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M I S C E L L A N E O U S S E R I E S

WELFARE WORK FOR EMPLOY-
EES IN INDUSTRIAL ESTABLISH-
MENTS IN THE UNITED STATES



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WELFARE WORK FOR EMPLOYEES IN INDUSTRIAL ESTABLISHMENTS IN THE UNITED STATES.

INTRODUCTION.

Though it may not be an exaggeration to say that welfare work as it is conducted in the United States to-day began with the beginnings of American manufacture—for example, cotton mills of Lowell in the first third of the nineteenth century supervised the living conditions of their operatives so as to attract and hold a desirable class of labor—it is a fact that the practice of industrial betterment, especially such as is carried on in the actual place of work, has spread widely and rapidly during the past few years.

Because of this growth and the awakening in practically all lines of industry to the importance of welfare measures, there has become apparent the need of a comprehensive yet somewhat detailed account of the practice as it exists to-day, showing what is practicable and desirable in the various industries, and what features are inexpensive, easily administered, and popular versus those which are costly to install and maintain and which prove less satisfactory than anticipated.¹ Despite its long history in certain parts of the country and in certain industries, welfare work is far from being standardized, and its pitfalls may be avoided only by a painstaking preliminary study of the local situation and inquiry as to what in the experience of others has failed or succeeded under similar conditions.

In many establishments the installation of industrial betterment work is due to a member of the firm, more enlightened than the others, who hammers away until given permission to spend a few hundred dollars on the experiment. Having secured this he visits, or sends some one to visit, a number of firms whose welfare activities are well established, or he makes inquiries by correspondence. It was largely because of the number of inquiries for such information made to the Bureau of Labor Statistics that the first-hand investigation, the report of which is the subject matter of this bulletin, was undertaken.

The field work of the investigation extended over a period of 12 months, in 1916-17, and 31 States were visited in connection with the study. In 28 of these one or more schedules were secured; in

¹ Owing mainly to the rapid and general rise in price of practically all articles of merchandise—whether raw material or finished product—and also, to some extent, to the variations in the price of one article in various sections of the country, it is thought not feasible to give the costs of installment except in rare cases.

the other 3 States establishments were noted but for some reason were not scheduled. The investigation did not extend to the Pacific coast, Utah and Arizona being the most westerly States visited. Schedules were secured for 431 establishments; all but 7 of these reported number of employees, the aggregate approximating 1,662,000. The great variety of industries included is shown by the distribution of the 431 schedules, as follows: Textiles, 60; foundries and machine shops, 49; stores, 47; iron and steel, 40; electric railroads, 17; food products, 15; telephone and telegraph, 15; clothing and furnishings, 13; coal mining, 12; other mining, 12; gas and electric light and power, 10; printing and publishing, 10; steam railroads, 10; automobiles, 9; offices, 9; rubber and composition goods, 9; fine machines and instruments, 8; chemicals and allied products, 7; paper and paper goods, 7; boots and shoes, 5; electrical supplies, 5; explosives, 5; and miscellaneous industries, each represented by fewer than 5 schedules, 57.

For the purposes of the investigation and report the term "welfare" was defined as follows: Anything for the comfort and improvement, intellectual or social, of the employees, over and above wages paid, which is not a necessity of the industry nor required by law. As the study proceeded it became evident that even among firms limiting their welfare features to those required by law there were widely varied degrees of compliance therewith, and equipment much more generous than the bare requirements therefore has been credited to the employer.

It must be kept clearly in mind, in a consideration of this report, that the investigation was concerned with so-called welfare work as entirely separate and distinct from other phases of employment. Wages might be low, hours long, working conditions bad, and tenure of employment insecure, but if the establishment had, before correcting these obvious evils, installed a good lunch room, wash room, or other welfare feature, it was visited and scheduled for that alone. However, as a general rule establishments doing the most along welfare lines have superior conditions in the other directions mentioned.

In a few cases the agents were directed to establishments which were found on inspection to possess none of the features specifically classed as welfare but whose working conditions were far in advance of the average in their respective industries, with superior factory construction, good light, heat, and ventilation; space and order; devices for avoiding unnecessary labor or strain; backs to chairs, foot rests, elevator service; grass, trees, and vines on the exterior; and perhaps even more than these features for the health and comfort of the working force. A consulting engineer in an eastern city who is much interested in improved factory buildings states that employers object at first to his plans, saying, "These things won't go with our employees, our common laborers," but his reply is, "Let me show

you," and he has been allowed to do so even in the case of the Negro labor of a large tobacco company.

The investigation, naturally of tremendous interest, developed various surprises along the line of failure to find welfare work where it might most be expected and success in finding it in industries not suspected of anything remarkable. As an example of the latter there may be mentioned a chain of 5 and 10 cent stores, an industry quite often frowned upon by social workers and reformers. Visits to branches of this firm invariably disclosed several lines of welfare activity, one store in a large mid-western city having the following: Rest room and rest periods; first-aid provision; wash and cloak rooms, with matrons; lunch room and free coffee; bottled drinking water, with individual glasses; occasional theater parties; uniforms where required; vacation with pay; and a minimum wage of \$7 a week. The well-known laundry in the East which sets the pace for betterment work in this industry is not the only one deserving of mention, for the Middle West again may be cited as having one whose trained nurse, under a generous management, is enthusiastically installing everything that could within reason be expected—shower baths, cloak room, lunch room, rest periods, clinic, doctor's services, noon talks, social gatherings, reading matter, benefit association, and a minimum wage of \$1.50 a day. The managers of a bleachery somewhat removed from town, whose village offered no recreational facilities whatsoever, realized suddenly the imperative necessity of some provision of this sort. Instead of contracting for the omnipresent moving-picture show and considering their responsibility ended therewith, they engaged the services of a young woman trained for Y. W. C. A. work and placed at her disposal a cottage, a plot of ground for outdoor recreation, and a sum of money. In a few months she and the girls of the village transformed the place, the male employees doing their part by equipping a small unused building with billiard tables and accessories, simple gymnasium apparatus, and facilities for music.

Measures for the shelter and comfort of employees occupied intermittently—such as train and street-car crews, expressmen, porters and messengers, longshoremen, etc. —were noted in a few cases. It is the practice of railroads to provide for their crews club rooms or houses, with sleeping quarters at 25 or 35 cents a night, at layovers removed from cities; street railway companies have recreation facilities at their barns or adjacent thereto; express companies have assembly rooms where drivers wait while their wagons are made ready; the telegraph companies make provision for their messengers—all, of course, in varying degrees of adequacy. In a large eastern port there was visited a "longshoremen's rest" excellently adapted for the purpose but which, owing partly to labor disturbances and partly to war conditions, has not yet been used to any great extent by the class for which it was intended. There is a commendable tendency

on the part of newspapers to provide waiting rooms for the boys who otherwise must congregate on the street.

An interesting and perhaps unique example of welfare activities among municipal employees is that of a borough employing over 2,000 persons in its administrative offices, 250 of whom are women, which has been doing work of this sort since 1914. The plan was started during the administration of a borough president who had been active in a national organization concerned, among other things, with the welfare of working people. He appointed a committee of 14 persons, representing the various departments, and this operates through several standing committees and a committee of one hundred in charge of festivities. Among the activities are balls, outings, and summer festivals, very largely attended, the proceeds of which make up the relief fund whose disbursement is an important part of the work; lectures; a ball team, camera club, and 60-piece band; and swimming, dancing, and gymnasium classes. For the last named the exclusive use at certain hours of some of the city pools and gymnasiums is secured, and many hundreds of the municipal employees take advantage thereof. Under the same borough president a joint trial board was inaugurated for the consideration of charges against borough employees. The official making the charges and the accused employee appear before a board composed of two borough officials, two employees of the same rank as the one on trial, selected by lot, and the borough president as presiding officer. The effect of this system on the entire force of employees is said to be excellent.

Another phase of interest which developed was the uniformity or variability of practice among the several plants of one company. The fact that the main establishment carries on practically every sort of betterment work but its branches do nothing at all suggests either that the matter is left entirely to the discretion of the local management or that the work at headquarters is done as advertising. Unfortunately there are examples of this in the present study, but there are more numerous instances of a system so well founded and sincere that wherever the firm or corporation in question is found to be doing business welfare work, to a greater or less extent, is being done.

Captious criticism had not at the time of the investigation, nor has it now, any place in this study of industrial betterment; furthermore, in view of the many factors influencing or controlling the situation, it would not be fair to blame an employer too severely for inequalities in his welfare provisions. However, it would seem that the function of stock taking, so to speak, might be practiced at times, and certain conditions remedied or eliminated. Girls standing to operate machines who in other factories would be provided with seats; factory girls lying on the floor of the washroom because the rest rooms provided are for the office force only; the monopolizing of a hospital by private patients of the company doctor; the sweeping of an

emergency room while jars of dressings stand uncovered; protracted delays in construction or equipment eagerly awaited by employees; the common towel and drinking cup—all were found in establishments having more or less spectacular welfare work. Compulsory dental work at the employee's expense, despite its usual high cost, following a gratuitous examination; employment so insecure that "however long you've been here, when you go in the morning you never know but what you'll be discharged that day," and speeding up so violently during rush seasons that many employees are made ill—these exist in three of the best-known places visited.

The subject of standardization has been mentioned. It is the theory of an official of one large and old established firm that employers would benefit by a system of standardization which might be worked out and fostered by conferences similar to those held by employment managers, the various welfare departments to operate under the guidance of an agent of the Federal Government. At present the system of medical service in existence in a large number of establishments is entirely disapproved of by one manager, who considers that it tends to make the employees exaggerate their ailments and think too much about themselves; the quite common custom of giving prizes for suggestions is believed by another to take the employees' minds off the work in hand; certain employers are taking out all individual lockers and using hooks, hangers, and shelves instead; the so-called sanitary drinking fountain in many cases has been found to be a menace instead of a safeguard; soap and towel service is still an unsolved problem; there are firms which will countenance no activities among their people which do not originate within the establishment, and others which, quite willing to pay the costs, prefer that all should be done by outsiders; there are employers who are putting up houses with no pantries or clothes closets because they consider such places conducive to the insanitary harboring of trash, while a greater number are insisting that all new houses have those features and are putting them in old houses where possible because they render decent housekeeping so much more attainable.

In town or city factories the first step in a welfare program is quite commonly the establishment of a lunch room; in factories in isolated communities the first step appears to be a kindergarten for the children of employees. Of whatever character, the feature introduced should not be over the heads of the people. The wise superintendent of a cotton mill in the South, when told that the president contemplated installing a library for the people, suggested instead the improvement of a waste piece of land as a park and recreation ground. This feature, with music, he believed from his intimate knowledge of the mill people would better meet the immediate need; later, when they had grown up to it, a library would not be over their heads. The gratifying success of this park, which is exceptionally beautiful

and well planned, proves the correctness of the superintendent's judgment. Several other welfare features, and a trained social worker, are now maintained by this mill.

There are varied ideas as to what constitutes the best and most helpful work among the many kinds being done. A cotton-mill superintendent considers that it is the community bathhouse; a manufacturer of fine machines believes it to be the hundreds of hot lunches taken into the foundry because the men will not patronize the restaurants; a considerable number say it is the medical provision, including the preventive and corrective work of the visiting nurse.

The character of the working force obviously has much to do with the success or failure of industrial betterment plans. A garment factory, which had carried on welfare work among its American employees in the Middle West with gratifying results, moved to an eastern city and employed a class of foreigners who "break or steal nearly all the fixtures or appliances put in for them," conduct which, in the opinion of the management, makes extensive welfare work impracticable. Italian girls ordinarily are not allowed to be out at night, which complicates the club or class work attempted for them. In some cases foreigners and Americans will not mingle, nor will office and factory hands. Religious sectarianism is a stumbling block in places.

The publication of a house organ—weekly or monthly—for which certain employees in each department are responsible, and to which any employee may contribute, is of value in assimilating and cementing the various forces. Personal mention of the employees and their families, news of the sick and the absent, the score of the ball team, the finances of the benefit association, with a little technical matter and perhaps a story or verse, make up the average magazine. In isolated or backward sections of the country, such a publication helps to develop the community spirit. Fifty-two house organs, ranging from cheap four-page sheets to expensive illustrated magazines of many pages, were collected in the present study.

In any discussion of the changed industrial conditions the statement is pretty sure to be made that whereas in the old days an employer had so few men that he knew them by name and called them Bill and Tom, nowadays he employs thousands and cannot be expected even to recognize them, much less recall their names, which by the way are quite unimportant, since they go by number instead. Frequently this is used as an argument in favor of organization, or of mediation in disputes, and occasionally it is advanced in connection with the necessity of improved conditions of employment. Establishments were visited in this investigation in whose small works a complete absence of formality is accompanied by conditions of light, heat, ventilation, etc., which would be intolerable in a larger place with thousands of employees, but which are as cheerfully endured here as if the workers were in their own shops, the fewer

employees, the lax discipline, the accessibility of the boss, rendering conditions not unlike those of the earlier days. In the majority of large places, however, the strenuousness of modern business methods has developed a cool and calculating management under which the sympathetic point of view becomes dulled or non-existent. It is partly because of this that there is developing the enlightened system of a separate employment department which makes a point of engaging and placing help with ceremony and politeness, which follows up the new employee and avoids misfits by a system of tryouts in various departments, which has a ready ear for suggestions and grievances, and which alone is empowered to discharge; the questionable method of discharge by foreman or other petty boss becoming obsolete in the best establishments.

The system of supervision was found to vary widely from plant to plant, ranging from the extreme of overspeeding, which results in a tired, worn, and sullen working force, to that of such expert management that a satisfactory output is obtained from healthy and happy-looking employees. Closely related is the question of discipline—there are many places where employees may not leave desk or machine without permission—and that of such special consideration as allowing the women to leave the building five minutes before the men, on account of the rush, and granting an extension of the noon recess on the days of club meetings.

In connection with improved methods of employment and training may be mentioned the commendable efforts of some establishments to regularize seasonal occupations and lessen or entirely prevent periods of unemployment. These efforts consist of securing orders early, making stock goods or parts of goods in dull seasons, fitting employees to do more than one kind of work, and other such measures.

Joint administration by employers and employed, sometimes called mutualism, where successfully conducted, probably increases the interest, good will, and loyalty of the workers. The employees may be represented on committees having charge of safety and accident work, sanitation, recreation, and general welfare features. In certain notable cases, cited elsewhere, they have a voice in the general management and the setting of the wage scale.

The mistake must not be made of supposing that welfare work will prevent discord when even cordial relations, the best of working conditions, and good wages have failed in this at times. Nevertheless, though few employers would make any very definite statement on this subject, the indications are that, other things being equal, welfare work reduces the labor turnover, lowers the sickness and accident rate, and conduces to a better feeling on the part of the working force.

CHAPTER I.—HEALTH MEASURES FOR EMPLOYEES.

The methods of caring for the health of employees vary with the needs of different industries and the individual ideas of employers. These methods include work along the lines of preventive and curative medicine and surgery, the safeguarding of the health of all the employees through the physical examination upon entrance, the relief from the strain of especially monotonous and fatiguing operations through the granting of rest periods or change of occupation, and the granting of vacations and sick leave which give employees the opportunity to recuperate from long periods of work or of illness.

MEDICAL, HOSPITAL, AND SURGICAL TREATMENT.

Many kinds of industries have found first aid or emergency hospitals to be essential to the protection of the health of employees, and there is undoubtedly much valuable work done through the agency of these hospitals. In many cases employees who are too poor or too careless to take steps to secure the proper treatment for themselves or who do not realize that such treatment is necessary are advised and cared for in time and much needless suffering is thereby avoided. If the work is intelligently and conscientiously carried out and the tendency to give medicine for too trivial causes is avoided, the results to the employee will be better health and increased earning power and to the employer a more efficient force of employees.

The equipment in different establishments ranges from simple first-aid cabinets located in the office or about the plant to elaborate and up-to-date emergency hospitals. These hospitals are housed either in separate buildings or in a suite of rooms in the plant and include doctors' offices, operating rooms, and wards for men and women, with doctors and nurses on duty throughout the working hours.

The following table shows the number of establishments reporting the various medical facilities and the average number of cases treated per month, by industries:

TABLE 1.—NUMBER OF ESTABLISHMENTS HAVING FIRST-AID EQUIPMENT AND EMERGENCY HOSPITALS, AND AVERAGE NUMBER OF CASES TREATED PER MONTH, BY INDUSTRIES.

Industry.	Number of establishments.	Employees.			Number of establishments reporting—				
		Male.	Female.	Total.	First-aid equipment only. ¹	Hospital or emergency rooms.	Doctor.	Nurse.	First-aid attendants.
Automobiles.....	9	93,077	2,606	95,683	1	8	8	7	3
Boots and shoes.....	5	16,555	7,375	23,930	3	2	2	3	3
Chemicals and allied products.....	7	12,698	841	13,539	3	4	3	1	2
Clothing and furnishings.....	12	6,736	12,547	19,283	1	11	5	10	4
Electrical supplies.....	5	44,376	6,664	51,040	.....	5	4	4	3
Explosives.....	5	30,095	5,935	36,030	.....	5	4	5	2
Fine machines and instruments.....	8	² 15,122	² 5,641	25,263	1	7	4	5	3
Food products.....	13	8,367	8,662	17,029	4	7	5	6	5
Foundry and machine shops.....	48	138,127	9,148	147,275	12	35	23	19	23
Iron and steel.....	36	201,306	1,467	202,773	4	32	21	25	10
Mining, coal.....	11	17,856	1	17,856	.....	11	5	.....	9
Mining, other.....	12	25,392	56	25,448	6	5	2	.....	3
Offices.....	7	² 3,757	² 4,828	13,587	1	6	4	4	9
Paper and paper goods.....	7	5,995	3,179	9,174	1	6	1	4	3
Printing and publishing.....	9	7,750	4,176	11,926	.....	9	4	7	1
Railroads, electric.....	16	59,043	1,015	60,058	9	6	6	1	3
Rubber and composition goods.....	9	37,094	5,753	42,847	2	7	4	6	1
Stores.....	46	56,838	67,935	124,773	2	44	32	39	7
Textiles.....	33	25,553	20,209	45,762	16	18	7	11	8
Other industries.....	77	³ 152,437	² 58,847	220,734	44	39	27	24	29
Total.....	375	⁴ 958,173	⁵ 226,885	1,204,010	110	265	171	181	131

Industry.	Male employees.			Female employees.			Total, both sexes.		
	Number of establishments reporting cases treated.	Number of employees.	Average cases treated per month.	Number of establishments reporting cases treated.	Number of employees.	Average cases treated per month.	Number of establishments reporting cases treated.	Number of employees.	Average cases treated per month.
Automobiles.....	5	33,343	15,534	3	852	265	7	40,741	16,493
Boots and shoes.....	1	2,100	350	1	650	350	4	13,315	3,150
Chemicals and allied products.....	4	8,840	2,060	1	500	151	6	13,369	2,827
Clothing and furnishings.....	6	1,833	648	6	4,379	1,845	9	17,959	3,730
Electrical supplies.....	1	9,997	1,044	1	2,366	90	2	27,383	5,952
Explosives.....	3	15,845	10,782	1	5,000	915	4	23,430	13,347
Fine machines and instruments.....	3	6,100	390	3	3,010	521	6	21,659	3,495
Food products.....	4	2,621	122	4	2,498	292	8	13,595	1,641
Foundry and machine shops.....	29	93,400	26,230	8	7,029	2,642	35	116,193	34,258
Iron and steel.....	24	198,819	16,640	2	451	124	31	132,979	23,520
Mining, coal.....	9	13,207	781	.....	.....	.....	9	13,207	781
Mining, other.....	4	6,804	146	.....	.....	.....	4	6,804	146
Offices.....	1	1,926	138	2	2,190	388	6	13,151	1,945
Paper and paper goods.....	4	2,804	696	3	1,789	1,198	7	9,174	2,138
Printing and publishing.....	5	5,126	954	5	3,122	579	8	10,626	2,521
Railroads, electric.....	6	20,025	3,005	1	252	58	6	20,425	3,063
Rubber and composition goods.....	3	18,885	14,008	3	1,122	200	6	36,888	22,061
Stores.....	17	15,276	2,756	16	21,938	8,835	40	107,270	39,393
Textiles.....	8	10,303	1,141	8	9,186	1,635	17	29,553	3,310
Other industries.....	29	52,587	5,276	22	16,890	3,351	46	103,170	12,951
Total.....	166	429,871	102,701	90	83,034	22,819	261	770,889	196,722

¹ Including pulmotors, stretchers, cots, etc.² Not including employees of 1 establishment, not reported.³ Not including employees of 2 establishments, not reported.⁴ Not including employees of 4 establishments, not reported.⁵ Not including employees of 3 establishments, not reported.

TRAINING OF FIRST-AID CREWS.

The hospital work has grown to large proportions in many industries because of the impetus which has been given to the safety movement in the last few years. Since it is of the utmost importance that accidents, however trivial, should have immediate and careful attention in order to minimize the number of cases of infection, it is essential for their successful operation that these hospitals not only should be well equipped and have a competent staff of doctors and nurses but that some of the employees should be trained in the principles of first aid and that all of the employees should be educated to cooperate by reporting promptly to the hospital in all cases of accident or illness.

As a result of this work in the mining and iron and steel industries especially, crews of men are instructed in the principles and practice of first aid, and interest is stimulated and maintained among the employees by means of safety-first magazines and bulletins and by contests among various first-aid teams for which prizes are given. In some cases the day on which these contests take place becomes the gala day of the year for the employees and their families. The participation in rescue and first-aid work is entirely voluntary on the part of employees, but each one before being allowed to enter the work must have a doctor's certificate showing that he is physically fit to undertake it. Four to six men are assigned to each crew and are trained by the company doctor. The course consists of lectures, demonstrations, and drills. Twelve lessons are usually required to complete the course. Through these systems of first aid these companies have been able to reduce materially the number of cases of infection. The first duty of first-aid men is to apply a temporary aseptic dressing that will prevent infection of the wound. Their further activities are to supervise the removal of the injured person to the hospital and to render appropriate assistance in cases of shock, heat exhaustion, gas poisoning, etc. Rescue crews consist of from five to eight men, who are trained by special instructors to work with rescue helmets (such as shown in pl. 1) in a room filled with smoke or noxious gases. Several companies have fully equipped rescue cars containing stretchers and stretcher racks with a capacity of from 16 to 20 men and provided with small operating rooms with sterilizing equipment and a supply of drugs and dressings. In addition, the cars carry oxygen helmets, safety lamps, reels of life line, and pulmotors and are always ready with the necessary crew of men in case of emergency.



PLATE I.—EMERGENCY APPARATUS OF A CHEMICAL COMPANY. NOTE STRETCHER, HELMETS, GLOVES, BOOTS, TOOLS, ETC.

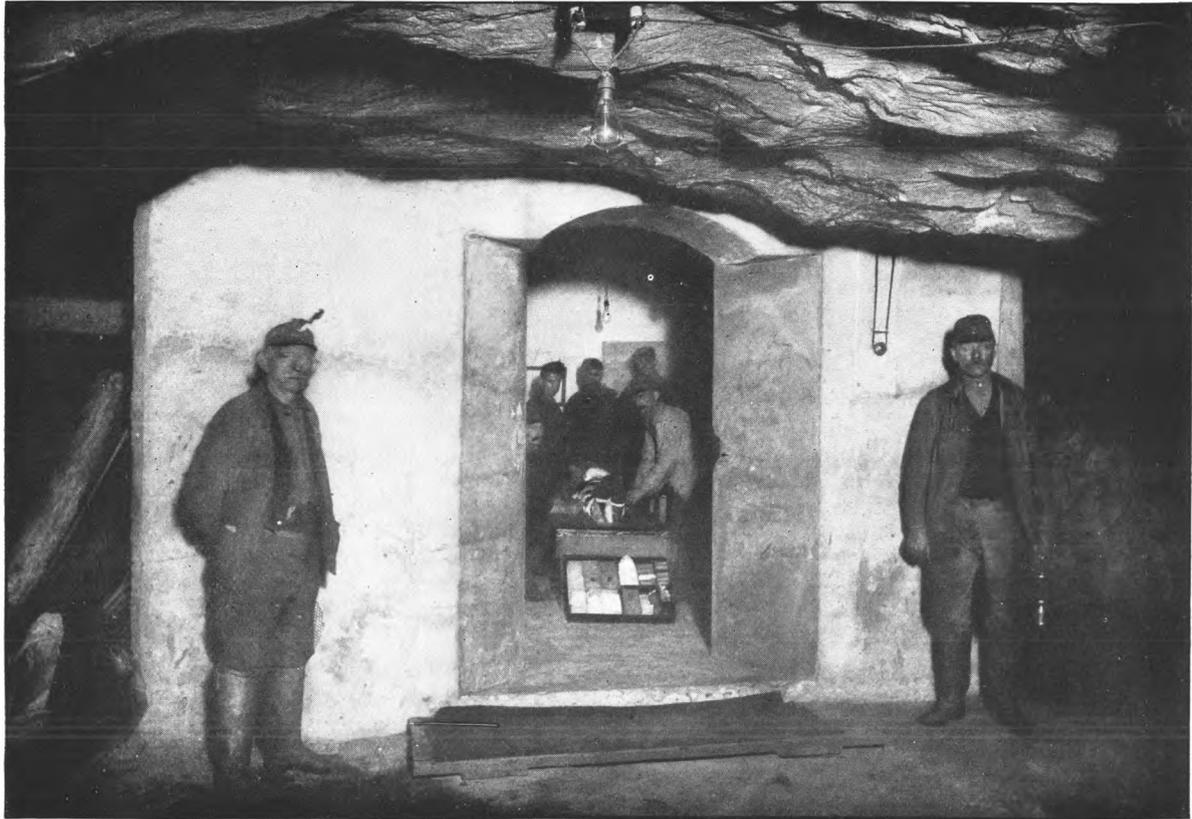


PLATE 2.—MINE EMERGENCY ROOM OR REFUGE CHAMBER.

FIRST-AID EQUIPMENT.

Of the 375 establishments reporting provisions for medical treatment, 110 have first-aid equipment; of these, 77 have first-aid kits only, 16 have first-aid cabinets and stretcher or cot, 12 have first-aid kits in rest rooms, and 5 have kit, stretcher, and pulmotor.

In the mining industry, where much of the relief work is done by first-aid crews, there are first-aid boxes at the different mine levels and sometimes emergency rooms or refuge chambers built of concrete. (See pl. 2.) One company reports a special signal system, in case of accidents, to call the first-aid men. Stretchers, and usually pulmotors, or lung motors, are supplied. One company keeps first-aid boxes dry by use of electric-light bulbs. Pocket first-aid cases are also frequently furnished the men.

First-aid cabinets.—The equipment of first-aid cabinets varies somewhat in comprehensiveness according to the skill of those assigned to administer first aid. The policy of most companies with good hospital equipment, however, is to keep down the amount of first-aid work outside the hospital to a minimum in order that patients may be treated by trained attendants under proper conditions and with proper equipment. The equipment of one first-aid case, which is contained in a glass jar (a satisfactory method of keeping the supplies sterile), is as follows: Large and small bandages done up in individual packages, a pair of scissors, triangular bandages, safety pins, 1 and 2 inch roller bandages, dry picric acid gauze in oiled-paper envelopes, and tourniquet. In some of the locations more distant from the central hospital adhesive tape and tincture of iodine are added to the equipment.

Stretcher cases.—In hazardous industries stretcher cases are usually located at various points throughout the plant. A method of bringing injured employees out of mines so as to minimize the shock and jar in carrying them from the place of injury to the surface is shown in plate 3. The standard stretcher boxes of a large iron and steel company are made of sheet steel with sloping top to allow dust, snow, and rain to fall off. Each box contains a Reeves army stretcher, large woolen blanket, army tourniquet, and emergency bandages. This stretcher is designed so that it can easily be placed in the bed or on the operating table without removing the patient, thus making much handling unnecessary. It is very comfortable and extremely useful for quick transportation.

A first-aid package, sealed and aseptic, is placed in each stretcher box. This box contains one bottle of aromatic spirits of ammonia, one triangular bandage, one roll of gauze bandage, one gauze compress. This package is to be used only in case a temporary dressing is needed.

A green cross on a white background is used to indicate location of stretcher boxes, and a card giving the location of all the other boxes about the works is placed in each one, so that in case of injury to more than one person the boxes can be located quickly. A first-aid card giving instructions for the practical application of tourniquet to the arm and to the leg is inclosed in a wooden frame on the outside of each stretcher box.

Passes for patients.—In case of accident a "foreman's card" is issued. This is an official order to the doctor to render surgical attention. Should the case be of trivial character, the card is signed by the doctor and handed to the foreman as authority for his allowing the man to return to work, but if the injury is severe enough to necessitate the patient's being taken to the hospital or to his home, the card is held by the doctor until the man is able to return to his work.

The system of another company, in this regard, is worthy of note. Patients going to the hospital are provided by their foremen with a treatment pass, upon which they are required to stamp the time of leaving their room, time of arrival at hospital, time of leaving hospital, and time of arrival back on the job. This enables the company to find out exactly what the hospital service costs in lost time, and also serves as a check on employees loafing while going to the hospital. When a dressing is finished, the hospital clerk enters the date and time at which the patient must come back for retreatment on the back of the card and the patient must report at the time stated. This system has been very successful in preventing employees from having to wait a long time for treatment.

SCOPE OF THE WORK OF EMERGENCY HOSPITALS.

In the iron and steel industry, in foundries, machine shops, and other extrahazardous industries the emergency hospital equipment is often very elaborate. All the modern sanitary appliances—such as faucets, which are operated by foot or knee pressure, glass cabinets for medicines and instruments, porcelain tables, electric sterilizers, and complete equipment for major and minor operations—are found. Forty-three of these establishments employ surgeons, so that accidents, even though very serious, may be cared for without the loss of time, which is often so serious a factor in surgical cases. Eight establishments which are not equipped to care for very serious cases have their own ambulances, of which six are motor ambulances, in order that there may be as little delay as possible in getting patients to the general hospital.

There is a systematic endeavor in most establishments which possess good emergency equipment to have the employees report to the doctor or nurse for even the slightest injuries, and as a result



PLATE 3.—STRETCHER SUSPENDED IN MINE WAGON, WITH SPRINGS TO ABSORB ALL SHOCK AND JAR, TO TRAVEL FROM PLACE OF INJURY TO SURFACE.

there has been a great reduction in the number of cases of infection. In many cases severe penalties are imposed if workers endeavor to remove particles from the eyes of fellow workmen or bind up cuts or scratches, and sometimes this is considered sufficient cause for discharge.

About 190 of the companies visited give free medical service to employees in addition to the accident work. In those industries in which accidents are rare and seldom serious much has been made of the medical service, and in department stores and large offices, which almost uniformly have elaborate emergency equipment, employees are encouraged to report to the hospital for the most trivial complaints. In these establishments often a large percentage of the employees are treated each month, while in those which confine themselves to accident work only, usually comparatively few receive treatment. Of the 375 establishments reporting, 265 have hospital equipment varying from very ordinary to very elaborate, and 110 other establishments have first-aid equipment only. Of these 375 establishments, 171 employ doctors, 84 have doctors on call, 99 have none, and 21 do not report. One hundred and twenty-two establishments employ 1 doctor each, 20 employ 2 doctors, 8 employ 3, and 16 employ numbers varying from 4 to 12. Two companies employ 14 and 22 doctors, respectively, each company having several plants; another employs 43, but this company covers a wide territory and much family work is included. One company has a hospital adjacent to the plant which was started by the firm but is now a public hospital at which all emergency cases are treated. One other does not report number of doctors. Of the doctors reported in the 171 establishments, 48 are reported as surgeons.

One hundred and eighty-one establishments employ trained nurses, 165 have none, and 29 do not report. Of these 181 establishments, 104 have 1 trained nurse each, 39 have 2 nurses, 20 have 3, 12 have from 4 to 8; the 5 employing more than 8 have reported for more than one plant. In one establishment the nurses in the company hospital serve as emergency nurses.

The management of one very large company employing many young women believes that the company should not take the responsibility of treating its employees in any except the very simplest first-aid cases. It is the policy of this company to have a first-aid cabinet in the rest room in charge of one of the older employees, and if any sudden, serious case develops to send for a physician. As far as possible, however, the company works through the family physician, believing that a better feeling results on the part of employees and their families if this is done. This company also believes that a finely equipped emergency hospital encourages those with trifling ailments to think too much of them, and makes it often too easy to

get medicine without which in the end the employee would probably be better off.

The emergency hospital work is to a certain extent allied with that of the benefit association, and in a few instances is managed by this association, the employer giving space and equipment and usually making a contribution to the association funds. In the majority of cases, however, the employer pays for and controls the hospital work, and the medical work in connection with the benefit association is incidental to the regular work of the hospital.

SYSTEM OF FOLLOWING UP ABSENTEES.

Visits to the home by the doctor or visiting nurse are often of great value. One very large firm has an efficient method of keeping track of employees who are out because of illness. These employees are reported every 12 days by the absentee department and a special investigation is conducted. In case the employee needs financial assistance, either for medical service or for the support of his family, he is given a regular weekly allowance from the "aid-to-the-sick" fund which the company maintains. Another company has a systematized method of caring for its employees who are absent because of illness or injury. Such employees are required to notify the health department within 24 hours. A trained nurse calls on the second day of absence, and every third day thereafter, to see that the patient is receiving proper medical attention. While this company does not attempt organized social supervision or to give bedside care, the nurses try to instruct families in the essentials of American standards of living. Each nurse engaged in this work is assigned to a district and is encouraged to cooperate with public and private agencies that are concerned with the betterment of social conditions. In this establishment, as in others that employ visiting nurses, automobiles are furnished by the company for the use of the nurses.

In several instances absences are investigated by the visiting nurse who gives advice and assistance, and in one case her report to the manager is the basis for help extended by the company.

AVERAGE NUMBER OF CASES TREATED.

Of the establishments scheduled, 166, employing 429,871 male workers, report 102,701 cases of illness and accident, or 24 per cent, in an average month, while 90 establishments, employing 83,034 female employees, report 22,819 cases, or 27 per cent, for a like period. Two hundred and sixty-one establishments, including several which do not report cases by sex, with a total of 770,889 employees, report 196,722 cases, or 26 per cent. For the establishments reporting, the per cent varies in male cases from less than 1 to 70, in female cases from less than 1 to 74; in total male and female from less than 1 to 68

per cent. Included in the totals are 9 establishments showing a percentage running from 76 to 110. It should be borne in mind that these are the per cents that the number of "cases" are of the number of employees, and may or may not be the per cents that the number of employees receiving treatment are of the total number of employees. This arises from the fact that the same employees may have received treatment at two or more distinct times during the month, and each treatment would be considered a "case." It is also to be emphasized that the term "illness and accident" as used here includes all cases reported to the hospital, many of them of a very minor character.

While these per cents may have no definite value as showing the proportion of employees treated, they do show in a general way the great variation in the relation between the number of employees and the services rendered.

CONSTRUCTION AND EQUIPMENT OF STANDARD EMERGENCY HOSPITAL.

The following description of emergency hospital construction and equipment is that adopted as a standard for the many different plants of a large steel company. This building plan was adopted as embracing thorough sanitation, good construction, and economy in operation. It is adapted to the needs where 1,500 or more men are employed. Where local conditions are such that the complete standard plan is in excess of the needs, a hospital incorporating the necessary units of this plan can be erected, or if a separate building is not desired a suite of rooms can be arranged and fitted up in accordance with these or following suggestions. (See pls. 4 and 5.)

The hospital building, 46 feet 3 inches by 32 feet 9 inches, outside measurement, is of steel and concrete fireproof construction, with the following rooms: Waiting room, re-dressing room, operating room, wardroom (three beds), bathroom, and nurse's room, on the main floor, and X-ray room, laboratory, and morgue in the basement.

Foundation.—Foundation, concrete. Basement floor, also concrete, 4 inches thick, trowel finished, and inclined to floor traps.

Walls.—Outside walls 13½ inches thick, faced with red pressed brick. All lintels, sills, and water tables made of concrete.

Windows.—All windows on main floor, double sash; size of glass, 30 by 38 inches.

Doors.—All double doors 2 by 7 feet, single doors 3 by 7 feet; core-locked and plain surface.

Roof.—Slate, size 12 by 18 inches, laid on board sheathing.

Entrance.—Main floor entered by a 15 per cent upgrade, with side walls and floor of cement. Basement entered on a 15 per cent downgrade; retaining walls and floor are made of cement.

Heating.—Main floor heated by steam.

Water heating.—Water heated by gas instantaneous water heater having a capacity of 6 gallons per minute to 70° F.

Interior finish.—All interior woodwork is finished white, receiving one coat of shellac, three coats of white lead, one coat of French zinc, and one heavy coat of enamel. This character of finish can be easily washed down and kept clean.

The operating, re-dressing, and bath rooms have a vitrolite or glass or tile wainscoting to a height of 5 feet from the floor, resting on a 3-inch terrazzo cove, the sheets running the full height of the wainscoting, with all exposed edges polished and rounded; balance of edges ground so that joints and all panels butting adjoining work fit even and true, and cut out under windows for ventilating fans. Remainder of walls, including ceilings, have two coats of hard plaster and one coat of white lime plaster troweled to a smooth finish, all corners being rounded or filleted.

The floors throughout are finished with terrazzo of best white Italian marble chips set in blanc cement and ground to even finish, joining the walls with a 3-inch terrazzo cove. A terrazzo floor is preferable to a tile floor because of its greater wearing qualities. Tile flooring, where subject to rough usage, becomes gray and porous, and more difficult to keep sanitary than terrazzo.

Floor drains are 12 by 12 inches, of polished brass, with hinged covers.

At each radiator under the windows a sirocco No. 00 or No. 0 ventilator fan is placed. This insures free ventilation at all times, at the same time allowing the windows to be kept closed, thereby keeping out the dust and dirt. For sanitary reasons all windows are double, similar to windows found in Pullman cars.

Waiting room.—A comfortable sanitary room for the patients while waiting, if necessary, for a dressing. Equipment consists of 20 steel-enamel chairs and a water-cooler. Enamel chairs are preferable to wood, because they are more sanitary and wear better than wood chairs.

Re-dressing room.—This room is used for the re-dressing of all cases and for first attention to the minor cases. A washstand, with foot attachment, is used by the doctor and nurse in the scrubbing of the hands and forearms preparatory to rendering surgical attention. The foot bath is used for the thorough scrubbing of the foot and leg in cases where the foot or leg is injured. The bottle rack is used to store stock antiseptic solutions so that when solutions are necessary they will be found ready for use. Basins with stands are used to hold antiseptic solutions for antiseptic cleansing of the doctors' and nurses' hands. The instrument sterilizer is used to sterilize all instruments before using them. They are completely sterilized in every case after being used. The other equipment in this room



PLATE 4.—EXTERIOR OF STANDARD EMERGENCY HOSPITAL.

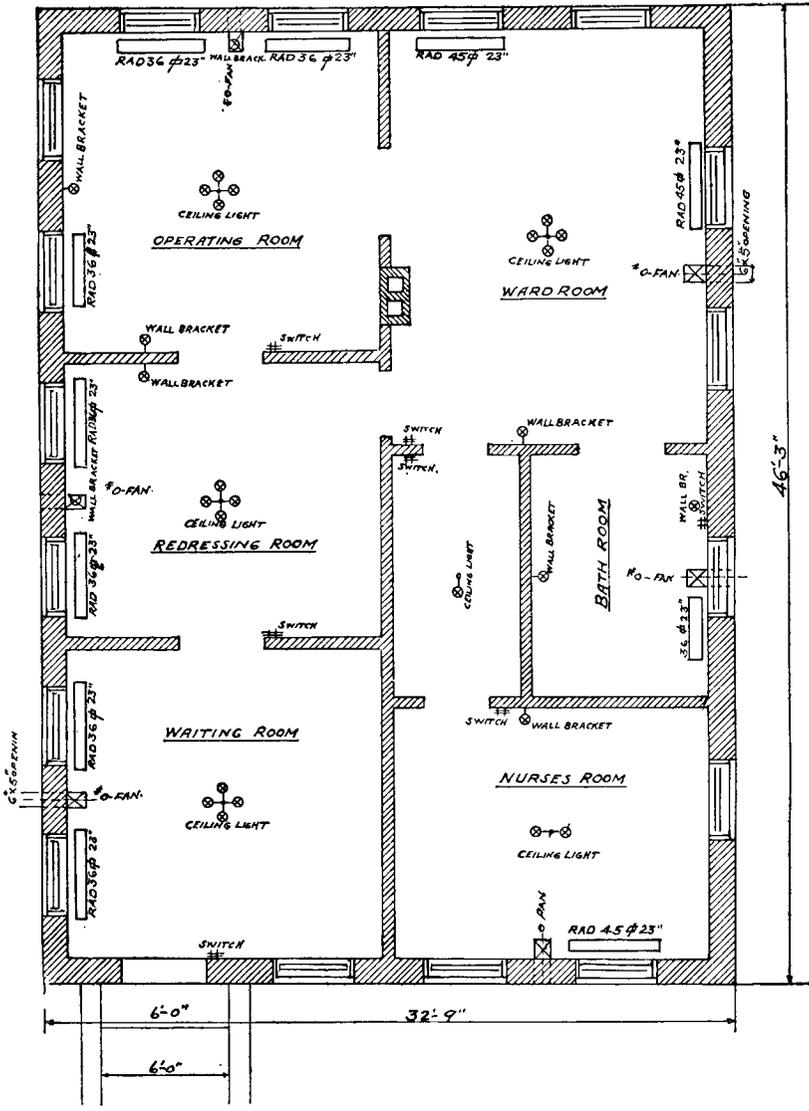


PLATE 5.—PLAN OF STANDARD EMERGENCY HOSPITAL.

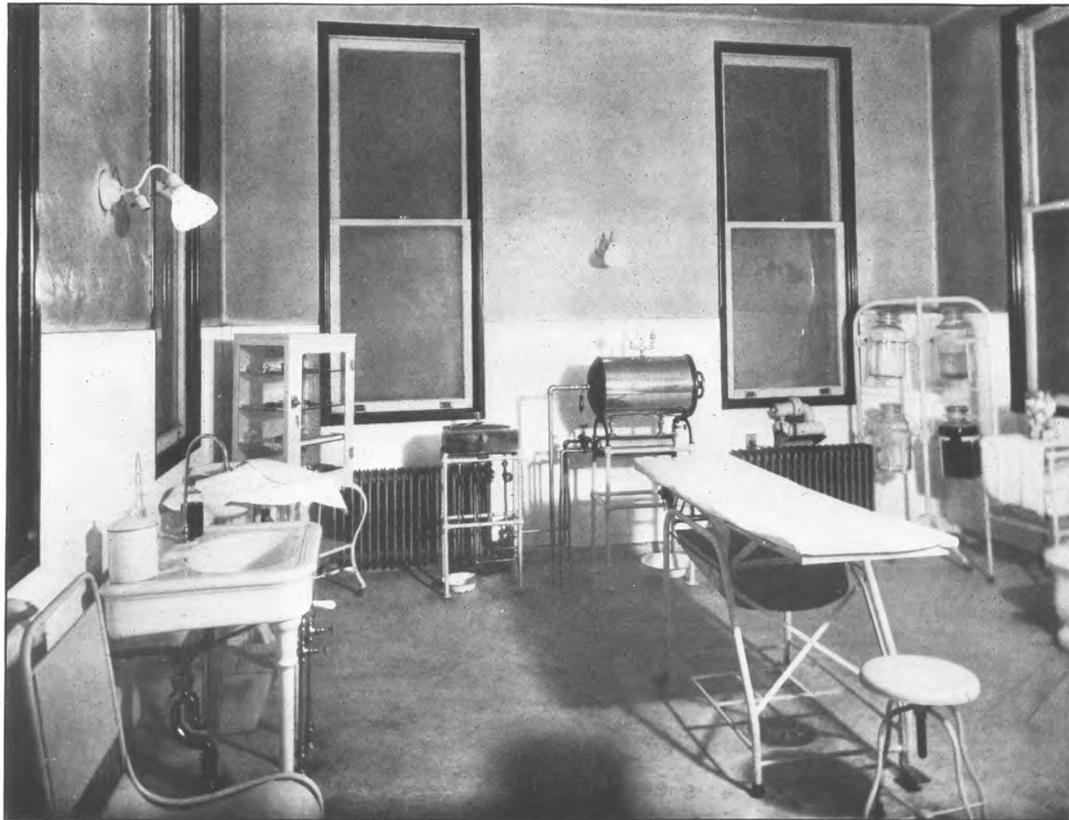


PLATE 6.—OPERATING ROOM IN EMERGENCY HOSPITAL.

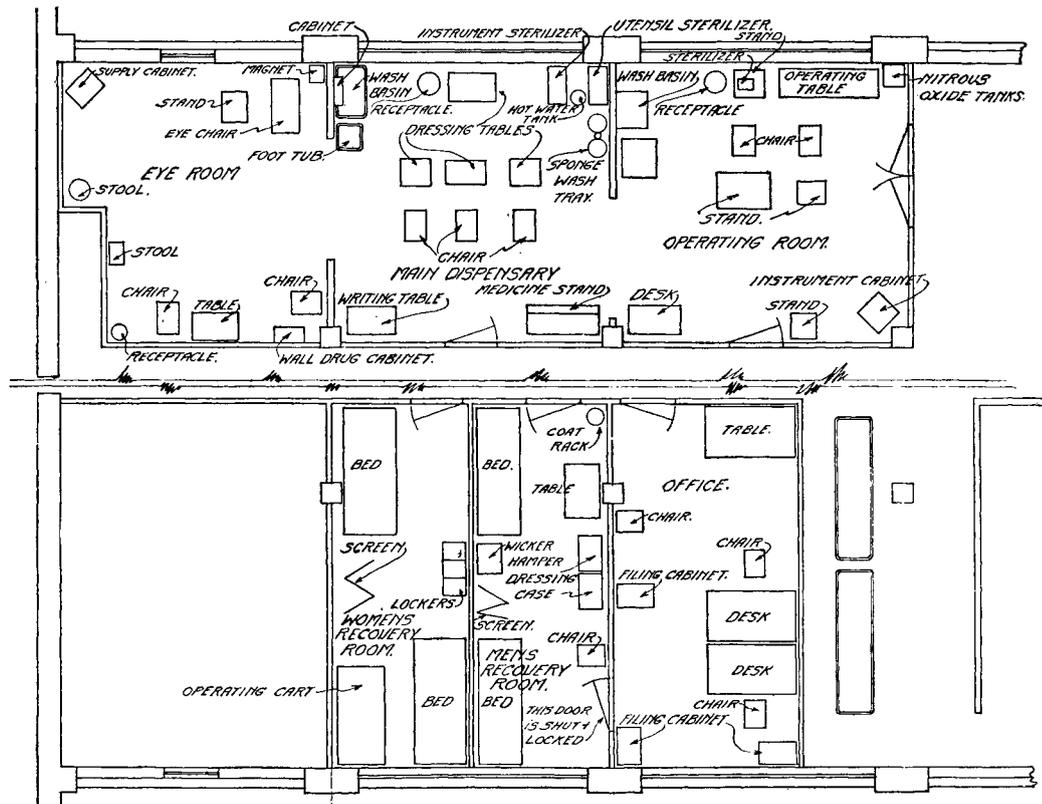


PLATE 7.—FLOOR PLAN OF FACTORY EMERGENCY HOSPITAL, SHOWING LOCATION OF EQUIPMENT.

consists of enamel tables, dressing carriage (holding medical supplies), chairs, nurse's desk, "Justrite" pail, instrument and dressing cabinet (to hold supplies), and the necessary surgical instruments used for dressings, i. e., tissue forceps, scissors, knives, etc.

Operating room.—This room is similar to the re-dressing room in construction and equipment. The surgeon's washstand has goose-neck removable spray with knee-action supply valves. The operating room is used for minor operations and for surgical attention in the severe cases. This room is found to be of great value on account of its being surgically clean at all times, giving the doctor and nurse every opportunity for complete antisepsis, thereby eliminating many infections and serious complications. The equipment is similar to that found in the re-dressing room, with the addition of a high-pressure steam, hot and cold water sterilizer, instrument sterilizer, autoclave for the sterilization of gauze and bandages, and a utensil sterilizer for the sterilization of basins, pans, etc. Both electric and gas-heated sterilizers are used. It is absolutely necessary, in order to prevent infections, that all solutions, materials, instruments, etc., should be sterilized before making a surgical operation or re-dressing. (See pl. 6, for illustration of operating room.)

Bathroom.—The furnishings of this room consist of a specially constructed bathtub, 6 feet 6 inches long, and toilet facilities. The bathtub is used in the treatment of cases of heat exhaustion and heat stroke. It is provided with an automatic mixer, canvas hammock, and pneumatic pillow. In cases of heat stroke where the patient has a temperature of 102° to 111° F. cold baths are given until the temperature reaches 100° F. or slightly below. In the heat-exhaustion cases where the temperature falls below normal, 95° to 97° F., a hot bath is given until the patient shows signs of reaction. This treatment has been the means of saving a number of lives where prompt treatment was essential.

Ward or recovery room.—This room is used for cases of heat exhaustion or heat stroke, shock, hemorrhage, gas poisoning, or in the treatment of acute illnesses of any character. It is equipped with three beds, besides table and chairs. Cases of shock or hemorrhage should not be moved but should be kept at rest until a reaction has taken place. The beds are supplied with electric warming blankets and heating pads, taking the place of the more cumbersome hot-water bottles. This room is used daily in the care of patients who are temporarily ill, and is indispensable.

X-ray and laboratory.—An X-ray examination should be made of every fracture if an accurate diagnosis is to be made. The equipment consists of one X-ray machine and operating table, a lead screen to protect the operator, appliances for developing plates, and room for storing same. The laboratory is of great assistance in

confirming diagnoses when there is an element of doubt as to the character of the disease. The equipment for these purposes consists of microscope, chemicals, pipettes, etc., used to examine the blood, sputum, and other secretions.

Nurse's room.—This room is for the personal use of the female nurse when not engaged. Furnishings consist of a bed, dresser, chairs, table, and other necessary equipment. This is not the residence of the nurse, but is used as a rest room, giving the necessary privacy.

Storeroom.—This room is for storage of supplies—blankets, sheets, cotton, etc.

LIST OF EQUIPMENT FOR EMERGENCY HOSPITAL.

1 water and instrument sterilizer (6-gallon).	1 mouth gag.
1 metal, white-enameled operating table, complete with cushions.	1 razor.
1 metal, white-enameled physician's chair, with headrest for treatment of the eyes.	1 military hypodermic syringe.
1 metal, white-enameled dressing-case, top 36 inches long.	6 scalpels.
1 metal, white-enameled three-section dust-proof supply cabinet, each section 12 inches by 12 inches by 5 feet, with shelves.	2 bistouries (straight).
1 metal, white-enameled electric-light stand.	1 bistoury (curved).
1 electric fan.	2 dull-pointed scissors, 5-inch (straight).
1 metal, white-enameled medical and surgical cabinet.	2 dull-pointed scissors, 5-inch (curved).
1 metal, white-enameled two-basin stand with instrument tray (revolving).	1 suture scissors.
1 small roll-top desk.	1 grove director.
1 hospital bed, including mattress and pillows.	4 probes.
1 three-paneled folding screen for bed.	1 curette.
1 revolving stool (metal, white enameled).	1 Listens bone forceps, 7½ inches.
2 metal, white-enameled chairs.	24 curved needles.
1 standard, porcelain-enameled, foot bath.	1 needle holder.
1 Justrite pail.	2 plain tissue forceps.
1 electric heating blanket.	2 mouse-tooth forceps.
2 electric heating pads.	1 double-pointed eye spud.
1 bandage scissors, 6-inch.	1 eye magnifying glass.
	1 foot rest.
	1 Kelley pad.
	12 tubes, emergency, catgut.
	6 reagent bottles, 4-ounce, glass stoppers.
	2 two-quart porcelain-enameled pitchers.
	2 basins.
	1 pus basin.
	6 glass syringes.
	12 medicine droppers.
	1 Esmarc bandage.
	24 towels.
	2 Army and Navy tourniquets.

Following is the plan of an emergency hospital, less elaborate than the one previously described, which is centrally located in one of the plant buildings, and serves a company employing approximately 10,000 men:

Interior finish.—The main dispensary contains three rooms—eye room, general treatment room, and operating room. These three



PLATE 8.—UNIT DISPENSARY AND REST ROOM.



PLATE 9.—DISPENSARY IN END OF FACTORY.

rooms have white tile floors and wainscoting, and walls and ceilings have white-enamel finish. The doctor's office and men's and women's recovery rooms have linoleum-covered floors and walls and ceilings painted white. Lighting is of semi-indirect type. For heating the circulating hot-water system, which is the same as that in the rest of the plant, is used.

Equipment.—There is complete equipment to take care of all cases that do not have to remain longer than one day. This includes all surgical instruments and appliances that are in use every day, as well as those that are used only in emergency cases. Operations of a minor character only are performed. Special equipment not usually found in a hospital of this type is a nitrous oxide apparatus for anesthesia and a large electromagnet for removing steel. (See pl. 7 for floor plan of hospital, giving location of equipment.)

Supplies.—Enough supplies to last three or four months are kept in the supply room. These supplies include gauze, adhesive plaster, cotton, bandages, towels, and drugs, such as aromatic spirits of ammonia, Jamaica ginger, salol, aspirin, phenacitin, liquid petrolatum, viburnum compound, clorazine, silver nitrate, iodine, Lassar's paste, pisco, lanolin, boric acid, unguentine, lysol, creolin, bichloride of mercury, alcohol, and vaseline. In addition to these 800 to 900 dressings are kept in reserve and separate from the supplies used from day to day, to be used in case of emergency.

Staff.—The hospital staff consists of a doctor, three graduate nurses, one male nurse, one stenographer, one clerk, and a janitress. The doctor is in attendance about five hours daily; the three nurses, going on duty an hour apart, fill in the time from 7 a. m. to 7 p. m., while the male nurse is on for night duty. This staff treats daily 350 to 400 cases.

First-aid rooms.—Several unit dispensaries and rest rooms, each in charge of a trained nurse, are located through the plant of one company employing about 14,000 men. These units are in the nature of receiving stations and are also for treatment of minor cases which do not require treatment at the main emergency hospital. (See pl. 8.) The possibility of adapting in a very satisfactory manner an unused corner of a factory building for an emergency room is shown in plate 9, and the section of a surgery shown in plate 10 is a good example of sanitary equipment with foot attachments for washbowls and sterilizers.

For a company having a limited amount of space and wishing to install emergency equipment at a moderate cost, one room that was equipped at an approximate cost of \$1,000 was almost a model of its kind. The floor of rubber tiling cost \$350. The plumbing, which was of the most modern type, having knee-pressure faucets and all

the fittings of the best porcelain, cost \$250. The rest of the equipment, consisting of two medicine cabinets, an instrument cabinet, a porcelain operating slab, an electric instantaneous heater for use in case the other hot-water supply should fail, an electric warming pan, a sanitary cot, and a sanitary screen by which the cot can be entirely shut off from the rest of the room, was furnished at a cost of about \$400. (See pl. 11.)

DENTAL AND OTHER SPECIAL WORK.

Several companies have introduced dental service for their employees. One company, having semiannual dental examinations for all employees, has a suite of rooms consisting of dentists' offices, a sterilizing room, and a radiograph room. The rooms are of white enamel with porcelain fittings, glass-topped tables and desks, and faucets operated by foot pressure. Radiographs are made in all cases of suspected blind abscess. General prophylactic work is done and a report made to the patient of the teeth which need attention. Very complete records are kept of all cases.

Another plant, employing one dentist and two assistants, has had a dental dispensary in operation for several years. The office is equipped with two chairs and two sets of instruments, so that no time is lost between patients, one set of instruments being always sterilized and ready for immediate use. All employees in need of immediate attention are cared for, but only those who have been in the company's employ for more than six months are entitled to receive extensive treatment. Nearly all kinds of dental work are done at no expense to the employees. This work costs the employer a little more than \$4 a year per employee. Here, as in several other establishments, toothbrushes and powder are sold at cost. Still another place which provides general surgical work gives prophylactic treatment for the preservation of the teeth and also treats pyorrhea. Others do regular dental work but charge for the cost of materials only. In one establishment, while the work is done on the company's time, the charge to the employee is the actual cost of the work to the company.

There are a few instances of employers providing the services of an ear, nose, and throat specialist or of an oculist who examines eyes free and furnishes glasses at cost. Out of 43 department stores included in this division, 3 furnish chiropodists, owing to the prevalence of foot troubles caused by the strain of long standing. Five companies employ oculists, 19 employ dentists, and 2 ear, nose, and throat specialists.

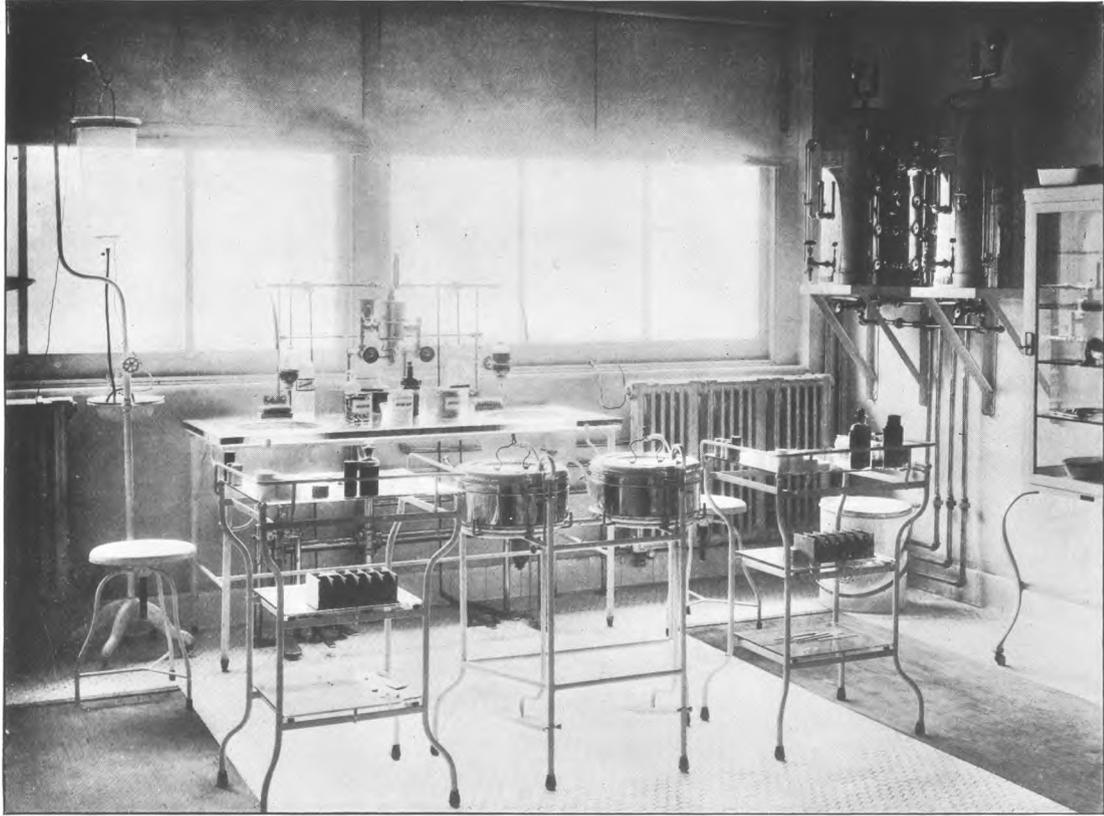


PLATE 10.—SECTION OF SURGERY, SHOWING DRESSING TABLES. NOTE TREADLE ATTACHMENTS TO EQUIPMENT.



PLATE II.—ACCIDENT ROOM OF A SPINNING MILL.

PHYSICAL EXAMINATIONS ON ENTRANCE.

It is quite a general practice to give applicants for employment a more or less comprehensive physical examination. This ranges from a few general questions to a thorough physical test, of which complete records are made and kept.

One company, in addition to the physical examinations required of all applicants for work, has in recent years adopted the custom of making mental tests. This was instituted as a safeguard not only for the worker himself but for those who might be associated with him, since some men who are physically able to perform heavy manual labor have not sufficient mentality to be able to comprehend safety regulations and are thus a menace to the safety of others as well as themselves. Since ordinary oral and written tests were not practicable owing to the variety of languages spoken it was found that the most satisfactory results were obtained from the use of cut-up picture puzzles. The results of these tests have been most satisfactory.

It is also quite usual for establishments giving entrance examinations to reexamine after absence from illness or other causes. It is to be understood that the main purpose of entrance examinations is to exclude those who are undesirables from the standpoint of the employer—that is, usually those suffering from tuberculosis or other contagious diseases—although occasionally firms having some outside work are willing to take tubercular people. In a very few instances, however, valuable assistance is given by the medical department in helping employees to correct minor defects revealed by the examinations. One firm employing a very large number of men gives advice to applicants who are rejected because of defective physical condition as to the correct treatment necessary for cure or help and recommends them to reliable physicians or hospitals. Where circumstances warrant, the arrangements for hospital care are made by the health director of the company. Only such applicants are rejected as are totally incapacitated or are suffering from contagious or infectious diseases. The claim is made by this firm that by means of this advice 25 per cent of the rejected are reclaimed and hired. Another firm reports that of the 7 per cent rejected the proportion able to remedy their defects through proper attention is large enough to reduce the net rejections to less than 2 per cent.

PERIODIC PHYSICAL EXAMINATIONS.

Periodic examinations are found less frequently than preliminary medical examinations. In occupations in which the employees are subject to occupational diseases or in establishments which handle or manufacture food products, periodic examinations are either necessary for compliance with the State or municipal law or are so

manifestly a requirement of ordinary humanity and social protection that they can not be regarded as welfare work. Examinations given by steam and electric railroads are mainly for sight and hearing, and, therefore, are more for the protection of the public than for the benefit of the employees. In the comparatively few cases besides these in which periodic examinations are given, general corrective work is done or a change of work is ordered in cases where it is found that employees are not physically capable of doing the work assigned to them. This, as well as leave of absence, sometimes with and sometimes without pay, is often the method of dealing with the less serious cases. Employees who are found to be in a generally run-down or anemic condition are frequently given egg and milk or malted milk regularly, and the results of this diet are carefully noted by physicians or nurses. Special examinations and subsequent medical attention are given in a number of establishments upon request of the employee.

Of the 49 establishments which report periodic examinations, 17 have annual examinations and of these, 10 examine all employees, 1 examines heads of departments and assistants annually, the remaining employees being examined at the end of one year's service and not thereafter, and 6 do not report the number examined each year. Six establishments have semiannual examinations, and of these 1 examines all employees, another all but the salaried force, 1 all male employees, while the others do not report classes of employees examined; 2 of these establishments give semiannual dental examinations. Of the other periodic examinations reported 4 (3 biennial and 1 every four years) are by railroads and 22 are for food handlers or for persons exposed to occupational diseases, and vary from weekly to bimonthly examinations.

Nine establishments examine after absence on account of illness or for other causes and of these, 1 examines every two years and also before promotion and reemployment. One establishment examines laborers after one year of service, 18 establishments report special examinations in cases of suspected tuberculosis or other disease, and 3 give them on request of the employees. Fifteen report definite corrective work on the part of physicians as a result of examinations. Four give egg and milk or malted milk to employees in poor physical condition. If a physical test is to be given either upon employment or periodically it is necessary to have a special room in connection with the emergency rooms for this purpose, and the provision of several dressing booths opening off the examination room facilitates the work of examination.

COMPANY HOSPITALS.

There are 24 of the total number of companies visited which maintain hospitals for the purpose of caring for protracted cases of illness or injury among employees and their families. Nine of these hos-

pitals are found in the mining industry and eight among the iron and steel companies.

The preponderance of industrial hospitals in these two lines of industry is due probably not only to the extra hazards of these industries but also to the fact that in the majority of the cases where such a hospital is maintained the company properties are in an isolated section where the usual hospital facilities are lacking.

COST OF TREATMENT TO EMPLOYEES.

In 7 cases hospital treatment of all kinds is free to employees, while one company gives free treatment for accident cases only. There is but one company whose hospital services are given to families of employees without charge, although one other company gives free treatment in special cases when circumstances warrant it. Sixteen companies, however, have hospitals sufficiently large and well equipped to care for members of families and eight of these take outside patients as well. The majority of the hospitals have accommodations for from 20 to 40 patients but in two cases more than 100 can be cared for at one time.

In 11 of these hospitals the expenses are largely met by monthly dues which are deducted from the employees' pay. These dues are in some cases less for single men than for married men. The dues range from 50 cents to \$1.35 for the former and 75 cents to \$2 for the latter. In only one case was it reported that a reduction of the fee was made for a fraction of a month. In sections where there is a shifting class of labor this system of deductions may work a decided hardship on employees, although it may prove a profitable source of income to the hospital. This monthly fee does not entitle members of families to free hospital service but only to dispensary and home treatment, although the amount of fees for operations where reported, are less, than the customary fees. One company charges half the usual fee for operations to members of families and another charges \$125 for major and \$50 for minor operations. Three companies report that no extra fee is charged employees for operations. The others do not report on this point. Several, however, charge for board or for a private room. One company makes a charge of \$1.25 for ward and \$3 for private room per day if hospital care is not essential. This is done to keep employees from abusing the hospital privileges.

The initial expense of building and equipping these hospitals is of course borne by the companies and this in itself is a large item, since some of them cost many thousands of dollars. There is always the possibility, however, if the physicians employed for the family work have an outside practice, or if other patients are received in the hospital, that the service rendered to employees and their families

may be very perfunctory, since the employees have no choice but to pay the hospital fee whether the service is satisfactory or not.

One company in the mining group which does not tax employees gives absolutely free treatment and medicines to employees and members of their families. The hospital has 20 beds and has a staff of 7 doctors and 7 nurses. Experienced physicians only are employed and are paid enough to retain their services for several years. It is required of each that one month of research work or study shall be done each year. The employees formerly contributed to this hospital but for some years the company has assumed the entire expense, which amounts to about \$50,000 annually and covers the treatment of about 250 hospital patients and approximately 20,000 outside calls.

Another company, with properties in many locations, has a hospital service reaching approximately 35,000 persons. There are four base hospitals, two of them rather small but the two larger ones having 23 and 35 beds, respectively. The employees are taxed 75 cents a month and receive both medical and surgical treatment at the hospital but pay for board, except in accident cases. The medical work of the company covers the general hospital work, the dispensaries, and the sanitation of the camps and towns. A corps of 43 physicians, 2 dentists, 1 oculist, and 20 nurses are employed. About 600 hospital cases and over 300,000 treatments at dispensaries and visits to homes are reported for one year. The results of the sanitary and medical work are shown in the following figures: The number of cases of malaria has been reduced from about 5,000 per year to 200, typhoid reduced about two-thirds in four years, pellagra from an average of 380 cases a year to 8, and no case of smallpox in the year for which the report was made.

Special attention is given to the condition of the teeth of patients by the management of one hospital which treats nearly 5,000 cases annually. It has been found that 80 per cent of their hospital patients need dental treatment either for pyorrhea or chronic abscess. This company has also established free dental clinics at its dispensaries in its different camps for the purpose of treating children in the first and second grades. Lectures are also given on the care of the teeth to children in the higher grades and to adults. It was found that 98 per cent of the children were in need of the services of a dentist. Three dentists and three dental nurses are engaged in this work. An oculist also tests the eyes of the children and prescribes glasses when they are needed. The head surgeon of the company visited the war hospitals in Europe to study the new methods introduced there, and the Carrel-Dakin treatment of infected wounds, paraffin treatment of burns, and Blake's fracture slings have been introduced in the hospital treatment as a result.

TREATMENT FOR TUBERCULAR EMPLOYEES.

Thirty-two firms will pay the entire expenses of employees who, after a reasonable length of service, develop tuberculosis, but if the employee is able to pay part of the expense he is expected to do so. Thirty-two other firms send employees to sanatoriums. Two establishments have a joint fund given by employer and employees for sanatorium care of tubercular cases. Sixteen companies pay all expenses, one pays all after two years' service, one after three years' service, and another pays if employees are unable to do so. One company has its own sanatorium and several other firms send to a sanatorium which is maintained jointly.

One large insurance company maintains a very large and completely equipped sanatorium for the care of its tubercular employees and others suffering from diseases and derangements that can be benefited by out-of-door living and treatment under medical supervision. The sanatorium consists of three groups of buildings—administration, refectory, and infirmary—several open wards, rest house, and power house. The rest house will accommodate 80 patients, and is used for those suffering from other diseases than tuberculosis. Three hundred and twenty-two patients can be housed altogether. The treatment is given only to employees and is entirely free. The hospital reports show a rapid increase in the percentage of employees admitted who are in the incipient stage as against those moderately or far advanced.

Another insurance company sends tubercular employees to the nearest hospital for such cases. The company pays the hospital expenses directly to the patient, who is subjected to no financial worry of any kind.

Because of lack of local facilities for the care of tuberculosis, one firm employing several thousand persons has established a special dispensary, where only the most serious cases are kept, near the plant for the use of employees who either have contracted tuberculosis or are suspected of having it. These patients are under the constant oversight of a doctor and a specially trained nurse who superintends their examination at the clinic and also visits them in their homes to teach the most modern methods of prevention and cure.

In Chicago 36 companies united to equip and support a sanatorium in New Mexico, where employees can receive the best and most scientific treatment at exact cost. Only employees who are believed to be curable, however, are admitted.

EMPLOYEES SENT TO PUBLIC HOSPITALS AT COMPANY EXPENSE.

The arrangements for hospital care of employees by the firms for whom they work are, in most cases, very indefinite. Much that is done along this line is so confused with the requirements of the compensation laws that it is difficult to determine how much is required and how much can be ascribed to welfare work. A number of the companies, however, state that they go beyond the requirements of the law in giving hospital care to accident cases, keeping injured employees in the hospital as long as is necessary for a cure to be effected, although the laws in most States limit either the length of time for which medical attendance is to be furnished or the amount to be spent, or both.

One hundred and thirty-five companies report that some hospital care is furnished employees, mostly for cases of injury. Several companies state that hospital care may be furnished in cases of sickness either because of need on the part of the employee or because of long and faithful service. A few firms pay hospital bills for members of the family when necessity arises, and some will advance the money, to be paid back in small installments. Quite a number of these companies maintain beds in the general hospital, which are used for the employees when ill or injured, and in a few cases whole wards are reserved by the companies, though these are usually solely for accident cases.

MEDICAL FEES.

There are 12 cases in which the employees pay a monthly medical fee, ranging from 50 cents to \$1.50 for married employees and from 25 cents to \$1.50 for single employees. In some cases this covers medical and surgical attention for employees and families. In one case operations are charged for at half rates. Usually hospital attention means, even where the medical service is paid for monthly by the employee, that accommodations in the ward only are provided.

One company has a hospital fund to which employees contribute 10 cents a month, which is deducted from their pay. Employees are placed in a semiprivate ward and bills are paid by the treasurer of the fund. This arrangement was made because hospitals had taken contributions and had refused free treatment to employees. Another hospital association, to which all employees pay \$1 for examination and 50 cents a month, gives doctor's care, medicine, and hospital and surgeon's fees, although there is a limit of 60 days for which treatment is given. In two instances the dues of the benefit association cover medical service for families. In one of these cases home and hospital service, medicines, and ambulance service are furnished.

REST PERIODS.

Rest periods are granted by 106 companies to all or part of their employees. Of these 106 establishments, 62, with a total of 216,062 employees, report the number to whom they are granted to be 69,073, or 32 per cent of the employees. Fifty-five establishments grant them to men, and of these 55 establishments, 31, with 64,025 employees, report that they are given to 19,589, or 31 per cent of their male employees. Of the 85 establishments giving rest periods to women, 50, with 56,337 employees, allow them to 49,027, or 87 per cent of the female employees.

The following table shows, by industry groups, the number of employees to whom rest periods are granted: •

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TABLE 2.—NUMBER OF ESTABLISHMENTS GRANTING REST PERIODS AND NUMBER OF EMPLOYEES TO WHOM REST PERIODS ARE GRANTED, BY INDUSTRIES.

Industry.	Male employees.					Female employees.					Total, both sexes.				
	Establishments granting rest periods.		Establishments reporting number to whom rest periods are given.			Establishments granting rest periods.		Establishments reporting number to whom rest periods are given.			Establishments granting rest periods.		Establishments reporting number to whom rest periods are given.		
	Num-ber.	Number of employees.	Num-ber.	Number of em- ployees.	Employees having rest periods.	Num-ber.	Number of employees.	Num-ber.	Number of em- ployees.	Employees having rest periods.	Num-ber.	Number of employees.	Num-ber.	Number of em- ployees.	Employees having rest periods.
Automobiles.....						2	1,050	2	1,050	550	2	21,750	2	21,750	550
Clothing and furnishings.....	3	588	1	200	200	3	4,541	2	3,141	3,216	3	15,129	2	3,529	3,416
Fine machines and instruments.....	2	5,897	2	5,897	5,897	4	11,496	2	1,030	1,030	4	14,321	2	6,927	6,927
Food products.....						4	3,362	1	250	250	4	7,867	1	250	250
Foundries and machine shops.....	4	19,394	2	4,430	500	6	5,987	4	2,137	1,237	8	53,823	4	29,499	1,737
Iron and steel.....	16	106,585	8	37,918	2,589	2	111	2	111	111	18	125,702	10	56,672	2,700
Offices.....	3	12,626	2	2,626	2,626	4	12,397	3	2,397	2,397	4	10,150	3	5,148	5,023
Printing and publishing.....	2	713	2	713	129	2	1,255	2	1,255	911	2	1,968	2	1,968	1,040
Stores.....	12	16,503	6	4,181	3,651	22	34,851	10	15,984	12,873	22	59,903	10	25,568	16,524
Telegraphs and telephones.....						14	39,774	11	23,922	23,446	14	165,847	10	39,147	23,446
Textiles.....						2	598	2	598	321	2	2,729	2	2,729	321
Other industries.....	13	14,453	8	8,060	3,997	20	15,605	9	4,462	2,685	23	66,933	14	22,875	7,139
Total.....	55	166,759	31	64,025	19,589	85	111,027	50	56,337	49,027	106	144,612	62	216,062	69,073

¹ Not including employees of 1 establishment, not reporting.² Not including employees of 2 establishments, not reporting.

Except for the telephone industry, where the nervous strain of the work is very great, and where it is the uniform practice for this reason to provide relief periods usually of 15 minutes' duration twice during the working hours, and in the iron and steel industry and in foundries on the very hot work, these times for rest are not peculiar to any particular industry, but are granted usually to such groups of employees as are engaged in especially monotonous or fatiguing occupations.

It is quite usual to give office girls who are in the dictaphone and stenography divisions 10 or 15 minutes for relaxation, and in 22 department stores out of the 46 reporting on this subject rest periods of from 5 to 20 minutes are given twice daily, generally to the majority of their employees. Elevator men are given relief from the strain of their work at frequent intervals, sometimes 10 minutes being given for each hour's work. It is rather uncommon to find rest periods granted in the textile industry, since, in the women's occupations especially, the greater part of the work is of such a nature that there are frequent opportunities for them to rest while at their machines.

In one factory, making fine machines and employing about 2,000 persons, the power is shut off for 10 minutes twice daily so that employees are obliged to relax even though they might prefer to remain at work. Another factory employing many women reports that this was tried, but because of the work being piecework the rest periods were not popular with the majority and so were abandoned. In one soap factory all those working at the wrapping machines have 15 minutes for rest twice during the day, and in a large food factory all the women have rest periods of 15 minutes twice daily except bundlers, who have half an hour. Another food factory gives 15 minutes to those employees who work at machines, and a leather factory gives 8 minutes to all employees except those in the office.

Two establishments report calisthenics during the rest period, and it is the experience of one of these firms that while the employees at first took up the exercises very reluctantly they soon entered into them with great enthusiasm, owing to the good effects which resulted.

RELIEF IN MONOTONOUS AND FATIGUING OCCUPATIONS.

Rest is provided for through change of occupation in 11 cases. There is no one industry which stands out above another in this respect, but it is in such monotonous work as packing, box folding, operating closing machines for paper boxes, weighing and wrapping tobacco, and similar work that such relief is afforded. This is sometimes accomplished by a complete change of occupation and sometimes those who stand change with those who are sitting and who are engaged in parts of the same operation.

Change of occupation in cases of poor physical condition is reported by 14 establishments, and 6 companies give leave of absence either with or without pay for the purpose of recuperation.

VACATIONS AND SICK LEAVE.

While it has been customary for years among the majority of manufacturing plants and business houses to give vacations with pay to their employees who are paid on a salary basis it has been very unusual to find industrial establishments which have granted such vacations to the employees who are paid by the day or hour. This is probably not entirely due to the fact that the salaried workers receive more consideration, but also to the fact that as a rule they form the smaller and more stable element of the industry.

It is evident that in industries which have had a very shifting class of labor it could hardly be expected that employers would grant vacations with pay to those employees who had worked for them only a short time and from whom they had no reason to expect continuous service. Quite a number of the companies give vacations with pay to the rank and file of employees after certain periods of employment, which in different instances are 5, 10, 15, 20, and even 25 years, but the possibility of receiving a vacation under these conditions is so remote as to have little interest for or effect upon the majority of the workers. Since this restriction excludes a large proportion of the workmen, companies which require more than one or at the most two years' service from their factory employees before they are eligible for vacations have not been included.

Three hundred and eighty-nine establishments reported on the subject of vacations and sick leave. Nine of these establishments failed to report the total number of employees, but the 380 companies reporting employed a total of approximately 1,525,000 persons, considerably over three-fourths of whom were males. On this subject the details covered were the extent to which the principle of vacations and sick leave has been adopted by industrial establishments, the class of employees affected, the length of time allowed, and the conditions under which such leave is granted.

The salaried class of employees includes officials of the company, office and clerical force, and also superintendents and heads of departments. Establishments allowing vacations to administrative staff or officials only have not been included.

VACATIONS WITH PAY.

Of the 389 establishments considered, 317, or 81 per cent, grant vacations with pay to their salaried employees and practically this same percentage prevails throughout each industry group. Included in this number are 59 companies (offices, stores, and telegraph and

telephone companies) which grant paid vacations to virtually all their employees; these employees are, however, practically all on a par with the clerical force in manufacturing industries.

There are but 16 establishments, with a total of 18,130 employees, which grant vacations with pay to all unsalaried as well as salaried employees. These companies are distributed as follows among the industry group: Clothing and furnishings, 2; food products, 2; foundries and machine shops, 4; gas, electric light, and power companies, 2; soap, 1; other industries, 5. In addition to these, 1 company gives vacation with pay to women employed in the factory for regularity of attendance, and another company gives to both men and women 1 week for each 25 weeks of perfect attendance. A textile mill in the South gives 2 weeks at half pay to all its operatives and free rent during this period. The soap manufacturing company mentioned above gives 1 week with pay to all employees, but those who prefer not to take it may work and receive double pay.

From the fact that even a very few companies have been able to meet successfully the cost of giving vacations to all their employees it would seem that there is no reason why some plan could not be quite generally adopted in different industries for those employees who have a reasonable length of service to their credit.

LENGTH OF VACATIONS.

The length of vacation with pay and the conditions under which such vacation is allowed, vary with the nature of the employment and the length of service. The greater number of vacations for salaried people range closely around a period of two weeks. In numerous instances this amount is the maximum reached after a specified length of service. Of the establishments reporting on the length of service prerequisite for vacations of salaried employees, the most common requirement is that of one year's service for a vacation of two weeks.

Vacations with pay to salaried employees are generally for a longer period than are vacations to others. In the case of establishments granting vacations to all, it is very frequently the practice to allow two weeks to salaried and one week or 10 days to all other employees.

The method of determining the length of vacation with reference to the length of service is of considerable importance and several schemes for the solution of the problem have been reported. In addition to the plan of specifying a definite length of service of six months, one year, or two years before a vacation is granted, some establishments take into consideration the date of appointment with reference to the summer vacation period. This method is reported especially by stores which allow summer vacations to all clerks on the rolls previous to such dates as the 1st day of September, January, or

March. Other establishments determine the length of time to be granted on a cumulative basis, at a certain rate per month for the time employed, usually with the requirement that the maximum vacation shall not exceed two weeks. This latter method of averaging the length of the vacation period seems to be a satisfactory one.

VACATIONS WITHOUT PAY.

Most of the firms reporting on this point stated that a reasonable amount of leave without pay is allowed. As a matter of fact, the ones ordinarily affected are the salaried employees who may be allowed to take an additional week or perhaps two to supplement their vacation with pay with the assurance that the position will be waiting for them on their return. For the unsalaried worker vacation and sick leave without pay means very little. It practically resolves itself into a question of the abundance or scarcity of labor. If there is not a sufficient supply of labor to meet the demand the worker, when he returns, will find a place open for him, but if there is a plentiful supply of labor it is probable that he will have to take his chance among the others seeking employment.

SICK LEAVE WITH PAY.

Fewer establishments report a definite policy on sick leave with pay than report a definite policy on vacations, a very large number preferring to consider each case on its individual merit. The provisions of the benefit associations and the compensation laws are probably responsible in a large measure for the lack of other plans in this regard on the part of employers.

Of the 389 establishments included, 193, or 50 per cent, stated definitely that it was their policy to allow sick leave with pay to all salaried employees. Only 8 of these companies, however, extended this privilege to all of the other employees. In half of these 8 establishments there was no benefit association. Seven of the companies reported a minimum requirement of service of from 6 to 12 months. One week's pay is the usual amount allowed, but one company allows one week at half pay for each year the employee has been with the company.

CHAPTER II.—DRINKING-WATER SYSTEMS.

It is essential to the comfort and health of workpeople that an abundant supply of cool, pure water be available for drinking purposes, and it is essential to the good of the shop or office that such supply be easy of access and involve little loss of time in its use. An attempt was made in the present study to ascertain the source of supply of the drinking water of the companies reporting, the extent to which filtration or other purifying measure is carried on, the prevalence of the custom of artificially cooling the water, and the ways in which it is made available to the consumer. Not all these points were answered in all cases, but the figures in the two following paragraphs indicate the general trend. Mining is not included. It appears that in most cases in this industry the water is derived from wells or springs or from the mines, and either is piped to the various mine levels for the use of the workers or is carried underground by the men themselves. There are conspicuous instances of efforts on the part of the employing company to improve the water supply in isolated communities devoted to mining or to the iron and steel industry, and large sums have been spent in this direction.

Of the establishments reporting the source of their supply of drinking water 80 use the water from the city mains and 50 use well water. In 79 establishments the water is filtered or otherwise purified. Of the establishments reporting on their water systems 132 cool the water provided for drinking purposes, the means of doing so being reported variously as refrigerating plant, ammonia system, ice coils, coolers, etc. In a small number of cases the statement is made that artificial cooling is practiced only in summer or in certain departments of the plant. In a few instances tea, oatmeal water, or other substitute for iced water is supplied to the men engaged in very overheating work.

In 236 of the establishments reporting on their drinking-water systems, the water is supplied to part or all of the employees by means of fountains, anything in the nature of a fixture having a nozzle instead of a faucet being so designated. The wide and rapid extension of the use of the so-called sanitary drinking fountain has led in many cases to its being installed without proper care as to choice of type and used without observance of the simple rules laid down. There are many types of fountain from which persons may drink by taking the nozzle of the bubbler into the mouth, and this practice is common; furthermore, there are many types in the use of which water from the lips of the consumer falls back onto the bubbler at the point of outlet.

An important and comparatively recent investigation of drinking fountains, undertaken to determine the sanitary condition of those in use at the University of Minnesota, was made by the board of health of that State and fully described in Public Health Reports for May 11, 1917. A brief summary of the findings of that investigation is here presented:

A résumé of the results shows that 77 drinking fountains, which represented 15 different types, were examined. Sixty-five per cent of these fountains were of the continuous-flow type and 35 per cent of the intermittent type operated by the consumer. The nozzles on all of these fountains discharged the water vertically. The height of the water jet above parts of the fountain that could be touched by the lips of the consumer was less than 1 inch in 40 per cent of the fountains. On examination of the various types * * * it is seen that all are subject to contamination by the consumer, either directly by the lips or by water falling back from the lips onto the jet or the surrounding parts. Certain of these types have closed receptacles around the point of discharge, which retain a part of the water discharged from the outlet. Coloring matter added to these receptacles was not entirely removed for long periods of time.

Samples were taken of the water supplying the fountains and of the water discharged from each fountain, and swabs were rubbed over the parts of the fountains that might come in contact with the lips of the consumer. The specimens of water were examined for the total number of bacteria, for bacilli coli—often the cause of peritonitis and other abdominal affections—and for streptococci, commonly found in abundance in the human mouth and including several deadly disease-carrying species of bacteria. Examination of the water supplied to the fountains showed consistently low bacterial counts and failed to show, in 100 cubic centimeter amounts of water, either bacilli coli or streptococci. Examination of the water discharged from the fountains failed to show bacilli coli but did show higher bacterial counts in a few cases and the presence of streptococci in 11 per cent of the cases. Examination of the swabs showed the presence of streptococci on the parts of the fountain exposed to the lips of the consumer in 80 per cent of the cases.

To summarize these results, they show: (a) That a large proportion of the fountains were infected with streptococci, which it is reasonable to assume came from the mouths of the consumers, as these organisms were not found in the water supplying these fountains; (b) that streptococci were actually present in the water discharged from the fountains and could be transmitted to the mouth of a consumer, even though the lips were not touched to the infected parts.

The experimenters came to the conclusion, previously reached by others, that the principal defect in construction was the vertical discharge from the fountain, which allowed the water to fall back from the mouth onto the point of discharge, and that it was necessary to protect the nozzle against the approach of the drinker by a wire muzzle or other guard. It would appear, therefore, that the discharge of the water at an angle instead of vertically, and a simple



PLATE 12.—SANITARY DRINKING FOUNTAIN, SHOWING RELATION OF SPLASH GUARD "A" AND BASIN "H" TO POST "I."

device to prevent the drinker touching the nozzle, would lessen the possibility of the fountain being a factor in the transmission of disease.

A number of establishments reporting in the study made by the United States Bureau of Labor Statistics describe their drinking fountains as being of a type which prevents the mouth of the drinker coming in contact with the point of discharge, but in very few cases has the theory of discharging the water at an angle, so as to prevent its return to the nozzle, been put into practice. Where conditions are not of the best an effort sometimes is made to secure the employees' cooperation, placards bearing rules for the best use of the fountain, perhaps in several languages, being posted by the fixture.

The accompanying halftone (pl. 12) illustrates the equipment installed by one company employing several thousand men. This fountain has been approved as "absolutely sanitary" (it is probably as nearly so as is possible), and the statement is made that this feature is especially appreciated by the employees. It is impossible for sputum to come in contact with the nozzle, since the latter is inclosed in a pipe column allowing only for the escape of the spurt of water, and a guard fastened to the pipe column at the point of discharge prevents the consumer approaching that point too closely. It is unnecessary to touch any part of the apparatus with the hands, since the supply valve is operated by pedal. A box for ice is built around the fixture, a cooling device which is reported by a number of other establishments.

The antiquated bucket and dipper still may be found in a number of places, difficult of belief though this may be, and tin cups hanging alongside faucets are in evidence in many factories. In the textile establishments reporting are 3 cases of the use of barrels, 1 of tanks, 1 of buckets, and 1 of bottles provided by the workers. Scattered among the other industries are reports of the use of buckets, tanks, and crocks.

Of approximately 100 cases reporting the use of individual cups, 16 establishments supply them to the office force only, 16 give a glass to each employee, 33 supply paper cups to all, and 31 require the employees to provide their own.

CHAPTER III.—WASHING-UP AND LOCKER FACILITIES.

The extent to which washing-up facilities are provided for employees, the character of such provision, and the number of employees taking advantage thereof, formed one division of the study of industrial betterment work made by the U. S. Bureau of Labor Statistics. Of the 431 establishments investigated, 409 maintain wash rooms or shower baths, or both, for the use of their employees, and these establishments gave information in varying degrees of completeness as to the equipment provided, and its use.

It is, of course, not easy to state with anything approaching exactness the number of persons who make use of the baths and wash rooms. However, about one-half of the 409 establishments made an estimate and their combined reports indicate that between 80 and 85 per cent of the employees use the accommodations provided. In certain industries—for example, food manufacturing, offices, and stores—it is customary for the employees to use the wash rooms during working hours, and these cases report a high per cent as so doing. In several other industries the use of the wash room by the employee before going home requires only the few moments necessary for the washing of the hands. It is in overheating or dirty occupations, or in those where dangerous substances are used or noxious gases and fumes are present—in either case involving a thorough wash-up or bath and a change of clothing—that the question becomes of interest and importance.

In some States the law making it compulsory for employers in certain industries to furnish facilities for washing up and changing the clothing provides also a penalty for the employee who fails to make use of such facilities. In the absence of legal provision and of a time allowance at the employer's expense, the use or nonuse of the lavatory before going home rests with the employee himself, and it would appear that his choice depends to a very great extent on the convenience and adequacy of the equipment. If he has to go much out of his way, or must await his turn at the faucet more than a few minutes, he will fall into the habit of going home without washing up. Since it is tremendously to the employer's advantage, from several points of view, that men wash up after their day's work, it would seem that the mistake should not be made of installing equipment which barely meets the needs or falls entirely short of so doing, when for a few hundred dollars more it might be made completely adequate and prove a perfect success.

Other influences than those mentioned have a bearing on this question—for example, long hours. There may be cited the case of a first-class hotel in our largest city which was visited in connection with this study because of the two shower baths installed for

firemen in its engine and boiler rooms several floors underground. On investigation it was found that the apparatus of one of the showers was not connected with the water supply. The fact that the 55 men, employed in two shifts, worked 12 hours a day 7 days a week, getting a day off only once in every three weeks, probably accounts for the fact that the one shower available was rarely or never used.

In communities where practically the entire male population is engaged in the same industry, as in mining or iron and steel, and where the worker's homes are within a few minutes' walk of the mine or plant, it is not uncommon for the men to prefer to wash up at home, especially if the accommodations provided at the place of work are not adequate. In some communities this fact is borne in mind in constructing the houses, bathing facilities being installed in an inclosure on the porch or in a small outbuilding used also as a laundry. In a number of cases the boarding houses are equipped with batteries of washbowls within the house or showers and bowls in a separate building in the yard.

In the following table are given the data regarding baths and wash rooms secured for the industries represented:

TABLE 3.—NUMBER OF ESTABLISHMENTS REPORTING WASH AND LOCKER FACILITIES, BY CHARACTER OF EQUIPMENT AND BY INDUSTRIES.

Industry.	Number of establishments having wash rooms or showers, or both.	Number of employees.	Number of establishments reporting—									
			Show-er baths.	Troughs or sinks.	In-divid-ual bowls.	Soap sup-plied	Soap not sup-plied	Tow-els sup-plied	Tow-els not sup-plied	Facil-ities used on employ-er's time.	Facil-ities not used on employ-er's time.	Lock-ers.
Automobiles.....	9	95,683	5	1	8	6	3	6	3	1	8	8
Chemicals and allied products.....	7	13,539	4	3	6	16	1	6	4	5	2	7
Clothing and furnishings	13	19,498	5	4	8	11	1	8	4	5	5	8
Fine machines and instruments.....	8	25,326	5	1	4	15	2	14	3	2	3	8
Food products.....	15	³ 17,638	10	3	5	11	1	11	1	9	1	12
Foundries and machine shops.....	50	150,052	37	18	37	⁴ 12	33	⁴ 11	34	⁶ 12	28	48
Iron and steel.....	25	175,088	18	6	18	¹ 4	19	¹ 4	19	8	15	24
Mining, coal.....	8	31,661	7	.....	3	.....	7	.....	7	.....	7	5
Mining, other than coal..	12	25,448	12	5	3	.....	10	.....	10	.....	10	9
Offices.....	9	13,814	7	.....	4	7	.....	8	.....	6	1	8
Printing and publishing.	10	12,769	7	2	5	8	.....	5	3	7	2	10
Railroads, electric.....	17	60,642	15	.....	6	11	3	11	4	3	11	17
Rubber and composition goods.....	9	42,847	7	2	6	4	4	2	6	⁶ 4	4	9
Stores.....	47	³ 124,773	23	2	21	39	.....	42	.....	42	.....	47
Telegraphs and tele-phones.....	15	⁶ 65,847	6	.....	7	14	.....	14	.....	9	.....	14
Textiles.....	59	³ 69,711	21	46	11	¹ 11	42	8	47	² 38	10	⁷ 34
Other industries.....	96	⁶ 670,141	49	27	51	² 58	22	² 50	31	35	24	83
Total.....	409	⁸ 1,614,477	238	120	203	⁹ 207	146	¹⁰ 190	172	¹¹ 187	131	351

¹ Part of force in 1 establishment.
² Part of force in 2 establishments.
³ Not including employees of 1 establishment, not reported.
⁴ Part of force in 4 establishments.
⁵ Part of force in 3 establishments.
⁶ Not including employees of 2 establishments, not reported.
⁷ Including cupboards.
⁸ Not including employees of 7 establishments, not reported.
⁹ Part of force in 10 establishments.
¹⁰ Part of force in 9 establishments.
¹¹ Part of force in 11 establishments.

CHARACTER OF EQUIPMENT.

Of the 409 establishments for which data were secured, 238, or 58.2 per cent, report that they have shower baths for their employees. Some half-dozen having tub baths are not included in the table. The showers range from one or two inadequate fixtures to an equipment costing several thousand dollars, generously installed and maintained. The complaint that men's shower baths are little used may be met by providing dressing rooms, not universal at present. Much extra space is not necessary. A cubicle 3 by 7 feet allows for a 3 by 3 shower compartment and a 3 by 4 dressing room, the latter equipped simply with a hook or a stool. If the entrances to these two compartments are not opposite, doors and curtains may be dispensed with.

One hundred and twenty-four of the establishments do not report as to wash-room equipment. Of the 285 which do, 120 have troughs or sinks and 203 have individual bowls, a number of places—as the combined figures indicate—having both. In some States individual bowls are required by law in spite of the superiority of the trough with high faucets at which the employee washes under running water. The committee on sanitation of one of our greatest corporations recommends, if indeed it does not require, that no individual basins be installed at any of its numerous plants.

There are establishments included in this study which have hundreds of individual washbowls, kept white and glistening, when not in actual use, by the constant attention of several janitors; there are others which have a comparatively small number of bowls which, nevertheless, are not kept clean, but are ringed, if not entirely lined, with grime. It is evident, from the varied experience, that in all the cleanest industries bowls or basins should be installed only where janitor service for their care is of the most generous character, since to be clean and sanitary they require scouring after each using. The deep tublike sinks used in some places are open to the same objection, as indeed is any equipment designed for use with a stopper.

A practical and sanitary arrangement found in a large number of places consists of cast-iron troughs (see pl. 13), enamel lined and painted outside, with pipes and faucets 18 or 20 inches above the trough, allowing men to get head and shoulders under the running water. At their best they are installed to the extent of one faucet (24 inches of trough) for each 3 to 6 men using the wash room at one time. The trough may be double, that is, $2\frac{1}{2}$ to 3 feet wide, with faucets for the use of men on each side. The faucets have spray nozzles, removable for cleaning. Control of temperature is secured by the use of either one or two taps, but the simpler the fixture the better. The trough has no stopper, but drains to a large waste pipe in the middle. A removable screen of nonrusting metal pre-

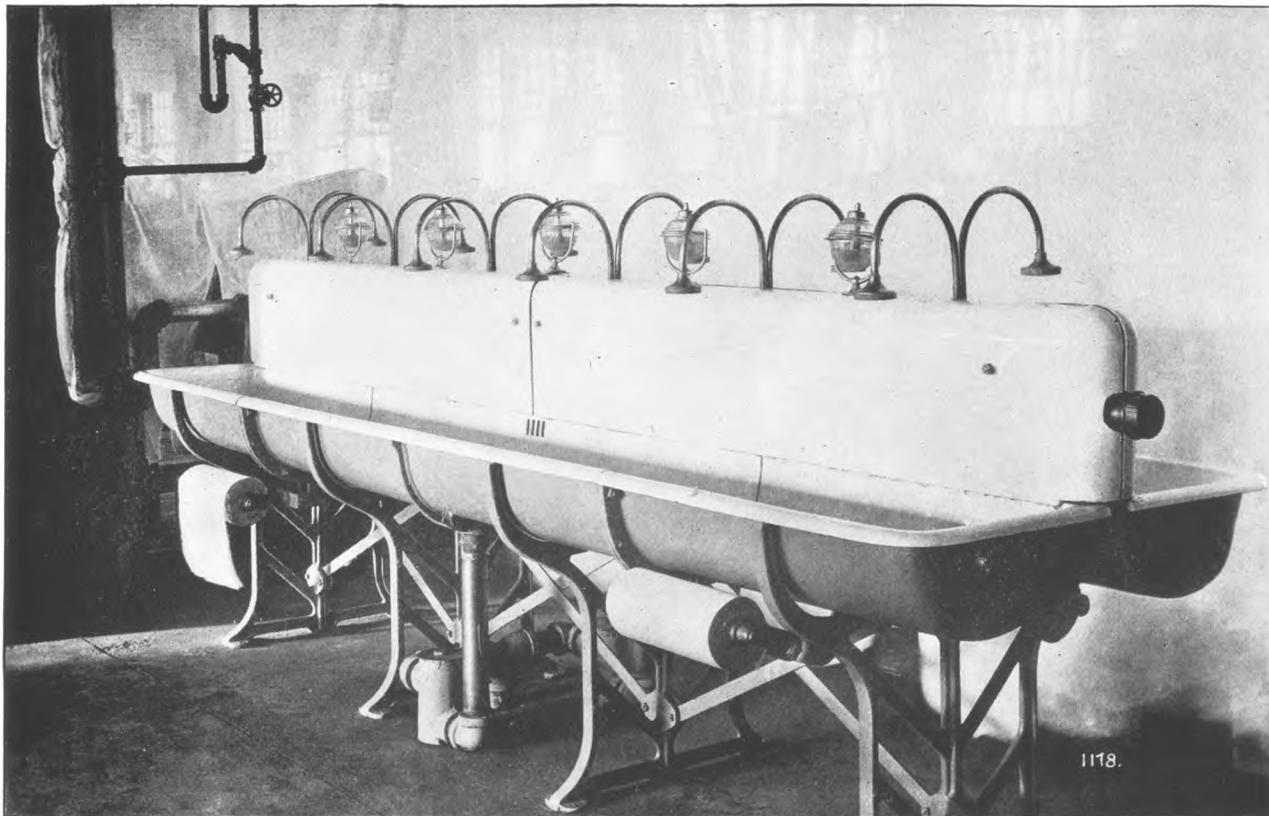


PLATE 13.—DOUBLE TROUGH WITH SPRAY FAUCETS; NONSCALDING HOT WATER; NO STOPPER; LIQUID SOAP, AND PAPER TOWELS

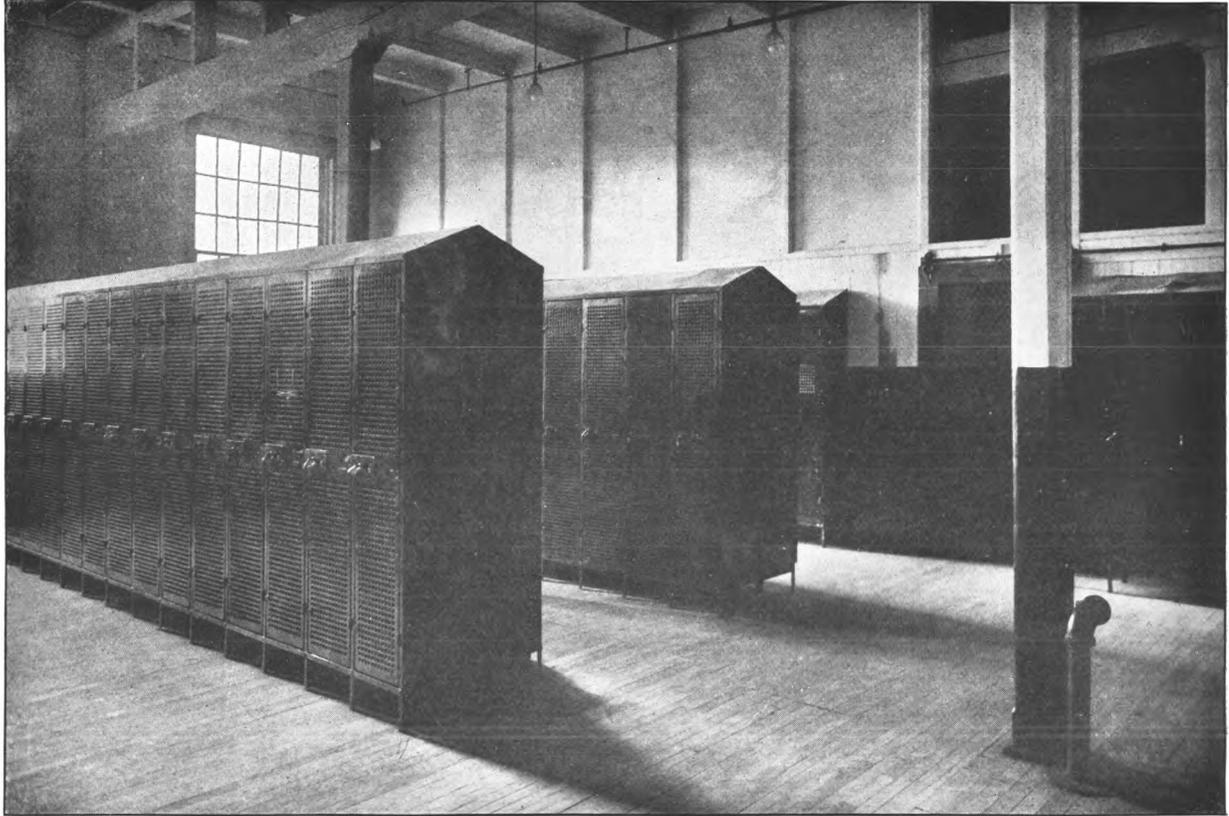


PLATE 14.—TYPE OF INDIVIDUAL STEEL LOCKER MUCH USED; SLOPING TOP TO AVOID COLLECTION OF DUST; DOUBLE FACED.

vents soap or other articles being carried to the drain. There are hooks near at hand for the clothing of men who strip to the waist.

In a number of establishments troughs are not used in the manner just described, each man having a tin basin which he rests on the sides of the trough or steadies in some other way. When not in use these stand on edge to dry or are hung in the lockers.

HOT WATER, SOAP, AND TOWELS.

Of the 130 establishments replying to the questions concerning the provision of hot and cold water, 124, or 95.4 per cent, report that both of these are available or that warm water is supplied.

More than 400 companies furnish information as to the supplying of soap and towels without charge to employees. Since it is customary to provide these articles for the clerical force in the establishment's offices, the mills and factories which make provisions for office employees only are not included in the table. Excluding these, it appears that in 207 cases, or slightly more than 50 per cent of all establishments, soap is provided, this being to the entire working force in all but 10 of the cases. In 190 cases, or somewhat less than one-half of all establishments, towels are provided, in all but 9 cases for the entire working force.

On account of skin disorders the soap question is a vexing one, that reason alone being sufficient to account for the fact that in little more than 50 per cent of the cases reported is soap provided by the employer for practically all the workers. Of the establishments reporting kind of soap furnished, 83 use cake soap, 19 of these also providing liquid soap in some departments; 57 use liquid soap, one of this number using powdered soap also; 5 use powdered soap; and 2 shaved soap. Cake soap molded on chains and therefore not removable nor liable to waste and cake soap in an inverted fixture, with the same advantages and used by rubbing the hand on the soap instead of vice versa, are used in a number of places. In one or more cases disinfectant in liquid-soap containers is provided for employees handling money.

Of the establishments reporting kind of towels furnished, 75 supply individual towels, 22 of these having paper and roller towels in some departments; 40 provide paper towels, 7 of this number using also some roller towels; and in 34 establishments roller towels only are used. Rolls of paper toweling, supplied free in the 44 change houses of an enormous explosives company; thousands of linen towels piled by the bowls, the system of a large automobile factory; and individual towels strung on rods, found in many stores and offices and in a factory employing several thousand men, all are reported as giving satisfaction. In rare cases a deposit of 10 or 15 cents is required, returned when the employee leaves the establishment, to insure proper care in a service providing two clean towels a week to

each employee. One company reports a charge of 1 cent per towel to cover costs of laundry.

USE OF WASH ROOMS ON EMPLOYER'S TIME.

The question as to the use of wash rooms on the employer's time is answered by 318 of the companies, 187 of them, or 58.8 per cent, reporting that this practice prevails to a greater or less extent. Conditions thus indicated vary from those in stores, where as a matter of course the employees make use of the wash rooms at all hours of the day, to those in mills and shops, which allow the men in certain departments to quit work from 5 to 15 minutes before closing time so as to bathe and change the clothing. Only 23 establishments make definite statements as to the number of minutes allowed for washing up on the employer's time before going home. Five or six report that 5 minutes are allowed, 9 report an allowance of 10 minutes in dusty or hazardous occupations and where a change of clothing is involved, and 6 grant 15 minutes to men doing extremely dirty work or handling chemicals. In one plant 20 minutes may be taken in exceptional cases. In none of the mines investigated does such a condition as this exist, owing to the nature of the employment. In the iron and steel industry, and in foundries and machine shops, about 1 in 3 employees, according to the reports, use the washing-up facilities on the employer's time.

Three firms allow to each employee 30 minutes a week the year round for the use of the baths, and in two other cases 40 minutes a week is granted. It may be said in passing that only one of these five firms is in the food industry.

LOCKERS AND CLOAK ROOMS.

Of the establishments investigated, 85.8 per cent report that they have lockers, ranging from simple wooden cupboards each used by a number of persons to a complete equipment of several thousand individual steel lockers.

In a consideration of the comparative merits of lockers and open shelves and coat hangers, several factors enter besides that of expense. When fastened, a locker ordinarily protects its contents from pilfering. There is, however, a general complaint among employers that the lockers are left unlocked, a practice which defeats the very purpose for which they are installed. It would seem that locking might be made compulsory, the closing being automatic to avoid loss of time, and the opening being by either combination or key. As a rule keys are charged for only in case of replacing after loss, but a number of companies require a deposit of 25 cents, returned when the employee leaves. Lockers may for convenience of access be scattered in groups through the various departments. In this case, however, they are less easily cared for and their disinfection, at

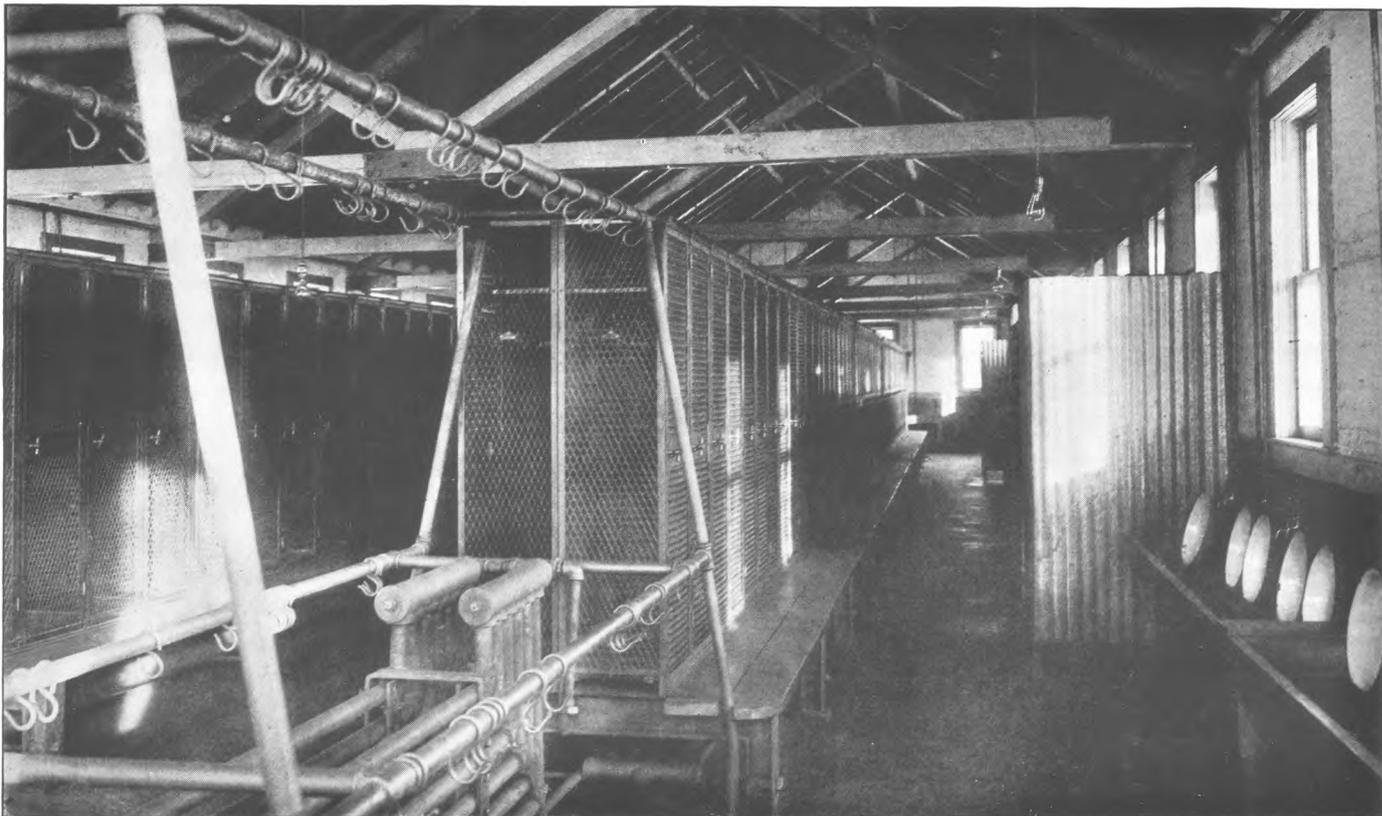


PLATE 15.—INTERIOR OF WASH AND CHANGE HOUSE; BASINS IN TROUGH, SHOWERS BEYOND; STEAM PIPES UNDER LOCKERS; BENCHES; S-SHAPED HOOKS ON STEAM PIPES FOR DRYING CLOTHING.

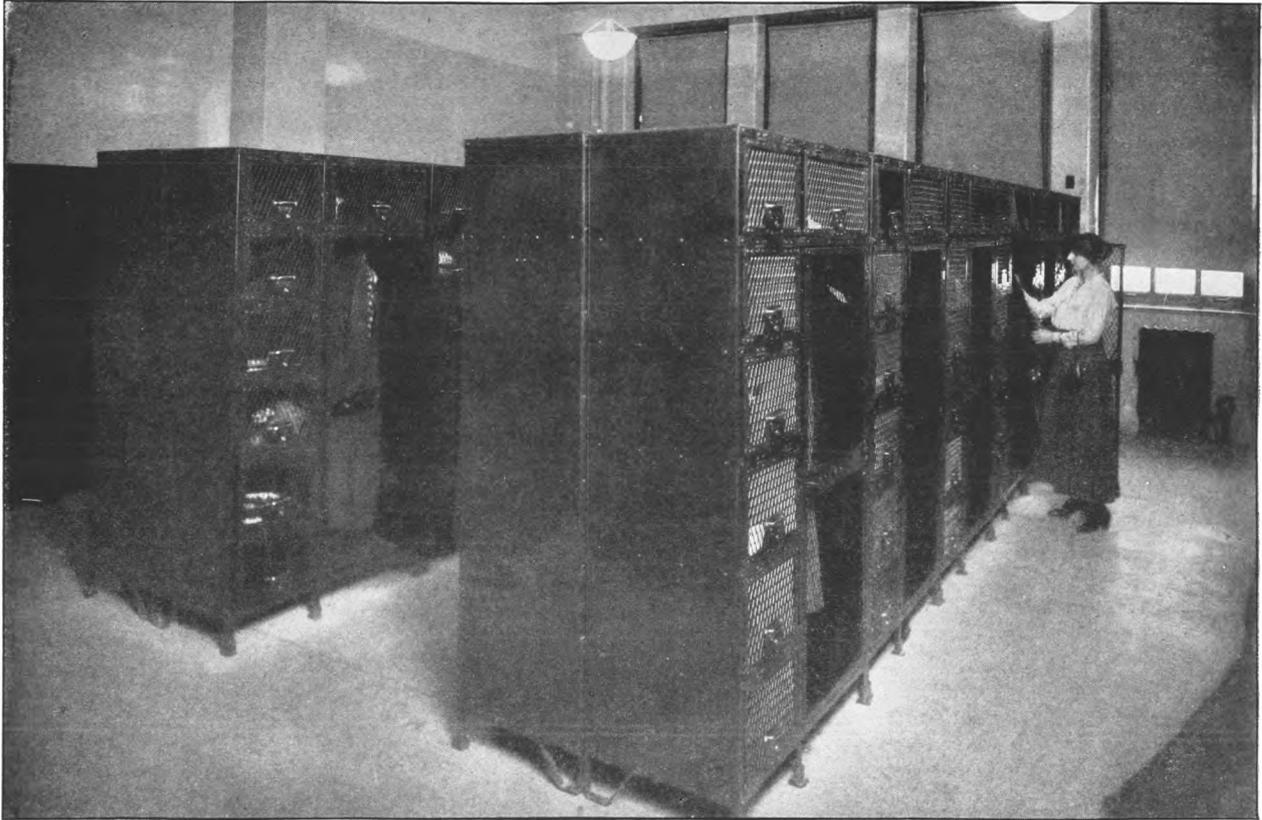


PLATE 16.—COMPARTMENT LOCKER; 7 INDIVIDUAL HAT BOXES AND CUPBOARD FOR 7 COATS; EACH BOX HAS KEY, AND CUPBOARD HAS COMBINATION LOCK.

monthly or weekly intervals, is somewhat interfered with. This is an important consideration in factories where, according to the employers, lockers are kept in great disorder and attract vermin and mice. Two large companies reported in the present study have replaced their lockers by shelves and hangers after unfortunate experience with careless employees.

Individual steel lockers are the rule in a surprisingly large number of cases, some companies installing them at the rate of several thousand a year until every employee is supplied. For men engaged in the handling of certain chemicals or other harmful substances it has been found necessary to furnish double equipment, one locker for street and another for working clothes. The lockers are of various kinds—solid plated except for ventilated door, floor, and top; solid plated except for ventilated floor and heavy wire-mesh door (see pl. 14); and all wire mesh (see pl. 15).

The installment of lockers too small to be of service—for example, too short to accommodate long cloaks or overcoats where these are worn, and too narrow for a girl's broad-brimmed hat—is of questionable value, though industries employing men who go to work in sweater, pea jacket, or mackinaw use the 42-inch locker to advantage. A variation for women from the stereotyped steel cupboard with one or two shelves and three or four hooks is found in the compartment locker (see pl. 16), which provides one generous steel locker, with several hangers for the cloaks, and 7 individual hat cupboards, also of steel and attached to the locker, built up at one side and on the top. Nine companies reported in the present study use this type of locker.

In men's industries where a change of clothing is made, benches are placed against the rows of lockers (the latter raised 15 or 16 inches from the floor to allow for steam pipes and for cleaning purposes) or in the aisles between. (See pl. 15.)

Where several hundred lockers are in one room, the numbers—as 1 to 50, 51 to 100, etc.—are chalked or painted on the ends of the rows for convenience in finding. Mirrors placed here and there where the light is good are used and appreciated by both sexes.

For large numbers of unskilled or semiskilled laborers the chain locker (see pl. 17), by which clothing may be raised to a height by pulley and held there by a fastening below, is in favor with an increasing number of employers. Heat rising to the roof from pipes below dries the garments, moisture and odors escaping through ventilators. In most cases a wire tray or basket is provided, in which wet shoes or other personal belongings may be placed, while the clothing is hung on hooks attached to its bottom. The basket is raised by a pulley, for which the worker has a padlock and key, so that after he has fastened it in place it is impossible for anyone else to reach or handle his belongings. The chain-locker system is most largely

in operation in mining, but is not confined thereto. The danger lies in crowding equipment, so that a man's garments must touch those hanging next. In one or more places visited in connection with this study sheets of galvanized iron separate the garments as they hang overhead. In the absence of this provision large numbers still can be accommodated without crowding, a space 20 by 14 feet being ample for the floor equipment and aisles of 80 lockers.

In textile mills the locker system does not yet prevail, simple cloak rooms, or cupboards or racks along the walls, being more commonly found. The custom of each employee hanging his or her coat on a nail near the place of work obtains perhaps more generally in this than in any other large and important industry, but the fact must not be overlooked that in the South, where this condition is most often found, thousands of operatives go to and from work during several months of the year wearing little or no extra clothing.

The other facilities suggested—shelves and hangers—may be considered less sanitary than lockers in a way, since clothing is not isolated and in only rare cases, according to the reports, is the same hanger and shelf space used by one person day after day. They are, however, more easily aired and disinfected, a number here reported consisting simply of wire-netting inclosures, with hangers on horizontal bars or the less adaptable screw hook under 1 or 2 shelves. This open netting does not answer the purpose, of course, where the work place is dusty. There is little provision for caring for valuables, though a few companies have lock boxes or a checking system. Most cloak rooms are kept locked during working hours; others are combined with washing and toilet facilities and are in charge of a matron. (See pl. 18 for illustration of cloak room with hangers on horizontal bars.)

Some employers of women supply stands in which large numbers of umbrellas are checked automatically, an individual key being furnished for each slip and the removal of the umbrella therefrom being possible only to the holder of that key.

PROVISION OF UNIFORMS OR OTHER CLOTHING.

The lending of umbrellas on rainy days, a deposit of only 5 cents being required, is not unusual, and five companies report that stockings, slippers, and skirts are lent to employees who get wet on their way to work on rainy mornings.

In this connection may be mentioned the furnishing of uniforms or other working clothing without charge. This is the custom in food manufacturing, where practically all women are supplied with caps and aprons each day, the men being furnished with khaki or white uniforms. In other industries the employees handling food-stuffs, such as lunch or candy counter salespeople, women who are engaged in work in which there is more than ordinary danger of hair



PLATE 17.—CHAIN LOCKERS, WHEREBY CLOTHES ARE RAISED TO ROOF AND FASTENED BY PADLOCK BELOW; RACKS FOR SMALLER ARTICLES, WITH HOOKS AT ENDS.

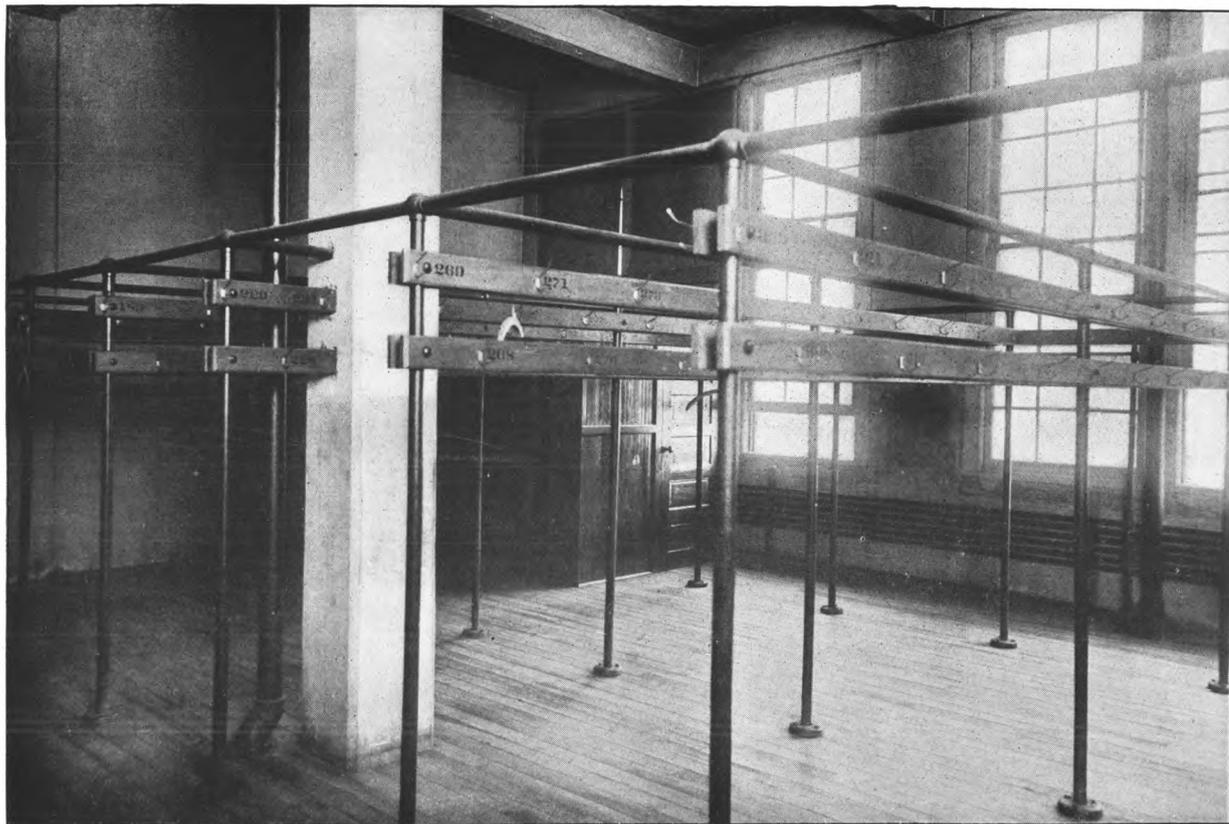


PLATE 18.—FACTORY CLOAK ROOM FOR GIRLS. IN MANY CASES BARS ARE SURMOUNTED BY ONE OR TWO SHELVES FOR HATS.

or clothing becoming caught in the machinery, and electric workers requiring rubber coats, boots, gloves, and so forth, usually are supplied with such clothing by the employer. Occasionally a nominal charge is made and in some cases the employee pays for the laundering. In an electric establishment reporting, the girls wear blouses of material sold to them by the employer at wholesale price and made up in their homes. Goggles, respirators, and other safety devices are quite commonly provided where needed, either without charge or at wholesale rates.

DRYING APPARATUS.

In addition to the wash and change house found in mining, iron and steel manufacturing, and some other industries, which has special arrangements for drying the men's clothing, there are notable examples of drying apparatus, steam or electric. Street railways, telegraph and telephone companies, and several others reported in this study make some provision therefor. This is in certain cases simply a small room heated to a high temperature and containing hooks or other hangers; in others, S hooks are strung loosely on steam pipes raised some distance from the floor (see pl. 15), or a rack resembling a carpenter's high trestle, with rows of hooks, stands over hot pipes; in still others there are provided electric dryers similar to those used by police and fire departments, in which ordinary clothing dries in an incredibly short time.

DETAILS OF WASH AND CHANGE HOUSE.

As here reported, the best wash and locker systems for women employees appear to be such as are installed in up-to-date office buildings or stores, and no detailed description would seem to be necessary. For readers interested in wash and change houses for men, the following outline of the equipment necessary or desirable—based partly on the rulings of the committee on sanitation of a corporation, but more largely on schedules, photos, and field observations in the present study—is submitted. The plan describes a separate building, but an end or corner of a work building may be equipped in the same general way provided light and ventilation are adequate.

Designation.—A building which provides wash and cloak room facilities for employees is called variously "service" or "comfort" building, "wash and change," and "dry."

Location.—The building is easy of access, between gate and time clock, if possible, and near the work place, so that men are not exposed to the weather after changing into overalls or when coming out of the shop in an overheated condition.

Shape and size.—The building is especially adaptable if long and narrow, with a door at each end or on opposite sides. There are

plenty of windows, preferably high rather than having lower panes frosted, because of defacing. There are ventilators in the roof. A building 100 by 40 or 50 feet will accommodate 200 to more than 500 men (according to type of locker service) with ample washing and locker facilities.

Construction.—The building is fireproof or fire resisting; aside from this provision the materials are those most convenient or most easily secured—brick, cement, concrete blocks, corrugated iron over brick, etc.

Interior design.—Toilet accommodations are completely shut off from wash and locker rooms, preferably with outside entrance only. The locker room is separated from the wash room by a partition high enough to prevent excessive steam reaching the lockers. The floor is pitched to drain at one or more places according to area and design, drains being placed under plumbing fixtures where possible. All corners and angles are rounded.

Finish.—The floor, and the walls and partitions for several feet up, are of hard, nonabsorbent material, the walls being completed by a nondefaceable finish; all other parts receive a coating of white waterproof paint. In some cases the concrete or other floor material extends only a few inches up the wall, but a thoroughly waterproof finish is applied above that.

Cleaning.—One or more permanent hose fixtures are included in the plumbing. A rubber sweeper facilitates the drying of the floor. Cuspidors are liberally provided.

Heating.—The building is heated by exhaust and live steam from the plant boiler room, or directly by its own furnace. Pipes run along the walls and under the rows of lockers, with coils for the drying of clothes. (See pl. 15.) In all cases the pipes allow of cleaning behind and beneath. The entire building is kept at an even temperature of not less than 70° F.

Ventilating.—Ample ventilation is assured by means of windows and of ventilators in the roof; ordinarily the latter are of the cone-top type.

Lighting.—Windows are sufficient to insure against dark corners, and to provide ventilation. A complete electric light system is provided.

Toilets.—This equipment is intended only for men using the wash-house, as general facilities are provided elsewhere. Floor and walls have a hard, nonabsorbent, nondefaceable finish, as described in the foregoing. Entrance is from the open air exclusively, the door being convenient to one of the main entrances to the building. Ventilation and light are adequate, water supply is plentiful, and drainage good. The equipment is simple, but very durable and well installed, with space allowed for cleaning behind and below all pipes, etc. There is a place for washing hands. Toilet paper and cuspidors are furnished.

Showers.—A space 3 by 7 feet allows for a 3 by 3 foot shower compartment and a 3 by 4 foot dressing room. Where the entrances to these two compartments are not opposite, thus , doors and curtains are dispensed with. Floor and walls are of hard, nonabsorbent, nondefaceable finish, as already described. Adequate ventilation and light, a plentiful supply of hot and cold water, good drainage, and a slatted flooring for the bath are provided. The equipment is simple but very durable and well installed. The pipes are placed high to prevent the bather coming in contact with them, and with space behind for cleaning. It is possible to regulate the water supply without standing under the shower. The dressing room has a hook for clothing, or a stool. That the showers may be easily cleaned, space is left between partitions and floor.

Wash troughs.—The trough, with spray faucet high enough for the user to get head and shoulders under, is so much to be preferred to individual bowls that the latter are not considered here. Cast-iron troughs, enamel lined and painted outside, are provided to the extent of one faucet (24 inches of trough) to each 3 to 6 men using the building at one time. The trough is double, with arrangement as to nozzles, soap, etc., as described on page 44.

Laundry sinks.—Two or more sinks are installed for the use of men who do not take their overalls home for laundering.

Lockers.—In order that the men's clothes may be kept free from the excessive steam of the wash room a substantial partition about the height of the walls is built. The floor and walls are of the same construction as the rest of the building, so that they may be hosed, for which reason—as well as to allow for steam pipes under them—the lockers themselves are 15 or 16 inches from the floor.

Individual steel lockers are of various kinds; solid plated except for ventilated door, floor, and top; solid plated except for ventilated floor and heavy wire mesh door (see pl. 14); and all wire mesh (see pl. 15). The greater dimension (18 inches) is in width instead of depth, to give seating space on the bench which runs along the row of lockers. The depth is 12 to 16 inches, and the height is in many cases 72 inches for a long coat, or more generally 42 inches, in which latter case the lockers are double tier. For men working in or about poisonous substances double equipment is furnished, one locker for street and another for working clothes.

It is compulsory to fasten the lockers, for which reason an automatic lock is provided, opening by combination or key; the latter is not charged for except in case of replacing after loss.

The benches, already referred to as attached to the front of the steel lockers, are substantial, and their corners are rounded (see pl. 15). Four or five feet of aisle space is allowed between the benches

of lockers which face each other, and more if another bench is placed in the aisle.

Mirrors, clock, etc.—Mirrors are placed conveniently where the light is good. A clock over the main entrance proves a useful feature. Door mats, or other provision for the same purpose, are a necessity.

Drying racks.—Provision for the drying of garments on wet days and of laundered overalls is appreciated and may be considered a necessity. A rack somewhat resembling a carpenter's high trestle with rows of hooks, under which are steam pipes, may be constructed, but a simpler plan is the fastening of S hooks on the pipes themselves, a number of coils being installed especially high and being well supported for this purpose (see fig. 15).

Drinking water.—A sanitary fountain is included in the equipment, near the exit.

Care and supervision.—Ordinarily the whole time of an attendant is required to care for a washhouse used by several hundred men, but where there are many buildings, for example, the 44 of the explosives company before mentioned, one man may be in charge of three. The heating, ventilating, care of cuspidors, constant cleaning, and maintenance of order are no light task, and soap and towels, if provided by the employer, must be kept in abundant supply.

The lockers are fumigated periodically. The leaving of food in the lockers is prohibited, and meals may not be eaten in this building. Dinner buckets may be kept in or on the lockers, or, if the sloping-top locker is used, may be hung on the handles. Wise employers restrict the use of the washhouse to the purposes for which it is originally intended, the reprehensible practice which exists in some places of allowing men to sleep on the benches being prohibited.

Where the employees are organized in committees for any purpose, the general supervision of the change house is placed in the hands of one of these committees.

CHAPTER IV.—LUNCH ROOMS AND RESTAURANTS.

Lunch rooms, like emergency hospitals, belong probably among the more essential features of industrial betterment, for while the provision of recreational facilities or other welfare features tends to promote good fellowship and interest in the place of employment, these facilities do not have as direct a bearing on the health of the workers as does the opportunity to secure a warm and wholesome meal at a cost which puts it within the reach of all.

There seems to be no particular reason why lunch rooms should be installed in one industry more than in another. The determining factors appear to be the distance from homes; the lack of good restaurants, or the presence of many saloons near the plant; the desire to keep employees upon the premises during the luncheon period; and, perhaps, the most frequent reason of all, the wish to give employees the proper food since the tendency with many workers is to economize in this way to the detriment of their health, strength, and efficiency.

A number of companies have established lunch rooms primarily to keep the men from patronizing the neighboring saloons during their lunch time, and it is the almost universal testimony that these rooms are not only much appreciated and used, but that in these cases there has been a decided reduction in the number of accidents caused by workmen being slightly under the influence of liquor. Several of the companies report that the meal served in the company restaurant is the best one of the day for many of their employees.

Of the industries reporting restaurants the iron and steel industry and foundries and machine shops show the smallest proportion of these facilities for the general working force. Their restaurants are mainly for the office force and for officials, although there are a few cases where large numbers of the plant men are served. Steam railroads do practically nothing along this line, although the employees are sometimes served at a reduction in the regular station restaurants. All of the telephone companies, most of the large offices, and nearly all of the department stores visited maintain lunch rooms.

Only two of the companies visited reported that they had tried lunch rooms and given them up. Two or three others reported that the patronage was not satisfactory, but generally where they were found they seemed to be regarded as necessary to the successful operation of the plant, office, or store.

Of the 431 establishments visited, 223 provide lunch rooms for their employees. Six of these establishments did not report the number of employees, but for the 217 establishments reporting, the total number employed was 830,125.

The following table shows, by industries, the number of establishments having restaurants, cafeterias, and lunch rooms, the character of management, and the number of employees patronizing them:

TABLE 4.—NUMBER OF ESTABLISHMENTS HAVING RESTAURANTS, CAFETERIAS, AND LUNCH ROOMS, NUMBER OF EMPLOYEES USING THEM, AND CHARACTER OF MANAGEMENT, BY INDUSTRIES.

[In this table 16 establishments are shown under both "restaurants" and "cafeterias," as they maintain both; and 12 of the establishments shown as furnishing room, coffee, etc., for employees bringing their own lunches also have restaurants or cafeterias.]

Industry.	Number of establishments.	Number of employees.	Number of establishments having restaurants managed by—			Number of establishments having cafeterias managed by—			Number of establishments furnishing accommodations for those bringing lunches of—		Establishments reporting number of employees using restaurants and cafeterias.		
			Company.	Contractors.	Employees.	Company.	Contractors.	Employees.	Room only.	Room, coffee, etc.	Number of establishments.	Total employees.	Employees using.
Automobiles.....	7	93,384	2	1		2	2		3		7	93,384	24,665
Boots and shoes.....	4	23,230	1			3					4	23,230	7,623
Chemicals and allied products.....	4	9,446	3			1			1		4	9,446	3,345
Clothing and furnishings.....	9	15,710	1			8			3		9	15,710	6,590
Electrical supplies.....	5	51,040	5			1					3	30,533	3,400
Fine machines and instruments.....	6	22,553	4	1		2		1	2		6	22,553	6,360
Food products.....	8	¹ 11,665	3		1	4			7		6	11,015	8,813
Foundries and machine shops.....	26	64,401	22	1		1			1		19	38,757	5,728
Gas, electric light, and power.....	7	² 24,768	4			3	1	2	9	1	4	13,635	1,350
Iron and steel.....	14	76,092	6	6	1	1			3		9	48,625	1,500
Offices.....	7	10,651	4	1	1	2					6	10,651	7,841
Paper and paper goods.....	5	7,472	2	1		4			1		4	6,232	2,805
Printing and publishing.....	7	9,666	2	1		5				1	6	8,908	3,225
Railroads, electric.....	5	40,402	4	1				1	2		3	14,279	2,355
Rubber and composition goods.....	6	35,588	3			4	1		1		6	35,588	4,730
Soap.....	4	8,168	3			2			1		4	8,168	3,730
Stores.....	41	¹ 116,068	9	1	2	29			3	1	36	111,485	43,018
Telegraph and telephone.....	14	² 64,538	8			7		1		1	8	22,328	6,983
Textiles.....	9	20,051	3			5	1		2	3	8	19,426	4,470
Other industries.....	36	¹ 125,232	22	1		14	1		8	9	29	61,221	19,740
Total.....	224	³830,125	109	14	5	98	6	8	34	29	181	605,174	168,273

¹ Not including employees of 1 establishment, not reported.
² Not including employees of 2 establishments, not reported.
³ Not including employees of 6 establishments, not reported.

KIND OF SERVICE.

Restaurants, with waiters, and cafeterias seem to be about equally popular, there being 112 of the former and 96 of the latter, while 16 establishments have restaurants for the office force and officials and cafeterias for the factory workers.

The cafeteria method of serving is considered to give the quickest service with a minimum amount of help, and since rapid serving is essential to the successful operation of plant lunch rooms this kind of service is generally to be advocated. Cafeteria counters can be arranged to suit the requirements of almost any space, those allowing four or more lines to be served at once being the best. One company states that 1,500 are served by this method in nine minutes and another that 1,300 are served in six minutes.

Counter service for men's lunch rooms, each counter being complete in waiter and serving arrangements, is also an effective method of attaining quick service. Stationary stools may be provided, or the patrons may stand.

Waiter service is commonly used in the lunch rooms for office force and executives, but as it adds materially to the cost of maintenance of the lunch room it is less satisfactory when applied to the factory force in general.

ESTABLISHMENTS HAVING RESTAURANTS, CAFETERIAS, OR OTHER LUNCH FACILITIES.

Of the 223 establishments providing lunch rooms, 18 maintain them for only the office force and officials, and sometimes for foremen, while the remaining 205 serve employees of the factory as well, although in the majority of cases there are either separate rooms or a section of the dining room is reserved for the office people and foremen. This does not seem to be inspired altogether by a feeling of superiority on their part, as might be supposed, for a number of establishments report an unwillingness on the part of the factory workers to eat with the office force and foremen—in some cases because members of the office force are better dressed, and in others because they feel more freedom without the presence of those under whom they work. This is especially true in plants where many foreigners of different nationalities are employed.

For 181 establishments, with 605,174 employees, it is estimated that the number using the lunch rooms daily is approximately 168,000, or 28 per cent of the total number of the employees. These figures include those employees who bring their own lunches to the regular lunch room and buy nothing and those who supplement their own lunch with one or more dishes from the counter, as well as those, usually the larger number, who buy the entire lunch.

In very large plants the difficulty of providing sufficient room to serve all the employees who wish to buy their lunch is always to be met with and in addition there are always employees who, while they wish to bring the major portion of their lunch from home, still are ready to take advantage of the opportunity to buy something warm—a cup of coffee or a plate of soup—to supplement it. For such employees a separate room provided with tables and seats and a counter serving either coffee alone or coffee and soup is a decided benefit. Some companies provide gas plates or stoves for heating lunches, but the counter involves little additional outlay and is more satisfactory. Waste baskets, preferably of wire, for lunch papers should be provided in such a room and good drinking water should be supplied.

There are 63 companies which provide a room for the use of those bringing their own lunches. Twelve of these furnish such a room in addition to the regular lunch room and therefore are included in the total number of establishments having lunch rooms. Thirty-four of these 63 firms provide the room and tables and chairs only, but 29, in addition to this, supply tea, coffee, or milk and, in a few cases, soup. Twelve of these 29 establishments serve coffee free to all who wish it, 1 furnishes soup free, and several of them give tea and milk as well as coffee. In this connection it might be stated that several companies report that it is their practice to discourage the excessive use of coffee.

It is, of course, often found to be the case that employees go to work in the morning with little or no breakfast. Two firms, each employing a large number of girls, allow them to go to the lunch room in the morning for milk or coffee and rolls. One of these firms grants 10 minutes each morning for this purpose.

CHARACTER OF MANAGEMENT.

The majority of the lunch rooms are managed directly by the companies, but in 20 cases the management is turned over to an outsider, the company supplying space and generally light, heat, and equipment also. In these cases, too, the companies usually supervise the quality of the food offered and also limit prices, although the food prices are not so low as in the many establishments which manage this work with no thought of profit. In 13 instances the companies allow the employees to manage the restaurant. A few of these lunch rooms are run on a cooperative basis, but most of them make a small profit which is turned over to the benefit association or to the athletic association, the lunch room usually being managed by a committee of employees appointed by the association which is to receive the profits.

NUMBER OF ATTENDANTS REQUIRED.

In several restaurants the attendants at counters and tables are members of the regular working force who usually receive their regular rate of pay while performing this service and their lunches; their coats or uniforms also are furnished and laundered. In one case the office errand boys and apprentices wait on the tables, leaving their work 15 minutes before the others and receiving only lunch in payment; in another case the girls volunteer their services and receive lunch in return; and in still another case factory boys serve in the dining room for two hours, being paid their regular factory rate, except for half an hour, and receiving a free lunch also.

The number of attendants necessary to serve an average of 4,100 people daily is reported by one firm. This company has four restaurants, a cafeteria, a dining room, a lunch counter, and a grill room. The cooking for the four restaurants is done in one kitchen, and the same quality of food is served in all. Employees are free to patronize any one of them, although the cafeteria is the one generally preferred. Here a full meal may be purchased for 18 cents, the average check, however, being but 11 cents. Besides the manager, his assistant, and the chef there are 13 full-time kitchen and dining-room workers and about 70 others who work during the luncheon period only. Twenty of these are porters in the plant who clear away the used dishes.

It is the practice of a number of companies which have cafeterias to have the employees carry their used dishes to a shelf or window which they pass on the way out. In this way the amount of help needed is lessened without imposing unduly upon each individual.

FINANCIAL RESULTS OF OPERATING RESTAURANTS.

Forty-six of the companies which keep the entire control of the lunch rooms have reported as to the financial returns of the undertaking. In 35 cases there is a deficit varying with the size of the plant and the prices charged for food. In 9 cases the restaurant is self-supporting, and only two of these reported a surplus. One company reports a deficit of about \$1,000 a month. The office and factory employees in this plant are served separately. A regular dinner is served the factory workers for 15 cents, the à la carte rates for the others being correspondingly low. The company thinks that its deficit is too great, although, since the sentiment of the firm is that the employees are entitled to one good, wholesome meal a day, a loss is expected.

A company employing about 12,000 has several mess halls in different sections of the plant. These are located in separate frame buildings. The main mess hall is in two sections, one for clerks and

foremen and the other for the general working force. About 1,300 eat in this building daily. The average price paid for a meal by the office force is 23 cents; by the factory employees, 21 cents. The colored employees are fed in a separate mess hall having long, high tables at which the men stand. About 350 meals are sold here daily at a cost to employees of 10 cents each. Two other lunch counters together serve 1,400, the average check being 23 cents. Owing to the increasing cost of foodstuffs and the desire on the part of the company not to lower the food standard, the company was paying a deficit of from \$900 to \$1,200 per month at the time the schedule was taken.

ESTABLISHMENTS SERVING FREE MEALS.

In few instances are meals served free to employees. One insurance company, however, having several thousand employees, serves to each person in its employ a lunch, consisting of soup, meat, one vegetable, bread and butter, a choice of desserts, and tea, coffee, milk, or buttermilk. At the time the schedule was taken this lunch was costing the company about 19 cents per person. This plan was instituted as a means toward greater efficiency in the afternoon's work since it was found that many could not, or at least did not, get the proper luncheon. This is not regarded by the firm as a gift but as a supplement to the wages, which are already as high, it is claimed, as those paid for similar work by other companies.

Another firm, doing a large mail-order business, gives breakfast to those of its clerks who are required to come early to attend to the incoming mail. Several give supper to overtime workers, and several others, whose plants are run during the entire 24 hours, provide free coffee at midnight. One company giving a free lunch to officials and clerical force has furnished a small kitchen and dining room for its 35 women employees and provides the materials from which the girls prepare their own lunches. Another, with 600 employees, serves an à la carte lunch to the men for 10 cents and the same lunch free to the 250 women employed.

Boys earning less than \$5 per week are given their lunch by another company. Still another gives milk and soup to all juniors. Nearly all of the banks visited give a free lunch to all employees, this being done largely for the purpose of keeping the clerks in the building at the noon hour. A newspaper company pays a restaurant for furnishing a lunch consisting of sandwiches, coffee, cake, pie, and cookies to from 20 to 30 of its newsboys every night.

Many companies which charge for other items on their bills of fare provide tea, coffee, or milk free. This is almost universally done by the telephone companies, whose lunch-room food and service is always excellent and provided at very low prices. The employees

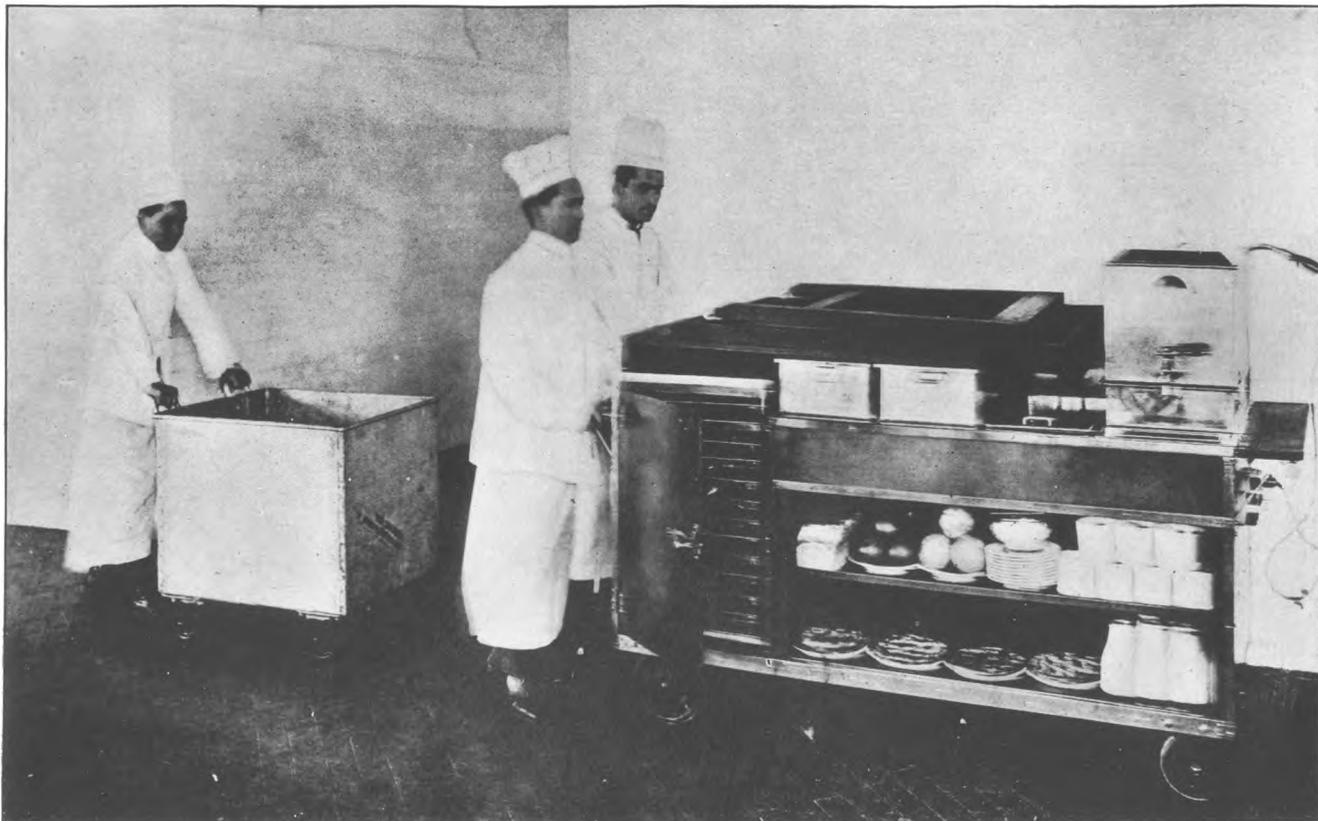


PLATE 19.—ELECTRICALLY HEATED CAFÉMOBILE EN ROUTE TO STATION IN PLANT.

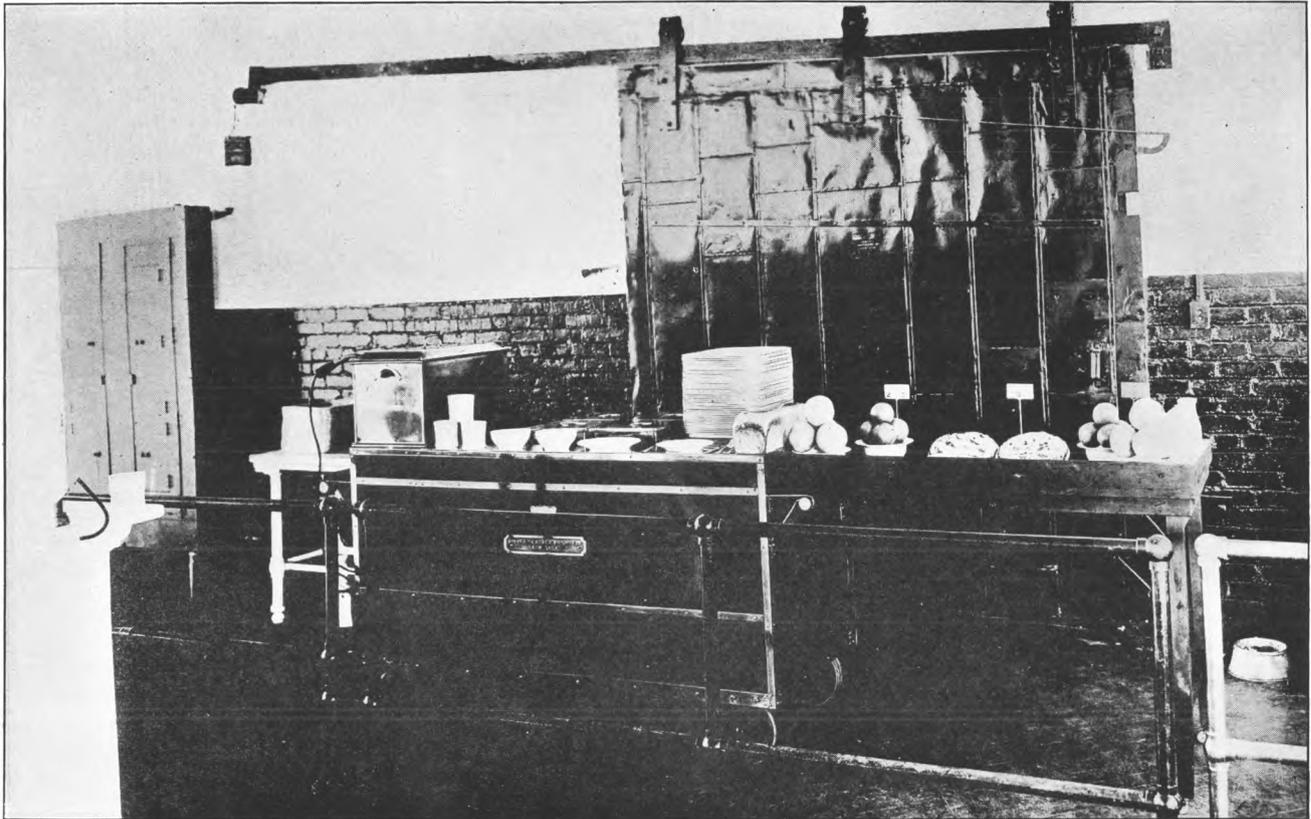


PLATE 20.—CAFÉMOBILE AT STATION, READY TO SERVE.

of one large office building are provided with a lunch room seating about 1,300 girls at one time. The majority of them bring their lunches, supplementing them with dishes from the cafeteria counter. Tea, coffee, and milk, the latter in unlimited quantity, is provided for them free by the company.

UNDESIRABILITY OF SERVING LUNCHEES IN WORKROOMS.

Several firms insist that their employees shall leave their work places at lunch time and that those who wish to bring their own lunches shall eat them in the dining room. In these cases it is usual to assign a permanent place at the table, where the lunch may be left upon arrival. In only one instance was there evidence of any objection on the part of the companies to employees bringing all or part of their lunches from home. This one company insists that all employees who wish to eat in the building shall buy their lunches in the dining room, although there is no objection offered to their going outside for them.

Nine establishments having restaurants also have lunch counters in the plant, either because of lack of space to take care of all the employees or for the use of those workers who do not consider themselves sufficiently well dressed to eat with the others. For these same reasons eight firms provide box lunches to be distributed through the factory at lunch time, and several have coffee booths. One company has soup stations throughout its large factory, and another, in addition to its restaurant, has eight electrically heated "cafémobiles," each carrying trays, dishes, and food enough for 300 men, which go through the plant at mealtime. (See pls. 19 and 20.) One company, with about 11,000 employees, has, in addition to a fine restaurant for its office force, five lunch counters in the factory, where about 6,000 are served daily with sandwiches, coffee, and milk. There are no tables, but benches are provided adjacent to the lunch counter.

Another company, having over 10,000 employees, serves them only by means of lunch counters like that shown in plate 21. Two lines can be served at once. No cash is paid at the counter, but tickets are sold to the men before the lunch hour. Many of them buy a week's supply of tickets at a time.

It is without doubt something of a problem for firms which employ large numbers of workers to provide a place separate from their workrooms in which all can eat, but since it is generally conceded to be undesirable for employees to be obliged to eat at work places, it would seem that in such cases either a very simply furnished room might be provided or the employees might be served in the restaurant in shifts. Many of the companies find that this plan works satisfactorily.

MILK STATIONS.

Counters, placed at convenient places through the plant, at which milk can be obtained are often found to be of practical value. If these are open for a few minutes at those hours of the day when industrial accidents are most frequent, it may be found that the opportunity for a little relaxation and refreshment will tend to minimize the number of such accidents. (See pl. 22.)

AVERAGE PRICES CHARGED FOR FOOD.

The prices generally charged for a table d'hôte meal for factory workers as reported for this study vary from 15 to 25 cents, in the majority of cases the charge being 20 cents. In a few cases office workers pay slightly more. The à la carte prices vary, of course, greatly. The usual prices of bread and butter are from 2 to 5 cents; sandwiches, soups, and vegetables, 3 to 5 cents; meats, 8 to 15 cents; fruits and desserts, 2 to 5 cents; tea, coffee, and milk, 2 to 5 cents, the usual price of a cup of coffee being 3 cents. It is possible, in most of the cafeterias, to get a good lunch for from 15 to 20 cents, and in some of them for even less. It must be borne in mind, however, that the prices charged for food as quoted here do not cover the general rise in foodstuffs in the last two years. They only serve to show that the average price of a sufficiently satisfactory meal was much below that in the average outside restaurant, and that it is probable, therefore, that whatever increase the employers have made have been proportioned to the increasingly high prices of fuel and foodstuffs.

METHODS OF PAYMENT.

There are different methods of payment in use by the various companies. One company, whose charges are based on the amount of wages, uses tickets of three colors to indicate the three rates which are charged. In some cases metal checks are used, while in others books of tickets are sold either by the cashier or by foremen in the shops. In the majority of cases, however, the employees pay cash.

GENERAL LUNCH-ROOM REQUIREMENTS.

The general requirements for a plant restaurant, in addition to a well-balanced and well-cooked food ration, are accessibility, efficient arrangement of entrances, exits, serving counter, and kitchen, and a clean and attractive appearance. A central location and arrangement of entrances and exits, so that there will be no crowding or unnecessary passing, are of the first importance, if, as is usually the case, the lunch period is a short one or if more than one group of employees are to be served during the time allowed.



PLATE 21.—PLANT LUNCH COUNTER.

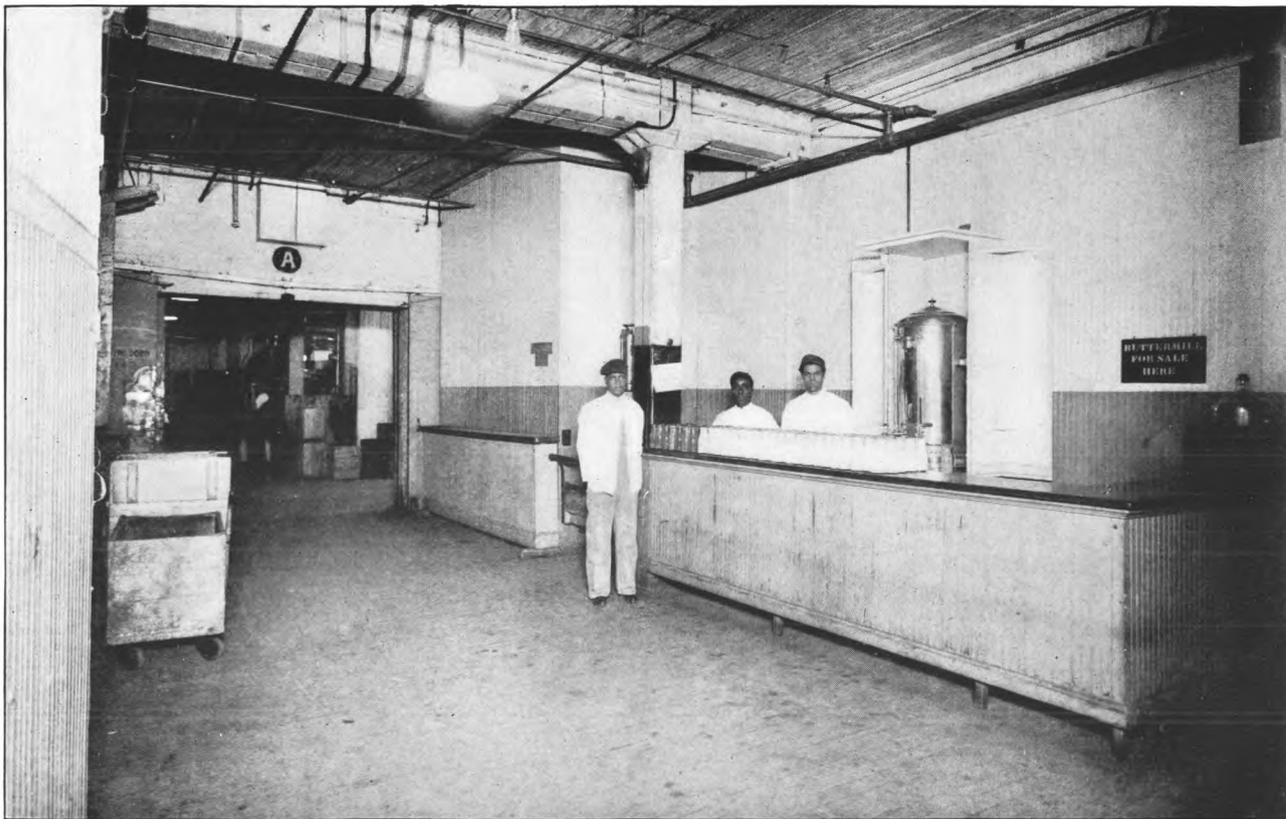


PLATE 22.—MILK STATION, OPEN FOR 15 MINUTES TWICE DAILY BETWEEN MEALS. SAID TO HAVE REDUCED ACCIDENTS.

CONSTRUCTION AND GENERAL EQUIPMENT.

The greater number of companies adapt available space in the plant to meet the lunch-room requirements, but in some cases separate buildings are erected. Various materials are used for the exterior, such as brick, corrugated iron, or wood, according to the degree of permanency desired. Some companies which have had a recent rapid growth have built frame mess houses, which, however, are undesirable because of the added fire risk.

The details of interior construction should always include a floor—preferably of concrete finished with a granolithic surface, or of tile—which will permit of thorough and frequent washing. One company recommends a white finish for the dining room—a white tile wainscoting and the remainder of the wall finished in white enamel. This undoubtedly is a desirable finish, since any deviation from strict cleanliness is so readily detected. If women are employed it is usually found desirable to provide a separate lunch room for them,

The hollow square, such as is frequently seen in railroad restaurants, is said to serve large numbers very rapidly. Conservation of space may be attained also by the use of long tables. For men's lunch rooms stationary stools are to be preferred to chairs unless the question of general attractiveness of appearance or the use of the room for recreation or other purposes is to be considered. The tables may be of wood which can be scrubbed, they may be covered with oilcloth, or they may be made of one of the various compositions used for this purpose, such as vitrolite, opalite, or Carrara glass. The latter are more expensive than wood tops or oilcloth covers, but present a more pleasing appearance and are more easily kept clean. The provision of napkins, either paper or linen, is not uncommon. In one case linen napkins are piled at the ends of the tables for the men to help themselves, thus avoiding the waste of giving them to men who do not care for their use.

KITCHENS.

The kitchen, stock rooms, and refrigerators should be so located in relation to the restaurant or cafeteria counter as to require a minimum of walking both in preparing and dispensing the food. A window between the dining room and the kitchen which opens directly upon that part of the kitchen where the dish washing is done facilitates the removal of used dishes. Part, at least, of the labor-saving devices, it is stated by some firms, pay for themselves in a short time. Steam or electric dish-washing machines, through which as many as 24,000 pieces can pass in an hour, do the work quickly, thoroughly, and with almost no breakage. Potato-paring machines work quickly and do away with much of the drudgery of the kitchen, but need to be carefully operated or the waste is

greater than when the work is done by hand. These two machines do away with the greatest amount of hand labor, but others, such as bread, meat, and butter slicing machines, also give satisfactory results.

It was noticeable that a large proportion of the lunch rooms and kitchens visited would pass with a very high mark as to sanitary conditions, although a number were seen which were not adequately screened for flies and which in general neatness left a good deal to be desired. However, these were in the minority and the general standard of cleanliness and quality of food served by most of the companies was very good, while some were models of neatness, kind of equipment, and generally efficient service. (See pl. 23.)

MENUS.

No attempt will be made in this report to deal with the nutritive values of food, since books dealing exhaustively with this subject are readily available. In most cases where a regular meal is served for men it consists of soup, meat, potatoes, one other vegetable, bread and butter, and tea, coffee, or milk. Usually on alternate days a dessert is served in place of the soup. À la carte menus may give a wide range of choice, in which case they need to be changed but little, or, if they give opportunity for only a limited selection, they should be sufficiently varied from day to day to avoid monotony. The energy requirement of women being somewhat below that of men a simpler luncheon will usually be found sufficient for them. Some companies employ a dietitian, and there is no doubt that a knowledge of food values on the part of the one in charge is of decided benefit.

RESTAURANT EQUIPMENT.

The plan and equipment of a company restaurant seating 900 persons follows. As the restaurant is located on a shop floor, it has the same finish as other floors—brick walls and wooden ceilings—the only difference being that the lighting is the same as in the offices—semi-indirect. The officers' dining room is paneled in dark oak.

The tables in the employees' dining room are of wood, with white opaque glass tops. The chairs are bent-wood with fiber seats. There are two entrances, the employees forming a line at each, leading to the serving counter. After the food has been selected, checks are punched and the cashier is paid when the employee leaves the dining room. In the officers' dining room the serving is done by five waitresses. The restaurant is open for an hour twice daily, at noon and in the evening. There are 45 people employed in the restaurant—5 cooks, 3 helpers, 5 counter-men, 6 bus boys, and 5 cleaners, the remaining 21 consisting of clerks, cashiers, waiters, etc. (See pls. 24 and 25.) The stock of dishes, cutlery, etc., is



PLATE 23.—TWO-WAY CAFETERIA SEATING ABOUT 1,400. NOTE TABLE PLATFORMS FOR WATER COOLERS, GLASSES, ETC., WITH BASKETS OF KNIVES, FORKS, AND SPOONS HANGING BENEATH. KITCHEN BEHIND SERVING COUNTER. SEVERAL TABLES FOR WAITRESS SERVICE IN CENTER.



PLATE 24.—COMPANY RESTAURANT; WHITE OPAQUE-GLASS TABLE TOPS.

sufficient to serve 900 at one time. The usual individual cafeteria service comprises a tray, meat and potato plate, pie plate, soup bowl, cup, dessert or extra vegetable dish, butter plate, paper napkin, teaspoon, soup spoon, knife, and fork.

The following list is complete as regards fixtures, labor-saving devices, kitchen utensils, and ranges:

KITCHEN AND DINING-ROOM EQUIPMENT.

4 counters.	41 ice-cream cans.
8 coffee urns.	2 cream scoops.
3 show cases.	13 ice boxes.
6 tray supports.	1 ice chopper.
1,290 aluminum trays.	5 ice picks.
2 cash registers.	2 pairs ice tongs.
4 punches.	5 cutlery racks.
2 cypress cabinets, 25 feet by 16 inches.	8 racks (wooden).
2 copper tanks, with faucets, 18 by 24 inches.	1 rack (metal).
1 electric grill.	2 pan racks.
3 ovens (steam warming).	9 sinks.
1 oven (steam proof).	4 dish pans.
2 gas ovens (portable reel).	3 balance scales for baker.
3 gas ranges (1 14-burner and 1 60-burner).	1 can opener.
2 refrigerators.	1 cabbage cutter.
1 broiler.	3 carving boards.
1 fish board.	2 metal mixing bowls, 24 inches diameter and 19 inches deep.
1 fish chest.	1 dough cart.
1 express wagon.	1 grinding wheel.
3 meat choppers.	2 hatchets.
2 meat cutters.	2 laundry baskets.
1 meat hook.	18 mops.
1 meat block (chopping).	4 mop squeezers.
8 ice-cream tubs.	2 mop wringers.
14 ice-cream containers.	6 garbage cans, 18 by 26 inches.

LABOR-SAVING DEVICES.

3 electric dish-washing machines.	1 bread cutter.
1 dough mixer.	1 butter cutter.
1 paring machine.	

COOKING UTENSILS.

1,200 pie tins.	13 strainer ladles.
185 bread pans with tops.	2 strainers.
20 cake pans.	2 cone strainers.
29 pans.	14 tin scoops (small).
19 agate pans.	17 dippers.
130 baking pans.	1 cruller pan and wire, 18 by 7½ inches.
10 frying pans.	23 steam pans.
4 flange covers, 24 inches diameter.	15 steam pots.
8 covers.	9 preserving pots.
30 covers for steam pans.	1 milk measure (1 gallon).
2 flat strainer ladles.	2 funnels.
34 dipper ladles.	3 mixing paddles.

6 collanders.	1 tea kettle.
2 dough beaters.	5 coffee strainers.
23 large spoons.	44 tea strainers.
1 wooden shovel.	3 agate pitchers.
2 flour sieves.	5 pie carvers.
4 pails.	

Somewhat different equipment from that just described is that of a steel company's restaurant which is open continuously throughout the week except on Sunday. The restaurant seats 450 at one time. It has long tables with wood tops, stationary stools, and concrete floor. The cafeteria counter serves a double line. An average of 30 employees is necessary to the operation of the lunch room. Their work is so arranged that the majority are free for service in the lunch room at meal times and between times they are employed on various kinds of work, such as preparing vegetables, cooking pastry, and general kitchen work. There is a chef on each shift to take care of short orders, which are served only in the morning and evening, and to supervise the cooking of the regular meals. One checker serves for the two lines, and the cashier's desk is located at the exit. Payment is made by cash or coupon. These coupons are 5 cents each and can be obtained in \$2 or \$5 books. They can be drawn in advance of pay day up to the amount that the employee has due him at the time of purchasing the book.

The following is a list of kitchen equipment and cooking utensils:

KITCHEN EQUIPMENT.

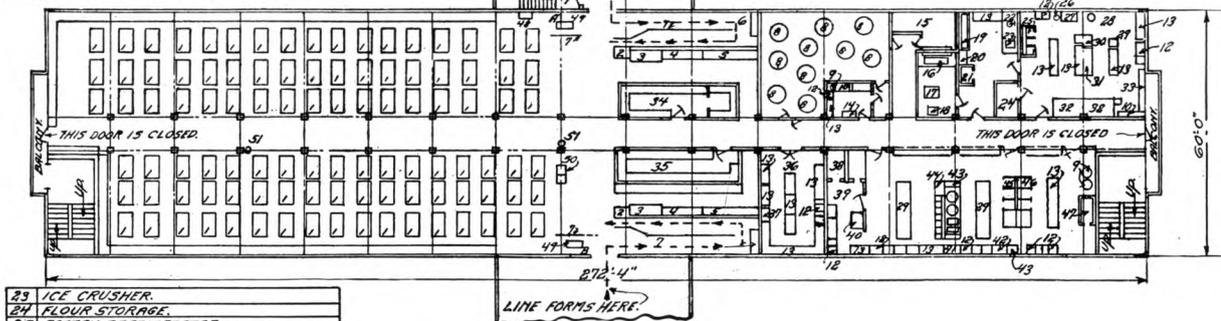
1 meat block.	1 gas broiler, 42 by 16 inches.
1 block set, kitchen, 20 by 3 feet.	1 gas hot-cake griddle, 34 by 18 inches, 8 burners.
2 refrigerators.	2 steam tables.
1 vegetable steamer.	1 dish heater.
2 steam roasting pots.	2 coffee urns.
1 steam stock pot.	
3 gas ranges.	

COOKING UTENSILS.

1 20-gallon aluminum soup kettle.	2 large vegetable steamer pans.
1 10-gallon aluminum soup kettle.	1 arm French fryer.
2 5-gallon aluminum stewers.	1 flat dip grease fryer.
1 3-gallon aluminum stewer.	6 large frying pans.
1 1½-gallon aluminum stewer.	8 small frying pans.
3 aluminum oyster stewers.	8 dairy pans.
2 5-gallon galvanized-iron stewers.	6 pudding pans.
2 1½-gallon galvanized-iron stewers.	8 large baking pans.
2 3-quart galvanized-iron stewers.	8 small baking pans.
1 15-gallon galvanized-iron stock pot.	48 large iron spoons.
6 iron roast pans (large).	3 large egg whips.
4 iron roast pans (small).	1 1½-gallon ladle.
1 galvanized-iron mixer.	8 ladles, assorted sizes.
6 dish pans.	4 large steam-table pans.
2 small vegetable steamer pans.	10 small steam-table pans.

INDEX	NAME OF PART.
1/2	
1	TABLE (6'0" X 3'-6")
2	CHECKERS TABLE.
3	URINS.
4	COLD DISHES.
5	STEAM TABLE & WARMER.
6	TABLE FOR TRAYS.
7	RAIL.
8	OFFICIALS TABLES. (5'0" DIA.)
9	URIN.
10	COUNTER.
11	DISPLAY REFRIGERATOR.
12	SINK.
13	TABLE.
14	GRILL.
15	MANAGERS OFFICE.
16	BRIDE TANK.
17	COMPRESSOR.
18	MOTOR 15HP.
19	ICE CREAM REFRIGERATOR.
20	WASH TANK.
21	STOCK ICE REFRIGERATOR.
22	ICE CREAM FREEZER.

INDEX	NAME OF PART.
1/2	
32	QUEEN
33	BARBECUE.
34	PERISHABLE STORES.
35	DRY STORES.
36	DISH PASTRY.
37	DISH WASHER.
38	REFRIGERATOR.
39	BUTCHER SHOP.
40	FISH BOX.
41	MEAT CHOPPER.
42	SOAKING TANK.
43	VEGETABLE BOILER.
44	RANGE.
45	VEGETABLE REFRIGERATOR.
46	SALAD REFRIGERATOR.
47	GARBAGE REFRIGERATOR.
48	TEL. BOOTH LOCAL & LONG DISTANCE.
49	CASHIERS DESK.
50	CONFECTIONARY CASE.
51	DRINKING FOUNTAIN.



23	ICE CRUSHER.
24	FLOUR STORAGE.
25	PASTRY REFRIGERATOR.
26	PASTRY KETTLE.
27	HOT PLATE.
28	WHIPPING MACH.
29	PAN RACK.
30	DOUGH MIXER.
31	TROUGH.

A)
B) CASHIERS.

PLATE 25.—FLOOR PLAN OF COMPANY RESTAURANT, SHOWING LOCATION OF EQUIPMENT.

LABOR-SAVING MACHINES.

1 dish-washing machine.	|	1 slicing machine.
1 lightning bread cutter.		1 potato-peeling machine.
1 meat chopper.		

A company employing about an equal number of men and women devotes a three-story brick building to lunch and recreational purposes. The men's dining room, seating about 800, and the kitchen are on the first floor; the women's dining room, which extends over the kitchen and has a larger seating capacity, is on the second floor; the third floor is used for recreation.

The lunch-room tables are 9 feet 8 inches long, 2 feet 6 inches wide, and 2 feet 5½ inches high. They seat 5 persons on a side. They are made of plain oak and have two coats of good varnish to give a wearing surface. All chairs are bent-wood with pressed fiber seats.

The cafeteria counter serves six lines at one time. A separate counter is used to serve those who bring their lunches and wish coffee or additional eatables. There are six steam tables with aluminum steam-table pots and with warming ovens under them inclosed with sliding doors. The tables on which the urns set and the ones between them and the steam tables are made of galvanized iron and have warming ovens under each. There is a 3-section dishwasher, a steel tank in which pots and pans are washed, a copper-lined tank in which silverware is washed, and 2 copper-lined sinks in which trays and glassware are washed and rinsed. Eight wire baskets are used with the dishwasher. Four square baskets are used for silver in the tank instead of the round ones usually furnished with the dishwasher. Drain boards are arranged around these. One large and two small tables are used for preparing sandwiches and for surplus pastry, etc., during the serving time. Hot water is supplied at four points near the urns from a large water heater in the basement. Trays are piled on the three stands and the counter directly back of them at the entrances to the 6 serving aisles. These aisles are separated from the others by 1½-inch galvanized-pipe rails. Two menu racks made of ½-inch-mesh galvanized-wire cloth with galvanized-iron frame are used. These are 50 inches long and 36 inches high and have 4 tiers of brass cup hooks on each side on which 22 heavy cardboard signs can be hung. The signs are 2¾ by 24 inches. The remainder of the counter equipment is as follows:

- 4 coffee urns, 10 gallons, heated by steam.
- 4 milk urns, 10 gallons.
- 1 bread slicer.
- 60 aluminum steam table pots.
- 60 galvanized-iron covers, 12 by 12 inches, with hemmed edges for the above. These are used to cover the holes in steam table when pots are removed and allow the use of the top for other purposes.
- 6 galvanized-iron covers, 12¼ by 18¼ inches, same as above.

12 tinned meat pans about 17 by 11½ by 4½ inches deep, with flange 1½ inches below the top on three sides. These are used in pairs in the steam tables and should be ordered with them.

1 ticket seller's cage to accommodate two persons.

Wooden trays are used for knives, forks, and spoons.

Salt and pepper shakers, vinegar cruet, and sugar bowl are on each table.

Nickel-plated oval trays are used by the employees to carry their food to the tables.

The kitchen is arranged to permit of cooking for 1,500 or more, as it serves both the men's and women's rooms. The ordinary kitchen utensils are much the same as those on the preceding lists. The special equipment is as follows:

- 1 potato masher and sieves, motor driven.
- 1 potato peeler, motor driven.
- 2 vegetable slicers (different sizes), motor driven.
- 1 chopper, motor driven.
- 1 coffee and meat grinder, motor driven; also have a grindstone which attaches to this.
- 1 slicer with motor.
- 1 mixing machine, motor driven, with two kettles, mixers, and whips.
- 1 dough divider.
- 1 aluminum steam jacketed kettle, 25 gallons capacity.
- 1 aluminum kettle, same as above, 60 gallons capacity.
- 3 cast-iron vegetable kettles, 40 gallons capacity, with metal baskets.
- 2 cast-iron soup kettles, 40 gallons capacity.
- 1 truck, 53 by 24 by 50 inches high, with 7 shelves.
- 1 apple parer.
- 1 No. 3 oven and one 4-section range.
- 1 pot rack about 2 feet shorter than table, suspended from ceiling.
- 2 42-inch electric fans.
- 1 large refrigerator, built in, brine piping.

The attendants required are 1 foreman and 1 woman assistant, 1 chef, 1 cook, 2 bakers, 1 pot washer, 1 stock keeper, and 1 helper. The first two work together and the last three assist in whatever capacity they are required in the kitchen when not taking care of their regular duties. One man operates the dishwasher in each dining room and one does general cleaning. Sixteen women prepare the food and arrange it and the dishes before the noon meal, serve the meal, and clean up the rooms afterwards. They also prepare and serve the evening meal. All are required to take care of about 1,500 persons at noon. At noon they are assisted on each floor by 12 girls from the factory.

The employees enter the serving aisles at the center of the three main counters, take a tray, select the food wanted, and move toward the cashiers, where they pay for the food, pass out, and go to a table. Trays and dishes are left on the tables and collected after the lunch hour. Two zinc-lined oak trucks are used when collecting dishes. The garbage is scraped into receptacles and the dishes and trays are piled on the trucks and taken to the dishwasher. The same trucks

are used to carry the food from the kitchen or other places to the dining rooms. One food carriage or truck 50 by 21 inches and 46 inches high is also used to carry pies or other pastry from the kitchen.

Tickets are printed in strips with a heading and 1-cent stubs in denominations of 10, 25, and 50 cents. They are on different colored cards and the heading of each series is numbered consecutively. They are sold by the two ticket sellers in a cage placed near one end of the room, who are the only persons who handle money and who have to file a report of sales each day. Cashiers are placed at the exit end of each of the six serving lines. They figure the value of the food purchased and tear off the equivalent number of 1-cent stubs. The cashiers are not allowed to accept money or tickets which do not have the heading, and if a complete ticket is used they must tear off the heading. This system practically does away with any opportunity for dishonesty. It is probable, even though the majority of the companies have not adopted the ticket system of paying for lunches, that this method of payment makes for quicker service and diminishes the liability of loss through carelessness or fraud.

CHAPTER V.—INDOOR RECREATION.

It is undoubtedly something of a problem to direct the recreation of large groups of employees, and it is necessary to find recreational facilities which will appeal to the individuals of the groups, in order to arouse and stimulate their interest and enthusiasm. The work of directing the amusement of the employees, moreover, is one that must be approached with care by the employer. Many firms have made little or no attempt in this direction, preferring to provide some of the more essential forms of betterment, such as emergency hospitals and lunch rooms, and to leave to the individual the question of what shall be done with his leisure hours. In some cases the distance of the plant from the homes of the workers has militated against anything of this nature being tried, or if begun, has necessitated its abandonment; in other cases the feeling that the employee would object to any interference on the part of his employer with the time which is his own has prevented attempts by the members of the firm to institute any of the various means of amusement. It is perhaps easier in this line of service work than in any other for the employer to assume a paternalistic attitude, and it would appear from the reports that this is felt by many employers who have found it wiser, in order to avoid the danger of employees suspecting such a tendency on their part, to leave the development of the recreational features to the employees themselves, with the knowledge that proper efforts along these lines will be assisted and encouraged by the company.

REST AND RECREATION ROOMS.

Heretofore rest rooms have not been considered an absolute necessity in any industry, since even the most wearing industries have been carried on from the beginning without such provision. Many of the more enlightened employers, however, are beginning voluntarily to provide such rooms, among other conveniences, for the comfort, pleasure, and well-being of their employees during the working hours. These employers are discovering that expenditures for such things have turned out to be investments paying high dividends. Rest rooms, which are used for a comparatively short period during the working day, often represent a very material cost to the employer in the amount of floor space devoted to them which otherwise might be given over to the business of the plant, office, or store. The employer is induced to sacrifice such space for a number of reasons

aside from a purely altruistic motive. In some instances these reasons are the same as those which prompt employers to maintain lunch rooms. The location of the place of work at a distance from the homes of the workers often makes it impossible for them to return home during the lunch period, or the plant is situated in a part of the city or town where the associations are such that it is desirable to keep the employees protected from them as much as possible. Banks in which large sums of money are necessarily handled by employees usually require, for the protection of the employees as well as the bank itself, that all employees remain in the building from the opening to the closing hour. In such cases, therefore, while rest and recreation rooms are not entirely a necessity, still it is of great advantage to both sides for the employer to provide a pleasant and attractive place in which the workers may spend the noon hour.

The granting of rest periods also is another reason for the maintenance of these rooms. In some instances these periods are of such short duration that the period of relaxation is spent at desks or machines. But in some establishments a long enough rest period is allowed to enable employees to make use of special rest rooms. Such periods of complete relaxation and change from the strain of monotonous and tiresome occupations have usually proven of great advantage to both employees and employers.

There is a great variety in the size and equipment of the rest and recreation rooms provided. These facilities range from small and plainly furnished rooms or a section of the dining room set aside for dancing or other recreation to large and beautifully furnished rooms with special equipment.

The following table shows, by industries, the number of establishments having rest and recreation rooms. It also shows, for the establishments from which this information was obtained, the number of employees using such rooms. It should be noted that the figures in the columns under "Total" are not necessarily the sum of the figures under "Male" and "Female," as some establishments have not reported employees of both sexes and some have not reported employees by sex; so that the "Total" columns include data not appearing in the male and female columns, and on the other hand exclude some data found in one or the other of these columns.

TABLE 5.—NUMBER OF ESTABLISHMENTS HAVING REST AND RECREATION ROOMS AND NUMBER OF EMPLOYEES USING SUCH ROOMS, BY INDUSTRIES.

Industry.	Male employees.					Female employees.					Total, both sexes.				
	Establishments having rest and recreation rooms.		Establishments reporting number of employees using rest and recreation rooms.			Establishments having rest and recreation rooms.		Establishments reporting number of employees using rest and recreation rooms.			Establishments having rest and recreation rooms.		Establishments reporting number of employees using rest and recreation rooms.		
	Number.	Number of employees.	Number.	Number of employees.	Number of employees using rooms.	Number.	Number of employees.	Number.	Number of employees.	Number of employees using rooms.	Number.	Number of employees.	Number.	Number of employees.	Number of employees using rooms.
Automobiles.....	2	16,047	2	16,047	850	7	1,294	5	1,155	692	7	34,281	5	28,992	1,842
Clothing and furnishings.....	7	1,815	2	546	175	11	12,507	4	6,759	730	11	19,239	6	13,719	1,385
Fine machines and instruments.....	4	2,896	3	2,896	285	4	7,927	3	2,896	285	4	15,871	3	11,371	265
Food products.....	5	2,280	7	2,280	907	11	7,927	3	957	907	11	15,729	3	2,096	1,646
Foundries and machine shops.....	14	45,987	7	26,967	1,212	27	7,231	24	6,481	3,311	33	107,134	27	99,615	4,396
Offices.....	4	2,316	2	2,051	340	7	2,611	4	2,278	302	7	11,213	4	5,410	642
Printing and publishing.....	3	2,945	1	2,945	50	6	3,167	1	300	30	6	9,455	2	2,762	750
Railroads, electric.....	14	57,121	3	5,575	4,505	5	792	1	100	30	14	58,036	2	2,604	1,505
Rubber and composition goods.....	2	14,810	1	1,075	195	5	3,797	3	2,650	545	5	35,163	3	19,431	740
Stores.....	21	23,138	9	11,446	5,608	44	57,527	24	30,496	21,778	44	103,461	26	58,793	30,728
Telegraph and telephone.....	14	39,774	12	30,617	30,202	7	4,825	5	4,333	1,311	7	2,752	2	1,325	1,290
Textiles.....	3	1,316	1	400	50	7	4,825	5	4,333	1,311	7	2,752	2	1,325	1,290
Tobacco and cigars.....	3	1,782	2	1,085	1,050	3	1,090	2	240	240	3	2,752	2	1,325	1,290
Other industries.....	27	57,051	7	4,672	535	54	32,307	25	11,222	2,912	56	236,990	28	40,538	4,233
Total.....	105	1,226,588	36	69,864	14,520	205	2,177,745	116	100,484	63,275	222	1,725,375	127	346,346	80,988

¹ Not including employees of 1 establishment, not reported.

² Not including employees of 2 establishments, not reported.



PLATE 26.—SMOKING AND GAME ROOM FOR MEN IN A GARMENT FACTORY. USED AT NOON.



PLATE 27.—GIRLS' RECREATION ROOM IN AUTOMOBILE FACTORY. THIS ESTABLISHMENT HAS QUIET ROOMS ALSO.

Two hundred and twenty-two companies provide a room or rooms for the use of either their male or female employees, or for both, for rest or recreational purposes. Of these 222 establishments, 127, with 346,346 employees, report them to be used by 80,988, or 23 per cent, of their employees. Out of 105 establishments in which the rest or recreation rooms provided could be used by males, 36, with 69,864 employees, report that they are actually used by 14,520, or 21 per cent, of their male employees. Out of 205 establishments in which the rest or recreation rooms provided could be used by females, 116, with 100,484 employees, report that they are actually used by 63,275, or 63 per cent, of the female employees.

In 30 establishments part of the lunch room is set aside as a recreation room, and is either used mainly for dancing or has a section with comfortable chairs, and usually a supply of reading matter. Twenty establishments permit dancing by both male and female employees during the lunch hour, and usually in the lunch room. The music in most cases is furnished by a pianola or victrola; but one company pays an orchestra of its employees to play; another company pays different employees to play the piano, and still another provides music from the outside semiweekly. One establishment has the lunch room space arranged with sliding partitions between the men's and women's lunch rooms and this, together with another section containing a stage, makes a very large room available for recreation. It is reported by one department store that dancing was prohibited because girls overstayed the lunch period, and also were too tired afterwards to do good work. The latter objection would probably not apply to many other kinds of employment where women are not obliged to stand for a major portion of the day's work.

In general these rooms are provided for the factory as well as the office force, but in two manufacturing establishments, employing 15,335 men, recreation rooms are provided solely for men in the office, and eight such establishments, with 9,537 female employees, furnish such provisions for the office women only. In 13 instances separate rooms are provided for office and factory force, but in the majority of cases the same rooms are used by both classes of employees.

There are 69 establishments, having a total of 200,607 male employees, which have separate recreation rooms for men, and of these, 31 establishments, with 68,015 male employees, report the number using them to be 13,116, or 19 per cent of the male employees. The men's rooms are usually less pretentious than the ones for women. In some cases they are very simply furnished with plain tables and chairs, and in the majority of cases the furnishings are planned with a view to having them practical and substantial rather than ornamental. (See pl. 26.) One company provides two rooms for the men. Smoking is permitted in both, but while games and good

natured noise are allowed in one, in the other, which is provided with periodicals and newspapers, quiet is maintained. The same company provides also a separate room for the boys, in which different games, a pool table, a writing desk, and magazines are supplied. All are comfortably furnished and well lighted.

In 23 cases the men's rooms are reported as smoking rooms, but nearly all of these rooms, as well as the remainder of the 69 reported, are equipped with games, such as checkers and chess, with cards, although two companies report that no card playing is allowed, often with pool or billiard tables, and with tables with newspapers and periodicals. Several establishments also furnish victrolas or pianos for the pleasure of the men.

From the nature of the industry it is necessary that some waiting place should be provided by electric railroads for the motormen and conductors who are obliged to wait, often for some time, at car barns and terminals for the beginning of their runs. These rooms are usually very comfortably fitted up with easy chairs, games, and reading matter, and often with writing materials, as well as gymnasium facilities and shower baths. Of the 15 electric railroads scheduled all but one report such provisions for the men.

Both rest and recreation rooms are frequently provided for the women. In industries where large numbers of women are employed, such as the telephone business, large offices, and department stores, there is usually a recreation room, often beautifully furnished, with easy chairs, tables with reading matter, flowers, curtains, and ordinarily a piano or victrola, and in many cases there is also a rest room, with couches and easy chairs, where the girls are required to be quiet. (See pls. 27 to 30.) These rooms generally are in charge of a matron, and in these industries are open throughout the working hours. In other industries, however, the rooms are frequently kept locked except during the lunch period.

In several instances where only a few girls are employed their recreation rooms are also furnished with gas or electric plates for making tea or coffee, so that those who bring their lunches use these rooms also as lunch rooms.

While the majority of the companies have separate recreation rooms for their male and female employees, there are 36 establishments which provide one recreation room for both sexes.

CLUBROOMS OR CLUBHOUSES.

One hundred and thirty-seven firms, with 813,904 employees, provide clubrooms or clubhouses. These range all the way from a few small, plainly furnished rooms in the plant to large and elaborately furnished houses. An interior of a clubhouse for men is shown in



PLATE 28.—GIRLS' REST ROOM IN TELEPHONE EXCHANGE.



PLATE 29.—SILENCE ROOM FOR OFFICE GIRLS IN FACTORY.

plate 31. Six companies provide club facilities for officials, superintendents, and foremen only, 1 company restricts them to members of the benefit association, 10 companies did not report as to membership limitations, and 120, with 705,674 employees, reported that the privilege of membership is open to all classes of employees.

The following table shows the number of establishments having various recreational facilities for their employees, by industries:

TABLE 6.—NUMBER OF ESTABLISHMENTS HAVING CLUBHOUSES, GYMNASIUMS, AND OTHER RECREATION FACILITIES, BY INDUSTRIES.

Industry.	Establishments having recreational facilities.		Number of establishments having—			
	Number.	Number of employees.	Club-houses or club-rooms.	Billiard or pool rooms.	Bowling alleys.	Gymnasiums.
Automobiles.....	3	24,001	2	2	3	.....
Foundries and machine shops.....	19	59,787	14	8	11	..... 4
Gas, electric light, and power.....	6	21,422	6	3	3	.....
Iron and steel.....	7	33,941	7	3	1	..... 3
Mining, coal.....	5	18,552	4	4	2	.....
Mining, other than coal.....	7	11,536	7	6	6	..... 2
Offices.....	7	13,085	6	3	2	..... 2
Railroads, electric.....	14	57,210	14	11	4	..... 4
Railroads, steam.....	8	354,525	8	7	7	..... 7
Stores.....	13	33,396	11	2	2	..... 1
Textiles.....	23	123,818	22	6	6	..... 12
Other industries.....	40	1205,236	36	19	16	..... 17
Total.....	152	2856,539	137	74	63	..... 52

¹ Not including employees of 1 establishment, not reported.

² Not including employees of 2 establishments, not reported.

CLUB MEMBERSHIP, DUES, AND MANAGEMENT.

Many of the establishments having clubrooms or clubhouses did not report as to the number of members, and many others did not report the amount of the club membership fee, but 53 establishments employing 175,770 persons reported the club membership to be 51,120, or 29 per cent of the total number of employees. Fifty-nine establishments reported as to the amount of the annual dues. These dues range from less than \$1 to \$25, the average being \$3.50 a year. Forty other establishments reported that no club dues are charged. These clubs are open to all employees and in several cases to members of their families and the entire community.

No special inquiry into the question of club management was made, but this information was furnished in 58 cases. In 23 instances the management of the clubrooms or houses is kept entirely in the hands of the company. Twenty-five firms manage them in cooperation with the employees and 10 companies allow the members to have entire control.

EXAMPLES OF DIFFERENT TYPES OF CLUBHOUSES.

There are 80 companies that have provided separate clubhouses for their employees. This number includes several cases where the house is, in a measure, a settlement house, but nevertheless serves all the purposes of a clubhouse, with a rather wider range of activities than the ordinary club, since it is not limited to the employees but is open to the families as well and sometimes to other members of the community.

Other companies, notably the railroads, have chosen the Y. M. C. A. as the medium through which their club work is carried on. In these cases, where large numbers of men are employed, the well-built-up organization of the Y. M. C. A. probably offers them the most effective means for carrying on this work. One large railroad system, in addition to its many branches of the Y. M. C. A., has a number of clubhouses maintained by various athletic associations which are fostered by the company. The company furnishes the buildings and equipment, while the running expenses are paid by the members, the dues being 50 cents and \$1 per year. In addition to the usual games, there are basket-ball and volley-ball courts and shooting galleries of an improved type. One of these clubs also has an athletic field, adjoining which is a commodious building with lockers and shower baths. This company also maintains a clubhouse at the seashore, accommodating about 60, under the direction of the Y. M. C. A. secretary, as a vacation place for the sons of its employees. The rates are nominal and the sports of swimming, surf bathing, and boating are supervised by older men. This house is reserved for girls for two weeks in the early part of the season and for wives of the employees for one week. This same company provides for a camp of its common laborers a recreation hall furnished with reading matter, cards, checkers, shuffleboard, a piano, and a phonograph.

The largest Y. M. C. A. of another great railroad system provides for its many members practically all club facilities. There is a large and excellently equipped gymnasium, with a physical director in charge, a very good library and reading room, a restaurant, and a dormitory for over 200 men, sleeping accommodations being furnished to members at a very low rate. Much social and educational work is done, many series of concerts and social affairs are arranged for throughout the year, and various classes and a good orchestra and glee club are maintained.

Still another large railroad company provides 13 clubhouses, which are not connected with the Y. M. C. A. These clubs are located, for the most part, in out of the way places, and the aim of the company is to furnish good food and lodging, a chance for baths, and also good, clean amusements to its employees. No membership dues are



PLATE 30.—COMBINATION REST AND RECREATION ROOM FOR GIRLS IN DEPARTMENT STORE. NOTE COTS IN REAR.



PLATE 31.—INTERIOR OF A MEN'S CLUBHOUSE OF THE BETTER TYPE.

charged and only such rates and fees as barely cover the cost of maintenance.

Several of the smaller railway systems do not provide the club-houses, but merely contribute to the support of the railroad branches of the Y. M. C. A. The membership fees charged for these clubs vary from \$1 to \$5 per year, according as the company contributes much or little toward their support.

A company employing over 2,000 women has a branch of the Y. W. C. A., with about 800 members, its employees composing the entire membership. Classes in music, domestic science, sewing, painting, and dancing are taught at nominal rates of tuition, and there is a well-equipped gymnasium, with a woman in charge as physical director. The classes meet in the recreation rooms of the plant. The membership fee is \$1 per year; no fees are charged for the gymnasium work. The company bears the greater part of the expenses, stipulating that the major part of the advantages offered shall be open to all girls, whether members or not. A summer cottage, under the supervision of the Y. W. C. A. secretary, is provided with accommodations for about 25 girls, and board is furnished at a very moderate rate.

Another large corporation, whose employees are of many nationalities, centers its club activities about the libraries by making liberal donations, and in several instances an officer or an employee of the company is a member of the board of library directors. In such cases the libraries are operated more as private clubs than as public institutions. The company's employees usually pay a smaller membership fee than that paid by nonemployees and a less charge is made for bowling, billiards and pool, and for the use of the gymnasium and baths. One of these libraries boasts a membership of more than 3,500, with a total attendance at games and social gatherings of 80,000 for the year, during which period 60,000 games of billiards and 12,000 bowling games were played. There were 35 basket-ball teams and 1,000 members in gymnasium classes.

Another distinctive type of clubhouse found was the "community," "settlement," "neighborhood," or "mission" house which many companies have adopted as the center of their welfare work. This type was found more often where plants had been established in outlying sections. A striking example of this kind is where what was originally intended as a kindergarten house center has developed, within a very few years, into a large and well-appointed neighborhood house (see pl. 32) with reading rooms and a free public library with books in different languages, and with the kindergarten feature still intact. In this clubhouse, classes in manual training, sewing, and cooking are conducted, as well as special classes in English for foreigners. Entertainments are given for the benefit of the

townspeople from time to time in the gymnasium and dances are conducted at regular intervals. The gymnasium is open to the public on Saturday nights for general recreational purposes, and amusement and entertainment may be found for every class; some bowl, some play basket ball, some play games, some use the library, while others dance. It is said that the attendance on Saturday nights ranges from three hundred to six hundred people of all ages, drawn from a community of 6,000 inhabitants of various nationalities. That the company has succeeded in cultivating a taste for clean, healthful, and protected amusement is evident from the fact that there is not a commercial dance hall in the town. In connection with this clubhouse are to be found playgrounds with tennis courts, swings, and various out-of-door games, all free to the people of the town, with the gymnasium instructor in charge during the summer months.

In this clubhouse, the advantages of which are entirely free to all, practically all of the employees and townspeople meet on terms of friendship and equality, which is rather remarkable, since many nationalities are represented. In striking contrast to this are some of the mining communities in Arizona in which the common labor is chiefly Mexican, where companies provide very good clubhouses for their American employees, but make no provision for the entertainment of the ordinary laborers. The club dues in some of these cases are in themselves prohibitive, being as much as \$25 per year. Some mines in other sections of the country report that the clubhouses are open to, and are used by, all classes of white employees.

One company with many Negro employees has a club, run on the principles of the Y. M. C. A., but financed and managed by the company, in which club facilities are provided on separate floors of the club building for the colored and white employees and their families.

Another company employing about 2,400 men has three clubs, one for American employees, one for foreigners, and one for the Negro employees. The first club began in a small way, but has outgrown two buildings, and now occupies a well-equipped clubhouse. The club holds many entertainments and excursions and encourages athletics, having good baseball, basket ball, and bowling. Club dues are 25 cents per month, 40 per cent of which goes into the club's benefit fund. This fund is used for special or emergency needs among the members. The club also makes it a rule to help the needy at Christmas and other times. The foreigners' club is under the supervision of the welfare secretary, and through it the foreign workers have gained a better idea of American ideals. The club for Negro workers is conducted along the lines of the first club and a majority of the colored employees are members.



PLATE 32.—NEIGHBORHOOD HOUSE, THE CENTER OF THE CLUB ACTIVITIES OF ONE COMPANY TOWN.

Another clubhouse, in the nature of a general recreation building, was erected by the company at a cost of a quarter of a million dollars, for the free use of all the people in the town, which has a population of about 8,000 and is located in a section remote from any large city. The building is a brick and stone structure of three stories and contains rest rooms, billiard and pool rooms for adults and children, gymnasium, bowling alleys, plunge and shower baths, library, and theater. No charge is made for the use of any part of the building, except the theater, where a 10-cent show is given daily except Sunday. The theater is said to be very popular, the attendance being about 20,000 per month.

The swimming pool is constructed of white tile, and is 25 by 75 feet, the depth of the water ranging from 4 to 9 feet. The water is filtered, disinfected, and warmed. It is changed once a week. The plunge is patronized by approximately 2,000 people per month, the number of the men, women, boys, and girls being about equal. There are six bowling alleys, which are kept well polished and which are equipped with automatic pin setters. Some 3,000 people use these alleys each month and tournaments are carried on throughout the winter. The pool and billiard rooms are equipped with seven tables, four for adults and three for children, and are used by 5,000 people per month. In the main rest room of the building are to be found card and chess tables, and ample room for lounging.

It is more often the rule than the exception, in the case of southern cotton mills, that any welfare work that is attempted is done through the "settlement" or "mission" house or through the school or church, which is established, taken over, or fostered by the mill owner. In one instance of this kind the "mission house" is mainly supported by several mills and is the center of industrial betterment for the entire community. In this mission a large hall, which is used for kindergarten work in the morning, is provided for club meetings. There are also a chapel, a library, a domestic science room, shower and tub baths, and playground apparatus in the large yard about the mission. A training school for settlement workers is conducted here and the "mission" has charge of the hospital, where, it is said, employees and members of their families are charged a weekly rate of less than one-third the rate charged others.

In a few instances the club work of the mills is carried on through the Y.M.C.A. and in others no intermediary is employed, but the work is administered directly by the company and the employees. From the fact, however, that the majority of the cotton mills in the South form isolated communities, and also that the workers are recruited from all branches of the family, the work is necessarily more in the line of family work than of ordinary club activities.

The head of the firm of one large factory in New England presented a very beautiful and commodious clubhouse to his employees. The house has bowling alleys, smoking and lounging rooms for men, clubrooms for women, a large general recreation room, and a music hall, with stage, so constructed that it may be inclosed and heated in winter, but in the summer may be opened up to form a roofed-over summer garden. In connection with the clubhouse is an athletic field of 13 acres, which can be flooded in winter for skating. Club membership is open to all employees and members of their families and about one-third of the total number of employees belong to the club. The dues are \$2 a year and the government of the organization is in the hands of a board of directors, the majority of whom are elected from the rank and file of the factory workers. This club is located close to the factories so it can be used at the noon hour.

Another club, which is composed entirely of men, is a very live organization. It is open every day from 9 in the morning until midnight, and while it is not close enough to the factory to be used during the factory hours, it is used by practically all employees at other times. Each male employee automatically becomes a member after working one week for the firm; there are no club dues and only small fees for bowling and pool are charged.

The clubhouse is open to woman employees and members of families one evening a month. This club manages an unusually successful savings and loan department. The control of the club is in the hands of the employees, who elect their own officers by secret ballot.

Another company with about 2,900 employees has donated to its force an excellent, large clubhouse. (See pl. 33.) With the exception of one representative of the management on the board of governors, it is managed by the athletic association, which has a membership of about 2,000. Two hundred of these are outsiders, it being a provision of the club rules that outsiders may belong to the club, but that they may never form more than 25 per cent of the membership. The annual dues are \$1. Many acres are devoted to athletics, baseball, football, cricket, field sports, and tennis, and there is also a fine shooting range. At a recent annual field day 10,000 persons assembled for the events.

One street railway company with about 10,000 employees has a clubhouse at one of its terminals, which while plainly furnished meets the needs of the men and is very generally used by them. It has a billiard room, bowling alley, gymnasium, tub and shower baths, lockers and electric clothes dryers, a reading room, restaurant, and auditorium.

It is a fact of some interest that of the many clubhouses and rooms for men which were visited only two cases were found where liquor was sold to the members.



PLATE 33.—CLUBHOUSE PRESENTED TO THE EMPLOYEES OF A LARGE COMPANY. THREE HUNDRED ACRES OF LAND. DUES OF \$1 A YEAR ENTITLED TO ALL PRIVILEGES.

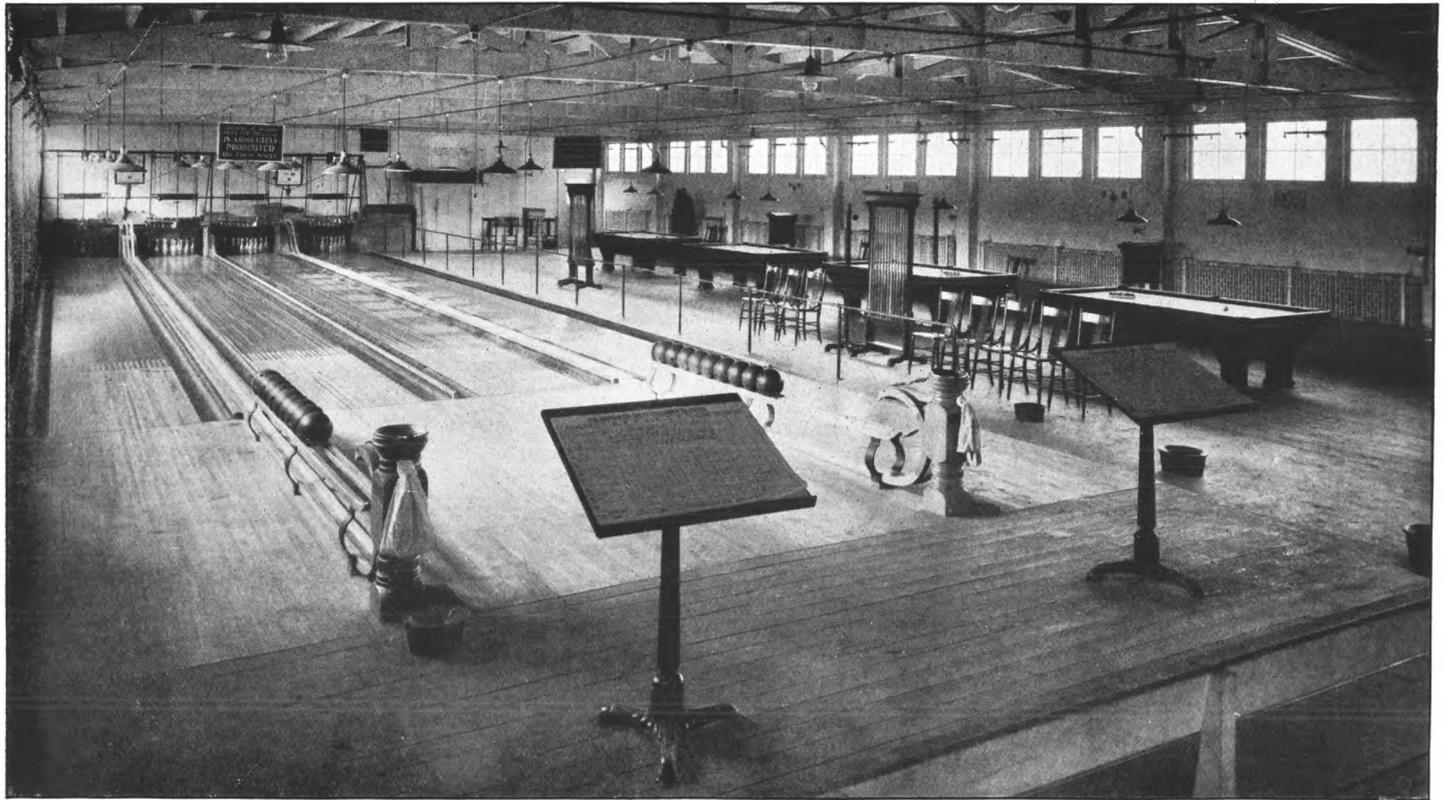


PLATE 34.—GAME ROOM OF AN AUTOMOBILE PLANT.

One company with many mining camps establishes clubs only when the people of the community ask for them. Usually an old building is remodeled and equipped by the company and the club is financed until such time as it becomes self-supporting. A board of governors is appointed from among the employees who are interested in the betterment of the town, and the management left entirely in their hands. The dues are usually 50 cents a month and the families of members also enjoy the privileges of the clubhouse.

There are a number of firms which maintain country clubs or summer camps for their employees, but since, in most cases, these clubs are maintained for the purpose of providing means for outdoor recreation they have been treated in the chapter on "Outdoor recreation." (See pp. 87 to 93.)

CLUBHOUSE HOURS.

According to the reports received as to the hours that the clubrooms are kept open, the time ranges from an hour at noontime and a short while in the evening at a few clubs, to the entire 24 hours of the day at others. On this point, however, the establishments reporting may be placed in two groups—those that open early in the morning and remain open until late at night, and those that do not open until some time in the afternoon, but are usually open in the evening. There are 66 establishments in the former class and 22 in the latter. The remaining 49 establishments did not report as to the hours the clubrooms are kept open.

BOWLING ALLEYS AND GAME ROOMS.

Of the 152 establishments having one or more of the features included under clubs, etc., 94 provide pool tables (sometimes referred to as pocket billiards) or bowling alleys; 31 of these provide pool tables only; 20 provide bowling alleys only; while 43 provide both pool tables and bowling alleys. (See pl. 34.) Some of the pool rooms were found to be in connection with the rest rooms. This was especially true of the street railway companies, many of which provide pool tables in the employees' waiting rooms. In addition to the number of establishments mentioned above, several street railway companies reported that pool tables are to be found at most of their car houses, but did not state the number of barns.

Quite a few of the companies make no charge whatsoever for pool playing, and of those reporting on this point, only one charges as much as 5 cents per cue, the other rates ranging from 1 to 2½ cents. In other establishments the charge is 10 to 30 cents per hour. The fees at the bowling alleys are correspondingly low.

As to the extent to which employees take advantage of the pool-room privileges, one company, employing 2,815 people, reported that

14,209 games were played during one year. Another establishment, with 2,600 employees, which has provided two Y. M. C. A. buildings, reported that the pool room at each is used by 200 employees daily. Still another, having 2,370 employees, said that nearly 5,000 per month used the pool rooms.

Reporting on the number using the bowling alleys, one establishment having 12,600 employees made the statement that 125 use the alleys daily. Another with 2,370 employees said the alleys are used by 3,000 per month. Still another said that 276 persons had played 17,392 games in one year.

It is owing to the fact that careful records of the numbers using these facilities are seldom kept that such very incomplete reports on this point were secured. Reports were given, however, in a sufficient number of instances to indicate that such means of amusement are much used and appreciated.

SWIMMING POOLS.

Of the 137 establishments having clubrooms, 41 have provided baths or swimming pools. In 27 of these the pool is inside the clubhouse, in 13 establishments outdoor swimming pools are found, and one establishment did not report the location of its pool.

Among the comparatively few establishments reporting as to the numbers using the swimming pools, one, having 2,370 employees, said its indoor pool was used by 2,000 in a given month; another, with 2,815 employees, reported that the pool was used by 3,713 in one season; still another, having only 748 employees, said that 1,580 used the pool in one month. One concern, with 1,708 employees, said that its outdoor pool was used by 200 persons per day during hot weather, and another establishment, with 6,681 employees, that has an outdoor pool convenient to the homes of many of its employees, reported that 102,000 had made use of it during the season. This pool is very large and well constructed and there are very good bathhouses with showers for men and women.

Most of the reports, both as to indoor and outdoor pools, stated that the water is changed once, or, in some cases, twice a week, and in one or two instances it was reported that a continuous flow of water is supplied.

GYMNASIUMS.

Fifty-two establishments, with a total of 535,107 employees, were found to have provided gymnasium facilities for their employees. These places for exercise vary from small rooms with simple equipment to large and well-equipped rooms or buildings, with instructors in charge. Quite frequently, as a means of saving space, the auditorium, either in plant or clubhouse, has gymnasium equipment, thus securing double service for the one room.

In a few instances companies have separate gymnasium buildings. One company employing several thousand people has built a very complete gymnasium for its office employees, with squash and hand-ball courts, and exercise room. There is a large swimming pool having a continuous flow of filtered and warmed water and rooms with shower, needle, and electric-light baths. This gymnasium is in charge of three instructors and classes are held alternately on employers' and employees' time.

Another company equipped a gymnasium very completely and turned it over to an association of employees to manage. A very competent instructor was engaged and a nominal fee for membership charged. There was not, however, sufficient interest shown to warrant retaining the instructor, and the result was an almost complete waste of space and valuable equipment.

Still another company has an excellent athletic field and grand stand, with a gymnasium and lockers and showers, as well as club-rooms for the athletic teams.

In addition to the 52 plants mentioned above, several companies which do not have gymnasiums of their own make it a practice to pay part or all of the membership fees in the Y. M. C. A. and Y. W. C. A. for those of their younger employees who wish to take the courses.

Basket-ball courts were found at 50 establishments. In quite a few instances outdoor courts were found, but in most cases these courts are in the clubhouses or gymnasiums, where, as a rule, no fees are charged beyond the club dues. In some cases the companies provide uniforms and equipment.

Not a great many of the 52 establishments having gymnasiums reported as to the number using these accommodations, but it would seem from those which did report that they are usually used by only a small proportion of the employees. Fourteen of the 52 plants report that no fees are charged for the use of the gymnasiums; one establishment, having 15,000 employees, reports a charge of \$5 per year and a membership fee of \$4; another with 1,200 employees charges only \$1; while the remaining establishments did not report on this point.

SOCIAL GATHERINGS.

There are 239 establishments—of which number 236 reported the number employed to be 1,170,382—which report entertainment, either indoor or outdoor or club work among employees, contributed to in some degree by the employer. In 188 of the establishments social gatherings, such as dances, banquets, theatricals, or parties are held on special occasions like Hallowe'en or Christmas. Dances, being the easiest form of entertainment and the one most generally enjoyed, of course predominate.

In the following table the establishments furnishing one or more of these features of recreation or culture for their employees are given by industries:

TABLE 7.—NUMBER OF ESTABLISHMENTS HAVING SOCIAL GATHERINGS, LECTURES, MUSIC, ETC., BY INDUSTRIES.

Industry.	Number of establishments	Number of employees.	Number of establishments having—							Out-ings.	
			Social gatherings.	Lectures.		Moving pictures.	Auditoriums.	Music clubs.			
				Safety.	Other.			Bands.	Orchestras.		Glee clubs.
Automobiles.....	5	75,114	4				1	3	1	2	5
Boots and shoes.....	4	21,180	4		2	1		3			2
Chemicals and allied products.....	4	9,163	3		1	1					3
Clothing and furnishings.....	9	8,833	9		2	2				3	1
Electrical supplies.....	5	77,733	4		2	1			1	2	2
Fine machines and instruments.....	5	15,031	4	2	4	1		3	1	2	3
Food products.....	8	13,786	7		2	1		2		2	4
Foundries and machine shops.....	28	82,742	17	7	7	4	9	8	2	1	15
Gas, electric light and power.....	8	123,268	7		3	1	2	2	2	1	6
Iron and steel.....	9	103,435	4	3	3	2	1	2			8
Offices.....	9	13,814	9		5	1	2	2	1	1	5
Paper and paper goods.....	4	6,332	4		1				1		2
Railroads:											
Electric.....	14	54,640	11	4	5		5	5	1		13
Steam.....	7	352,774	7		1	4	6				1
Rubber and composition goods.....	6	35,058	6		1				1		5
Stores.....	28	81,450	26		6	1		4	3	4	18
Telegraph and telephone.....	7	35,083	7		3				1	1	8
Textiles.....	35	38,673	27	5	7		8	15	2	1	16
Other industries.....	44	122,203	28	3	15	12	29	7	5	3	24
Total.....	239	1,170,382	188	24	70	32	63	56	22	23	141

¹ Not including employees of 2 establishments, not reported.

² Not including employees of 1 establishment, not reported.

³ Not including employees of 3 establishments, not reported.

In the many cases where the companies have provided clubhouses the club committees, with the clubhouse as a meeting place, naturally assume the leadership in social affairs, and usually the fees for club membership cover the most, if not all, of such activities. Even though there is no clubhouse provided there are many establishments in which there are employees' clubs which promote and manage all gatherings of a social nature among the employees. In many establishments these clubs are purely recreational in character; however, in 22 instances the athletic association or the benefit association has charge of the social affairs, and any surplus gained from them goes to swell the funds of these organizations.

Usually there are large rooms in the plants—either lunch rooms, recreation rooms, or auditoriums—which, with the expenditure of a little labor, can be temporarily converted into a dance hall or may be used for other amusements. Sometimes the use of such a room,

together with heat, light, and janitor service, is all that is given by the company. Frequently when no room large enough is available in the plant the firm hires a hall for the use of the employees for their social affairs. Other firms make a money contribution to the recreation club, and quite a number seek to bring all the employees together in a social way at one large affair during the year, in which case the expenses are usually met wholly or nearly so by the company. One of the street railway companies gives a free theatrical entertainment in the auditorium of its clubhouse each month, except during the summer, and each winter a vaudeville entertainment is given daily for one week in the same place, thus enabling all employees to attend some time during the week. Free tickets are given to all employees and their families and transportation furnished for all who attend. Several dramatic clubs were found which give plays, often several in a season; the minstrel show, also, is popular as a means of entertainment. Two companies presented very elaborate masques, each of which was written especially for the company giving it, dealing largely with the evolution of the particular kind of work in which each of these companies is engaged. Both of these events included many of the employees as participants and were attended by thousands of spectators.

The activities of one of the large insurance companies along these social and educational lines are centered in the athletic association and an entertainment committee. The athletic association each year, under the sanction of the company, conducts an excursion which is attended by the clerks and members of their families and friends. Each year the association gives a concert or opera in the company auditorium, followed by dancing. Aside from the orchestra, all of the participants are members of the company. For these affairs tickets are sold. Once or twice during the winter smokers are held for the men and a nominal admission fee is charged. A season's course of entertainment is arranged by the entertainment committee. These affairs, given entirely at the expense of the company, consist of lectures, concerts, and moving pictures, and are held in the afternoon immediately after the close of office. Noon-day concerts are also given twice a week by local talent in the company auditorium, which has a seating capacity of 1,000. These noon meetings are very popular. The auditorium has a grand piano, a concert phonograph, a stereopticon, and a moving-picture machine. There are various musical clubs among the employees. For the purpose of better acquaintance among employees a dinner is given each year by the company to several hundred of the men, and about 150 of the women are given a luncheon each year for a similar purpose.

AUDITORIUMS FOR THE USE OF EMPLOYEES.

Each of 63 of the companies provides an auditorium either in the plant, clubhouse, or Y. M. C. A. building. In the 14 cases in which the seating capacity was reported, it varied from 300 to 5,500; the majority of these rooms, however, seated between 400 and 800. These auditoriums usually have an adequate stage and in most cases the seats are removable so that the room may be used for dances and other social affairs. One company with about 4,500 employees has two rooms, one seating 1,500 and one 5,500, each equipped with a pipe organ and a piano. The smaller room, in addition, is supplied with a moving-picture outfit. Musicals and illustrated lectures are given from time to time, some of which are free; others are given, however, to supply funds for some charitable purpose. Many of the large department stores use their public auditoriums for gatherings of the employees, but these stores have not been included with the 63 establishments reported, because the rooms are primarily for the use of the public.

LECTURES AND MOVING PICTURES.

Ninety-four establishments report the provision of lectures or talks to employees on various subjects. In some instances the talks are quite informal, being given to the employees during the lunch period or at the close of the working period. In 24 establishments the lectures were on "safety," and were frequently illustrated with stereopticon views. Also, moving pictures were exhibited—other pictures being shown to secure a good attendance—and a short talk on the subject given in connection with the "safety" reels. In 70 cases the lectures dealt with a variety of subjects, such as health, first aid, travel, current events, technical subjects, and plant problems. Two companies report that their lectures are given on the employer's time. One of these has weekly lectures on technical subjects; the other has occasional lectures on safety and health, which are attended usually by about 1,200 persons.

One company reports starting an evening course of lectures, but as the employees were widely scattered it was so difficult to get them together in the evening that it had to be given up. Two southern cotton mills report that lectures were tried, but were discontinued because of lack of response on the part of the employees. On the other hand, most of the establishments report a good attendance, varying, of course, with the interest to the employees of the subjects presented, in some cases the attendance being as high as 1,500 or 2,000 at a single lecture.

Moving pictures are reported in 32 cases. A few of the companies have moving picture machines in the building, but more often

they are installed in the clubhouse or Y. M. C. A. building. Often where the plant is located in a small town, the moving pictures are open to the public, and pictures are shown usually once or twice a week and an admission fee of 5 or 10 cents is charged. About the only advantage resulting to the people is that a better class of pictures are shown than could ordinarily be provided for that fee. When the moving pictures are shown in the plant or clubhouse, however, it is seldom that any fee is charged.

MUSIC CLUBS AMONG EMPLOYEES.

Musical organizations such as bands, or orchestras, and glee clubs are quite numerous. Fifty-six companies report bands which range all the way from 1 of 10 or 12 pieces to organizations with 100 instruments. One company having many foreign-born employees has four bands, one of these being composed exclusively of Slavic and one exclusively of Hungarian players. The companies contribute to the bands in various ways. Many of them contribute instruments and uniforms and hire leaders and most of them provide a place for the band to practice. Those companies which make no contribution other than a place to practice have been excluded from the count, since it is probable that the value of this slight assistance is more than offset by the worth of the band to the company as an advertising feature. Sometimes these bands give concerts at regular intervals, in other cases an occasional concert is given, but usually the band plays at company picnics or outings and at other social affairs. In some cases the company pays for these services. One company having a band with 44 members has noon concerts on the lawns during the warm weather, which are attended by 4,000 of its employees. Another which has a band with 100 members provides a band hall containing a large room for rehearsals, clubrooms for cards, pool, and shuffle board, and a reading room well supplied with periodicals. Still another company has monthly concerts given by its band, to which no admission fee is charged and which are attended by about 3,500 people.

Twenty-two of the companies have orchestras and 23 establishments have choral societies or glee clubs. The companies usually pay the instructor, buy the music, and in several cases, both for bands and orchestras, the members are paid for the time spent in practice. The orchestras range in size from 10 members to 100, the majority having from 25 to 35 members.

There is but one orchestra reported having 100 members. This orchestra started a few years ago with a membership of 12. It has been so successful, under a competent director, that at present it apparently has an influence upon the music life of the city since there

is a series of concerts for the betterment of civic music given by it each year in one of the large concert halls. Concerts also are given for various large organizations in the city. The company pays all of the expenses, buys some of the instruments, and pays each member 50 cents for each rehearsal. This same company has a choral club of over 100 voices. The regular leader is an employee of the company, but a coach from outside is secured to finish preparing for the concerts, at which quite ambitious programs are presented. One large department store has a number of musical organizations. There is a large choral society, a girls' military band of about 40 pieces, a larger band of the same character among the young men, a girls' and a boys' drum and bugle corps of about 30 members each, and an orchestra of about 35 pieces. Concerts are given by these organizations in the store auditorium. One company having about 1,000 employees has them all assemble once a week at noon for chorus singing under the direction of a leader prominent as a conductor of community singing.

CHAPTER VI.—OUTDOOR RECREATION.

The motive actuating many employers who have provided club rooms or houses and the means for athletic recreation for their employees seems to be the belief that since in a large measure the success of the business depends upon the loyalty and efficiency of the employees, they are therefore entitled to recognition of this fact; and that by bringing these opportunities, usually beyond the means of the average worker, within the employees' reach, they are serving the needs which all should feel for healthful and sane recreation.

Many of the out-of-door sports undoubtedly do not make as strong an appeal to the majority of the workers as do other forms of amusement. This is partly due to the fact that at the close of the day's work many do not wish to take exercise or recreation which is physically strenuous, and partly to the fact that most of the more common forms of outdoor recreation, such as baseball, football, tennis, etc., permit of comparatively few taking an active part in the games.

The provision of athletic grounds, country clubs, and parks does serve the greater part of those employed, however, since these recreational features furnish an incentive for people to be out in the open even though not as active participants in the sports.

In a large number of plants the interest in all kinds of amusements is fostered by athletic associations, which usually include the majority of the employees as members and which frequently have the management of all the social and recreational affairs.

The interest in athletics among the employees of many companies is very keen, the various teams often belonging to city or State leagues or organizations. One baseball team is reported as being a member of an interstate league; a soccer team made up of employees of a large steel company was the winner of the world's championship; an aero club held the national championship in balloon flights for three years and secured the international championship in the last race held at Paris before the war, and the rifle club of this same company is affiliated with the National Rifle Association.

COUNTRY CLUBS.

Firms which provide country clubs or camps for their employees do so for the purpose of furnishing either a place where employees may spend their vacations or where they may go for week ends and holidays or daily for golf, tennis, shooting, swimming, etc. These country places are often situated where there are many of the natural

advantages for outdoor recreation, or if not plenty of such facilities are provided.

One company, employing several thousand people, has four clubs, two in the town and two in the country. One of the country clubs is open to others than employees and is not largely used by the factory people, but the one which is maintained for the employees and their families is very popular. Field days, attended by thousands, are held here several times during the summer. In addition to the two clubhouses, one for men and one for women, there are booths, lunch houses, an outdoor stage for evening entertainments, and a dancing pavilion. (See pl. 35.) In the women's clubhouse there is a nursery for the babies and small children.

Another country club, which can easily be reached by train or trolley, has a membership of 1,800, about half the employees of the company. Membership dues for men and women are 10 cents and 5 cents a week, respectively. It is managed entirely by the employees, the company exercising no powers except those of a purely advisory character. In addition to the usual clubhouse equipment there is a large concrete swimming pool. There are two baseball diamonds where teams representing different departments play every week end for the championship. There is a football field, a quarter-mile cinder track, and six tennis courts. This same company also conducts a summer camp for the younger boys and an athletic coach is provided for them, who drills them several times a week throughout the year. Many of the boys spend their vacations and week ends at the camp where they sleep in tents and eat at a central lodge which is in charge of a responsible man. A small charge for board is made in order that the boys may be made to feel independent.

Six of the department stores visited maintain summer camps for employees. One firm which provides a camp for its juvenile employees allows the boys and girls to go to it on alternate weeks at no cost whatever to the young people. Another camp which is much used charges for board on the basis of the employees' pay.

One large department store maintains a summer camp near the ocean for all of its employees. The junior employees, both boys and girls, are obliged to take systematic physical instruction, the boys being organized as a cadet regiment conforming to the United States regulations and fully equipped and uniformed. These cadets as part of their regular store duty are required to spend two weeks at the camp each summer. This camp is under military regulations, the boys sleeping in Army tents and spending much time in drilling and in athletic sports. Attendance at the camp for the girls and adult employees is optional with the employees, but the opportunity is much appreciated, since the management provides all possible means of diversion and entertainment.



PLATE 35.—COUNTRY CLUB FOR EMPLOYEES OF A MACHINE MANUFACTORY. PART OF IMMENSE TRACT OF NATURAL AND IMPROVED LAND THROWN OPEN TO EMPLOYEES AND PUBLIC.



PLATE 36.—COUNTRY CLUB FOR TELEPHONE GIRLS.



PLATE 37.—LIVING ROOM OF TELEPHONE GIRLS' CLUB SHOWN IN PLATE 36.



PLATE 38.—BEDROOM OF TELEPHONE GIRLS' CLUB SHOWN IN PLATE 36.

One company, employing about 1,200 women, has a beautiful country place where the girls may spend their vacations or go to recuperate after illness. (See pls. 36 to 38.) That it is extremely popular is attested by the fact that more than half of the women employees spent their vacations there last year.

RECREATION PARKS.

Several companies provide parks which are intended generally to benefit all of the townspeople and get them together in a social way. Frequently concerts by the company band are given at regular intervals throughout the warm weather and open-air moving pictures are often shown.

A very beautiful park of many hundred acres is provided by one company, not alone for its employees, although they have constant use of it, but also for the general public. For the use of picnic parties there are provided tables and benches enough to accommodate 5,000 persons. There are rest rooms, a children's playground, an athletic field with tennis court, shooting galleries, bowling alleys, restaurants, opportunity for boating, and a concrete swimming pool large enough for 2,000 people to use at one time.

In the following table the number of companies having outings or providing baseball grounds, tennis courts, or athletic fields for employees are given by industries:

TABLE 8.—NUMBER OF ESTABLISHMENTS HAVING OUTDOOR RECREATION FACILITIES AND OUTINGS FOR EMPLOYEES, BY INDUSTRIES.

Industry.	Establishments reporting.		Number of establishments having—			
	Number.	Employees.	Baseball grounds.	Tennis courts.	Athletic fields.	Outings.
Automobiles.....	5	22,881	4	1		5
Foundries and machine shops.....	29	71,566	20	16	4	15
Gas, electric light and power.....	7	23,502	6	6	1	6
Iron and steel.....	14	109,007	11	8	5	8
Mining, coal.....	7	25,054	7	2		
Mining, other than coal.....	6	11,261	3	4		
Offices.....	5	11,140	4	2		5
Railroads, electric.....	8	46,451	8	1	1	13
Railroads, steam.....	3	279,032	2	2	1	
Stores.....	18	58,461	12	8	3	18
Textiles.....	30	134,264	25	5	2	16
Other industries.....	87	² 257,773	50	34	11	54
Total.....	219	³ 950,392	152	89	28	140

¹ Not including employees of 1 establishment, not reported.
² Not including employees of 2 establishments, not reported.
³ Not including employees of 3 establishments, not reported.

Two hundred and nineteen companies, or practically one-half of the establishments for which schedules were taken, report facilities for outdoor recreation or outings which are held regularly at least once a year.

The branches of athletics provided for in many establishments comprise baseball, football, basket ball, and tennis. Less frequently are found such games as golf, cricket, hockey, and clubs for swimming, boating, and target practice. Ice skating is sometimes provided for by flooding the athletic grounds.

BASEBALL GROUNDS.

When studied as a welfare feature, "the great American game" shows its usual popularity. One hundred and fifty-two establishments, employing 815,535 persons, report having baseball grounds. In the majority of these establishments the company provides the ball grounds only, but in 38 cases the company also provides the equipment or makes cash donations to the teams. Twelve companies provide equipment only, which in most cases includes the uniforms; and half a dozen other establishments report ball teams but make no statement as to where the games are played.

One company has 10 baseball teams in one plant all of which belong to the city league. Other companies have teams in different departments of the plant, playing interdepartmental games and bringing into these games much friendly rivalry in the contests, either for the cup or prizes which the companies offer.

In several cases where companies have a number of plants the employees have formed leagues. One company had 25 teams in its various camps, forming a league, all these teams competing for the championship. For some time this company expended a large sum of money each year on baseball. It was found, however, that the superintendents were putting good ball players on the pay roll who were not good workers, and that the players were losing too much time, so the policy of the company was changed. The company now contributes \$50 annually to each ball team and helps maintain the grounds and stands.

OTHER ATHLETICS.

Tennis, basket ball, golf, cricket, hockey, and such games are patronized chiefly by office workers, although there are many companies which provide facilities for these sports in generous enough measure to be used by others if they wish. Such games as golf are of course somewhat prohibitive in themselves, since the equipment for playing is expensive and the fees for the few clubs reported would indicate that only the higher salaried employees play.

Several gun clubs are reported, for which generally an outdoors rifle range is provided. One club with a membership of about 150 has a special contest arranged about four times a year which is made a social event among the employees.

Clubs for boating are found only rarely. One company has a boat club of nearly 100 members, but this company with its fine clubhouse and 300 acres of land close to the ocean has exceptional opportunities along these lines to offer to its employees.

TENNIS.

There are 89 companies reported which provide the space for tennis courts and which in most cases keep them in good condition for playing. Frequently there are from 4 to 6 well-kept courts and in several instances the number ranges from 10 to 16. A considerable number of establishments report that no charge is made for the use of the courts, while the fees reported by others vary from 50 cents to \$4 per season, the predominating fees being 50 cents and \$1. As in the case of basket ball, when the courts are found in connection with the club no fees other than the club dues are charged for their upkeep.

ATHLETIC FIELDS.

Twenty-eight establishments provide athletic fields for the use of their employees and their families in the enjoyment of outdoor sports. In most cases baseball, football, and tennis are provided for, and several establishments have good track teams. In many cases there is a good grandstand. One company, with about 16,000 employees, has a large athletic field with a house each for the men and women. These houses are equipped with lockers, showers, etc., and have wide porches with chairs. There are 16 tennis courts and 4 baseball diamonds. An instructor in tennis playing is hired by the company, and a court is always reserved for beginners. These courts are open to the public during the hours the plant is in operation. There are eight baseball teams, and on the annual field day, when all the usual track events are scheduled, there is an attendance of about 20,000 persons.

Another large company has a federation of employees' clubs, educational as well as athletic, governed by a "central committee" composed of one representative from each club and one member representing the factory management. The company does not expect to finance these organizations so long as they can succeed by themselves, but if, for good reasons, they need assistance, the company stands ready to furnish it. A fine athletic field is provided for the employees. An unusual club is the aero club, with 40 active members. The company provides the balloon and keeps it in repair, and the running expenses of the club are provided for by dues and fees for flights.

One large steel company has provided a fine athletic field with grandstand seating 3,500 people, which has dressing rooms, lockers,

showers, and gymnasium underneath. The field has baseball diamonds, football field, and 10 tennis courts.

Another company has an athletic field of 12 acres devoted to baseball, football, and tennis. The company gives prizes to the teams and the athletic club furnishes uniforms and equipment.

One athletic association with 900 members has two baseball diamonds, two soccer fields, and a number of tennis courts. The annual membership fee is \$3, which amount the company duplicates.

FIELD DAYS.

“Field day” as used by many of the companies is a somewhat elastic term under which, in addition to the athletic events usually understood to be included, there are many amusements other than field sports which are provided for the entertainment of the employees and their families.

Reports from 19 establishments show that it is the custom to hold an annual field day and at one establishment employing more than 25,000 people this outing is held twice a year. While only eight of these companies reported as to the attendance, the interest manifested in such events is shown by the fact that in the eight plants there were 40,100 employees and the total attendance on the eight field days was 35,650.

ROOF GARDENS.

Roof gardens for the use of employees are provided by 23 companies. The recreational facilities provided here are necessarily mainly in the line of outdoor sports. One large department store has three tennis courts and two basket-ball courts in wire cages, as well as two running tracks; one very large office building has tennis courts; another has an athletic cage on the roof; and still another in addition to seats and walks has two places screened off for handball, one for men and one for women. Many of the roof gardens are very attractively furnished with plants, easy chairs, hammocks, and swings, and with awnings, so that they are very cool and comfortable places to spend the noon hour in summer.

OUTINGS FOR EMPLOYEES.

One hundred and forty firms have outings for employees, to which they make some material contribution. These picnics or excursions are often attended by practically the entire working force and their families as well. Often in very large plants each department of the plant holds its picnic independently. The numbers attending many of these annual outings are very large. Two companies report that about 20,000 attend the company picnic and another has an attendance of 12,000, for which the company pays the transportation

and gives the prizes for the games. One company with about 15,000 employees has abandoned the annual picnic because it had grown to unmanageable proportions, and in place of it closes the plant for one day each summer and gives \$1 to each employee. For a picnic attended by 8,000 persons, one firm pays the transportation; for another attended by about the same number all the expenses are paid by the company, and for one with an attendance of 7,000, refreshments and prizes are furnished. In some cases where amusement parks are used for these outings the companies distribute tickets for the various amusements to each one who attends. One company furnishes transportation and the free use of park amusements to employees and their families, and also prizes, aggregating about \$100 in value, to the children.

A mining company has an annual celebration, attended by about 6,000 people, which is rather unique in that it combines practically the entire community work of the company. The primary purpose of the meet is to give a demonstration of the first-aid and mine rescue work, in which the various teams compete for the Red Cross medal and certificates and for the cup given by the company. In addition to these drills, however, there are parades, an exhibition of the work of the schools, folk dancing in the native costumes of those participating, concerts by the two company bands, baseball games, and athletic contests. Another firm, which has an outing which is largely attended, turns its management over to an association of the employees. The company pays for the grounds, prizes, and transportation, and the control of the amusement concessions is given to the girls' club, which receives the profits for its welfare fund.

Not until there was a practically unanimous desire evidenced by the employees of one steel mill for an outing was the matter taken up by the management, but since then an outing has been had each year. Committees of the shopmen have charge of all the arrangements and the firm ascribes the great success of these annual affairs to this fact. Much of the success of these outings seems to be due to the fact that they are nearly always managed in a democratic way. This, and the fact that the expense attached is usually so slight as to make it possible for all to attend, contribute to make them one of the most popular forms of recreation found among the companies visited.

CHAPTER VII.—EDUCATION.

Systematic attempt is made by many firms to improve the general intellectual condition of their employees as well as to develop the powers of many individuals who, having been obliged to go to work early in life, lost the opportunity to fit themselves for higher places than those they have been thus forced by circumstances to fill. The educational and cultural opportunities offered to employees take the form of libraries and reading rooms, and of classes and lectures.

When it is considered that an army of 1,000,000 14-year-old children leaves school every year and that a large number of them have not completed the work beyond the fifth or sixth grade, it is evident that employers must accept as part of their responsibility the provision for further education, unless these young people with a minimum of education are to become a handicap to the prosperity of the country. While there is evidenced a decided interest in this work on the part of employers as shown in the reports obtained by this bureau and in the list of members of the National Association of Corporation Schools, still when the small percentage who are reached by the classes is considered it is evident that this is a problem which is as yet only partially solved.

COMPANY LIBRARIES.

There are 99 establishments reported which provide the books in the library, the necessary space for them either in the plant or a separate building, and the attendants. Of these 99 establishments, 57, with about 210,000 employees, report the total number of volumes in these libraries to be approximately 190,000.

The following table shows the extent to which these advantages are developed in the different industries:

TABLE 9.—NUMBER OF ESTABLISHMENTS REPORTING NUMBER OF VOLUMES IN THEIR LIBRARIES, BY INDUSTRIES.

Industry.	Number of establishments.	Number of employees.	Volumes in libraries.
Boots and shoes.....	3	16,317	1,300
Clothing and furnishings.....	1	1,652	700
Food products.....	1	1,246	2,000
Foundries and machine shops.....	3	11,405	2,875
Gas, electric light and power.....	4	18,233	11,250
Iron and steel.....	5	30,051	41,530
Mining, coal.....	1	3,500	2,500
Mining, other.....	5	17,012	79,919
Offices.....	3	10,546	6,228
Printing and publishing.....	4	5,611	6,500
Rubber goods.....	2	16,207	1,350
Stores.....	2	18,312	6,500
Textiles.....	12	8,365	10,070
Other industries.....	11	52,036	16,900
Total.....	57	209,893	189,622



PLATE 39.—READING ROOM AND LIBRARY OF BETTER-CLASS SETTLEMENT HOUSE.



PLATE 40.—READING ROOM IN FOREIGNERS' CLUBHOUSE IN A STEEL COMMUNITY.

There is, of course, great variation in the size of the libraries. In some instances they consist only of a few shelves of books, hardly enough to be dignified by the name of library, but generally there are at least several hundred volumes and quite a number of the libraries range in size from 1,000 to 10,000 volumes. There is one library reported with 25,000 and another with 45,000 books, the former having a number of club features—swimming pool, games, etc.—which somewhat reverses the usual order in which the library is a subordinate feature of the clubhouse. In all cases where the library is very large it is open to all the people of the community as well as to the company employees.

The company libraries are housed either in some available space in the plant, or if sufficiently large, in a separate building devoted to library purposes. In those cases where the firm maintains a clubhouse for its employees the library is usually an adjunct of this feature. (See pl. 39.)

In most establishments it is not possible to secure a very accurate estimate of the number using the books, but in those libraries for which the number of books withdrawn in an average month is reported, the figures indicate that many of the employees take advantage of the opportunity afforded them.

There are very few cases where any charge is made for the use of the books and only two cases where a membership fee is charged. In those instances where the libraries are located in the clubhouse part of the regular club fees is used generally to cover a portion of the upkeep of the library. For the books from the public libraries only the usual charge for overdue books is made.

BRANCHES OF PUBLIC LIBRARIES.

Fifteen of the 99 companies which provide a library for their employees also have a branch of the public library in connection with their own. This is quite an advantage, since many of the libraries naturally are not large enough to cater to all the employees in the establishment and all the resources of the public library are thus made readily available for them.

There are 56 companies which, while not furnishing any books of their own, maintain a branch of the public library and furnish the necessary attendants. These books are usually placed in the office, recreation room, or lunch room, and while, in many cases, the rooms are found open for the withdrawal of books during the working hours they are more frequently open only during the luncheon period.

BUSINESS LIBRARIES.

Many firms provide purely technical libraries, which are not considered here because the books are used almost exclusively for reference purposes and are supplied for the benefit of the business rather

than of the individuals using them. However, the system of one company having a technical library is worthy of mention, since it results in its use by practically all of the employees. The library of 1,700 volumes comprises books on technical, commercial, and educational subjects as well as many technical magazines. The librarian makes a list each week of articles in all periodicals along the line of work of the company, showing magazine and page number, and this is sent to all departments. Employees send back the list with articles checked which they wish to see, and the magazines, which can be kept three days, are sent to them. This naturally leads also to the use of the books on these subjects in the library.

READING ROOMS.

Eighty-five of the 155 firms which have either their own or a branch of the public library also provide a reading room for their employees. In 34 of these both periodicals and newspapers are provided; in the other establishments either one or the other is furnished, usually magazines. If a fair sized library is maintained, usually the reading room is in connection with it, but in many cases a section of the recreation room or dining room is used for this purpose. There are 14 establishments having no libraries which furnish reading rooms. In plate 40 is shown a reading room in a foreigner's clubhouse in a steel community.

CLASSES FOR EMPLOYEES.

The opportunities for study cover many different branches, usually following the general lines of the business itself. Thus, iron and steel plants and foundries and machine shops may have courses in engineering, mathematics, physics, chemistry, metallurgy, mechanical drawing, and designing. Companies with many office employees give courses in stenography and typewriting, spelling, accounting, and bookkeeping. Stores give instruction in salesmanship, textiles, and advertising. Firms having many foreign-born employees provide classes in English and urge attendance upon all non-English speaking workers. A number of companies have classes in modern languages, history, elocution, and geography, while many provide domestic science classes—cooking, sewing, embroidery, and millinery—for the women in their employ.

Dramatic clubs and orchestras, glee clubs, and bands, which have been discussed in another chapter, should also be mentioned here, since they develop the ability of the individuals, and the cultural value of learning and producing good music and good plays affects not only those who participate but also those who fill the rôle of listeners.

Seventy-two establishments with about 265,000 employees reported on the number in their various classes. In these establishments there were approximately 14,200 employees enrolled as students, or about 5 per cent of the entire number employed.

TECHNICAL AND VOCATIONAL EDUCATION.

One company with about 14,000 employees maintains, with the cooperation of the local school board, a technical night school for its employees, in which about 1,000 students are enrolled. There are several departments. In the foreign department, classes are held in arithmetic and also in the reading, speaking, and writing of English. The preparatory department has classes in mental arithmetic, shop problems, composition, commercial geography, and mechanical drawing. In the engineering department, instruction is given in theoretical and applied electricity, pattern, foundry and machine shop practice, sciences, higher mathematics, etc. There is also a woman's department, giving a commercial course, domestic science, and music. A moderate tuition fee is charged; the high-school building is used, and the costs above the tuition paid by students is met by the company and the school district, the former paying about three-fourths of the deficit.

A technical school, a commercial school, and an accounting school are maintained by another large company for any employees who wish to attend. A fine laboratory is provided for the use of the students in the technical school. Classes are held on 5 evenings each week during the 25 weeks of the course and in addition classes are held on 2 afternoons for the benefit of the night workers. The lectures are given by men prominent in the various lines of work presented. The first year course is open to all employees, but the second and third year courses are open only to those who have obtained satisfactory ratings in the previous year's work. Prizes are offered to the students having the highest standing in various courses. The educational work is of such character as to receive credit in one of the great universities of the city.

A large steel company at first conducted night schools for its employees under 22 years of age but it was found that since many of the employees lacked the mental discipline which would enable them to hold themselves to their studies when physically tired only those who had reached the point of really desiring an education took advantage of the opportunity. Therefore a day school was started and each young man in the plant was placed in the school one morning or one afternoon each week, during which time he received full pay. Night employees of any age are also allowed the privilege of attending the classes. Several courses are given and four hours a week for four years are required to complete them. Diplomas are awarded the pupils on completion of a course.

The idea that the schools of the country have, in the past, proceeded along too exclusively academic lines and have not sufficiently taken into account the numbers of young men and women who must go into

industrial life, has been growing in recent years with the result that many vocational schools have been established. Following along these lines a combination of the apprentice system and the work of the high schools has been effected in a number of instances, in which the high schools unite with the factories to provide a course for students, whereby the shop takes care of the practical training of the student and the school teaches the theory. This plan is of advantage to the school as well as the factory, since it does away with the need of equipping the high school with expensive machinery. In one instance reported, several manufacturers and the public-school officials entered into an arrangement which is essentially the same as the plans of other establishments using this method of instruction. Under this plan any high-school student may elect this course and is given two months' trial. If, at the end of this time, he chooses to continue, there is a contract drawn up in which he agrees to complete the course and the manufacturer agrees to teach him the various branches of the trade designated in the agreement. The first year of the course is entirely school work; the succeeding three years alternate one week in the shop and one week in the school. The boys are paired—working on alternate weeks—so that the manufacturers have one always at work. Boys receive pay for the weeks they are at work at slightly more than apprentice rates. The high-school curriculum was so changed for these students as to give subjects of the most practical value along the line of work chosen.

Half the employees of a large banking establishment are enrolled in its educational work. The classes for the boys below the age of 18 are compulsory and are held each morning for three-quarters of an hour before the beginning of work. The subjects—penmanship, grammar, arithmetic, etc.—are such as will prepare them to fill better positions. Practical and helpful talks to develop character are also given. Employees above the age of 18 are allowed to take different courses, subject to the approval of the educational committee. Each year a certain number of college men are employed, who are trained for foreign service and are given courses in banking, commercial geography, and languages, the class work in languages being supplemented by conversation with the different language teachers at the lunch hour. While the work is for the sole purpose of training the employees in the banking business, still the large enrollment is evidence of the fact that the employees consider it of very practical benefit.

CONTINUATION SCHOOLS.

Continuation school work, carried beyond the requirements of the law, is found occasionally. One factory, in which the work is entirely piecework, pays even those employees who are above the required

school age their average piece rate for the time spent in class. One large department store gives a course in the common-school branches, together with elementary business, musical, social, physical, and military training. Part of the classes are held during store hours, but the classes for the older boys are held in the evening and a free supper is served to those who remain for them. The instruction to each member averages about seven hours a week. Pupils who satisfactorily complete the work prescribed are awarded diplomas at the closing exercises, which are held in June each year.

The southern cotton mills in many cases have night schools in the common-school branches and also classes in sewing and cooking. These classes usually have a fair attendance.

ENGLISH FOR FOREIGNERS.

Classes in English for foreigners are among the most valuable educational agencies, since this work is often the entering wedge in the Americanization of our foreign-born workers. Instruction in civics is frequently given in connection with these classes and aid is rendered in taking out naturalization papers. Without this instruction these employees often have little opportunity to learn our ways and customs, living as they generally do in communities of their own fellow-countrymen who preserve their native speech and customs. One company reports that members of these classes are paid their regular hourly rates while attending classes, whether these classes are held during the day or at night. Another firm, in order to keep up the interest in the study, has found it necessary to provide occasionally a moving picture or some other form of entertainment.

A number of companies pay the tuition fees of employees who wish to take advantage of the opportunities offered by local schools, usually stipulating that in order to receive this, the students shall either maintain a certain average of attendance or attain a certain grade in their studies.

In still other cases than these already mentioned, the educational work of the Y. M. C. A. and the Y. W. C. A. is utilized by the companies in the endeavor to improve the capabilities of the employees.

CHAPTER VIII.—DISABILITY FUNDS, PENSIONS, AND GROUP INSURANCE.

A study of the costs, management, benefits paid, etc., of establishment and trade-union disability funds was made by the Bureau of Labor Statistics and the results summarized in the Monthly Review for August, 1917.¹

In this chapter only those funds to which the employers make substantial contributions are considered. Many establishment funds were reported in which the only help extended by the firm was the use of a room for meeting purposes, some slight clerical assistance, or the promise of financial aid if a deficit should occur. These associations have been excluded from the report as being practically independent organizations. The details asked for in the study of industrial benefit associations were the percentage of the expenses paid by the different firms, the amount of dues brought to a monthly basis, the amount of the weekly sick and accident benefits, and of death benefits, the number of sick, accident, and death benefits paid, and the amount paid out in benefits in the last fiscal year.

Of the 431 establishments visited, 80 reported benefit associations which come within the foregoing requirement. The number of employees in 78 of these establishments was 673,095; two establishments failed to report the number of employees. Fifty-eight of the establishments, with 617,342 employees, reported on the association membership. In these 58 associations the membership was 550,177, or 89 per cent of the total number of employees. This is a high percentage, since in 15 of these establishments a period varying from 2 weeks to 6 months must elapse, after employment, before the individual is eligible for membership. In 12 plants membership in these societies is made a condition of employment, 16 failed to report, while the remaining 52 report that there is no rule which compels employees to become members of the association. There is no doubt, however, that in some of the establishments, while there may not be a rule to this effect, yet indirectly there is strong pressure brought to bear upon employees to become members. The following table shows, by industries, the number of associations, the membership, the classified dues and benefits, and the percentage of expenses contributed by the companies. The employees of all plants of one company in the telephone and telegraph industry have been

¹ "Operation of establishment and trade-union disability funds," by Boris Emmet, Monthly Review for August, 1917, pp. 17-36.

shown in this table, since the data furnished relates to all and not simply to those places visited, as in other sections of the study.

TABLE 10.—NUMBER OF BENEFIT ASSOCIATIONS, NUMBER OF MEMBERS, CLASSIFIED DUES AND BENEFITS, AND PROPORTION OF EXPENSES PAID BY COMPANIES, SHOWN BY INDUSTRIES.

Industry.	Establishments having benefit associations.		Benefit associations.				Associations reporting dues per month to be—				
			Establishments reporting.		Members.		Under 25 cents	25 and under 40 cents.	40 and under 75 cents.	75 cents and over.	Dif-ferent sums, ac-cord-ing to wages, etc.
	Num-ber.	Em-ployees.	Num-ber.	Em-ployees.	Num-ber.	Per cent of total em-ploy-ees.					
Flour and grist mill products.....	3	1,532	2	1,360	1,100	81	1	1	1	1	
Foundries and machine shops.....	12	54,270	9	42,180	36,065	86	2	1	9	9	
Gas, electric light, and power.....	7	118,166	4	14,131	12,875	91	2	1	4	4	
Iron and steel.....	5	53,852	5	53,852	52,397	97	1	2	2	2	
Mining, other than coal.....	3	6,549	3	6,549	4,955	76		1	2	2	
Railroads, electric.....	9	26,528	8	22,928	20,222	88	2	4	2	2	
Railroads, steam.....	2	171,318	2	171,318	155,410	91			2	2	
Telegraph and telephone.....	1	179,000	1	179,000	179,000	100	1				
Textiles.....	6	14,214	3	7,351	5,221	71	1		4	4	
Other industries.....	32	147,666	21	118,673	82,932	70	4	2	4	13	
Total.....	80	1,673,095	58	617,342	550,177	89	10	5	13	2	39

Industry.	Associations reporting benefits per week to be—				Associations reporting death benefits to be—				Establishments paying toward expense of associations—					
	Under \$5.	\$5 and under \$7.	\$7 and over.	Dif-ferent sums, ac-cord-ing to dues, etc.	Under \$100.	\$100 and under \$200.	\$200 and under \$300.	\$300 and over.	Dif-ferent sums, ac-cord-ing to dues, etc.	Under 50 per cent.	50 and under 100 per cent.	100 per cent.	Defi-nite sums, re-gard-less of prop-ortion.	No fixed sum.
Flour and grist mill products.....	1	1	1	1	1			1	1	2	1			
Foundries and machine shops.....	4			8	1	8	1		2	7	2	1	2	
Gas, electric light, and power.....			2	4		1	1	3	1	1	2	2	1	
Iron and steel.....	1	3		1	1	3		1	1	1		1	2	
Mining, other than coal.....		1		2		1		2	2			3		
Railroads, electric.....	1	3		4		2	2		2	5	2	2		
Railroads, steam.....				2					2				2	
Telegraph and telephone.....				1				1	1			1		
Textiles.....	1	1		4	1	1		4	1	2		1	2	
Other industries.....	1	1	3	17	5	2	2	2	9	7	9	3	6	
Total.....	2	11	10	44	9	18	6	8	25	23	19	8	14	16

1 Not including employees of 2 establishments, not reported.
 2 No dues.
 3 Including employees of all plants of one company.
 4 Including 8 associations in which no dues are charged.

As will be seen, the proportion of the expenses of the associations assumed by the employers varies considerably, although as already stated those companies which contribute only a negligible amount have not been considered. One company, which pays \$12,500 annually, stipulates that an average membership of at least 50 per cent of the employees shall be maintained. Another company, in addition to its contributions to the benefit association, has provided a fund of \$25,000, from the proceeds of which it cares for employees who are not eligible to join the benefit association. Still another company, not included in the count, has a fund of \$1,000,000, the income from which is used in paying accident and sick benefits. This company follows no set plan in making the awards, but considers each case on its own merits, the chief factors in determining the amount awarded being length of service and the necessities of the case.

MANAGEMENT OF ASSOCIATIONS.

The management of the benefit associations is participated in largely by employees. For those companies which reported on this subject there are 34 associations which are managed jointly by the companies and their employees, although in four of these the companies really retain control of the management, since a majority of the association officers are company officials. Fifteen associations are managed by the employees alone, in several of these the company contribution being as much as 50 per cent of the benefit fund. The eight funds which are financed entirely by the companies are, of course, administered and controlled by them. There are six funds to which employees contribute in the management of which they have no voice.

PHYSICAL EXAMINATIONS REQUIRED FOR MEMBERSHIP.

Usually in the large organizations physical examinations are reported as a requisite for membership. A fee of 50 cents or \$1 frequently is charged for this examination. In several instances the company emergency hospitals are managed by the benefit associations, and in some others the regular dues of the association cover a certain amount of medical attention. One mining company has turned over its two hospitals, equipped at a cost of about \$10,000 each, to the association, which furnishes medical attendance to the members and their families. One association has a provision, recently added to its rules, that \$100 in addition to other benefits shall be paid to any member who must undergo an operation.

LENGTH OF MEMBERSHIP REQUIRED BEFORE ELIGIBLE FOR BENEFITS.

The length of time which must elapse after becoming a member before one is eligible for benefits in the various associations is not reported by 37 of the organizations. Thirteen associations pay benefits immediately; 5 have waiting periods of five, fifteen, or twenty-one days; 12 of four weeks; 2 of two months, and 2 of three months, and only 1 has a waiting period of six months. In a few cases there is a longer period of membership required before death benefits are paid than is required for payment of sick and accident benefits. One association in which membership is compulsory has a waiting period of four weeks before one is eligible for sick benefits, and three months before death benefits are paid.

It is generally necessary for the employees of those companies which furnish the entire amount of the disability fund to give a longer period of service before they become eligible for sick benefits and before payment is made for death from sickness than is required in those associations which are partly financed by the employees. Two of the eight companies which maintain such funds did not give any information on this question. One company pays sick benefits after 30 days' service, and death benefits after 1 year, though these benefits do not apply to anyone receiving \$1,800 or more a year. Another of these companies makes employees eligible for sick and accident benefits during the second six months that they are employed, with compensation amounting to full pay for four days and half pay for eight days, the benefits increasing gradually in amount up to 15 years' service when full salary is paid for one month and half salary for six months. Death benefits are paid after six months' service. Three of the companies require one year of continuous service before sick benefits are paid. The one remaining company does not provide in its plan for any benefits for sickness under two years of service, but quite generally the plan has been supplemented by provisions for payment during the first seven days of absence for those employees of two years' service or more, and for payments after the first eight days of disability to employees of less than the required two years' service. These supplemental payments are being gradually systematized. Payments under the disability plan are graded according to length of service. Benefits for death from sickness are not paid to dependents except for five years or more of continuous service. This company, which is a great public utility whose business extends over a large portion of the United States, pays accident benefits from the date of accident even in those States in which there are as yet no compensation laws for workmen.

TIME BETWEEN BEGINNING OF DISABILITY AND PAYMENT OF BENEFITS.

The necessity of guarding against the feigning of sickness or the making of slight illness an excuse to be absent from work is undoubtedly the reason that so large a proportion of the associations do not pay from the beginning of sickness. Many of these associations which do not pay from the first in cases of sickness do, however, pay from the date of injury in accident cases, since the risk of malingering in cases of injury is not so great. Eighteen of the associations do not report the number of days intervening between the beginning of the disability and the payment of benefits. In 9 instances benefits are payable from the first day; 9 pay after three days; 2 each after four, five, and six days; 33 pay after seven days, and 1 each after ten days and fourteen days. One association pays from the first if the sickness lasts more than three weeks, another has a seven-day waiting period unless disablement lasts more than fourteen days when payment is made from the first, and still another pays nothing if disability lasts less than a week, but pays from the first if it lasts longer.

The maximum time for which benefits are paid in any twelve months is reported in all but nine cases. Seventeen associations pay benefits for a period of three months, 14 for six months, and 12 for one year, the remaining associations paying for various fractions of a year. In one association those employees who have been members of the society for ten, fifteen, or twenty years may draw benefits, if necessary, for two, three, or four years, respectively. Several associations pay benefits for a longer period for injury than for illness.

INITIATION FEES.

The majority of the associations do not charge an initiation fee, only 20 of the 78 associations reporting that this is a requirement for membership. These fees vary from 25 cents to \$2, the usual fee being \$1. The entrance fee in four societies varies according to the different classes of dues, and in one depends upon the age of the applicant.

It might be expected that charging a substantial initiation fee, especially if there were a fairly large turnover, would have the effect of reducing the monthly dues or of increasing the benefits paid, but this does not seem to be borne out by the figures as reported. One of the associations, which has a membership of over 15,000 and which charges a fee of \$2, reports the monthly dues to be 50 cents, and the benefits but \$5 a week for a period of 27 weeks. In this association the company pays 20 per cent of the dues. In the other associations which charge a fee of one or two dollars, if there is a reduction in the dues or an increase in the benefits over these figures, it seems to be due to the fact that the company pays a much larger percentage of the expenses of the association.

FORFEITURE OF MEMBERSHIP.

In nearly all cases membership is forfeited upon leaving the employ of the company, but several associations provide that employees upon terminating their connection with the company shall be paid benefits, which they may be receiving at the time, until recovery or until the expiration of the time to which they are entitled to them. In two associations, members on leaving the employ of the company may retain their association membership by vote of the board of directors. In another association, if the person remains a resident of the town and is a member in good standing at the time of leaving, or if he is a pensioner of the company, membership may be retained; while still another allows an employee who has been a member for 10 years and who does not engage in other business or occupation to retain death benefits for himself and wife by paying the regular dues.

The variation in the length of time which elapses between the beginning of the illness and the payment of benefits in the various associations results in a great difference in the proportion of employees receiving benefits and is also an important factor in the cost of the scheme since a waiting period of from 7 to 14 days excludes a large proportion of the cases.

The following table shows the establishments which reported the sick, accident, and death cases and the amount of benefits which were paid during the fiscal year of each association preceding the date of the schedule covering the association:

TABLE 11.—NUMBER OF BENEFIT CASES AND AMOUNT OF BENEFITS PAID BY ASSOCIATIONS, SHOWN BY INDUSTRIES.

[The data for the different associations cover in each case the fiscal year previous to the date the schedule was taken.]

Industry.	Sickness benefits.					Accident benefits.					Death benefits.				
	Associations reporting.		Number of cases.	Total amount of benefits.	Average amount of benefit.	Associations reporting.		Number of cases.	Total amount of benefits.	Average amount of benefit.	Associations reporting.		Number of cases.	Total amount of benefits.	Average amount of benefit.
	Number.	Members.				Number.	Members.				Number.	Members.			
Flour and grist mill products.....	1	1,000	55	\$3,451.50	\$62.75	1	2,500	334	\$2,970.00	\$8.89	1	1,000	4	\$900.00	\$225.00
Foundries and machine shops.....	1	2,500	219	5,766.83	26.33	1	2,500	349	9,266.99	26.55	1	2,500	14	1,400.00	100.00
Gas and electric light and power.....	2	2,610	1,490	10,224.27	120.87	2	2,610	1,482	24,573.83	16.58	2	2,610	17	14,250.00	838.24
Iron and steel.....	2	21,819	11,800	41,247.57	122.92	3	32,172	2,335	28,649.97	12.27	2	32,136	238	48,820.95	205.13
Mining, other than coal.....	3	4,955	2,055	51,948.19	25.28	3	4,955	2,355	28,649.97	12.27	3	4,955	42	42,729.00	1,017.36
Railroads, electric.....	6	18,871	3,442	53,178.51	15.45	4	5,105	463	4,151.74	18.28	5	18,720	109	36,891.50	338.45
Railroads, steam.....	2	155,410	59,209	881,201.51	14.88	2	155,410	21,555	412,111.90	19.12	2	155,410	1,369	714,870.28	522.18
Telegraph and telephone.....	1	179,000	18,760	959,729.00	51.16	1	179,000	10,646	7,979.00	52.41	1	179,000	214	162,961.00	761.50
Textiles.....	1	1,340	152	2,625.01	17.27	2	5,040	74	1,040.41	14.06	1	1,340	2	100.00	50.00
Other industries.....	5	5,516	963	16,198.50	16.82	4	4,706	415	5,326.40	12.83	4	4,991	35	3,150.00	90.00
Total.....	24	393,021	87,145	2,025,570.89	23.24	22	391,498	37,253	1,043,070.84	28.00	22	402,662	2,044	1,026,072.73	501.99

1 Including accidents for 1 association.
 2 Not including accidents for 1 association; included in sickness.
 3 Including accidents for 2 associations.
 4 Not including accidents for 2 associations; included in sickness.

5 Including employees of all plants of 1 company.
 6 Including accidents for 7 associations.
 7 Not including accidents for 7 associations; included in sickness.

The benefit associations have been affected in recent years in many of the States by the enactment of workmen's compensation laws and in the majority of cases the by-laws of these societies have been amended to exclude cases of injury incurred in the course of employment. Since the majority of these laws do not provide for payments for injuries the disability from which lasts less than two weeks, many of the associations provide for payments for this intervening period. In a number of instances, also, where the compensation laws have been less liberal than the provisions of the benefit associations for disability from industrial accidents, the employers have voluntarily assumed the larger payments. A number of companies also which do not contribute to the associations and which have not been included in the statistics, pay a death benefit to the dependents of employees, usually stipulating a certain length of service as prerequisite to the payments.

PENSIONS.

The establishment of a definite pension system has been a comparatively recent manifestation among employers of the belief that the worker has a just claim on those for whom he works for some provision for his declining years. It is probably true, however, that while the majority of the plans state that the pensions are granted for "loyal and efficient" service, still the fact that the provision of these funds tends toward a more stable force, toward keeping the services of the more experienced and skillful workmen who might be able to command higher wages elsewhere, and toward moderating industrial unrest generally, has its weight also in determining firms or corporations to establish such funds.

There are 75 establishments of those visited, with a total of 1,111,500 employees, which maintain pension funds and which have a definite plan which is followed in the granting of old-age allowances. The conviction that it is both desirable and necessary to provide for the many workers who are unable for various reasons to save enough to care for themselves in old age seems to be growing among employers. Of the 66 funds for which the date of the inauguration of the plan was given, 32 were established in the years 1913 to 1917, 20 were established from 1910 to 1913, while only 14 were established previous to 1910.

The following table shows, by industries, the number of establishments having pension funds and the number of employees on pension rolls, and the amount paid out in pensions during the fiscal year preceding the date of the schedule covering the establishment. The employees of all plants of one company in both the iron and steel and the telephone and telegraph industries have been shown in this table since the data furnished relates to all and not simply to those places visited as in other sections of the study.

TABLE 12.—NUMBER OF PENSION FUNDS, NUMBER ON PENSION ROLLS, AND AMOUNT OF PENSIONS, BY INDUSTRIES.

Industry.	Establishments having pension funds.		Establishments reporting employees on pension rolls.				
	Number.	Em- ployees.	Number.	Total employees.	Number of em- ployees pensioned.	Total amount of pensions.	Average amount of pension per year.
Foundries and machine shops . .	12	49,132	10	45,608	265	\$125,427.00	\$473.31
Gas, electric light and power . . .	6	25,705	4	13,670	201	96,300.00	479.10
Iron and steel	2	267,978	1	125,000	697	174,389.40	250.20
Offices	7	² 8,946	3	3,493	14	10,369.00	740.64
Ore reduction and smelting	3	² 3,315	2	² 200	156	49,275.00	315.87
Railroads, electric	9	46,775	6	32,421	148	68,305.55	461.52
Railroads, steam	7	381,595	4	307,407	4,163	1,321,297.32	317.39
Telegraph and telephone	2	² 179,000	1	179,000	284	153,360.00	540.00
Other industries	27	159,054	16	71,763	631	288,384.73	457.03
Total	75	² 1,111,500	47	² 903,562	6,559	2,287,108.00	348.70

¹ Including employees of all plants of 1 company.² Not including employees of 1 establishment, not reported³ Not including employees of 3 establishments, not reported.

CLASSES OF EMPLOYEES ELIGIBLE FOR PENSIONS.

In general the pension plans apply to all grades of employees, but there are four which exclude officials and directors, four which exclude salaried employees whose yearly earnings exceed amounts varying from \$1,500 to \$5,000, and only one which does not include the factory force. This company has about 11,000 employees, and since the plan covers only those in the office it necessarily debar from participation in its benefits many of those employees who most need such assistance. This seems to be true in a measure of all industrial pension plans since the lower paid and more unskilled class of workmen are less likely to give the continuous service necessary to the granting of a pension, and, if they do, in those cases where no minimum is established the amount is so small as to be of little practical help to the recipient. A case in point is that of one company which has on its pension rolls men receiving as little as \$3 per month.

EMPLOYEES' CONTRIBUTIONS TO FUNDS.

The majority of the funds are supported and managed exclusively by the companies. Only four of them require contributions from employees. Three of these assess the employees 3 per cent of their annual pay, and one assesses them 2 per cent, the amount contributed being returned without interest if the employee leaves the service of the company, although one firm pays 4 per cent interest if the em-

ployee is dismissed. The amount, exclusive of the initial fund, set aside by the companies each year for the maintenance of these funds, is usually a certain per cent, most frequently 1 per cent, of the total annual pay roll, or it may be a sum aggregating the amount of the pension allowances or the interest from trusts or other funds which may have been provided.

GENERAL RULES AND REQUIREMENTS.

There is a very decided similarity in many of the regulations governing the payment of pensions. The acceptance of a pension in nearly all cases does not debar the one receiving it from engaging in other work which is not prejudicial to the interests of the company. Usually a temporary absence due to illness or a reduction of the force is not counted in computing the length of service unless it exceeds six consecutive months, and most of the companies allow a break of one or, in most cases, two years in the continuity of service. Assignment of pension allowances is never permitted nor are the pensions subject to attachment for debts of the beneficiaries. Pensions are forfeited usually because of misconduct on the part of the pensioner or at the discretion of the pension board. The maximum employment age in most cases, for those reporting, is 45 years, but sometimes for inexperienced workers this limit is placed at 35 years.

The usual ages at which male employees are retired are 60, 65, and 70, by far the largest number of companies fixing this age at 65 years. For women the average retirement age is about five years less than that of men, although there are several cases where they do not become eligible for pensions before reaching the age of 70. The usual number of years of continuous service requisite for the allowance of a pension is 20, although the requirements in this regard range from 10 to 40 years. Many of the companies have several classes of service requirements, those employees with the longest required period of service to their credit being retired at an earlier age. Pensions for cases of total disability are given at the discretion of the company in many cases; in others a service period varying from 10 to 30 years is a requirement of the pension rules.

A minimum pension allowance is fixed by about half of the companies. In two cases this amount is as low as \$5 a month, but the greater number fix the lowest amount paid at \$18 or \$20 a month. The method of determining the amount of the pension is much the same in the majority of cases, the most usual method being to compute the pension on the basis of the earnings for a certain period of years. The required number of years of service and the percentage of the earnings are fairly uniform in the different establishments.

SPECIAL ALLOWANCES.

There are 53 firms which reported that while they have no pension fund or system of caring for aged employees, still provision is made for deserving cases. In several instances quite a number of persons are thus cared for, but while this may be a liberal arrangement on the part of the firm, there can be no certainty on the part of the employee that it will be continued and there is also the feeling that it is a gratuity instead of the "deferred wages" to which the employee may feel himself entitled because of his long and faithful service.

The chief objection to industrial pensions as now administered is not in the amount of pensions allowed, which in most cases is fairly liberal, but in the element of uncertainty which results from the fact that the firms universally stipulate that the establishment of such a fund does not form a contract, and that the right to discharge an employee is not affected by the length and character of the service he has rendered. There also can be no assurance to the employee that the firm may not be dissolved and that the assistance which he has confidently expected in his old age may thus be denied him.

GROUP INSURANCE.

One of the most recent evidences of the interest employers are taking in their relations with their employees is found in the growth of the group insurance idea. As in the case of the pension plan, it undoubtedly works toward more harmonious relations and toward the reduction of the labor turnover since it offers a strong inducement to employees to remain with the firm. Individual life insurance is too expensive to be within the reach of most workmen. The guaranty that, in the event of death, a sum will be paid which will be adequate to care for the family during the adjustment to the changed conditions and responsibilities must appeal strongly to that class of workmen who are unable to save anything toward the future and to those also who have reached an age where the rates would be greatly increased or who would be unable to pass the necessary physical examination.

CONDITIONS UNDER WHICH GROUP INSURANCE CAN BE PROVIDED.

The group plan can be offered to firms by the life insurance companies at greatly reduced rates since it does away with the medical examination and much of the usual expense incidental to the selling of life insurance. In order to secure a satisfactory rate from the insurance company, the employer must offer conditions of employment which measure up to a certain standard. The occupations must not be extrahazardous, sanitary conditions generally must be good, and good drinking water must be supplied. This does not offer an

obstacle in the case of most firms, for the ones most likely to wish to introduce such a plan are those which have already progressed far toward safeguarding the plant and providing good working conditions. It is evident, too, that the elimination of medical examinations is made possible through the physical examination on entrance which many companies require and through the work of the emergency hospital departments in caring for the health of employees, which results in lowering the number with serious diseases and maintaining the general health of the force at a high standard.

METHOD OF INSURANCE.

The method of insuring is to issue to the company a blanket policy which covers the entire group to be insured. The insurance company has a list of the employees included, with the age of each and the amount for which each is insured. A certificate is given to each individual which names the beneficiary, the amount of insurance, and also gives the conditions under which it will remain effective. Naturally the employee's eligibility to the plan ceases upon leaving the employ of the company, but several of the plans allow the employee to continue his insurance at the regular rates, about the only advantage being that he does not have to take the medical examination, with perhaps the consequent increase in the premium.

COST AND SCOPE OF INSURANCE PLANS.

There are 32 firms, with a total of 136,318 employees, which report that a part or all of their employees have been insured under the group plan. The largest number of these plans cover all employees, but some limit the plan to include those with a stated length of service to their credit. This service is for periods varying from 30 days to 2 years. One large company had insured only its day laborers of one year or more of service, although it was planned to extend the insurance to other groups as fast as possible. Three companies make eligibility for life insurance contingent upon membership in the relief association, and still another company insures all below a salary of \$4,000. One company, which insures only foremen and clerks, has an endowment feature which takes effect upon the employees reaching the age of 65.

Most of the companies pay the entire cost of the insurance scheme, but two of the companies pay 50 per cent, and another pays all after five years' service, while those in the employ of the firm from one to five years are assessed according to their length of service. This has not worked out very satisfactorily, as those to whom it is free are ready to avail themselves of it, but comparatively few of the others have done so. One company which pays half of the costs has insured under the "term" plan. This differs from the ordinary

group plan in the respect that the policy is renewed each year and that the premium increases from year to year as the employee grows older. The plan of this company, as well as of several of the others, carries a disability clause, agreeing to pay for total disability incurred before the ages of 60 or 65 are reached. Only one company is reported as making a rule that joining a labor union or participating in a strike invalidates the claim for insurance benefits.

The plans in force vary somewhat in the extent of the provisions. Probably the most equitable and most satisfactory in its working out is one where the equivalent of one year's salary or wages, with, of course, a maximum limit, is paid in installments. This takes into consideration automatically any change in the employee's wages and provides for the family a year's income on the same basis to which they have been accustomed. This plan has been adopted by a number of the companies. Several of the plans provide for the payment of a fixed sum, these sums varying in the different establishments from \$200 to \$1,000, and still others for the payment of sums varying with the years of service until the maximum is reached, which is \$1,000 in most cases, but which is as high as \$2,500 in several instances.

CHAPTER IX.—ENCOURAGEMENT OF THRIFT.

A variety of methods are made use of by employers in the endeavor to inculcate in their employees habits of economy and thrift. These plans include savings and loan funds, building funds, cooperative buying, vacation and Christmas savings funds, discounts on purchases, legal aid, and advice as to investments and expenditures. Profit sharing and stock ownership were not considered, since they had been covered in a recent investigation by this bureau.

One hundred and eighty-eight firms are reported as aiding the employees in one or more of the ways mentioned. Only a small proportion of the firms reported on the number reached, since records of some of these methods of assisting employees are not in all cases kept, and if kept are not always readily available. There were 90 savings and loan funds reported; in a few cases as many as 40 or 50 per cent of the employees were depositors. In one case the number represented 65 per cent. The companies do not always invest the funds, sometimes merely acting as agents of a bank for the convenience of the employees, who frequently might not take the trouble to deposit the money if it were not made so easy for them to do so. When the company acts for the bank, only the local rate of interest is paid; but when the company is sufficiently interested in the encouragement of saving to invest the money itself the interest, as reported in different cases, varies from 4 to 8 per cent. In only one case does it go higher, and here from 9 to 10 per cent is paid. At the end of each fiscal year this company returns the deposits, with interest, to the employees, who may, if they desire, deposit them in the permanent fund, which pays 5 per cent and is similarly guaranteed by the company. This fund has about 30 per cent of the employees as depositors.

Another company, which deposits the funds with a trust company, supplements the 3 per cent interest paid by the bank with an additional 3 per cent. Most establishments did not report the amount of deposits, but there were three reported which had deposits annually of about \$40,000 and one of nearly \$80,000. The others were of smaller amounts.

One company after five years' service by an employee pays 5 per cent of the employee's earnings for the year to his credit at the bank as a reserve fund. This fund can not be drawn upon for six years, and if then drawn out two years must elapse before accumulation begins again. In case of discharge all the amount credited the employee is paid; but if an employee leaves of his own accord the company has the option of paying all or only half of it. In case of

disability the employee may draw upon the bank account, and in case of death the full amount is paid to his legal representatives.

Another company presents a bank book with a deposit of \$25 at Christmas to each employee who has been in the factory six months or more. The following November the employees present the books and the company adds one-half of the additional amount shown to have been saved.

Deposits in the savings fund to the credit of the individual depositors, equal to one-half the deposits made during the year, are made by another company in the case of all employees except those retired during that time for incapacity. The employees' deposits may be withdrawn, but those of the company must remain in for 20 years.

VACATION AND CHRISTMAS SAVINGS FUNDS.

It is sometimes easier to interest employees in saving for a definite object, such as a vacation or Christmas giving than to rouse their interest toward saving for less specific needs. Such funds may serve, however, as an incentive, once an employee has formed the habit of putting something by at stated intervals, toward joining the regular savings fund and saving in larger amounts.

There were 14 vacation and 5 Christmas savings funds reported. The majority of the vacation savings funds are branches of the Vacation Association (Inc.), and as such receive little active assistance from the firm except, perhaps, the services of a clerk to take charge of the collections. Considerable sums, however, are saved. About 1,350 employees of one company saved nearly \$18,000 in one year, and the company reports that this fund acts also as an encouragement to the clerks to join the general savings fund.

BUILDING AND LOAN FUNDS.

Part of the 65 loan funds reported were established for the purpose of assisting employees in either building or buying homes, and quite a number also are maintained in order to help employees through the temporary financial difficulties which are so likely to occur either because of illness or from other unavoidable causes.

The "loan shark" evil is frequently the cause of a great deal of trouble to the employer through the garnishment of men's wages as well as to the employees themselves who are so unfortunate as to fall into the hands of money lenders charging exorbitant rates of interest. Very often when loans are made for the purpose of protecting employees no interest is charged, but the employees usually sign an agreement to have the amount taken out of their pay in regular installments. On the other hand, some companies charge a high rate of interest in order to discourage as much as possible the employees coming to them for loans.

One savings and loan department which has been most successful is conducted by the employees, the officers being elected each year by the depositors, with no interference whatever by the company. The firm assists, however, by allowing the managers of the fund to attend to the business during the working hours, without which privilege they could hardly carry on the work successfully, and also by advancing temporarily the amount which is out in loans at the close of each six months' series. This allows the paying off of depositors at the regular withdrawal dates without having to call in outstanding loans. Deposits of 25 cents or more weekly may be made, and a fine is imposed for failure to deposit each week. A charge is made if deposit is withdrawn before the end of the period of saving, which is six months. While deposits of any amount are accepted, interest is paid only on weekly savings of \$1 or less. Profits are derived from fines, charges for loans, and withdrawal fees. The charge for loans varies from 2 per cent a month to 6 per cent per annum. The maximum loan to any depositor is \$200, and the amount on deposit bears no relation to the sum that may be borrowed. Loans up to \$25 are made with no guaranty, but above that sum a second signature, usually that of a trusted employee, is required. The savings and loan department has grown in popularity since the beginning, and, contrary to predictions, though practically unsecured loans have been made, there has resulted a loss so small as to be negligible.

Three hundred thousand dollars in one year was loaned without interest by one company to its employees. These loans were returned in small payments, and out of this sum only \$150 was not repaid.

Several companies, in order to encourage employees in owning their homes, loan money to them on easy terms, in some instances no interest at all being charged.

About 800 employees of one company own shares in the company's building and loan association, and each year from 40 to 50 homes are purchased through this medium. The company keeps up about 4,000 shares in the association for the benefit of the employees. These shares are assigned to them in lots of 5, 10, or more, and the employee can use such shares in the purchase of a home, the company paying the dues and the employee the interest on the money borrowed.

LEGAL AID.

Forty-eight companies report that their employees have the privilege of coming to them for free legal advice. Very frequently the attorney for the firm gives a certain amount of time to this work or it may be some member of the firm who is qualified to render such aid.

One large automobile company puts its legal department at the service of its employees. Advice is given to foreign employees as to

the quickest and easiest manner of securing naturalization papers and assistance is given in all legal difficulties and entanglements. The department does not care to examine abstracts for property which is being bought for purely speculative purposes, but in all cases of home buying the company urges employees to ask for advice before paying any money on the contract as an examination will be made of the abstract, contract, and deed to the property, and even, if desired, an appraisal of the property will be made.

Another company retains the services of an attorney of wide experience two afternoons a week, who gives free and confidential advice to any employee desiring it. This service is much appreciated by the men. It results in domestic and personal entanglements being straightened out expeditiously at a saving to the men and often to the company, and has done much toward fostering the good will of the workmen.

COOPERATIVE BUYING, AND DISCOUNTS.

In 54 establishments reporting here some form of cooperative buying is in force or discounts are allowed to employees on company goods. There are several stores which are run by the companies and at which goods are sold at cost plus the overhead charges. One store paid, for the year reported, an 8 per cent cash rebate on purchases. In a number of cases staples such as flour and potatoes are purchased in quantities and sold at cost. Several companies sell coal and wood at very decided reductions to their employees. Other establishments sell their own products at a discount, and several sell goggles, work tools, etc., at less than cost. Department stores generally allow a special discount to employees with stated times at which they may make their purchases and sometimes arrange special sales for them.

The members of the force of one large insurance company have a cooperative retail store which is maintained by the employees, but toward which the company contributes a share of the rent and the services of one clerk. The goods are sold at very nearly cost price since there are few overhead charges. The store is largely patronized by the employees.

A cooperative store in connection with its restaurant is operated by a large steel company. This was started through requests of the men that they should be allowed to buy their home supplies at prices as near cost as possible. Permission was finally granted the commissary department to sell their supplies at only a sufficient advance over the wholesale price to cover the cost of handling. Meats and canned goods were sold from the kitchen at first, but the business soon grew so large as to need special room, so that a large section adjoining the lunch room was taken. In this department men can purchase meats, groceries, vegetables, overalls, etc. All purchases

are for cash or coupons, 5-cent coupons being sold in books of \$1, \$2, and \$5. These books can be purchased at the timekeeper's office and charged against the accrued wages so that a man starting to work in the morning without a cent can purchase a coupon book by noon and immediately get on a self-supporting basis with regard to food supplies to take home.

One of the most conspicuous examples of a successful store managed by employees is one doing a business of about \$10,000 a month and requiring a force of 16 to run it. The company furnishes the light, heat, and the store building, and the goods are sold to the employees at cost plus the expense of handling. A bakeshop is run in connection with the store, in which all the bread and pastry for the store as well as all that which is used in the plant restaurant is baked. The ovens have a capacity of 3,000 loaves of bread a day. The company also roasts its own coffee, makes sausage, and renders lard. Goods are bought by the carload and the products of two farms supply the store and restaurant. The store has two wagons and two trucks, and, contrary to the usual custom of cooperative stores, purchases are delivered.

ADVICE AS TO INVESTMENTS AND EXPENDITURES.

Only 14 companies report that any attempt is made to advise employees in the use of their money. Advice as to investments is usually given by the legal department; advice as to expenditures is more frequently given by the welfare secretary, and while it is a matter requiring tact, if the secretary is on friendly terms with the employees, there is frequently opportunity to keep them from going into debt unnecessarily.

The distribution of thrift literature is another method of educating employees to the desirability of planning in time for the inevitable rainy day, and various companies use the services of visiting nurses or housekeepers to give practical demonstrations in economics as related to workmen's incomes.

CHAPTER X.—ADMINISTRATION OF WELFARE WORK.

This chapter treats of the methods of carrying on the industrial betterment work described in this report, the costs to the employer, and the effect of the work on the efficiency and stability of the force in the various establishments visited.

COST TO THE EMPLOYERS OF BETTERMENT ACTIVITIES.

In this particular phase of the welfare study it is difficult to get very exact information, either as to costs or as to a comparison of the present conditions with those prevailing before service work for the employees began. It is surprising to find that few firms have definite knowledge of what the work is costing them. In the majority of cases, even with a fairly well organized department, no separate record of the expenditures is kept, and in those establishments which are able to give the amounts expended, there is so much diversity in the forms of welfare work for which the figures are given that it is difficult to make a comparison or arrive at very definite conclusions as to the outlay which might be considered to be a reasonable one. The costs, as given, vary from a fraction of 1 per cent to 5 per cent of the total annual pay roll. In those cases where the allowance is as high as 4 and 5 per cent, the costs of the pension or group insurance plans and the contribution to the benefit associations or the maintenance of an expensive clubhouse form a large part of the expense. It seems, taking into consideration the scope of the work in relation to the costs, as reported by the different companies, that excluding unusual contributions to these features a fairly comprehensive program can be maintained for about 2 per cent of the annual pay roll.

Another element to be taken into consideration in this matter of costs is the degree of participation of the employees. Those examples of welfare which cost the firms the most have not necessarily the greatest success, since advantages are appreciated by most people in measure as they give to them, both of money and effort. The company which, while encouraging and aiding such work, still leaves to the employee a share in both the management and the expense is probably nearer to harmonious plant relations than the employer who gives lavishly but administers the work in a more or less paternalistic spirit.

The following table shows, by industries, the number of establishments scheduled and their employees, the administration of the welfare work, and its effect in regard to the time lost and the stability of the labor force.

TABLE 13.—ADMINISTRATION OF WELFARE WORK AND ITS EFFECT UPON TIME LOST AND STABILITY OF THE FORCE, BY INDUSTRIES.

Industry.	Number of establishments.	Number of employees.	Welfare work administered by—		Establishments having—		Establishments reporting as to effect of welfare work upon—			
			Em- ployer alone.	Em- ployer and em- ployees jointly.	Outside agen- cies co- oper- ating.	Welfare secretary em- ployed.	Time lost.		Stability of force.	
							Im- prove- ment.	No change.	Im- prove- ment.	No change.
Automobiles.....	9	95,683	6	3	3	3	5	1	2	2
Boots and shoes.....	5	23,930	1	4	1	1	3	.....	3	.....
Chemicals and allied products.....	7	13,539	2	5	3	3	4	1	3	1
Clothing and fur- nishings.....	13	19,498	3	10	8	10	6	.....	6	.....
Electrical supplies.....	5	51,040	1	4	2	1	2	1	1	2
Explosives.....	5	36,030	2	3	4	4	2	.....	2	.....
Fine machines and instruments.....	8	25,326	2	6	2	2	3	.....	3	.....
Food products.....	15	¹ 17,638	12	3	6	3	3	.....	5	1
Foundries and ma- chine shops.....	49	143,882	28	21	12	16	18	6	18	8
Gas and electric light and power.....	10	² 27,102	1	9	1	2	2	2	2	1
Iron and steel.....	³ 40	213,143	33	7	12	9	15	2	9	4
Mining, coal.....	12	34,807	7	5	4	1	6	3	3	6
Mining, other than coal.....	12	25,448	5	7	5	2	6	.....	7	.....
Offices.....	9	13,814	2	7	.....	3	2	1	1	1
Paper and paper goods.....	7	9,174	3	4	3	2	6	.....	3	1
Printing and pub- lishing.....	10	12,769	5	5	3	4	4	.....	4	.....
Railroads, electric.....	17	60,642	6	11	3	4	6	2	5	2
Railroads, steam.....	10	393,583	4	6	8	1	2	1	2	1
Rubber and composi- tion goods.....	9	42,847	5	4	3	6	4	1	3	.....
Stores.....	47	¹ 125,148	17	30	20	30	18	2	10	3
Telegraph and tele- phone.....	³ 15	166,447	14	1	2	8	2	.....	3	.....
Textiles.....	60	171,221	41	19	31	16	21	2	22	2
Other industries.....	57	¹ 138,793	31	26	18	10	15	4	19	3
Total.....	431	⁴1,661,504	231	200	154	141	160	29	136	38

¹ Not including employees of 1 establishment, not reported.
² Not including employees of 2 establishments, not reported.
³ Individual plants of 1 corporation have been counted as separate establishments.
⁴ Not including employees of 7 establishments, not reported.

COMPARISON OF PRESENT CONDITIONS WITH THOSE PREVAILING BEFORE WELFARE WORK BEGAN.

The date of the beginning of welfare work as reported by many of the firms is somewhat misleading. Many firms had an employees' benefit association long before any other kinds of work were even thought of, and to accept the dates given by these firms would give an entirely erroneous idea of the length of time over which the movement has extended. It is safe to say that, with the exception of a comparatively few of these establishments, the major part of the progress along these lines would extend over only the last 10 or 12 years. The emergency hospital work, for example, has been introduced or extended in many of the hazardous industries since the passage of the various State workmen's compensation laws. The work along the lines of safety and sanitation also has been much influenced by

these laws and has grown with amazing rapidity in the last few years. The increase in the number of firms providing a pension system for their employees has been very marked in the last seven years, and group insurance has developed entirely since 1911.

In spite of the fact that so much of this work is comparatively recent, it will readily be seen that, owing to the abnormal labor conditions of the past three years, it was very difficult to obtain from the companies a comparison of present conditions with those prevailing before welfare work was undertaken. The extent to which the output is affected by the welfare work is difficult to determine, both because of the present unusual labor conditions and the fact that few companies have made any study of this point. A few firms, however, give it as their opinion that the output has been increased by it, although several of these state that this improvement is only in part due to the welfare work. Quite a number state that their increased output is due to a reduction in the working hours, a form of welfare which has not been given special consideration in this report.

The stability of the force also has been much affected in many plants by present labor conditions. One hundred and thirty-six of the establishments scheduled report an improvement in this regard, due in whole or in part to the betterment activities. In many cases this is more than a mere expression of opinion, since many employers have, of late, been impressed with the fact that a large turnover is a very important item in the cost of production, and have been seeking to reduce this turnover by more scientific management of the employment departments and by the introduction of welfare features. One firm which has compiled statistics in regard to the reduction in the turnover had an increase of 13.4 per cent of employees of more than two years' service in 1916 over a similar group for 1914, due entirely, so the management states, to the welfare work.

One hundred and sixty of the establishments report an improvement in the time lost. There are probably two reasons for this: One is the work of the emergency hospitals, which care for the general health of the employees and do much preventive work, as well as sort out those most undesirable physically through their examination on entrance; the other is the installation of safety devices and the education through safety lectures and literature which have resulted in a large reduction in the time lost through industrial accidents.

Even though only a small proportion of the companies report on this subject, still enough have done so to prove that welfare work does have an appreciable effect upon the work and health of the employees. It would be reasonable to suppose, even without the confirmation of the reports, that all service work which is carried on in such a spirit that it results in a more contented force, as well as a healthier one, must have the effect of making the employees more stable and more

efficient. Proof of this is found also in the attitude toward welfare work even of those employers who are least in sympathy with it, for there is an apparent realization among them that much of this work is becoming necessary in order to get and retain a desirable class of employees.

ADMINISTRATION OF WELFARE WORK.

It will be found that in slightly more than one-half the cases the administration of this work is by employers alone. This may give a somewhat wrong impression, since there are necessarily many firms reported which do comparatively little along these lines. The companies which do the least are those most likely to control entirely such features as they have, partly because the kinds of work first introduced are usually those which naturally remain under the immediate direction of the firm, and partly because it usually takes some experience to realize the desirability of giving the employees an active part in the conduct of the welfare activities.

It is natural that the employer should direct the work of the emergency hospital, although there are a number of cases where this has been given over to the benefit association; similarly several firms allow their employees to manage the lunch room, either on a cooperative basis or using the profits for the benefit or athletic association. The employees quite frequently have a voice in the management of the club rooms or houses, in several instances being given entire control of the clubhouse. In the matter of athletics and recreation more often the employer plays a passive part, assisting financially and providing rooms for meeting purposes, gymnasiums, and athletic fields. The work among families, except what is done in connection with the benefit association, is entirely under the direction of the companies through the medium of the welfare secretary or visiting nurse. The administration of the benefit association is in most cases either mutual or in the hands of the employees. Pension and group insurance funds, generally being provided by the firms, are administered by them, as is much of the educational work, although frequently members of the force assist in teaching, especially in the classes in English for foreigners.

Mention must be made of one conspicuous and well-known example of cooperative management by the firm and its employees of both the business and the welfare organization. It has been the policy of this company in increasing degree through the past quarter of a century to give the employees a share in the management. An association of the employees is maintained, to which all of them belong. The affairs of this organization are conducted by a group elected by the employees, and this executive body has the power to make, change, or amend any rule that affects the discipline or work-

ing conditions of the employees. This can be carried even over the veto of the management by a two-thirds vote of all the employees. This association is also represented by 4 members on the board of 11 directors of the corporation. All the parts of the welfare organization have been carefully built up and are controlled and managed by the council of the association through committees. The firm contributes club and business rooms, certain salaries, and any other assistance necessary. The fundamental principle followed by the club in the management, however, is that these activities shall be in the main self-supporting and that financial or other assistance rendered by the firm shall receive a direct return from the employees in increased efficiency. There is no doubt that in this particular instance the generous and broad-minded policy of the firm is reflected in the very unusual personal interest in the business which is evidenced by the employees as a whole.

COOPERATION WITH OUTSIDE AGENCIES.

The practice exists in a number of industrial towns, including some of the oldest in the United States, of leaving all welfare work to outside agencies, such agencies being, however, largely financed by the corporations. In some cases contributions are entirely voluntary, in others the budget is apportioned among the firms according to the numbers of their employees. Charity organizations, district nurses, church missions, Y. M. C. A., and Y. W. C. A., women's and girl's clubs—any workers for civic betterment—may lend a hand in the actual service provided the necessary funds are guaranteed. It is the belief of some managers, as a result of experience, that this system is better than direct provision by the employer. In more than one case reported, even the financial connection is kept secret, since the employers consider that the working force would view it with suspicion.

Where an establishment is so situated that the community or other agency already provides lunch rooms, libraries, recreation, and other advantages, it manifestly would be superfluous for the employer to embark upon these enterprises, and he confines his efforts to improving the actual place of work, with perhaps an occasional entertainment, contributions to the benefit association, and active interest in the ball team or other group. In cities the exclusive use of municipal gymnasiums, swimming pools, or other special equipment ordinarily may be secured at stated times by establishments guaranteeing classes of a certain size.

In the North and West the continuation school work often is carried on beyond the requirements of the law, and several companies also cooperate with the public schools in their apprenticeship courses.

The Y. M. C. A. and the Y. W. C. A. serve as the medium through which a number of employers carry on the club work for employees. Most railroad companies use the Y. M. C. A., since it is so well organized and seems particularly to fill their needs. In a few other instances firms have established their own branches of these organizations or pay membership fees for junior employees in the city branch. In many cases meetings for employees in the plant are conducted by one or both of these associations with the sanction of the company.

EMPLOYMENT OF WELFARE SECRETARY.

The employment of a welfare secretary is reported in 141 cases. Very often the secretary's sole duties are supervising the various welfare activities; in other cases the employment and welfare departments are merged into one, part of the time of the manager being given to each, and in still other instances the doctor or head nurse assumes these duties in addition to the hospital work.

In quite a number of instances the welfare department employs a corps of trained workers. One large department store has, in addition to its medical department and welfare secretary, a number of college women engaged in educational work, physical culture, and dancing, as well as supervising the library and the girls' clubhouse. A company which does much community work has, in addition to the head worker, seven others, teachers, librarian, and a visiting nurse, who have kindergarten, manual training, and other classes, many clubs among both young and old, and much general supervision of the townspeople, of whom many are foreigners.

The duties of a welfare secretary are many and varied. In certain cases she must interview all female applicants for employment, oversee the work of the emergency hospital, see that the food served in the lunch room is kept up to the standard and that the kitchens are kept in a sanitary condition, and look after many other details of sanitation; she has charge of the library unless it is sufficiently large to require one or more special attendants; her office is so placed that she has a view of the rest and recreation rooms and, in some plants, of the cloakrooms. Often, in cases of special need, she visits the homes, and a number of instances are found where the firm has placed a sum of money at her disposal, to be used at her discretion, in special cases of illness or distress among the employees or their families.

In the larger cities there is a great deal of cooperation among those serving different firms in this capacity, in the way of exchange of ideas, and the visiting nurses' association often is utilized to help out in cases of illness in families.

In one large city the State factory inspectors suggested to certain establishments which had not yet taken up any work of this sort, that they should allow an experienced woman to start the work for them. This woman, feeling that the city was well equipped to do the necessary educational and recreational work, did not include such work in her program, but confined herself to the installation of rest rooms, emergency rooms, and lunch rooms. Even when little space was available she utilized it until such time as the firm could provide more. Two or three months were spent in each plant getting the work under way, when it was turned over to a competent woman, and the same thing begun in another establishment. This particular welfare worker was able to interest the employers because she believed strongly that production is increased and labor turnover decreased by the introduction of this work.

One might conclude from the wording of the foregoing that all welfare secretaries are women. In the majority of cases women are employed, but in a number of instances this department, especially in those industries employing only men, is conducted by a man. In either case the opportunity which is presented for a broad and helpful service to employer and employees is very great. It is a difficult position to fill, since, if the policy pursued is not a liberal and broadminded one, the employees may feel that the position is being used to their disadvantage, but if the one who holds it is gifted with sympathy and tact, the possibilities for help and encouragement of all kinds are almost unlimited.

CHAPTER XI.—SOCIAL BETTERMENT AMONG EMPLOYEES' FAMILIES.

It must be evident to the most casual observer of industrial conditions that social betterment work in more or less isolated communities becomes a matter of the employee's family and not of himself as a part of the actual working force. Steel mills and coal mines have their wash and change houses for the workers, and their first-aid and hospital provisions; but their clubhouses and libraries, their recreation grounds and social gatherings, their nurses and welfare workers generally are for the benefit of the community and not alone for the men within the plant. No other industry studied in the recent investigation approaches the two mentioned in the amount of work done among families, with the exception of cotton manufacturing in the South. Examples of conspicuously good family work are found, of course, in many other industries, notably foundries and machine shops and explosives. There are great differences in the amount and excellence of the work done by various establishments, depending to some extent on the nature of the working force and the isolation of the plant but far more on the character and ideas of the employer.

Of the 431 establishments for which schedules were secured, 158, with a total of about 838,000 employees, were found to be doing more or less social betterment work among their employees' families, generally along the following lines:

(1) Improving the dwellings and the streets, installing sewerage, lighting, and water systems, and assisting in gardening.

(2) Providing educational and recreational facilities.

(3) Introducing into the community a nurse or other capable visitor to advise in the care of the sick and the children, to instruct in American methods of home making, to develop the community spirit by organizing and fostering clubs, and to be the sympathetic friend in time of trouble.

Work of this kind has transformed squalid towns into clean and attractive places and has much improved the standard of living.

The extent to which certain branches of betterment work are carried on by the companies reported in the present study is shown in the following statement:

Per cent of the 158 establishments doing each kind of work.

Visiting nurse.....	53.80
Playground.....	39.87
Domestic-science classes.....	27.22
Welfare worker.....	26.58
Charitable relief.....	26.58
Settlement house.....	19.62
Kindergarten.....	18.35
Land for gardens.....	17.10
Christmas presents to others than needy.....	14.56
Classes other than domestic science.....	13.29
Prizes for gardens.....	11.40
Doctor.....	8.23
Day nursery.....	5.70
Clinic.....	5.06
Christmas gifts to needy.....	3.80

LIVING CONDITIONS.

Many of the four and six room houses recently constructed have porches, pantries, and clothes closets, and are neatly fenced. In some industrial towns practically every house has running water and sewer connection, and electric lighting is becoming general. The best houses have bathtubs; employers who complain that the bathtubs installed are used as coal bins, or not used at all, probably overlook the fact that in many cases water must be heated and carried to the tub in the old-fashioned way and that bathrooms built on porches are likely to be cold. The community bathhouse, with separate compartments or buildings for the women and children, exists in several places. These bathhouses may be inexpensively installed and maintained and are considered by at least one mill manager in the South the most satisfactory of the various forms of welfare work attempted.

Streets are graded, walks laid out, and young trees planted. In certain cases landscape gardeners are employed to supervise the town planning and instruct in gardening. Employers are finding that fences, unless of wire or metal, are an expensive feature; they fall rapidly into disrepair and sometimes are willfully destroyed for firewood. In a number of cases all fences have been removed and company land at a distance is allotted for gardens and stock, the maintenance of unfenced gardens being difficult or impossible. In other cases a fence of metal posts and wire is used.

In some instances gardens are plowed free of cost by the company or the plow and team are lent to the householder, and the free distribution of seeds and cuttings is not uncommon. In a large proportion of cases, however, the householders are able to finance their garden plots and the employer contributes only supervision and prizes. "City-beautiful" contests, with generous prizes for the best

lawns, flower gardens, vegetable gardens, and porch or window boxes, and for general appearance, stimulate the householders' interest in a new community.

Children's gardens on company land are reported by 27 of the 158 companies doing work among families and 18 companies give prizes or otherwise encourage home gardening. In the towns of one company alone there have been as many as 7,000 gardens, or 95 per cent of the total number that could be planted, the average value of the vegetables grown being over \$20 per garden. Where gardening is undertaken on a considerable scale the work is in charge of a paid instructor, under whose supervision the children must work in the gardens for a certain number of hours a day. In one notable case the company provides for each of 80 boys a plot 53 by 11 feet, and there is a cooperative plot which all must help to work. It gives the whole time of an instructor, the seeds and plants, overhead-sprinkler system, tools, wheelbarrows, express wagons, diaries, books and papers, club rooms, and prizes. The course lasts two years. The boys are incorporated as a stock company under the laws of the State and elect their own officers.

PROTECTION OF HEALTH.

The health of the industrial community is recognized as of such importance that measures for its protection form the largest single department of betterment work as reported in this study. Sanitary measures in operation in a number of industrial towns are as follows: Draining or filling in of pools and lowlands, or their treatment with crude petroleum, to exterminate the mosquito; screening of houses, at cost or without charge, and the distribution of circulars explaining in a simple way the dangers of the house fly; provision and care of garbage cans; bacteriological analysis of the water used for drinking; regulation of the milk supply.

Of the 158 companies under consideration, 85 report that they have a visiting nurse, or some one acting in that capacity, who, in addition to actual care of the sick, instructs the women of the community in nursing and in the preparation of food, and teaches the value and necessity of cleanliness and the benefit of fresh air and sunshine. Quite often the nurse's headquarters are the community house or model cottage described in a later section of this chapter (p. 131). It is not unusual for her employer to give her the use of an automobile. Usually this nurse is under the direction of the company physician or plant manager, though she may be connected with the district nurse association where such an organization exists. It has been found that where a visiting nurse has been installed in a community, and her services have been announced as free to employees'

families, men in whose homes there is sickness work more regularly and with easier minds than formerly, to the great benefit of the shop.

The following statement of family visits made by two nurses in one summer month may be regarded as typical of the better class of work done:

Object of visit.	Visits in District A.	Visits in District B.
Domestic science.....	37	60
Sanitation hygienics.....	28	52
Dinner buckets.....		41
Care of babies.....	103	36
Care of mothers.....		35
Care of sick.....	107	46
Employment sought.....	6	31
Employment found.....	18	31
In regard to circumstances.....	51	54
Placed persons in sanitariums.....	5	2
Sent persons to hospitals.....	4	5
At request of schools.....		23
Total.....	359	416

Several companies in the South report that medical treatment of the families is supplied at little or no cost to them. This is, of course, exclusive of the arrangement whereby the employees' fees cover treatment also of their families, and excludes the practice in some villages of limiting the fees which may be charged by private practitioners.

Free clinics, or clinics charging for medicines only, are conducted in eight of all cases reporting; three of these give dental and one gives optical treatment. In one case toothbrushes have been provided free to school children by the employing company, free dental treatment is furnished children in the first and second grades, and lectures on the care of the teeth are given before adults and the children of the higher grades. The optical work comprises tests, prescriptions, and the provision of glasses at cost.

At least one company has a first-class milk clinic, dispensing certified milk at less than cost to the public and without charge to the destitute, and prescribing for infants through a corps of nurses and a doctor; another company sells milk below cost; four companies do antituberculosis work; two or more vaccinate against typhoid; and three have fresh-air camps to which invalids may be sent. In one town a 2-cent lunch is served to the school children and in another the experiment is being made of serving school lunches free. One company has a fund for crippled children and many make a practice of paying for hospital and surgical treatment in necessitous cases.

Day nurseries for the small children of mothers employed outside of the home are reported by 9 companies, the majority being in the South. Children between 4 months and 8 years of age are received in the nurseries, and the usual charge is 5 cents a day. A higher

charge may be made if the father is employed, and one nursery reports that a slight increase is asked in midsummer to cover the cost of ice. The greater number of the children are occupied for several hours in the kindergarten, the babies and very little tots comprising perhaps 10 out of a total of 75 children. Nursing mothers are allowed by the employers to leave their work two or three times a day. On the subject of working mothers may be mentioned, in passing, the case of a mill in the South where several sets of looms are operated each by three shifts of married women, which enables the women to add to the family income without being away from home all day.

RECREATION AND EDUCATION.

Of recreational facilities the most common are the baseball field and the children's playground. These are found almost invariably where community work of any magnitude has been undertaken, and vary all the way from "a piece of land where the men play ball" to a large and extensively improved field, with high fence, box office, grand stand, dressing rooms, moving-picture apparatus, and refreshment stand; and from an unfenced plot with a swing or two and a seesaw to an elaborately equipped inclosure that would put to shame many a city playground. Sixty-three companies, or 40 per cent of all reporting family work, have playgrounds of one sort or another. As in all the other activities described, this of course excludes places where the welfare measure in question is provided by the community or other agency so that it is unnecessary for the employer to undertake it.

The equipment of one playground, which has an attendance of between 200 and 300 children at a time, is as follows: 1 shelter house, 2 toilet houses, 2 bathhouses, 1 swimming pool, 1 wading pool, 2 drinking fountains, 2 sand boxes, 1 jump pit, 2 volley-ball courts, 1 baseball ground, 6 box swings, 12 rope swings, 6 seesaws, 1 giant stride, 1 large slide, 1 small slide, 4 flying rings, 4 climbing poles, and 3 horizontal bars.

Unless the children are few and the equipment is of the simplest there is generally a competent person in charge of the playground, and sometimes there are several such persons, including volunteers. In some cases sewing, carpentry, basketry, and other handwork are taught, and folk dancing is general. Almost invariably the behavior of the children improves rapidly, playground work being one of the most satisfactory of welfare undertakings.

For the older members of the community there are athletic fields, soccer and tennis courts, and basket-ball grounds, the equipment for which is provided by the players or lent to them by the caretaker of the grounds. In the South the question of parks for the people

has for a long time been receiving attention; 14 of the companies reporting have parks of some sort and 3 others have immediate plans therefor. Here again the variety of standards is very great. A "park" may be merely an unimproved piece of woodland which the employer has decided to leave in its natural state as a pleasure place for the people, either with no equipment at all or with benches and perhaps a band stand; or it may rival the most beautiful small parks in existence, with club facilities, dancing, skating, games, and music, in an exquisite setting of trees, grass, flowers, and running water.

Indoor recreation is commonly provided by means of a club or settlement house, managed by the employees themselves, by paid social secretaries, by churches, or by the Young Men's or the Young Women's Christian Association. The church mission is active in the South, and among the 8 reported in the present study there are good and bad examples of its occupancy of the field. Ordinarily the mill not only provides the cottages used in the work, but assumes no inconsiderable part of the financial burden of maintenance. The missions do work similar to that of secular institutions in recreation, education, nursing, sanitary supervision, etc., with the addition of religious services on Sunday. Where two or more mill villages are a short distance apart, one mission may extend its activities, devoting certain days and evenings to each village.

The industrial department of the Y. M. C. A. has been in operation in the South for many years, and 3 of the companies here reporting state that their educational and recreational work is done with success under these auspices.

In a notable group of western mining camps the betterment work has been undertaken by the Y. M. C. A. upon vote of the employees. The company provides the buildings and equipment and the Y. M. C. A. assumes full responsibility for the methods and policy of operation. Clubhouses which are models of their kind—representing an expenditure of from \$15,000 to \$25,000 each—are being erected in the various camps, and some 20 secretaries and 10 trained women workers already are employed. The families of the men attend the moving-picture shows and on certain days and evenings are allowed to use the bowling alleys and pool room, gymnasium and baths, library and reading room. In at least one case where assimilation is difficult, foreigners of one nationality are given the exclusive use of the building for a few hours each week, since in no other way can they be induced to visit it.

Fees for games, like minor furnishings, classes, refreshments sold, and other unimportant details, vary from camp to camp, but the members' dues—50 cents a month or \$5 a year for men and 15 cents a month or \$1.50 a year for boys under 16—are uniform. On Sun-

days the games are free to members, who alone may play, and they may be indulged in all day except during the hours of religious service. This is but partial evidence of the commendable breadth of view with which the work is being conducted. In order that membership fees may be kept within the reach of all, the company makes a monthly appropriation toward operating expenses, besides paying for heat, light, water, and repairs. Some branches are so successful that the company's cash contribution has been materially reduced, if not entirely suspended. The receipts of the soft-drinks counter, where ice cream, candy, cigars, tobacco, and perhaps sandwiches, are also sold, amount sometimes to several hundred dollars a month.

There are communities where the betterment work is successful only when carried on by the Y. M. C. A. or other outside agency, largely financed by the employer but without other participation by him and without the employees knowing that any relation at all exists. Where wages permit, the work may be done to no small extent by the employees themselves, the company usually furnishing the initiative and providing the buildings and in many cases the heat, light, and equipment. A conspicuous example of employees' management is a textile mill having between 15,000 and 20,000 operatives where an employees' organization of more than 1,600 members, with annual dues of \$2 each and a fund raised by entertainments, conducts the excellent clubs and classes and much of the recreational work. The company houses and otherwise assists the organization, and provides visiting nurses, dental clinic, and recreation grounds for adults and children.

The settlement house—or community house of the South—ordinarily is a more humble affair than the club buildings mentioned, though there are notable exceptions to this rule. Thirty-one, or 20 per cent of the companies reporting, conduct their welfare activities through this medium. The accommodations vary from one of the workers' dwellings or a disused official residence to suitable buildings put up and equipped for the purpose. Where the house is small it may be the model home of the community, furnished and operated in a manner such as the other householders would do well to imitate. Cooking classes meet in the tiny kitchen; housekeeping classes make the beds and sweep and dust. A few shelves of books and a dozen magazines constitute the library; chess, checkers, and pinochle, the games. Though probably it may be said with truth that so simple an endeavor as this makes little appeal to anyone but the children of the community, it is a fact that the children are of the greatest importance unless we except the older girls who will become housekeepers within a few years. If the worker in charge is a mature, capable, and tactful woman who succeeds in gaining the confidence

of the women of the community by friendly visiting and nursing, her influence is strongly felt.

Where the house and equipment are more elaborate, accommodating considerable numbers of persons in the various rooms and having many activities, the settlement more nearly resembles a clubhouse, and accordingly meets with the response deserved by such outlay. Some half dozen of the cases recorded belong to this class.

In the West is a children's community cottage the walls and floors of whose four rooms were tinted and stained by the boys of the school, while the girls made bed and table linen, towels, curtains, and dresser scarfs. The simple furniture was bought by the children, who raised a fund by giving entertainments. Here the girls are taught housekeeping, and the mothers, of various nationalities, are entertained at luncheons or afternoon parties. In this community school credits are given for work done by the children in the homes, either in duties about the house or in teaching English or other subjects to the parents.

If domestic-science instruction can be said to be of greater importance in any one community than in another, it is probably where the dominant industry absorbs the energy of only the male population and there is no industry into which the girls can go. In such cases, sometimes only a short distance from a large city, training for domestic service may meet with gratifying success. A report received in the course of the present investigation may be quoted, as follows:

An unusually large percentage of the girls go out to housework. These girls are mostly Polish, and for some reason which we have been unable to fathom get absolutely no domestic training at home. We place these girls through an employment agency, and we find the demand for trained girls much larger than the demand for the untrained ones. Moreover, the wages paid trained girls is more than twice that paid the untrained, and the work is no harder and in many cases it is easier. * * * What ——— needs is not a school of domestic science, where the children would be taught the number of calories of heat in rice and potatoes, but a school where the equipment will permit of actual practical work and experience; a school where much thought is given to practice and little to theory, and where the 14-year-old girl, getting ready to help eke out the family income, is not discouraged by a course that is too long for the time that she has to give. There are none of these girls who could not make good, practical housekeepers with a year's real training.

It seems best to run the library in a community or settlement house on lines similar to those of the usual public library, with simple rules and fines for their infraction. In a number of cases magazines may not be taken from the reading room, but in others their circulation is a valuable feature. A cotton mill reports that a certain woman constantly borrows the magazines, her explanation being, "My man doesn't spend so much time in the pool room if I have one of them around the house." In another mill the men subscribe

jointly to a considerable number of periodicals of the highest class; these are read in the homes during the week, but must be in the library Sunday for use and redistribution. To start the library at one village, the management announced that it would duplicate whatever amount should be raised by the people. Within a short time the women's club and the children, by means of a tag day, had collected \$60.

The head worker of a very successful settlement house recommends that social work in an industrial community should invariably begin through such an agency. First, it can and should begin in a small way, developing as the needs of the community become apparent; second, it should begin with educational work for the children, preferably through a kindergarten, since the workers are thus brought into contact with the homes; third, its policy should be flexible, without distinction as to sex, race, or creed; and, fourth, it should be undertaken in a spirit of willingness to meet the demands for increased equipment and enlarged quarters as the work grows.

Social affairs may be arranged by the welfare workers at no cost to the community, but the indications are that the most popular affairs are at least partly managed and financed by the people. In a large number of cases the most important day of the year, to the families as well as to the employees, is the field day or other outing in which practically every one participates. In the mining and steel communities the occasion is elaborately celebrated, with parades, first-aid contests, races, and other competitive events, penny scrambles for the children, and varied entertainment. Visitors attend from miles around, and the affair receives considerable notice from the press.

In the southern cotton-mill villages the churches generally manage the annual outing, assisted financially by the mills. As a rule, several mills combine, and Independence Day is chosen for the festivity, which is not unlike a big Sunday-school picnic. Of the 42 cotton mills reporting, 15 have an annual gathering of this character.

Christmas celebrations are reported in 29 cases. These range from the giving of baskets of provisions to needy families only, to the presenting of a ham, turkey, cake, basket of fruit, or \$5 bill to each family in the village, and the setting up of a community Christmas tree, with instrumental music and singing and the distribution of candy, apples, and small gifts to the children. One company reporting has given to each of 4,000 children a pound of candy, an orange, and two apples.

WELFARE WORKERS.

The character of the person charged with such welfare work as requires family visiting or other intimacy is of the utmost importance. Health, balance, courage, patience, sympathy, and infinite

tact are essential. The wisdom of this worker's having a time and place on which no one may intrude, and occasional leave of absence for refreshing and stimulating contact with other social workers and with the outside world, is undoubted. There may be great harm in work done half-heartedly or in a haphazard way; consequently it is of first concern that the workers keep fit.

The experienced welfare worker or nurse may be intrusted with a small relief fund not too closely scrutinized, and frequently may be consulted with advantage regarding proposed dismissals or other harsh measures. Where the labor turnover is considerable, she may, by her census of families, keep the management informed on many things of significance. Even when supported largely by outside agencies, such as a church mission, the worker should cooperate as closely as possible with the management of the industry. A tactful visitor to the homes may, through her knowledge of wages and income, suggest a wiser expenditure, more careful housekeeping, or—conversely—the retention in school of a child of legal working age, or the return to home work of an employed mother. She may interest the families in cooperative buying; stores conducted under this system exist in several of the industrial communities reported and cooperative buying of one or more articles of large consumption is practiced in many others.

Work of great value is being done in teaching the nursing of the sick, the care of babies, the wholesome preparation of food, the economical making and repair of clothing, the cleaning and ventilating of the home. The first and second named are universal needs, while ignorance of good cooking is especially prevalent among certain classes. According to the schedules, sewing is more generally taught than is cooking, perhaps because the latter requires a more elaborate equipment and frequently forms part of the public-school work. A wider use of the sewing machine should be encouraged as more practical than handwork after the rudiments have been acquired, and young people can thus be interested in making simple clothing.

ORGANIZING OF CLUBS.

The clubs organized by welfare workers in the communities studied vary in character from the toothbrush brigade or the Blue Birds (girls too young for the Camp Fire) to civic organizations of no mean standing. One of the latter class is transforming a foreign colony in the Middle West which has had anything but a favorable reputation into a respected and self-respecting community. Married women's clubs, though in successful operation in 20 cases among the southern cotton mills reported, are not easily managed. It is difficult to get busy mothers out, and some of them object to being

supervised by a woman perhaps their junior, probably unmarried, and almost certainly of another class than their own.

Boys' clubs are a problem everywhere. One Y. M. C. A. clubhouse with three paid workers has temporarily abandoned its boys' room because the supervisors can not prevent rowdyism. The Boy Scout organization has hundreds of branches in industrial communities and these are a success in practically all cases. Manual training is always an outlet for youthful energy; first-aid teams are excellent, as is the work in gardens, described in an earlier part of this chapter.

For girls, the field of sewing, fancy work, weaving, basketry, cooking, home making, nursing, child care, first aid, and surgical dressings is almost limitless. There are many branches of the Camp Fire organization, and gardening and canning clubs are numerous. One mill village in the South has recently opened a beautiful clubhouse for its girls, the management here evidently believing, as a superintendent elsewhere is quoted as saying, "Raise up a generation of fine girls and the question of the men will take care of itself."

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