British workmen's compensation act and in legal cases generally, has brought out a second edition of his book, Medico-Legal Examinations and the Workmen's Compensation Act. The opening chapter discusses the psychological and moral effects of legislation, under which head are presented the conclusions arrived at from a large number of examinations with regard to the subject of hysteria, morbid impressions, and malingering. Emphasis is laid upon the part played in the development of such conditions and symptoms by the suggestions and artifices of lawyers promoting damage suits under the common law. The fact is also recognized that many physicians are not qualified or are not disposed to handle such cases with adequate discrimination and firmness. Numerous illustrations are given of the result of conscious or unconscious development of conditions resembling traumatic neurasthenia. However, it was well recognized that "by introspection and concentration of attention many sensory impressions may be brought from beyond the margin into the focus of consciousness."

Practical suggestions are made to examining physicians in connection with such cases, emphasis being laid on the real difficulties under which the injured workman suffers and the frequently deleterious influences that surround him; also on the need of sustaining and developing moral standards and self-respect of the injured man and his family.

The position of the writer with reference to hernias differs somewhat from that adopted by many of the industrial commissions of the United States in regard to operations. "One is loath to recommend an operation for a radical cure, as some 15 to 20 per cent of attempted radical cures are failures." He states that "with a perfectly fitting truss anyone can do manual labor," but continues: "If, however, I were an employer of labor, I should never employ anyone with a hernia, even though he wore a truss, for workmen are careless and

the day arrives when the truss does not fit. Strangulation may occur, and the employer will be held to be liable. At entrance examinations for the public service I always refuse men with rupture whose work entails hard manual labor."

The writer agrees with a large number of American authorities that the cause of hernia is a congenital defect and that a traumatic rupture, or even its actual development as a direct result of the occupation, is extremely rare. The question usually asked a medical witness is said to be: "Assuming that the hernia occurred whilst at work, did his work accelerate the advent of the hernia?" It is said that the assumption begs the question, which should properly be: "Did the hernia occur at work, or was it occurring for months before, and was its discovery but the final stage of a series of happenings?" However, if the question must be answered as first stated, "then the only answer an honest man can give is, 'Yes'; but it inevitably leads to an injustice, for a lay arbitrator or jury at once decides in the applicant's favor."

The subject of contracting out is considered in this connection and strongly recommended, though absolutely precluded by the British statute of 1906. Employers discriminate without reason against workmen with a limp or other suggestions of physical defect which may not at all increase the liability to injury, while if a form of contracting out were permitted they would probably be given opportunity to engage in desired employment. "Why should not the State arrange for the employment of men suffering from certain declared disabilities, provided they contract to pay the extra cost (occasioned by their defects) of insuring against their possible claims for injury?" The number of illustrative cases adduced adds largely to the suggestiveness of the discussion.

Succeeding chapters summarize the compensation laws of Great Britain, discuss the intention and results of the present statute, and suggest a number of amendments, particularly from the standpoint of the medical referee. The concluding chapter discusses the alterations in the compensation acts due to industrial and monetary changes consequent upon the war. Some important recent decisions are also discussed, the final section being devoted to the subject of military malingering.

LABOR LAWS AND COURT DECISIONS.

Powers of the United States Railroad Labor Board (Pennsylvania Railroad Case).

THE Supreme Court of the United States on February 19, 1923, handed down a decision in the case (Pennsylvania Railroad Co. *v.* United States Railroad Labor Board) involving the right of the board to issue orders and findings, under the terms of the transportation act of 1920 (41 Stat. 456, 469). The case was before the court on appeal from the United States Circuit Court of Appeals for the Seventh Circuit, the matter having originated in the United States District Court for the Northern District of Illinois. In this last-named court the railroad had sought to restrain by injunction the publication of a decision of the board with regard to the election of employee representatives in connection with a dispute between the railroad and its employees. The injunction sought for was granted. (287 Fed. 693; see MONTHLY LABOR REVIEW for June, 1922, pp. 160–163.) In the court of appeals, however, this ruling was reversed. (282 Fed. 701; see MONTHLY LABOR REVIEW for September, 1922, pp. 202–204.) This last position was upheld on the present hearing (43 Sup. Ct. 278).

In the trial court various points had been raised, including the constitutionality of the statute and the power of the board to intervene on its own motion. The contentions of the board had been upheld as to both of these points, and the higher courts ruled similarly; the point in conflict therefore was rather as to the scope of the powers of the board, which the trial court had limited. In the Supreme Court decision, delivered by Mr. Chief Justice Taft, the case is stated quite fully, showing the history of the situation as a consequence of national control during the war, as well as giving an analysis of the portion of the transportation act of 1920 specifically applicable. The Director General of Railroads, under Federal control, had increased wages and established rules and working conditions, but at the time that his jurisdiction terminated further demands by the employees through their various unions were pending and undetermined. On the organization of the Labor Board created by the transportation act, the board assumed jurisdiction of these demands, rendering a decision as to wages on July 20, 1920, but postponing the matter of rules and working conditions until April 4, 1921. It then decided, at the instance of the railroad companies, to remand the matter of rules and working conditions to the individual carriers and their respective employees, continuing the status holding over from the control of the director general until July 1, 1921. As that date approached it was found that "some carriers in conference with their employees had agreed upon rules and working conditions, and others had not." As to the latter, the old rules and working conditions were

directed to be continued until a decision should be arrived at. In the meantime the board had laid down certain principles or rules of guidance under which it intended to operate, among them being provisions as to representation of employees in the conferences that might be held with employers.

The Pennsylvania Railroad System declined to comply with the mode of selection indicated by the board, and the Federated Shop Crafts of the Pennsylvania System, affiliated with the American Federation of Labor, objected to the ballot provided for by the company and conducted its own election, resulting in a dual and conflicting group of alleged representatives. The federation filed its complaint against the company in accordance with the provisions of the transportation act and, on hearing had, the board ordered a new election, for which it prescribed rules and a form of ballot. The company's contention that the board had no proper jurisdiction because there was no dispute was rejected, but the company undertook to proceed in disregard of the board's findings.

The law provides for an immediate transmission to the parties in dispute of all decisions made by it and they "shall be given further publicity in such manner as the Labor Board may determine." It was the anticipated publication of the decision above noted that was objected to, as being on a subject outside the purview of the board—a position which the trial court had accepted. Mr. Chief Justice Taft announced the purpose of the law as being "to encourage settlements without strikes, first by conference between the parties," after which adjustment boards might be resorted to or a national board appointed by the President. The decisions of this board are not to be enforced by process. "The only sanction of its decision is to be the force of public opinion invoked by the fairness of a full hearing, the intrinsic justice of the conclusion, strengthened by the official prestige of the board, and the full publication of the violation of such decision by any party to the proceeding." The function of the Labor Board is to direct public criticism and the weight of opinion against the party who is found by the board to deserve it.

Taking up first the contention that the board was without jurisdiction until a dispute had been conferred upon without success, the conclusion was announced that, though the act "requires a serious effort by the carrier and his employees to adjust their differences as a first step in settling a dispute," other provisions of the law authorize one party to invoke intervention, which was found to be the case in the present instance. Conferences had been attempted, and the matter was subsequently brought before the board by Federation No. 90 of the shop crafts of the Pennsylvania System. As to this federation, "its name indicates, and the record shows, that the federation is an association of employees of the Pennsylvania Co. directly interested in the dispute." The company had refused to confer with the federation, claiming lack of proof that it represented a majority of the employees in the craft affected; it also contended that the federation is a labor union affiliated with the American Federation of Labor, and the phrase "association of employees" used in the act was not intended by Congress to include labor unions. The court found "nothing in the act to impose any such limitation, if the organization in other respects fulfills the description of the act. Congress

has frequently recognized the legality of labor unions, and no reason suggests itself why such an association, if its membership is properly inclusive, may not be regarded as among the organizations of employees referred to in this legislation." If the Labor Board is without jurisdiction to decide who may represent the employees as to their grievances, and such matters must be determined in conference held prior to any assumption by it of jurisdiction, this "would give either side an easy opportunity to defeat the operation of the act and to prevent the Labor Board from considering any dispute. It would tend to make the act unworkable. If the board has jurisdiction to hear representatives of the employees, it must of necessity have the power to determine who are proper representatives of the employees." The law specifically gives it power to "make regulations necessary for the efficient execution of the functions vested in it by this title," and this authorization was held to include the power to determine who are proper representatives and "to make reasonable rules for ascertaining the will of the employees in the matter." The subject of representation is one of the most important ones in efforts to secure harmonious relations. "The act is to be liberally construed to effect the manifest effort of Congress to compose differences between railroad companies and their employees, and it would not help this effort to exclude from the lawful consideration of the Labor Board a question which has so often seriously affected the relations between the companies and their employees in the past, and is often encountered on the very threshold of controversies between them."

Another objection was that the board by its rules and decisions "compels the railroad company to recognize labor unions as factors in the conduct of its business." The company insists upon its right to deal with individual representatives of its own employees, while the employees, at least those who are members of unions, contend that they are entitled to select their own representatives without restriction to employees of the company, but that officers of their unions qualified to deal with and protect their interests may lawfully be chosen. It was said that "this statute certainly does not deprive either side of the rights claimed." The law in question does not "provide a tribunal to determine what were the legal rights and obligations of railway employers and employees or to enforce or protect them. Courts can do that. The Labor Board was created to decide how the parties ought to exercise their legal rights so as to enable them to cooperate in running the railroad." The board acts as a board of arbitration, and by way of compromise. "The only limitation upon the board's decisions is that they should establish a standard of conditions, which, in its opinion, is just and reasonable." The board can not exercise any constraint upon either party in reference to its decisions "except the moral constraint, already mentioned, of the publication of its decision." The courts are not to pass upon the correctness of the conclusion reached if the board "keeps within the jurisdiction thus assigned to it by the statute. * * * It is not for us to express any opinion upon the merits of these principles and decisions [embodied in the rules and decisions above referred to]. All that we may do in this case is to hold, as we do, that they were within the lawful function of the board to render, and not being compulsory, violate no legal or equitable right of the complaining company."

The action of the district court was therefore found wrong in enjoining the board from entertaining further jurisdiction and publishing its opinion—a decision which the court of appeals had rightly reversed.

The question whether the Railroad Labor Board is a corporation under the act, capable of suing or being sued without the consent of the United States, was held not necessary to be considered, neither that as to the board's power to publish opinions in matters beyond its jurisdiction.

Collective Agreement Affecting Production in Window-Glass Industry.

THE National Association of Window Glass Manufacturers, through its wage committee, on or about September 16, 1922, entered into an agreement with the wage committee acting for and on behalf of the National Association of Window Glass Workers. The manufacturers' group comprises practically all producers of hand-blown window glass, while the workers' association is said to be a union of all the skilled workmen in the hand-blown window glass industry. The factories involved are located in various States of the Union, the bulk of their product being sold and shipped in interstate commerce. Besides agreements as to wages and working conditions, the contract divides all factories into two groups, A and B. Group A was to run for 16 weeks from September 25, 1922, to January 27, 1923, while group B factories were to run from January 29, 1923, to June 11, 1923. This established what is called a two-period system. No factory that ran in the fall could run in the spring; no manufacturer could run through the year unless he had two separate factories, one of which should be placed in group A and the other in group B. Under a similar agreement of the preceding year "an operator who desired to equip a second factory so that he might continue production during the second period, was compelled to build an entirely independent factory and not merely an additional furnace and equipment, at a cost of $75,000."

The United States brought this suit for the purpose of dissolving and enjoining an agreement in restraint of interstate trade or commerce as curtailing the production of window glass, restricting its distribution in interstate trade, and limiting the opportunity of workers to follow their normal occupation. When the bill was filed a motion was made for a preliminary injunction, but as all the defendants appeared and answered, the "motion was by agreement converted into a final hearing, and the case submitted for a final decree on the merits."

The associations cited certain cases in support of their contention that interference with manufacture or production alone is not interference with interstate trade or commerce. (Hammer *v.* Dagenhart, 247 U. S. 251, 38 Sup. Ct. 581 [see Bull. 258, p. 96], and others.) Admitting the correctness of the principle within its field, it was said to be inapplicable in the situation shown by the facts set forth in the instant case. The purpose of the agreement and of the activity under it was not to secure rates of wages or working conditions, but there was an "interference with interstate commerce, not merely

ancillary and incidental" to the execution of a purpose and outside of the real intent of the parties entering into the agreement. Their action has a "direct, material, and substantial effect upon the production, distribution, and price of hand-blown window glass in interstate trade or commerce," so that an intent to effect these ends "must be inferred." The agreement "purposely and intentionally made" must be regarded as representing the intention of the parties to produce the consequences that necessarily follow.

The Clayton Act was held not to grant any exemption in the case, its exemptions as regards labor organizations applying to the more restricted field of mutual help and welfare, sought by legitimate ends. Cases were cited construing the antitrust act in its application to labor organizations, leading to the finding that the rule laid down by these cases is that "a combination or agreement having for its object and purpose the restraint of or undue interference with interstate trade or commerce is not a legitimate object of a labor organization nor a lawful means of carrying out its objects." The activities of the workers' association were chiefly responsible for the conditions found. "They seem to have assumed the entire burden of enforcing vigorously and relentlessly" the terms of the agreement.

The clear purpose and effect of the agreement was to keep one-half of the furnaces idle during the first period while the others were working, the situation being reversed during the second period. The idea came into being during the war, owing to the restraint placed by the United States Government upon nonessential industries, with a view to conserving fuel and labor. This restraint on production was found to be advantageous to "the workers if not to the manufacturers," and representatives of the former moved successfully to secure its continuance after the war. Arguments were advanced to support the claim that production is not diminished nor prices enhanced, and that both the manufacturers and the workers are benefited without injury to the public. However, Judge Westenhaver regarded it as inevitably true that this method of operation results necessarily in restraint of the production of hand-blown window glass. "This is so obvious that testimony to prove it would not strengthen one's conviction." Besides limiting the output, it is obvious that the profits for the periods of 16 weeks and 18 weeks, respectively, for the two groups must be great enough to pay overhead expenses and yield returns on the capital invested. "The inherent and inevitable tendency of this situation is to induce manufacturers to market this limited quantity at a price higher than would otherwise be required if the output were larger." A third conclusion, though vigorously disputed, was that this restraint of manufacture and production would necessarily restrain interstate commerce, not merely incidentally and indirectly, but necessarily and directly.

The facts set forth above were said to bring the case "within the authorities which hold that interstate trade and commerce are unreasonably restrained and do not leave it within those authorities which hold that manufacture only is directly affected." A number of cases are then cited with excerpts showing the application of the principle to the case in hand, the conclusion being reached that "the

present case falls clearly within the principles announced in the foregoing cases." Not only is the restraint found to be unreasonable and illegal, but "the necessary and inevitable effect is unduly to restrain trade and commerce not only within but between the several States of the Union."

The contention that the restraints are reasonable, in view of the conditions in the industry, was then considered. It was said to be a dying industry since the invention of machines for blowing window glass, the present number of skilled workmen not being sufficient to run all plants continuously; and since the number of men actually qualified can be employed during both periods, it was said there was no unreasonable interference with production. The argument along this line was said by Judge Westenhaver to show conclusively, as it seemed to him, "that this method of operation drives workers from the industry." It requires removal from place to place instead of affording a fixed abode where a family could be maintained without the expense of removal or the alternative of separation for a part of the year. Reference was made to a vote taken by the membership of the workers' organization "urging the officials and committees of their association to procure a return to one continuous period of operation. The vote was two to one in its favor"; while a somewhat later ballot showed a proportion of four to one of the workers in favor of abandoning the two-period system. The argument of economic justification or noninterference therefore was rejected. Other considerations were brought forward, but nothing affected the conclusions reached as already indicated, and a decree for the Government was authorized, the decree to allow for a reasonable adjustment period before becoming effective.

Unconstitutionality of Law Providing Penalty for Nonpayment of Wages, Indiana.

THE State of Indiana has for a number of years had a law requiring employers to pay wages earned at least twice a month, imposing a penalty of 10 per cent of the unpaid wages for each day they remained unpaid after becoming due. (Acts of 1913, ch. 27; Burns' Ann. Stats. 1914, secs. 7989a, 7989b.) This act was challenged on the ground of its unconsitutionality in the case of Superior Laundry Co. *v.* Rose, 137 N. E. 761, decided by the Supreme Court of Indiana, January 26, 1923. A driver of a laundry wagon was discharged while his employer was indebted to him, as alleged, in the amount of $72.16 for wages. Action was brought claiming that the employer had refused to pay this, and asking for a recovery with the penalty. The jury was instructed as to the terms of the law and rendered a judgment in favor of the claimant for the amount of his wages and a penalty amounting to $314.76, or "more than four times the amount of wages alleged to be due." The case was appealed to the supreme court of the State, which discussed various wage payment laws of Indiana and other States. It was found that the statute under consideration embodied an absolute prohibition of the right of the parties to make contracts,

going beyond what might be regarded as a reasonable requirement of law for the protection of workingmen who might be injuriously affected by unduly delayed payments. Under this statute an employee might demand more than was due, and if the employer refused to pay, any actual balance due would be doubled within 10 days—a time too short for a legal determination, or even for extended negotiations; while "if he should delay payment for 90 days, he would owe 10 times the original debt, under the provisions of the statute, even though suit had not yet been commenced."

Of this it was said that the "penalty is not proportioned to the amount of wages withheld, but is without limit as to the time during which it shall continue to accumulate, or as to the total amount." This was said not to be equal protection of the law, by "threatening such dire consequences if he [the employer] shall litigate a claim for wages and not be entirely successful that he may fear to refuse a demand, even though convinced that it is unfounded and unjust." A law fixing a limited penalty and a reasonable attorney fee had been held constitutional in the State, but the present statute permits penalties which might be, "and in this case really are, excessive and oppressive." For the reasons stated the statute was declared unconstitutional in so far as it seeks to impose a penalty for the nonpayment of wages.

Picketing and Secondary Boycott to Enforce Unionization, Iowa.

THE Supreme Court of Iowa recently had before it a case involving the right of a proprietor to operate his barber shop without interference by the local barbers' union (Ellis *v.* Journeymen Barbers' International Union, Local No. 52, 191 N. W. 111). The plaintiff, Ellis, was formerly a journeyman barber and a member of the defendant local. Having decided to set up a business for himself, he could no longer retain his membership, but received a "retiring card" which recognized his former status and his right to be reinstated at any time in the future when he might cease to be an employer and again become a journeyman barber. At the same time he agreed to maintain a union shop, both as to workmen and rules and regulations, including hours and prices. The prices were those in force during the war, and Ellis concluded that for his custom, made up largely of laboring men, the prices were too high and the hours not convenient to his patrons. His employees "approved and agreed to" modifications as to prices and hours, and he undertook to withdraw from the union in order to operate freely and without contravening their rules.

Following this, picketing and attempts to persuade his employees to leave him were engaged in by the union, his customers also being approached to dissuade them from entering his shop. Sharp altercations resulted, "bordering at least upon a breach of the peace." Another line of action was an attempted boycott, both primary and secondary, directed against Ellis, the union seeking the cooperation of other employing barbers in the locality. This effort to involve them led to Ellis's including them as defendants, but the case against them was dismissed, they not being considered participants in the

activities directed against him, though they had attempted by persuasion to induce him to accede to the demands of the union. However, as they had no control over the acts of the union and took no part in the picketing, the case against them was held to have been properly dismissed. The trial court had granted an injunction against the maintenance of the picket and the "unlawful interference with the legal rights of the plaintiff, [which] partook of the nature both of a private nuisance and of a conspiracy." The claim that Ellis was a member of the union, and subject to its disciplinary regulations, was held to be without merit, since the union's only power over its members was by way of expulsion, and as Ellis had withdrawn, not even that penalty could affect him. Recognizing the legal status of a trade-union, and the "wide and legitimate field of activity which it may lawfully exercise in favor of its membership," it was said that "tyranny through the exercise of sheer power is not one of its prerogatives." The action of the court below in awarding the injunction against the union, and dismissing the action against the other employing barbers was affirmed.

LABOR ORGANIZATIONS.

Labor Unions in Nevada.

PART I of the Fourth Biennial Report of the Commissioner of Labor of Nevada, 1921–1922, contains a directory of the labor organizations of the State, and among other statistics the following table:

NUMBER AND MEMBERSHIP OF LOCAL UNIONS IN NEVADA, 1919 TO 1922, BY INDUSTRIES.

Industry.	1919		1920		1921		1922	
	Unions.	Members.	Unions.	Members.	Unions.	Members.	Unions.	Members.
Railroads	44	3,276	49	3,695	45	3,285	42	2,680
Mining	16	998	16	1,171	13	354	12	263
Building	12	445	13	529	13	427	13	401
Manufacturing	9	162	9	159	9	135	7	119
Miscellaneous [1]	12	681	13	783	11	605	10	636
All industries	93	5,562	100	6,337	91	[2] 4,808	84	4,099

[1] Barbers, clerks (retail), hotel and restaurant employees, meat cutters, musicians, street-car men, theatrical employees, laundry workers, and teamsters.
[2] This total is not the correct sum of the items, but the figures are given as shown in the original report.

The mining industry is reported as being "at present chaotic," from a labor organization viewpoint. The radical proclivities of minorities "tend to discredit organization efforts, on the one hand, while on the other unionism seems to have its active and ardent appeal to the underground employees of the State." The problem of organization is accentuated by the large proportion of mine workers of nationalities not familiar with the traditions and past progress of the miners' unions.

National Congress of Confédération Générale du Travail.[1]

THE national congress of the Confédération Générale du Travail was held in Paris from January 30 to February 2, 1923, this being the first general meeting of the confederation since the congress of Lille in July, 1921.[2] The congress was attended by 700 delegates representing 1,423 unions, 25 federations, and 34 departmental unions. Practically all of the questions which have been interesting French labor since the war were upon the program for discussion and action, including social insurance, family allowances, the tax upon wages, trade-union rights of civil employees, nationalization and

[1] L'Information Sociale, Feb. 15 and 22, 1923. Industrial and Labor Information, Feb. 16, 1923, pp. 6–15.
[2] See MONTHLY LABOR REVIEW, October, 1921, pp. 37–40.

monopolies, labor control, and the 8-hour day. Contrary to the methods pursued in previous congresses in which the discussions were general, the majority of the questions which were up for consideration were put in the hands of special committees which reported their decisions, in the form of resolutions, to the congress for final discussion and action.

The question of labor unity, which has agitated the ranks of labor since the extremists in the federation seceded in December, 1921, forming the C. G. T. Unitaire, was brought before the delegates on the second day of the congress by a letter from the executive committee of the C. G. T. U. expressing the desire of this organization for syndical unity and unity of action. The letter proposed that a confederal congress composed of delegates from the two organizations should be called for the purpose of considering a program of national and international action. While waiting for the actual coordination of the syndical organizations the committee advocated common action against the menace of war by all syndical organizations favoring the class struggle. The committee to which this proposition was referred for consideration decided upon a categorical refusal of the demand for unity upon the basis offered by the C. G. T. U. because of the adherence of this organization to the Moscow International. The committee believed, however, that it was possible to secure fundamental unity within regularly confederated syndicates, the syndicates retaining all their rights on the condition that the decisions of the congress should be respected. After long debate the congress adopted a resolution in practical agreement with the decision of the committee, basing its refusal to call a joint meeting of the two organizations on the fact that since the C. G. T. remains the central organization of the labor movement any steps toward unification of the different groups should take place within the C. G. T. itself.

The committee on the 8-hour day presented a unanimous report which the congress was asked to adopt without discussion. The resolution urged the united action of all the syndicates to oppose efforts to abolish the 8-hour day, which, it stated, had been openly attacked and was in danger of being set aside for a long period of time unless the working class should intensify by every means the propaganda in favor of it. As one means of accomplishing this result workers everywhere were urged to stop work whenever attempts are made to impose unreasonable derogations and where discussion with labor organizations of the conditions and rules governing these exceptions is refused. An amendment insisting upon the fact that the 8-hour day fills all the needs of national and international production was accepted and the resolution adopted unanimously.

The congress also went on record as opposed to the transfer of State monopolies such as transportation services, posts, telegraphs and telephones, arsenals, etc., to private industry and declared for the policy of "industrialized nationalization,"[3] which was first advocated by the economic council of the C. G. T. shortly after the formation of the council in 1920. It was decided to intensify the campaign for nationalization and to endeavor to obtain financial control and control of management immediately in all public services in order that

[3] See MONTHLY LABOR REVIEW, February, 1921, p. 194.

modern methods of accounting might be instituted and political influence eliminated. A resolution was also introduced protesting against governmental refusal to recognize the right of Government employees to belong to trade-unions.[4]

The congress declared that the problem of placement of workers was intimately connected with that of foreign labor and that no solution of the latter problem could be expected without a methodical and rational organization of the French labor market. The establishment of a system of closely associated employment offices under a national bureau was advocated, these offices to be under the direction of persons qualified in the scientific placement of workers. While not opposing a certain amount of immigration, the confederation believed that better means of protecting the interests of national labor should obtain and for that reason opposed the proposed law which would take away from the Ministry of Labor the control of foreign and colonial labor and transfer this department to a national immigration office under the Ministry of Foreign Affairs.

The custom of paying family allowances has grown rapidly in France during the past two years and a special study of the question has recently been completed by the C. G. T. The unions have opposed the practice of paying allowances according to the number of children in the family on the grounds that the extra allowance affects the basic wage and gives the employer an unfair advantage. In spite of this fact, however, the confederation believes that while the nation should be concerned with childhood and the family, this should properly be the duty of society and not of the employer. To secure this protection to the family a scheme of social insurance covering allowances for and care of children was outlined to which the employers should be compelled to contribute but which should be manged by official committees composed of representatives of the different interests.

In the matter of labor control the congress advocated labor and syndical control of (1) hiring and firing; (2) syndical agreements concerning wages, hours of labor, discipline, and all other questions relating to the industry or trade concerned; (3) the application of social laws and the rights of labor which have been juridically established by usage.

A proposed social insurance law which would provide old-age, sickness, invalidity, and maternity insurance was indorsed by the congress although it was considered that unemployment insurance should be included also. It was proposed that social insurance should be one of the principal claims of the working class at the labor demonstration on the 1st of May and that during the intervening period constant propaganda should be directed toward the workers and the public through the press and in public speeches in order to insure, if possible, the enactment of the law.

For the purpose of insuring to the country a supply of skilled labor a plan for a comprehensive system of apprenticeship was drawn up which provided for extension of compulsory school attendance to 14 years of age; modification of the programs of primary education to give a more important place to the study of subjects

[4] Idem, p. 192.

relating to agricultural, commercial, or industrial occupations especially in the last two years of school, and establishment of agreements between the national industrial, agricultural, and commercial federations of employers and employees, fixing for each trade the number of apprentices, wages, length of apprenticeship, and all the general conditions affecting the employment of such workers. Under the plan there would be created a legal organization called the trade chamber (*chambre de metiers*), the function of which would be to regulate and control apprenticeship regionally and locally. In this office there would be equal representation of employers and workers; the general interests of industry and commerce would be represented by delegates from the chambers of commerce, those of the working class by delegates from the labor exchanges or unions of syndicates, the civil authorities by inspectors of technical and labor education, and technical and labor education itself by delegates from the directors of technical schools.

A general resolution protesting against the cost of living, the movement to reduce wages, and the financial policy of the Government was passed. It was stated that the workers did not so much object to the principle of the tax upon wages as to the method of its application.

Trade-Union Movement in the Netherlands, 1921.[1]

THE falling off in the Netherlands in the number of organized workers that had set in in 1920 under the influence of unfavorable economic conditions continued also in 1921. The decrease in 1921 was, however, not so large as in 1920. The total number of organized workers, which on January 1, 1920, was 683,468, had fallen to 651,215 on January 1, 1921, and to 640,044 on January 1, 1922. The loss in membership suffered by workers' organizations in 1921, which in round figures amounted to 11,000, was chiefly due to a decrease in the number of female members, which fell from 50,702 to 43,976. The number of organizations, which at the beginning of 1920 was 8,728, had risen to 9,201 on January 1, 1921, and on January 1, 1922, had fallen again to 9,137. The great majority (511,795) of the organized workers of the Netherlands are affiliated with one of the five large central organizations in existence. The following table shows the membership of these central organizations at the beginning of 1920, 1921, and 1922:

[1] The Netherlands. Centraal Bureau voor de Statistiek. Overzicht van den omvang der vakbeweging op 1 Januari 1922 en instellingen en financiën van de vakvereenigingen in 1920. The Hague, 1922. Statistiek van Nederland, No. 359.

MEMBERSHIP OF CENTRAL TRADE-UNION ORGANIZATIONS IN THE NETHERLANDS AT THE BEGINNING OF 1920, 1921, AND 1922.

Central organization.	Affiliated trade-unions on Jan. 1—			Affiliated trade-union members on Jan. 1—			
						1922	
	1920	1921	1922	1920	1921	Number.	Per cent of total number of organized workers in the Netherlands.
National Labor Secretariat of the Netherlands	419	426	390	51,570	37,125	31,391	4.90
Netherlandish Federation of Trade-Unions	2,217	2,188	2,136	247,748	216,617	217,467	32.98
Netherlandish Federation of Christian Trade-Unions	1,253	1,456	1,482	66,997	73,819	71,332	11.14
Netherlandish Federation of Catholic Trade-Unions	1,927	2,228	2,215	141,002	146,030	142,035	22.19
General Federation of Netherlandish Trade-Unions	439	698	659	39,903	52,223	49,570	7.75
Total	6,255	6,996	6,882	547,220	525,814	511,795	79.96

According to the preceding table 298,428, or nearly three-fifths of the organized workers affiliated with central organizations, were affiliated at the beginning of 1922 with one of the three nonsectarian central organizations, the National Labor Secretariat, the Netherlandish Federation of Trade-Unions, and the General Federation of Netherlandish Trade-Unions. It should be noted here that steps have been taken for an amalgamation of the latter two organizations. The Catholic central organization has the next largest membership, while the Christian (Protestant) federation occupies third place.

At the beginning of 1922 there existed in the Netherlands 300 local trade-union councils with which were affiliated 2,644 trade-unions with a total membership of 304,166.

Of the total trade-union membership (640,044) in the Netherlands 381,380 members were manual workers in private employment, 49,850 were nonmanual workers in private employment, and 208,814 were manual workers and salaried employees in public services.

The number of organized workers in the most important occupations at the beginning of 1921 and 1922 is shown in the following table:

NUMBER OF ORGANIZED WORKERS IN THE MOST IMPORTANT OCCUPATIONS, JAN. 1, 1921 AND 1922.

Occupation.	Number of organized workers on Jan. 1—		Occupation.	Number of organized workers on Jan. 1—	
	1921	1922		1921	1922
Diamond workers	10,026	8,699	Office and shop clerks, traveling salesmen, etc.	34,030	32,024
Printing trades	18,062	17,721	Railroad and street-car employees	48,486	52,341
Building trades	77,421	73,242	Teachers, instructors, etc.	35,802	36,198
Woodworkers	16,203	15,139	Officials and civil service employees	39,389	39,515
Miners	8,895	9,390	Manual workers in public services	32,990	31,552
Metal workers	46,966	51,416	Factory workers	35,987	40,003
Textile workers	24,622	23,532	Postal, telegraph, and telephone employees	21,142	19,197
Cigar makers	20,354	17,208			
Agricultural and dairy workers	35,465	33,538			
Transport workers, seamen, etc.	40,951	41,709			

Nearly one-third (210,275) of the total number of organized workers in the Netherlands resided in one of the four largest cities (Amsterdam, Rotterdam, The Hague, and Utrecht), i. e., cities with a population in excess of 100,000.

A few data as to the resources, receipts, and expenditures of the central organizations, national federations, local unions, and trade-union councils for the year 1920 are given in the following table:

FINANCIAL STATISTICS OF TRADE-UNION ORGANIZATIONS IN THE NETHERLANDS, 1920.

[1 guilder at par=40.2 cents.]

Item.	Central organizations.	National and local unions.		Trade-union councils
		Total.	Per member.	
Per cent reporting	100	94	.....	82
	Guilders.	*Guilders.*	*Guilders.*	*Guilders.*
Resources Jan. 1, 1920	226,738	6,115,105	9.56	38,935
Resources Jan. 1, 1921	411,686	8,169,922	13.34	46,281
Receipts in 1920	2,239,522	15,668,145	25.03	653,147
Contributions	280,606	12,277,242	19.61	125,476
Strike assessments	1,743,037	1,902,855	3.04	464,715
Official organ	7,330	144,975	.....	.....
Miscellaneous	208,549	1,343,073	.....	62,956
Disbursements in 1920	2,054,573	13,610,944	21.74	646,297
Strike benefits	1,644,143	3,824,485	8.36	466,412
Unemployment benefits	.....	136,671	.....	.....
Sick benefits	.....	945,515	.....	.....
Death benefits	.....	141,669	.....	.....
Other benefits	56,302	97,444	.....	.....
Official organ	32,665	1,182,307	.....	.....
Propaganda	49,239	377,096	.....	.....
Salaries	114,392	2,019,045	3.23	64,113
Administrative expenses	37,530	1,255,976	.....	32,022
Refund to unions	.....	1,241,160	.....	.....
Miscellaneous	120,302	2,389,576	.....	83,750

Membership of Scandinavian Trade-Unions in 1921.[1]

Norway.

AT THE end of 1920 the Norwegian trade-unions had 142,642 members. By the end of 1921 the membership had decreased to 95,965 in 34 unions with 1,590 branches. This was a decrease of 46,667, or 32.7 per cent, in membership and of 265 in the number of branches.

The reduction in each of a number of unions was as follows:

MEMBERSHIP LOSS IN SPECIFIED NORWEGIAN TRADE-UNIONS DURING 1921.

Union.	Number.	Per cent.	Union.	Number.	Per cent.
General workers	15,160	48.5	Railway men	2,604	30.3
Iron and metal workers	6,428	30.7	Paper workers	2,420	21.6
Woodworkers	3,060	35.2	Clothing workers	1,656	49.7
Transport workers	2,953	29.8	Forestry and agricultural workers	1,627	72.7
Seamen and stokers	2,733	59.0	Sawmill workers	1,492	26.3

[1] The data on which this article is based are from Meddelelsesblad, Christiania, No. 9–10, 1922, pp. 135–138, 149, 152, 157; Fackföreningsrörelsen, Stockholm, No. 1, 1923, p. 16; Sweden, Socialstyrelsen, Sociala Meddelanden, Stockholm, No. 11, 1922, pp. 928, 929.

The total decrease in these 10 unions was 40,130. The only union which showed an increase was the masons' union with a membership increase of 241. There were 424 wage change movements, affecting 69,020 workers, which in 207 cases caused work stoppages involving 41,752 workers. During the year 301 wage agreements were made. The number of days lost because of labor disputes was 2,217,786 and the number lost through unemployment totaled about 4,000,000, or 49 days per member. Strike aid amounting to 3,746,009.89 kroner ($1,003,931, par), of which the national federation paid 1,380,013.50 kroner ($369,844, par), was paid out in 1921.

Four hundred and thirteen workmen received wage increases during 1921, amounting to 197,060 kroner ($52,812, par), or 477.14 kroner ($127.87, par) per worker. The agreements were extended for 9,594 workers. The wages of 35,256 workers were reduced by 23,961.11 kroner ($6,422, par), or 79.65 kroner ($21.35, par) each. To this, it is stated, must be added wage reductions on a sliding scale estimated at about 2,586,671 kroner ($693,228, par) or a total wage reduction for the year of about 26,500,000 kroner ($7,102,000, par). The wage reductions amounted to about 17 per cent for seamen, 15 per cent for tailors, 20 to 24 per cent for textile workers, 3 to 15 per cent for the graphic industries, 10 to 16 per cent for electrochemical industries, 20 to 30 per cent for the glass industry, and 3 to 20 per cent in the metal industry.

For traveling and unemployment aid 27 unions paid out the exceptionally large amount of 12,851,064 kroner ($3,444,085, par). Ten unions paid out 447,503.16 kroner ($119,931, par) in sick benefits. The sick funds received 97,431.10 kroner ($26,112, par) in refunds from public funds. Funeral benefits and insurance contributions from 27 unions amounted to 398,438.63 kroner ($106,782, par). Invalidity and other aid totaled 78,742.92 kroner ($21,103, par). In all 13,775,748.75 kroner ($3,691,901, par) were paid out through the insurance funds in 1921. The affiliated unions had an income of 20,204,997.59 kroner ($5,414,939, par) and expenditures amounting to 21,869,806.08 kroner ($5,861,108, par), a deficit of 1,664,808.49 kroner ($446,169, par).

Denmark.

ON DECEMBER 1, 1921, the Danish Confederation of Trade Unions consisted of 52 unions with 2,260 branches and 244,372 members, of whom 200,304 were men and 44,068 women. This represents a decrease since 1920 of about 34,883 members.[2]

[2] For an account of trade-unions in Denmark in 1921 see MONTHLY LABOR REVIEW, November, 1922, p. 207.

Sweden.

The table following shows the membership and the number of branches of the Swedish trade-unions on January 1 of each year, 1920, 1921, and 1922:

MEMBERSHIP AND NUMBER OF BRANCHES OF SWEDISH TRADE-UNIONS ON JANUARY 1 OF EACH YEAR, 1920, 1921, AND 1922.

Trade-union.	Number of branches, Jan. 1—			Number of members, Jan. 1—			Number of woman members, Jan. 1—		
	1920	1921	1922	1920	1921	1922	1920	1921	1922
Woodworkers	250	245	244	19,282	17,390	15,794	127	58	46
Tin and sheet-metal workers	53	52	49	1,579	1,423	1,568	.....	.....	.....
Sawmill employees	262	294	294	20,932	22,230	21,535	23	7	9
Painters	72	77	76	4,205	4,168	4,381	.....	.....	.....
Tailors	106	107	101	7,280	8,509	6,797	4,403	5,590	4,155
Shoe and leather employees	55	60	55	7,786	9,554	8,678	2,560	3,276	2,863
Tobacco workers	10	10	10	4,331	4,616	3,337	3,593	3,817	2,672
Bakers and confectioners	58	58	60	6,200	7,020	7,200	2,230	2,569	2,650
Brewery employees	42	44	46	3,228	4,310	4,567	1,042	1,406	1,385
Glove makers	6	.....	.....	165	.....	.....	80	.....	.....
Unskilled and factory workers	384	399	348	46,347	51,187	37,573	4,449	4,677	2,959
Cooperage workers	25	22	20	515	484	445	.....	.....	.....
Foundry workers	147	148	147	5,117	5,548	5,081	.....	.....	.....
The associated unions	81	94	94	5,028	5,507	5,447	907	1,031	978
Masons	79	84	84	3,873	3,967	3,952	.....	.....	.....
Stone workers	86	83	82	2,817	2,696	2,721	.....	.....	.....
Miners	43	43	39	3,598	3,257	3,405	.....	.....	.....
Saddle makers and upholsterers	30	30	29	1,025	1,094	889	94	133	79
Bookbinders	28	28	28	3,198	3,598	3,159	2,118	2,384	2,022
Road and waterworks employees	53	46	49	1,937	2,193	2,235	.....	.....	1
Transport workers	116	131	122	12,835	13,179	11,689	775	696	806
Municipal workers	132	146	150	14,471	16,005	16,430	821	1,257	957
Tile makers	20	22	21	481	530	515	7	11	5
Slaughterhouse and meat shop employees	49	50	53	1,655	1,901	2,068	134	149	165
Mercantile employees	77	93	86	7,358	7,367	6,390	1,769	1,708	1,352
Hat makers	9	9	9	547	511	424	405	364	300
Lithographers	15	15	15	828	895	765	15	.....	.....
Hairdressers	30	30	27	865	875	846	66	66	65
Metal workers	244	251	249	69,019	69,701	62,357	2,544	3,014	2,131
Insurance officials	2	9	9	194	229	209	.....	41	34
Stokers	24	24	25	2,406	2,765	2,079	.....	.....	.....
Typographers	.....	95	93	.....	7,320	7,180	.....	533	508
Loggers	.....	46	69	.....	1,722	2,705	.....	.....	.....
Total	2,588	2,845	2,783	259,102	281,751	252,361	28,162	32,787	26,142

After the general strike in 1909 the membership decreased to 85,522 in 1912, after which an increase occurred which continued up to 1921. In January of that year the membership was 281,751, but it declined to 252,361 in January, 1922. The latest available figures are for October 1, 1922, at which time the National Federation of Trade Unions had 293,509 members, 33 unions, and 3,143 branches.

The Swedish trade-unions paid out 10,500,000 kronor ($2,814,000, par) in unemployment aid during the period 1914 to 1921.

At the quinquennial Swedish Trade Union Congress, held at Stockholm August 28 to September 5, 1922, a proposal made by the metal workers' union to change the trade-unions to industrial unions was adopted by 174 against 119 votes. This change is to be accomplished by 1925. It was also resolved by a vote of 177 to 55 that the national federation should not adhere to the Red International.

STRIKES AND LOCKOUTS.

Strikes and Lockouts in Massachusetts in 1922.

DURING 1922 the total number of strikes and lockouts in Massachusetts was 147, according to a typewritten report received February 10, 1923, from the department of labor and industries of that State. These industrial disputes involved 36,400 employees. In 1921 there were 191 strikes and lockouts directly or ndirectly affecting approximately 49,500 employees.

The question of wage increases was the main issue of the greater number of the 1922 controversies, whereas in 1921 many of the industrial disputes resulted from proposals to reduce wages.

159

CONCILIATION AND ARBITRATION.

Conciliation Work of the Department of Labor in February, 1923.

By Hugh L. Kerwin, Director of Conciliation.

THE Secretary of Labor, through the Division of Conciliation, exercised his good offices in connection with 33 labor disputes during February, 1923. These disputes affected a total of 60,654 employees. The following table shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workmen directly and indirectly affected.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS DIVISION OF CONCILIATION, FEBRUARY, 1923.

Company or industry and location.	Nature of controversy.	Craft concerned.	Cause of dispute.	Present status.
Union Ribbon Co., Paterson, N. J.	Strike	Textile workers	10 per cent wage cut.	Adjusted.
Federal Barge Line, Cairo, Ill	do	Pilots	Asked $100 a month increase.	Do.
Ladies' Garment Workers, New York City.	do	Garment workers.	Desired week work.	Do.
Studebaker Corp., South Bend, Ind.	do	Trimmers	Working conditions.	(1)
Tailors' Helpers, Youngstown, Ohio.	do	Tailors	Wage cut	Unable to adjust.
Rockport Granite Co., Rockport, Mass.	do	Quarrymen	20 per cent cut; open shop.	Adjusted.
Do	do	Granite cutters	20 per cent wage cut; open shop.	Do.
Children's and Ladies' Garment Workers, New York City.	do	Garment workers.	Desired former agreement.	Do.
Russell Stove Co., Massillon, Ohio.	do	Molders	Open shop; working conditions.	Pending.
Slater & Sons, Webster, Mass	do	Weavers		Do.
Jute mills, Ludlow, Mass	do	Carders	Asked 5 cents an hour increase.	Adjusted.
Molders, Evansville, Ind	do	Molders	Working conditions.	Do.
Kletzel & Garfinkel, New York City.	do	Shirt makers		Pending.
Hermann Gabbe & Bros., Brooklyn, N. Y.	do	Furriers	New agreement	Adjusted.
Children's clothing, Peekskill, N. Y.	do	Clothing workers		Pending.
Cloak & Suit, Philadelphia, Pa	do	Cloak and suit workers.	Social shop	Adjusted.
Jacob Seigel & Co. and B. Goldman & Co., Philadelphia, Pa.	Controversy.	Clothing makers	Working conditions.	Do.
Bakeries, Portland, Oreg	Strike	Bakers	Discrimination	Pending.
Washington Tin Plate Co., Washington, Pa.	do	Employees	Agreement	Do.
Montell mine, Vale Summit, Md	do	Miners	Wages (national strike).	Adjusted.
Hess-Snyder Co., Massillon, Ohio	do	Molders	Open shop	Pending.
M. P. V. W. Granite Co., Stony Creek, Conn.	do	Quarrymen	Wages and conditions.	Do.
Vacuum Oil Co., Bayonne, N. J	Threatened strike.	Employees	Asked increase	Adjusted.
F. S. Bowser Co., Fort Wayne, Ind.	Strike	Machinists	Agreements, etc	Pending.
Mid West Casting Co., Middletown, Ohio.	do	Molders	Working hours	Unable to adjust.
American Strawboard Paper Co., Chicago, Ill.	do	Paper makers	Violation of agreement.	Do.
Interstate Iron & Steel Plant, East Chicago, Ind.	do	Employees	Asked increase on tonnage.	Adjusted.
Norristown Knitting Mills, Lansdale, Pa.	do	Textile workers	Working conditions.	Pending.
Sarnoff Hat Co., New York City	Controversy.	Hatters	Wages	Do.
J. & J. Dodson Mills, Philadelphia, Pa.	Strike	Weavers	Asked 25 per cent increase.	Adjusted.
Garment industry, Chicago, Ill	do	Garment workers.	Agreements	Do.
Susquehanna Coal Co., Nanticoke, Pa.	do	Miners	Working conditions.	Do.
Susquehanna Coal Co., Glen Lyon, Pa.	do	do	do	Do.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS DIVISION OF CONCILIATION, FEBRUARY, 1923—Concluded.

Company or industry and location.	Terms of settlement.	Date of—		Workmen affected.	
		Beginning.	Ending.	Directly.	Indirectly.
Union Ribbon Co., Paterson, N. J.	Return at former scale	1921. Dec. 9	1923. Jan. 15	40	27
Federal Barge Line, Cairo, Ill.	do	1923. Jan. 22	Jan. 29	60	40
Ladies' Garment Workers, New York City.	40-hour week; piecework	Feb. 7	Feb. 21	30,000	
Studebaker Corp., South Bend, Ind.		Feb. 8	Feb. 12	252	
Tailors' Helpers, Youngstown, Ohio.	Shop discontinued	Feb. 12		6	
Rockport Granite Co., Rockport, Mass.	Accept 13 per cent cut	1922. Apr. 1	Feb. 5	175	100
Do	$1 an hour; 44-hour week	...do	Feb. 6	100	
Children's and Ladies' Garment Workers, New York City.	Agreement renewed	1923. Feb. 7	Feb. 22	10,000	
Russell Stove Co., Massillon, Ohio		Feb. —		75	450
Jute mills, Ludlow, Mass	Increase granted	Feb. 2	Feb. 17	40	2,800
Molders, Evansville, Ind	Agreement concluded	Feb. 12	Feb. 12	137	59
Hermann Gabbe & Bros., Brooklyn, N. Y.	do	Feb. 5		100	
Children's clothing, Peekskill, N. Y.		do		75	
Cloak & Suit, Philadelphia, Pa.	Sweatshop eliminated	Feb. 1	Feb. 2	3,000	
Jacob Seigel & Co. and B. Goldman & Co., Philadelphia, Pa.	Strikers reemployed	Feb. 2	Feb. 6	75	85
Bakeries, Portland, Oreg		Feb. 4		150	
Montell mine, Vale Summit, Md	Cleveland agreement accepted.	1922. Apr. 1	Feb. 12	60	
Hess-Snyder Co., Massillon, Ohio				30	70
Vacuum Oil Co., Bayonne, N. J	Increase allowed	1923. Feb. 14	Feb. 15	700	150
F. S. Bowser Co., Fort Wayne, Ind		1919. Feb. 1			
Mid West Casting Co., Middletown, Ohio.		1923. Feb. 14		25	
American Strawboard Paper Co., Chicago, Ill.		1921. Oct. 6		150	
Interstate Iron & Steel Plant, East Chicago, Ind.	Return with raise	1923. Feb. 15	Feb. 22	35	30
Norristown Knitting Mills, Lansdale, Pa.		do		23	50
Sarnoff Hat Co., New York City		1922. July —			
J. & J. Dodson Mills, Philadelphia, Pa.	23 per cent allowed; piecework.	1923. Jan. 26	Feb. 26	185	200
Garment industry, Chicago, Ill	Agreement signed; week work.	Feb. 22	Feb. 22	3,500	1,500
Susquehanna Coal Co., Nanticoke, Pa.	Return pending negotiations.	Feb. 1	...do	1,400	1,650
Susquehanna Coal Co., Glen Lyon, Pa.	do	...do	...do	1,400	1,650
Total				51,793	8,861

[1] Adjusted before commissioner's arrival.

On March 1, 1923, there were 47 strikes before the department for settlement, and in addition 12 controversies which had not reached the strike stage. Total number of cases pending, 60.

COOPERATION.

Labor Banks in the United States.

SINCE the establishment of the Engineers' Cooperative National Bank at Cleveland in 1920, there has been a growing interest in labor circles in the question of labor's control of its own funds.

It was stated at the Third Cooperative Congress, at Chicago, in October, 1922, that the Brotherhood bank has received requests for information, with a view to establishing similar banks, from labor groups all over the United States. In view of the general interest the following table has been compiled showing the available information concerning banks already operating and those whose organization has been effected though they are not yet doing business.

LABOR BANKS IN THE UNITED STATES, ESTABLISHED AND PROJECTED.

[Compiled from Facts for Workers (Labor Bureau Economic News Letter), December, 1922, No. 3; and Cooperative News Service of All American Cooperative Commission.]

Location.	Year of establishment.	Name of bank.	Organizing or controlling body.	Capital stock.	Reserves.
Banks in existence.					
Washington, D. C.	1920	Mount Vernon Savings Bank.	International Association of Machinists.	$160,000	$2,689,182
Cleveland, Ohio	1920	Engineers' Cooperative National Bank.	Brotherhood of Locomotive Engineers.	1,000,000	15,547,402
Hammond, Ind.	1921	Peoples' Cooperative State Bank.	do	50,000	250,000
New York City		Empire Trust Co.[2]	do[2]		
Chicago, Ill.	1922	Amalgamated Trust & Savings Bank.	Amalgamated Clothing Workers of America.	200,000	1,291,411
Philadelphia, Pa.	1922	Producers & Consumers' Bank.	Members of Central Labor Union.	155,831	[1]
San Bernardino, Calif.	1922	Brotherhood Trust & Savings Bank.	Railroad workers	200,000	770,000
Tucson, Ariz.	1922	Cooperative Bank & Trust Co.	Various labor groups	70,000	262,000
Birmingham, Ala.	1922	Federated Bank & Trust Co.	State Federation of Labor and locals of Brotherhood of Locomotive Engineers.	125,000	[1]
Three Forks, Mont.	1922	First National Bank	Various labor groups	[1]	[1]
Spokane, Wash.		Brotherhood Cooperative National Bank of Spokane.	Railroad unions.	200,000	40,000
Banks projected.					
St. Louis, Mo.			Order of Railway Telegraphers.	500,000	
Harrisburg, Pa.		Fraternity Trust Co.	Railroad brotherhood and other unions.	200,000	
Buffalo, N. Y.			Central Labor Union.		
Cincinnati, Ohio			Brotherhood of Railroad and Steamship Clerks.	1,000,000	
Minneapolis, Minn.		Transportation Brotherhood's National Bank.	Railroad workers		

[1] No information available.
[2] Not organized by labor, but Brotherhood has purchased an interest in this bank.

LABOR BANKS IN THE UNITED STATES, ESTABLISHED AND PROJECTED—Concluded.

Location.	Year of establishment	Name of bank.	Organizing or controlling body.	Capital stock.	Reserves.
Banks projected—Con.					
Pittsburgh, Pa		Brotherhood Savings & Trust Co.	"Labor leaders"	$500,000	
Los Angeles, Calif.					
Port Huron, Mich.					
New York City		Locomotive Engineers' Cooperative Trust Co.			
Do		Federation Trust Co.	Central Trades and Labor Council, New York State Federation of Labor.	1,000,000	
Do			International Ladies' Garment Workers' Union.	500,000	
Do			Amalgamated Clothing Workers of America.		

Developments in Cooperation at Home and Abroad.

Arkansas.

THE December 9, 1922, issue of Agricultural Cooperation states that the farmers of Pope County, Ark., have gone into cooperative tanning. The business is done through the Pope County Cooperative Manufacturing Association. This society began business on January 1, 1922. The factory has a capacity of 30 hides a day. For the present all net earnings are to be used for the purchase of additional equipment.

Iowa.

RECENT figures collected by the United States Bureau of Agricultural Economics and published in the November 18, 1922, issue of its Agricultural Cooperation show that 435 farmers' cooperative buying and selling associations in Iowa had a business in 1921 of nearly $58,000,000. The business done by the three principal types of societies was as follows:

	Number.	Business.
Grain associations	150	$27,700,000
Dairy products associations	121	11,500,000
Live-stock associations	119	15,300,000

It is stated that practically all of the 512 associations do cooperative purchasing for their members. The different lines of commodities purchased and the number of associations purchasing each line are as follows: Building material, 85; containers (barrels, boxes, crates, baskets, sacks, etc.), 342; feeds, 162; fencing, 301; fertilizers, 194; fuel, 229; hardware, 254; implements, 285; seeds, 162; spraying material, 424.

Minnesota.

THE number of cooperative creameries and cheese factories in Minnesota and the per cent that these form of all creameries in the State are given in the December 9, 1922, issue of Agricultural

Cooperation issued by the United States Bureau of Agricultural Economics. The information is shown in the table below:

NUMBER AND OUTPUT OF COOPERATIVE AND ALL CREAMERIES AND CHEESE FACTORIES IN MINNESOTA, 1906 TO 1921.

Year.	Creameries.				Cheese factories.		
	Total number in State.	Cooperative associations.			Total number in State.	Cooperative associations.	
		Number.	Per cent of total.	Per cent cooperative product forms of total product.		Number.	Per cent of total.
1906	726	555	76.4	.....	.....	.....	.....
1907	722	527	73.0	.....	.....	.....	.....
1908	751	566	75.3	.....	.....	.....	.....
1909	796	574	72.1	.....	.....	.....	.....
1910	750	560	74.6	.....	.....	.....	.....
1911	814	606	74.4	.....	69	32	46.4
1912	864	621	71.9	.....	63	30	47.6
1913	852	614	72.1	.....	70	38	54.3
1914	850	622	73.2	61.3	71	36	50.7
1915	855	646	75.6	60.8	67	39	58.2
1916	848	644	75.9	60.3	83	49	59.0
1917	841	643	76.4	61.6	83	52	62.7
1918	823	630	76.5	63.3	78	47	60.3
1919	811	622	76.7	63.7	80	59	73.7
1920	830	642	77.3	65.1	87	69	79.3
1921	831	645	77.6	67.1	81	69	85.2

New Hampshire.

THE New Hampshire Department of Agriculture has recently issued a pamphlet[1] giving the history and description of the farmers' buying and selling organizations now in operation in the State. The report covers 11 buying and 8 marketing associations. The average age of the buying associations is 4 years, the youngest organization having been in existence 1 year and the oldest 13 years. The lines handled include grain, feed, fertilizer, farm machinery, and other farm supplies. The largest annual business done by buying associations ranged from $10,000 to $300,000.

Belgium.

FOR the year 1922 the sales of the Belgian Cooperative Wholesale Society amounted to 72,403,234 francs ($13,973,824, par), according to the February 1, 1923, issue of La Coopération belge, Brussels. This represents an increase of 6,998,163 francs ($1,350,645, par), or 44 per cent, over the sales of the preceding year.

At a recent meeting of Belgian cooperators the Belgian Women's Cooperative Guild was formed, which will carry on general propaganda in favor of the movement and will aim especially at educating and interesting women in the principles of cooperation.

[1] New Hampshire. Department of Agriculture. Farmers' buying and selling organizations in New Hampshire, by Lawrence A. Carlisle. Concord, 1922.

France.

THAT the consumers' cooperative movement of France has made great progress since the war is shown in an article in La Coopération belge, January 1, 1923. The development since 1917 is shown in the following table:

DEVELOPMENT OF FRENCH CONSUMERS' COOPERATIVE MOVEMENT, 1917 TO 1921.

[Franc at par=19.3 cents.]

Year.	Retail societies.			Wholesale society.	
	Number.	Membership.	Sales.	Sales.	Production.
			Francs.	*Francs.*	*Francs.*
1917	3,261	880,710	321,059,051	31,467,607	.....
1918	4,297	1,321,562	641,887,321	59,510,504	3,797,553
1919	.....	.....	.....	121,406,362	.....
1920	4,790	2,498,449	1,839,538,723	145,771,042	.....
1921	.....	.....	.....	152,600,512	24,280,850

In the February 1 issue of the same paper it is stated that as a result of a "cooperative week" held in December, 1922, during which time a general membership drive was carried on, 201 societies which have reported state that their membership has been increased by 15,419, their share capital by 1,874,796 francs ($229,245, par), and members' deposits with the societies by 2,667,109 francs ($514,752, par). Sales have, of course, also increased.

The Cooperative Bank of France has also, as a result of "cooperative week," received additional deposits from all parts of France, amounting to 6,700,000 francs ($1,293,100, par).

Great Britain.

AN ACCOUNT of the condition of the agricultural cooperative movement in Great Britain in 1921, prepared by the registrar of friendly societies, is given in the February, 1923, issue of the Ministry of Labor Gazette (p. 46). In the account, dairy, breeding, farmers' and growers', flax, threshing, and miscellaneous societies have been grouped together under the term "productive societies," and supply, egg and poultry, fruit and market-garden produce, and agricultural wholesale societies are termed "distributive societies."

Reports were furnished by 1,201 societies. Of these, 172 were consumers' cooperative societies having farming and dairying departments and 1,029 were engaged almost wholly in agricultural operations. Of the latter group the main business of 829 was the distribution of seeds, implements, manures, etc., and of the remaining 200 the preparation and sale of agricultural products, chiefly butter and other dairy products. These 1,029 societies had a combined membership of 162,374, a share, loan, and reserve capital of £3,820,000 ($18,590,030 par) and sales for the year of £16,632,000 ($80,939,628 par). A combined loss of £153,000 ($744,575 par) on the year's business was sustained.

The following table shows the number of societies and sales of each type of organization for the year 1921:

NUMBER OF AGRICULTURAL COOPERATIVE SOCIETIES AND SALES FOR YEAR 1921, BY TYPE OF SOCIETY.

[£ at par=$4.8665.]

Type of society.	Number of societies.	Amount of sales.
Distributive societies:		
England and Wales	621	£11,127,160
Scotland	208	507,116
Total	829	11,634,276
Productive societies:		
Special farming and dairying societies	200	4,997,818
Farming and dairying departments of consumers' societies	172	1,390,955
Total	372	6,388,773
Grand total	1,201	18,023,049

Sales of European Cooperative Wholesale Societies, 1921.

THE following table, taken from the People's Yearbook and Annual of the English and Scottish Cooperative Wholesale Societies (p. 80), shows the 1921 sales of the cooperative wholesale society of each of 16 countries of Europe.

SALES OF COOPERATIVE WHOLESALE SOCIETIES IN 1921, BY COUNTRIES.

[At par, krone (Austrian, Czecho-Slovak and Hungarian)=20.3 cents; franc=19.3 cents; krone (Scandinavian)=26.8 cents; Finnish markka=19.3 cents; mark=23.8 cents; £=$4.8665; lira=19.3 cents; florin=40.2 cents; gold ruble=51.5 cents.]

Location of society.	Amount of business.
Austria (Vienna)	Kr. 10,063,182,027
Belgium (Antwerp)	Fr. 65,973,396
Czechoslovakia (Prague):	
V. D. P.	Kr. 980,355,322
German	Kr. 459,422,672
Denmark (Copenhagen)	Kr. 174,608,257
Finland (Helsingfors):	
S. O. K.	F. mks. 359,143,294
O. T. K.	F. mks. 193,893,634
France (Paris)	Fr. 152,600,512
Germany (Hamburg)	Mks. 2,406,982,699
Great Britain:	
England (Manchester)	£81,941,682
Scotland (Glasgow)	£22,041,158
Hungary (Budapest)	Kr. 1,889,534,440
Ireland (Dublin)	£1,118,718
Italy (Milan)	L21,093,988
Netherlands (Rotterdam)	Fl. 14,215,538
Norway (Christiania)	Kr. 20,966,222
Russia (Moscow)	Gold R. 120,000,000
Sweden (Stockholm)	Kr. 62,372,275
Switzerland (Basel)	Fr. 144,419,697

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IMMIGRATION.

Statistics of Immigration for January, 1923.

By W. W. Husband, Commissioner General of Immigration.

THE following tables show the total number of immigrant aliens admitted into the United States and emigrant aliens departed from the United States from July, 1922, to January, 1923. The tabulations are presented according to the countries of last permanent or future permanent residences, races or peoples, occupations, and States of future permanent or last permanent residence. The last table (Table 6) shows the number of aliens admitted under the per centum limit act of May 19, 1921, from July 1, 1922, to February 28, 1923.

TABLE 1.—INWARD AND OUTWARD PASSENGER MOVEMENT, JULY, 1922, TO JANUARY, 1923.

Period.	Arrivals.					Departures.			
	Immigrant aliens admitted.	Non-immigrant aliens admitted.	United States citizens arrived.	Aliens debarred.	Total arrivals.	Emigrant aliens.	Non-emigrant aliens.	United States citizens.	Total departures.
July, 1922	41,241	12,001	22,279	1,191	76,712	14,738	16,096	53,069	83,903
August, 1922	42,735	12,298	31,407	1,537	87,977	10,448	9,051	21,364	40,863
September, 1922	49,881	17,135	54,766	1,528	123,310	7,527	9,734	18,668	35,929
October, 1922	54,129	17,063	34,678	1,558	107,428	7,192	10,645	19,546	37,383
November, 1922	49,814	12,316	21,251	1,612	84,993	7,077	10,202	15,354	32,633
December, 1922	33,932	10,052	16,720	1,541	62,245	8,157	10,673	15,761	34,591
January, 1923	28,773	9,480	15,645	1,569	55,467	4,232	7,270	16,120	27,622
Total	300,505	90,345	196,746	10,536	598,132	59,371	73,671	159,882	292,924

TABLE 2.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED AND FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED, JANUARY, 1923, AND FROM JULY, 1922, TO JANUARY, 1923, BY COUNTRIES.

Country.	Immigrant.		Emigrant.	
	January, 1923.	July, 1922, to January, 1923.	January, 1923.	July, 1922, to January, 1923.
Austria	707	6,076	10	154
Hungary	78	5,763	18	716
Belgium	48	1,473	32	429
Bulgaria	11	380	12	120
Czechoslovakia	177	13,600	39	1,556
Denmark	129	1,947	76	332
Finland	220	2,806	15	218
France, including Corsica	217	3,050	70	982
Germany	2,389	20,248	37	1,114
Greece	57	3,136	258	2,241
Italy, including Sicily and Sardinia	406	42,088	1,070	18,478
Netherlands	207	1,435	20	258
Norway	132	3,928	39	572
Poland	3,164	23,100	152	4,505
Portugal, including Cape Verde and Azores Islands	50	2,199	69	1,952
Rumania	995	10,562	44	888
Russia	2,177	13,404	60	1,884
Spain, including Canary and Balearic Islands	35	680	126	1,832
Sweden	514	6,765	35	595
Switzerland	225	2,503	28	350
Turkey in Europe	372	2,624	1	104
United Kingdom:				
England	1,128	12,963	301	3,760
Ireland	482	9,806	45	1,024
Scotland	1,338	10,001	36	547
Wales	67	688	4	28
Yugoslavia	317	5,984	109	1,537
Other Europe	19	404	12	119
Total Europe	15,661	207,613	2,718	46,286
China	382	3,123	385	2,684
Japan	353	3,137	232	2,014
India	16	158	26	121
Turkey in Asia	96	1,925	18	616
Other Asia	107	341	4	50
Total Asia	954	8,684	665	5,485
Africa	21	422	4	84
Australia, Tasmania, and New Zealand	37	470	33	318
Pacific Islands, not specified	.....	37	4	14
British North America	7,995	46,253	184	1,722
Central America	52	677	41	370
Mexico	3,238	27,151	271	1,701
South America	291	2,291	75	935
West Indies	524	6,898	234	2,448
Other countries	.....	9	3	8
Grand total	28,773	300,505	4,232	59,371
Male	16,633	164,011	3,252	40,507
Female	12,140	136,494	980	18,864

TABLE 3.—IMMIGRANT ALIENS ADMITTED AND EMIGRANT ALIENS DEPARTED, JANUARY, 1923, AND FROM JULY, 1922, TO JANUARY, 1923, BY RACES OR PEOPLES.

Race or people.	Immigrant.		Emigrant.	
	January, 1923.	July, 1922, to January, 1923.	January, 1923.	July, 1922, to January, 1923.
African (black)	185	3,664	39	719
Armenian	142	2,060	.....	58
Bohemian and Moravian (Czech)	97	5,350	35	1,267
Bulgarian, Serbian, and Montenegrin	123	1,764	104	1,393
Chinese	210	2,571	395	2,649
Croatian and Slovenian	117	3,973	10	181
Cuban	48	819	43	511
Dalmatian, Bosnian, and Herzegovinian	54	496	9	126
Dutch and Flemish	374	3,165	56	696
East Indian	11	107	25	94
English	3,868	28,114	424	5,422
Finnish	201	2,279	18	262
French	1,998	13,022	111	1,291
German	3,643	33,043	76	1,528
Greek	88	3,903	276	2,298
Hebrew	5,697	38,828	23	338
Irish	1,437	15,935	78	1,112
Italian (north)	98	8,367	161	1,961
Italian (south)	417	34,352	923	16,665
Japanese	342	3,037	235	1,993
Korean	6	55	4	35
Lithuanian	191	1,557	11	1,043
Magyar	152	6,626	24	823
Mexican	3,171	26,563	269	1,627
Pacific Islander	.....	13	1	3
Polish	1,181	11,104	146	4,347
Portuguese	50	2,333	73	2,025
Rumanian	139	1,187	42	824
Russian	475	2,509	66	1,001
Ruthenian (Russian)	140	638	2	19
Scandinavian (Norwegians, Danes, and Swedes)	1,022	14,535	155	1,696
Scotch	2,401	16,212	82	827
Slovak	128	6,020	4	321
Spanish	217	2,063	177	2,186
Spanish American	70	991	61	759
Syrian	47	1,009	17	533
Turkish	7	212	1	84
Welsh	110	843	3	48
West Indian	31	712	33	408
Other peoples	85	474	20	198
Total	28,773	300,505	4,232	59,371

TABLE 4.—IMMIGRANT ALIENS ADMITTED AND EMIGRANT ALIENS DEPARTED, JANUARY, 1923, AND FROM JULY, 1922, TO JANUARY, 1923, BY OCCUPATIONS.

Occupation.	Immigrant.		Emigrant.	
	January, 1923.	July, 1922, to January, 1923.	January, 1923.	July, 1922, to January, 1923.
Professional:				
Actors	39	454	10	91
Architects	18	117	1	19
Clergy	130	1,177	12	324
Editors	3	51	2	11
Electricians	161	891	3	51
Engineers (professional)	182	1,211	15	152
Lawyers	20	103	3	31
Literary and scientific persons	36	369	3	64
Musicians	73	677	3	87
Officials (Government)	19	308	15	141
Physicians	50	429	3	85
Sculptors	22	198	5	51
Teachers	152	1,633	18	273
Other professional	122	1,584	39	349
Total	1,027	9,202	132	1,729

TABLE 4.—IMMIGRANT ALIENS ADMITTED AND EMIGRANT ALIENS DEPARTED, JANUARY, 1923, AND FROM JULY, 1922, TO JANUARY, 1923, BY OCCUPATIONS—Concld.

Occupation.	Immigrant.		Emigrant.	
	January, 1923.	July, 1922, to January, 1923.	January, 1923.	July, 1922, to January, 1923.
Skilled:				
Bakers	184	1,687	10	152
Barbers and hairdressers	100	1,237	14	196
Blacksmiths	155	1,235	6	79
Bookbinders	16	100	2	6
Brewers	3	12	.....	2
Butchers	136	1,188	8	130
Cabinetmakers	23	184	.....	47
Carpenters and joiners	675	5,147	39	377
Cigarette makers	4	20	.....	1
Cigar makers	17	170	18	120
Cigar packers	.....	5	.....	3
Clerks and accountants	941	8,388	85	1,051
Dressmakers	211	3,107	5	193
Engineers (locomotive, marine, and stationary)	198	1,159	3	83
Furriers and fur workers	23	169	2	10
Gardeners	36	421	5	92
Hat and cap makers	20	164	1	7
Iron and steel workers	280	1,396	2	49
Jewelers	17	165	1	25
Locksmiths	104	903	.....	9
Machinists	282	1,772	12	248
Mariners	304	2,855	29	268
Masons	96	1,865	8	146
Mechanics (not specified)	254	2,132	18	203
Metal workers (other than iron, steel, and tin)	56	284	.....	5
Millers	14	153	.....	9
Milliners	56	468	2	28
Miners	400	3,021	33	522
Painters and glaziers	146	1,063	17	139
Pattern makers	24	90	.....	2
Photographers	24	209	2	20
Plasterers	31	217	1	15
Plumbers	91	381	4	28
Printers	56	369	2	43
Saddlers and harness makers	13	120	.....	1
Seamstresses	93	1,374	1	52
Shoemakers	157	2,512	11	297
Stokers	40	336	2	40
Stonecutters	15	147	.....	14
Tailors	426	4,134	21	364
Tanners and curriers	14	97	.....	5
Textile workers (not specified)	24	138	.....	7
Tinners	32	246	.....	17
Tobacco workers	.....	15	.....	2
Upholsterers	11	94	3	12
Watch and clock makers	28	231	4	17
Weavers and spinners	114	1,059	9	254
Wheelwrights	3	34	.....	.....
Woodworkers (not specified)	22	113	.....	12
Other skilled	329	2,524	30	382
Total	6,298	54,910	410	5,784
Miscellaneous:				
Agents	117	624	11	77
Bankers	9	67	7	51
Draymen, hackmen, and teamsters	39	318	6	34
Farm laborers	982	14,617	51	615
Farmers	732	7,277	131	1,261
Fishermen	177	834	3	39
Hotel keepers	11	105	3	25
Laborers	3,268	42,764	1,973	25,400
Manufacturers	19	206	5	54
Merchants and dealers	636	5,827	185	1,755
Servants	2,171	36,472	161	2,409
Other miscellaneous	1,302	10,880	189	2,140
Total	9,463	119,991	2,725	33,860
No occupation (including women and children)	11,985	116,402	965	17,998
Grand total	28,773	300,505	4,232	59,371

TABLE 5.—FUTURE PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED AND LAST PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED, JANUARY, 1923, AND FROM JULY, 1922, TO JANUARY, 1923, BY STATES AND TERRITORIES.

State or Territory.	Immigrant.		Emigrant.	
	January, 1923.	July, 1922, to January, 1923.	January, 1923.	July, 1922, to January, 1923.
Alabama	29	281	4	30
Alaska	11	111	7	54
Arizona	504	5,484	28	164
Arkansas	5	140	.....	6
California	2,644	22,686	588	5,340
Colorado	85	993	27	182
Connecticut	524	6,104	65	1,252
Delaware	20	313	3	59
District of Columbia	52	940	14	258
Florida	127	1,654	73	721
Georgia	23	293	2	42
Hawaii	210	1,592	22	313
Idaho	40	368	14	76
Illinois	1,990	22,493	226	3,614
Indiana	270	2,863	16	362
Iowa	142	1,730	22	225
Kansas	79	791	7	92
Kentucky	23	325	3	48
Louisiana	58	686	35	252
Maine	500	3,516	22	96
Maryland	179	1,605	14	250
Massachusetts	2,204	21,605	235	5,229
Michigan	2,251	16,127	157	1,834
Minnesota	308	3,767	47	481
Mississippi	15	192	3	21
Missouri	276	2,494	24	368
Montana	83	843	24	185
Nebraska	102	1,086	8	171
Nevada	15	211	8	48
New Hampshire	322	1,972	2	84
New Jersey	1,258	16,191	113	2,552
New Mexico	96	672	4	51
New York	7,254	84,370	1,527	23,538
North Carolina	10	188	.....	28
North Dakota	58	657	3	101
Ohio	886	12,038	149	2,074
Oklahoma	30	340	.....	50
Oregon	293	2,200	26	330
Pennsylvania	2,018	26,159	294	4,741
Philippine Islands	.....	4	.....	5
Porto Rico	24	156	6	138
Rhode Island	342	3,230	27	721
South Carolina	10	97	.....	11
South Dakota	30	398	3	52
Tennessee	17	250	2	24
Texas	1,970	16,788	184	899
Utah	79	638	25	169
Vermont	130	1,136	.....	38
Virginia	72	717	5	98
Virgin Islands	.....	12	2	2
Washington	623	5,266	102	964
West Virginia	76	1,231	28	332
Wisconsin	380	4,186	25	541
Wyoming	26	316	7	55
Total	28,773	300,505	4,232	59,371

TABLE 6.—STATUS OF THE IMMIGRATION OF ALIENS INTO THE UNITED STATES UNDER THE PER CENTUM LIMIT ACT OF MAY 19, 1921, AS EXTENDED BY PUBLIC RESOLUTION NO. 55, SIXTY-SEVENTH CONGRESS, APPROVED MAY 11, 1922, JULY 1, 1922, TO FEBRUARY 28, 1923.

Country or region of birth.	Monthly quota.	Admitted Feb. 1–28, 1923.	Annual quota.	Admitted July 1 to Feb. 28.	Balance for year.[1]
Albania	58	1	288	284	2
Armenia (Russian)	46	.....	230	230	(2)
Austria	1,490	771	7,451	6,183	1,226
Belgium	313	.....	1,563	1,563	(2)
Bulgaria	61	3	302	285	15
Czechoslovakia	2,871	61	14,357	14,348	(2)
Danzig	60	27	301	152	147
Denmark	1,124	303	5,619	2,686	2,918
Finland	784	203	3,921	3,286	631
Fiume	14	9	71	65	5
France	1,146	206	5,729	3,587	2,088
Germany	13,521	2,540	67,607	23,633	43,811
Greece	659	.....	3,294	3,294	(2)
Hungary	1,128	4	5,638	5,637	(2)
Iceland	15	.....	75	51	24
Italy	8,411	10	42,057	42,041	(2)
Luxemburg	19	.....	92	92	(2)
Memel region	30	7	150	45	102
Netherlands	721	238	3,607	2,071	1,511
Norway	2,440	693	12,202	5,026	7,152
Poland	4,215	363	21,076	21,070	(2)
Eastern Galicia	1,157	516	5,786	3,536	2,176
Pinsk region	857	319	4,284	2,876	1,275
Portugal	493	1	2,465	2,465	(2)
Rumania	1,484	13	7,419	7,411	(2)
Bessarabian region	558	192	2,792	755	1,972
Russia	4,323	3,687	21,613	20,721	355
Esthonian region	270	13	1,348	154	1,194
Latvian region	308	133	1,540	1,137	394
Lithuanian region	462	1	2,310	2,310	(2)
Spain	182	.....	912	912	(2)
Sweden	4,008	1,154	20,042	9,477	10,537
Switzerland	750	393	3,752	3,406	333
United Kingdom	15,468	4,443	77,342	48,269	29,034
Yugoslavia	1,285	95	6,426	6,369	45
Other Europe	17	.....	86	86	(2)
Palestine	12	.....	57	57	(2)
Syria	186	1	928	928	(2)
Turkey	478	.....	2,388	2,388	(2)
Other Asia	16	.....	81	81	(2)
Africa	25	.....	122	122	(2)
Atlantic Islands	24	24	121	87	33
Australia	56	.....	279	279	(2)
New Zealand and Pacific Islands	16	1	80	80	(2)
	71,561	16,425	357,803	249,535	106,980

[1] After all admissions and pending cases have been deducted from the annual quota.
[2] Exhausted for the year. Pending cases for which quotas have been granted cover differences between annual quota and number already admitted.

WHAT STATE LABOR BUREAUS ARE DOING.

Minnesota.

ACCORDING to a statement recently received from the Industrial Commission of Minnesota, its division of women and children made during February five regular inspections of industrial establishments and 105 special investigations. Ten orders were issued for the improvement of conditions. In the same month three court cases were handled, and one conviction secured for the employment of a child 7 years old as a theatrical performer. A fine of $50 was imposed in this case.

The commission's division of accident prevention has been endeavoring since the beginning of 1923 to make all employers, including those with stores and offices, acquainted with the provisions of the workmen's compensation law. During January and February the inspectors visited 2,475 stores and offices, this being the first time that officials of the department have called upon employers engaged in business of this character.

The division of accident prevention reports 1,860 inspections in February, 1923. Among the establishments visited were 263 factories, 385 buildings, and 1,154 stores and offices. A total of 22,505 persons were employed in the establishments inspected. There were 625 orders issued during the month for the betterment of working conditions.

Nevada.

THE fourth biennial report of the commissioner of labor of Nevada, 1921–22, deals, respectively, with the following subjects: (1) Labor organizations; (2) wages and hours of labor; (3) employment of women and children; (4) labor legislation; (5) mediation and conciliation; (6) enforcement of labor laws; (7) miscellaneous investigations, including cost of living, employment agencies, and prison labor; and (8) recommendations. Excerpts from certain parts of this publication will be found in the several sections of this issue of the MONTHLY LABOR REVIEW, which are devoted to the subjects treated in such excerpts (see table of contents). Brief notes on other parts of the report are given here.

Assignment of wage claims.—An act was passed in 1921 which amended chapter 56 of the Nevada statutes of 1919 and authorized "the State labor commissioner to take assignment and prosecute actions for the collection of wages and other demands of persons who are financially unable to employ counsel."

Employers, especially those engaged in the raising of stock and in agriculture, have been hard pressed in the last biennium to meet their obligations. Some of the most important stock-raising companies went into bankruptcy or had to reorganize after receiverships. As a result, large numbers of workers lost considerable sums or were delayed in getting their money. Mining also slumped and is only now recuperating. In the interim numerous complaints were looked into, and in a number of instances only a part of the wages due could be secured. Oil development companies sprang up suddenly and "silently wilted, leaving behind unpaid wage claims." As a result of

these exploitations a great deal of the commission's time was taken up in the endeavor to obtain at least some return for the promises upon which many employees had continued work for months before making their complaints.

Substantially all of the more than 300 complaints presented were for unpaid wages. When valid claims were submitted to alleged employers without being satisfactorily adjusted through correspondence, recourse was had to the district attorney for assistance.

The commissioner recommends that the law concerning false representation in the matter of funds for the payment of wages (chap. 276, Stat. of 1913) be amended "by making the employment of a person a bona fide presumption that the employer has funds with which to pay such wages as may accrue, and in failure to do so establishes a bona fide case of misrepresentation under the statute."

So far as the commission's records indicate, employers have applied the hours of service law to the best of their knowledge. There have been some insignificant infringements which were believed to be the result of misunderstanding rather than deliberate intention.

Prison labor.—The average number of inmates in the State penitentiary was 136 in 1919 and 122 in 1921. The county jails had 63 inmates in 1919 and 97 in 1921. Many prisoners in the State penitentiary have certain duties in connection with the various departments of that institution and an average of 15 do agricultural work on the prison farm. The commissioner of labor reports, however, that there is no economically objectionable competition of convict labor with free labor in the State of Nevada and there is but little, if any, work done by prisoners except within the confines of the penitentiary, "where no industry has been developed."

Housing and sanitation.—The commissioner has inspected each of the highway road camps in the western counties and has recommended that the State board of health be given authority to adopt, after adequate hearings, regulations calling for minimum requirements in housing and sanitation in such camps. More consideration was shown for the health and comfort of the workers at the permanent camps at quarries, farms, and mines. It is felt that the setting up of minimum standards would result in greater attention to camp planning and in the removal of numerous existing objections.

New York.[1]

THE amended elevator code, which was adopted by the New York State Industrial Board December 28, 1922, and which became effective March 1, 1923, is officially regarded as a great improvement on the original code. The code prescribes rules for the construction, guarding, equipment, maintenance, and operation of elevators, etc., in factories and mercantile establishments. Part 1 deals with power-driven elevators and part 2 with hand-power elevators. The amendments were the subject of careful consideration at public hearings in Albany, Buffalo, New York City, Rochester, and Syracuse. Copies of the code may be obtained at the Department of Labor offices in New York City and Albany.

[1] New York. Industrial Commissioner. The Industrial Bulletin, Albany, December, 1922, p. 63.

PUBLICATIONS RELATING TO LABOR.

Official—United States.

CALIFORNIA.—*Board of Education. Documents relating to vocational education. Sacramento, 1922. 84 pp. Bulletin No. 23–A.*

All material contained in agreements entered into between the California State Board of Education and the Federal Board for Vocational Education relative to the administration of the Federal and State vocational education acts is included in this bulletin. The material treated applies to the fiscal years 1922–23 to 1926–27, inclusive, and has been published in this form for the purpose of familiarizing the public with the entire (Federal and State) scheme for the promotion of vocational education in California.

NEBRASKA.—*Board for Vocational Education. Vocational education in Nebraska: What it is and what it does. Lincoln, January, 1923. 28 pp. Bulletin No. 6. Illus.*

An illustrated account of the vocational training offered by the State during 1921–22 in agriculture, trades and industries, home economics, and vocational rehabilitation. The enrollment in the vocational classes numbers some 8,200, and State aid amounted to $71,374.90.

NEVADA.—*Commissioner of Labor. Biennial report, 1921–1922. Carson City, 1923. 111 pp.*

Extracts from this report are published on pages 54, 64, 106, 151, 186, and 187 of this issue of the MONTHLY LABOR REVIEW.

NEW HAMPSHIRE.—*Department of Agriculture. Farmers' buying and selling organizations in New Hampshire, by Lawrence A. Carlisle. Concord, 1922. 31 pp. Illus.*

Contains a brief history and description of the farmers' buying and selling associations now in operation in New Hampshire, together with a comparison of the methods employed and a summary of the fundamental cooperative principles. Certain information from this report is given on page 164 of this issue of the MONTHLY LABOR REVIEW.

NEW YORK.—*Department of Labor. Annual report for the 12 months ended June 30, 1921. Albany, 1922. 268 pp.*

This publication is divided into seven parts, as follows: (1) Report of the industrial commissioner; (2) report of the bureau of inspection; (3) report of the bureau of workmen's compensation; (4) report of State insurance fund; (5) report of the bureau of industrial relations; (6) report of the bureau of research and codes; and (7) opinions of the attorney general construing labor laws.

—— —— *Proceedings of the sixth annual industrial conference of the State of New York, Buffalo, N. Y., November 21–23, 1922. Albany, 1923. 188 pp.*

A résumé of this conference was published in the March, 1923, issue of the MONTHLY LABOR REVIEW, pages 3 to 6.

—— —— *Bureau of Research and Codes. Division of Women in Industry. Children's work accidents. [Albany] January, 1923. 42 pp. Special bulletin No. 116.*

A summary of this report is given on pages 76 to 78 of this issue of the MONTHLY LABOR REVIEW.

NORTH DAKOTA.—*Workmen's Compensation Bureau. Minimum Wage Department. Report, July 1, 1920, to June 30, 1922. [Bismarck, 1922.] 60 pp.*

A digest of this report appears on pages 126 to 128 of this issue of the MONTHLY LABOR REVIEW.

WEST VIRGINIA.—*Bureau of Negro Welfare and Statistics. Report, 1921–22. The Negro in West Virginia. [Charleston, 1922.] 102 pp.*

A summary of this report is given on pages 21 to 23 of this issue of the MONTHLY LABOR REVIEW.

UNITED STATES.—*Department of Commerce. Bureau of Foreign and Domestic Commerce. Australia: A commercial and industrial handbook. Washington, 1922. 162 pp. Illus., folder. Special agents series No. 216.*

A concise account of Australia, economically, socially, and politically, including labor conditions, unionism, wage boards and arbitration courts, compensation and pension provisions, hours of labor, etc.

—— —— —— *Cotton and cotton goods in western Sweden. Washington, 1922. vi, 60 pp. Special consular reports, No. 84.*

The section on labor and wages contains information on Sweden's factory legislation, workmen's insurance, efficiency of Swedish labor, wages in textile mills, and organizations of Swedish spinners and weavers.

—— *Department of Labor. Bureau of Labor Statistics. Building permits in the principal cities of the United States in 1921. Washington, 1923. 88 pp. Bulletin No. 318. Miscellaneous series.*

—— —— —— *Retail prices, 1913 to December, 1921. Washington, 1923. 226 pp. Bulletin No. 315. Retail prices and cost of living series.*

—— —— *Bureau of Naturalization. Annual report for the fiscal year ended June 30, 1922. Washington, 1922. 29 pp.*

The eight sections of this report are headed respectively: (1) Work of the courts; (2) clerks of courts; (3) field officers; (4) work of the bureau in Washington, including naturalization and citizenship training; (5) personnel; (6) financial; and (7) recommendations.

—— —— *Women's Bureau. Women in the candy industry in Chicago and St. Louis: A study of hours, wages, and working conditions in 1920–1921. Washington, 1923. 72 pp. Bulletin No. 25.*

A summary of this study is given on pages 89 to 91 of this issue of the MONTHLY LABOR REVIEW.

—— *Federal Board for Vocational Education. Vocational rehabilitation, its purposes, scope, and methods, with illustrative cases. Washington, January, 1923. 46 pp. Bulletin No. 80. Vocational rehabilitation series, No. 7.*

Official—Foreign Countries.

AUSTRALIA (SOUTH AUSTRALIA).—*Chief Inspector of Factories. Report for year ended December 31, 1921. 18 pp. No. 46.*

Certain information from this report is published on pages 23 and 24 of this issue of the MONTHLY LABOR REVIEW.

—— (VICTORIA).—*Government Statist. Report on friendly societies for the year 1921. Melbourne, 1922. xvii, 30 pp.*

To the body of the report are appended valuations of the societies and summaries of the returns furnished by the secretaries, dealing with the number of branches, membership, sick and death benefit funds, etc.

CANADA.—*Department of Labor. Report for the fiscal year ending March 31, 1922. Ottawa, 1923. 116 pp.*

Among the subjects discussed in this report are the industrial disputes investigation act, conciliation work, fair wages, employment service and unemployment relief measures, technical education, joint industrial councils, and the International Labor Conference.

FINLAND.—*Statistiska Centralbyrån. Statistisk årsbok för Finland. Ny serie. Tjugonde årgången, 1922. Helsingfors, 1922. xxi, 287 pp.*

Statistical yearbook for Finland for 1922. Contains statistics of interest to labor on accident insurance, wages, labor disputes, trade-unions, employers' associations, sickness benefit and funeral aid funds, industrial accidents, employment service, etc.

FRANCE.—*Ministère du Travail et de la Prévoyance Sociale. Direction du Travail (3e Bureau). Bulletin de l'inspection du travail et de l'hygiène industrielle. Vingt-neuvième année. 1921. Paris, 1921. 322 pp. Numéros 1 à 6.*

This volume contains the text of laws, decrees, and circulars promulgated during 1921 on questions relating to labor and industrial hygiene in France. Several special reports of labor inspectors are included dealing with occupational hazards and methods of manufacture.

GERMANY (RHINE PROVINCE).—*Landesarbeits- und Berufsamt der Rheinprovinz zu Düsseldorf. Verwaltungsbericht für die Zeit vom 1. April 1921 bis 31. März 1922. Düsseldorf [1922]. 48 pp.*

The annual administrative report of the State employment and vocational guidance office of the Rhine Province at Düsseldorf for the year ending March 31, 1922. This is the central employment and vocational guidance office for the whole Rhine Province. In the Rhine Province there exist 87 municipal or district employment offices and 348 local employment offices, and 66 vocational guidance offices (6 independent offices, 33 connected with employment offices, 25 connected with welfare offices, and 2 connected with vocational guidance schools). All these offices are subject to the State employment and vocational guidance office at Düsseldorf and report to it on the state of the labor market and on their vocational guidance activities. The employment offices under the jurisdiction of the State employment office at Düsseldorf reported for the fiscal year ending March 31, 1922, a total of 526,726 applicants for work, 475,467 vacancies, and 379,476 placements.

GREAT BRITAIN.—*Home Office. Statistics of compensation and of proceedings under the workmen's compensation act, 1906, and the employers' liability act, 1880, during the year 1921. London, 1923. 27 pp. Cmd. 1793.*

A digest of this report appears on pages 138 to 141 of this issue of the MONTHLY LABOR REVIEW.

—— *Industrial Fatigue Research Board. Atmospheric conditions in cotton weaving. London, 1923. x, 36 pp. Report No. 21. Textile series No. 6.*

This study of atmospheric conditions in cotton-weaving sheds relates particularly to the factor of air movement. The report suggests that the most important changes to be made in the working conditions are the use of more suitable clothing on the part of the operatives and the introduction of methods for artificially increasing the air movement, since humidity which is unbearable in still air may be borne without discomfort if the air coming in contact with the body is kept in a state of movement.

INDIA.—*Department of Industries. Conciliation and arbitration, by R. N. Gilchrist. Calcutta, 1922. 237 pp. Bulletins of Indian industries and labor, No. 23.*

This bulletin presents a survey of modern methods of dealing with industrial disputes. A general survey of the development of effective machinery in all countries is followed by a somewhat intensive discussion of methods adopted in Great Britain and the Dominions together with a more general account of those adopted in other countries.

INTERNATIONAL LABOR OFFICE.—*International Labor Conference. Appendix to the report of the director to the fourth session, Geneva, 1922. Special report on the unemployment inquiry. Geneva, 1922. 53 pp. (In French and English.)*

A summary report as to the work so far done by the International Labor Office in the special inquiry on the national and international aspects of the unemployment

crisis and on the means of combating it which it is carrying on in pursuance of a resolution of the Third International Labor Conference. The report is divided into three chapters: (1) Extent of the crisis; (2) comparative study of remedies adopted in the various countries; and (3) investigation of the causes of unemployment. Each of the three chapters of the report is concluded with certain definite proposals which were considered of immediate importance, both for the workers who suffer directly from the hardships of unemployment, and for the employers who feel its indirect results.

INTERNATIONAL LABOR OFFICE.—*International Labor Conference. Report of the director to the fourth session, Geneva, 1922. Geneva, 1922. 326 pp. (In French and English.)*

The four parts of this publication on the International Labor Office deal respectively with (1) problems of organization, (2) international labor legislation, (3) international information, and (4) relations and various activities. In concluding his report the director declares that the success of the International Labor Organization will depend on the capabilities and solidarity of labor organizations, on valuable aid from employers who are fully aware of the important service sane legislation may render to industry, and on the attitude of Governments toward social progress. Success will also depend, the director states, "on the active vigilance, the tact and prudence of the International Labor Office," on the authority which it acquires the confidence it inspires, and the security it affords. Above all, "success will depend on men's faith in justice."

Appendix I contains annual reports on measures taken by various countries to give effect to conventions ratified by their respective Governments. Appendix II is a bibliography of the international labor organization.

ITALY. *Cassa Nazionale d'Assicurazione per gl'Infortuni sul Lavoro. Bilancio Consuntivo dell' esercizio 1921. Rome, 1922. 84 pp.*

The financial report for the year 1921 of the Italian National workmen's accident insurance fund. The report will be discussed in an article in a subsequent issue of the MONTHLY LABOR REVIEW.

NETHERLANDS.—*Centraal Bureau voor de Statistiek. Overzicht van den omvang der vakbeweging op 1 Januari 1922 en instellingen en financiën van de vakvereenigingen in 1920. The Hague, 1922. [Various paging.] Statistiek van Nederland No. 359.*

A bulletin of the Central Statistical Office of the Netherlands giving statistics of the trade-union movement in the Netherlands. The first part of the bulletin is devoted to general statistics as to the extent of the movement up to the beginning of 1922, and the second part gives summary statistics of the financial condition of the trade-unions during 1920. The most important data contained in this bulletin are reproduced in the present issue of the MONTHLY LABOR REVIEW, pages 154 to 156.

——[*Departement van Arbeid.*] *Overzicht van de verslagen der kamers van arbeid over 1921. The Hague, 1922. 28 pp.*

A report on the activities of labor councils in the Netherlands during 1921.

NORWAY.—*Statistiske Centralbyrå. Norges Bergverksdrift 1921. Christiania, 1922. 19, 44* pp. Norges Offisielle Statistikk, VII, 70.*

Report on the mining industry in Norway in 1921. Contains reports from the mining inspectors, showing wages and hours of labor, etc.

SWEDEN (STOCKHOLM).—*Statistiska Kontor. Berättelse angående Stockholms stads arbetsförmedling jämte statistisk översikt rörande verksamheten år 1921. Stockholm, 1922. 17*, 11 pp. Stockholms Stads Statistik. IX. Arbetsförmedling.*

Report on the activities of the Stockholm public employment agency for the year 1921. During the year there were 134,488 applications for work, 49,973 vacancies and 39,226 places filled as against 61,085, 59,492, and 39,021, respectively, in 1920. Applications for work doubled in 1921 and vacancies decreased by 2,519.

SWEDEN (STOCKHOLM).—*Statistisk översikt av fabriksindustrien och hantverkerierna i Stockholm år 1921. Årg. XXI. Ny. följd 15. Stockholm, 1922. 10*, 6 pp. Stockholms Stads Statistik. XII. Fabriker och hantverk.*

Statistics on factory industries and trades for Stockholm for 1921. The number of establishments reported was 798 which is a decrease of 53 since 1920 and the total personnel decreased from 47,287 to 38,409 persons.

SWITZERLAND (ZÜRICH).—*Statistisches Amt. Vieh- und Fleischpreise in Zürich 1911 bis 1922. Zürich, 1922. 27 pp. Statistik der Stadt Zürich, Heft 30.*

A statistical study on the movement of live stock and meat prices in Zürich, Switzerland, during the period 1911 to 1922. According to this study the curve of the meat prices followed on the whole that of the live stock prices, but as long as prices went up the meat prices rose more slowly than the live stock prices, and when prices began to fall the downward movement of the meat prices was slower than that of the live stock prices. The price of beef reached its highest level in May, 1919, when the index rose to 358 (average 1911–1913=100), veal was highest at the end of 1919 and 1920 when the index stood at 290, and pork was most expensive in June, 1918, when the index was at 410. In June, 1922, the indexes for beef, veal, and pork stood at 179, 181, and 152, respectively.

UNION OF SOUTH AFRICA.—*Unemployment Commission. Interim report, March, 1921. Cape Town, 1921. 23 pp.*

—— —— *Second interim report, May, 1921. Cape Town, 1921. 34 pp.*

—— —— [*Final*] *Report. Cape Town, 1922. 47 pp.*

The final report of the unemployment commission of the Union of South Africa gives as the principal causes of unemployment in South Africa (1) world conditions and (2) the presence of the native, the proportion between the two races and the social fabric naturally resulting therefrom. Among the subsidiary and contributory causes noted are (1) Restrictions against the development of the mining industry; (2) the closing down and contraction of local industries; (3) industrial disturbances caused by hasty and ill-considered strikes; (4) influx of unskilled whites from the country to the industrial centers; (5) failure adequately to train the youth in skilled trades; (6) insufficiency of local markets and the absence of adequate provision for transport of the country's products; (7) maintenance of high wages when world prices are falling and "going slow" on jobs; (8) early and improvident marriages; and (9) the presence of the Asiatic trader. The majority report of the commission contains a number of recommendations too lengthy for reproduction here.

Unofficial.

BACHI, RICCARDO. *L'Italia economica nel 1921. Citta di Castello, 1922. xi, 460 pp.* [*Supplement to La Riforma Sociale, 1922.*]

The thirteenth issue of the commercial, industrial, agricultural, financial, and economic yearbook published by Riccardo Bachi. The present issue covers the year 1921. Of special interest to labor are the chapters dealing with prices, industrial production, the labor market, unemployment, wages, migration, industrial and labor policy, social insurance, and cooperative societies.

COLLIE, JOHN. *Medico-legal examinations and the workmen's compensation act, 1906 as amended by subsequent acts. London, 1922. 157 pp.* (*Second edition.*)

This book is reviewed on pages 141 and 142 of this issue of the MONTHLY LABOR REVIEW.

JOINT INVESTIGATION COMMITTEE APPOINTED BY THE ENGINEERING AND NATIONAL EMPLOYERS' FEDERATION, THE SHIPBUILDING EMPLOYERS' FEDERATION, AND THE UNIONS' NEGOTIATING COMMITTEE. *Report on working hours. London, Whitefriars Press, Ltd., 1922. 92 pp.*

A review of this publication may be found on pages 68 to 70 of this issue of the MONTHLY LABOR REVIEW.

PEOPLES' YEARBOOK AND ANNUAL OF THE ENGLISH AND SCOTTISH WHOLESALE SOCIETIES, 1923. *Cooperative Wholesale Society (Ltd.), 1 Balloon St., Manchester, England [1923]. 338 pp. Illus.*

Contains a wealth of statistical and other information on reconstruction in Europe, cost of living and the food supply, the labor movement, etc. Concerning the cooperative movement, which is naturally treated at length, a detailed account is given of the various phases of cooperation, educational work, taxation, and the Cooperative Party, in Great Britain, and of the movement in the various countries of the world.

The sales for 1921 of European cooperative wholesale societies, taken from the yearbook, are given on page 166 of this issue of the MONTHLY LABOR REVIEW.

STEPHENS, FRANCIS H. *District of Columbia minimum-wage cases: Supreme Court of the United States, October term, 1922. Brief for appellants.* [*Washington, D. C., 1923. 2 vols., xci, 1138 pp.*]

By the diligence of Felix Frankfurter, of counsel, assisted by Mary W. Dewson, research secretary of the National Consumers' League, both of New York City, a mass of data bearing on minimum-wage laws, their purposes, legality, and justification from an economic standpoint is presented in support of the constitutionality of the minimum wage law of the District of Columbia, held unconstitutional by the court of appeals of the District, November 6, 1922. Decisions of the courts of various States upholding such laws are cited at some length, and extended quotations are made from the reports of various minimum-wage boards and commissions, offered in support of such legislation as a proper exercise of the police power of the Government—in this instance of Congress acting for the District of Columbia. The experience of Canada, Great Britain, Australia, and other foreign countries is brought under review. A considerable bibliography is included.

STRICKLAND, C. F. *Studies in European cooperation. Lahore, Supt. Govt. Printing, 1922. 166, v pp.*

Contains accounts of the cooperative movements of Holland, Belgium, Italy, England, and the Punjab.

TUCKER, DONALD S. *The evolution of people's banks. New York, 1922. 273 pp.*