



Discharging cargo from the forward hatches. In this picture the tangle of gear is shown. The winches for two hatchways can be seen, with the booms and mast necessary in handling cargo

RUSSELL SAGE
FOUNDATION

THE LONGSHOREMEN

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PREFACE

IN THIS story of the longshoremen are found some of the conditions which have produced and will produce, as long as they are allowed to continue, the distress and dislocation of healthy community life which came so forcibly to the front and so stirred us in the years 1914 and 1915.

The investigation on which this report is based was made by Mr. Barnes when a fellow of the Bureau of Social Research of the New York School of Philanthropy, chiefly in the years 1910 and 1911.* Mr. Barnes' study of longshoremen and their work was an intimate and careful one. Its aim is to give a picture of the men, of the conditions of labor which affect them, of the relations existing between them and their employers and bosses, and of their own efforts to co-operate with one another in trying to improve their lot in life. The facts have been gathered from all available sources and every effort has been made to make the study as comprehensive and impartial as possible. Mr. Barnes has succeeded in producing a valuable and trustworthy contribution to the history of an important industry.

The report shows clearly some of the more conspicuous and harmful forms of intermittent employment and casual labor, due partly to special features of the shipping trade and partly to over-competition of labor. Extraordinarily long continuous hours, and even days, of work result in exhaustion and breakdown. Lack of possible physical safeguards against accidents, as well as inadequate supervision over the men, results in unnecessary injuries and death. Lack of places where men may wait when work is not going on or where they may eat and sit during the lunch hour drives them into innumerable saloons which invite them continually with sympathetic hospitality. The inevitable consequence is that many of the men engaged on the piers can not earn a steady

*The material in the appendices relating to London and Liverpool was gathered by Miss Louise Edgar Peters, and that relating to Hamburg by Miss Dorothy Browning Kirchwey, during visits to the places named.

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support for a moderate sized family. They must live under conditions which still further lessen their ability to care for themselves and so become dependent on the charity of the community—a drain on both its financial resources and its morale.

Such conditions should not be allowed to continue in a craft or city. It is essential to our community life, as well as to our business development, that we find saner and more humane methods of dealing between fellow men. These conditions are all the more dangerous because their consequences are often indirect and scattered, and so not realized by the public. The problems involved may not be easy to solve quickly, but the effort to solve them must be made. They are so interesting, so puzzling, and of such vital importance to our private and public life as to challenge the attention of our ablest men.

Yet the conclusion is forced upon us in reading this report that few employers of labor connected with the loading and unloading of ships take any personal interest in the lives of the longshoremen or their families, or feel any personal responsibility for the serious effects of the terms and conditions of labor which they permit. This was made clear also in the testimony given by the representatives of shipping corporations before the United States Commission on Industrial Relations at the hearings in June, 1914 arranged by Mr. Barnes.

The responsibility for practical action would seem to rest primarily on the employers of longshore labor, and on the concerted action of the longshoremen themselves. Up to the present time the inertia and resistance of employers has stayed effective action by themselves and by the workmen. If employers fail to interest themselves in the lives and welfare of their workmen, they can not fairly complain when the troubles of the latter are exploited by others who may or may not be competent to deal wisely with them. If both employers and workmen fail to bring about improvements, the public must get into the game and through the weight of public opinion and legislation compel steady improvement in conditions of labor.

JOHN M. GLENN
General Director
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INTRODUCTION

PICTURESQUENESS and magnitude unite in the handling of cargoes. Gold from Ophir, cedars from Tyre, spices and precious stones from Sheba, the crown and summit of the material glory of the richest of ancient kings fades out of sight before the bulk and variety of the merchandise brought daily from every corner of the globe into the greatest port of the world—New York. The stupendous character of the commerce of today is lost in its familiarity.*

And if the wonder of the trade is hid from the eyes of a practical people, much more is the wonder of the worker. The most conspicuous fact concerning the longshoreman is his inconspicuousness. Libraries, statistical reports, labor histories almost without exception ignore him or misstate his case. The records of civic betterment of New York City, written in vast numbers of institutions for the welfare of wage workers, contain this entry: one Longshoremen's Rest.

Extraordinary as the omission appears it is true that no reliable official data regarding longshoremen in the United States have been collected. The dock department of the port of New York gathers none; the municipality gathers none; nor has the federal government with all its vast machinery any reliable statistics on the subject. Even the state reports must be discounted because of their incompleteness.

The few figures obtainable on this important subject are not only inadequate but inaccurate as well. The returns of the

* In the fiscal year ending June 30, 1913, the net tonnage of vessels entering the port of New York from foreign countries was 14,464,161, while the net tonnage of vessels clearing from New York for foreign countries was 14,370,619. The total value of imports was \$1,048,320,629 and the total value of exports was \$917,935,988, the total value of imports and exports combined, \$1,966,256,617, representing 46.0 per cent of the entire foreign commerce of the United States. The foregoing figures relate to foreign trade only. Figures for coast wise and local traffic cannot be given.—Statistical Abstract of the United States, 1913, pp. 313 and 652-55.

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United States census of 1900* give the number of longshoremen for the entire United States as 20,934, and of stevedores, 9,139; for New York state, 6,290 longshoremen and 900 stevedores.† The latter figures include all the ports of the state.‡ Conservative estimates among people familiar with the waterfront indicate that in Manhattan and Brooklyn alone there were in 1900 at least three times the number of longshoremen allotted to the state. At the present time only about 50 stevedoring firms are registered in the business directories of the city. Even if all the small unlisted firms were counted there can not, at the time the census was taken, have been more than 300 stevedores in the entire state. The greatly understated number of longshoremen and the greatly overstated number of stevedores, therefore, throw out the census returns as worthless as a basis of information for this great body of men. The state reports, though slightly fuller, are also insufficient.

But the most convincing method of proving the neglect which has been accorded to the longshoreman is to attempt to find literature about him. One searches the libraries of great American cities and universities only to find no entry whatever under the name. Next, if of a persistent nature, one studies histories of the labor movement in America. Although there are several good ones, and although they treat other industries with great fullness, the longshoreman is again almost completely ignored. In *The Labor Movement*, by George E. McNeill,§ he receives his largest mention. There are several references to labor

* In the federal census for 1900, longshoremen and stevedores are classed under the heading Domestic and Personal Service. It is difficult to imagine any sufficient reason why this work of cargo handling is not classified as a branch of Trade and Transportation. The New York bureau of labor statistics classifies it under Transportation, and this seems to be its proper place.

† In this country the terms stevedore and longshoreman are often used interchangeably. The custom is confusing, and the figures of the report suggest that the census gatherers followed this loose usage. A stevedore is one who takes contracts to load or unload a vessel. A head foreman, however, is sometimes called a stevedore. The longshoreman is the workman hired to handle the cargo under direction of a foreman. In England, a skilled longshoreman who loads foreign cargoes is called a stevedore.

‡ The Twelfth Federal Census reports 18 female longshoremen and 21 female stevedores in the United States, but it is impossible to learn of any woman who has ever done longshore work in the port of New York.

§ See p. 93.

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troubles among waterfront workers. The ten-volume work edited by John R. Commons, *A Documentary History of American Industrial Society*, covers the period from 1649 to 1880. If the comprehensiveness of this work is to be trusted, there appear to be no extant documents treating directly the struggles of the great body of longshoremen in the port of New York; no documents relating to the conditions of longshoremen in any of the ports of America. The newspapers are hardly better. Except during acute labor troubles one finds here and there a stray reference; that is all.*

In answer to an obvious need, and under the difficulties cited, this investigation was begun. While a general survey of longshore work has been made, the investigation has been chiefly concerned with the port of New York, and concentrated upon conditions in Manhattan, Brooklyn, and Hoboken—the main shipping centers.

The first task that confronted the investigator was to obtain from the men themselves the information which research had shown could not be had second hand. This method of procedure was not without its embarrassments. No group of men are more shy, more difficult to draw out, than longshoremen. And it is always less easy to ascertain facts of ordinary conditions than to learn about unusual happenings. Men recall clearly the incidents of a critical time. The day of a famous battle stands out plainly in the mind of an old soldier; every detail is vivid; but the routine life which preceded it, the long stretch of grinding toil—the details of these are forgotten.

Interviews, cross-examinations, observations in all parts of the port have been carefully recorded and are here welded together. A minute comparison of the records has been made in order to combine supplementary statements and harmonize contradictions; traditions have been sifted down to verified facts. Every variety of waterfront worker, as well as superintendents of piers, employes of steamship companies, members of firms and of corporations, contracting stevedores, newspaper men, religious and philanthropic workers who have been among the waterfront people, lawyers who have settled their claims and intervened in their disputes—all

* For a further account of sources consulted, see Appendix J, p. 249.

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these and others have contributed their personal knowledge to this report.

Business meetings of local longshore unions as well as open meetings have been attended. Men connected with large insurance companies and the insurance department of the state have been interviewed. Inmates of Sailors' Snug Harbor, on Staten Island, and the City Home on Blackwell's Island, as well as retired foremen living out of the city, have been visited in order to get information from older men on events which they alone remember. Their reports have been compared one with another and with the traditions believed by the active men of today. A study was made of the state records of labor organizations at Albany, and a comparative study at first hand of Boston longshoremen. Information regarding the situation in London, Liverpool, and Hamburg has been secured through correspondence or by personal investigations made in those ports.

The lack of public interest in longshoremen, which is mirrored in the dearth of literature and current mention, can not be explained on the plea that individually or as a body they are not worth while. Few appreciate the variety of fine racial and personal types to be found on the waterfront, or realize the skill required in the various branches of the longshoreman's work. By people generally the longshoreman is classed loosely with the industrial outcast—the unskilled laborer. He is thought to be shiftless and a drunkard, as unworthy of serious attention personally and socially as he is industrially. Color has undoubtedly been lent to this impression not only by the presence everywhere along the docks of the "shenangoes," parasites of the trade, to whom attention will be given in a later chapter, but by the enforced "loafing" of the regular longshoremen while waiting for the ships to dock.

But those who know longshoremen well invariably testify that individually they are a particularly interesting type of men. Collectively they are tremendous. Serious estimates of their numbers in the port of New York in 1914 varied from 27,000 to 60,000. Probably 35,000 foreign commerce and coastwise men is approximately the truth.

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The emphasis of the following study has been placed on what, for the sake of distinction, is called the regular longshoreman. But it should be understood that, for reasons which will be set forth in the chapter on longshore work, the "regular" longshoreman is virtually a casual worker. Casual labor in any trade implies intermittent employment. It was the knowledge of this condition among so large a body of workers which suggested the necessity and social value of an extensive study of this occupation. Other questions immediately suggested themselves: Does intermittent employment in longshore work imply also under-employment? Are we, by any avoidable conditions of the work, adding to the ranks of the chronically under-employed? With this question another, inseparable from it, suggests itself. Are we, by maintaining a body of intermittently unemployed or chronically under-employed, creating a serious labor problem for the community? Does the present organization or lack of organization of longshore work tend to produce a body of permanent unemployables? If it is shown that this is in fact the case, what is the way out?

It was in the hope of answering these questions, as well as to stimulate a better understanding of this great group of workers, that the present investigation was undertaken.

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EXTENT OF THE WATERFRONT AND PIER FACILITIES

THE port of New York is the largest in the world, not only in the amount of commerce which it harbors, but in the length of its available waterfront. No law defines its boundaries, but the following may be quoted from the customs regulations.

"Under the date of July 20, 1910, the Treasury Department expressed the opinion that the limits of the Port of New York so far as the Customs laws and regulations are concerned, 'should be considered as including all the territory lying within the corporate limits of the cities of Greater New York and Yonkers, N. Y., and of Jersey City, N. J., and in addition thereto all the waters and shores of the Hudson River and Kill von Kull in the State of New Jersey from a point opposite Fort Washington to Bergen Point Light and all the waters and shores of Newark Bay and the Hackensack River lying within Hudson County, N. J., from Bergen Point Light to the city limits of Jersey City.'"

According to the report of the New York Chamber of Commerce from which the above excerpt is taken, this great area has a waterfront of 771 miles of which 392 miles is developed (measured around piers and along heads of slips) with 852 piers. Manhattan Borough alone has a direct waterfront of 43 miles. Its developed waterfront is about 76 miles.†

With such an extent of available waterfront New York has relied on piers jutting out from the river fronts and no intensive development of docks or basins has been undertaken. In other great ports, it has been necessary to expend large sums in the construction of enclosed docks with lock gates to control the level of the water. Yet their port facilities are far superior. Already the new Chelsea piers are out of date, as they are not long enough to accommodate the 900 and 1000-foot vessels now being launched.

In 1911 the steamship companies owning these piers asked the Harbor Line Board of the United States War Department for permission to extend the piers to the thousand-foot line. The fairway at that time

* New York Chamber of Commerce. Annual Report, 1913-14. Part II, p. 191.

† *Ibid.*, pp. 194-195.

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between the New Jersey pier-head line and the New York pier-head was 2750 feet. To grant an extension of 100 feet to piers on both sides of the river would leave a fairway of only 2550 feet. In the opinion of the Harbor Line Board, this would be too narrow, and it refused to permit further extension.

However, after a re-opening of the case and after several hearings, this authority in March, 1911, granted a temporary permit to the New York Star Line, allowing it to construct false-work extensions long enough to protect the new vessels, and they were built, making the length of certain piers about 900 feet. This permit was good for only eighteen months, however; it merely deferred the final solution. Later, permission was obtained for these temporary extensions to stand until the city should build longer piers at some other point. The city is now (March, 1913) building such piers in the region of West Forty-sixth Street, Manhattan. In March, 1913, a law was passed permitting the straightening of the head line along the Manhattan side of the North River below Gansevoort Street. This permits the extension of pier lengths.*

Several plans have been proposed for the development of the waterfront to meet the new conditions. It has been suggested that an elevated road along the marginal way would relieve the congestion by the traffic of freight. Sea walls between the Battery and Governor's Island might be built to extend the available pier space. Outlying districts such as Fort Pond Bay, Montauk Point, and Jamaica Bay, have been proposed as centers for the heavy traffic. In the meantime the city and various steamship companies have been compelled to meet mostly with temporary expedients the new problems which arise in the rapid development of shipping and commerce of the port.

* Information from commissioner's office, Department of Docks and Ferries, March 16, 1915.

APPENDICES

APPENDIX A

SOME ASPECTS OF LONGSHORE WORK IN BOSTON

A NEW YORKER who knows anything of waterfront work in Boston can hardly fail to be struck with the greater regard in which the longshoreman of that city is held. Of all ports of the United States, Boston ranks second to New York, both commercially and as an immigration station. It is separated from it geographically by a few hundred miles of seaboard. There is no fundamental difference of national or industrial organization. What then is the explanation of this different attitude?

Possibly some association in the public mind with the fisherman has raised the status of the longshoreman, for in New England the fisherman has always been held in high esteem. However this may be, even a superficial observation of the denizens of the waterfront gives evidence of the soundness of the popular judgment.

The group of foreign commerce men is composed of industrial types which in New York are classed as superior. About 85 per cent are Irish or of Irish descent; the remaining 15 per cent is made up of Swedes, Norwegians, Germans, a few of the older Portuguese, and a scattering of other nationalities. Boston, as regards its foreign commerce, is strictly a union port. As the unions will not admit Italians or Negroes to membership, it follows that there are practically none of these people employed in foreign commerce work. The coastwise men, much less important as a class, are unorganized and of a somewhat different racial composition. Among them are Portuguese, Polacks, Italians, Negroes, and a few Irish. But the unions have been able to prevent the influx of foreigners which has occurred in New York. The result is that in Boston many native-born Americans still enter the foreign commerce work.

The close organization has increased the self-respect of the men and given them a certain standing with their employers and among other workmen. Directly and indirectly it has raised their status. It has obtained for them a higher wage, more regular hours, more stability, and less risk in their work. The saloon, though by no means out of sight, is less frequented than in New York. Many Boston longshoremen are total abstainers.

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The nature of the work, too, in that it tends toward stability, reacts favorably on their personal and industrial character. Many ships stop at Boston to discharge a portion of their freight, and go to other ports to finish their discharging and to load. There is therefore more discharging than loading in the port, and more steady work for the longshoreman while it lasts, for discharging usually proceeds without a break, while in loading, delays in the collection of freight cause halts in the work and layoffs for the men.

All these conditions tend to raise the personnel of the Boston longshoreman. It is claimed that a given amount of work can be done with fewer men in Boston than in New York. On account of certain restrictions in the methods of work made by the Boston unions, it is less easy than in New York for an urgent job to be rushed through, but in straight day work the Boston longshoremen have the record for efficiency. This efficiency comes about from two causes: the personal characteristics of the men already mentioned, partly due to union influence, and the fact that there are practically no floating workers. Most of the longshoremen belong to the port and do its work regularly. Being familiar with its methods they lose no time bungling, but do exactly what is expected of them. The shenango who tarnishes the good name and lowers the industrial average of the New York longshoreman finds no place in Boston. The small amount of lighterage is done by the same men who work on the large ships.

I. THE WORK

Though in the main the working gear of the two ports is the same, there are numerous differences in the way it is used. Variations also exist in the dialect of the two ports. Terms familiar enough in one are not understood in the other. Though in Boston the men are engaged much as in New York, the word "shape" is unknown there. The group of men assembled for hiring is called a "pick-up" or "ring." In New York, turns are taken by the fall around the drum end of the winch; in Boston, the fall is usually fastened to the cylinder or central drum. The Boston longshoreman, therefore, refers to New York as a "winch-end town."

In discharging, loads or "sling loads" are landed on deck and either "struck over" the side by another fall or trucked directly from deck to pier along skids.* These skids are called "stages" because in certain forms of discharging they are used as stages with railings, and so keep the name throughout.

* See also Appendix K, p. 252.



Discharging jute from an East Indian steamer at a Boston pier. Note the use of skids, or "stages," and the arrangement of booms and gear



Cranes on a coal wharf, Boston harbor, unloading coal from a barge by means of clam shell scoops



Loading at a Boston pier. The skids, or "stages," extend to the verge of the open hatchway. In the background lies the "Kronprinzessin Cecilie" interned during the war

SOME ASPECTS OF LONGSHORE WORK IN BOSTON

Unloading by stages is mainly used where cargo is to be discharged on to the second deck or loft of the pier, or where bulk cargo is to be dumped into lighters. With small ships—as for instance sugar ships—the stages are often extended directly from the ship to the lower deck of the pier. At low tide such a vessel is low enough for a stage to be run back on a gradual incline to the pier. In case this just fails to reach the pier a small, bevelled gang plank or “shoe” is used to connect the end of the stage with the pier.

The gangs are smaller than in New York. In discharging usually five men are worked in the hold,—two on a side and a hooker on. On deck, three or four men are worked,—a hatch man, a winch man, the man at the engine on the pier, and sometimes an assistant hatchman to “strike over.” From six to eight pier men are employed. In loading there are eight in the hold, two or three on deck, and from six to eight on the pier. Six men usually constitute a pier gang in both discharging and loading, but for certain cargoes extra men are required. In addition there is the hourly foreman. Hatch gangs as a rule vary from 16 to 18. The gang of 20 sometimes used on the Cunard Line is the largest known in Boston. It will be remembered that a gang of 23 is common in New York. Usually there is one gang to a hatch, but there may be two or even three.

Though individual foremen vary in their treatment of the men under them, there is little driving and abuse. The compact organization of the men makes them more independent as to the treatment they will accept. With the exception of the head foreman or “walking boss” the foremen are members of the union and engaged by the hour. When they are unable to find employment as foremen they do the actual cargo handling without loss of prestige. In interest and sympathy therefore they are closely allied to the men who work under them.

II. THE UNIONS

But the great point in any comparison of these two ports is organization. In New York there are two unions, unsympathetic to one another, each blocking the activities of the other, making for discord, and counting in their membership but a small minority of the longshoremen of the port. In Boston practically the entire labor force of the foreign commerce division is one united body.

The history of Boston's longshore organizations does not show the same vicissitudes as does that of the New York unions. In 1847 the Boston Longshoremen's Provident Union was formed under a charter from the state. Originally this was a benevolent organization, but it

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gradually became a regular labor union,—the first longshore union in the country. In 1882, while the Provident Union was still the organization of the port, a strike for higher wages occurred. The men were receiving 30 cents an hour for day work and 40 cents for night work. They demanded 40 cents for day work and 50 cents for night work. After several weeks a compromise was effected. This is the only important strike in which the longshoremen of Boston have been involved.*

About 1886 the longshoremen of Boston were organized by the Knights of Labor, and formed three assemblies which belonged to the District Assembly No. 3.† With the Provident Union, which had a membership of between 500 and 600, they comprised the entire organized body. In the early part of 1912 these three assemblies, together with the Provident Union, came under the jurisdiction of the American Federation of Labor. Today there are three locals working under charters from the International Longshoremen's Association.

III. THE WAGE SCALE

Undoubtedly the most definite accomplishment of the unions has been the establishment of a wage scale. Before 1909 all work had been performed under a verbal agreement. During that year a dispute arose over the number of men per "tub"‡ employed in the hold in discharging bulk cargo. Eight men had been employed to discharge five tubs. As two men were required for each tub the fifth tub was an extra and was sent down while every couple was engaged in filling its own tub. There was no one to watch the extra tub and accordingly accidents were frequent. The men asked that for every tub used there should be two men employed. Committees were appointed representing the employers and the longshoremen. Their conferences resulted in a signed wage scale, which was to take effect September 14, 1909, and to last one year. Besides establishing a standard rate of wages, the agreement established the rule requested by the men that there should be two to a tub in handling bulk cargo, and fixed certain other rules for the work.

* In 1903, when the teamsters of the city were on strike, the longshoremen went out in sympathy and remained out for three days.

† These three assemblies, in the order of their importance, were: O'Connell Assembly Number 7174; Noddle Island Assembly Number 5789; and Eureka Assembly Number 9623. The freight handlers are affiliated with the same district organization. If a freight handler desires to do longshore work he can obtain a transfer from his assembly to a longshore assembly.

‡ A bucket, or tub, of wood or iron, with iron handle, used for the handling of bulk cargo, such as coal, ore, chalk, sand, and so on.

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This was the first wage scale ever signed in Boston, and the first longshore wage scale signed on the Atlantic Coast. Probably the employers were willing again to sign the same scale, but at the time of this investigation the men were holding off. They claimed that their wages should be increased to keep pace with the higher cost of living. In the meantime, by a sort of tacit agreement, all work was done under the old scale. In February, 1913, a new wage scale was adopted providing for somewhat higher rates of compensation.

The main provisions of this scale follow.

On general cargo for day work (7 a. m. to 6 p. m.) 33 cents an hour is paid; for night work (8 p. m. to 12 m. and 12:30 a. m. to 5 a. m.) the rate is 50 cents an hour; on Sundays and holidays, both day and night, the rate is 60 cents an hour.

On certain kinds of cargo which are dangerous or unusually heavy, the rate even for day work is higher. For instance, on bulk cargo and nitrate in bags the day rate is 35 cents an hour; on glucose and syrup in shipments of over 400 barrels, sugar, molasses, oranges and lemons, the day rate is 40 cents and the night rate is 50 cents per hour from 8 p. m. to 12 m. and 60 cents from 12:30 a. m. to 5 a. m.; on grain the day rate is 50 cents and the night rate (8 p. m. to 12 m. and 12:30 a. m. to 5 a. m.) is 60 cents. On "fire jobs" and work on wrecked and stranded vessels, the day rate is 50 cents, the night rate 60 cents, and the Sunday and holiday rate one dollar per hour.

For work during meal hours, and for each succeeding hour until relieved, double the prevailing rate is paid.

If ordered out for a half or a whole night's work and laid off sooner, men receive pay for the time for which they were engaged. When working on vessels in the harbor, they are paid from the time they leave the wharf until they return. When wanted for Sundays and holidays they are hired in gangs the evening before. The scale contains also specifications regarding the number of barrels which shall constitute a sling or truck load.

A number of unwritten rules have been worked out under this wage scale. No truck load may weigh over a half ton. At some piers, when the work is heavy, the men have the right to drop out singly or in small groups for refreshments in the middle of the morning and afternoon. If night work is to be done on a pier where work has been going on through the day, the night work must be given to those who have done the day work; the foreman may not engage fresh men. Yet very long stretches of work are rare and hours generally are shorter than in

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New York. On certain piers if the men work over seven minutes beyond the hour, they are paid for a quarter of an hour. On the whole, the rates of pay are distinctly higher than in New York for certain classes of work, overtime, and for specially hazardous work.

There is no legislation in the state of Massachusetts regulating the work of longshoremen or affording them special protection. Two hospital emergency stations are conveniently situated on the waterfront, where injured longshoremen may be taken for first treatment.

IV. EARNINGS

It is as difficult to ascertain the earnings of longshoremen in Boston as in New York. Though the number of men is smaller and their industrial character higher, it is even harder to find accounts on which to base estimates. Probably the average of weekly earnings is the same as that of New York—from \$10 to \$12. If the rate of pay per hour is slightly higher and the oversupply much less, there is little overtime to make "big weeks." The balance between the amount of work to be done and the number of men who do it is fairly even.

V. SHELTERS

In Boston little has been done for the longshoreman by the city or by private philanthropy. A longshoreman's exchange was started in 1884 by the Associated Charities of Ward VI, and run by the Oriental Coffee House Company. It was fitted with a coffee and lunch counter, a tobacco stand, reading facilities, telephone connections with the wharves, and desks for stevedores, at which men could be paid. The average weekly attendance during the last two months of its existence was 274. In less than a year after its foundation the place was discontinued. It was said there was little patronage in the summer; that no appreciable profit was to be made from the coffee and lunch stand; and that the saloon keepers opposed it. In return for money loaned from time to time to the stevedores the saloon keepers expected the paying off to go on, according to custom, in or near the saloons.

The next recorded effort occurred nearly twenty years later. The Concert Hall of the Sailors' Haven at Charlestown was thrown open for the use of longshoremen from October till June. Here reading matter and games are provided. In addition the longshoremen are allowed to attend the weekly concerts. During some seasons their average daily attendance has been 300.

SOME ASPECTS OF LONGSHORE WORK IN BOSTON

VI. SUMMARY

It is clear that the longshoreman of Boston is a step higher in the industrial scale than his fellow worker of the greater city. His work is more regular. A compact organization has added to his general industrial advantages and secured for him a signed wage scale. Owing to the greater care in the work and the greater efficiency of the men, the number of accidents is probably slightly less; but nothing has been done directly to reduce them and little to compensate. If the social and industrial environment in which the longshoreman works is better in Boston than in New York, it is so rather as the result of circumstances than of intelligent effort on the part of the community directed toward that end. For systematic attempts to improve the conditions of waterfront work it is necessary to study the more progressive ports of the old world.

APPENDIX B

DOCK LABOR IN LONDON

I. THE PORT OF LONDON

In attempting to solve the labor problems which have arisen on the New York waterfront, one must not make the mistake of neglecting the experience of foreign ports. London, for instance, has been a shipping center for many centuries. To those accustomed to the port of New York with its breadth of water surface and its extensive shore line the limited area provided by the River Thames must seem an insurmountable obstacle to the harboring of a world commerce. Yet in the year ending December 31, 1911, the total net tonnage of vessels entering and leaving the port of London "with cargoes and in ballast from and to foreign countries and British possessions and coastwise" was 39,179,153 tons. The value of the total imports and exports (excluding coastwise goods) for the same year was £368,202,536 (was \$1,793,146,350.32), an amount differing but slightly from the corresponding amount for the port of New York.*

These results have been made possible by the construction of what are technically known as docks, built from the land surface by heavily capitalized dock companies at enormous expense. These docks are entered by narrow passages and contain basins which are adapted to the accommodation of sailing vessels or great passenger vessels, as the case may be. A wharf differs from a dock in that it is a structure "extending from the shore to deep water, so that vessels may lie close alongside." A quay is a solid artificial landing place made for convenience in loading and unloading vessels, and may be at the side of any natural waterway or within a dock.

The special feature of the docks which makes them available for large ships is the lock. By closing the lock gate, the water is retained and the ship kept afloat during the fall of the tide. Some of the docks are more than a century old; others are modern in construction and equipment. The Royal Victoria and Albert Docks—the largest and most

* Third Annual Report of the Port of London Authority for the year ended March 31, 1912, pp. 1-2.

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modern in London—contain a water area of 183 acres and berths for 60 large vessels besides quay accommodations for many smaller ships.

II. EMPLOYERS, METHODS, AND DIVISION OF MEN

Employers of labor in London can be divided into four classes: dock companies, wharfingers, shipowners, and master porters or stevedores. The last three of these classes are formed of individual units which act independently. With the dock companies, however, there has been a steady consolidation, until at the present time there is practically only one in the port,—the Port of London Authority. This employs about 34 per cent of the labor of the port; the wharfingers about 41 per cent; the shipowners about 13 per cent; and the stevedores about 12 per cent.

The Authority has power to administer and improve the port and almost absolute freedom of action in so doing. Its Board consists of a chairman, a vice-chairman, and 28 members. Of these, 18 are elected and represent the shipping interests, while the remaining ten are appointed and represent various organizations, including labor unions. Yet notwithstanding its official power and representative management, the Port of London Authority is an individual employing body competing with other employers for the trade of the port.

The work in London differs in many details from the work in New York. The use of railways on docks and wharves is almost universal. The demand has been that goods should be brought as near to the vessel as possible. Frequently, where special classes of goods are shipped, the loading is from the freight cars directly to the vessel's hold. Sometimes when it is not convenient to place the goods on board immediately, they are temporarily stored in transit sheds.

But though differences exist, the actual labor required of the men is similar to that required in New York. There are the trucking on the quay, the slinging by fall or hauling by skid, the signaling to and by the gangway man, the manipulation of winches and cranes, and the stowing in the hold. There is also a similar conservatism of method—a dependence on hand labor and dearth of mechanical appliances.*

The division of the men differs. The distinction of pier men, deck men, and hold men does not exist in London. There are two great divisions of dock workers. The skilled men, corresponding to the skilled longshoremen of New York, who do the actual loading (and of late years unloading) of vessels, are called stevedores. These men work usually in gangs and are employed by master stevedores, by the owners of the ships

* There has been considerable increase in the use of mechanical appliances during the past few years, and this increase is likely to continue.

or their representatives, and a small proportion only are employed by the dock companies. They transfer the cargo between the quay or wharf and the vessel's hold. The ordinary "dockers" or "dock labourers"—the casuals—who compose the major portion of the "wages staff" of the dock companies, handle the goods on the quay or wharf and transfer them to or from the warehouses and sheds.*

With this last distinction in mind, a brief consideration of the efforts of the dock companies, and of their successor, the Port of London Authority, to improve the conditions of dock labor, may throw some light on similar problems in New York.

III. METHODS OF EMPLOYMENT BEFORE THE STRIKE OF 1889

Such difficulties as irregularity of employment, low wages, bad health conditions, and risks have been as characteristic of London dock labor as of the longshore work of New York. What is even more important for the present investigation, there has been for twenty years a lively public interest in the English docker. The attention of official and philanthropic England has been steadily fixed upon him, with the end of improving his condition kept consistently in view. And this has been not without effect.

The condition of dock and wharf laborers in London before the Great Strike of 1889, and indeed during the succeeding decade, has been characterized as beyond adequate description. The docks and wharves included in their labor force a great conglomeration of men from various trades and different classes of society. They were the industrial and social dust heap of the city. The following, written in 1897, accurately sets forth the conditions which had prevailed:

"At taking-on time at certain wharves, where the foreman would come and stand at the iron gates of the wharf entrance, there would usually be a crowd of from two to three hundred men. Probably seventy or eighty would be required, and those at the back of the crowd would climb on to the heads of their fellows, and roll over and over their heads to reach the foreman to get from his hand the metal ticket admitting

* "After the dock strike of 1889 the dock companies practically ceased discharging and loading ships, and this work is now almost entirely controlled by ship owners, wharfingers, and master stevedores."—London Charity Organization Society. Report of Special Committee on Unskilled Labour, 1908, p. 208. Testimony of Fred Scrutton, of Scrutton Sons and Co., ship owners and West India merchants.

"It is necessary to point out that the dock companies' work is confined to warehousing work, which is far less skilled than the work of either loading or unloading, and that they have given up the loading and unloading previously undertaken by them." Report to the president of the Local Government Board on Dock Labour in relation to Poor Law Relief, by Gerald Walsh, p. 4.



Courtesy Port of London Authority

The St. Katharine Docks, London, opened in 1828. The old warehouses which adjoin the quay contain some of the most valuable articles of produce which enter the port of London

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them to work. The scrambles were frightful."* Such scenes are described by eye witnesses. Casual labor was at its worst.

The interest aroused in dock labor by the Great Strike gave rise to a series of investigations both individual and official. The result—a slow but material improvement in the conditions of dock labor—has expressed itself mainly along two lines: in the partial regularization of the employment and in legislation directed toward the elimination of accidents and compensation for injuries due to the work.

Before the strike the system of employment by the dock companies varied only slightly from dock to dock. Laborers were employed in gangs, either directly by quay or warehouse foremen in the employ of the companies, or by contractors to whom the work was let out. The quay and warehouse foremen took orders from the warehouse keepers and their deputies. The warehouse keepers were responsible to the superintendent of the dock and his deputy who, in turn, received instructions from the officials at the Dock House in the city.

Laborers were either permanent men who were sure of work all the year with a weekly wage of about 21s. (\$5.11),† or casuals, who were employed by the hour at a wage of 4 d. (8 cents), 5 d. (10 cents), and 6 d. (12 cents). Usually the wage was 5 d. Yet in certain sections 2 s. 6 d. (60 cents),—less than 4 d. per hour,—was commonly paid for a day of eight hours. Among the casuals were preference men who were all taken on before the others had a chance, and at some docks they were given tickets entitling them to preference in the hiring and were called ticket men. Sometimes the distinction was less sharply drawn and amounted merely to a tacit understanding between the foreman and certain casuals who were called "royals."

Under the contract system the dock companies bound the contractor to pay his laborers at a minimum rate. This rate was 6 d. (12 cents) an hour for the London and India Docks Joint Committee. Sometimes there was a "plus" system, where by division of the "plus" or bonus, men drew more than the minimum wage.

* Mann, Tom: *The Position of Dockers and Sailors in 1897 and the International Federation of Ship, Dock, and River Workers*, p. 2. London, The Clarion Press, 1897.

† The real value of English as compared with American money is much greater than the nominal value. Computed on the basis of its buying power in food and rent—the two chief items in a workingman's budget—it is 52 per cent greater. If carfare and clothing be added the difference is certainly no less. See *Cost of Living in American Towns. Report of an Inquiry by the Board of Trade into Working Class Rents, Housing and Retail Prices, together with the rates of wages in certain occupations in the Principal Industrial Towns of the United States of America. General Report LXXVI*, London, Darling and Son, Ltd., 1911.

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The work of the wharfingers,* the keenest rivals of the dock companies, was organized on a similar plan. Labor was taken on by quay and warehouse foremen, who were directly responsible to the wharfingers. There was no class of preference men.

The export trade commanded a higher and better organized class of labor than the import trade. Stevedores—the men who loaded the cargoes into the holds of vessels—were skilled men engaged by master stevedores, who provided the necessary gear and contracted directly with shipowners and their agents. Stevedores could earn as much as 36 s. (\$8.77) a week.

The Thames lightermen and watermen loaded and navigated the heavy barges by the aid of which vessels discharged and loaded their cargoes overside. These men earned from £2 (\$9.74) to £3 (\$14.61) a week, and were a compact, close corporation which held the key to the situation in a strike, since it could paralyze the commerce of the river.

IV. CHARLES BOOTH AND THE TICKET SYSTEM

The first man to make a thorough investigation of the dock laborer in London was Charles Booth. His *Life and Labour of the People* contains several chapters dealing with the riverside workers.† In his testimony before the Royal Commission on Labor, Transport, and Agriculture in 1892, he outlined a system for improving the conditions under which the docker works which has not as yet been superseded; which, in fact, furnished a basis for the efforts toward regularization of dock labor in the twenty years which followed.

Mr. Booth suggested the perfecting of a list system already in use. There should be, he said, a clearing between different departments at the docks so that those departments which were short of men might be supplied by those where there was a surplus. Managers know each afternoon approximately how much labor they will require on the following day. The men, therefore, when leaving work, should apply for information as to where they would be needed in the morning. Each manager should in turn apply to a central clearing department. A clearing with other trades was another feature of the program. For instance, the building trade is busy in summer, the slack season at the docks, and slack in winter, the busy season at the docks. An interchange of labor between

* A wharfinger is a person who owns or who has charge of a wharf or premises where accommodation is provided for vessels or goods; one who makes a business of letting such accommodation.

† Booth, Charles: *Life and Labour of the People in London*. Vol. VII, Part V, Chapter I, pp. 392-432. London, Macmillan, 1903.

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the two would be to the advantage of each. For the delay and danger due to the terrible fogs, Mr. Booth offered no remedy.

The main difficulty in the situation at the docks is, as has already been indicated, the large floating reserve of labor, far too great even for the maximum demand. The ticket system of the London and India Docks Company, a development of the principles laid down by Mr. Booth, was the first serious effort toward the regularization of dock labor and the elimination of casual employment. It is a system which carried the weight of twenty years' experience. For the sake of the light it may throw on the problems of longshore work in the port of New York, it is worth while to give brief consideration to the main features of the system. The data presented in the remainder of this section are based on portions of the testimony of a staff inspector of the London and India Docks Company before the Special Committee on Unskilled Labour of the London Charity Organization Society.*

For the purposes of employment the entire system of the London and India Docks Company was divided into five controls which were subdivided into 45 departments. Each control had its own superintendent. The four classes of employes composing the labor force were, (1) the "permanent" laborers, with a guaranteed weekly wage; (2) the registered, or *A*, men, also with a guaranteed weekly wage; (3) the preference, or *B*, men, with a guaranteed wage per hour; and (4), casual men, employed as needed at the same rates as the *B* men. Other details, as to overtime pay and vacations, were adjusted according to the grading of the men. A small bonus was also paid according to the amount of work done.

From the laboring boys, who are trained to the docks from an early age, and from the "A" or registered men, were recruited the ranks of the permanent men. The registered or "A" men were chosen from the preference men (the *B* list) as needed, in order of priority. The *B* or preference men were taken from the steadiest and most efficient of the casuals.

As men of the permanent class became less robust they were drafted into some special work where experience counts more than physical strength. At the age of sixty-five years, and after at least fifteen years of service, they were pensioned. A permanent man of any age who after fifteen years' service was incapacitated for work by accident or illness was also pensioned. Besides the permanent laborers a number of preference (*B*) men received allowances in case of illness or disablement, and

* London Charity Organization Society. Report of Special Committee on Unskilled Labour, pp. 114 ff. London, 1908.

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The main difficulty in the situation at the docks is, as has already been indicated, the large floating reserve of labor, far too great even for the maximum demand. The ticket system of the London and India Docks Company, a development of the principles laid down by Mr. Booth, was the first serious effort toward the regularization of dock labor and the elimination of casual employment. It is a system which carried the weight of twenty years' experience. For the sake of the light it may throw on the problems of longshore work in the port of New York, it is worth while to give brief consideration to the main features of the system. The data presented in the remainder of this section are based on portions of the testimony of a staff inspector of the London and India Docks Company before the Special Committee on Unskilled Labour of the London Charity Organization Society.*

For the purposes of employment the entire system of the London and India Docks Company was divided into five controls which were subdivided into 45 departments. Each control had its own superintendent. The four classes of employes composing the labor force were, (1) the "permanent" laborers, with a guaranteed weekly wage; (2) the registered, or *A*, men, also with a guaranteed weekly wage; (3) the preference, or *B*, men, with a guaranteed wage per hour; and (4), casual men, employed as needed at the same rates as the *B* men. Other details, as to overtime pay and vacations, were adjusted according to the grading of the men. A small bonus was also paid according to the amount of work done.

From the laboring boys, who are trained to the docks from an early age, and from the "A" or registered men, were recruited the ranks of the permanent men. The registered or "A" men were chosen from the preference men (the *B* list) as needed, in order of priority. The *B* or preference men were taken from the steadiest and most efficient of the casuals.

As men of the permanent class became less robust they were drafted into some special work where experience counts more than physical strength. At the age of sixty-five years, and after at least fifteen years of service, they were pensioned. A permanent man of any age who after fifteen years' service was incapacitated for work by accident or illness was also pensioned. Besides the permanent laborers a number of preference (*B*) men received allowances in case of illness or disablement, and

* London Charity Organization Society. Report of Special Committee on Unskilled Labour, pp. 114 ff. London, 1908.

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in some cases a small pension. The tickets issued to the B men were signed by the superintendent of the dock and renewed every quarter. There was little change from one quarter to another in the personnel of the lists.

A certain number of B men estimated on a basis of 40 or 45 per cent of the men usually at work, were detailed to each department of a dock or town warehouse.

"Every afternoon the head of each department forwards to the office of the Superintendent of the dock a labour indent form attached, which gives an estimate of the number of men which will be required on the subsequent day. The form also shows the number of weekly men actually employed on the date of the indent. By comparing the number of weekly men employed on the current day with the requirement for the following day, the prospective surplus or deficiency is ascertained, and at the foot of the form instructions are inserted by the Superintendent's clerk as to how the surplus is to be disposed of, or the deficiency made up. The forms are then returned to the department.

"When the requirements exceed the available number of weekly men, which is usually the case, forms are issued to the departments, showing not only the number but the registered numbers of the preference men needed in order of priority, and these forms are posted in conspicuous positions at each department in order that the preference men may learn how many will be required, and where they are to attend for work next morning. If next morning it is found more men than were indented for are wanted the department is at liberty to engage additional preference men from its own list; but the numbers must be called strictly in the order in which they appear on the list. When a department has exhausted its own list it is the rule for the officer to engage further men only in the order in which the numbers appear on a special list, which is arranged to give sets of 10 per cent of the men of each other department in the order of their priority. It is arranged thus in order to ensure the distribution of the excess work of any one department amongst the men highest on the lists of the other departments."*

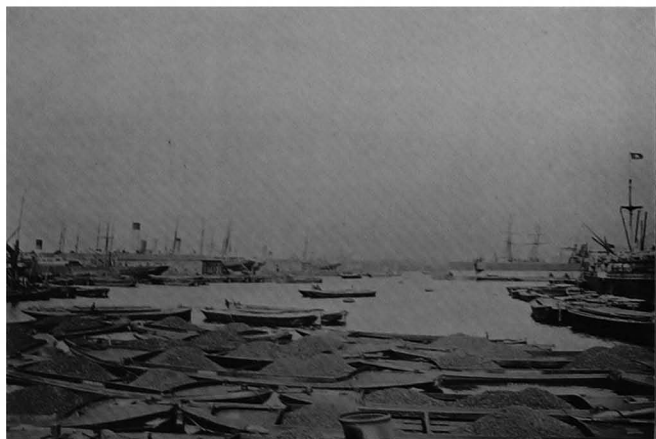
"The question may now arise as to what is done if any one of the controls has not sufficient work in its own departments to employ the whole of its weekly labourers. The answer is that when the day's returns are put together in the superintendent's office, and it is found that a number of weekly men will not be required, the superintendent of each of the other controls is telegraphed or telephoned to, and he is offered the sur-

* Report of Special Committee on Unskilled Labour, pp. 135-136.



Courtesy Port of London Authority

Scene in the Royal Victoria and Albert Docks, London



Courtesy Port of London Authority

View from the western end of the Royal Victoria Docks, London. The Royal Victoria and Albert Docks form one system, the largest under the control of the Authority



Courtesy Port of London Authority

Scene at the Tilbury Docks, London



Courtesy Port of London Authority

View at the Tilbury Docks, London, showing the temporary storage sheds, the hydraulic cranes, and the railroad tracks on the quay. The very large ships of recent construction which sail to London use the Tilbury docks

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plus men. He is bound to take the weekly men offered in lieu of employing his own preference men, which he would otherwise do."^{*}

Briefly, "a taking-on foreman can only engage preference men in the following order: first, his own departmental preference list must be called; secondly, the preference lists of other departments within his own control are to be taken; and thirdly, preference men from other controls have to be engaged before local or any other casuals are booked."[†]

V. DISCUSSION OF THE TICKET SYSTEM

By some a ticket system such as that just outlined has been offered as a solution for the evils of casual employment. Though a smaller number of men obtain work, a larger proportion have steady employment. With regular pay they can establish a standard of living and maintain it. Their physical condition improves. Familiarity with the methods of a particular dock makes better work possible. If, as it has been objected, the list system makes the elimination of unfit individuals difficult, the casual system tends to force the employer to a selection almost exclusively from the unfit. Moreover, steady work with piece-work rates and a bonus furnishes as great stimulus to effort as the most unrelieved competition. Men who can not or will not earn their share in piece-work will soon find that their companions refuse to carry them. Men, on the other hand, working at time rates can be controlled more effectively by one authority which holds a record of their industrial character than by many who have no such record. The improved quality of the work done more than covers the additional expense of maintaining a permanent staff.

Yet it must be recognized that, with the exception of the Liverpool scheme, to be discussed in the following Appendix, no other British company or companies have attempted to apply the principles of the ticket system on a large scale, and that it has been strongly opposed by shipowners, ship brokers, and trade unions. The shipowners and brokers object to it on the ground that it diminishes competition and increases the expense to the employer, that the weekly wage makes it more difficult to get rid of the inefficient, and that supervision of men can be much closer when they are under foremen engaged by private firms than when they are under foremen in the employ of a large company. Shipping companies and contractors do, as has been indicated, work on a preference system which, though loose, gives the work a flexibility that a more rigid system might destroy.

The objections from the side of the men to such a system for the

^{*} Op. cit., p. 136.

[†] *Ibid.*, p. 137.

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decasualizing of labor as that established by the London and India Docks Company have been stated as follows: (1) It would reduce the standard rate of wage. (2) It would introduce excessive driving under the bonus system. (3) No two hatches of a ship are of the same carrying capacity. If a gang was discharged from one hatch, which was not finished, to make room for preference men who had finished at the hatch where they were working, the men who were discharged would not come back another time. (4) By instigating the casual to make every attempt to get on a preference list it would increase the jealousy among the men and the bribery and corruption of the foremen. (5) Such a system might work at the London and India Docks Company where the work is practically uniform, but it would be impossible to apply it throughout the port where the work is varied and much of it is skilled. (6) "Above all," the men say, "we cannot recognize how any suggestion of decasualization which does not make provision for the man crushed out to get work is going to benefit the casual labourer; but, on the contrary, it makes his position infinitely worse than at present."*

Yet when all has been said that can be said against the system, the fact remains that by means of it a step was taken toward the solution of the problem of casual employment. The graded classes of workers, each drawing from the best of the class below it and discarding its unfit into that class, must necessarily keep up the standard of character and work, and act both as a steadying influence and an incentive to the men. Employment by a single authority sets an economic value on the personal and industrial character of the men, which comparatively regular earnings enable them to realize.

It was the original purpose of the London and India Docks Company to raise the percentage of weekly men to 75 per cent and reduce that of the extra men to 25 per cent by the ticket system outlined. This result was attained in the year 1902. An additional increase in the relative percentage of weekly men during the three years following is to be explained by the leanness of trade during that period. The company was obliged to keep its agreements with the weekly men, but, work being short, took on comparatively few extras.

VI. THE DEVONPORT AGREEMENT AND THE STRIKE OF 1911

In 1909 the Port of London Authority succeeded the London and India Docks Company, and on the twenty-seventh of July, 1911, the so-called Devonport agreement was made between the employers of dock

* Local Government Board. Report on Dock Labour in Relation to Poor Law Relief. Letter from Mr. James Sexton, p. 32. London, 1908.

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labor and the Transport Workers' Federation. By the terms of the agreement pay was to be raised 1 d. (2 cents) per hour for day work and overtime, making day work 7 d. (14 cents) and overtime 9 d. (18 cents) an hour. The case of workers already earning 7 d. (14 cents) was left to arbitration.

While the question of augmenting the weekly staff and extending the ticket system to those of its docks which had not been under the control of the London and India Docks Company was under consideration, a controversy arose. Owing to a misunderstanding of the terms some of the 7 d. (14 cents) men expected an immediate raise. A strike organized by the National Transport Workers' Federation and involving some 100,000 work people was the result. The shipping of the port was at a standstill. The strike was made an excuse for each body of workers to press its special demands, and the National Transport Workers' Federation took its stand on the principle that no section of the riverside workers that it had called out should return to work until the demands of all were granted. So far as the London dock laborers were concerned the matter was settled August 18, 1911, at a conference of shipowners and representatives of the National Transport Workers' Federation. Material gains resulted in nearly every branch of riverside labor. The position of the dock laborer remained substantially as it was under the previous agreement.

From the point of view of the value of the ticket system as carried out in London as an influence in increasing the industrial stability of the dock labor force, it is of interest to note that twice during the year 1911 and once at the beginning of the strike of 1912 the men threw up their agreement and went out. Whether or not this action of the men was justifiable need not be discussed here. The point which requires emphasis is that by going out without the notice agreed upon the men forced their employers to recognize the fact that the assurance of regular work with privileges at the end of a long term of service was no guarantee that they could be depended on in time of stress. This action of the men caused the Authority to doubt the value of the agreement and to question whether an expensive system which broke down under the least pressure was satisfactory. Nevertheless, the men were twice reinstated with full privileges in 1911.

During the years 1911 and 1912 there had been an unusually full volume of work. In consideration of the circumstances outlined the extra work was given to casuals. Consequently the relative percentage of extra men increased at the expense of the weekly men. After the strike of 1912 the permanent and registered men who had gone out were taken

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back as B men. They not only forfeited their regular work and their privileges but were placed on the B list below the efficient men who had taken their places during the strike.

In spite of discouragements, however, the experiment in decasualization of labor undertaken by the largest employing body in London is valuable. If the "ticket system" as carried out by the Port of London Authority, developed from that of the dock companies, has been under existing labor conditions only partially satisfactory it has certainly been to some degree a success. It has strengthened into conviction what was until the experiment had been tried merely a well reasoned belief, that dock labor—the most uncertain of all casual labor—can be decasualized, but to this end unity of action throughout a sufficiently large area of employment is necessary in order that the labor supply of that area may be pooled.



Floating crane "Samson," Liverpool. Capable of dealing with loads up to thirty tons in weight

APPENDIX C

AN ATTEMPT TO DECASUALIZE DOCK LABOR IN LIVERPOOL

I. THE DOCK LABORER OF LIVERPOOL

Liverpool though a younger port than London is not far behind the latter in importance. In the year 1911 the import and export trade amounted to £336,439,017 (\$1,638,458,012.79),* against £368,202,536 (\$1,793,146,350.32) for London during the same year. As might be expected, the problem of the Liverpool dockers is of more recent growth. The clearing house scheme devised in 1912 to meet this problem, though following even more closely than the ticket system of London the lines laid down by Charles Booth in 1892, is believed by some to be an additional step forward in the regularization of casual labor.

The dock laborers of Liverpool are divided as in London, but stevedores go by the name of shipmen and dock laborers proper are called porters. There are also subdivisions within these classes, founded as in New York on the subdivisions of the work.

Employers are (1) master stevedores and master porters who contract with shipowners and merchants; (2) shipowners who do their own stevedorage or portorage or both; (3) merchants who do their own portorage; and (4) the Mersey Docks and Harbour Board which employs labor in six closed docks.

Before the adoption of the clearing house scheme practically all dock labor was casual. Certain firms, such as the White Star, the Cunard, and Messrs. T. and J. Harrison, had a system of "preference" men or "low numbers," but the system was by no means general. There has, however, always been a rough preference for men who "followed" certain firms and were known to the foremen.

II. THE NEED OF ORGANIZATION

In April, 1912, a paper on the Liverpool Docks Problem† was read before the Liverpool Economic and Statistical Society by Mr. R. Williams,

* Third Annual Report of the Port of London Authority, 1912, p. 2.

† Williams, R.: The Liverpool Docks Problem. Liverpool, The Northern Publishing Co., Ltd., 1912.

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Divisional Officer for the North Western Division of Labour Exchanges.* A study of statistics gathered in the port had convinced Mr. Williams that labor at the Liverpool Docks was sadly in need of organization; that all the characteristic evils of casual employment were at work toward the demoralization of the docker and the consequent reduction of his efficiency. The reserve of dock labor above the maximum demand was estimated at 7,000 men; yet during the month of January, 1912, there was, except during four days, a shortage of labor at certain docks, while at the same time every day showed a surplus for the port. On the eighteenth of the month the shortage in one section amounted to 1,092 men, and the same day showed a surplus in other parts of the port of 3,582 men. The problem of regularization was evidently to reduce the reserve to the lowest possible proportions. To this end two preliminary results had to be attained: (1) the total labor supply of the port had to be pooled; and (2) absolute mobility of labor must be attained.

III. THE CLEARING HOUSE SCHEME

The scheme drafted by Mr. Williams in The Liverpool Docks Problem is an attempt to solve the problem of casual dock labor in Liverpool along these lines. It is known as the Clearing House Scheme† and went into effect in that port July 14, 1912, under the auspices of the Labour Exchanges. It is supported by the Board of Trade and by contributions from shipowners. It is given here as it has been adapted to practical conditions in Liverpool, and as nearly as possible in Mr. Williams' own words.‡

For the purpose of the clearing house system the port of Liverpool

* A system of labor exchanges was established in 1909 by Act of Parliament. These exchanges are conducted by the Labour Department of the Board of Trade. Their expenses are paid out of Parliamentary funds. For the purpose of administration the country is separated into "divisions," each under the control of a divisional officer, who is a subordinate head of the labor department, and whose office acts as a clearing house for the transfer of workers.

† Any application of the principles underlying the Clearing House System would, of course, require modifications in the practical details to meet local conditions. For instance, one complication of the system peculiar to British ports is due to the insurance contributions which under the National Insurance Act must be deducted weekly by the employers from the pay of the men. These, in addition to contributions from the state and the employers, constitute a fund, publicly controlled, for compensation in case of accident or illness. Dock labor is not included among the trades listed in the section of the act which deals with unemployment. The fact that the clearing house system relieves the shipowners and other employers of the onerous duty of collecting and registering these contributions is probably one reason for their ready acceptance of the scheme.

‡ Williams, R.: *First Year's Working of the Liverpool Docks Scheme*. London, P. S. King and Son, 1914.

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is divided into six clearing house areas, each with its own local clearing house. A central clearing house for the management of general affairs and the clearing of wages is established in a location convenient to all areas. Each clearing house area has its own committee, and a Joint Committee* of employers and workmen from all the areas acts as a final referee in matters of dispute.

Dock laborers assemble at stands where foremen select those they wish to make up their gangs. Under the Clearing House Scheme the ordinary stands are supplemented by "surplus stands." Two or three of these surplus stands are conveniently located in each area for the use of men who fail to secure work in the ordinary way. A surplus stand is a small hut in charge of one or two officials of the Board of Trade who have had dock experience. All the surplus stands in one area are connected by telephone with the local clearing house, which is in turn connected with the central clearing house. Notice can, therefore, be given almost immediately along the whole line of the docks of a shortage or surplus of labor at any point, and the labor distributed accordingly. Nearly all the firms are also connected directly by telephone with the clearing house of the area in which they are situated. By this system considerable progress has already been made toward overcoming the anomaly of a local shortage and a local surplus existing in the same port at the same time.

The clearing houses deal with six matters relating to dock labor, four of which will be described in detail.

1. *The Registration of the Men.*—This was effected in the following manner:

Between July 1 and July 13 every man working as a docker was required to present himself at the stand of the employer for whom he usually worked. There he received a slip which entitled him to a "tally."† Slips were divided into two blocks.

(1) Slips numbered consecutively were given out in numerical sequence to the more regular men, in order of preference as far as possible.

(2) Slips without any number on them were given to casual or irregular men in any order whatever. Each slip clearly showed at what clearing house the man was to register. A slip was given to any man who applied for it provided the firm could identify him as a man who had worked for it previously.

These two divisions correspond respectively to the classes of

* Appointed under the so-called White Book Agreement of 1911, between employers and dock laborers.

† The tallies are small metal discs bearing letters and figures indicating the various areas in which they work and their numbers on the lists of the firms by which they are employed.

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"company's" men and "clearing house" men. Men belonging to the first class are in reality preference men and are hired first at the stands of the particular firm whose tallies they bear. It is the intention of the founders of the system that other privileges shall be attached to the tally held by the company's men.

II. *The Payment of Wages.*—The procedure with regard to the payment of wages has called for considerable modification since the scheme was originally drafted. Each firm is now supplied with official wage sheets. These are of two kinds. Wage sheets containing tally numbers printed in sequence are supplied to the large firms. Sheets in which the tally numbers have to be written without fixed order are given to the smaller firms. All wage sheets of each clearing house area are of a color distinctive to that area. Firms which have drawn their labor supply from several areas must use wage sheets of as many different colors as there are areas from which the men have been drawn.

Each clearing house area is allotted a certain letter by which its tallies can be recognized, and each firm is given a definite block of numbers, always starting at an even hundred. Quay-porters and shipmen have different blocks of consecutive numbers. Each firm is allotted to a certain clearing house and the men belonging to that firm must register and always deal with that clearing house. They are, however, free to apply for work outside their clearing house area.

The scheme went into effect on July 14, 1912. On and after that date a taking-on foreman was obliged to satisfy himself that every man he engaged was in possession of a local clearing house tally. When a man is taken on, a record must be made both of the clearing house number and of the firm's tally number allotted to him. During the week the firm can deal with him under its own tally number. When wages are made up he must be identified not by the firm's tally number but by the clearing house number. Each firm is required to get duplicate sets of private tallies of its special color and clearly marked with its own letter or cypher; for each man is required to hand over his firm's tally to the clearing house as a receipt when he receives his wages, and these tallies cannot be returned to the firms in time for the Monday morning hiring.

Every firm is required to lodge pay sheets at the clearing house to which it is attached before midnight on Friday, the wages made up to 5 p. m. Friday. Firms are also obliged to pay a check covering their wage account into an agreed bank before 11 a. m. on Friday.

The clearance of wages takes place Friday night at the Central Clearing House, and the process occupies practically the entire night. The clerical staff of each area is accommodated in a separate room. When

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the wage sheets are received they are sorted by color and apportioned to their respective areas. First their numerical accuracy is verified; after this has been done they are divided among the clerks and each item of wages is transferred to pay-sheets containing printed numbers corresponding with those borne by the men. The object of this is to make sure that in case a man has worked for two or more firms his earnings will be brought together, his insurance contribution deducted, and the net total due him clearly shown in one sum. Thus a man who has worked for several firms or in different areas gets his whole pay in the local clearing house of the area in which he is registered, whereas formerly he was obliged to collect it from individual firms often far removed from one another.

The pay sheets are distributed by the dock managers to the local clearing houses early Saturday morning, with the sum of money necessary to pay the men. The amounts are divided among the various pay clerks according to the sheets with which they have to deal. The clerks count out their money and deposit each man's wages in small vertical trays or pigeon holes which bear the appropriate tally numbers. By this method of balancing the cash before paying off begins, the risk of error is reduced to a minimum. The paying off of the men begins at 10 a. m. Each clerk pays from 600 to 700 men. In order that the men may find their way easily to their pay windows their tally numbers are printed outside the pay huts.

Firms which wish to pay their workmen themselves may have special windows in their local clearing house. In such a case a man registered in the "A" area who bears the letter "A" on his tally must be paid at the "A" clearing house whether or not he has worked outside that area. Thus although a firm has a window in the "A" clearing house it will only pay men there who are registered in the "A" area. Men registered in the "C" area must, in case this firm has no window in the "C" clearing house, be paid there by the Board of Trade.

There are three methods of payment:

(1) A man who receives pay only from those firms which pay through the Board of Trade presents himself at the proper window and receives his pay from all firms in one sum, less his insurance contribution.

(2) In the case of a man who receives his pay only from a firm which pays its own wages the procedure is the same.

(3) The man who receives his pay both from a firm which pays only through the Board of Trade and from a firm that pays directly has obviously to attend at two windows in the local clearing house of the area in which he is registered. The insurance deduction is made at the pay window belonging to the private firm; while amounts due from other

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firms are paid in full by the Board of Trade. This arrangement requires firms paying directly to render to the Central Clearing House on Friday night a list of tally numbers of those men whom they intend to pay. Against these numbers on the Board of Trade sheets the letter "P" is inserted in the insurance column. The wages appearing on those sheets are then paid in full.

In case a man disputes the amount paid to him he is paid the amount shown on the wage ticket and moved on to a special dispute window. Here he receives a dispute form which he takes to his employer. If unable to settle the dispute with him, he may lay his case before the Clearing House Committee.

A voucher is given by the firms to any man who has worked for them during the current week and who, wishing to work outside the docks, applies for one in order to get his insurance card from the clearing house. The voucher is accepted as authority to stamp the card. If a man has not been employed inside the scheme during the current week, he simply deposits his tally at the Clearing House and receives his insurance card (unstamped) in exchange.

III. *The Fulfillment of Employers' Obligations under the Insurance Act.*—This is discussed on the following page.

IV. *Weekly Meetings of the Clearing House Committees.*—A clearing house committee is composed of five representatives of the employers and five representatives of the men registered within each area. In case of a deadlock a dispute is referred to the Joint Committee.* The manager of the local clearing house acts as secretary of the committee of his area, but has no vote and takes no part in the proceedings. The clearing house committees deal with (1) the issue and withdrawal of tallies; (2) the adjustment of disputes in connection with work done at the clearing house; (3) the consideration of matters affecting its area referred to it by the Joint Committee; (4) advice to the Board of Trade with respect to the appointment of the indoor and outdoor staff of the clearing house; and (5) suggestions for the improvement of the machinery.

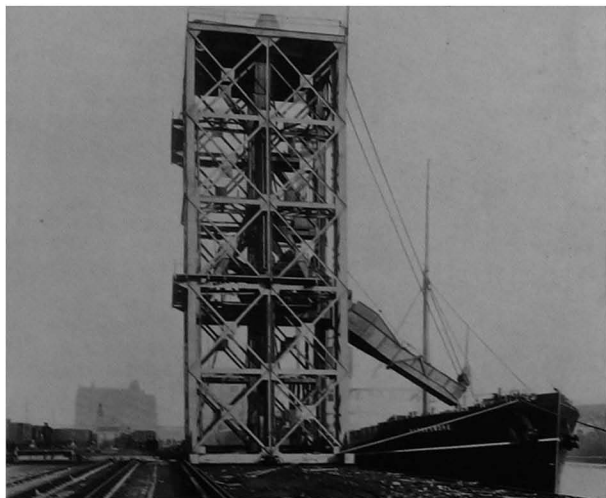
On the Joint Committee, employers and men have equal representation. It meets once a month when the proceedings of the clearing house committees are submitted to it for confirmation. The Divisional Officer of Labour Exchanges or his deputy is present but has no vote. In case of continued disagreement of the Joint Committee the matter is left to be provided for by the consent of the parties disagreeing.

The clearing house committees practically control the labor supply of the port. They draft the detail working of the clearing house and it is

* See p. 201.



Hydraulic moveable coaling crane, Liverpool. Capacity thirty tons. The latest coaling device



Hydraulic moveable coaling hoist, Liverpool. Capacity thirty tons



Roof crane for discharging goods from vessels, Liverpool. Capacity thirty cwts.

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their function to modify or improve the system as experience shows its weak points. They must decide when the labor supply of the port needs augmentation. It has been suggested that some system could be devised by which respectable boys drafted in for some of the lighter jobs would subsequently be given preference tallies and thereby improve the status of dock work.

In addition, these committees, formed as they are of masters and men, should promote good feeling and the recognition that there are two sides to every question. Thus they should in time be a powerful factor in abolishing sectional disputes.

V. *The Provision of Post Office Savings Facilities.*—The depositing of money is made as convenient as possible in order that dockers may be encouraged to save.

VI. *The Dissemination of Information.*—Through the clearing house, for instance, the men are notified of irregularities in the times or places where stands are to be held or where they will be needed on the following day.

In case of trade disputes between employers and men the machinery provided in this agreement lapses in the area affected, except in so far as its continuance may be necessary for the payment of wages and of contributions under the Insurance Act.

IV. DISCUSSION OF THE CLEARING HOUSE SCHEME

Several characteristics of this scheme deserve mention. It is based on the idea of federation of employers and men rather than on the idea of a partial monopoly by employers, as is the ticket system of London. Liverpool is strictly a union port. No man but a union man can be employed at the docks. The scheme is supported by the unions. Although a large body of the workers, through misunderstanding of the scheme, struck at the time of its inception, they did so contrary to the orders of their union.*

It has already been suggested that the National Insurance Act was a very useful lever in inducing employers to agree to the scheme. The Board of Trade, by taking over the liabilities of the employers with respect to the stamping of the dockers' books and the collection of contributions, saves them considerable work, worry, and inconvenience. In addition, the pooling system of dealing with employers' contributions is so framed as to induce them to decasualize. For instance, every docker has to pay a contribution for National Health Insurance for every week during which

* Williams, R.: *One Year's Working of the Liverpool Docks Scheme*, pp. 7-8.

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he is employed. The employer has also to pay a contribution for every individual he employs. If the clearing houses pay 20,000 men in a given week, the employers pay 20,000 contributions. These contributions are debited to the individual employers in proportion to the actual number of men they employ. Consequently the employer who employs a large number of individuals very irregularly has to pay much more in contributions than the one who, though he may be doing the same amount of work, employs fewer men more regularly.

Tallies were given to all men working at the docks at the time the scheme was put into effect. It was not intended that the reserve should be immediately reduced. But with the added difficulty of obtaining work at the docks the inflow from other trades will be discouraged and there will be no chance for stray workers passing through or stranded in Liverpool to obtain temporary employment as dockers. In other words, no one is squeezed out of employment, and therefore one of the main objections to decasualization is removed.

The Liverpool scheme has been carefully thought out and promises well. It contains some new features and some adaptations of old principles. The fact that in it the men, the masters, and the government all are represented is its strongest point. There is no party of opposition.

APPENDIX D

ATTEMPTS TO IMPROVE THE CONDITIONS OF DOCK LABOR IN ENGLAND BY LEGISLATION

The development of a body of laws regulating dock labor has already been referred to as one of the effects of the strike of 1889 and of the public interest to which that strike gave rise. During the last ten years especially, the pressure of the labor party in Parliament toward labor legislation has been a factor of increasing importance. These laws have built up a body of obligations and penalties which have materially reduced the risks of the trade and softened the economic hardship of accidents.

In the year 1889 the Lancet Special Commission had found so many evil conditions in the work at the docks that the state was called on for some law "to prevent the loss of life and limb that undoubtedly results from excessive competition in the rapid loading and unloading of ships." Some of the evil conditions noted were "the insufficient pay, the irregularity of employment, the long hours wasted waiting in the cold and the wet at the dock gates." But the main stress was laid upon the number of accidents and injuries which were "for the most part preventable." The leading causes assigned for these were: the reckless haste and speed with which the work was done; the pushing and urging of the men by the "gangers" (foremen) until they were rendered so nervous that they made mistakes; the often hasty and careless slinging of the drafts; the slipperiness of the ground on which they worked, causing the men to fall and be crushed by the heavy loads they were carrying; the insufficient number of men employed to do the work. The gear was often defective and faulty and breaks caused injuries. Although all this was more than twenty years ago, in England, it sounds like an echo of present-day conditions in the port of New York.

Accordingly on July 6, 1895, Parliament passed "An Act to amend and extend the law relating to Factories and Workshops," so that "The provisions of this Act with respect to the power to make orders as to

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dangerous machines, shall have effect as if—every dock, wharf, quay and warehouse, and, so far as relates to the process of loading or unloading therefrom or thereto, all machinery and plant used in that process . . . were included in the word factory. . . . ”* This Act came into operation January 1, 1896.

In 1899 dock accidents were exhaustively investigated by two of H. M. Inspectors of Factories who had had special experience of docks, and who were appointed by the Secretary of State for the purpose.† Their report made it clear that many of the dock accidents were preventable. It was sent to dock owners and others who might be interested throughout the country. The circular letter which accompanied it, addressed to occupiers and others, stated that “the occupation of a dock labourer is one of the most dangerous of those that come within the scope of the Factory Act.” A little later, the same inspectors made another report on the same subject. On September 30, 1902, the process of loading, unloading, and coaling any ship was certified, in pursuance of section 79 of the Factory and Workshop Act, 1901,‡ to be dangerous. Accordingly in July, 1903, the Secretary of State transmitted to occupiers of docks and others, a tentative draft of regulations proposed for docks, and so on. These regulations were issued for consideration. Objections could be made in writing, by the employers, the work people, or by any persons affected by the regulations, these objections later to be the subject of inquiry. Objections were made and in January, 1904, public hearings began. On October 24, 1904, Statutory Rules and Orders No. 1617 were promulgated, containing regulations for docks, wharves, and quays. These had been carefully considered and were full and comprehensive.§

Under the Factory and Workshop Act there was a requirement, passed August 17, 1901, that any accident which caused loss of life or such bodily injury as to prevent work for three consecutive days following the injury should be reported forthwith by written notice to the inspector of the district. Fines for failure to observe any of the provisions of this Act were prescribed, these fines to be applied for the benefit of the injured person if the Secretary of State so determined. The section (19) of this Act relating to the reporting of accidents was superseded on De-

* See Appendix F, p. 228.

† These inspectors (J. S. Maitland and Sydney Eraut) made a “Special Report upon the Causation and Prevention of Accidents at Docks, Wharves and Quays,” published in full in the Annual Report of the Chief Inspector of Factories and Workshops for the year 1899.

‡ Regulations for Dangerous Trades under Section 79 of the Factory and Workshop Act of 1901.

§ See Appendix G, p. 233.

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ember 21, 1906, by the Notice of Accidents Act,* which provided that written notice should at once be sent to the inspector of the district of any accident occurring in a factory or workshop. The accidents were classified. Those occurring in a certain manner were to be reported even if there were only the loss of one day to the injured. In ordinary work the accident must be reported if there were disablement for more than seven days.

On December 21, 1906, was passed "An Act to consolidate or amend the law with respect to compensation to workmen for injuries suffered in the course of their employment." This Act greatly widened the field of compensation and reduced the period of disablement from a fortnight to one week.† The Secretary of State directed that returns should be made for mines, quarries, railways, docks, and so forth, of the number of injuries in respect of which compensation had been paid, the amount of the compensation, and such other particulars as might be required.

Laws have also been enacted which bear directly on the problem of unemployment and decasualization. The Labour Exchanges Act of 1909 has already been referred to in connection with the Liverpool scheme for the decasualization of dock labor.‡ The act has made it possible for the Board of Trade to set up the machinery for centralizing labor and for actually putting the demand in touch with the supply.

These exchanges have already been of great service to employers and workmen. For instance, for the month of November, 1912, there were 81,853 applications on the registers of the exchanges. The number of situations filled was 60,219. Without the Labour Exchanges it would be impossible to carry out the organization of dock labor or of any kind of labor whatever.

Part II of the National Health Insurance Act applies directly to dockers. It has already been shown to have been very useful in inducing employers to agree to the scheme for the decasualization of dock labor in Liverpool.

* "An Act to amend the law relating to Returns and Notifications of Accidents in Mines, Quarries, Factories, and Workshops, and under the Notice of Accidents Act, 1894."

† Statutory Rules and Orders No. 17, dated January 15, 1908.

‡ See Appendix C, pp. 199 ff.

APPENDIX E

THE HARBOR WORKERS OF HAMBURG

England is not the only country which has attempted to improve the industrial condition of the dock laborer and to reduce the risks to which his occupation subjects him. Hamburg, the greatest seaport of Continental Europe, has for many years been systematically attacking the problems of its waterfront. It already possesses the finest docks in the world, and extends to its harbor workers the same state care that prevails throughout the industrial system of the Empire. But its unique achievement is the widespread use of labor-saving machinery.*

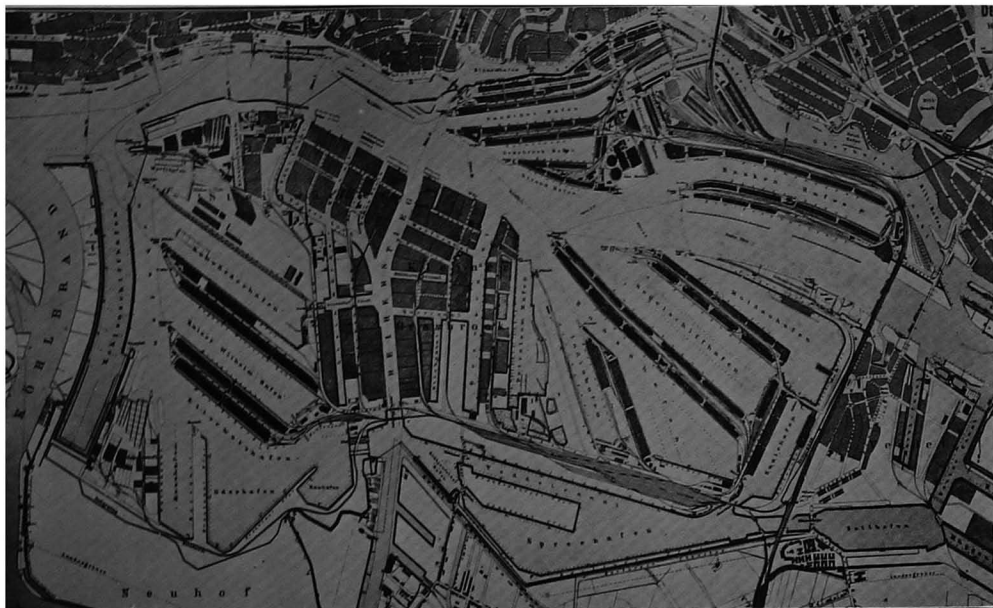
I. THE PORT

Hamburg lies on the bank of the Elbe, 86 miles from the North Sea, and is a free-city state, financially independent and self-dependent, a sovereign member of the German Empire. Her ocean commerce almost equals that of New York in value; in Europe it is surpassed only by that of London. The harbor is the last word of science applied to the shipping industry. Modern engineering has dug the channel to the sea which makes it possible for the largest of modern ships to dock in the great basins of the port, and has created the great quays and basins, fitting them with the most effective mechanical appliances yet devised for handling cargoes.

The first impression one receives of the harbor is not so much of size as of intense activity. The great basins are full of ocean vessels moored to the quays and mooring posts, of canal boats, huge river barges, tugs, lighters, coal barges, launches, and harbor steamers. The canals between the basins are choked with motor boats and barges. Beside it the harbor of New York with its widely separated traffic centers and broad rivers seems quiet—almost unimportant.

Like the docks of London and Liverpool the basins of Hamburg are cut out of the land. They are, however, open to the river, without gates, for their entire width. There are about 20 great basins in the port with a surface area of over 700 acres. Their size can best be appreciated by realizing that the Hamburg American Line requires only three for its

* Clapp, Edwin J.: *The Port of Hamburg*. New Haven, Yale University Press, 1912.



Plan of Hamburg Harbor, 1910. Scale 1 to 10,000



Cross section of the Crown Prince quay, Hamburg

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entire fleet of more than 150 ships. The largest basin is 3,500 feet long (two-thirds of a mile) and about 1,000 feet wide. The quays and basins are constructed by the state, which practically means the city of Hamburg, as we have seen, and the entire harbor is its property. Down the center of the larger basins there are double rows of mooring posts, to which ships can tie up. The high dues of the state quays force many ships, especially tramp steamers and regular liners carrying bulk cargo, to use these mooring posts. Little but package freight is loaded at the piers. The three largest ocean steamship companies (Hamburg-Amerika Linie, Woermann und Deutsche Ost-Afrika Linie, Deutsche Levante Linie) lease their piers from the city. These three lines are known in Hamburg as the Pachtbetriebe, or leasing companies. The smaller lines and the European lines with smaller ships use the state quays and pay quay dues for their use.

The equipment of the Hamburg quay is, as has been said, far more complete than that of the New York pier. On practically every quay in the harbor there are railroad tracks, over which goods are transported to distant markets, as well as roadways for drays, which carry the local traffic. The arrangement of the newer quays deserves a detailed description. A few feet from the edge of the pier usually is a railroad track. Above this track stands a row of "half-portal" electric cranes.* Next comes the raised platform of the quay shed, then the huge shed itself. Beyond the inside shed platform is another railroad track, flush with the roadway which extends along the quay, leaving a broad grass-covered space in the center. On the other side of the quay, which also faces the water, this arrangement is repeated.

Cargo is handled with much ease and simplicity by means of various types of traveling cranes† which are placed about 100 feet apart along the edge of the quays. These cranes are operated by electricity furnished by one of several central power houses. The fact that they are movable makes it possible for all hatches of a ship to be worked at once. The regulations of the state quay department declare that it is the duty of the department to furnish, wherever practicable, one crane for every hatch,

* This type of crane is constructed and operated as follows: A single rail runs along the edge of the quay, and the vertical leg of the crane support stands on this rail. The horizontal arm of the support runs on a rail halfway up the wall of the quay shed. The arch thus formed leaves room so that a freight car may be run on a railroad track below. On the outer end of the horizontal arm of the support is the platform, which is both the support for the motor and the cab for the operator. From this platform rises the boom of the crane itself. The angle of the boom is fixed so that it has only a circular motion. The entire crane, however, can run on its two rails along the edge of the quay.

† See illustrations opposite pp. 214, 215, and 218.

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together with an adequate number of workers.* There are a few floating cranes for handling iron beams and other cargo too heavy to be lifted by the ships' winches or the quay cranes. Features of loading from and discharging into lighters in mid-stream and the handling of grain and coal need not be entered into here.

If a cargo needs no sorting, the crane may place the drafts directly into a freight car waiting on the track under the crane; if it requires sorting the drafts are carried over the track and dropped onto the shed platform. After the cargo has been discharged it may be removed in one of several ways. Lighters may tie up to the pier after the ship has gone, and the traveling cranes may again be used for loading. A freight car may stand on the track on the inner side of the quay shed, and to this the goods may be trucked directly. A dray may draw up on the roadway, close to the inner platform, and heavy goods may be lowered into it either by small cranes or by winches located on the quay.

When a liner is to discharge and take on cargo, it is sometimes moved from one shed—often from one quay—to another for the two operations. This, together with the highly developed mechanical equipment of the Hamburg piers, makes loading and discharging far more systematic and simple than in the United States. It seems, on the surface, as though it must also be more rapid. Steamship company officials, however, deny this. They admit the superiority of the equipment in Hamburg, but claim that it takes less time to get out a ship in New York. The greater prevalence of night work and the custom of speeding up the workmen in the latter port account in part for this greater rapidity of work. During the past few years, however, Hamburg has increased its ability to handle traffic rapidly by building larger and larger quay cranes. A bridle is often used on the fall, by means of which three or four drafts can be handled at a time instead of one or two. Yet so great are the precautions taken in the work that the risk of accidents is by no means correspondingly increased.

II. CLASSIFICATION OF THE WORKERS

Since the commerce of Hamburg is so great, it requires the services of many men to handle it. In August, 1912, careful estimates placed the number of fairly regularly employed harbor workers or *hafenarbeiter* at about 22,500 to 23,000. This number was divided according to the branches of the work approximately as follows:

* Betriebs- und Gebühreordnung für die Kaianlagen (Hamburg), 1907, p. 8.



View of the Jonas basin, Hamburg

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HARBOR WORKERS IN HAMBURG IN 1912, ACCORDING TO BRANCHES OF THE WORK

| Branch of work | Harbor workers according to estimate of | |
|--|--|---|
| | The director of the Hafenbetriebs-Verein | The chairman of the Hamburg branch of the German Transport Workers' Union |
| Schauerleute (Deck and hold men) | 6,000 | 6,000 |
| Kaiarbeiter (Pier men) | 7,000 | 7,000 |
| Ewerführer, etc. (Lightermen, bargemen, etc.) | 2,500 | 3,000 |
| Kohlenarbeiter (Coal handlers) | 1,500 | 1,500 |
| Schiffsreiniger (Ship cleaners) | 1,300 | 1,300 |
| Kesselreiniger (Boiler cleaners) | 400 | 400 |
| Speicherarbeiter (Granary workers) | 1,200 | 600 |
| Lagerhausarbeiter (Warehouse workers) | 600 | 1,200 |
| Binnenschiffahrt (Workers in harbor shipping, etc.) | 800 | 800 |
| Hafenschleppschiffahrt (Workers in harbor tugging, etc.) | 600 | 600 |
| Harburgarbeiter (Workers in Harburg) | 550 | 550 |
| Total | 22,450 | 22,950 |

The men who actually load and unload vessels are divided into two instead of three classes as in New York. The schauerleute are the deck and hold men. The kaiarbeiter are quay workers or pier men. These classes are regarded as distinct branches of harbor workers. They are hired separately, paid different wages, and join the union as separate branches, as will be shown in the following section.

It will be noticed that after the two groups of longshoremen proper (schauerleute and kaiarbeiter) the lightermen are next in number and importance. The approximately 4000 harbor vessel, tug, barge, lighter, and canal boat workers are to be accounted for by the tremendous amount of lighterage necessitated by the river traffic and the reshipment trade. The 1,800 granary and warehouse workers are required because of the importance of the warehouse work in the free port district.*

* When Hamburg entered the German Customs Union in 1882 it had a well-developed reshipment trade which it desired to strengthen. It therefore stipulated that a certain part of its harbor and waterfront should be excluded from the Union and set aside as a Freihafengebiet or Free Port District. Today the free port is

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III. ORGANIZATIONS OF MEN AND EMPLOYERS

I. THE UNION

The distinguishing feature of the labor situation of Hamburg is the organization of both men and employers. With few exceptions the harbor workers are Germans, and the great preponderance of one nationality makes for unity of feeling and concerted action. Fully a third are members of the union. As matters of employment and conditions of labor are closely bound up with these organizations, a brief account of them is essential.

The history of the building up of the Hamburg union is a story of monumental patience, devotion to a cause, and ceaseless effort. In the year 1890 the union of harbor workers of Germany was founded. In Hamburg the members did not belong to a local organization, but to separate branches of the main organization according to their occupations. Each branch was independent and had a separate governing board and a separate treasury. There were continual conflicts between the several branches and the strong employers' organizations, and gradually the men realized that greater strength would be attained by unity. Finally, in February, 1908, the branches united into one association. On July 1, 1910, this association joined the German Transport Workers' Union as a harbor workers' section.

The union membership in Hamburg in 1911 was 11,050.* This total includes a few groups not strictly harbor workers but included with them for convenience of organization. The proportion of lightermen, harbor boatmen, coal trimmers and handlers, and similar groups who are organized, is very large. On the other hand, only 2,813 schauerleute out of an estimated total of about 6,000,† and 730 kaiarbeiter out of an estimated total of about 7,000, are union members. This is easily accounted for. Almost a third of the schauerleute are under contract with the employers' association,—the Hafetriebes-Verein (Harbor Industries As-

one of the most important factors in Hamburg's commerce. It has an area of 2,508 acres of land and water, and includes a section of the main channel of the Elbe, with several of its side arms and branches. The Elbe River traffic is not impeded by the Freihafengebiet, for there is a belt canal which enables vessels to go around the district without entering it. Goods are brought up the river under the care of a pilot, who is also a custom officer, and taken directly to the piers, where they are unloaded, sorted, and reshipped on coastwise vessels or stored in the great free port warehouses, all duty free. It is only when they are to go inland that they must pay the regular German duties.

* Jahresbericht der Ortsverwaltung, Hamburg, Deutscher Transportarbeiter Verband, 1911, p. 5.

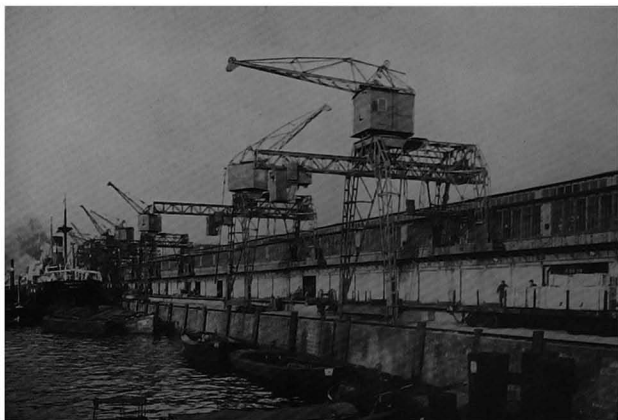
† For estimated numbers in all groups, see list on p. 213.



Moveable electric cranes on the Versmann quay, Hamburg



Electric trolley cranes on the Kaiser quay, Hamburg



Moveable cranes at the Australia quay, Hamburg



Moveable cranes, showing railroad tracks beneath and platform of the pier shed. Along the wall of the shed and at the edge of the pier are seen the tracks on which the cranes are moved

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sociation) described in the following pages,—and the terms of their contract make it difficult for them to join the union. Further, most of the *seiarbeiter* are state employes working under a contract with the quay administration department of the State of Hamburg, to which the quays belong, whose contract also practically prevents their becoming members of the union. Considering these handicaps the growth of the organization is remarkable.

The great power of the union lies in its control of so large a part of the labor market. This has brought about its practical recognition by the employers. All wage agreements or tariffs are signed jointly by the employers' association and the union. They apply not only to union members but to all workers in the same branch of work and of the same degree of regularity. The union has a protection and intercourse commission which presents recommendations to the harbor inspection department, the various companies, and other authorities. These recommendations have reference to all sorts of matters affecting the comfort and safety of harbor workers, such as fixing lights to dangerous mooring posts, providing better workmen's waiting rooms, safe store rooms for bicycles, and so on.

2. THE EMPLOYERS' ASSOCIATION

The *Hafenbetriebs-Verein*, or Harbor Industries Association, was founded in 1906 to unite "the employers engaged in harbor industries in Hamburg-Altona and Harburg, for the purpose of maintaining and furthering peaceful relations between employers and employes, and warding off struggles tending to disturb these relations. The means to attain this end are: Organization of the labor market by employment exchanges; adjustment of working conditions by means of wage tariffs, by installing contract workers in the establishments of the members, by welfare 'arrangements' for the benefit of the workers, and other regulations."^{*}

When an employer joins the association he becomes party to a contract with it, binding him to obedience. Thus the association can bring legal pressure to bear upon its members whenever it may be necessary for the enforcement of its decrees. Every member is pledged to hire his workers solely through the employment exchanges conducted by the association, to pay the wages established by the tariffs, and to act in all other ways, in his dealings with his employes, according to the regulations laid down by the association. Difficulties arising from these regulations must be settled by the court of arbitration of the association. Disobedience or failure to fulfill his obligations makes a member liable to a fine imposed

^{*} Satzungen des *Hafenbetriebs-Verein* in Hamburg E. V., 1912, p. 3.

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by the board of directors. The power of this association in the port is shown in the following section.

IV. METHODS OF EMPLOYMENT

The same causes for uncertainty and irregularity in longshore work exist in Hamburg as in other ports. The ocean is there as elsewhere the capricious master of the ships it bears. In addition the port has one disadvantage attributed universally to London but not generally realized as characteristic of Hamburg—the prevalence of fog. Hamburg has been known to have 126 foggy days in one year. With such a climate accurate shipping schedules are manifestly impossible. Notwithstanding, Hamburg has gone a long way in organizing its labor market. This has been brought about by a system of labor exchanges, conducted by the Harbor Industries Association; and by the classification of workers according to regularity of employment.

We shall consider the system as it applies to the two main branches of harbor workers, schauerleute and kaiarbeiter. Each of these branches is divided according to regularity of employment into three classes: kontrakt or feste arbeiter (contract or permanent workers), hilfsarbeiter or kartenarbeiter (assistant workers,—generally called card workers), and gelegenheit-arbeiter (casual workers). Although these three divisions are not analogous to the weekly men, preference men, and casuals of the London and India Docks Company, there are many points of resemblance between them, and they represent a similar attempt to establish graded classes of workers according to ability and regularity.

The contract workers are hired by the week. The contract schauerleute (the deck and hold men) are paid by the individual companies or stevedores for whom they work, but in most cases their contract is with the Harbor Industries Association. The contract kaiarbeiter (or quay workers), as has been stated, are employed directly by the quay department of the State of Hamburg, or by one of the three leasing companies.*

The assistant or card workers are employed by the day, half day, or three-quarters day. The card schauerleute are hired only through the Harbor Industries Association, while more than half of the card kaiarbeiter are hired by the state. The others work for the three great leasing companies but are supplied to them by the Harbor Industries Association.

The casual schauerleute are employed by the same association, which also hires about half the casual kaiarbeiter for the three leasing companies, the other half being hired by the state. No casual worker in

* See p. 211.

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either branch receives work till the supply of contract workers and card workers is exhausted.

The Harbor Industries Association now includes every one of the 53 stevedoring firms and steamship companies doing stevedoring work, and through this organization they hire the men for practically every branch of harbor work. It has 10 offices at various points, for the employment of different branches of workers or to furnish laborers for different sections of the harbor. The successful organization of these labor exchanges has been the most effective means of lessening the amount of casual work. As their service has been greatest in supplying work for schauerleute, the card worker of that branch will serve to illustrate the method of employment.

When a man first decides to become a schauermann and to earn his living regularly at that trade, he applies at the central bureau of the Harbor Industries Association for a yellow work card.* This bears a number and his name. He is then a registered card schauermann. Before he is accepted he must declare his last previous occupation and show proofs that he is twenty-one years of age, of good character, and a member in good standing of a recognized sickness insurance society and an invalidity insurance institute. Cards are issued according to the demand for workers. They can be withdrawn if a worker refuses to do work given him or to work with other men; if he fights with or threatens other workers or foremen; or if he is in any way seriously neglectful of his duty.

Schauerleute are assigned work in any one of five of the exchanges. They are taken on between 5:30 and 9:00 in the morning, between 11 and 1 at noon, and between 5 and 7 at night. An employer may order the number of men he wishes by telephone or in writing, or by coming himself or sending his representative to hire them. The men gather in a large room which has a small platform extending out into it. An official of the exchange stands on this platform and selects the men. If the employer or his representative is present he may stand beside him and point out the men he wants, but the official does the actual hiring. Often representatives of several companies are waiting and have to be supplied in rapid succession.

When a man is taken on, he hands to the exchange official his work card and receives in return a slip bearing the name of the company for which he is being hired. The official registers the numbers of the work cards and hands the cards to the employer. The latter then collects his men outside the office, gives them further instructions, and takes them

* As early as 1898 a card system was introduced for the hiring of schauerleute by the Stevedores' Association of the port.

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with him or sends them to the ship where they are to work. They hand in the slips bearing the employer's name as evidence that they have been chosen. They may work for several days on the same ship or for the same employer without being rehired. Not until the job for which they were hired, or their part in it, is done, do they receive from the employer their work cards as a sign of dismissal. They are then expected to report promptly at one of the exchanges for a new job.

By giving up his work card and accepting a job, the schauermann pledges himself to appear at the time and place directed and to do the work expected of him, whatever it may be. If he refuses to do any work required of him, his work card may be forfeited or temporarily withdrawn. A workman is expected to be orderly and to obey the house regulations while he is waiting in an exchange. The hiring of drunk or disorderly workers is forbidden.

If an employer does not wish to have a certain workman sent to him, he may notify the exchange to this effect. Unless such notification has been given, however, an employer is pledged to accept any workers assigned to him. A record of all workers employed must be kept by each employer and sent once a week to the central bureau. Under no circumstances may an employer belonging to the Association hire workers directly or in any way except through an exchange, nor may he give work to men who have been excluded from its list. Before the tenth of every month each schauermann must come to the central bureau, bringing his sickness insurance society book to show that his dues are paid up. His work card is then stamped for the month.

All the exchanges are connected by telephone. If the demand for workers is too great for the supply at one office and the supply too great for the demand at another, a launch or small harbor vessel promptly transfers the requisite number of men from the exchange where there is a surplus to the place where they are needed. Until the supply of card workers has been exhausted, no casual workers may be employed. These casuals have no work cards. They receive a ticket good only for the single job for which they are hired. In consequence the bulk of the work on the ship always falls to a picked body of men, who can be shifted about from one point in the harbor to another as they are needed.

The following table shows the proportion of work done by the three classes of schauerleute engaged through the Harbor Industries Association in 1911:*

* Jahresbericht des Hafensbetriebs-Verein, 1911.



Seventy-five ton crane at the Kaiser Wilhelm Basin, Hamburg



Moveable electric cranes on the Kuhwärder quay, Hamburg



Looking into the Baaken Basin, Hamburg

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SCHAUERLEUTE ON THE LIST OF THE HAFENBETRIEBS-VEREIN AS CONTRACT AND PERMANENT WORKERS, CARD WORKERS, AND CASUAL WORKERS; AND DAYS WORKED BY MEN OF EACH SPECIFIED CLASS, 1911

| Class of workers | Average number of schauerleute on list | | Days worked by schauerleute of each specified class | |
|--|--|----------|---|----------|
| | Number | Per cent | Number | Per cent |
| Contract and permanent workers | 1,806 | 27.8 | 508,209 | 36.5 |
| Card workers | 3,843 | 59.2 | 831,046 | 59.8 |
| Casual workers | 841 | 13.0 | 52,674 | 3.7 |
| Total | 6,490 | 100.0 | 1,391,929 | 100.0 |

This table makes it clear that the contract and card schauerleute together do 96.3 per cent of the work, while the casuals do only 3.7 per cent. If all the card workers applied for work every day and took the work offered them, no casual workers would be employed and there would be a constant surplus of card workers. However, for many reasons all the card workers are not constantly available. After doing night work they seldom report the next day. Some find other work to do when cargo work is slack, and do not at once come back to the harbor when the demand increases. There are always a few incapacitated by illness. The supply cannot therefore always be made to correspond exactly to the demand. In 1911 the average number of contract and card workers employed each working day was over 80 per cent of the total average number registered with the Association. In the course of the year the exchange filled 78 per cent of the applications for work which they received from the card workers.

The quay work is less skilled and more poorly paid than the work of the schauerleute, and the workers are more irregular. The casual quay workers are described as "recruited for the most part from the genuine casual workers of a large city, who look for work now in this trade and now in that, in the harbor and in the city; and to a large extent also from new arrivals, who try harbor work at first and often disappear again, particularly in the summer months."* Sometimes there is a surplus of labor, sometimes the demand exceeds the supply.

On the quays, 81 per cent of the workers were, on the average, con-

* Jahresbericht des Hafengebriehs-Verein, 1911, p. 19.

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tract or card men, and only 19 per cent casuals. The regularizing has been due to the hiring, as weekly employes, of contract men who constitute 61 per cent of the entire force. Another 20 per cent of the workers are card men. The relatively high proportion of casuals on the quays indicates a less perfect system of employment than has been put in effect for schauerleute. But even this proportion shows a marked advance toward the regularization of the work.

V. CONTRACTS AND WAGES

Yet the system is not without its limitations. Permanent or contract workers, both schauerleute and kiarbeiter, are hired under a form of contract which is far from perfect. Each employer in the Hafensbetriebs-Verein is pledged to hire through it as many contract workers as he can supply with steady work. Every worker signing the contract pledges himself to do any work demanded of him in the harbor or on the lower Elbe, and also to work at night, and on Sundays and holidays when necessary. He receives a wage of 32.40 marks* (\$7.71) per week, payable on Wednesday for the week ending with the preceding Saturday. This wage is payment for ten hours' work on week days and five hours' work on holidays falling during the working week. An extra wage of 8 pfennigs per hour is paid for daytime work on phosphates, saltpeter, cement in sacks, loose grain, salt hides, and so on. Night and Sunday work and work during lunch hours is paid at the rate of 50 pfennigs per half hour. This rate applies also to all work done after the first five hours on holidays falling on week days. For Sunday work a minimum wage of 3.50 marks is guaranteed. Interruptions not due to the fault of the worker are paid as if work had gone on. In most particulars the terms of the contract agree with the tariff of the card men, which will be given below.

Another important condition of the contract with the employers' association binds the schauerleute to contribute to the savings and benefit fund of the schauerleute of the association. The interest on a member's contribution reverts to the fund till his contribution reaches 200 marks. The benefits are paid largely from the interest on this capital. After the 200 marks have been paid in, interest is allowed on any sum contributed over and above that sum. The regular weekly dues are subtracted from a member's wages as long as he remains a member of the fund, no matter how large his account has become. In order to close out his account a member must resign as a contract schauerleute of the Hafensbetriebs-Verein, giving four weeks' notice of his intention. If he gives up his work

* 1 Mark (M. 1)—about \$0.238, or roughly, 24 cents.

1 Pfennig (M. 0.01)—1-100 Mark, or about $\frac{1}{4}$ cent.

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without due notice, or if for any punishable act he is discharged, the directors of the *Hafenbetriebs-Verein* may order that his entire account up to 200 marks shall revert to the use of the bank and that only his balance over and above 200 marks shall be returned to him.

The contract *schauer*mann has been described as "bound hand and foot." It is true that he is sure of slightly higher pay than most of the card *schauer*leute. He has regular work in one place and does not have to go to an exchange to be hired. In return for this, every week of his employment binds him more irrevocably. He must never lose his temper or get into a fight, never displease a foreman. Above all, it is useless for him to join the union. He cannot strike without forfeiting part of his insurance fund, possibly a month and a half's wages. This is a plain case of conflict between the interests of the employers and those of the union. It is to the interest of the employers of Hamburg to have a large body of *schauer*leute whom they can rely upon at all times and who practically cannot strike. It is to the interest of the union to have every harbor worker enrolled in its membership and willing to strike or be locked out if need arises. So from the union standpoint, the contract system of the *Hafenbetriebs-Verein* is utterly hostile to the interests of the harbor workers as a whole.

The permanent *kai*arbeiter of the state quays and the Hamburg-American Line (over 3,000 in all) are organized in what are known as *akkords*-corps or piece-work gangs. A gang has charge of a certain section of a quay. Each member of a gang is guaranteed a daily wage of 4.20 marks. In addition a certain sum is paid per ton of goods moved by the gang. The number of tons is recorded by the quay foremen. At the end of every four weeks (a "wage period") the total number of tons moved by each gang is computed and multiplied by the premium per ton. This sum is divided equally among the members of the gang. This system encourages industry and speeding up, as every bonus and piece-work system does. It is, however, unsatisfactory to the workmen because they themselves have no means of estimating the amount due them and have to rely on the quay foremen for the accuracy of the premium. They are said therefore to work in "blindem accord," or blind agreement. The card men and casual men who work with them are comparatively few in number. They receive a certain stated daily wage and have no share in the premium. It is to the interest of the gang, of course, that those helping them should do as much work as possible. So the card and casual workers are affected by the general speeding up process without deriving any benefits from it.

An even less admirable system developed in 1911. In order to

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satisfy the demands of the quay workers' representatives, a small wage increase (of 20 pfennigs, or about 5 cents a day) was granted to part of the card workers and to the casual workers by the three leasing companies and by the state quay department. But this latter department decided that the 20 pfennigs per day should be subtracted from the piece-work premium due to gang members. As the transport workers union report* remarked, it was a case of raising wages without having to pay out anything. The state quay bonus fell appreciably and naturally this arrangement intensified the speeding up of the gang members. The Hamburg American Line followed suit. In consequence the premiums for the Hamburg American piece-work gangs fell so low that the line was forced to raise the premium rate, and even then the bonus was found to be much lower than it had previously been. One scarcely wonders that the report issued by the union advises the quay workers to "fear the Greeks when they come bearing gifts and the Hamburg American Line when it raises wages 'voluntarily.'"

The advantage to the state and to the leasing companies of this system of employment is obvious. The guaranteed wage is so low that the gang members are sure to do their work as rapidly as possible and so increase their monthly bonus, while the speeding up, as we have seen, applies to many workers to whom no premium of any sort is paid. There are also certain advantages for the workers. First and foremost, they are sure of steady work. Most of them are employes of the state, and this seems to them an added inducement. Moreover, the piece-work system, however complicated and "blind," does raise their wages to a point well above those of the card quay workers.

Grievances of workers in the various branches in regard to hiring, discharge, wages, and so on, are passed upon by commissions, consisting usually of representatives of the union,—or at least of the workers,—and of the *Hafenbetriebs-Verein*. The contract *schauerleute* have such a commission; the card *schauerleute* a separate one. The quay workers elect a committee which presents demands and complaints to the state quay department or appeals above this to the deputation, or board of trade, navigation, and industry of the state government.

VI. WAGES, HOURS, AND EARNINGS OF NON-CONTRACT WORKERS

The wages and hours of all the *schauerleute* except those under contract, as already described, are determined by a wage tariff agreed to

* *Jahresbericht der Ortsverwaltung, Hamburg, 1911. Deutscher Transportarbeiter Verband, p. 110.*



Ships at the mooring posts in the Kuhwärder Basin, Hamburg



Bird's-eye view of the basin set aside for coal ships in the port of Hamburg

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jointly by the Hafenbetriebs-Verein and the union. This is published in convenient card form by the union so that every schauermann in the port may be familiar with its terms.

Most of the working conditions for men not under contract, including hours of work, are the same for kaiarbeiter and for schauerleute. The wages of the former are, however, slightly lower.

It is evident from the stipulations of the tariff that the harbor worker of Hamburg is comparatively free from the physical strain of inordinately long periods of work alternating with days of inactivity. The separate day and night shift is not always rigidly adhered to, but it is at least assumed that if a man has worked all day he ought not to work all night too. The harbor inspection department helps to carry out this principle by insisting that a man's hours must be limited so that he may not because of over-fatigue endanger the safety of himself or others. Stretches of work of thirty or more successive hours, which occur even today in New York, are now unheard of in Hamburg. The regulations of the state quay department and the port regulations allow "a limited amount of night work" to be done on the quays and in the holds of ships when notice is given to the proper authorities by those in charge of the work. All night work in the holds of vessels must be done under the supervision of the harbor police.* An extra fee must be paid for the use of the quays for every hour of the evening or night in which work is even begun. These regulations forbid Sunday and holiday work on the quays except in "especially urgent cases," and an extra fee is exacted for all work done on these days.† Needless to say these extra fees discourage night, Sunday, and holiday work.

In comparing the Hamburg tariff with the wage scale in New York, two points are to be noted. In Hamburg the wage per hour is far lower than in New York, namely about 0.58 mark (14 cents) per hour for deck and hold men instead of 33 cents per hour. If the wage per hour alone is considered, the New York longshoreman appears to be far better off than the Hamburg schauermann. It is true that the cost of living is lower in Hamburg than in New York, but the difference in the cost of living is much less than the difference between 14 cents and 33 cents.

The other point to be noticed, however, is that in Hamburg there is practically no payment by the hour. A man cannot be hired for less than half or three-quarters of a day. If the machinery breaks down, the men cannot be laid off while it is being repaired and taken on an hour or

* Port Regulations as amended to July 31, 1907. No. 12.

† Betriebs- und Gebühreordnung für die Kaianlagen, Hamburg, 1907, pp. 11, 20.

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two later. The only hourly payment is for night, Sunday, and holiday work. Even then, except when night work is continued after a day's work, a minimum night wage is guaranteed. So the hiring of a man in Hamburg for a day's work assures him of a full day's pay. It must also be borne in mind that in 1911, 78 per cent of the applications of schauerleute for work were filled by the exchanges, and that the amount of unemployment is relatively small compared with that of New York.

VII. ACCIDENTS, COMPENSATION, AND INSURANCE

The risk of longshore work in New York makes fatal and severe accidents seem commonplaces of the waterfront. Nowhere in Germany would such an attitude be possible. In the harbor work of Hamburg several forces combine to prevent accidents. There are several governmental authorities which have power to regulate the conduct of industry. Their work is supplemented by semi-private organizations of a very efficient sort. Every employer must belong to one of the trade accident insurance associations, in which he must insure every worker employed by him against accident. It is to the interest of these associations to lower the accident rate. They issue minute regulations, therefore, for the prevention of accidents, and enforce these by fines. An association must submit the rules it issues to the local police authorities, who in turn consult the association's experts in formulating their ordinances. Therefore all harbor work is covered by a code of careful regulations devised to lessen its dangers.

Moreover, the Hamburg harbor inspection department has drawn up a tentative code to supplement the regulations published by the accident associations. It issues its orders in individual cases in accordance with this code.* The special achievement of Hamburg has been the creation of this harbor inspection department, which is a section of the political division of the state police department. It was established in 1897 by the state senate. After the harbor strike of that year both employers and unions had urged the creation of such a department.

Extensive police authority† is delegated to the harbor inspection department. In fact the department is practically supreme in its own field, and by its regulations and standards it has become a real constructive force. The harbor inspector has access at all times to all vessels lying in the port, as well as to all other points in the harbor where laborers are em-

* See Appendix I, pp. 245 ff.

† Police powers are much broader in Germany than in the United States. To a small extent, our factory inspectors have such powers, but their authority is limited compared with that of the industrial and police inspectors of Germany.

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ployed.* Any individual or organization may draw the attention of the department to conditions judged to be dangerous. The union does so frequently, and the department investigates such complaints as soon as possible.

The department makes specific regulations for harbor work. It gives directions concerning the lighting of quays or hatches, concerning life-saving apparatus, the guarding of winches and cranes, and so on. These rules are definite and practical. For instance, almost every crane in the harbor must have a safety hook of a simple and effective sort, which cannot catch under beams or hatch coamings. Hatches must be adequately lighted. Hold ladders must run in a straight line from the lower hold to the upper deck. The number of men permitted to work in a hatch at one time is limited according to the size of the hatch and the kind of cargo.

Other influences, not operative in New York, tend to make the accident rate low in Hamburg. The highly developed machinery and mechanical methods in Hamburg reduce the risk. Still more important is the limitation of the hours of labor with diminished danger from over-fatigue. Yet, in spite of these preventive measures, harbor work in Hamburg is still a dangerous trade.

Prompt treatment for accidents is given at an accident station established a few years ago at a central point in the harbor. It is open day and night, and a male nurse trained in first aid medical service is always ready to go by bicycle to injured men who cannot be brought to him. This station is connected by telephone with reporting stations located on most of the important piers. It is officially a branch of the Harbor Hospital which is located in the city near the waterfront.

Destitution, wreckage of family life, dependence on charity,—these are often the result of a severe accident to a New York longshoreman. In Germany no industrial accident can have such tragic consequences. Every workman must be insured against sickness, accidents, old age, and invalidity; and on his death his dependent survivors are pensioned.

Besides the sickness and accident benefits granted by the union and the *Hafenbetriebs-Verein* there are for harbor workers three kinds of insurance provided by three different types of organizations. Sickness

* "The Harbor Inspector shall, whenever in his opinion life and limb of the workers in an establishment are endangered because of faulty methods of conducting such establishment, be authorized to give immediate orders for removing such dangers. . . . He may forbid the continuation of work until such dangers have been removed; his orders are however subject to cancellation or alteration by the Police Authorities. . . ."—An act concerning the appointment of a Harbor Inspector. Passed by the Senate, Hamburg, November 26, 1897.

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insurance is carried by the Krankenkassen, or sick funds; accident insurance by the Berufsgenossenschaften (employers' mutual trade associations) or accident associations; invalidity, old age and survivors' insurance by the Versicherungsanstalten or insurance institutes.*

VIII. WORKING AND LIVING CONDITIONS

Organization of the employers and organization of workers in Hamburg has undoubtedly brought about both unification on one side and greater strength and solidarity on the other. Especially has this been true during strikes or "wage movements." Employers have found it to their interest to join the Hafenbetriebs-Verein and work through it for the settlement of their difficulties. The workers in turn have found that their demands are much more likely to be granted if presented by a strong union, comprising a large proportion of the labor force of the harbor.

The relations between the union and the Hafenbetriebs-Verein have always been somewhat antagonistic, and have often reached a state of open warfare. Of late, however, the union officials have been inclined to look more favorably on the growth of the Hafenbetriebs-Verein. They realize that it is far easier to treat with an association including all the firms hiring harbor workers than it formerly was to deal with smaller trade associations or with individual employers. They also acknowledge the great improvement the association has brought about in regularizing harbor work. The Hafenbetriebs-Verein does not yet reciprocate this more friendly feeling. It still looks upon the union as an unpleasant necessity; a force to be reckoned with, but by no means encouraged.

On the whole, however, the general opinion seems to be that the relations between the two organizations are far more friendly than they were a few years ago. The greatly improved wage scales for several branches of harbor work have fostered better feeling. The situation has also been improved by the success of the employment exchanges.

In many ways the longshoremen's living and working conditions in Hamburg are superior to those in New York. The harbor worker can live like a human being. To begin with, there is not so much temptation to drink. Some years ago, the workmen of several different branches were hired by foremen or stevedores on or in front of the waterfront saloons. The employment exchanges have absolutely done away with this system, the hiring being done in the exchanges themselves. There are waiting rooms where men can wait for the hiring to begin. There is no necessity

* For description of these organizations see the Reichsversicherungsordnung or Imperial Insurance Code of July 19, 1911. Translated by Henry J. Harris, Ph.D. U. S. Bureau of Labor, Bulletin 96.



An employment exchange of the Hamburg Harbor Industries Association



A coffee house for harbor workers

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for standing on street corners in the cold and rain, nor for frequent drinks to thaw a man out and make life bearable. Lunches are not eaten in saloons. Instead, there are coffee houses on the large quays, where the men can get food, coffee, tea, milk, soft drinks, and beer, but no "Schnaps" or whiskey or spirits of any kind. These houses are privately owned but subsidized by the state. The prices charged must have official approval. An excellent lunch,—for example, a hearty dish, such as stew and potato, bread, coffee, and pudding,—can be bought for 50 or 60 pfennigs (about 12 to 14 cents). The food is appetizing and the rooms are comfortable and well-kept. Hundreds of men use the "speisehallen" every noon hour. The newer piers have waiting rooms for the use of both quay workers and schauerleute. Practically all the quays have coat rooms and toilet rooms. All these things are excellent substitutes for the waterfront saloon, which formerly occupied almost as important a place in the Hamburg harbor workers' life as it does today in New York.

Transportation to and from work is a hard problem for the Hamburg harbor worker. The new Elbe tunnel helps those who work in some parts of the port. To reach most points, however, a man has to take a launch or harbor steamer. Workingmen's dwellings and apartments are now located in the suburbs of the city, and a trolley or subway ride of some length is required to reach them. This costs both time and money, but the dwellings are far more healthful than the old, nearby city tenements. There are not many of the latter left. They have gradually been bought by the government and the sites used for municipal buildings or markets. A Hamburg workman can now get excellent accommodations at a very moderate rent.

On the whole, the Hamburg harbor worker is freer from strain and anxiety than are our longshoremen, though his work is hard and exacting. The concentration of the work in the hands of regular workers means that a larger proportion of the men employed are steady and experienced than is the case in New York, where the system tends to casualize the labor force and to lower the industrial status of the workers. The down-and-out class is so small in Hamburg that it does not give a bad reputation to the calling as a whole. It is practically impossible for a harbor worker in Hamburg to suffer such misfortunes that he can become a complete dependent. Freedom from this danger adds greatly to the self-respect of the workers and raises the standard of their trade.

APPENDIX F

FACTORY AND WORKSHOP ACT OF GREAT BRITAIN, 1895

DOCKS, ETC.

23.—(1) The following provisions [see sections A to D on the succeeding pages], namely:—

- (I) Section eighty-two of the principal Act;
- (II) The provisions of the Factory Acts with respect to accidents;
- (III) Section sixty-eight of the principal Act with respect to the powers of inspectors;
- (IV) Sections eight to twelve of the Act of 1891 with respect to special rules for dangerous employments; and
- (V) The provisions of this Act with respect to the power to make orders as to dangerous machines

shall have effect as if—

- (a) every dock, wharf, quay, and warehouse, and, so far as relates to the process of loading or unloading therefrom or thereto, all machinery and plant used in that process; and
- (b) any premises on which machinery worked by steam, water, or other mechanical power, is temporarily used for the purpose of the construction of a building or any structural work in connexion with a building,

were included in the word factory, and the purpose for which the machinery is used were a manufacturing process, and as if the person who by himself, his agents, or workmen temporarily uses any such machinery for the before-mentioned purpose were the occupier of the said premises; and for the purpose of the enforcement of those sections the person having the actual use or occupation of a dock, wharf, quay, or warehouse, or of any premises within the same or forming part thereof, and the person so using any such machinery, shall be deemed to be the occupier of a factory.

A. FACTORY AND WORKSHOP ACT, 1878

82. If any person is killed or suffers any bodily injury in consequence of the occupier of a factory having neglected to fence any machinery required by or in

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pursuance of this Act to be securely fenced, or having neglected to maintain such fencing, or in consequence of the occupier of a factory or workshop having neglected to fence any vat, pan, or other structure required by or in pursuance of this Act to be securely fenced, or having neglected to maintain such fencing, the occupier of the factory or workshop shall be liable to a fine not exceeding one hundred pounds, the whole or any part of which may be applied for the benefit of the injured person or his family, or otherwise as a Secretary of State determines:

Provided that the occupier of a factory shall not be liable to a fine under this section if an information against him for not fencing the part of the machinery, or the vat, pan, or other structure, by which the death or bodily injury was inflicted, has been heard and dismissed previous to the time when the death or bodily injury was inflicted.

B. FACTORY AND WORKSHOP ACT, 1878

(7) ACCIDENTS

31. Where there occurs in a factory or a workshop any accident which either—

- (a) causes loss of life to a person employed in the factory or in the workshop, or
- (b) causes bodily injury to a person employed in the factory or in the workshop, and is produced either by machinery moved by steam, water, or other mechanical power, or through a vat, pan, or other structure filled with hot liquid or molten metal or other substance, or by explosion, or by escape of gas, steam, or metal, and is of such nature as to prevent the person injured by it from returning to his work in the factory or workshop within forty-eight hours after the occurrence of the accident,

written notice of the accident shall forthwith be sent to the inspector and to the certifying surgeon for the district, stating the residence of the person killed or injured, or the place to which he may have been removed, and if any such notice is not sent the occupier of the factory or workshop shall be liable to a fine not exceeding five pounds.

If any such accident as aforesaid occurs to a person employed in an iron mill or blast furnace, or other factory or workshop where the occupier is not the actual employer of the person killed or injured, the actual employer shall immediately report the same to the occupier, and in default shall be liable to a fine not exceeding five pounds.

A notice of an accident, of which notice is required by section sixty-three of the Explosives Act, 1875, to be sent to a government inspector, need not be sent to the certifying surgeon in pursuance of this section.

32. Where a certifying surgeon receives in pursuance of this Act notice of an accident in a factory or workshop, he shall with the least possible delay proceed to the factory or workshop, and make a full investigation as to the nature and cause of the death or injury caused by that accident, and within the next twenty-four hours send to the inspector a report thereof.

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The certifying surgeon, for the purpose only of an investigation under this section, shall have the same powers as an inspector, and shall also have power to enter any room in a building to which the person killed or injured has been removed.

There shall be paid to the said surgeon for the investigation such fee, not exceeding ten nor less than three shillings, as a Secretary of State considers reasonable, which fee shall be paid as expenses incurred by a Secretary of State in the execution of this Act.

C. FACTORY AND WORKSHOP ACT, 1878

68. An inspector under this Act shall for the purpose of the execution of this Act have power to do all or any of the following things; namely,

- (1) To enter, inspect, and examine at all reasonable times by day and night a factory and a workshop and every part thereof when he has reasonable cause to believe that any person is employed therein, and to enter by day any place which he has reasonable cause to believe to be a factory or workshop; and
- (2) To take with him in either case a constable into a factory in which he has reasonable cause to apprehend any serious obstruction in the execution of his duty; and
- (3) To require the production of the registers, certificates, notices, and documents kept in pursuance of this Act, and to inspect, examine, and copy the same; and
- (4) To make such examination and inquiry as may be necessary to ascertain whether the enactments for the time being in force relating to public health and the enactment of this Act are complied with, so far as respects the factory or workshop and the persons employed therein; and
- (5) To enter any school in which he has reasonable cause to believe that children employed in a factory or workshop are for the time being educated; and
- (6) To examine either alone or in the presence of any other person, as he thinks fit, with respect to matters under this Act, every person whom he finds in a factory or workshop, or such a school as aforesaid, or whom he has reasonable cause to believe to be or to have been within the preceding two months employed in a factory or workshop, and to require such person to be so examined and to sign a declaration of the truth of the matters respecting which he is so examined; and
- (7) To exercise such other powers as may be necessary for carrying this Act into effect.

The occupier of every factory and workshop, his agents and servants, shall furnish the means required by an inspector as necessary for an entry, inspection, examination, inquiry, or the exercise of his powers under this Act in relation to such factory and workshop.

Every person who wilfully delays an inspector in the exercise of any power under this section, or who fails to comply with a requisition of an inspector in pursuance of this section, or to produce any certificate or document which he is required

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by or in pursuance of this Act to produce, or who conceals or prevents a child, young person, or woman from appearing before or being examined by an inspector, or attempts so to conceal or prevent a child, young person, or woman, shall be deemed to obstruct an inspector in the execution of his duties under this Act: Provided always, that no one shall be required under this section to answer any question or to give any evidence tending to criminate himself.

Where an inspector is obstructed in the execution of his duties under this Act, the person obstructing him shall be liable to a fine not exceeding five pounds; and where an inspector is so obstructed in a factory or workshop, the occupier of that factory or workshop shall be liable to a fine not exceeding five, or where the offense is committed at night, twenty pounds; and where an inspector is so obstructed in a factory or workshop within the meaning of section sixteen of this Act, the occupier shall be liable to a fine not exceeding one, or where the offense is committed at night, five pounds.

D. FACTORY AND WORKSHOP ACT, 1891

SPECIAL RULES AND REQUIREMENTS

8.—(1) Where the Secretary of State certifies that in his opinion any machinery or process or particular description of manual labour used in a factory or workshop (other than a domestic workshop) is dangerous or injurious to health or dangerous to life or limb, either generally or in the case of women, children, or any other class of persons, or that the provision for the admission of fresh air is not sufficient, or that the quantity of dust generated or inhaled in any factory or workshop is dangerous or injurious to health, the chief inspector may serve on the occupier of the factory or workshop a notice in writing, either proposing such special rules or requiring the adoption of such special measures as appear to the chief inspector to be reasonably practicable and to meet the necessities of the case.

(2) Unless within twenty-one days after the receipt of the notice the occupier serves on the chief inspector a notice in writing that he objects to the rules or requirement, the rules shall be established, or, as the case may be, the requirement shall be observed.

(3) If the notice of objection suggests any modification of the rules or requirement, the Secretary of State shall consider the suggestion and may assent thereto with or without any further modification which may be agreed on between the Secretary of State and the occupier, and thereupon the rules shall be established, or, as the case may be, the requirement shall be observed, subject to such modification.

(4) If the Secretary of State does not assent to any objection or modification suggested as aforesaid by the occupier, the matter in difference between the Secretary of State and the occupier shall be referred to arbitration under this Act, and the date of the receipt of the notice of objection by the Secretary of State shall be deemed to be the date of the reference, and the rules shall be established, or the requisition shall have effect, as settled by an award on arbitration.

(5) Any notice under this section may be served by post.

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(6) With respect to arbitrations under this Act the provisions in the First Schedule to this Act shall have effect.

(7) No person shall be precluded by any agreement from doing, or be liable under any agreement to any penalty or forfeiture for doing, such acts as may be necessary in order to comply with the provisions of this section.

9.—(1) If any person who is bound to observe any special rules established for any factory or workshop under this Act acts in contravention of, or fails to comply with, any such special rule, he shall be liable on summary conviction to a fine not exceeding two pounds; and the occupier of the factory or workshop shall also be liable on summary conviction to a fine not exceeding ten pounds, unless he proves that he had taken all reasonable means, by publishing, and to the best of his power enforcing, the rules to prevent the contravention or non-compliance.

(2) A factory or workshop in which there is a contravention of any requirement made under this Act, shall be deemed not to be kept in conformity with the principal Act.

10.—(1) After special rules are established under this Act in any factory or workshop, the Secretary of State may from time to time propose to the occupier of the factory or workshop any amendment of the rules or any new rules; and the provisions of this Act with respect to the original rules shall apply to all such amendments and new rules in like manner, as nearly as may be, as they apply to the original rules.

(2) The occupier of any factory or workshop in which special rules are established may from time to time propose in writing to the chief inspector, with the approval of the Secretary of State, any amendment of the rules or any new rules and the provisions of this Act with respect to a suggestion of an occupier for modifying the special rules proposed by a chief inspector shall apply to all such amendments and new rules in like manner, as nearly as may be, as they apply to such a suggestion.

11.—(1) Printed copies of all special rules for the time being in force under this Act in any factory or workshop shall be kept posted up in legible characters in conspicuous places in the factory or workshop where they may be conveniently read by the persons employed. In a factory or workshop in Wales or Monmouthshire the rules shall be posted up in the Welsh language also.

(2) A printed copy of all such rules shall be given by the occupier to any person affected thereby on his or her application.

(3) If the occupier of any factory or workshop fails to comply with any provision of this section, he shall be liable on summary conviction to a fine not exceeding ten pounds.

(4) Every person who pulls down, injures, or defaces any special rules when posted up in pursuance of this Act, or any notice posted up in pursuance of the special rules, shall be liable on summary conviction to a fine not exceeding five pounds.

12.—An inspector shall, when required, certify a copy which is shown to his satisfaction to be a true copy of any special rules for the time being established under this Act for any factory or workshop, and a copy so certified shall be evidence (but not to the exclusion of other proof) of those special rules, and of the fact that they are duly established under this Act.

APPENDIX G
STATUTORY RULES AND ORDERS, 1904, No. 1617

FACTORY AND WORKSHOP

DANGEROUS AND UNHEALTHY INDUSTRIES

Regulations, dated October 24, 1904, made by the Secretary of State, in respect of the processes of loading, unloading, moving and handling goods in, on, or at any dock, wharf, or quay, and the processes of loading, unloading or coaling any ship in any dock, harbour or canal.

Whereas the processes of loading, unloading, moving and handling goods in, on, or at any dock, wharf, or quay, and the processes of loading, unloading and coaling any ship in any dock, harbour, or canal have been certified in pursuance of Section 79 of the Factory and Workshop Act, 1901, to be dangerous:—

I hereby, in pursuance of the powers conferred on me by that Act, make the following Regulations for the protection of persons employed in the processes or in any of them, and direct that they shall apply to all docks, wharves, quays, and ships as aforesaid.

These Regulations shall come into force on the 1st of January, 1905, except that so much of Regulations 6 and 8 as require structural alterations shall come into force on the 1st of January, 1908.

Nothing in Parts II to VI inclusive of these Regulations shall apply to the unloading of fish from a vessel employed in the catching of fish.

The Secretary of State may by order in writing exempt from all or any of the Regulations and for such time and subject to such conditions as he may prescribe any docks, wharves or quays in respect of which application for such exemption shall have been made to him by the Department of Agriculture and Technical Instruction for Ireland or by the Congested Districts Board for Ireland.

DEFINITIONS

In these Regulations:—

“Processes” means the processes above mentioned; or any of them.

“Person employed” means a person employed in the above processes or any of them.

“Shallow canal” includes any of the following parts of a canal, canalised river, non-tidal river, or inland navigation:—

(a) Any part having no means of access to tidal waters except through a lock not exceeding ninety feet in length;

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- (b) Any part not in frequent use for the processes; and
- (c) Any part at which the depth of water within fifteen feet of the edge does not ordinarily exceed five feet.

DUTIES

It shall be the duty of the person having the general management and control of a dock, wharf, or quay, to comply with Part I of these Regulations; provided that if any other person has the exclusive right to occupation of any part of the dock, wharf, or quay, and has the general management and control of such part the duty in respect of that part shall devolve upon that other person; and further provided that this part of these Regulations shall not apply to any shallow canal.

It shall be the duty of the owner, master, or officer in charge of a ship to comply with Part II of these Regulations.

It shall be the duty of the owner of machinery or plant used in the processes, and in the case of machinery or plant carried on board a ship not being a ship registered in the United Kingdom it shall also be the duty of the master of such ship, to comply with Part III of these Regulations.

It shall be the duty of every person who by himself, his agents, or workmen carries on the processes, and of all agents, workmen, and persons employed by him in the processes, to comply with Part IV of these Regulations.

It shall be the duty of all persons, whether owners, occupiers or persons employed, to comply with Part V of these Regulations.

Part VI of these Regulations shall be complied with by the persons on whom the duty is placed in that Part.

PART I

1. The following parts of every dock, wharf, or quay shall, as far as is practicable having regard to the traffic and working, be securely fenced so that the height of the fence shall be in no place less than two feet six inches, and the fencing shall be maintained in good condition ready for use.

- (a) All breaks, dangerous corners, and other dangerous parts or edges of a dock, wharf, or quay.
- (b) Both sides of such footways over bridges, caissons, and dock gates as are in general use by persons employed, and each side of the entrance at each end of such footway for a sufficient distance not exceeding five yards.

2. Provision for the rescue from drowning of persons employed shall be made and maintained, and shall include:—

- (a) A supply of life-saving appliances, kept in readiness on the wharf or quay, which shall be reasonably adequate having regard to all the circumstances.
- (b) Means at or near the surface of the water at reasonable intervals, for enabling a person immersed to support himself or escape from the water, which shall be reasonably adequate having regard to all the circumstances.

STATUTORY RULES AND ORDERS, 1904, NO. 1617.

3. All places in which persons employed are employed at night, and any dangerous parts of the regular road or way over a dock, wharf, or quay, forming the approach to any such place from the nearest highway, shall be efficiently lighted.

Provided that the towing path of a canal or canalised river shall not be deemed to be "an approach," for the purpose of this Regulation.

PART II

4. If a ship is lying at a wharf or quay for the purpose of loading or unloading or coaling there shall be means of access for the use of persons employed at such times as they have to pass from the ship to the shore or from the shore to the ship as follows:—

(a) Where a gangway is reasonably practicable a gangway not less than 22 inches wide, properly secured, and fenced throughout on each side to a clear height of two feet nine inches by means of upper and lower rails, taut ropes or chains, or by other equally safe means.

(b) In other cases a secure ladder of adequate length.

Provided that nothing in this Regulation shall be held to apply to cargo stages or cargo gangways, if other proper means of access is provided in conformity with these Regulations.

Provided that as regards any sailing vessel not exceeding 250 tons net registered tonnage and any steam vessel not exceeding 150 tons gross registered tonnage this Regulation shall not apply if and while the conditions are such that it is possible without undue risk to pass to and from the ship without the aid of any special appliances.

5. If a ship is alongside any other ship, vessel, or boat, and persons employed have to pass from one to the other, safe means of access shall be provided for their use, unless the conditions are such that it is possible to pass from one to the other without undue risk without the aid of any special appliance.

If one of such ships, vessels, or boats is a sailing barge, flat, keel, lighter or other similar vessel of relatively low freeboard the means of access shall be provided by the ship which has the higher freeboard.

6. If the depth from the top of the coamings to the bottom of the hold exceeds six feet there shall be maintained safe means of access by ladder or steps from the dock to the hold in which the work is being carried on, with secure hand-hold and foot-hold continued to the top of the coamings.

In particular such access shall not be deemed to be safe:—

(a) Unless the ladders between the lower decks are in the same line as the ladder from the main deck, if the same is practicable having regard to the position of the lower hatchway or hatchways.

(b) Unless the cargo is stowed sufficiently far from the ladder to leave at each rung of the ladder sufficient room for a man's feet.

(c) If there is not room to pass between a winch and the coamings at the place where the ladder leaves the deck.

(d) If the ladder is recessed under the deck more than is reasonably necessary to keep the ladder clear of the hatchway.

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7. When the processes are being carried on between one hour after sunset and one hour before sunrise (a) the places in the hold and on the decks where work is being carried on and (b) the means of access provided in pursuance of Regulations 4 and 5, shall be efficiently lighted, due regard being had to the safety of the ship and cargo, of all persons employed and of the navigation of other vessels and to the duly approved By-laws or Regulations of any authority having power by statute to make By-laws or Regulations subject to approval by some other authority.

8. All iron fore and aft beams and thwart ship beams used for hatchway covering shall have suitable gear for lifting them on and off without it being necessary for any person to go upon them to adjust such gear.

PART III

9. All machinery and chains and other gear used in hoisting or lowering in connection with the processes shall have been tested and shall be periodically examined. All such chains shall be effectually softened by annealing or firing when necessary, and all half-inch or smaller chains in general use shall be so annealed or fired once in every six months.

If the chains are part of the outfit carried by a seagoing ship it shall be a sufficient compliance with this Regulation as regards softening by annealing or firing of half-inch or smaller chains, that no such chains shall be used unless they have been so annealed or fired within six months preceding.

As regards chains, the safe-loads indicated by the test, the date of last annealing and any other particulars prescribed by the Secretary of State, shall be entered in a register which shall be kept on the premises, unless some other place has been approved in writing by the Chief Inspector.

10. All motors, cog-wheels, chain and friction-gearing, shafting and live electric conductors used in the processes shall (unless it can be shown that by their position and construction they are equally safe to every person employed as they would be if securely fenced) be securely fenced so far as is practicable without impeding the safe working of the ship and without infringing any requirement of the Board of Trade.

11. The lever controlling the link motion reversing gear of a crane or winch used in the processes shall be provided with a suitable spring or other locking arrangement.

12. Every shore crane used in the processes shall have the safe-load plainly marked upon it, and if so constructed that the jib may be raised or lowered, either shall have attached to it an automatic indicator of safe-loads or shall have marked upon it a table showing the safe-loads at the corresponding inclinations of the jib.

13. The driver's platform on every crane or tip driver by mechanical power and used in the processes shall be securely fenced, and shall be provided with safe means of access.

14. Adequate measures shall be taken to prevent exhaust steam from any crane or winch obscuring any part of the decks, gangways, stages, wharf, or quay, where any person is employed.

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PART IV

15. No machinery or gear used in the processes, other than a crane, shall be loaded beyond the safe-load; nor a crane, unless secured with the written permission of the owner by plates or chains or otherwise.

No load shall be left suspended from a crane, winch, or other machine unless there is a competent person actually in charge of the machine while the load is so left.

16. A boy under 16 shall not be employed as driver of a crane or winch, or to give signals to a driver, or to attend to cargo falls on winch-ends or winch-bodies.

17. Where in connection with the processes goods are placed on a wharf or quay other than a wharf or quay on a shallow canal:—

(a) A clear passage leading to the means of access to the ship required by Regulation 4 shall be maintained on the wharf or quay; and

(b) If any space is left along the edge of the wharf or quay, it shall be at least three feet wide and clear of all obstructions other than fixed structures, plant and appliances in use.

18. No deck-stage or cargo-stage shall be used in the processes unless it is substantially and firmly constructed, and adequately supported, and, where necessary, securely fastened.

No truck shall be used for carrying cargo between ship and shore on a stage so steep as to be unsafe.

Any stage which is slippery shall be made safe by the use of sand or otherwise.

19. Where there is more than one hatchway, if the hatchway of a hold exceeding seven feet six inches in depth measured from the top of the coamings to the bottom of the hold is not in use and the coamings are less than two feet six inches in height, it shall either be fenced to a height of three feet, or be securely covered.

Provided that this Regulation shall not apply during mealtimes or other temporary interruptions of work during the period of employment.

And provided that until the 1st of January, 1908, the fencing may be the best the circumstances will allow without making structural alteration.

Hatch coverings shall not be used in connection with the processes in the construction of deck or cargo stages, or for any other purpose which may expose them to damage.

20. No cargo shall be loaded by a fall or sling at any intermediate deck unless a secure-landing platform has been placed across the hatchway at that deck.

PART V

21. No person shall, unless duly authorized, or in case of necessity, remove or interfere with any fencing, gangway, gear, ladder, life-saving means or appliances, lights, marks, stages or other things whatsoever, required by these Regulations to be provided.

22. The fencing required by Regulation 1 shall not be removed except to the extent and for the period reasonably necessary for carrying on the work of the dock or ship, or for repairing any fencing. If removed it shall be restored forthwith at

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the end of that period by the persons engaged in the work that necessitated its removal.

PART VI

23. No employer of persons in the processes shall allow machinery or gear to be used by such person in the processes that does not comply with Part III. of these Regulations.

24. If the persons whose duty it is to comply with Regulations 4, 5, and 7 fail so to do, then it shall also be the duty of the employers of the persons employed for whose use the means of access and the lights are required to comply with the said Regulation within the shortest time reasonably practicable after such failure.

25. The certificate of the ship's register and any other certificate or register referred to in these Regulations shall be produced by the person in charge thereof on the application of any of H. M. Inspectors of Factories.

A. AKERS-DOUGLAS
One of His Majesty's Principal
Secretaries of State

Home Office,
Whitehall,

24th October, 1904.

APPENDIX H

ACCIDENT PREVENTION REGULATIONS FOR THE STEVEDORING INDUSTRY

WAREHOUSING ACCIDENT INSURANCE ASSOCIATIONS OF GREAT BRITAIN

Extracts from Edition of 1905

I. REGULATIONS FOR EMPLOYERS

1. The members of the association are pledged to keep the places of work and the apparatus, as well as the passage ways, stairways, entrances and exits, belonging to their establishments clean and in good condition.
2. In all places in which annoying dust, harmful gases, vapors, fumes, etc. collect, there shall be ample provision for the adequate removal of these impurities by the installation of exhausts, ventilators, etc. when necessary.
3. Dangerous places in and near the establishment, especially pits, holes, wells and other deep places, shall be covered, or barred off, by secure barriers, and in general they shall be guarded so that, when ordinary care is used, they can offer no danger.

4. Movable platforms, fixed stairs, hatches, elevators, and similar places of traffic are to be provided with secure railings, breastworks, or fences.

During work, such protections may be in part or wholly removed when this is necessary for carrying on the work.

The hooks, from which the hatch covers or doors hang, are to be provided with such safety appliances that the covers or doors can not come unhooked.

On hatches when it is necessary for the workers to lean out, handrails or grips shall be attached in every case.

When hatches, etc. . . . are not being used adequate safety appliances shall be placed around them consisting of fences or covers.

5. All places of work and traffic are to be adequately lighted whenever work goes on in them, when there is insufficient daylight or at night, in so far as they are regularly used as thoroughfares for purposes of work.
7. All gear apparatus and machinery is to be kept in condition proper for work. Unusable or defective articles are to be changed at once.
8. All ladders, movable stairs, slides for timber, which are used must be carefully guarded against slipping and sliding, either at the top by hooks or rings, or at the bottom by points on soft ground or claws on hard. Separate booms, not bound together, must not be used as slides or slides for timber.

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Ladders leading into hatches, in warehouses or ships, must project above the hatch half the height of a man (about 80-90 cm.), if no other means of support is provided.

9. Running boards and planks, loading bridges—must have sufficient breadth, and strength proportioned to their length. They are to be supported and secured in such a way that when they are stepped or walked upon it will be impossible for them to tilt or slide off.
10. Piles of goods, especially piles of sacks, are to be stowed on even and firm ground and must be closely packed together. No samples may be taken out of the under sacks.
19. All lifting apparatus with crank or hawser or chain power is to be provided with an effective catch (stopping arrangement) unless they are self-stopping. If a load is let down solely by its own weight, a reliable brake must be provided, so contrived that the workers in managing it, cannot be endangered by the crank.
20. If the height of the ascent (step) to the cranes is more than 1 M., firm railings or handles are to be provided for it.
21. The permissible carrying capacity of all hoisting gear shall be determined by an expert; the result shall be plainly marked on the apparatus.
28. All machine and driving gear parts, especially fly wheels and cog wheels, likewise piston rods, belt gearing, strap wheels, driving belts, cables, chains, etc. lying in the region of traffic, are to be suitably fenced in or covered over.
29. All appliances which serve to bring machinery to a standstill, must be easily reached and so constructed that they work as fast and as securely as possible.
30. On belt gearing, strap wheels, and couplings all projecting parts (screw heads and nuts, etc.) are to be avoided or appropriately cased in.
31. Driving belts, cables or chains must either be entirely removed or else firm supports must be provided for them. So arranged that the straps, etc. cannot come in contact with moving parts of the belt gearing.

Driving belts of more than 30 mm. breadth, as well as cables or chains, which run with greater speed than 10 m. per second, and also more slowly running belts of more than 60 mm. breadth, may not be put on or thrown off by hand while they are in motion.
33. The carrying out of work which demands technical skill shall only be entrusted to people who are familiar with the appliances in question.

Dangerous loading done by several persons at the same time is to be under the oversight of a man thoroughly familiar with such work, who shall be responsible for it.
34. Drunken persons shall not be allowed to remain at the places of work.

People who are known to be subject to epilepsy, cramps, vertigo, or fainting may not be employed at machines or at work which is especially dangerous.
36. On work which is especially dangerous to the eyes or to the organs of breathing the use of suitable guards shall be instituted; these are to be provided by the employers.

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37. For work with wet and dry hides and pelts, etc. ample washing facilities shall be provided.
39. On every establishment provision must be made for ample bandage material, protected against contamination, and notice shall be given as to where the bandages are kept.
46. At the close of loading or discharging or at nightfall, all the hatches of a vessel must be covered.
47. If for special reasons the vessel remains open, wholly or in part, after darkness comes on, the deck must be adequately lighted, so that the vessel can be entered without danger.
48. When stairs, built into a ship, do not lead exactly perpendicularly down to the hold, warning signs must be fixed in an easily visible place, with prominent lettering, which shall give warning against missing the stair.
When the built-in hold ladders of a vessel can no longer be used, because of the stowing that has been done and the like, provision shall be made for other safe connection, with the ship's hold.
In addition, good gangways shall be attached outwards on the ship.
49. On steam winches, the escaping steam shall be so conducted away, that there will be no possibility of a person's being burned either by the escaping steam or by condensing water.
50. All the vessels used in the establishments of the members of the Warehousing Accident Association—motor launches as well as row-boats—which serve for the transportation of workers to their work, must be examined as to the greatest permissible number they can carry, by an official ship surveying Institute, whenever there are such surveying officials in the neighborhood of the establishment, or at such a distance from it that the measurement could be made without excessive expense. Corresponding to this measurement, every vessel must be worked on the outside in an easily visible spot, in indelible letters, "Carrying Capacity to Persons," and must be marked also with a line to show the load permitted. The carrying of more persons and a larger load than the carrying capacity allows, is absolutely forbidden.
Vessels used for carrying people must always bear brightly burning lanterns at night.

II. REGULATIONS FOR EMPLOYEES

52. Employes must make themselves familiar with the contents of the Accident Prevention Regulations.
53. Every worker is bound to see to it, from the beginning of the work on, that the apparatus and tools entrusted to him for carrying out the work, as well as his own, are and remain in good order and in usable condition.
He must correct faults of all sorts at once, or, in case this is not practicable, report them immediately to his foremen.
54. Removal of existing protective appliances is strictly forbidden.
55. Resting or sleeping by fire places, by hatches or in the immediate neighborhood

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of draught animals, running machinery, pits, tracks, brick work, around boilers, roofs, high scaffolding, and wagons in motion is forbidden.

56. Drunken workers must leave the places of work upon demand.
57. Workers who are subject to epilepsy, cramps or occasional fainting and vertigo, must report this to their foremen when they are taken on, and they must do no work at machines or other dangerous places, and must in general keep away from the latter.

When orders are given, the carrying out of which would mean special danger to such workers, the workers must call their foremen's attention particularly to their condition.

58. During the night the workers must, as far as possible, remain only where they have their work to do.
59. Entering unlighted places of work and dark hold or rooms is permitted only with light, in so far as the nature of the industry permits illumination.
60. Stacking or taking down a pile of any sort of goods must be done with necessary caution. Taking down must be done in layers from the top.
62. Throwing down chains, slings, claws, hooks, and other heavy objects is forbidden. Lowering is only permissible after warning is given.
63. Workers are required to make copious use of facilities provided for them, in working with wet and dry hides, pelts and the like.
64. During work which is especially dangerous to the eyes and to the organs of breathing, the guards supplied by the employers are to be used.
66. The maximum load marked on hoisting gear may in no case be exceeded.
67. On using hand cranes, winches, the workers must put the stops and catches into action so that a recoil of the winch handle or a sudden drop of the load may be avoided.

Detachable, loose cranks must be removed during the lowering of loads, or secured, by some contrivance against flying off.

68. Raising and lowering persons by means of cranes, winches or such contrivances is strictly forbidden; likewise letting oneself down on cables and climbing up on rods and the like.
69. All goods raised by hoisting gear must always be carefully secured against falling.
70. Staying under hanging loads is forbidden.
71. The machine tenders must, before the machine is set in motion, assure themselves that it is in good order, and must under all circumstances correct all faults found, which might endanger the safety of the work, before the machine is started. If they cannot do this, they must give notice to the foremen at once.
72. The prescribed sign must be given every time before the motor is started or stopped.
73. The moving parts of machines and all driving gear, belts, gearing, etc. may be lubricated while in motion only when this can be done, by means of suitable contrivances, without danger. Lubricating and oiling while the machine is

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in motion may only be done by the machinist or by some one authorized by him.

Cleaning of machine parts may only be done while the machine is standing still.

Explosion motors which are provided with a contrivance for starting them to turn, must not be started by the fly wheel.

74. Workers employed at tending and watching motors and belt gearings must wear closely fitting clothing.
75. Driving belts of more than 30 mm. breadth, as well as cables and chains, when they run faster than 10 m. per second, and likewise more slowly running belts of more than 60 mm. breadth, may not be put on or thrown off by hand while in motion.
76. Driving belts, cables and chains which are thrown off must either be entirely removed or hung up on firm supports in such a way that they cannot come in contact with moving parts. The same precautions are to be taken in sewing joining and repairing the belts.
77. Taking off, putting on, and keeping pieces of clothing in the immediate neighborhood of driving gear is forbidden.
85. In raising goods out of and lowering them into the ship's hold by means of chains, hooks or claws, the greatest care is to be employed, so that the goods do not strike against hatch doors, and hatch edges. The chain parts are to be pulled tight, the hooks or claws securely fastened, so that the rising or descending goods cannot fall out.

On hoisting coal, etc. in baskets, strict care is to be taken that the baskets are not filled above the rim with coal etc. so that pieces of coal, etc. cannot fall out when the baskets are hoisted.

Goods packed in different ways may only be slung up in one sling when they fit together in an orderly way. The foreman in charge is obliged always to examine carefully to see whether the load in the sling is slung up in the proper way and will hold together well, otherwise the draft must not be let down into the hold. The foreman is required to see to it that the hold is clear for the lowering of the draft.

Hooks and claws should hang from two pennant ends; interlaced at a suitable distance above the piece of freight to be taken up, so that in catching this they will be able to hold sufficiently tight. Loading chains must not be used as slings.

As soon as goods to be raised or lowered by hoisting gear begin to rise or descend, the workers busied near by are to step aside as far as possible.

86. Fore-and-afters and thwart-ship-beams must be removed from hatch openings and during loading and unloading; if however several gangs of workers are working in the same hatch, on different decks, then fore-and-afters and thwart-ship-beams, in so far as it is necessary for them to remain lying, shall be secured by bolts or in some other suitable way, so that they cannot be moved out of their position by a rising draft.

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III. PROVISIONS FOR ENFORCEMENT AND PUNISHMENT

88. Employers are obliged to direct and superintend the enforcement of the Accident Prevention Regulations issued by the Accident Insurance Association.

All the Accident Prevention Regulations are to be hung up, in placard form, in the work rooms accessible to the workers, so as to be brought to the notice of the workers insured. If this is not practicable, the regulations are to be brought to the attention of the workers in some other suitable form.

91. Every injury received at work is to be reported by the injured person, as soon as he is in condition to do so, to the proper authority.

The worker must see to it that every wound, however insignificant it may appear, is cleansed at once, and carefully guarded against the penetration of dust and other impurities. As long as the injury is not protected, at least by an emergency bandage, the injured person must stop work.

92. Injured persons who have had medical care for accidents which caused incapacity for work for more than three days, may not be taken on again for work till the physician gives a certificate that their capacity for work is restored.

APPENDIX I
REGULATIONS FOR THE PREVENTION OF ACCIDENTS,
HAMBURG, GERMANY
HARBOR INSPECTION DEPARTMENT OF HAMBURG

Extracts

1. Gang planks
 - (a) Must be broad and strong enough and have a railing on at least one side.
 - (c) Must be lighted at night and strewn with something to prevent sliding when slippery.
6. Wires
 - (a) Winch wires which run three blocks, must not be made of two pieces spliced together.
8. Hand and steam winches (anchor) capstans—
 - (a) All movable and running machine parts, which lie in the region of traffic, are to be covered by guard plates. Shaft ends, etc. which project are to be avoided or securely cased in.
 - (b) If the winches stand so near the hatch coamings, in front of the hold ladders that the approach to them is narrowed, then the cranks of the winches are to be provided with guard plates. The same must be done when the winches stand so near the hatch coamings that the revolving cranks do not leave a sufficient space between themselves and the hatch coamings, so that men working in the hold can, when necessary, take hold of the hatch coamings for support with their hands, without danger.
 - (f) The position of the winch man shall be such that he has as free a view as possible of the field of work.
 - (g) For loading and unloading, open hooks must not be used. They must have fixed guards which cannot catch under hatch coamings, thwart-ship beams, etc.
 - (i) All steam conductors in the region of work must be covered so that it will be impossible for persons to burn themselves upon them.
9. Loading and Unloading Apparatus
 - (a) The loading and unloading apparatus is to be examined thoroughly once a year, and the result of the examination is to be recorded in the ship's log.
 - (b) A statistical estimate of the power of the whole loading gear shall be made by an expert or by the builder, so that those responsible for the

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ship are exactly informed concerning the carrying power of the gear, and so can avoid overburdening it.

- (c) All chains, chain links, and eye bolts are to be renewed when a third of the diameter of a link is worn away; if they are worn away less than a third, their lessened carrying capacity shall be taken into consideration.

10. Loading and Bunker Hatches

- (a) The coamings of loading and bunker hatches shall be at least 80 cm. high above the deck.
- (b) If they are lower, a suitable railing shall be constructed, consisting of iron posts, which shall stand in sockets which are at most 2 m. distant from each other. Thru these posts shall be stretched ropes, wires, or chains to insure a firm inclosure.
- (d) If the coamings are more than 80 cm. high, a climbing iron or step shall be fixed to the outside of the coamings, 70 cm. from the upper edge, in front of the hold ladder, as an approach to the hold ladder.
- (e) Inside against the hatch coamings, above the hold ladder, there shall be a sufficient number of climbing irons attached, at the same distances as the rungs of the hold ladder. Special care shall be taken that the lowest climbing iron is not placed too high above the topmost rung of the hold ladder.
- (f) The resting place for the hatch covers on the coamings can only be regarded as safe when it has a minimum breadth of 40 cm.

11. Hold Ladders

- (a) In every hatch there shall be at least one hold ladder, fastened above and below, which runs in a straight line from the deck to the bottom of the hold.
- (b) Interrupted or folding hold ladders are not permitted.
- (d) In building the hold ladders, care shall be taken that the approach to them on the upper deck, etc., shall not be blocked by winches or other fixed objects, as well as that the lower decks can be reached from the ladders without danger.
- (e) If, on old ships, the winches stand so near the hatch coamings that the approach to the hold ladders is blocked, there the latter are to be moved.
- (i) The use of free-hanging loose rope-ladders shall be regarded as unsafe and therefore not permitted.
- (o) Hold ladders are to be fastened to bulkheads in such a way that the rungs are at least 100 mm. away from the bulkhead.
- (p) The hold ladders must be fastened to the hatch coamings as nearly as possible in a straight line with the coamings so that the hold ladders are not drawn back under the dock more than is absolutely necessary.

12. Thwart-ship beams and fore-and-afters

- (a) Thwart-ship beams and fore-and-afters of all upper deck and between deck hatches are to be provided with proper fastenings so that they can be placed without anyone climbing out onto them. For this purpose the thwart-ship beams are to be provided at each end with holes of at

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- least 30 mm. diameter, shackles, ringbolts, or falling links, the fore-and-afters, at each end with hand ropes with large eyes or with stops.
- (b) Iron thwart-ship beams of the upper deck and between deck hatches are to be so arranged, that when circumstances make it necessary for them to remain in place in the hatchway, they are to be fastened securely by bolts to the coamings, so that they cannot be moved out of place by rising drafts, etc. Similarly the fore-and-afters are to be secured by bolts when they need to remain in place.
 - (c) The projecting edge or groove for the hatch covers on the wooden fore-and-afters must be at least 50 mm. and must always be kept sharps edged. If this becomes narrower by being worn off, the margin shall and as long as the beam is otherwise still safe, be increased to the required width by fastening to it a border.
- (1) The lower edges and corners of the hatch coamings must not be left sharp. They must be provided with a half-round band or be constructed so that in unloading, wires shall not be cut nor shackles or hooks get caught under the edge of the coaming.
13. Lengthwise and hatches
- (b) Wherever possible, all hatch ways shall be of equal length and the hatch covers shall be made of equal breadth, so that it will not be necessary to mark the hatch covers as they are all of equal size, and putting them on, especially at night, will thereby be made very simple and easy.
14. Hatch covers
- (a) The hatch covers themselves are always to be kept in good condition, with their edges sharp, and provided with safe handles.
15. Railings and Lighting
- (b) All stairs, and breast-rail passageways 1 M high or over must have at least on one side a firm, secure railing.
 - (d) Lower deck hatches with low coamings, which lie in the common region of traffic, must, when they are kept open, be securely railed in or barred off.
 - (e) During darkness, all places of work as well as open spaces and passages used for traffic are to be amply lighted.
17. Platforms
- (c) When the lower hold is empty and the between decks are being loaded or unloaded, a sufficient number of hatch covers with the thwart-ship beams, or sufficiently strong platforms are to be laid on.
 - (d) If work is going on in the between decks and in the lower hold at the same time, an adequate barrier of planks or stretched-out nets, is to be made, across the entire hatch and along the brink of the open hold, so that neither persons nor freight can fall or be knocked into the lower hold.
19. Cranes
- (a) Where the platforms for the crane drivers go close by open hatches or

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lower-lying decks, then a secure railing, built hip-high is to be placed around the platforms.

- (b) If when the cranes turn, they are close to coamings or bulkheads, and therefore there is danger that persons may be crushed between them, a secure barrier shall be installed.
- (c) On all cranes and winches in the region of traffic, all projecting shaft ends, as well as projecting nuts, screw heads, belt-gearings, couplings, shafts, etc., shall be avoided altogether or securely cased in.

23. Noisy work

Very noisy work in the neighborhood of hatches which are being worked must not be carried on during the loading and unloading, since it makes it impossible for the workers to understand the hatch foremen in charge of the work, and for the hatch foremen to understand the winchmen.

EXTRACT FROM LETTER OF HERR SIEGNUND, CHIEF HARBOR INSPECTOR OF HAMBURG

Ordinarily two and more gangs are permitted to work in one hatch at the same time in Hamburg. How many gangs are allowed in one hatch varies in different cases, sometimes according to the size—especially the length—of the hatch and sometimes according to the kind of work. It goes without saying that the loading and discharging of bulky goods requires more room in a hatch than the loading and discharging of sack goods and such small objects. In discharging bulk cargo (such as coal, grain, etc.) one hatch 8 m. long at the side, can be worked by four gangs; one counts accordingly on 2 m. of hatch length for each gang. It depends also, naturally, on how many people are working in one gang in the hold. Here one counts on five men at the most in the hold in one gang. In this way, the discharging of bulk cargo has been carried on for years with good results for the safety of the workers. These standards have been set by the Warehousing Accident Insurance Association together with the Harbor Inspection Department.

APPENDIX J

DEARTH OF DATA CONCERNING LONGSHORE WORK

Supplementing the facts stated in the Introduction with regard to the futility of searching for published information concerning longshoremen, the following notes are of interest:*

The annual reports of the New York bureau of labor statistics contain a few figures in regard to the numbers and membership of longshoremen's unions, the wages and the hours of the men, but these returns come from only part of the unions. Even if every union made full returns, however, the figures would still be worthless as a basis of information on longshoremen of the entire port. Less than 20 per cent of the men are organized, and as it is optional with the unions whether or not to make returns, it is evident that no finality can be claimed for the figures. The inaccuracy of the conclusions of the report regarding average earnings is self-evident.

In the sixteenth annual report of the United States Bureau of Labor, 1901, a summary is given of all the strikes and lockouts which occurred in the United States before 1881.† This summary is by years, and records a few details concerning each strike. In the year 1874 a strike of 35 mule spinners in Chicopee, Massachusetts, which lasted two weeks, is duly recorded; yet no mention is made of the longshore strike (or lock-out) in the port of New York which began in the latter part of 1874, involved 10,000 men, and lasted about eleven weeks. During part of this time the traffic of the port was almost at a standstill. This omission seems incomprehensible.

In the libraries one looks up "stevedores," "docks," "shipping"—any heading that might smuggle in facts about this large class of men, but in vain. Reluctantly and by degrees the searcher realizes that the dearth of references is not due to the carelessness of the cataloguer. No information is registered because no book treating of any phase of the life of the American longshoreman as such is contained in the libraries.

* A list of American and English publications found and consulted will be found in the Bibliography, pp. 267 ff.

† The history of strikes and lockouts after that year is embodied in a series of statistical tables from which details are omitted.

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Indexed under "longshoremen" in Commons' Documentary History of American Industrial Society there is one reference, a clause contained in a letter referring to the ten-hour strike of 1835: "The laborers on the wharves of Schuylkill were out on strike several days previous." It is manifestly impossible to embody in a documentary history documents which are not in existence. The meagerness of material in this case is in accord with the meagerness in the government reports and in the miscellaneous literature of the libraries.

In July, 1910, the eighteenth annual convention of the International Longshoremen's Association took place in New York City. It was comprised of about 100 delegates who represented some 35,000 men in all parts of the United States and Canada. These men transacted the business of the convention for six days, and carried on their deliberations in a vigorous, intelligent, and orderly manner. The proceedings were marked by a decorum and by a respect for one another's rights not always found in conventions. Yet the leading papers of the city did not give it a line.

When all these lines of approach have been followed in vain, one turns to other possible sources. Innumerable books have been made out of the romance, danger, and hardship of the sailor's life; surely the hardship and danger of the man who handles the cargo after the ship has docked can not have been entirely overlooked. Accordingly, one writes to or visits sociologists and men of affairs who have knowledge of the waterfront. Their replies are strikingly uniform. They know of no literature on longshoremen, but offer to supplement this deficiency with information concerning seamen.

An attempt is next made to obtain directly from the bureau of labor and the bureau of the census at Washington data which have not appeared in their published reports. The reply makes it clear that these bureaus possess no data concerning the wages, hours, or conditions of employment of longshoremen.

Through all these and other agencies we have been able to discover the little material published in this country on longshoremen. This comprises a short pamphlet by Professor John R. Commons, on *The Longshoremen of the Great Lakes*; two pamphlets written and privately published by longshoremen on special labor problems in New York; and two or three magazine articles, one only on the port of New York and that one making no pretense of being more than a literary snapshot. The associations of waterfront workers have published accounts of the proceedings of their annual conventions. Constitutions and by-laws of the unions are issued and working rules and wage scales for a few ports have been printed. *The Longshoreman*, a monthly journal, is edited at Buffalo by the presi-

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dent of the International Longshoremen's Association and published in Erie, Pennsylvania. It deals chiefly with the affairs of the Association and its locals. Mention of conditions of labor in the different ports is only incidental.

In England the material is fuller. The English have for a score of years taken dock labor into serious consideration. Articles and pamphlets on various aspects of the work have been published. Books dealing with the labor situation contain chapters devoted to "dock labourers." The government has attempted to better conditions by investigations of parliamentary committees which have led to legislation. Yet the problems of this occupation are by no means solved. It is only in comparison with the much greater deficiency in America that the attention given the subject seems adequate.

APPENDIX K

DEVELOPMENT IN METHODS OF WORK SINCE 1860

Very gradually the methods of handling cargoes have been improved. Prior to the Civil War piers were uncovered, and when it was necessary to leave goods on the pier all night they were covered with tarpaulins. Certain firms made a specialty of renting out these tarpaulins. By 1862 there were a few pier sheds on the North River, which at first were mere skeleton sheds—tin roofs with sides of canvas; but by 1876 practically all the large piers on the North River were shedded. On the East River there still remained some open piers.

Ships of that time had sometimes only two, but for the most part three hatches. On a three-hatch ship about 50 men would be employed,—eight in the hold, two on deck, and six on the pier, for each hatch. As the ships had no bulkheads—walls which separate the compartments on modern ships—the cargo at any point could be discharged from any one of the hatches.

A primitive type of up-and-down fall and burton was used. A span of rope and chain ran from mast to mast, the short section over the hatch being of chain. To this was fastened an iron block—the gin. Through this block and through a block made fast to the pier the up-and-down fall was rove, and horses were attached to it. By leading the horses backward and forward drafts were raised and lowered. When the drafts were particularly heavy they were raised by capstans on the pier, to the bar of which the horses were hitched. For this work horses were often hired by the hour from "histers" who made the renting of them a business.

The burton was attached to a derrick stepped from the ship's side, and was run by man power. A longshoreman took turns with the fall around a lowering spar which was lashed at right angles to the foot of the derrick mast and was used as stationary drumend. By means of the horses the draft was raised from the hold till it was abreast of the hatch coamings. The burton was then fastened on and the load raised nearly to the gin—a distance, perhaps, of about 20 feet. The burton man and the gangway man took a purchase on the fall around the lowering spar and because of the height of the draft were able to swing or "drift" it clear of the rail. The rope around the lowering spar was then slackened and the

DEVELOPMENT IN METHODS OF WORK SINCE 1860

draft allowed to land. If the draft had not been raised high enough, or if the men lacked skill, it sometimes descended to the deck instead of going over the side. In loading, the draft was dragged up a skid.

Vessels were not then so high as they are now; the distance the draft had to travel was shorter. Nevertheless the men who received it had to be careful. If, for instance, when man power was used, the men who were lowering the draft did not take proper turns around the lowering spar, the load might get beyond their control and come down with a rush.

As steam vessels came into use, they were supplied with steam winches for the up-and-down fall. Steam winches were first used on the North River. In 1865 the only place on that side of Manhattan where horses were still used was at the foot of Spring Street, and by that time they were in use on the East River. At about the same time steam engines called donkey engines located on the piers were gradually introduced for handling the cargoes of sailing vessels, or used as auxiliaries to the steam winches on board; but not until a number of years later was steam power applied to the burton.

One method of handling cargoes which may be called a transition, was by means of two skids and a fall. One skid was laid athwart the deck from the rail of the hatch coamings to the edge of the ship. This gave it a slight slope. A second skid ran from the edge of the ship to the pier. The fall brought up the draft from the hold and landed it on the first skid near the hatch coamings, and two longshoremen shoved the draft along the skid. The sling was then thrown off and the goods run over the edge of the second skid. Down this second skid they shot with neither hand nor fall to guide them. They were received and trucked away by the men on the pier. This method did not go out of general use till a few years ago. It is still occasionally found.

About 1890 there was a change in the burton at some piers. Derrick poles were fastened upright at regular intervals along the pier,* and through a ring bolt at the top of each there ran a span of wire rope. To this was fastened a block for the burton fall. Steam power instead of hand power was used. But for something less than a decade after its introduction this steam burton was used only for discharging. Loading was still done by means of skids.

In this style of loading the up-and-down fall was fastened to the draft and dragged it up the skid. It was about 1900 that, in the use of the steam burton, skids were dispensed with and the draft was directly raised

* On a few of the new piers, notably those of the Chelsea Improvement, derrick poles and a span are no longer used to support the burton. Instead, the iron framework of the pier shed is carried up to the necessary height and the burton is made fast to an iron beam built especially for it.

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from the pier by aid of the burton which was attached to the up-and-down fall.

In the "old style" of loading by skids, one skid is placed or hung against the side of the vessel. The fall made fast to the draft drags it up the inclined skid till it is clear of the ship's edge. It is then landed on and hauled along another skid to the hatch coamings. There it is the duty of the gangway man to steady it as it is lowered into the hold. This method may be slower, but its slowness is partially compensated for by its safety.

Sometimes one fall drags the draft up the skid from the pier and lands it on the deck. The fall is then unhooked and returned for another load, while another fall, which is hooked on to the draft on deck, lifts it over the hatch coamings and lowers it into the hold. One or the other of the methods just mentioned is still much used in handling the cargoes of "outside" and tramp ships.*

In an old method of discharging which is still very largely used, the up-and-down fall brings the draft abreast of the hatch coamings, where the burton fall is hooked on. The draft is swung or "burtoned" across clear of the ship's rail. At this point the gangway man unhooks the up-and-down fall, and swings it back to the hatchway. It is then lowered into the hold. The burton fall lowers the draft onto the pier, where the pier man unfastens the sling and gives the burton a swing as it goes back with the empty sling. The hooker-on catches it with a long stick to which a crosspiece is lashed. This method is used only where the ship lies close to the pier. If she is breasted off for any distance the up-and-down fall goes ashore with the burton.

* Strictly speaking, "outside ships" are those which have no regular sailings; tramp ships those which have neither regular sailings nor a regular place to dock. But the terms are loosely used.

APPENDIX L

AIMS AND DATES OF ORGANIZATION OF LONGSHORE UNIONS

Alongshoremen's U. B. (United Benefit) Society. March 15, 1853. (Certificate of incorporation filed with the secretary of state and the clerk of the county of New York.)

The chief objects of this society were charitable and benevolent relief to members suffering from "accidents or sickness," and assistance "in the burial of deceased members." Although this society was incorporated as a benevolent organization, it is reported in 1854 as having already taken on some of the functions of the labor union. In March of that year a meeting of the society was held for the purpose of bettering conditions.* A strike was threatened in case employers refused to grant their demands.† But if the Alongshoremen's U. B. Society ever had any power as a labor union, this had died out by 1860, for old longshoremen agree that in the early sixties, there was no active labor union in the port.

American Seamen's Protective Union Association, New York City. July 3, 1863. (Certificate of incorporation filed with the secretary of state.)

The purpose of this association was benevolent. Though the specific business of the incorporators is not disclosed, it is evident from a full reading of the certificate as well as from a consideration of the list of trustees that this was a longshore organization. The names of several of the trustees are known to old men about the port as those of longshoremen.

The Alongshoremen's Union Protective Association of the City of New York. April 20, 1864.‡ (Chartered by act of legislature.)

* The men complained of the high rent and the high cost of living generally, of irregularity of employment which kept their earnings down, and of the risks which made their trade precarious. Their average weekly earnings, on a basis of four or five days a week, did not exceed \$7.00. They therefore demanded an increase in the rate from 12 shillings (\$1.50) to 14 shillings (\$1.75) a day, and \$2.00 a day for holidays.

† The *New York Daily Tribune*, Saturday, April 1, 1854.

‡ This does not fix the date of the first organization of the Longshoremen's Union Protective Association. It is the date of the granting of its charter. Talks with old longshoremen make it possible to fix the date of its organization as early as 1862 or 1863.

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The purposes of this association were "for mutual aid, protection and support and for the promotion of social intercourse and the private and general interests of the members thereof." As far as could be ascertained, none of the incorporators named in the charter are living, but their names indicate to old longshoremen that this was probably the beginning of the famous "L. U. P. A."* It is reported to have met at 47 West Street.

Longshoremen's Mutual Benevolent and Protective Society, No. 2 of Brooklyn. April 14, 1865. (Chartered by act of legislature.)

As far as the session laws disclose, the Longshoremen's Union Protective Association and the Longshoremen's Mutual Benevolent and Protective Society, No. 2 of Brooklyn, are the only organizations of longshoremen ever granted charters by the state legislature.

Longshoremen's Union Protective Association, No. 2 of the City of New York. June 9, 1866. (Certificate of incorporation filed with the clerk of the county of New York.)

This was a local that met in St. James Hall, Roosevelt Street. The association had among its purposes that of "regulating and protecting our interests, wages, and the manner and time of employment, and the burial of the dead of our society." This is the first case discovered in which mention is made of the intention to regulate the wages or the manner and time of employment. The benevolent association had begun to give place to the labor union as we know it today.

Longshore Lumber Handlers' Union Protective Association, No. 1 of the City and County of New York. October 12, 1866. (Certificate of incorporation filed with the secretary of state.)

Little can be learned of this association, though the certificate of incorporation is very full. It was to be located in New York City.

Longshore Seamen's Benevolent Association, New York City. May 25, 1868. (Certificate of incorporation filed with the secretary of state.)

The title indicates that the incorporators were probably both sailors and longshoremen. Several new objects are mentioned; namely, to contribute to the social and moral elevation of its members, to maintain good standing and interchange of good offices.

* See pp. 114 ff. No. 1 is not attached to the official name—other branches not having been foreseen—but this is evidently the union referred to throughout the port as L. U. P. A. No. 1. From its inception the name took its present popular form, L. U. P. A.

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Longshoremen's Independent and Benevolent Association of the Eighth and Ninth Wards of the City of New York. May 9, 1873. (Certificate of incorporation filed with the secretary of state and in the county clerk's office.)

This was really a benevolent order and did not confine its membership strictly to longshoremen.

Longshoremen's Union Protective Association No. 4. March 1, 1881. (Charter received from the secretary of state.)

Very little in regard to this union can be discovered, evidently because of minor importance.

Longshoremen's Union Protective Association No. 3, New York City. December 22, 1885. (Certificate filed with the secretary of state and in the county clerk's office.) It has been almost definitely ascertained that this union was first formed about 1879 and met at Canal and Varick Streets, but it was without a charter for a number of years. In 1885 it had a membership of 2000. This union is said to have moved to St. Anthony's Hall on VanDam Street and still later to have met at the corner of Houston and Hudson Streets.

Longshore Seamen's Benevolent and Protective Association of the Port of New York. January 30, 1886. (Charter received from the secretary of state.)

This was not, strictly speaking, a labor union but rather a secret and benevolent order. It was made up chiefly of deck men known as "longshore sailors." The members held their membership in the regular longshore union. They were popularly known as "Gold Badge Men" from their custom of wearing a gold badge on state occasions as the insignia of their order.

Longshoreman's Independent Protective and Benevolent Association, No. 1 of Brooklyn and New York. April 1, 1887. (Charter received from the secretary of state.)

The headquarters of this union was in Brooklyn, and the men because they wore a brass button for a badge were known locally as the "Brass Button Men." The membership was made up mainly of oil handlers. It was short-lived.

Longshoremen's Social Club. November 9, 1896. (Charter received from the secretary of state.)

This club was formed for the purpose of recreation and cultivation

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of acquaintance among the members thereof. Its meeting place was ...
Brooklyn.

Longshoremen's Union Protective Association No. 2. April, 1898.
(Certificate filed in the county clerk's office.)

The Longshoremen's Union Protective Association of Greater New
York. September 29, 1898. Certificate on file in the county clerk's office.
This association had the original charter of the present L. U. P. A.
and it succeeded Edward McHugh's American Longshoremen's Union.

United Longshoremen's Union Protective Association. December
12, 1906.

This association was made up of Italian longshoremen in Brooklyn.

GLOSSARY

GLOSSARY OF TERMS USED IN LONGSHORE WORK

- AFT:** The stern of the vessel.
- ALL OVER MAN:** See *Juniper*.
- ALL OVER HATCH:** See *Hatch*.
- AMBULANCE:** See "*Fruit box*."
- BANANA FIEND:** A longshoreman who unloads banana boats.
- BARREL:** Sometimes the center drum or spool of a winch is called the barrel.
- BEND A SKID:** To place a skid in position to work.
- BILGE AND CONTLINE (CUNTLINE):** The method of loading barrel oil by which the barrels are fitted in chines against the bulge or the ends against the center.
- BIT:** Share of the work. "A new man thinks he is able to do his bit."
- BITE:** The short loop of a sling.
- BITE:** The friction of the fall on the drum of the winch, which gives control of the fall.
- BLIND HATCH:** See *Hatch*.
- BLOCK:** "A system of one or more pulleys or sheaves, so arranged in a frame or shell as to multiply the power applied to the rope passing around them, or change the direction of its action."
- BOOM:** A long pole or spar used to extend the sail of a ship at its base.
- BOOT FOR SHOE:** End for end; to reverse. When one end of a fall is worn the other is put in its place—boot for shoed—to take the hard wear.
- BREAK OUT:** To lift cargo from its place; e. g., bananas from the hold.
- BREAKER OUT:** Used in banana handling for a man who first lifts out the bunches from the hold.
- BREAST OFF:** To hold off, e. g., to hold off the ship from the pier side with spars.
- BREASTING OFF SPAR:** A spar used in breasting off.
- BROWNIES:** Men who sweep off the piers.
- BUDDY:** A temporary partner in the work.
- BURTON OR BURTON FALL:** See *Fall*.
- CA'CANNY:** Scotch term meaning "hold back" or "go slow" in the work.
- CAPSTAN:** "An upright drum or cylinder revolving upon a spindle, and worked by bars or levers."
- CASE HOOK:** Truckman's hook, also called loader's hook.
- CHECKER:** A man who keeps tally; e. g., of men, or of cargo. In banana handling the checker keeps tally of the bunches as they are loaded into freight cars.
- CHOCK:** To brace; e. g., to chock the cargo in with dunnage.
- COAL CONVEYOR:** A large tower-like structure, similar to a grain elevator, used for coaling ships.
- COAL DIGGER:** A mechanical contrivance for scooping and lifting coal.
- CORNER:** Longshoremen call the far side of the street opposite the pier where they hang around to await the hiring the "corner."
- COTTON HOOK:** The hook used by longshoremen.
- CRANE:** "A machine for raising and lowering heavy weights." Cranes are operated by steam, electricity, or by hydraulic power.
- DAGO:** An Italian.
- DECK:**
- Orlop deck:* The first deck above the lower hold.
 - Upper orlop:* The next deck above the orlop deck.
 - 'Tween deck:* The next deck above the upper orlop.
 - Stowage or main deck:* The next deck above the 'tween deck.
 - Poop deck:* A deck raised above the after part of a vessel.

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- DECK MAN:** A man who works on the deck,—a winch man, gangway man, hooker-on, etc.
- DERRICK:** An apparatus for hoisting heavy weights. The word is loosely used on the waterfront, and a boom or spar is often called a derrick.
- DOCK:** Strictly an enclosure in connection with harbor or river for the reception of vessels. In this port loosely used for the space between piers or as a synonym for pier or wharf.
- DOCK MAN:** A man who works on the pier, a pier man.
- DOUBLE PURCHASE:** See *Purchase*.
- DRAFT:** The load.
- DRIFT, n:** The distance the cargo has to be dragged in the hold before reaching the hatch openings.
- DRIFT, v:** To swing; e. g., the draft.
- DRUM:** A spool; e. g., the drum of a winch.
- DRUMEND:** The end spool or drum of a winch about which the fall is wound.
- DRUMEND MAN:** The man who controls the fall by taking turns about the drumend.
- DUNNAGE:** Pieces of wood used to protect and brace cargo.
- FALL:** A rope used in handling the draft.
Burton or burton fall: The fall which carries the draft athwart the ship.
Up-and-down fall: The fall which raises and lowers the draft.
Midship fall: The up-and-down fall.
Rapid transit fall: The third fall used in the method of discharging called the rapid transit.
Extra fall: The rapid transit fall, commonly called the trolley fall. See *Rapid Transit*.
Hurry up: The rapid transit fall.
- FARM, THE:** The open space in front of a pier where goods are piled.
- FATHOM:** A nautical measure equal to six feet.
- FLOOR OFF:** To place the first layer of goods over the bottom of the hold as loaded.
- FORE:** The bow of the vessel.
- FORE AND AFTERS:** The transoms of the hatchway running fore and aft.
- FRUIT BOX:** A wooden box attached to the fall in which small boxes or packages are placed for loading and discharging. It is sometimes called an "ambulance" because it is used to take injured men ashore.
- GAFF:** The name given to a horizontal spar lashed to a mast and used as a crane—mast and gaff.
- GANGWAY MAN:** A specialized deck man who has control of the raising and lowering of drafts and gives the signals. He works near the gangway.
- GIN:** An iron block.
- GINNY (pl. ies):** An Italian.
- GRAB:** A coal digger or steam shovel.
- GRAB-WINCH:** A winch worked by hand power, mostly used on lighters.
- GUY OR GUY ROPE:** A rope or chain to hold steady or swing a heavy body.
- GUY, v:** To make fast or steady; e. g., to guy the booms.
- HAND:** A layer or growth of bananas around the stem. It is used in banana handling.
- HAND LEATHER:** A piece of leather fastened at the wrist and worn by winch men.
- HANGER:** A platform or shelf on which bananas are tossed during the process of unloading.
- HATCH:** An opening in the vessel from the hold up. An all-over hatch is carried through all the decks; a blind hatch is not.
- HIGH WATER:** The hour for "making a lap," i. e., getting light refreshments.
- HISTER:** A man who in former days rented out horses for the power to work the fall.
- HOIST:** To raise.
- HOLD:** That part of the vessel in which the cargo is stored. The lower hold is the first hold from the bottom—the "skin of the ship."
- HOLD MAN:** A man who works in the hold.

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- HOLD TURN, v:** To work a drum end; to hold in place after taking a turn with a rope end.
- HOOKER-ON:** The man who hooks a fall to the load after it has been raised to the deck level.
- HOUSE, v:** To furnish with a cabin; e. g., barges are housed.
- HURRY UP:** See *Fall*.
- JUMPER:** An "all-over man." A longshoreman who does not attempt to get steady work at one pier but works all over the port.
- KNEE:** To give a slightly leaning position; e. g., to a bunch of bananas in loading.
- KNOCK OFF:** To quit work.
- LANDER:** A man who aids in landing the draft on the pier.
- LASH:** To tie or bind with a rope.
- LEAD:** A guidance; e. g., of a rope or fall to avoid an object or to clear a path.
- LOADER'S HOOK:** See *Case book*.
- LONG AND SHORT QUARTER:** Before the Civil War the first half day from 7 to 12 was divided into quarters of unequal length—seven to nine and nine to 12.
- LONGSHOREMAN:** A workman employed in discharging and loading the cargoes of vessels and in trucking them back and forth on the pier.
- LOWER HOLD:** See *Hold*.
- LUMPER:** A small stevedore who takes contracts for a lump sum.
- MAIN DECK:** See *Deck*.
- MAKING A LAP:** Going out to get light refreshment or a drink during the work period; e. g., from nine to ten or three to four.
- MID-SHIP FALL:** See *Fall*.
- MOOR:** To fasten a ship in place; e. g., by anchor or to the pier.
- NET:** When many small articles are handled a net is used instead of a sling.
- ORLOP DECK:** See *Deck*.
- OUTSIDE SHIPS:** Those ships which have no regular sailings.
- PENNANT:** The free end of the up-and-down fall below where the burton is permanently made fast.
- PIER MAN:** A man who works on the pier; a dock man.
- PLATFORM:** A frame work of timber or boards, sometimes closed at the ends, on which a draft of small boxes or packages is carried.
- POLACK:** A term used by longshoremen to designate any of the people from Central Europe or the Balkan Peninsula.
- POOP DECK:** See *Deck*.
- PURCHASE:** The arrangement of pulleys and gear for lifting drafts. "Double purchase" means extra gear used for heavy loads.
- QUAY:** A solid artificial landing place on the edge of harbor, river, etc., used for loading and discharging vessels. The term is rarely used in America.
- RAPID TRANSIT OR HURRY UP:** A method of discharging in which three falls are used, an up-and-down and a trolley fall which is spliced to the burton fall.
- RAPID TRANSIT FALL:** See *Fall*.
- REEVE (past, *rove*):** To pass through; e. g., to reeve the fall through the leads or the longer loop of the sling through the shorter.
- RIDE:** For one turn of a rope to climb on top of another; e. g., on the drum of a winch.
- RIDING:** The hauling away of brick or similar material. "The riding is good" means that large quantities of the material are being hauled away.
- RINGBOLT:** An iron bolt with a ring through the eye. The ringbolts on hatch covers are used as handles.
- SAVE ALL:** A net hung from ship to pier to prevent the draft from falling into the water. Also a sail cloth placed for protection between different kinds of goods.
- SELECTOR:** The man who grades the bananas when they are loaded into trucks or cars.
- SHAPE, OR SHAPE UP, n:** The assemblage of men in front of the pier for the hiring.

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- SHAPE, or SHAPE UP, v:** To shape or shape up is to collect or assemble in front of the pier for the hiring.
- SHEAVE:** A grooved wheel in the block over which the rope runs.
- SHENANGO:** A longshoreman who does the odd work on lighters and barges.
- SHORT QUARTER:** See *Long and Short Quarter*.
- SKID:** Timber or boards generally used to protect the sides or deck of a vessel. The gangway for loading is sometimes called a loading skid.
- SKIN OF THE SHIP:** The floor of the lower hold next to the bottom of the ship.
- SLING:** A circle of rope with ends spliced used to hold together the parts of a draft.
- SLINGER OR SLINGER UP:** The pier man who adjusts the sling about the draft.
- SLINGING PLANK:** The plank on which the draft is laid preparatory to slinging.
- SPAN:** A rope fastened at both ends to any objects; generally to the masts. It is used for the up-and-down fall.
- SPAR:** A general term for mast, boom, and gaff.
- SPARDECK:** The upper or main deck.
- SQUARE OF THE HATCH:** The space at the bottom of hatch.
- SQUARE-HEADS:** Norwegians, Swedes, or Danes.
- STACKER:** Used in banana handling; the man who piles the bananas in the freight cars.
- STEEVAGE DECK:** Main deck.
- STEP:** To step is to fasten; e. g., to step a mast from the ship's side.
- STEVEDORE:** A man who takes contracts for loading and discharging ships. The term is sometimes applied to a head foreman. It is loosely used for longshoreman.
- STOOL:** A pile of bags or packages in the square of the hatch on which drafts are landed.
- STOW:** To pack a cargo; e. g., in the hold.
- TAKE THE HOOK:** To return to longshore work after an absence.
- TAKE THE TIME:** To set down the hour when longshoremen go to or come from work.
- TARPAULIN:** A waterproof piece of canvas used for covering the hatches.
- TELL TALE:** A mark on the up-and-down fall to guide the drumend man.
- THWART SHIP BEAMS:** The transoms of the hatchway running athwart the ship, transversely to the fore and afters.
- TOTER:** The old name for a header.
- TRAMP SHIP:** A ship which has neither regular sailings nor a regular place to dock.
- TRUCKMAN'S HOOK:** See *Case book*.
- TUB:** A bucket, or tub, of wood or iron, with iron handle, used for the handling of bulk cargo, such as coal, ore, chalk, sand, and so on.
- TUNNEL:** The covered way in the lower hold through which the propeller shaft runs.
- 'TWEEN DECK:** See *Deck*.
- UP-AND-DOWN FALL:** See *Fall*.
- UP-AND-DOWN MAN:** A man who handles an up-and-down fall.
- WARP:** To tow or move a vessel by ropes; e. g., to warp her in to the pier.
- WHARF:** An erection on the shore of a harbor, river, etc., for taking in and landing cargoes or passengers.
- WINCH:** An engine which furnishes the power for moving cargo.
- WINCH MAN:** A man who works a winch.
- WING:** The corner or side of the hold next to the "skin of the ship."
- WOP:** A newly arrived immigrant who does work which requires the lowest grade of skill.
- YANKS:** A term used among Irish longshoremen to designate the American-born Irish.

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