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REPORT OF COMMITTEE ON STATISTICS
AND COMPENSATION INSURANCE COST

OF THE

INTERNATIONAL ASSOCIATION
OF INDUSTRIAL ACCIDENT
BOARDS AND COMMISSIONS



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BULLETIN OF THE U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 201.

WASHINGTON.

AUGUST, 1916.

REPORT OF COMMITTEE ON STATISTICS AND COMPENSATION INSURANCE COST OF THE INTERNATIONAL ASSOCIATION OF INDUSTRIAL ACCIDENT BOARDS AND COMMISSIONS.

Statistics are commonly thought to be dry as dust. Newspapers and others whose office it is to instruct and admonish the public serve statistical information in homeopathic doses only. The bulky and ill-arranged tomes issued by too many State and Federal departments find their way only to the desk of the technical expert and the wastebasket of the layman. Yet statistics are simply a collection of facts, so selected and arranged as to bring out the bearing of experience upon a particular problem. As experience is the chief school of wisdom, so statistical analysis is an indispensable aid in the study of social problems. If statistics have fallen into disrepute, the fault lies with the incompetence of statisticians, their pedantry, their failure to understand the problems with which they deal, and their lack of intelligible and interesting presentation.

No department of statistical inquiry more closely touches the public weal than the study of personal injuries by accident. Statistics of industrial accidents should serve for accident prevention, for the due administration and intelligent revision of workmen's compensation laws, and for the computation of compensation insurance rates. For accident prevention it is needful to know how and why accidents occur. For the better administration of workmen's compensation laws it is necessary to have an accurate statistical record of the disposal of compensation cases, not only the comparatively few cases which are formally passed upon by the administrative board, but the immensely larger number of claims which are settled between the parties with only a pro forma administrative approval. For the intelligent enactment and revision of compensation legislation legislators must know the number and character of accidental injuries, the extent of wage loss, and the cost in per cent of pay roll of any proposed scale of benefits. Lastly, for the computation of insurance rates it is necessary to have not only the actual pure premiums by industries, but a detailed analysis of the accidents which occasion the pure premiums.

To serve these ends, accident statistics must be analyzed by industry, by cause of accident, and by nature and location of injury and extent of disability, and must be so cross-analyzed as to show the correlation of each of these sets of facts with every other. Still other analyses are necessary. It is important to know the number, ages, and relationships of dependents in fatal cases, and the age and wage groups of the injured in all cases. In certain industries an occupational analysis will be of value. It goes without saying also that the pay-roll exposure should be obtained by industries, and that the wage loss and the amount of compensation and of medical aid should be shown by industry, by cause of accident, and by nature and location of injury and extent of disability. Many other statistical studies will prove necessary for particular purposes. Nevertheless, the classifications by industry, cause, and nature and extent of injury are primary. Faulty analysis in these respects will vitiate the whole statistical output. Vice versa, if these three fundamental classifications are sound and adequate, everything else can be added as opportunity and occasion arise.

The most cursory examination will show that the official industrial accident statistics of the United States are lamentably weak in just these vital particulars. No one State has yet published statistics that are at all adequate to its own needs, and no two States have produced results that are in any way comparable. One State department follows the census classification of industries, another uses the schedules of the old liability manual, a third the literal classifications of the compensation insurance manual. The classification of accident causes is sometimes so meager as to be of little value for prevention, sometimes so prolix and ill-digested as to afford no comprehensive view. The classification of injuries ranges from the simple division into fatal and nonfatal to an individual list of permanent disabilities—the mere raw material of statistics. While weightier matters have been thus neglected, much time and labor have been expended upon such unprofitable subjects as race, conjugal condition, day of the month, day of the week, and hour of the day.

After the approval of the first report of the Committee on Statistics and Compensation Insurance Cost by the association in its annual meeting at Seattle, in 1915,¹ there remained for the committee the preparation of the final subdivisions of classifications under each of the various industry groups, the preparation of classifications of causes of accidents and of nature of injuries and the drafting of uniform tables for the presentation of accident and compensation statistics. All of these subjects, except the drafting of uniform

¹The first report of the committee was printed in full in the November, 1915, issue of the MONTHLY REVIEW of the United States Bureau of Labor Statistics.

tables, have been taken up and are dealt with in the committee's report. During the year four meetings of the committee have been held and besides this a very large amount of work has been done by members of the committee individually.

In continuation of its work the committee met in New York City February 3 and 4, 1916, in a joint session with representatives of the Casualty Actuarial and Statistical Society of America and the Workmen's Compensation Service Bureau.¹ The meeting was given entirely to the discussion of the classification of causes of accident. In general, the classification included in the preliminary report of the committee on classification of causes, appointed in accordance with the action of the joint conference held at Chicago, October 12 and 13, 1914, was taken as the basis of discussion and was accepted in large part by the committee. This preliminary report was printed in Bulletin 157 of the United States Bureau of Labor Statistics.²

A second meeting of the committee was held at Columbus, Ohio, February 21-22, 1916. Four members of the committee—Messrs. Downey, Meeker, Watson, and Croxton—were present. Further consideration was given to the classification of causes of accidents, and the classification of accidents by location and nature of injury and extent of disability was taken up.

A third meeting of the committee was held in New York City March 16, 1916, jointly with representatives of the Casualty Actuarial and Statistical Society and the Workmen's Compensation Bureau.³ The meeting was devoted to the discussion of the classification of industries and of causes of accidents.

The fourth and final meeting of the committee for the year was held at Philadelphia March 31 and April 1, 1916. Members of the Committee present were Messrs. Downey, Hatch, Magoun, Watson, and Verrill, and, by invitation, F. S. Crum of the Prudential Insurance Co. Four long sessions were devoted to the discussion and final revision of the classification of causes of accident and of location and nature of injury and extent of disability.

At the Seattle meeting of the association your committee presented a preliminary grouping of industries which was adopted by the asso-

¹ Those present were: E. H. Downey, chairman, special deputy, Pennsylvania Insurance Department; H. E. Ryan, associate actuary, New York Insurance Department; L. W. Hatch, chief statistician, Industrial Commission of New York; W. N. Magoun, Massachusetts Insurance Department; C. H. Verrill, representing Commissioner Meeker, U. S. Bureau of Labor Statistics; I. M. Rubinow, president Casualty Actuarial and Statistical Society; C. E. Scattergood, Workmen's Compensation Service Bureau; and W. H. Burhop, chief statistician, Wisconsin Industrial Commission.

² Pages 160 to 162.

³ Those present at this meeting were: Royal Meeker, U. S. Commissioner of Labor Statistics; L. W. Hatch, chief statistician, Industrial Commission of New York; C. H. Verrill, U. S. Bureau of Labor Statistics; W. N. Magoun, general manager Pennsylvania Compensation Rating and Inspection Bureau; I. M. Rubinow, president Casualty Actuarial and Statistical Society; and G. F. Michelbacher, statistician, Workmen's Compensation Bureau.

ciation. In the present report these groups of industries have been further subdivided into classifications corresponding as nearly as possible with the detailed classifications customarily used by compensation commissions and insurance companies in fixing premium rates. There are also presented classifications of causes of accidents and of accidental injuries by nature and location of injury and extent of disability.

These classifications are not presented as in all respects perfect or the embodiment of all wisdom. They are necessarily the result of compromise. Your committee had to consider, on the one hand, the requirements of scientific classification, and, on the other hand, the limitations of time and means at the disposal of administrative boards. Due regard for these limitations enforced the omission of much detail which may be within the reach of some favored States, and which is very desirable for certain purposes.

Nevertheless, your committee believe that these classifications will serve the most important immediate needs of industrial accident statistics. They are the fruit of much thought and discussion by experienced statisticians. They embody the best that could be found in the official classifications of the United States and Europe. Further improvement may well be left to further experience.

All of the classifications herewith recommended are designed to admit of expansion or contraction, according to the varied needs and facilities of different administrative boards. If a particular board is unable to undertake more, the industry groups will suffice for many purposes and will facilitate comparisons with the accident statistics of other States. In the same manner the classification of accident causes can at need be limited to the primary and secondary divisions of the standard classification. Per contra, if time and means permit, the items may be expanded to any desired extent, within the general framework and without impairing the comparability of the resultant tables. Every capable statistician will naturally undertake such expansion as may be suitable to his own problems and the facilities placed at his disposal. There are somewhat narrow limits to the detail which can with advantage be shown in general tables, but no classification can be too detailed or too specific for the needs of accident-prevention work in particular industries. It should be remembered, moreover, that the combination of separate items in a detailed code is always easy, whereas the opposite process is extremely laborious and often impossible.

CLASSIFICATION OF INDUSTRIES.¹

In all tabulations of industrial accident statistics the most important factor is the classification of industries, as to this all other items

¹ See p. 17 et seq.

relate. For example, the number of accidents of a certain nature, such as the loss of an arm, must be assigned to the industries in which such accidents occur, and similarly the number of accidents attributable to a specific cause, such as the lack of a proper safeguard, must be distributed by industries. Uniformity in the classification of industries is therefore of first importance and is absolutely essential if the data prepared by the various States are to be comparable.

The task undertaken by your committee was to prepare a logical arrangement of all the various industries of the United States according to the "nature of the business." The committee, after very careful consideration, adopted a grouping of industries covering all of the classifications used by insurance companies for writing workmen's compensation risks in this country.

In order that statistics pertaining to industrial accidents may be comparable, it is obviously essential that they shall be on the same basis. The accident data now being rapidly accumulated by industrial accident boards and commissions are of great value. The light which statistical data throw upon the subject of accident prevention is of primary importance. Accident statistics are also of tremendous importance in pointing out the relative hazard of industries, and as a corollary thereof the rate of insurance which the respective lines of industry should properly be called upon to pay.

At the present time workmen's compensation insurance rates are provided by the insurance companies for some 1,500 different classifications. For the various industrial accident boards and commissions to keep and publish their accident data in the detail indicated by so many classifications is well-nigh impossible, and would result in too minute a refinement for practical purposes. If, however, a logical table of industries can be prepared in such a manner that the 1,500 insurance classifications can be arranged under a reasonable number of headings, then the value of the industrial accident statistics will be greatly enhanced and their usefulness extended. Industrial accident board statistics and insurance statistics will "dovetail," and all doubt as to just what is intended to be covered under a given designation will be removed. This is one of the chief objects which your committee has attempted to accomplish.

The classification groupings which the committee submit is drawn up in accordance with the following arrangement:

Divisions.

Schedules.

Groups.

Classifications.

Divisions.—There are seven principal divisions or primary headings corresponding to those adopted by the committee appointed by

Commissioner Meeker at the Chicago Conference of October, 1914.¹
These divisions are:

- | | |
|---------------------------|--|
| (A) Agriculture. | (E) Transportation and public utilities. |
| (B) Mining and quarrying. | (F) Trade. |
| (C) Manufacturing. | (G) Service. |
| (D) Construction. | |

Schedules.—The seven divisions are divided into 43 schedules corresponding to the secondary headings adopted by the committee appointed by Dr. Meeker. These secondary headings explain the details into which the primary headings are separated. For example, the primary heading "Manufacturing" is divided into 18 schedules, such as lumber and wood, leather, textiles, chemicals, paper, etc.

Groups.—The group headings, of which there are 272, are the most important in the series and show a refinement of the secondary headings. Each group heading is intended to be significant of the industries covered under it, and it is the belief of the committee that these tertiary or group headings will prove acceptable to the various industrial accident boards and commissions for general use in tabulating their accident data.

Classifications.—The final subdivision consists of the classifications of industries appearing in the manuals used by insurance companies in connection with their writing of workmen's compensation insurance. These final subdivisions are of special value to industrial accident boards and commissions, serving as an index to show what industries are intended to be covered by the respective groups.

CLASSIFICATION OF CAUSES.²

The whole purpose of a classification of accidents by causes is accident prevention. The classification, therefore, should point to the most immediate and tangible preventives. Doubtless every accident is, in fact, the outcome of a long train of events. If only complete information were available, it should be possible to trace any accident to some remote initiating cause—ultimately to some failure of insight or foresight on the part of some human agent, in many cases. If a tower falls, it is because the builder has miscalculated the strength of its materials in relation to the strains put upon them, or the contractor has failed to carry out the specifications, or a workman has slighted his task. So the death of those who are buried in the ruins might be attributed to the neglect of the brickmaker, or to the incompetence of the supervising architect. But it is very seldom possible to ascertain the primary cause of an accident in this sense. The attempt, indeed, would generally prove of doubtful utility. The immediate cause is a tangible fact, capable of definite ascertainment. To go further is to venture into the speculative field of personal

¹ See Bulletin 157 of U. S. Bureau of Labor Statistics, p. 153 et seq.

² See p. 73 et seq.

fault, where the bias of witnesses and the predilection of the statistician will too often determine the result.

It is recommended, therefore, that accidents be uniformly assigned to the proximate or immediate cause. In the immense majority of cases, the analysis will perforce stop at this point. The comparatively rare catastrophic accidents, however—such as train collisions or coal-mine explosions—should be further analyzed with respect to the antecedent circumstances which produce the catastrophe.

The committee adopted the following definition of proximate cause:

“That the accident should be charged to that condition or circumstance the absence of which would have prevented the accident; but if there be more than one such condition or circumstance, then to the one most easily prevented.”

The meaning of this rule may be made clear by illustration. A workman passing through an aisle stumbles upon a defective floor and throws his hand into an open gear which mashes off two of his fingers. Under the rule adopted this accident is to be charged to the gear and not to stumbling. Had the gear been properly covered the workman might still have been injured by his fall, but the injury which did occur—namely, the loss of two fingers—would not have happened.

It will be seen that the committee has grouped the causes of accidents, as above defined, into 12 divisions, and that these again have been subdivided into general classes. Machinery, for instance, is divided into prime movers, power-transmission apparatus, power-working machinery, hoisting and conveying apparatus, and miscellaneous machinery. Vehicles are divided into cars and engines of steam and electric railroads, mine and quarry cars, automobiles and other power vehicles, animal-drawn vehicles, and vessels for water transportation.

The committee was unable to prepare a proper classification of power-working machinery. The number of machines is so great and their relationships so intricate that much engineering study would have to be given to the subject. The Workmen's Compensation Service Bureau, however, has prepared an elaborate list of power-working machines, comprising all the principal classes of machinery. Mr. L. W. Hatch, of the Industrial Commission of New York, has made a grouping of these machines by industry, and within each industry by operative hazard.¹ It is believed that any industrial board can find in the bureau list above referred to all the machines which it will have occasion to use for accident statistics, and it is recommended that for the present Mr. Hatch's grouping should be followed. It is hoped that further experience will evolve a grouping which can be officially adopted.

Under “Hoisting apparatus and conveyors” the committee have recommended that elevator accidents should be analyzed in some

¹This grouping is printed as Appendix A to this report, p. 85 et seq.

detail because of the large number and seriousness of these accidents. In mining States a similarly detailed analysis should be made of accidents on mine cages, skips, and buckets. In those States where building construction is an important industry derrick accidents should be similarly analyzed.

The committee have further recommended a detailed analysis of machine accidents by manner of occurrence and by part of machine on which the accident occurred. Such an analysis may not be practicable for publication in the general statistical tables, since it would require a very large amount of space to show the accidents upon each listed machine by manner of occurrence and part of machine. Nevertheless it should be practical to give this information in a summary without reference to the individual machines, and the statistical department should be able to obtain the information for any specific machine or group of machines when required for special studies.

The committee have given more attention to nonmachine accidents than has been customary in most States and indeed in foreign countries. Experience, both in the United States and abroad, has shown that machinery of all descriptions—taking even the broad definition here adopted—accounts for not more than one-fourth of industrial accidents, whether considered from the standpoint of mere numbers or from the standpoint of both number and severity. Indeed, less than one-fourth of fatal injuries occur in connection with power machinery. It has been customary to give a somewhat detailed analysis of machine accidents, and to lump all nonmachine accidents under a few general headings. Your committee believe, however, that 75 per cent of the accidents should receive at least half of the time and thought of the statistical departments.

In the analysis of railroad equipment accidents, your committee have followed the latest classification of the Interstate Commerce Commission, consolidating, however, to reduce the amount of detail.

It will be noted that under all vehicles objects falling from the vehicle not in loading or unloading are charged to the vehicle itself. Accidents in loading or unloading are charged to the handling of objects. This distinction appears to be logical. In the same way falls of persons from the vehicle are considered vehicle accidents. Of course a proper code system will enable any statistician who desires so to do to throw these accidents into the groups of falling objects and falls of persons, respectively.

Hand trucks are not treated as vehicles, but are included under Division IX, "Objects being handled." It is of course true that a hand truck falls within the common definition of vehicle. The committee believed, however, that hand trucking is not a part of the

transportation industry, and that the hazards of hand trucking are more analogous to the hazards of handling objects than to those of power vehicles.

The treatment of water transportation equipment is very incomplete and unsatisfactory. It is strongly recommended that in those States where water transportation industry is important and is included under workmen's compensation, a more detailed analysis should be worked out.

Accidents in the use of hand tools are analyzed by manner of occurrence. It was not believed worth while to analyze these accidents by the type of tool which was being used.

The list of accident causes herewith submitted will require expansion in different States to provide for special industries. In logging States, for example, more extended treatment should be given to animal-drawn vehicles, to falling objects, and to hand tools. The general classes here provided should be made more specific in order to satisfy conditions peculiar to the logging industry.

Similarly, wherever an administrative authority is carrying on a safety campaign in the building industry, a special classification of falls of persons and of falling objects in building construction should be introduced. Doubtless there are still other industries which will require special treatment. It is hoped that all these special classifications can be fitted into the general framework here provided.

CLASSIFICATION BY LOCATION AND NATURE OF INJURY AND EXTENT OF DISABILITY.¹

The committee has recommended four classifications of accidental injuries as distinguished from the accidents themselves, namely, the location of injury or part of body injured, the nature of injury, the extent of disability, and, as a subdivision of the last, the degree of partial disability.

In assignment of the location of injury, the committee has followed the common anatomical divisions, beginning with the head and ending with the feet. Special provision has been made for injuries involving two or more parts. The amount of detail given is not so great as that called for by the specific indemnity schedules of some States, but it is believed sufficient for all ordinary statistical purposes. Any State which needs more detail can easily provide same. It is specially to be noted that accidents involving dismemberment or permanent loss of use of members should be listed in detail.

The nature of injury classification is confined to the injuries sustained at the time of the accident, and is designated by popular rather than technical medical terms. Special provision is recommended for infections, so that the infection shall be correlated with the nature of injury and also with the extent of disability.

¹ See p. 81 et seq.

With respect to extent of disability, injuries are divided into the generally recognized classes of fatalities, permanent total disabilities, permanent partial disabilities, temporary total disabilities, and temporary partial disabilities. Permanent disabilities are further divided into dismemberment and others. It would probably be advisable to extend this division with respect to permanent partial disabilities so as to show some of the more common causes of permanent partial disability other than dismemberment, e. g., ankylosis, shortening of limb, and stiffness other than ankylosis.

The degree of partial disability need be shown only with respect to permanent disabilities other than dismemberments. By degree in this connection is meant the degree of impairment of the member affected, and not the degree of disability of the injured workman. Any attempt to determine the degree of disability of the workman or his loss of earning capacity will be more or less arbitrary. In any given case the measure adopted by the statistician will probably reflect the compensation law of the particular State as interpreted by the administrative authorities thereof. The California schedule, e. g., would show the degree of disability from the loss of an index finger to a piano tuner. But statistics of degree of disability in this sense would add nothing to our information. With regard to partial impairment of members, however, it is highly important to know the extent of impairment, and this is a matter which can be ascertained with a fair degree of accuracy.

All of which is very respectfully submitted.

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CLASSIFICATION OF INDUSTRIES.

Recommended by the Committee on Statistics and Compensation Insurance
Cost of the International Association of Industrial Accident Boards and
Commissions.

The classification groups are drawn up in accordance with the
following arrangement:

Divisions.
Schedules.
Groups.
Classifications.

The seven principal divisions or primary headings are—

- A. Agriculture.
- B. Mining and Quarrying.
- C. Manufacturing.
- D. Construction.
- E. Transportation and Public Utilities.
- F. Trade.
- G. Service.

The list of divisions, schedules, and groups is as follows:

SUMMARY OF DIVISIONS, SCHEDULES, AND GROUPS.

DIVISION A.—AGRICULTURE.

SCHEDULE 1.—*General farming.*

Group 1. (Undivided.)

SCHEDULE 2.—*Dairy farming.*

Group 5. (Undivided.)

SCHEDULE 3.—*Stock farming.*

Group 10. (Undivided.)

SCHEDULE 4.—*Garden and truck farming.*

Group 15. (Undivided.)

SCHEDULE 5.—*Operating agricultural machinery (not by farmer).*

Group 20. Cotton ginning and pressing.

Group 21. Farm machines (not otherwise classified).

DIVISION B.—MINING AND QUARRYING.

SCHEDULE 1.—*Mining.*

Group 25. Coal mines, anthracite.

Group 26. Coal mines, bituminous.

Group 27. Precious-metal mines.

Group 28. Iron mines.

Group 29. Copper mines.

Group 30. Other base-metal mines.

Group 31. Mineral mines.

Group 32. Oil and gas well operating.

Group 33. Other mineral-well operating.

SCHEDULE 2.—*Quarrying.*

Group 40. Building-stone quarries.

Group 41. Quarrying and stone crushing.

Group 42. Cement rock.

Group 43. Sand and clay digging (no blasting).

DIVISION C.—MANUFACTURING.**SCHEDULE 1.—Stone products.**

- Group 50. Stone crushing (no quarrying).
- Group 51. Stonecutting.
- Group 52. Stone grinding.
- Group 53. Carborundum.
- Group 54. Cement and plaster (no quarrying).
- Group 55. Lime.
- Group 56. Plaster and artificial-stone products.
- Group 57. Stone products (n. o. c.).

SCHEDULE 2.—Clay products.

- Group 70. Brick and tile (including underground mining).
- Group 71. Brick and tile (no underground mining).
- Group 72. Potteries.

SCHEDULE 3.—Glass products.

- Group 80. Glass, plate or sheet (no quarrying or excavating).
- Group 81. Glass (not plate or sheet).
- Group 82. Mirrors, signs, and ornamental glass.
- Group 83. Optical goods.

SCHEDULE 4.—Ore reduction and smelting.

- Group 90. Ore reduction.
- Group 91. Gold and silver smelting.
- Group 92. Iron smelting.
- Group 93. Copper refining and smelting.
- Group 94. Other metal smelting and refining.

SCHEDULE 5.—Rolling mills and steel works.

- Group 100. Steel making.
- Group 101. Rolling and tube mills.
- Group 102. Structural iron and steel.
- Group 103. Wire.

SCHEDULE 6.—Metal products.

- Group 110. Foundries.
- Group 111. Lead.
- Group 112. Forging.
- Group 113. Architectural and ornamental ironwork.

- Group 114. Safes.
- Group 115. Sheet-metal ware.
- Group 116. Sheet-metal work.
- Group 117. Stamping.
- Group 118. Hardware.
- Group 119. Eyelets, pins, etc.
- Group 120. Cutlery and hand tools.
- Group 121. Small arms.
- Group 122. Stoves, heaters, etc.
- Group 123. Plumbing, gas, and electric fixtures.
- Group 124. Wire products.
- Group 125. Beds and springs.
- Group 126. Copper and brass goods (n. o. c.).
- Group 127. Jewellery, watches, etc.
- Group 128. Plating and galvanizing.
- Group 129. Cutting and welding.
- Group 130. Metal goods (n. o. c.).

SCHEDULE 7.—Machinery and instruments.

- Group 140. Boilers and tanks.
- Group 141. Engines.
- Group 142. Agricultural machinery.
- Group 143. Textile machinery.
- Group 144. Machinery (n. o. c.).
- Group 145. Fine machines.
- Group 146. Machine shops (n. o. c.).
- Group 147. Electric apparatus and appliances.
- Group 148. Instruments, professional or scientific.

SCHEDULE 8.—Vehicles.

- Group 160. Railroad cars.
- Group 161. Carriages and wagons.
- Group 162. Automobiles.
- Group 163. Motorcycles.
- Group 164. Bicycles.
- Group 165. Aeroplanes.

SCHEDULE 9.—Lumber and wood.

- Group 170. Logging.
- Group 171. Sawmills.
- Group 172. Planing mills.
- Group 173. Cooperage.
- Group 174. Boxes.
- Group 175. Carpentry.
- Group 176. Turning.
- Group 177. Furniture.
- Group 178. Upholstering.

- Group 179. Rattan and willow ware.
- Group 180. Veneer goods.
- Group 181. Brooms and brushes.
- Group 182. Household utensils.
- Group 183. Musical instruments.
- Group 184. Canes, etc.
- Group 185. Wood preserving and fire-proofing.

SCHEDULE 10.—*Leather.*

- Group 190. Tanning and dressing.
- Group 191. Fur.
- Group 192. Embossing leather.
- Group 193. Shoe stock.
- Group 194. Boots and shoes.
- Group 195. Gloves.
- Group 196. Harness, bags, and belting.
- Group 197. Leather goods (n. o. c.).

SCHEDULE 11.—*Rubber and composition goods.*

- Group 210. Gutta-percha.
- Group 211. Rubber reclaiming.
- Group 212. Rubber tires.
- Group 213. Soft-rubber goods.
- Group 214. Hard-rubber goods.
- Group 215. Celluloid.
- Group 216. Celluloid goods.
- Group 217. Insulation.
- Group 218. Bone and ivory.
- Group 219. Printer's rollers.
- Group 220. Oilcloth and linoleum.

SCHEDULE 12.—*Chemicals and allied products.*

- Group 230. Chemicals.
- Group 231. Baking powder and yeast.
- Group 232. Glue.
- Group 233. Ink, blacking, and polish.
- Group 234. Dyes, paints, and colors.
- Group 235. Drugs and medicines.
- Group 236. Pharmaceutical supplies.
- Group 237. Extracts.
- Group 238. Fertilizers.
- Group 239. Explosives.
- Group 240. Gases.
- Group 241. Fats and oils (animal).
- Group 242. Oils (cottonseed).
- Group 243. Oils (vegetable), all other.
- Group 244. Petroleum and allied products.
- Group 245. Coke and charcoal.
- Group 246. Turpentine and rosin.

- Group 247. Soap.
- Group 248. Starch and glucose.
- Group 249. Matches.

SCHEDULE 13.—*Paper and paper products.*

- Group 260. Pulp mills.
- Group 261. Paper.
- Group 262. Stationery.
- Group 263. Boxes.
- Group 264. Fiber goods.
- Group 265. Paper products (n. o. c.).

SCHEDULE 14.—*Printing and publishing.*

- Group 270. (Undivided.)

SCHEDULE 15.—*Textiles.*

- Group 280. Wool preparation.
- Group 281. Woolen goods.
- Group 282. Cotton goods.
- Group 283. Silk.
- Group 284. Linen.
- Group 285. Carpets and rugs.
- Group 286. Batting, wadding, and shoddy.
- Group 287. Cordage.
- Group 288. Burlap and jute.
- Group 289. Knit goods.
- Group 290. Lace, embroidery, and webbing.
- Group 291. Finishing textiles.

SCHEDULE 16.—*Clothing and furnishings.*

- Group 300. Clothing.
- Group 301. Shirts, collars, etc.
- Group 302. Furnishing goods.
- Group 303. Headwear.
- Group 304. Miscellaneous needlework.
- Group 305. Laundering, cleaning, and dyeing.

SCHEDULE 17.—*Foods, beverages, and tobacco.*

- Group 310. Flour and grist mill products.
- Group 311. Baking.
- Group 312. Coffee and spices.
- Group 313. Beet-sugar refining.
- Group 314. Sugar refining, cane.
- Group 315. Confectionery.

- Group 316. Dairy products.
 Group 317. Slaughter and packing houses.
 Group 318. Canning and preserving.
 Group 319. Malting and brewing.
 Group 320. Bottling, under pressure.
 Group 321. Bottling, not under pressure.
 Group 322. Distilleries.
 Group 323. Fermented liquors.
 Group 324. Tobacco.
 Group 325. Ice.

SCHEDULE 18.—Miscellaneous manufactured products (n. o. c.).

- Group 330. Lead pencils and crayons.
 Group 331. Advertising and art novelties.
 Group 332. Photographic goods.
 Group 333. Sporting and military goods.
 Group 334. Buffing wheels and steam packing.
 Group 335. Butchers' and dairy supplies.
 Group 336. Soda-water apparatus.
 Group 337. Artificial limbs.
 Group 338. Painting (shop).
 Group 339. Photography.
 Group 340. Diamond cutting.
 Group 341. Taxidermists.

DIVISION D.—CONSTRUCTION.

SCHEDULE 1.—Wrecking and moving.

- Group 350. Raising and wrecking.
 Group 351. Blasting.

SCHEDULE 2.—Grading, excavating, and foundations.

- Group 360. Surveying.
 Group 361. Clearing and grading.
 Group 362. Excavating and pile driving.
 Group 363. Drilling.
 Group 364. Tunnels and subways.
 Group 365. Ditch digging, with pipe laying.
 Group 366. Canals.
 Group 367. Masonry.
 Group 370. Structural iron erecting.

SCHEDULE 3.—Erecting.

- Group 371. Metal construction (outside).
 Group 372. Concrete construction.
 Group 373. Signs, awnings, etc.
 Group 374. Fence construction.
 Group 375. Carpentry (outside).
 Group 376. Building construction (n. o. c.).
 Group 377. Painting, plastering, and decorating (outside).
 Group 378. Roofing.
 Group 379. Dams, breakwaters, etc.
 Group 380. Railroad construction (all kinds).
 Group 381. Boat and ship building (wood).
 Group 382. Boat and ship building (steel or iron).
 Group 383. Yachts and rowboats.
 Group 384. Boat and ship repairing and rigging.

SCHEDULE 4.—Finishing, equipping, and installing.

- Group 390. Metal construction (within buildings).
 Group 391. Elevator erection (passenger or freight).
 Group 392. Metal appliances (installing within buildings).
 Group 393. Millwrighting.
 Group 394. Plumbing and heating.
 Group 395. Electrical equipment.
 Group 396. Marble, tile, and plaster blocks (within buildings).
 Group 397. Carpentry work (within buildings).
 Group 398. Plastering, painting, and decorating (within buildings).
 Group 399. Paving (outside).

DIVISION E.—TRANSPORTATION AND PUBLIC UTILITIES.

SCHEDULE 1.—Steam railroads.

- Group 410. (Undivided.)

SCHEDULE 2.—Electric railroads.

- Group 420. Street railroads.
 Group 421. Elevated railroads.

SCHEDULE 3.—Cartage and storage.

- Group 430. Drivers and stablemen.
- Group 431. Chauffeurs.
- Group 432. Express companies (operation).
- Group 433. Storage and warehousing.
- Group 434. Ice harvesting.
- Group 435. Grain elevators.
- Group 436. Refrigerator cars.
- Group 437. Oil distributing.
- Group 438. Garages.
- Group 439. Gasoline supply stations.
- Group 440. Riggers and safe movers.
- Group 441. Horseshoeing.

SCHEDULE 4.—Stockyards.

- Group 450. (Undivided.)

SCHEDULE 5.—Transportation by water.

- Group 460. Vessels.
- Group 461. Sailing vessels.
- Group 462. Fisheries.
- Group 463. Barges, lighters, and canal boats.
- Group 464. Stevedoring.
- Group 465. Weighing and tallying.
- Group 466. Marine wrecking.

SCHEDULE 6.—Public utilities (not transportation).

- Group 470. Electric light and power.
- Group 471. Telegraph and telephone.
- Group 472. Natural gas.
- Group 473. Gas works.
- Group 474. Waterworks.
- Group 475. Steam heating or power companies.
- Group 476. Garbage works and sewage-disposal plants.
- Group 477. Pneumatic-tube companies (operation).
- Group 478. Irrigation works.
- Group 479. Crematories.

DIVISION F.—TRADE.

SCHEDULE 1.—Offices.

- Group 490. (Undivided.)

SCHEDULE 2.—Stores.

- Group 500. (Undivided.)

SCHEDULE 3.—Yards.

- Group 510. (Undivided.)

SCHEDULE 4.—Salesmen and agents (outside).

- Group 520. (Undivided.)

DIVISION G.—SERVICE.

SCHEDULE 1.—Domestic.

- Group 530. Care, custody, and maintenance of buildings.
- Group 531. Care of grounds.
- Group 532. Hotels, restaurants, and clubs.

SCHEDULE 2.—Personal.

- Group 540. Theaters.
- Group 541. Amusements, indoor (other than theaters).
- Group 542. Amusements, outdoor.
- Group 543. Individual service.

SCHEDULE 3.—Professional.

- Group 550. Inspectors and appraisers.
- Group 551. Institutions.
- Group 552. Teachers and instructors.
- Group 553. Undertakers.
- Group 554. Motion pictures.

SCHEDULE 4.—Municipal and public.

- Group 560. (Undivided.)

DIVISION A.—AGRICULTURE.

SCHEDULE 1.—GENERAL FARMING.

- | | |
|-------------------------------|-------------------|
| Group 1. (Undivided.) | Manual
number. |
| Farm labor (no blasting)----- | 0006 |

SCHEDULE 2.—DAIRY FARMING.

- Group 5. (Undivided.)

SCHEDULE 3.—STOCK FARMING.

- | | |
|---------------------------|-------------------|
| Group 10. (Undivided.) | Manual
number. |
| Stock farm—operation----- | 0200 |

SCHEDULE 4.—GARDEN AND TRUCK FARMING.

	Manual number.
Group 15. (Undivided.)	
Florists—cultivating and gardening.....	0004
Hop picking—hand.....	0151
Hop picking—machinery.....	0150
Nurserymen.....	0005
Trees—pruning, spraying, repairing, trimming, and fumigating:	
In towns and cities.....	0101
Outside towns and cities.....	0100

SCHEDULE 5.—OPERATING AGRICULTURAL MACHINERY (NOT BY FARMER).

Group 20. Cotton Ginning and Pressing.	
Cotton compressing.....	0400
Cotton ginning and pressing (not compressing).....	0401
Group 21. Farm Machines (not otherwise classified).	
Farm machinery—erection, repair, and demonstration.....	0051
Hay baling.....	0070
Threshing machines and corn shredders, ensilage cutters and harvest- ing machines—operation—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	0050
The above classification applies to farm machinery operated under contract. When machinery of this character is operated not under contract but by an employer as an incident to the general operation of his own farm, the rate applicable therefor is the rate for Farm Labor. (See page 21, group 1.)	

DIVISION B.—MINING AND QUARRYING.

SCHEDULE 1.—MINING.

Group 25. Coal Mines—Anthracite.	
Coal mining—surface (no shafts, tunnels, or drifts).....	1005
Coal mining—with drifts or slopes, tunnels, or galleries (no shafts).....	1011
Coal mining—with shafts, tunnels, or galleries.....	1010
Culm—slack or coal refuse—washing.....	1004
Group 26. Coal Mines—Bituminous.	
Coal mining—surface (no shafts, tunnels, or drifts).....	1005
Coal mining—with drifts or slopes, tunnels, or galleries (no shafts).....	1003
Coal mining—with shafts, tunnels, or galleries.....	1001
Group 27. Precious-Metal Mines.	
Gold mining.....	1100
Gold mining by hydraulic process.....	1102
Silver mining.....	1101
Group 28. Iron Mines.	
Iron mining—surface (no shafts, tunnels, or drifts).....	1121
Iron mining—with shafts, tunnels, or drifts.....	1120
Group 29. Copper Mines.	
Copper mining.....	1140
Group 30. Other Base-Metal Mines.	
Carnotite (radium) mining.....	1159
Lead and zinc mining—milling, prospecting, and shaft sinking, in- cluding installation of machinery, and erection, construction, and repair of premises and plant.....	1154
Lead mining.....	1153
Manganese mining.....	1155
Nickel mining.....	1156
Ore mining (n. o. c.)—surface (no shafts, tunnels, or drifts).....	1150
Ore mining (n. o. c.)—with shafts, tunnels, or drifts.....	1151
Tungsten mining.....	1157
Vanadium mining.....	1158

	Manual number.
Group 31. Mineral Mines.	
Clay or shale mining—surface (no shafts, tunnels, or drifts)-----	1200
Clay or shale mining—with shafts, tunnels, or drifts-----	1201
Feldspar mining-----	1202
Graphite mining-----	1203
Gypsum mining-----	1204
Mica mining-----	1205
Phosphate mining-----	1206
Rock-salt mining-----	1207
Silica mining-----	1208
Sulphur mining (pyrites)-----	1209
Talc mining-----	1210

Group 32. Oil and Gas Well Operating.	
Oil and gas well shooting—minimum premium, \$25-----	1330
Oil producing—operation of oil leases—including putting the raw product in vessels or pipe lines for transportation—excluding the drilling of new wells, cleaning out and drilling old wells deeper, erection or dismantling of derricks (for which see page 49, group 363)-----	1321

Group 33. Other Mineral-Well Operating.	
Salt mining (not rock salt)—pumping, including driving wells-----	1301

SCHEDULE 2.—QUARRYING.

Group 40. Building-Stone Quarries.	
Quarries—turning out exclusively dimension stone for monumental or building purposes—with or without blasting-----	1603
Slate quarries—with or without blasting-----	1602

Group 41. Quarrying and Stone Crushing.	
Quarries—including stone crushing—with or without blasting-----	1620
Quarries (n. o. c.)—with or without blasting-----	1622
State or municipal road or street making—including culverts not exceeding 10-foot span—quarrying-----	1621
Stone crushing—including quarrying—with or without blasting-----	1620

Group 42. Cement Rock.	
Cement manufacturing—including quarrying—with or without blasting-----	1651
Cement quarries—with or without blasting-----	1654

Group 43. Sand and Clay Digging (no blasting).	
Clay digging (no canal, sewer, or cellar excavating or underground mining)-----	4001
Sand and gravel digging (no canal, sewer, or cellar excavating or grading)-----	4000

DIVISION C.—MANUFACTURING.

SCHEDULE 1.—STONE PRODUCTS.

Group 50. Stone Crushing (no quarrying).	
Stone crushing—no quarrying (not available for division of pay roll)-----	1710
When quarrying and stone crushing are carried on at the same location, classify as Stone crushing—including quarrying—with or without blasting. (See group 41, above.)	

Group 51. Stonecutting.	
Grindstone manufacturing (no quarrying)-----	1781
Hone and oilstone manufacturing-----	1783
Lithographic stone manufacturing (no quarrying)-----	1805
Mantle manufacturing—marble or slate (no quarrying)-----	1800
Marble cutting and polishing (no quarrying)-----	1801

	Manual number.
Group 51. Stonecutting—Concluded.	
Millstone manufacturing (no quarrying)-----	1782
Slate manufacturing (no quarrying)-----	1802
Stonecutting and polishing—yard work only-----	1803
Stoneyards (no quarrying) including stone fitters sent out from yard to fit cut stones on job (no setting of stone)-----	1804
Group 52. Stone Grinding.	
Barytes manufacturing (no quarrying)-----	1740
Black lead manufacturing-----	1749
Emery or other abrasive wheel manufacturing-----	1748
Emery works—crushing and grinding (no quarrying)-----	1741
Flint and spar grinding (no quarrying)-----	1742
Graphite manufacturing (not manufacturing artificial graphite)-----	1750
Marl digging—including hauling, drying, and grinding-----	1746
Silica grinding (no quarrying)-----	1743
Talc mills (no quarrying)-----	1744
Group 53. Carborundum.	
Carborundum or other abrasive material manufacturing (by electro- chemical process)-----	1880
Group 54. Cement and Plaster (no quarrying).	
Cement manufacturing-----	1701
Mortar manufacturing-----	1702
Plaster mills-----	1703
Group 55. Lime.	
Lime burning—no crushing or quarrying (n. p. d.)-----	1641
Lime manufacturing—including quarrying, crushing, lime burning, and all other operations incidental to the business-----	1640
Group 56. Plaster and Artificial-Stone Products.	
Coffin and casket manufacturing and assembling—concrete-----	4035
Concrete block manufacturing-----	4034
Plaster board and plaster block manufacturing (no quarrying and no crushing or grinding)-----	4036
Plaster or staff mixing—no crushing or grinding (n. p. d.)-----	4037
Plaster statuary and ornaments manufacturing—from wooden molds--	4038
Sewer pipe manufacturing—reinforced concrete—including all em- ployees on ground engaged in manufacturing (no pipe laying)-----	4040
Group 57. Stone Products (n. o. c.).	
Asbestos goods manufacturing-----	1852
Emery cloth manufacturing-----	1857
Isinglass manufacturing—mica-----	1854
Mica preparing (no mining)-----	1853
Sandpaper manufacturing (no paper making)-----	1856
Slate pencil manufacturing-----	1850

SCHEDULE 2.—CLAY PRODUCTS.

Group 70. Brick and Tile (including underground mining).	
Brick manufacturing—including construction and reconstruction of sheds and kilns if done by assured's employees-----	4010
Earthenware manufacturing—tiling, gas retorts, sewer pipe, and drain pipe-----	4013
Fire-clay products manufacturing (n. o. c.)—no fire brick manufac- turing-----	4011
Potteries—tiling, gas retorts, sewer and drain pipes-----	4014
Terra cotta manufacturing-----	4015
Tile manufacturing—roof and drainage-----	4012

	Manual number.
Group 71. Brick and Tile (no underground mining).	
Brick manufacturing—including construction and reconstruction of sheds and kilns if done by assured's employees; also including clay digging and quarrying-----	4029
Earthenware manufacturing—tiling, gas retorts, sewer pipe, and drain pipe-----	4030
Fire-clay products manufacturing (n. o. c.)—no fire brick manufacturing-----	4028
Potteries—tiling, gas retorts, sewer and drain pipes-----	4031
Terra cotta manufacturing-----	4032
Tile manufacturing—roof and drainage-----	4033
Group 72. Potteries.	
China decorating—including firing (no manufacturing)-----	4050
China manufacturing-----	4051
Doll manufacturing—bisque or china-----	4056
Earthenware manufacturing—household utensils and art objects-----	4052
Insulator manufacturing—porcelain and lava tips-----	4058
Pipe manufacturing (tobacco)—clay-----	4057
Porcelain ware manufacturing-----	4051
Potteries—flowerpots, art and household utensils only (no sewer or drain pipe; no mining or excavating)-----	4053
Stone china manufacturing-----	4052
Terra cotta manufacturing—art terra cotta for decorative purposes (no mining or excavating)-----	4054
This classification does not include the manufacture of terra cotta for structural use, whether decorative or otherwise.	
Tile manufacturing—for decorative purposes (no mining or excavating)-----	4055

SCHEDULE 3.—GLASS PRODUCTS.

Group 80. Glass—Plate or Sheet (no quarrying or excavating).	
Glass manufacturing—plate-----	4101
Glass manufacturing—sheet-----	4102
Group 81. Glass (not plate or sheet).	
Bottle manufacturing—no automatic blowing machines (n. p. d.)-----	4111
Bottle manufacturing (n. o. c.)-----	4114
Glass manufacturing-----	4110
Glass manufacturing—cut-----	4113
Incandescent lamp manufacturing-----	4112
Group 82. Mirrors, Signs, and Ornamental Glass.	
Advertising sign manufacturing—glass-----	4132
Cathedral and art-glass window manufacturing—with or without glass making-----	4133
Glass merchants—including operations of bending, grinding, beveling, and silvering plate glass-----	4130
Mirror manufacturing (no glass making)-----	4131
Stained glass manufacturing-----	4133
Group 83. Optical Goods.	
Eyeglass and spectacle manufacturing-----	4152
Glass eye manufacturing-----	4153
Lens manufacturing-----	4151
Optical goods manufacturing-----	4150

SCHEDULE 4.—ORE REDUCTION AND SMELTING.

	Manual number.
Group 90. Ore Reduction.	
Ore crushing.....	1450
Ores—concentration and amalgamation.....	1452
Quartz mills.....	1451
Group 91. Gold and Silver Smelting and Refining.	
Assaying.....	1410
Gold refining (no ore reduction).....	1412
Gold smelting.....	1400
Silver refining (no ore reduction).....	1411
Silver smelting.....	1401
Group 92. Iron Smelting.	
Blast furnaces—operation.....	1421
Iron smelting.....	1422
Slag excavation—including loading on cars—with or without blasting.....	1420
Group 93. Copper Smelting and Refining.	
Copper refining (no ore reduction).....	1440
Copper smelting.....	1441
Group 94. Other Metal Smelting and Refining.	
Aluminum smelting.....	1434
Lead smelting.....	1430
Smelting, by electric process.....	1439
Smelting (n. o. c.).....	1438
Zinc smelting.....	1435

SCHEDULE 5.—ROLLING MILLS AND STEELWORKS.

Group 100. Steel Making.	
Steelworks—crucible, casting ingots, and puddling or blooming mill operations (n. p. d.).....	3001
Steelworks—open hearth, bessemer and crucible, or open hearth and bessemer, casting ingots, and puddling or blooming mill operations.....	3000
Group 101. Rolling and Tube Mills.	
Rolling mills—operated in connection with steelworks—rolling products of every description—including rod mill.....	3011
Rolling mills—operated in connection with steelworks—rolling products of every description (no rod mill).....	3012
Rolling mills—rolling of bars only—no blast furnace, converter, or casting of steel (n. p. d.).....	3015
Rolling mills—rolling of brass, copper, and other soft metals (no iron or steel rolling work, no bar manufacturing, no blast furnace, converter, or casting of steel).....	3014
Rolling mills—rolling of metal plates and sheets only, including dipping for galvanizing purposes—no blast furnace, converter, or casting of steel (n. p. d.).....	3013
Rolling mills—rolling of rods only—no blast furnace, converter, or casting of steel (n. p. d.).....	3010
Tin and terneplate rolling from tin-plate bars, including dipping (no tin-plate bar manufacturing, and no blast furnace, converter, or casting of steel).....	3016
Tin plate manufacturing. (Classify as Tin and terneplate rolling.)	
Tin plate rolling and dipping. (Classify as Tin and terneplate rolling.)	
Tube manufacturing—metal.....	3021
Wrought-iron pipe manufacturing.....	3020

	Manual number.
Group 102. Structural Iron and Steel.	
Iron and steel works—shop, fabricating, and assembling structural iron and steel (no blast furnace, converter, or casting of steel, or rolling mill) -----	3030

Group 103. Wire.	
Cable manufacturing—wire -----	3240
Wire drawing -----	3241

SCHEDULE 6.—METAL PRODUCTS.

Group 110. Foundries.	
Cast-iron pipe manufacturing -----	3089
Foundries—aluminum -----	3087
Foundries—bell -----	3084
Foundries—brass -----	3085
Foundries—iron -----	3081
Foundries—malleable iron -----	3086
Foundries (n. o. c.) -----	3083
Foundries—steel castings -----	3082
Plumbers' supplies manufacturing—enameled-iron ware manufacturing -----	3091
Railroad permanent way materials manufacturing—frogs, switches, and crossings -----	3088
Sculptors—statuary and ornamental work in bronze, including molding and casting -----	3310

Group 111. Lead.	
Babbitt-metal manufacturing -----	3335
Lead works—sheet, pipe, shot (no smelting) -----	3331
Patent-metal manufacturing—rolling of metal into thin sheets for wrapping -----	3333
Shot works -----	3332
Steam packing manufacturing—metallic -----	3339
Tin-foil manufacturing -----	3334
Type foundry -----	3336

Group 112. Forging.	
Anchor manufacturing -----	3108
Blacksmithing—not shoeing (n. p. d.) -----	3107
Chain manufacturing -----	3103
Chain manufacturing—automatic process or hand forging (n. p. d.) --	3109
Drop-forging works (not hardware; no steam forging) -----	3104
Forging works—handwork only—no machinery (n. p. d.) -----	3106
Forging works—steam -----	3100

Group 113. Architectural and Ornamental Ironwork.	
Elevator manufacturing -----	3042
Escalator manufacturing. (Classify as Elevator manufacturing.)	
Iron and steel works—shop—fabricating, assembling and manufacturing railings, balconies, fire escapes, staircases, iron shutters, and other ironwork (not structural iron or steel) and ornamental brass, bronze, and iron work (no blast furnace, converter, or casting of steel, or rolling mill) -----	3040

	Manual number.
Group 113. Architectural and Ornamental Ironwork—Concluded.	
Iron and steel works—shop—manufacturing ornamental brass, bronze, and iron work exclusively—no blast furnace, converter or casting of steel or rolling mill (n. p. d.)-----	3041
Mail-chute manufacturing-----	3044
Ornamental brass, bronze, and iron manufacturing. (Classify as Iron and steel works—shop—manufacturing ornamental brass, bronze, etc.)	
Group 114. Safes.	
Safe manufacturing and repairing—shop only—including all processes to completion-----	3280
Group 115. Sheet-Metal Ware.	
Aluminum ware manufacturing—from sheet aluminum (no rolling mill or smelting operations)-----	3227
Can manufacturing-----	3220
Enamel and agate ware manufacturing-----	3224
Lamp and lantern manufacturing-----	3223
Mail box manufacturing (no stamping)-----	3226
Tin can manufacturing-----	3220
Toy manufacturing—metal-----	3221
Group 116. Sheet-Metal Work.	
Advertising sign manufacturing—metal-----	3064
Building manufacturing—portable, metal—shop only-----	3079
Ceiling and wall covering manufacturing—metal-----	3063
Coffin and casket manufacturing and assembling—metal-----	3074
Coppersmithing—shop only-----	3075
Cornices and skylights—shop only-----	3072
Fireproof door and shutter manufacturing—wood covered with sheet metal-----	3060
Fireproof equipment manufacturing—including herringbone and ex- panded metal products, metal furniture filing equipment, and wood- working-----	3076
Furniture manufacturing—metal-----	3077
Galvanized ironwork—shop-----	3066
Sheet-metal work—shop only-----	3066
Tinsmith shop (n. o. c.)-----	3065
Ventilator manufacturing-----	3073
Weather-strip manufacturing—metal-----	3078
Wheelbarrow manufacturing—metal-----	3062
Group 117. Stamping.	
Stamping—metal-----	3210
Group 118. Hardware.	
Agricultural tool manufacturing (hand)—shovels, spades, scoops, pitchforks, rakes, hoes, and gardening tools-----	3137
Badge manufacturing—metal (no stamping)-----	3135
Bolt and nut manufacturing—excluding steel manufacturing—exclud- ing rolling-mill operations-----	3132
Button manufacturing (n. o. c.)-----	3131
Hardware manufacturing—automobile or carriage-----	3153
Hardware manufacturing (n. o. c.)-----	3146

	Manual number.
Group 118. Hardware—Concluded.	
Horseshoe manufacturing	3147
Lock manufacturing	3144
Nail and spike manufacturing—excluding steel manufacturing—ex- cluding rolling-mill operations	3133
Pulley block manufacturing—metal	3142
Screw manufacturing	3145
Skate manufacturing	3149
Stencil manufacturing (no stamping)	3138
Tag, check, and label manufacturing—metal (no stamping)	3140
Wire nail manufacturing	3152
Group 119. Eyelets, Pins, Etc.	
Eyelet manufacturing	3270
Pen manufacturing	3273
Pin manufacturing	3271
Tack manufacturing	3274
Group 120. Cutlery and Hand Tools.	
Ax manufacturing	3115
Cutlery manufacturing (n. o. c.)	3122
Cutting die manufacturing	3123
File manufacturing	3117
Logging tool manufacturing (n. o. c.)—hand	3124
Needle manufacturing	3119
Razor manufacturing—not safety	3121
Razor manufacturing—safety	3120
Saw manufacturing	3118
Tool manufacturing (n. o. c.)—not manufacturing machinery	3116
Group 121. Small Arms.	
Arms manufacturing—small arms (not charging shells)	3200
Gun, rifle, and pistol manufacturing	3200
Machine-gun manufacturing (not heavy ordnance)	3201
Group 122. Stoves, Heaters, Etc.	
Furnace manufacturing—house heaters	3173
Oil stove manufacturing (no stamping)	3171
Radiator manufacturing (n. o. c.)	3174
Sheet-iron stove manufacturing (no stamping)	3170
Stove manufacturing (not sheet iron)	3172
Group 123. Plumbing, Gas and Electric Fixtures.	
Chandelier manufacturing	3182
Gas and electric fixture manufacturing	3180
Lamp shade manufacturing (no stamping)	3186
Plumbers' supplies manufacturing (n. o. c.)	3188
Group 124. Wire Products.	
Screen manufacturing—metal (no wire drawing)	3250
Umbrella frames and hardware manufacturing	3257
Wire cloth manufacturing (no wire drawing)	3255
Wire fence manufacturing (no wire drawing)	3256
Wire goods manufacturing (n. o. c.)—no wire drawing	3257
Wire manufacturing—piano (no wire drawing)	3253
Wire manufacturing—picture (no wire drawing)	3254

	Manual number.
Group 125. Beds and Springs.	
Bedstead manufacturing—metal	3302
Bedsteads—metal—assembling of manufactured parts only (n. p. d.) ..	3304
Mattress manufacturing—wire	3301
Spring bed manufacturing	3300
Spring manufacturing (not railroad car springs)	3303
Group 126. Copper and Brass Goods (n. o. c.).	
Brass goods manufacturing	3311
Copper goods manufacturing	3312
Group 127. Jewelry, Watches, Etc.	
Clock manufacturing	3382
Gold leaf manufacturing	3386
Jewelry manufacturing	3383
Precious stones—setting and making mountings therefor (n. p. d.) ..	3384
Silverware manufacturing	3381
Watchcase manufacturing	3380
Watch manufacturing	3385
Group 128. Plating and Galvanizing.	
Detinning—separating tin from tin plate by electrolytic process, with incidental foundry	3374
Enameling—no metal working (n. p. d.)	3376
Galvanizing or tinning sheet metal—not manufacturing sheet metal or metal goods (n. p. d.)	3373
Gilding and electroplating	3372
Gold plating	3372
Japanning—no metal working (n. p. d.)	3375
Nickel plating and finishing (n. p. d.)	3372
Silver plating	3370
Group 129. Cutting and Welding.	
Autogenous cutting and welding—oxyacetylene process. (Classify as Oxyacetylene cutting and welding.)	
Oxyacetylene cutting and welding (autogenous)—shopwork only, in- cluding machining operations connected therewith, where apparatus not approved by the Underwriters' Laboratories or the Interstate Commerce Commission is used	3360
Oxyacetylene cutting and welding (autogenous)—shopwork only, in- cluding machining operations connected therewith, where apparatus approved by the Underwriters' Laboratories or the Interstate Com- merce Commission is used exclusively	3361
Group 130. Metal Goods (n. o. c.).	
Metal goods manufacturing	3400

SCHEDULE 7.—MACHINERY AND INSTRUMENTS.

Group 140. Boilers and Tanks.	
Boilermaking	3620
Gas holder manufacturing	3622
Tank building—metal—shop only	3621
Water tower manufacturing—shop only	3623
Group 141. Engines.	
Engine manufacturing (n. o. c.)—with foundry	3607
Engine manufacturing (n. o. c.)—without foundry	3608
Fire engine manufacturing	3604
Gas or gasoline engine manufacturing—with foundry	3605
Gas or gasoline engine manufacturing—without foundry	3606

	Manual number.
Group 141. Engines—Concluded.	
Locomotive works	3600
Pump manufacturing—metal—with foundry	3611
Pump manufacturing—metal—without foundry	3612
Stationary engine manufacturing—with foundry	3609
Stationary engine manufacturing—without foundry	3610
Group 142. Agricultural Machinery.	
Agricultural machinery manufacturing—thrashing or husking machine manufacturing	3504
Agricultural machinery manufacturing—traction engine or power plow manufacturing	3505
Cotton-gin machinery manufacturing	3503
Lawn mower manufacturing	3502
Group 143. Textile Machinery.	
Card clothing manufacturing	3510
Cop tube manufacturing	3517
Loom harness and reed manufacturing	3516
Loom manufacturing	3514
Shuttle manufacturing. (Classify as Cop tube manufacturing.)	
Textile machinery manufacturing	3515
Group 144. Machinery (n. o. c.).	
Acetylene-gas machine manufacturing	3522
Arms manufacturing—heavy ordnance (not charging shells)	3527
Boot and shoe machinery manufacturing (exclusively)	3558
Confectioners' machinery manufacturing	3559
Crane and derrick manufacturing	3528
Mining and milling machinery manufacturing	3520
Printing and bookbinding machinery manufacturing	3548
Printing press manufacturing	3557
Road or street making machinery manufacturing	3521
Steam shovel, dredge, and ballast unloader manufacturing	3526
Water wheel manufacturing—metal	3524
Windmill manufacturing—metal	3523
Group 145. Fine Machines.	
Adding machine manufacturing	3567
Automatic slot or vending machine manufacturing—including instal- lation in place, repairs, and taking down	3560
Carburetor manufacturing	3581
Cash register manufacturing	3569
Check protector manufacturing	3573
Gas meter manufacturing	3578
Mailing and addressing machine manufacturing	3564
Numbering machine manufacturing	3568
Plumbers' supplies manufacturing—valves and gauges	3584
Scale manufacturing	3582
Sewing machine manufacturing	3561
Speedometer and taximeter manufacturing, with or without odometer— including installation	3680
Sprinkler manufacturing—automatic	3583
Steam and air-pressure gauge manufacturing	3571
Typewriter manufacturing	3565
Vacuum cleaner manufacturing	3563
Voting machine manufacturing	3562
Water meter manufacturing	3579

	Manual number.
Group 146. Machine Shops (n. o. c.).	
Ball bearing manufacturing-----	3638
Cartridge manufacturing—for small arms—including insertion of per- cussion caps—excluding the manufacturing of fulminate, loading, charging, or handling of explosives-----	3636
Gear grinding and manufacturing-----	3635
Machine shops—with foundry-----	3631
Machine shops—without foundry-----	3632
Projectile, shell, or case manufacturing (no loading or testing with explosives)-----	3633
Valve manufacturing-----	3634
Washing machine and clothes wringer manufacturing, for household use—metal-----	3637
Group 147. Electric Apparatus and Appliances.	
Battery manufacturing—storage (manufactured from iron and nickel plates)-----	3641
Battery manufacturing—storage (manufactured from lead plates)---	3640
Dry battery manufacturing-----	3642
Electric apparatus manufacturing-----	3643
Ignition apparatus manufacturing for gas engines (n. p. d.)-----	3644
Magneto manufacturing-----	3645
Group 148. Instruments, Professional or Scientific.	
Instrument manufacturing—professional or scientific-----	3685
Musical instrument manufacturing—metal-----	3686
Telegraph and telephone apparatus manufacturing-----	3681
Telescope manufacturing-----	3684
Thermometer manufacturing-----	3683
Thermostat manufacturing-----	3680

SCHEDULE 8.—VEHICLES.

Group 160. Railroad Cars.	
Car manufacturing—railroad—all kinds-----	3881
Car wheel manufacturing—cast iron or steel (not pressed steel)-----	3880
Car wheel manufacturing—pressed-steel wheels-----	3882
Group 161. Carriages and Wagons.	
Axle manufacturing—wood-----	3862
Baby carriage manufacturing-----	3865
Carriage and wagon manufacturing-----	3864
Carriage and wagon manufacturing—assembling of manufactured parts only (n. p. d.)-----	3866
Carriage dashes and top manufacturing—excluding the manufacture of metal or wooden parts and leather enameling (n. p. d. in auto- mobile manufacturing)-----	3863
For the manufacture of metal or wooden parts classify as Hardware manu- facturing—automobile or carriage. (See page 28, group 118.)	
Carriage manufacturing (not wagon)-----	3867
Wagon manufacturing-----	3868
Wheel manufacturing—wood-----	3861
Group 162. Automobiles.	
Automobile, carriage, and wagon body manufacturing—metal or wood (n. p. d.)-----	3802
Automobile engine manufacturing-----	3805
Automobile frame manufacturing—not chassis manufacturing (n. p. d.)-----	3800

	Manual number.
Group 162. Automobiles—Concluded.	
Automobile lamp and lantern manufacturing (n. p. d.)	3801
Automobile manufacturing	3803
<p>This classification applies only to concerns turning out automobiles as finished products, including the manufacture of such parts as they may themselves manufacture, with assembling and finishing of automobiles, and is not applicable to concerns engaged in the manufacture of specific parts, such as motors, bodies, castings, and the like.</p>	
Automobile manufacturing—assembling of manufactured parts only (n. p. d.)	3809
Automobile top manufacturing—excluding the manufacture of metal or wooden parts (n. p. d. in automobile manufacturing)	3804
<p>For the manufacture of metal or wooden parts of automobile or carriage tops, classify as Hardware manufacturing—automobile or carriage. (See page 28, group 118.)</p>	
Automobile wind shield manufacturing	3806
Cycle car manufacturing	3810
Radiator manufacturing (n. p. d.)	3807
Wheel manufacturing—metal	3803
Group 163. Motorcycles.	
Motorcycle and motorcycle parts manufacturing—including the assembling of motorcycles	3850
Group 164. Bicycles.	
Bicycle and bicycle parts manufacturing—including the assembling of bicycles	3840
Group 165. Aeroplanes.	
Aeroplane manufacturing—including overhauling and repair in shop and outside—excluding operation and demonstration	3830
SCHEDULE 9.—LUMBER AND WOOD.	
Group 170. Logging.	
Bark peeling	2701
Logging and lumbering—including transportation of logs to mill, but excluding operation of “logging railroad”—including drivers and drivers’ helpers, also chauffeurs and chauffeurs’ helpers	2702
Group 171. Sawmills.	
Bark mills	2716
Box shooks manufacturing	2717
Excelsior manufacturing	2712
Kindling wood manufacturing	2711
Lath manufacturing—wood	2713
Sawmills	2710
Shingle manufacturing	2715
Veneer manufacturing	2714
Group 172. Planing Mills.	
Chair manufacturing—chair stock manufacturing (no assembling)	2734
Furniture manufacturing—furniture stock manufacturing (no assembling)	2735
Picture-frame molding manufacturing	2733
Picture frames—including picture-frame molding manufacturing	2732
Planing and molding mills	2731
Sash, door, and blind manufacturing—including outside employees soliciting and measuring	2730

	Manual number.
Group 173. Cooperage.	
Barrel manufacturing—assembling only (not making heads, hoops, and staves)	2745
Barrel manufacturing—making heads, hoops, and staves, and assem- bling	2742
Cooperage—assembling only (not making heads, hoops, and staves) ..	2745
Cooperage—making heads, hoops, and staves, and assembling	2742
Cooperage stock manufacturing—heads, hoops, and staves	2741
Silo building—wood—shop only	2750
Stave manufacturing	2740
Tank building—wood—shop only	2751
Group 174. Boxes.	
Box manufacturing—cigar	2766
Box manufacturing—wood—assembling only	2767
Box manufacturing—wood—manufacturing shooks and assembling ..	2760
Box manufacturing—wood (wire bound)—no box shooks manufactur- ing (n. p. d.)	2765
Packing case manufacturing—wood	2760
Trunk manufacturing—excluding metal frames and fittings	2763
The manufacturing of metal frames and fittings should be classified and rated as Metal goods manufacturing. (See page 30, group 130.)	
Group 175. Carpentry.	
Agricultural machinery manufacturing—woodworking	2825
Building manufacturing—portable, wood—shop only	2814
Cabinet works—no power-driven woodworking machinery (n. p. d.) ..	2813
Cabinet works—with power-driven machinery	2812
Carpentry—shop only	2803
Coffin and casket manufacturing and assembling—wood	2804
Hothouse manufacturing—shop only	2805
Ladder manufacturing	2820
Mast and spar manufacturing—shop only	2800
Parquet flooring manufacturing—shop only	2810
Plumbers' supplies manufacturing—tanks, seats, and cabinets—wood ..	2824
Pump manufacturing—wood	2807
Screen manufacturing—wood	2821
Theatrical scenery manufacturing—excluding painting	2823
Weather-strip manufacturing—wood	2822
Wheelbarrow manufacturing—wood	2809
Windmill manufacturing—wood—shop only	2808
Group 176. Turning.	
Bobbin and spool manufacturing—wood	2781
Boot and shoe pattern manufacturing (n. p. d.)	2792
Cork cutting works	2788
Hat block manufacturing	2782
Last manufacturing	2786
Last-block manufacturing	2780
Pattern and model manufacturing—wood (n. p. d.)	2790
Peg and skewer manufacturing—wood	2789
Pipe manufacturing (tobacco)—wood	2791
Pulley block manufacturing—wood	2783
Spool manufacturing—wood	2784
Toy manufacturing—wood	2785
Wood heel manufacturing	2793
Wood turning	2786

	Manual number.
Group 177. Furniture.	
Barbers' supplies manufacturing—including furniture.....	2872
Bent wood manufacturing.....	2879
Billiard table manufacturing—including setting up and taking down at place of delivery.....	2870
Chair manufacturing—assembling of manufactured parts and finishing only (n. p. d. when located on same or adjoining premises where other chair-manufacturing operations are carried on).....	2885
Chair manufacturing—including assembling of manufactured parts and finishing.....	2880
Furniture manufacturing—assembling of manufactured parts and fin- ishing only (n. p. d. when located on same or adjoining premises where other furniture-manufacturing operations are carried on)....	2881
Furniture manufacturing—including assembling of manufactured parts and finishing.....	2883
Incubator manufacturing.....	2886
Refrigerator manufacturing—shop only.....	2871
School supplies manufacturing.....	2876
Showcase manufacturing.....	2877
Group 178. Upholstering.	
Chair manufacturing—upholstering.....	9524
Coffin and casket manufacturing—upholstery work and manufacturing burial garments.....	9525
Furniture manufacturing—upholstering.....	9523
House furnishings (n. o. c.)—installation.....	9521
Upholstering.....	9522
Upholstering—away from shop.....	9520
Group 179. Rattan and Willow Ware.	
Basket manufacturing—willow ware.....	2903
Rattan goods manufacturing.....	2904
Willow ware manufacturing.....	2905
Group 180. Veneer Goods.	
Barrel manufacturing—wood veneer (no veneer manufacturing)....	2906
Basket manufacturing—wood veneer (no veneer manufacturing)....	2907
Veneer package manufacturing (no barrel manufacturing; no veneer manufacturing).....	2908
Veneer seat manufacturing (no veneer manufacturing).....	2909
Group 181. Brooms and Brushes.	
Broom manufacturing—assembling of manufactured parts only (n. p. d.).....	2833
Broom manufacturing—with sawmill or woodworking machinery....	2830
Brush manufacturing—assembling only—excluding sawing, molding, and turning of backs and handles (n. p. d. when located on same or adjoining premises where other brush manufacturing operations are carried on).....	2832
Brush manufacturing—including assembling and sawing, molding, and turning of backs and handles.....	2831
Brush manufacturing—sawing, molding, and turning of backs and handles only—excluding assembling.....	2834

	Manual number.
Group 182. Household Utensils.	
Ice-cream freezer manufacturing.....	2842
Picture frame manufacturing—no power machinery (n. p. d.).....	2850
Picture frame manufacturing (not operating molding mill or manufac- turing moldings).....	2848
Shade roller manufacturing.....	2851
Washboard manufacturing.....	2846
Washing machine and clothes wringer manufacturing, for household use (n. o. c.).....	2853
Window-curtain roller manufacturing.....	2847
Window shade manufacturing—making and mounting—assembling only (not manufacturing cloth or roller).....	2852
Woodenware manufacturing (n. o. c.).....	2841
Group 183. Musical Instruments.	
Musical instrument manufacturing—wood.....	2922
Organ building—cabinet or parlor.....	2921
Organ building—pipe—including setting up at the place of delivery...	2920
Phonograph manufacturing.....	2928
Piano action manufacturing.....	2924
Piano and piano player manufacturing—assembling of manufactured parts and finishing only (n. p. d.).....	2929
Pianoforte case manufacturing.....	2925
Piano key manufacturing.....	2926
Piano manufacturing.....	2923
Piano player manufacturing.....	2927
Group 184. Canes, Etc.	
Cane manufacturing.....	2952
Crutch manufacturing.....	2951
Golf club manufacturing.....	2950
Umbrella handle manufacturing.....	2952
Group 185. Wood Preserving and Fireproofing.	
Wood preserving and fireproofing.....	2960

SCHEDULE 10.—LEATHER.

Group 190. Tanning and Dressing.	
Curriers.....	2624
Degreasing skins (n. p. d.).....	2610
Leather dressing—gloves (n. p. d.).....	2626
Leather dressing (n. o. c.).....	2622
Leather manufacturing—patent or enamel.....	2620
Morocco dressing.....	2621
Tanning.....	2623
Group 191. Fur.	
Fur manufacturing—preparing skins.....	2600
Group 192. Embossing Leather.	
Leather embossing (n. p. d.).....	2640
Group 193. Shoe Stock.	
Counter, heel, and sole cutting.....	2650
Cut sole manufacturing.....	2650
Leather board manufacturing—from leather scraps.....	2653
Leather uppers (cutting of)—handwork only (n. p. d.).....	2652
Shoe findings manufacturing—tongues, linings, and facings (n. p. d.)...	2654
Shoe stock manufacturing.....	2651

	Manual number.
Group 194. Boots and Shoes.	
Boot and shoe manufacturing-----	2660
Slipper manufacturing-----	2661
Group 195. Gloves.	
Glove manufacturing—leather-----	2670
Group 196. Harness, Bags, and Belting.	
Bag manufacturing—leather-----	2683
Harness and saddle manufacturing-----	2681
Leather belting manufacturing-----	2686
Group 197. Leather Goods (n. o. c.).	
Baseball manufacturing-----	2690
Leather wearing apparel and novelties manufacturing (n. o. c.)-----	2688
Pocketbook manufacturing (n. p. d.)-----	2687

SCHEDULE 11.—RUBBER AND COMPOSITION GOODS.

Group 210. Gutta-percha.	
Gutta-percha manufacturing-----	4425
Group 211. Rubber Reclaiming.	
Rubber reclaiming-----	4400
Rubber reclaiming—not using benzine, naphtha, or gasoline (n. p. d.)-----	4401
Group 212. Rubber Tires.	
Rubber tire manufacturing-----	4420
Group 213. Soft-Rubber Goods.	
Rubber belting manufacturing-----	4413
Rubber boot and shoe manufacturing-----	4417
Rubber cement manufacturing-----	4411
Rubber garment manufacturing—including rubber mill-----	4409
Rubber garment manufacturing—no rubber mill-----	4416
Rubber goods manufacturing (n. o. c.)-----	4410
Rubber stamp and pad manufacturing-----	4418
Group 214. Hard-Rubber Goods.	
Fountain pen manufacturing-----	4432
Phonograph record manufacturing-----	4431
Vulcanized rubber manufacturing (n. p. d.)-----	4430
Group 215. Celluloid.	
Celluloid manufacturing (pyroxylin plastics)-----	4440
Disculoid manufacturing. (Classify as Celluloid manufacturing.)	
Fiberloid manufacturing. (Classify as Celluloid manufacturing.)	
Pyroxylin plastic manufacturing. (Classify as Celluloid manufacturing.)	
Group 216. Celluloid Goods.	
Advertising sign manufacturing—celluloid-----	4454
Button manufacturing—celluloid-----	4453
Celluloid goods manufacturing—from celluloid and from composition in the manufacture of which celluloid has been used (no celluloid manufacturing)-----	4452
Leather (imitation) manufacturing—using pyroxylin or pyroxylin composition-----	4456
Tortoise-shell goods manufacturing—manufactured from real and imi- tation tortoise shell-----	4451

	Manual number.
Group 217. Insulation.	
Cables—insulation (no wire drawing)-----	4470
Circular loom manufacturing—flexible piping for electric wires-----	4472
Piping manufacturing—flexible (not metal) for interior work in buildings to carry electric wires-----	4471
Wire insulation (no wire drawing)-----	4470
Group 218. Bone and Ivory.	
Bone and ivory turning-----	4481
Button manufacturing—pearl and shell-----	4480
Button manufacturing—vegetable ivory-----	4482
Horn goods manufacturing (not containing pyroxylin)-----	4485
Lime manufacturing from oyster shells-----	4483
Group 219. Printers' Rollers.	
Printers' rollers manufacturing-----	4460
Group 220. Oilcloth and Linoleum.	
Leather (imitation) manufacturing (not using pyroxylin or pyroxylin composition)-----	4492
Linoleum and cork carpet manufacturing-----	4491
Oilcloth manufacturing—all kinds-----	4490

SCHEDULE 12.—CHEMICALS AND ALLIED PRODUCTS.

Group 230. Chemicals.	
Acetic acid manufacturing-----	4536
Acid manufacturing (n. o. c.)-----	4510
Alcohol manufacturing-----	4535
Ammonia manufacturing-----	4521
Analytical chemists—including shopwork and work performed away from shop-----	4511
Arsenic manufacturing-----	4532
Bleaching powder manufacturing-----	4527
Borax manufacturing-----	4529
Camphor manufacturing-----	4530
Carbide of calcium manufacturing-----	4533
Chemical manufacturing (n. o. c.)-----	4524
Creosote manufacturing-----	4528
Disinfectant manufacturing (n. o. c.)-----	4523
Picric acid manufacturing-----	4514
Salt manufacturing (not mining or sinking wells)-----	4534
Saltpeter manufacturing-----	4525
Sulphur refining-----	4512
Tartaric acid manufacturing-----	4522
Vitriol manufacturing-----	4513
Wood preservative manufacturing (n. o. c.)-----	4526
Group 231. Baking Powder and Yeast.	
Baking powder manufacturing (no can manufacturing)-----	4500
Soda bicarbonate manufacturing-----	4502
Yeast manufacturing (no can manufacturing)-----	4501
Group 232. Glue.	
Capsule manufacturing—gelatine-----	4657
Gelatine manufacturing-----	4654
Glue manufacturing-----	4653

	Manual number.
Group 232. Glue—Concluded.	
Isinglass manufacturing—fish glue-----	4652
Mucilage manufacturing-----	4651
Paste manufacturing-----	4655
Sealing wax manufacturing-----	4656
Size manufacturing-----	4650
Group 233. Ink, Blacking, and Polish.	
Metal polish manufacturing (no can manufacturing)-----	4591
Shoe and harness blacking manufacturing (no can manufacturing)---	4590
Stove polish manufacturing-----	4592
Writing ink manufacturing-----	4594
Group 234. Dyes, Paints, and Colors.	
Aniline and alizarin manufacturing-----	4553
Color manufacturing—dry-----	4554
Ink manufacturing—printing-----	4557
Lampblack manufacturing-----	4552
Lead manufacturing—red-----	4550
Lead manufacturing—white-----	4551
Paint manufacturing (no lead manufacturing)-----	4558
Putty manufacturing-----	4559
Varnish manufacturing-----	4561
Whiting manufacturing-----	4560
Zinc oxide manufacturing-----	4562
Group 235. Drugs and Medicines.	
Drug manufacturing-----	4601
Patent medicine manufacturing-----	4605
Pharmaceutists-----	4607
Serum (hog) manufacturing—not operating packing houses (n. p. d.)--	4609
Group 236. Pharmaceutical Supplies.	
Absorbent cotton manufacturing-----	4690
Dental material manufacturing (n. o. c.)-----	4692
Pharmaceutical and surgical goods manufacturing (n. o. c.)-----	4693
Group 237. Extracts.	
Essential oils manufacturing—including distillation-----	4620
Extract manufacturing—dyewood-----	4624
Extract manufacturing—tanning-----	4625
Flavoring extract manufacturing-----	4621
Medicine extract manufacturing-----	4622
Perfumery and flavoring essence manufacturing-----	4623
Group 238. Fertilizers.	
Fertilizer manufacturing (not phosphate companies)-----	4580
Phosphate works (no mining)-----	4581
Group 239. Explosives.	
Cartridge manufacturing—charging and loading—all operations in- volving the handling of explosives, including the manufacture of fulminate-----	4766
Fireworks manufacturing (no exhibition work)-----	4761
Fuse manufacturing-----	4760
Powder manufacturing-----	4770
Projectile, shell or case—charging and loading-----	4765

	Manual number.
Group 240. Gases.	
Acetylene-gas tank charging stations—operation.....	4636
Carbonic acid gas manufacturing.....	4633
Oxygen and hydrogen manufacturing—electrolytic process.....	4634
Oxygen and hydrogen manufacturing—liquid-air process.....	4635
Group 241. Fats and Oils (animal).	
Butterine manufacturing.....	4717
Candle manufacturing.....	4710
Cod-liver oil manufacturing.....	4660
Glycerine manufacturing.....	4711
Grease manufacturing.....	4712
Lard refining.....	4716
Oil manufacturing—fish (n. o. c.).....	4662
Oil manufacturing—lard.....	4661
Oil manufacturing—tallow.....	4663
Oleomargarine manufacturing.....	4718
Tallow chandlers.....	4715
Wool extract manufacturing (lanolin).....	4664
Group 242. Oils (cottonseed).	
Cottonseed oil manufacturing—with or without refining—minimum premium per mill, \$25.....	4670
Cottonseed oil refining—no manufacturing or expressing of oil.....	4671
Oil cake manufacturing.....	4672
Group 243. Oils (vegetable), All Other.	
Castor oil manufacturing.....	4681
Oil manufacturing—linseed. (Classify as Oil manufacturing—vege- table, n. o. c.).....	4683
Oil manufacturing—vegetable (n. o. c.).....	4683
Group 244. Petroleum and Allied Products.	
Asphalt works—shop and yard only.....	4745
Axle grease manufacturing.....	4742
Gasoline manufacturing—from casing-head gas.....	4743
Oil refining—petroleum.....	4740
Tar manufacturing—coal tar—manufacturing and refining coal tar and its by-products, including saturating of paper and felt with tar (no fat or paper making; no coke-oven operations).....	4741
Wax manufacturing (not sealing wax).....	4744
Group 245. Coke and Charcoal.	
Carbon manufacturing (not electro-chemical process).....	1465
Charcoal manufacturing.....	1481
Coal billet and briquette manufacturing.....	1463
Coke burning.....	1480
Graphite and pure carbon manufacturing—artificial.....	1462
Group 246. Turpentine and Rosin.	
Turpentine and rosin manufacturing—excluding pulling and cutting stumps.....	0301
Turpentine and rosin manufacturing—including pulling and cutting stumps.....	0302
Group 247. Soap.	
Soap manufacturing (n. p. d.).....	4720
Soap powder manufacturing.....	4721

	Manual number.
Group 248. Starch and Glucose.	
Dextrin manufacturing—dry process.....	4704
Dextrin manufacturing—wet process.....	4701
Glucose manufacturing—dry process.....	4705
Glucose manufacturing—wet process.....	4702
Starch manufacturing—dry process.....	4706
Starch manufacturing—wet process.....	4703

Group 249. Matches.	
Match manufacturing—excluding lumbering operations.....	4730

SCHEDULE 13.—PAPER AND PAPER PRODUCTS.

Group 260. Pulp Mills.	
Pulp manufacturing—ground wood (no saw or barking mills).....	4206
Pulp manufacturing—saw and barking mills.....	4211
Pulp manufacturing—soda (no saw or barking mills).....	4203
Pulp manufacturing—sulphite (no saw or barking mills).....	4205

Group 261. Paper.	
Bristol board manufacturing.....	4233
Cardboard manufacturing (no pulp mill).....	4233
Cigarette paper manufacturing. (Classify as Paper manufacturing.)	
Ledger paper manufacturing. (Classify as Writing paper manufacturing.)	
Paper board manufacturing (no pulp mill).....	4233
Paper manufacturing (no pulp manufacturing; no saw or barking mills).....	4234
Writing paper manufacturing.....	4232

Group 262. Stationery.	
Envelope manufacturing.....	4252
Paper coating and finishing (n. p. d.).....	4250
Stationery manufacturing (n. p. d. in plants manufacturing paper of any kind).....	4251

Group 263. Boxes.	
Box manufacturing—folding paper boxes (no paper or paper board manufacturing).....	4241
Box manufacturing—solid paper boxes (no paper or paper board manufacturing).....	4240
Jewelry box and tray manufacturing (no stamping).....	4242

Group 264. Fiber Goods.	
Fiber goods manufacturing (no fiber pulp making).....	4263
Fiber pulp manufacturing.....	4267
Papier-mâché goods manufacturing (no paper or pulp making; no car wheels).....	4266

Group 265. Paper Products (n. o. c.).	
Bag manufacturing—paper only (no paper manufacturing).....	4273
Building paper or building felt manufacturing (no paper or felt manufacturing).....	4283
Carbon paper manufacturing (no paper manufacturing).....	4275
Cork paper manufacturing (no paper manufacturing).....	4277
Corrugated paper manufacturing (no paper manufacturing).....	4284
Dress pattern manufacturing—paper only—including designers, draftsmen, cutters, and all clerical force (no paper manufacturing).....	4282

This classification shall not include publication of magazines, for which classify as Publishing. (See page 42, group 270.)

Group 265. Paper Products (n. o. c.)—Concluded.	Manual number.
Fly paper manufacturing—no paper manufacturing (n. p. d.).....	4278
Music rolls manufacturing—perforated paper (no paper manufac- turing).....	4280
Oiled, paraffined, or waxed paper manufacturing (no paper manufac- turing).....	4276
Paper goods manufacturing (n. o. c.)—no paper manufacturing.....	4279
Roofing paper or roofing felt manufacturing.....	4285
Tag, check, and label manufacturing (not metal).....	4286

SCHEDULE 14.—PRINTING AND PUBLISHING.

Group 270. (Undivided.)	
Bookbinding.....	4307
Electrotyping (n. p. d.).....	4350
Engraving (n. o. c.) (n. p. d.).....	4352
Linotype and hand composition (n. p. d.).....	4308
Lithographing (n. p. d.).....	4302
Loose-leaf ledger and notebook manufacturing—including all opera- tions (n. p. d.).....	4309
Newspaper publishing.....	4304
Artists, designers, proof readers, editors, reporters, advertising and cir- culation solicitors should be classified as Clerical office employees. (See page 63, group 490.)	
Photo-engraving (n. p. d.).....	4351
Playing cards manufacturing (no paper or cardboard manufacturing).....	4306
Printing.....	4300
Artists, designers, proof readers, editors, reporters, advertising and cir- culation solicitors should be classified as Clerical office employees. (See page 63, group 490.)	
Publishing (not Newspaper publishing).....	4305
Artists, designers, proof readers, editors, reporters, advertising and cir- culation solicitors should be classified as Clerical office employees. (See page 63, group 490.)	
Wall paper manufacturing—designing, printing, and finishing (no paper manufacturing).....	4301

SCHEDULE 15.—TEXTILES.

Group 280. Wool Preparation.	
Wool combing.....	2260
Wool pulling.....	2264
Wool scouring (n. p. d.).....	2263
Wool separating—chemical separation of wool from cotton.....	2269
Group 281. Woolen Goods.	
Bunting manufacturing.....	2283
Felting manufacturing.....	2288
Haircloth manufacturing.....	2284
Hatters' fur manufacturing (n. p. d.).....	2230
Horse blanket manufacturing.....	2287
Upholstery fabric manufacturing.....	2281
Wool spinning and weaving—excluding shoddy manufacturing.....	2286

	Manual number.
Group 282. Cotton Goods.	
Awning and tent fabric manufacturing—shop only (no manufactur- ing of wooden pegs or iron frames)-----	2246
Canvas belting manufacturing-----	2245
Canvas manufacturing. (Classify as Duck cloth manufacturing.)	
Carding and fulling mills (n. p. d.)-----	2221
Cotton spinning and weaving-----	2222
Duck cloth manufacturing-----	2240
Hose manufacturing—cotton or linen-----	2242
Shade cloth manufacturing-----	2241
Thread manufacturing—cotton or linen-----	2224
Yarn manufacturing (n. p. d.)-----	2220
Group 283. Silk.	
Plush and velvet goods manufacturing-----	2300
Ribbon manufacturing-----	2301
Silk manufacturing-----	2303
Silk thread manufacturing-----	2302
Group 284. Linen.	
Linen cloth manufacturing-----	2326
Group 285. Carpets and Rugs.	
Carpet manufacturing-----	2400
Rug manufacturing—cotton, woolen, or silk-----	2401
Group 286. Batting, Wadding, and Shoddy.	
Cotton batting manufacturing—from cotton waste and new rags (n. p. d.)-----	2213
Cotton batting manufacturing—from cull cotton and new rags (n. p. d.)-----	2212
Cotton batting manufacturing—from cull cotton only (n. p. d.)-----	2211
Shoddy manufacturing—cotton-----	2214
Shoddy manufacturing—wool-----	2215
Wadding and waste manufacturing (n. p. d.)-----	2210
Group 287. Cordage.	
Cord and binder twine manufacturing—not cordage-----	2342
Cordage manufacturing-----	2340
Rope manufacturing-----	2341
Group 288. Burlap and Jute.	
Burlap and sack manufacturing—weaving-----	2345
Flax spinning and weaving-----	2320
Hemp spinning and weaving. (Classify as Jute and hemp spinning and weaving.)	
Jute and hemp spinning and weaving-----	2348
Rug and matting manufacturing—fiber-----	2346
Group 289. Knit Goods.	
Hosiery manufacturing—silk-----	2364
Hosiery manufacturing (n. o. c.)-----	2360
Hosiery manufacturing—from cop yarn (n. p. d.)-----	2361
Knitting mills-----	2363
Knitting mills—from cop yarn—no yarn manufacturing (n. p. d.)-----	2362

Group 290. Lace, Embroidery, and Webbing.	Manual number.
Badge manufacturing—cloth.....	2389
Embroidery manufacturing.....	2388
Fringe and braid manufacturing.....	2387
Incandescent gas mantle manufacturing.....	2390
Lace manufacturing.....	2386
Net manufacturing (not wire; no cordage or twine making).....	2384
Shoe string manufacturing.....	2385
Typewriter ribbon manufacturing.....	2383
Upholstery trimming manufacturing.....	2382
Webbing manufacturing—elastic or nonelastic.....	2380
Wicking manufacturing.....	2381
Group 291. Finishing Textiles.	
Bleacheries.....	2414
Cloth printing. (Classify as Textiles—dyeing, finishing, etc.)	
Cloth sponging (n. p. d.).....	2415
Finishing of textiles—new goods (n. p. d.).....	2413
Mercerizing cotton goods.....	2412
Textiles—dyeing, finishing, and printing new goods (not dyeing and cleaning).....	2413
Waterproofing cloth—not rubber.....	2411
Waterproofing cloth—rubber.....	2410
Yarn finishing—including dyeing—no manufacturing of yarn (n. p. d.)	2416

SCHEDULE 16.—CLOTHING AND FURNISHINGS.

Group 300. Clothing.	
Cloak manufacturing.....	2501
Clothing manufacturing.....	2501
Dressmaking.....	2503
Fur-goods manufacturing (not preparing skins).....	2502
Group 301. Shirts, Collars, Etc.	
Collar and cuff manufacturing.....	2520
Shirt manufacturing.....	2521
Group 302. Furnishing Goods.	
Corset manufacturing.....	2554
Furnishing goods manufacturing—wearing apparel (n. o. c.) (n. p. d.)	2553
Glove and mitten manufacturing—cloth—sewed.....	2561

This classification is available only in case no manual classification or classifications specifically describe the risk, or if more than one classification, and pay-roll division in accordance with the rules in respect thereto is not possible.

Glove and mitten manufacturing—silk, woolen, or thread (knit).....	2552
Handkerchief manufacturing—no weaving.....	2555
Necktie manufacturing.....	2551
Suspender manufacturing.....	2556
Suspender manufacturing—no buckle, webbing, or leather parts manu- facturing (n. p. d.).....	2550
Umbrella manufacturing (not manufacturing frames and handles)....	2560

The manufacturing of umbrella handles should be classified and rated as Cane manufacturing. (See page 36, group 184.) The manufacturing of umbrella frames and hardware should be classified and rated as Wire goods manufacturing (n. o. c.)—no wire drawing. (See page 29, group 124.)

	Manual number.
Group 303. Headwear.	
Bonnet frame manufacturing (no wire manufacturing)-----	2533
Cap and hat manufacturing—cloth-----	2535
Feather and flower manufacturing—artificial-----	2534
Hair goods manufacturing-----	2536
Hat manufacturing—not straw or cloth-----	2530
Hat manufacturing—straw-----	2531
Millinery manufacturing-----	2532
Group 304. Miscellaneous Needlework.	
Awning and tent manufacturing—shop only-----	2574
Bag manufacturing—burlap, sacking—sewing only-----	2575
Feather pillow manufacturing-----	2572
Mattress manufacturing (no spring or wirework or excelsior manu- facturing)-----	2570
Quilt manufacturing-----	2571
Sail making-----	2573
Group 305. Laundering, Cleaning, and Dyeing.	
Carpet cleaning and beating-----	9640
Cleaning and dyeing-----	2583
Laundries (n. o. c.)-----	2581
Laundries (no machinery) doing handwork exclusively (n. p. d.)-----	2582
Laundries—wet wash (no flat-work ironing or operating power-iron- ing machine)-----	2580
Wet wash laundries operating flat-work ironers or other power-ironing machines should be classified as Laundries (n. o. c.).	
Towel and toilet supply companies—including (if no laundry opera- tions are conducted) all employees except clerical office employees, drivers and drivers' helpers, chauffeurs and chauffeurs' helpers-----	
	2584

SCHEDULE 17.—FOODS, BEVERAGES, AND TOBACCO.

Group 310. Flour and Grist Mill Products.	
Breakfast food manufacturing—prepared foods—excluding oatmeal and corn milling-----	2016
Cattle and stock food manufacturing-----	2009
Corn mills-----	2010
Flour mills-----	2011
Grist mills-----	2012
Hominy mills-----	2013
Millers (n. o. c.)-----	2014
Poultry food manufacturing-----	2015
Rice milling-----	2017
Group 311. Baking.	
Bakeries-----	2000
Cracker manufacturing-----	2001
Macaroni manufacturing-----	2002
Group 312. Coffee and Spices.	
Bean sorting and handling-----	2054
Coffee cleaning, roasting, and grinding-----	2050
Mustard mills-----	2051
Nuts—handling, cleaning, and shelling (n. p. d.)-----	2052
Spice mills-----	2053

	Manual number.
Group 313. Beet-Sugar Refining.	
Beet-sugar manufacturing.....	2030
Group 314. Sugar Refining—Cane.	
Molasses and sirup manufacturing (no glucose).....	2020
Sugar refining (not beet-sugar manufacturing).....	2021
Group 315. Confectionery.	
Chewing gum manufacturing.....	2042
Chocolate manufacturing.....	2042
Cocoa manufacturing.....	2042
Coconut shredding and drying (n. p. d.).....	2043
Confectionery manufacturing.....	2041
Ice cream manufacturing.....	2040
Licorice manufacturing.....	2044
Group 316. Dairy Products.	
Butter manufacturing.....	2067
Cheese manufacturing.....	2061
Condensed milk manufacturing (no can manufacturing).....	2062
Creameries and dairies (not farming).....	2063
Milk products manufacturing (n. o. c.)—no can manufacturing.....	2065
Group 317. Slaughter and Packing Houses.	
Packing houses—all operations incidental to packing houses except lard refining, butterine manufacturing, fertilizer manufacturing, soap manufacturing, and slaughtering including handling of live stock....	2090
Packing houses—curing hams, bacon, and meat products, including packing in jars or cans—no handling of live stock, no slaughtering, no handling of carcasses, and no other operations incidental to pack- ing-house operations (n. p. d.).....	2093
Sausage-case manufacturing (n. p. d.).....	2091
Sausage manufacturing.....	2092
Serum (hog) manufacturing—including packing-house operations....	2083
Slaughtering, including handling of live stock.....	2081
Group 318. Canning and Preserving.	
Canneries (n. o. c.)—no can manufacturing.....	2111
Compressed food manufacturing—tablet form only (n. p. d.).....	2104
Fish curing and packing—no vessel hazard or ice harvesting—no can manufacturing (n. p. d.).....	2101
Fruit evaporating—excluding box manufacturing.....	2102
Fruit packing (no canning, no evaporating or preserving—excluding box manufacturing).....	2105
Fruit preserving (not canneries). (Classify as Jams, jellies, and pre- serves—preparing.)	
Jams, jellies, and preserves—preparing (not canneries).....	2112
Oystermen—sorting, shucking, washing, packing—shore and dock work only (n. p. d. in canneries).....	2114
Pickle manufacturing.....	2110
Group 319. Malting and Brewing.	
Breweries—with or without bottling—excluding drivers and drivers' helpers, chauffeurs, and chauffeurs' helpers.....	2121
Malt houses—excluding drivers and drivers' helpers, chauffeurs and chauffeurs' helpers.....	2125

	Manual number.
Group 320. Bottling—Under Pressure.	
Bottling.....	2161
Mineral water manufacturing—artificial.....	2160
Group 321. Bottling—Not Under Pressure.	
Bottling (n. p. d.).....	2165
Mineral or spring water bottling—natural.....	2166
Group 322. Distilleries.	
Distilling.....	2130
Group 323. Fermented Liquors.	
Cider manufacturing.....	2141
Vinegar manufacturing.....	2140
Wine manufacturing.....	2142
Group 324. Tobacco.	
Cigar or cigarette manufacturing—hand made (n. p. d.).....	2171
Cigar or cigarette manufacturing—machine made.....	2170
Tobacco manufacturing (n. o. c.).....	2173
Tobacco manufacturing—snuff.....	2175
Tobacco rehandling and warehousing.....	2174
Group 325. Ice.	
Ice manufacturing—excluding drivers and drivers' helpers, chauffeurs, and chauffeurs' helpers.....	2150

SCHEDULE 18.—MISCELLANEOUS MANUFACTURED PRODUCTS (N. O. C.).

Group 330. Lead Pencils and Crayons.	
Crayon manufacturing.....	2941
Lead pencil manufacturing.....	2940
Group 331. Advertising and Art Novelties.	
Advertising novelties manufacturing (not exclusively wood, metal, or celluloid).....	4950
This classification is applicable to concerns engaged exclusively in the manu- facture of a miscellaneous line of advertising novelties.	
Art novelties (n. o. c.)—finishing and assembling only—no stamping (n. p. d.).....	4951
Group 332. Photographic Goods.	
Photographic sensitive films and dry plates—manufacturing and de- velopment of negatives only.....	4921
Photographic supplies manufacturing.....	4923
Group 333. Sporting and Military Goods.	
Fishing rod manufacturing.....	4901
Fishing tackle manufacturing (n. o. c.).....	4900
Military or fraternal orders equipment and regalia manufacturing (n. o. c.)—no stamping.....	4904
Sporting goods manufacturing (n. o. c.).....	4902
Whip manufacturing.....	4903
Group 334. Buffing Wheels and Steam Packing.	
Buffing wheel manufacturing—cloth or leather only.....	4980
Steam packing manufacturing (not metal).....	4982
Group 335. Butchers' and Dairy Supplies.	
Butchers' supplies manufacturing.....	4910
Creamery and dairy supplies manufacturing.....	4911

	Manual number.
Group 336. Soda-Water Apparatus.	
Soda-water fountain and apparatus manufacturing-----	4940
Group 337. Artificial Limbs.	
Artificial limb manufacturing-----	4970
Group 338. Painting (shop).	
Painting—automobile and carriage bodies only (n. p. d.)-----	9505
Painting (n. p. d. in manufacturing plants)-----	9501
Sign painting-----	9500
Theatrical scenery painting (no woodworking)-----	9506
Group 339. Photography.	
Film exchanges—with or without projecting room, not located at motion-picture studios-----	4362
Motion pictures—development of negatives, printing positives, and all subsequent operations except the marketing of the product through film exchanges at locations other than the studios-----	4360
Photograph studios (not producing motion pictures)-----	4361
Group 340. Diamond Cutting.	
Diamond cutting and polishing (n. p. d.)-----	4930
Group 341. Taxidermists.	
Taxidermists-----	9600

DIVISION D.—CONSTRUCTION.

SCHEDULE 1.—WRECKING AND MOVING.

Group 350. Raising and Wrecking.	
Building moving—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers-----	5703
Building raising—shoring buildings, removing walls and foundations, columns and piers, and rebuilding same-----	5702
Salvage operations—all operations in damaged buildings or elsewhere incidental to the sorting, removing, storing, reconditioning, and dis- tributing of merchandise from buildings previously damaged by fire (no wrecking, shoring, or other structural operations)-----	5705
Salvage operations—in buildings damaged by fire—all operations inci- dental to wrecking, shoring, or other structural work in buildings previously damaged by fire, including the handling of machinery----	5704
Wrecking (not marine; no blasting)-----	5701
Group 351. Blasting.	
Blasting—including the whole remuneration of all employees engaged in the storage, handling, or use of explosives; loading, capping, con- necting, and firing; with an additional minimum premium of \$25---	6280
State or municipal road or street making—including culverts not exceeding 10-foot span—blasting-----	6280

SCHEDULE 2.—GRADING, EXCAVATING, AND FOUNDATIONS.

Group 360. Surveying.	
Surveying and inspecting engineer work, including sharpening of stakes and other shopwork incident to surveying and inspection of construction operations—no actual construction operations of any description and no supervising or superintending of construction op- erations (n. p. d.)-----	6030

	Manual number.
Group 361. Clearing and Grading.	
Clearing land, removing stumps, and grading for agricultural purposes exclusively—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	6040
Grading land (no canal or cellar excavation; excluding railroad construction and road or street making; no quarrying or blasting)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	6041
Landscape gardening (no blasting)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	6046
State or municipal road or street making—including culverts not exceeding 10-foot span—all operations except quarrying and blasting..	6042
<p>The classification above includes the setting up and taking down of road-making equipment and appliances at the place of work, and the operation of road-making machinery or vehicles, with or without horses or other draft animals, also the operation of trucks, traction engines, and steam rollers or other vehicles in connection with the work of transporting material, merchandise, and equipment to and from the place of work. The wages of all drivers and helpers, chauffeurs and their helpers, and others engaged in connection therewith to be included in the pay roll and subjected to the rates. If teams are hired by contract, including drivers, then 50 per cent of the contract price of the team shall be accepted in lieu of drivers' wages, and if automobile trucks are hired by contract, including chauffeurs, then 25 per cent of the contract price of the automobile trucks shall be accepted in lieu of chauffeurs' wages.</p>	
Group 362. Excavating and Pile Driving.	
Cellar excavation (no caisson or subaqueous work and no blasting)—maximum depth of excavation 12 feet (n. p. d.).....	6227
Cellar excavation (no caisson or subaqueous work)—including digging holes and filling them with concrete for foundations for buildings.....	6220
Ditch digging (no sewer or canal building or excavation for water or gas mains and no blasting).....	6225
Dredging, etc.—drilling and blasting.....	6231
Dredging—excavation by means of suction dredges only—including loading and unloading.....	6224
Dredging—by floating dredges—all operations except rock drilling and blasting.....	6223
Excavation—bridge foundations, retaining walls, and bases of dams (no caisson work or cellar excavation and no blasting).....	6221
Pile driving—building foundations only.....	6222
Sewage disposal plants—construction—for private houses, institutions, or hotels, and not connected with public sewers (no blasting).....	6226
Group 363. Drilling.	
Artesian well drilling.....	6201
Diamond drilling.....	6200
Drilling work (not diamond drilling)—prospecting for ore (no shaft sinking; no blasting).....	6203
Oil producing—drilling new wells, cleaning out and drilling old wells deeper, erecting or dismantling derricks.....	6202
Group 364. Tunnels and Subways.	
Caisson work—bridges and other subaqueous work—including all employees working under air pressure and all others engaged in or upon the caissons or the apparatus connected therewith.....	6250

	Manual number.
Group 364. Tunnels and Subways—Concluded.	
Caisson work—building foundations—including all employees working under air pressure and all others engaged in or upon the caissons or the apparatus connected therewith.....	6253
Shaft sinking.....	6252
Subway construction—for passenger and freight traffic—tunneling only.....	6254
Subway construction—for passenger and freight traffic—open cut or cut and cover (no tunneling).....	6255
Tunneling—including all work to completion.....	6251
Group 365. Ditch Digging with Pipe Laying.	
Cesspool digging—including incidental concrete lining (no blasting)...	6304
Conduits for electric wires—construction work (no blasting).....	6325
Gas works—laying of mains and connections (no tunneling or blasting).....	6324
Oil pipe.....	6326
Pneumatic tubes—installation, including construction, care and maintenance of conduits and manholes (no blasting).....	6331
Refrigerating companies—excavation and laying and repair of pipe lines (no blasting).....	6322
Sewer building—maximum depth of excavation 7 feet at any point (n. p. d.) (masonry work in connection with sewers should be classified as sewer building).....	6302
This classification not available to any sewer contract, the maximum depth of which exceeds 7 feet at any point.	
Sewer building—no limit of depth (masonry work in connection with sewers should be classified as sewer building).....	6300
Sewer contracts involving sections less than 7 feet in depth and sections more than 7 feet in depth should be submitted to the home office for classification.	
Steam heating—laying of mains and surface or house connections (no tunneling or blasting).....	6320
Waterworks—laying of mains and surface or house connections (no tunneling or blasting).....	6321
Group 366. Canals.	
Canal construction—excluding barge canal construction—all operations in connection therewith, except railroad operations, bridge building, caisson work, and wrecking.....	6361
The above excepted classifications to take full manual rates. For contracts involving the performance of dredging work only, no rock work, no blasting, and no other operations of any nature whatsoever, classify as Dredging—by floating dredges. (See page 49, group 362.)	
Group 367. Masonry.	
Blast furnaces—erection, repair, and relining.....	5002
Bridge building—masonry other than concrete (no blasting).....	5021
Chimney construction—stone, brick, or concrete (not structural iron or steel).....	5000
Gas benches and retorts, installation of (n. p. d.)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	5026
Marble and stone setting—away from shop (no blasting).....	5024
Marble and stone work—decoration in place only.....	5320
Masonry—building chimneys only (no structural iron or steel and no blasting).....	5000

	Manual number.
Group 367. Masonry—Concluded.	
Masonry (n. o. c.)—no blasting.....	5022
Masonry work in connection with sewers should be classified as Sewer building (see page 50, group 365), and not Masonry (n. o. c.).	
Mausoleums and monuments in cemeteries—erection only.....	5321
Sewage disposal plants—public—construction (no sewer construction or blasting).....	5020
Silo erection—brick, hollow tile, concrete blocks, and concrete staves.....	5025
Smokestacks and chimneys—lining.....	5001
Statuary in connection with mausoleums, monuments, or mortuary work—erection only.....	5322
Tunnel lining—masonry or concrete (for previously driven tunnels otherwise completed by other contractors).....	5023
This classification not available if lining is done by contractors constructing tunnel.	

SCHEDULE 3.—ERECTING.

Group 370. Structural-Iron Erecting.	
Bridge building—metal (no blasting).....	5067
Gas holders—metal—erection.....	5047
Iron and steel lock gates—construction and installation.....	5061
Ironwork—elevated railroads—erecting steel and iron frame work (no bridge building).....	5046
Ironwork—erecting steel and iron frame structures (no bridge building)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	5040
Ironwork—placing iron and steel store fronts as alterations of existing buildings—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	5045
Merry-go-rounds, swings, and other similar movable amusement devices—erecting, repairing, dismantling, and removing.....	5066
Painting—steel structures and bridges.....	5041
Silo erection—metal.....	5063
Smokestacks and chimneys—metal—erection (no blasting).....	5042
Tanks (n. o. c.)—metal—erection (no blasting).....	5048
Vaults—fire and burglar proof—construction and installation.....	5065
Vaults—prison vaults and cells—erection.....	5060
Waterworks—erecting standpipes and water towers (no blasting).....	5043
Group 371. Metal Construction (outside).	
Corrugated-iron buildings—erecting or covering buildings already constructed (no structural-steel work).....	5086
Electric cutting and welding—including shop.....	5083
Fireproof shutters—erection and repair.....	5082
Ironwork—erecting and repairing balconies, fire escapes, railings, staircases, coal chutes, fireproof shutters (outside of buildings)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	5081
Lightning rods—erection.....	5080
Oxyacetylene cutting and welding (autogenous)—away from shop.....	5084
Windmills—erection.....	5085

	Manual number.
Group 372. Concrete Construction.	
Concrete erection—unit system—construction of concrete columns, beams, roofs, walls, and floors in sections including subsequent erection and placing of same.....	5200
Concrete mixers (mechanical)—operation (n. p. d.).....	5205
Concrete work—bridge building—including those engaged in making, setting up, and taking down frames, scaffolds, false work, and concrete-distributing apparatus (no blasting).....	5203
Concrete work—buildings (not grain elevators)—concrete construction, without reinforcement, either monolithic in form or by means of blocks, in which floors, beams, and horizontal bearing surface are not of reinforced or self-bearing concrete—including those engaged in making, setting up, and taking down frames, scaffolds, false work, and concrete-distributing apparatus (no blasting).....	5208
Concrete work—buildings (not grain elevators)—reinforced concrete construction, with self-bearing floors or other horizontal surfaces or parts, constructed by means of reinforced concrete—including those engaged in making, setting up, and taking down frames, scaffolds, false work, and concrete-distributing apparatus (no blasting).....	5204
Concrete work—dams—including those engaged in making, setting up, and taking down frames, scaffolds, false work, and concrete-distributing apparatus (no blasting).....	5207
Concrete work—foundations for buildings—including those engaged in making, setting up, and taking down frames, scaffolds, false work, and concrete-distributing apparatus—excluding all work in tunnels, subways, or caissons for which use proper classifications and rates.....	5209
Concrete work—grain elevators—including those engaged in making, setting up, and taking down frames, scaffolds, false work, and concrete-distributing apparatus.....	5206
Concrete work—piers or abutments for bridges (not concrete bridges), retaining walls, water conduits (no tunneling), and other structures (no buildings, bridges, or dams)—including those engaged in making, setting up, and taking down frames, scaffolds, false work, and concrete-distributing apparatus—excluding all work in tunnels, subways, or caissons, for which use proper classifications and rates.....	5210
Fireproof construction—by means of wire lathing and concreting—excluding roofs, floors, and horizontal surfaces.....	5212
Fireproof construction—reinforced or suspended concrete floors.....	5201
Silo erection—concrete.....	5202
Group 373. Signs, Awnings, Etc.	
Advertising signs—erection and repair only—excluding sign painting on buildings.....	9540
Advertising signs—maintenance and operation.....	9542
Awning and tent erection.....	9543
Bill posting (no erection or repair of signs).....	9545
Decorating, interior and exterior—hanging flags and bunting for conventions and celebrations.....	9544
Sign painting or lettering on buildings or structures.....	9541
Group 374. Fence Construction.	
Fence construction—wood, stone, metal, or concrete.....	6400

	Manual number.
Group 375. Carpentry (outside).	
Bridge building—wood (no blasting).....	5407
Buildings (portable)—erection of sectional buildings.....	5405
Carpentry (n. o. c.).....	5401
Carpentry work in connection with wooden bridges should be classified as Bridge building—wood.	
Hothouses—erection.....	5402
Scaffolds—installation, operation, and removal.....	5406
This classification is available only to concerns engaged in installing and leasing scaffolds to contractors. Includes the operation and removal of same when work has been completed.	
Silo erection—wood.....	5400
Tank erection—wood.....	5404
Group 376. Building Construction (n. o. c.).	
Additions to, alteration, and repair of assured's existing buildings or plants (not maintenance of equipment covered as manufacturing operation)—excluding the erection or demolition of structural steel or any fabricated iron or steel product or structure or the construc- tion of sewers, tunnels, shafts, or subways.....	
	5602
This classification is not available to contractors.	
Architects—supervising.....	5603
Contractors—building private residences, flats, or apartments, with or without stores, one-story stores and stores with offices above, private stables and private garages, exclusively, and buildings not mercan- tile or factory, all not exceeding three stories and basement in height, including jobbing work connected therewith (no blasting)— excluding the erection of churches, theaters, railroad stations, roundhouses, courthouses, city halls, and capitol buildings.....	
	5640
Masonry or concrete work.....	5642
Carpentry work, including interior trim and cabinetwork.....	5643
Cellar excavating.....	5644
Any other operations incident to the construction of the class of buildings described under the foregoing classification, such as structural-iron work, painting, plumbing, roofing, and plastering, should take the regular manual rate for such operations.	
Contractors—general—where all work is subcontracted, or where contractor performs work involving more than one manual classi- fication:	
For watchmen, timekeepers, and cleaners only.....	5604
For officers, superintendents, and other employees supervising the entire work.....	5606
For superintendents only.....	5605
Superintendents only can not be insured except at the highest rated manual classification for any direct work involved.	
Jobbing work—on buildings, other than private residences—excluding iron and steel erection and the demolition of buildings (n. p. d.)..	5601
Owners engaged in construction work or for whom construction work is being done. (Classify as Contractors—general.)	
Group 377. Painting, Plastering, and Decorating (outside).	
Cleaning and renovating outside surfaces of buildings.....	5469
Glaziers—away from shop.....	5462

	Manual number.
Group 377. Painting, Plastering, and Decorating (outside)—Concluded.	
Painting and decorating—away from shop (not interior work)—excluding painting steel structures and bridges.....	5461
Plastering on outside of buildings (n. o. c.). (Classify as Stucco work on outside of buildings.)	
Staff work—erecting buildings or structures.....	5471
Stuccowork on outside of buildings.....	5472
Tuck pointing (n. p. d.).....	5470
Waterproofing—cellars and foundations.....	5467
Waterproofing—in or on structures by means of felt, paper, burlap, or pitch—no roofing and no subaqueous work (n. p. d.).....	5466
Group 378. Roofing.	
Cornices and skylights—erection and repair.....	5540
Galvanized-iron and sheet-iron work—erection and repair (no tank erection)	5541
Roofing (n. o. c.).....	5545
Roofing—slate	5546
Tinsmithing—away from shop.....	5543
Group 379. Dams, Breakwaters, Etc.	
Cribwork.....	6006
Dam construction—excluding construction of concrete dams (no blasting)	6002
Dry docks—construction (no blasting).....	6008
Jetty and breakwater—construction (no blasting).....	6005
Marine railway—construction.....	6004
Pile driving—including timber wharf building.....	6003
Waterworks—construction of pumping stations, dams, and reservoirs..	6010
Group 380. Railroad Construction (all kinds).	
Railroad construction—electric—rail joint welding in street by molten metal or electricity.....	6100
Railroad construction—electric, horse, or cable (not including third-rail systems)—laying or relaying of rails exclusively—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers (n. p. d.).....	6104
Railroad construction—electric, horse, or cable, with or without installation of electric equipment or pole lines connected therewith—including incidental culverts not more than 10-foot span; urban or interurban lines (no blasting, tunneling, or bridge building)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	6105
Railroad construction—steam (no blasting, tunneling, or bridge building)—including incidental culverts not more than 10-foot span and steam-shovel work—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	6102
Railroad construction—steam (no blasting, tunneling, or bridge building)—including incidental culverts not more than 10-foot span (no steam-shovel work)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers (n. p. d.).....	6103
Railroad signals—erection or installation (not including operation of railroad).....	6101

	Manual number.
Group 381. Boat and Ship Building (wood).	
Boat building—constructing canal boats, scows, and barges (n. p. d.)	6803
Boat building (n. o. c.)—where staging or scaffolding is used—including shop and yard work	6801
Dry docks (floating)—construction	6802
Ship and boat building. (Classify as Boat building.)	
Group 382. Boat and Ship Building (steel or iron).	
Boat building (n. o. c.)—where staging or scaffolding is used—including shop and yard work	6840
Ship and boat building. (Classify as Boat building.)	
Group 383. Yachts and Rowboats.	
Boat building—constructing or repairing motor boats—wood or metal—not exceeding 75 feet over all—including shop and yard work (n. p. d.)	6823
Boat building—constructing or repairing small yachts, sailboats, or rowboats—wood or metal—not exceeding 150 feet over all—including shop and yard work (n. p. d.)	6820
Boat building—constructing or repairing small yachts, sailboats, or rowboats—wood or metal—not exceeding 40 feet over all—including shop and yard work (n. p. d.)	6821
Canoe building	6822
Group 384. Boat and Ship Repairing and Rigging.	
Dry docks—operating docks and repairing of vessels only, including shipwright work (no construction of docks)	6860
Marine railway—handling boats, displacement over 80 tons	6862
Marine railway—handling boats, displacement 80 tons or less (n.p.d.)	6863
Rigging—ship or boat (n. p. d.)	6864
Shipwright work—repairing vessels or the machinery therein, including work in dry docks	6866
Shipwright work—repairing vessels or the machinery therein while afloat (no operations of dry dock or on dry dock)	6861
Shipwright work—shop employees	6865

SCHEDULE 4.—FINISHING, EQUIPPING, AND INSTALLING.

Group 390. Metal Construction (within buildings).	
Appliances (n. o. c.)—installing and erecting copper and other sheet metal wholly inside buildings not in course of construction. (Classify as Coppersmithing—installing and erecting.)	
Coppersmithing—away from shop	5111
Coppersmithing—installing and erecting appliances, copper and other sheet metals—wholly inside buildings not in course of construction	5105
Door, window frame, or sash—erection and repair—metal or metal covered	5103
Ironwork—ornamental—erection within buildings	5100
Locksmithing—repairing, fitting, and installing locks in completed buildings (including shop)	5113
Metal ceilings and wall coverings—installation	5101
Ornamental brass, bronze, and ironwork within buildings—erection	5100
Safety treads—installation	5109
Tank building—metal—erection within buildings exclusively	5112

	Manual number.
Group 390. Metal Construction (within buildings)—Concluded.	
Theater stage rigging—setting up ornamental, architectural, and theater ironwork and all mechanical effects over stages of theaters, including hanging of signs, setting stairways, iron beams, and lintels, all included in the operations of stage rigging.....	5108
Window frames—metal—installation	5104
Wirework—interior erection only—excluding ornamental brass, bronze, or iron work.....	5110
Group 391. Elevator Erection (passenger or freight).	
Elevator erection.....	5160
Elevators—repairs only.....	5161
Hod hoists—installation, operation, and removal of hod elevators and construction hoists.....	5163
Group 392. Metal Appliances (installing within buildings).	
Carrier systems—installation and repair—inside of mercantile buildings only—gravity, pneumatic, or power.....	5143
Installation of freight-carrier systems to be classified with Millwright work. (See group 393, below.)	
Gravity chutes—erection.....	5145
Mail chutes—installation	5142
Office furniture and fixtures—metal—erection.....	5140
Window-opening devices—installation	5141
Group 393. Millwrighting.	
Acetylene-gas machines—installation.....	3722
Automatic stokers—installation.....	3734
Bakers' ovens—portable—installation or removal.....	3721
Boilers (steam)—installation and repair, including construction of necessary concrete or masonry foundations—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	3726
Brewery vats—metal and wood—installation.....	3728
Conveyors and hoisting apparatus—coal, ash, and ore—erection outside of buildings.....	3701
Conveyors—coal and ash—installation inside of buildings (in connection with power and manufacturing plants).....	3720
Cranes and derricks—installation.....	3700
Engines—installation—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	3727
Galvanized iron tanks (complete)—installation of, for irrigation or for agricultural purposes—with earth or masonry foundations (no tank building). (Classify as Boilers (steam)—installation.)	
Leather belting—installation and repair.....	3732
Mailing and addressing machines—installation.....	3736
Millwright work—erection and repair of machinery—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers....	3724
Employees of assured engaged in millwright work on premises of the assured must be included in the governing classification.	
Pumps—installation	3729
Refrigerating machinery—installation.....	3723
Group 394. Plumbing and Heating.	
Automatic sprinkler—installation.....	5188
Furnaces (heaters or stoves)—installation.....	5181

	Manual number.
Group 394. Plumbing and Heating—Concluded.	
Gas, steam, and hot water apparatus fitting—including installation of ventilating plants—shop and outside.....	5182
Plumbing—including house connections—including shop pay roll, if any.....	5183
Soap dispensers—installation and inspection.....	5180
Steam pipes or boilers—applying cork, asbestos, and other nonconduct- ing materials to same.....	5184
Thermostats—installation.....	5186
Vacuum-cleaning systems—installation.....	5185
Group 395. Electrical Equipment.	
Electrical equipment—installation and repairs within buildings and on buildings incidental to such inside work, including the making of service connections for such work—excluding the installation of equipment in power plants.....	5190
Group 396. Marble, Tile, and Plaster Blocks (within buildings).	
Fireproofing—tile construction and repair.....	5343
Floor surfacing by machines operated by electricity.....	5346
Mantle setting and repairing (n. p. d.).....	5340
Marble and stone setting—inside construction only.....	5341
Mosaic work.....	5345
Plaster block partitions (not fireproof tile).....	5347
Soda-water fountains—installation and repair.....	5342
Tile installation.....	5344
Group 397. Carpentry Work (within buildings).	
Carpentry—installation of interior trim, such as builders' finish and cabinetwork.....	5437
Ladders—installation.....	5432
Lathing.....	5443
Parquet-floor laying.....	5436
Refrigerators—erection, installation, and repair.....	5440
Showcases—erection and installation.....	5435
Stair building (wooden)—erection (n. p. d.).....	5431
Wall board—installation (no plaster board). (Classify as Car- pentry—installation of interior trim.)	
Waether-strips—installation.....	5434
Window screens—installation.....	5442
Group 398. Plastering, Painting, and Decorating (within buildings).	
Painting and decorating—away from shop.....	5490
Paper hanging.....	5491
Plaster board—erection away from shop.....	5481
Plastering (n. o. c.).....	5480
Sign painting or lettering.....	5483
Group 399. Paving (outside).	
Asphalt laying—street or sidewalk—including shop and yard.....	5503
Concrete work—floors or pavement of artificial stone or concrete, not reinforced or self-bearing.....	5502
Light prisms—installation and repair.....	5501
Paving (n. o. c.)—including yards.....	5500
Sidewalk calking.....	5504

DIVISION E.—TRANSPORTATION AND PUBLIC UTILITIES.

SCHEDULE 1.—STEAM RAILROADS.

	Manual number.
Group 410. (Undivided.)	
Logging railroad—operation—including maintenance and extension of existing lines.....	7100
Railroad hazard—in connection with manufacturers' and contractors' risks	7102
Railroad operation: Steam railroads—including ordinary maintenance and repair of roadbed—	
Shop employees.....	7103
All other employees.....	7101

SCHEDULE 2.—ELECTRIC RAILROADS.

Group 420. Street Railroads.	
Railroad operation:	
Street railroads—cable—including ordinary maintenance and repair of roadbed—	
Shop employees.....	7124
All other employees.....	7121
Street railroads—electric—all systems, not interurban—including ordinary maintenance and repair of roadbed—	
Shop employees.....	7126
All other employees.....	7122
Street railroads—electric—interurban—including ordinary maintenance and repair of roadbed—	
Shop employees.....	7123
All other employees.....	7120
Group 421. Elevated Railroads.	
Railroad operation: Elevated railroads—including ordinary maintenance and repair of roadbed—	
Shop employees.....	7141
All other employees.....	7140

SCHEDULE 3.—CARTAGE AND STORAGE.

Group 430. Drivers and Stablemen.	
Breweries—drivers and drivers' helpers.....	7215
Cab companies (horse)—including all except clerical office employees..	7202
Coal merchants—receiving or shipping by water or by land and water, including stevedoring operations when performed by the assured by means of power machinery—drivers and drivers' helpers.....	7212
Coal merchants—receiving or shipping by land, but not by water, where power machinery is used either for loading or unloading or spotting cars—drivers and drivers' helpers.....	7213
Coal merchants—receiving or shipping by land or water, where no power machinery is used for loading or unloading or spotting cars—drivers and drivers' helpers.....	7214
Drivers and drivers' helpers.....	7205
The rate for this classification is not applicable to those classifications which specifically provide for inclusion of pay roll of drivers and drivers' helpers at the rate for such classifications.	
Horse shows—in halls, theaters, or auditoriums, exclusively—stablemen	7200
Ice manufacturing—drivers and drivers' helpers.....	7216

	Manual number.
Group 430. Drivers and Stablemen—Concluded.	
Livery and boarding stables—including drivers and drivers' helpers (not sales stables).....	7201
Malt houses—drivers and drivers' helpers.....	7217
Omnibus companies (horse)—including all except clerical office em- ployees	7204
Riding academies, clubs, and schools—porters, waiters, grooms, stable- men, and all other employees engaged in the care, custody, and maintenance of stables and animals—excluding extraordinary addi- tions, alterations, or repairs).....	7207
Stablemen (not livery, boarding, or sales stables).....	7200
Truckmen—general trucking (n. o. c.)—including all such employees as drivers, drivers' helpers, chauffeurs, chauffeurs' helpers, stable- men, blacksmiths, repairmen, and riggers—excluding only clerical office employees and storage warehouse employees, who must take the proper manual rates applicable therefor.....	7208
This classification shall not be available for truckmen engaged exclusively in any of the operations where the classification specifically includes the pay roll of drivers and drivers' helpers, such as the handling of boilers, building materials, coal, garbage, refuse and ashes, ice, junk and scrap iron, machinery, railway iron, safe moving, structural iron and steel.	
Truckmen—drivers, helpers, and stablemen only—excluding black- smiths, repairmen, rigging and the trucking of boilers, building ma- terial, coal, garbage, refuse and ashes, ice, junk and scrap iron, machinery, railway iron, safe moving, structural iron and steel (n. p. d.).....	7211
Group 431. Chauffeurs.	
Automobile livery, garages, and taxicab stations—chauffeurs.....	7382
Breweries—chauffeurs and chauffeurs' helpers.....	7388
Chauffeurs and chauffeurs' helpers—commercial.....	7380
This rate is not applicable to those classifications which specifically provide for inclusion of pay roll of chauffeurs and chauffeurs' helpers at the rate for such classifications.	
Coal merchants—receiving or shipping by water or by land and water, including stevedoring operations when performed by the as- sured by means of power machinery—chauffeurs and chauffeurs' helpers	7385
Coal merchants—receiving or shipping by land but not by water where power machinery is used either for loading or unloading or spotting cars—chauffeurs and chauffeurs' helpers.....	7386
Coal merchants—receiving or shipping by land or water where no power machinery is used for loading or unloading or spotting cars— chauffeurs and chauffeurs' helpers.....	7387
Ice manufacturing—chauffeurs and chauffeurs' helpers.....	7389
Malt houses—chauffeurs and chauffeurs' helpers.....	7390
Group 432. Express Companies (operation).	
Express companies—urban or suburban (including the hazard of rail- road transportation)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	7361
Forwarding agents—packing, handling, and shipping merchandise on docks, railroad platforms—no stevedore work (n. p. d.).....	7360
Freight handlers (n. o. c.)—not loading or unloading vessels; not rail- road employees. (Classify as Forwarding agents.)	

	Manual number.
Group 433. Storage and Warehousing.	
Cold storage warehouses—operation	8291
Storage—baled cotton (no compressing or ginning)	8290
Storage—furniture	8293
Storage—general merchandise (n. o. c.)	8292
Warehouse—private—mercantile—used exclusively for storing surplus stock of assured—in buildings which are entirely separated from the store or other sales place	8294
For compensation coverage charge the rates applicable to the risk with which the warehouse is connected.	
Warehousing—general merchandise (n. o. c.)	8292
Group 434. Ice Harvesting.	
Ice harvesting and storing only—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers	9630
Group 435. Grain Elevators.	
Grain elevators—floating—operation only	8300
Grain elevators—line or terminal—operation	8301
Group 436. Refrigerator Cars.	
Refrigerator cars—loading and unloading and caring for freight in cars during transit	7340
Group 437. Oil Distributing.	
Oil distributing—excluding gasoline supply stations	8350
Group 438. Garages.	
Automobile livery, garages, and taxicab stations—employees of garage, excluding chauffeurs and clerical office employees	8330
Automobile dealers with or without garage and auto garages	8330
Entire remuneration of all employees, not excepting clerical (including execu- tive officers whose duties expose them to any operative hazard of the business) must be included without division. The actual remuneration of such executive officers and salesmen must be included in the pay roll, but not in excess of \$1,500 per annum per officer or salesman.	
Rubber-tire dealers—sale, repair, and vulcanizing, including adjust- ment of tire to vehicles away from premises of assured	8382
Group 439. Gasoline Supply Stations.	
Gasoline and oil supply stations—operation (for supplying automo- biles and motor boats)—minimum premium per location \$25	8390
Group 440. Riggers and Safe Movers.	
Bells (tower)—installation	9532
Rigging (not ship or boat)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers	9530
Safe moving—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers	9531
Group 441. Horseshoeing.	
Blacksmithing—shoeing	9590
SCHEDULE 4.—STOCKYARDS.	
Group 450. (Undivided.)	
Cattle dealers—not operating stockyards—not live-stock shipping (n. p. d.)	8282
Live-stock commission merchants and salesmen (not cattle dealers)— including work in stockyards but not operation of stockyards (no loading and unloading of cattle)	8284
Live-stock shipping (n. p. d.)	8281
Sales stables—including exhibition and delivery of horses	8280
Stockyards without railroad entry—with or without slaughtering	8285

SCHEDULE 5.—TRANSPORTATION BY WATER.

	Manual number.
Group 460. Vessels.	
Ferries.....	7006
Great Lakes steamers.....	7000
Great Lakes tugboats.....	7001
Inland lake vessels—excluding vessels on the Great Lakes.....	7007
Ocean and coastwise steamers.....	7004
Ocean and coastwise tugboats.....	7005
River and sound steamers.....	7003
River and sound tugboats.....	7008
Supply boats—supplying water or gasoline for shipping.....	7002
Group 461. Sailing Vessels.	
Great Lakes sailing vessels.....	7041
Ocean and coastwise sailing vessels.....	7042
Group 462. Fisheries.	
Fisheries—river only—including work on floats and on shore—including, if any, curing and packing fish and repairing nets and boats....	7071
Fishing vessels—motor boats and tugs only—engaged in net fishing and lobster hauling.....	7068
Fishing vessels—motor boats and tugs only (not seagoing)—engaged in net fishing and lobster hauling.....	7067
Fishing vessels (n. o. c.).....	7072
Fishing vessels—pound fishing only—including work on shore of packing, curing, and shipping fish, and repairing nets and boats.....	7066
Oystermen—planting and harvesting, and operation of boats—including entire remuneration of all employees.....	7073
Group 463. Barges, Lighters, and Canal Boats.	
Barges and lighters (n. o. c.)—operation.....	7060
Barges and lighters—ocean going—operation.....	7061
Boat livery—limited to boats under 15 tons, including laying up of boats and putting in commission, used for fishing and pleasure purposes.....	7063
Vessels of 15 tons and over should be written at regular rates for steamers and sailing vessels.	
Canal boats and scows—operation.....	7065
Yachts—private—either sail or power.....	7059
Group 464. Stevedoring.	
Steamship agencies—wharf employees, including stevedores and freight handlers.....	7302
Stevedoring—handling coal exclusively.....	7306
Stevedoring—handling coal, grain, salt, and other merchandise from lighters to steamships by means of mechanical conveyors only (n. p. d.).....	7303
Stevedoring—handling fruit, not general freight (n. p. d.).....	7305
Stevedoring—handling general freights—seagoing and lake vessels....	7300
Stevedoring—handling ore exclusively.....	7307
Stevedoring—river and sound steamers.....	7304
Group 465. Weighing and Tallying.	
Steamship agencies—wharf employees (clerks and tallymen only when stevedoring work is done by assured).....	8703
Steamship agencies—wharf employees (clerks and tallymen only when stevedoring work is let out by contract).....	8704

	Manual number.
Group 465. Weighing and Tallying—Concluded.	
Stevedoring—tallymen and checking clerks engaged in connection with stevedoring work	8703
Weighers and samplers of merchandise on vessels and docks and at railroad stations and warehouses—including mending and repacking of damaged containers, if any (no operation of warehouses; no stevedoring)	8705
Weighers on docks—when no stevedoring is done by assured	8702
Group 466. Marine Wrecking.	
Wrecking—marine—including salvage operations (no blasting)	6890

SCHEDULE 6.—PUBLIC UTILITIES (NOT TRANSPORTATION).

Group 470. Electric Light and Power.	
Cable (electric)—placing of same in conduits or subways	7536
Conduits—placing electric cable or wire therein (no conduit construction)	7536
Electric apparatus—erection and repair work only, including the making of service connections and the installation of equipment in power plants—excluding erection of poles and stringing of wires	7535
Electric light and power line construction work—excluding transmission lines not intended for local distribution (n. p. d.)	7534
Electric light and power line construction work—exclusively on transmission lines not intended for local distribution	7530
Electric light and power companies—operation, maintenance, extension of lines, and making of service connections	7531
Electric light and power companies—operation, maintenance, and extension of transmission lines not intended for local distribution	7532

The two preceding classifications require that all pay roll, including that expended for line construction, shall be subject to the rate of the classification unless the assured maintains an entirely separate department for installing electrical equipment which is operated by a separate set of employees, who are at no time engaged in connection with the operation of the power plant in any capacity. In such cases the pay roll of such employees shall be separately stated at the manual rates for the kind of installation work performed.

Under no circumstances shall this rule be interpreted to mean that the pay roll of the linemen may take any rate other than the operative rate of the plant.

If manufacturing or mercantile plants, insured at the manufacturing or mercantile rates applicable thereto, are engaged in the generating of electricity and supplying the same, or any part thereof, to other plants or buildings, the manufacturing or mercantile rate applicable to the plant or location covered shall be applied to all pay roll in that plant, including the pay roll engaged in the generation and distribution of the electric current, and, in addition thereto, there shall be charged as an extra rate upon that portion of the pay roll actually engaged in the generation and distribution of the electric current, including the maintenance of the equipment, a rate equal to 50 per cent of the rates for the two preceding classifications. This rule shall not apply to public-service or public-utilities plants, nor to any plant having for its sole or principal purpose the generation and distribution of electric current.

Group 471. Telegraph and Telephone.	
Fire alarm systems—municipal construction	7602
Telegraph and telephone companies—operation, maintenance, extension of lines, and making of service connections	7600
Telegraph and telephone construction	7601

	Manual number.
Group 472. Natural Gas.	
Natural gas production. (Classify as Gas works—operation. See group 473, below.)	
Group 473. Gas Works.	
Gas works—including operation of gas house, maintenance of existing works and mains, making of house connections and installation, inspection, and repair of equipment on consumers' premises-----	7500
Group 474. Waterworks.	
Waterworks—operations only (no construction work)-----	7520
Group 475. Steam Heating or Power Companies.	
Steam heating or power companies (not electric)—operation of plant only (no construction work)-----	7570
Group 476. Garbage Works and Sewage-Disposal Plants.	
Garbage works—reduction or incineration of garbage or offal-----	7590
Municipal sewage-disposal plants—operation (construction work to be covered separately at manual rates)-----	7581
Sewage-disposal plants—care and maintenance—excluding construction work-----	7580
Group 477. Pneumatic-Tube Companies (operation).	
Pneumatic-tube companies—operation-----	7620
Group 478. Irrigation Works.	
Irrigation works—operation and maintenance, including ordinary extension of laterals-----	0250
Group 479. Crematories.	
Crematories—operation-----	9650

DIVISION F.—TRADE.

SCHEDULE 1.—OFFICES.

Group 490. (Undivided.)	
Asylums—clerical office employees-----	8810
Auditors, accountants, and systematizers—clerical office employees, traveling auditors, accountants, and office systematizers-----	8803
Automobile livery garages and taxicab stations—clerical office employees-----	8810
Clerical office employees-----	8810
Colleges and schools—clerical office employees-----	8810
Draftsmen (engaged exclusively in that profession)—office duty only--	8811
Horse shows—in halls, theaters, or auditoriums exclusively—clerical office employees-----	8810
Hospitals—clerical office employees-----	8810
Mailing and addressing companies-----	8800
Municipal, township, county, or State employees—clerical office employees-----	8802
Office buildings—clerical office employees-----	8810
Public libraries—librarian, assistant librarian, and clerical office employees-----	8810
Public museums of art or natural history—curator, assistant curator, and clerical office employees-----	8810
Public picture galleries—curator, assistant curator, and clerical office employees-----	8810
Railroad operation—elevated railroads—clerical office employees-----	8810
Riding academies—clubs and schools—clerical office employees-----	8810
Steam railroads—clerical office employees-----	8810

	Manual number.
Group 490. (Undivided)—Concluded.	
Street railroads—cable—clerical office employees.....	8810
Street railroads—electric, all systems not interurban—clerical office employees.....	8810
Street railroads—electric, interurban—clerical office employees.....	8810
Telegraph and telephone companies—office and exchange employees only.....	8901
Y. M. C. A. and Y. W. C. A. institutions—clerical office employees.....	8810

SCHEDULE 2.—STORES.

Group 500. (Undivided.)	
Agricultural-implement stores	8104
Automobile salesrooms (no garage or repair shop; no movement of cars except by hand)—entire compensation of salesmen and clerical force to be included.....	8109
Butchers—meat or provision stores (no manufacturing, slaughtering, or rendering; not Packing house products—distributing stations)...	8003
Carriage depositories and salesrooms.....	8108
Cigar stores—retail.....	8020
Clothing stores—retail (no manufacturing).....	8008
If any manufacturing of clothing is conducted on the premises, it should be separately classified and rated at the manual rate for such work.	
Clothing stores—wholesale (no manufacturing).....	8009
Department stores.....	8000

This classification shall apply to risks in which the following conditions obtain:

1. The mercantile pay roll is at least \$25,000 per annum.
2. The store occupies at least two (2) floors, exclusive of basement.
3. The floor area occupied, exclusive of basement, is at least 30,000 square feet.
4. Not less than four of the following classes of merchandise are sold:

Dry goods.	Musical instruments.
Clothing.	Groceries.
Furnishings.	Kitchen utensils.
Furniture.	Hardware.

Department stores where the preceding conditions do not obtain, classify as Store risks—retail, exclusively (n. o. c.). (See page 65.)

Dry-goods stores—no manufacturing.....	8007
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This classification shall apply to risks in which the following conditions obtain:

1. The mercantile pay roll is at least \$25,000 per annum.
2. The store occupies at least two (2) floors, exclusive of basement.
3. The floor area occupied, exclusive of basement, is at least 30,000 square feet.

Dry-goods stores where the conditions outlined above do not obtain, classify as Store risks—retail, exclusively (n. o. c.). (See page 65.)

Five and ten cent stores, or stores advertising merchandise at a maximum or minimum price.....	8050
Florists—including service away from store (not cultivating and gardening).....	8001
Furniture dealers—store only.....	8015
Gas, steam, and hot-water apparatus supplies dealers (no manufacturing)—shop only.....	8112

This classification is not applicable to concerns engaged in the manufacture of gas, steam, or hot-water apparatus.

Group 500. (Undivided)—Concluded.	Manual number.
Grocers—retail.....	8006
Hardware stores.....	8010
Hide and leather dealers—goat and sheep skins.....	8100
Hide and leather dealers (n. o. c.).....	8105
Iron merchants (not junk or scrap-iron or hardware dealers).....	8106
Jewelry stores—wholesale or retail.....	8013
Machinery dealers—store only.....	8107
Market men—including meat and provision stores (no manufacturing, slaughtering, or rendering; not Packing house products—distributing stations).....	8003
Milk dealers—store or depot only.....	8005
Packing-house products—distributing stations (n. p. d. when located on or adjoining premises where packing-house operations are carried on).....	8021
Plumbers' supplies dealers (no manufacturing)—shop only (n. p. d.)..	8111
Poultry dealers—wholesale and retail—with or without killing of poultry.....	8004
Produce and commission merchants—with cold-storage facilities (not operating refrigerating machinery).....	8019
Seed merchants—including the operation of seed-sorting machinery....	8102
Ship-chandler stores (no manufacturing).....	8101
Store risks—retail exclusively (n. o. c.).....	8017
Store risks—wholesale and retail (n. o. c.).....	8018
Store risks—wholesale (n. o. c.).....	8016
Tailor stores—retail (no manufacturing).....	8008
If any manufacturing of clothing (except cutting) is conducted on the premises it should be separately classified.	
Wine and spirit merchants (no bar on premises)—liquor sold in packages only.....	8012
Wine and spirit merchants—retail.....	8002
Wine and spirit merchants—wholesale.....	8011
Wool merchants—including warehouse.....	8108

SCHEDULE 3.—YARDS.

Group 510. (Undivided.)	
Bottle dealers—secondhand.....	8212
Building-material dealers—yard work only—no secondhand materials or lumber yard.....	8205
Building-material dealers—yard work only—secondhand materials—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	8204
Charcoal dealers (no furnaces).....	8214
Coal merchants—receiving or shipping by water or by land and water, including stevedoring operations when performed by the assured by means of power machinery.....	8220
Coal merchants—receiving or shipping by land but not by water where power machinery is used for loading or unloading or spotting cars..	8221
Coal merchants—receiving or shipping by land or water where no power machinery is used for loading or unloading or spotting cars..	8222
Cotton and woolen clippings dealers—new goods only, including baling (not rag and paper stock dealers).....	8211
Flour dealers (no milling).....	8217

	Manual number.
Group 510. (Undivided)—Continued.	
Fuel and material dealers—when the risk involves handling of and dealing in any combination of the following products, but no others, viz:	
Coal.	
If the handling of coal involves stevedoring operations performed by the assured by means of power machinery or the use of power machinery, either for loading or unloading or spotting cars, these classifications are not available, and the risk should be classified as Coal merchants.	
Ice.	
Kindling or fire wood.....	8224
Including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.	
Fuel and material dealers—when the risk involves handling of and dealing in any combination of the following products, and any others, viz:	
Coal.	
If the handling of coal involves stevedoring operations performed by the assured by means of power machinery or the use of power machinery, either for loading or unloading or spotting cars, these classifications are not available, and the risk should be classified as Coal merchants.	
Kindling or fire wood.	
Lumber.	
Building materials.	
Hay, grain, and feed.....	8225
Including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.	
Fuel and material dealers—when the risk involves the handling of and dealing in any combination of the following products, but no others, viz:	
Building materials.	
Lumber.	
Hay, grain, and feed.	
Agricultural implements.	
Grain elevator.	
Seed.....	8226
Including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.	
<i>Exception.</i> —When the combination consists of agricultural-implement dealers and seed merchants only, classify as Agricultural-implement stores. (See page 64, group 500.)	
Hay, straw, and feed dealers.....	8215
Ice dealers—including the taking of ice from storage—excluding harvesting and storing—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	8203
Junk dealers—shop and outside (no wrecking of buildings; no blasting)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	8260
Junk dealers—shop and yard only (no blasting)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	8261
Lumber and fuel yards and building-material dealers, etc. (Classify as Fuel and material dealers.)	
Lumber yards—commercial yards only (no mill hazard).....	8207
Lumber yards—not commercial yards—to take highest rate for any mill connected therewith.	

	Manual number.
Group 510. (Undivided)—Concluded.	
Packing and unpacking furniture and other household utensils.....	8213
Paper and paper-stock dealers. (Classify as Paper-stock and rag dealers.)	
Paper-stock dealers—handling new paper waste or new cloth clipping (no handling of junk, old rags, or old paper).....	8208
Paper-stock and rag dealers.....	8200
Produce dealers—buying, packing, or otherwise preparing general produce for shipment and transportation, using stores or buildings temporarily, but operating no warehouses, no railway operation, and not operating refrigerator cars or caring for freight in transit.	8209
Rubber-stock dealers—receiving, handling, baling, and shipping old rubber stock (n. p. d.).....	8210
Sawdust dealers. (Classify as Hay, straw, and feed dealers. See page 66.)	
Scrap-iron and junk dealers—shop and outside (no wrecking of build- ings; no blasting)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	8260
Scrap-iron and junk dealers—shop and yard only (no blasting)—in- cluding drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	8261
Wood yards—handling wood exclusively—commercial yards only (no mill hazard).....	8206

SCHEDULE 4.—SALESMEN AND AGENTS (OUTSIDE).

Group 520. (Undivided.)	
Auctioneers—to cover wherever goods are auctioned (not live-stock sales stables).....	8090
Automatic slot or vending machines—operation.....	8743
News agents.....	8745
Photography—outside work (not producing motion pictures).....	8746
Piano tuning—away from shop.....	8744
Real estate agencies—employees engaged outside of office, including collectors (no construction work).....	8741
Salesmen (outside), collectors, and messengers.....	8742

This classification does not include as salesmen, collectors, or messengers any employees who, as a part of their duty, deliver the goods or merchandise handled, treated, or sold.

If employees who deliver goods use automobiles or motorcycles for solicitation, collection, and delivery, they shall be classified as chauffeurs. If such employees use teams they shall be classified as drivers. If such employees use bicycles (not motorcycles), public means of transportation, or walk, they shall be rated at the governing classification of the risk in which their employment occurs.

DIVISION G.—SERVICE.

SCHEDULE 1.—DOMESTIC.

Group 530. Care, Custody, and Maintenance of Buildings.	
Apartment hotel and hotel apartments—including laundry.....	9005
Apartment houses.....	9004
Asylums—all employees except clerical and professional.....	9040
Buildings—office or mercantile—contractors for janitor work, in- cluding cleaning and caretaking, also the operation of elevators, heating, lighting, and power apparatus on the premises (n. p. d.)..	9001
This classification does not apply to contractors whose sole or principal business is window cleaning.	

	Manual number.
Group 530. Care, Custody, and Maintenance of Buildings—Continued.	
Buildings—private residences or private estates—contractors for janitor work, including cleaning and caretaking, care of lawns, sidewalks, and furnaces and all other work incidental to the care, custody, and maintenance of the property—excluding extraordinary additions, alterations, or repairs.....	9002
This classification does not apply to the owner or tenant hiring labor direct.	
Churches—all employees engaged in care, custody, and maintenance of premises, including elevator attendants—excluding extraordinary additions, alterations, or repairs.....	9104
Colleges and schools—all employees except clerical, professors, and teachers.....	9101
Dance halls—including dance floors, galleries, and instruction rooms—all employees engaged in care, custody, and maintenance of premises, including elevator attendants—excluding extraordinary additions, alterations, or repairs.....	9103
Dog shows. (Classify as Horse shows.)	
Dwellings—of every description, when occupied by three or more families, and buildings occupied partly for residence purposes by one or more families and partly for store, office, or mercantile purposes—all employees engaged in care, custody, and maintenance of premises, including elevator attendants—excluding extraordinary additions, alterations, or repairs.....	9003
Exhibitions (n. o. c.)—employees engaged in care, custody, and maintenance of premises, including elevator attendants—excluding extraordinary additions, alterations, or repairs.....	9102
Halls (n. o. c.)—all employees engaged in care, custody, and maintenance of premises, including elevator attendants—excluding extraordinary additions, alterations, or repairs:	
When alcoholic liquors are served on the premises.....	9110
When no alcoholic liquors are served on the premises.....	9103
Horse shows—in halls, theaters, or auditoriums exclusively—all employees engaged in care, custody, and maintenance of premises, including elevator attendants—excluding extraordinary additions, alterations, or repairs.....	9102
Hospitals—all employees except clerical and professional.....	9040
Mercantile or manufacturing premises variously occupied by persons other than the owner (n. o. c.)—owner's risk only—including elevator attendants and all other employees engaged in care, custody, and maintenance of premises—excluding extraordinary additions, alterations, or repairs.....	9006
Office buildings—including elevator attendants and all other employees engaged in care, custody, and maintenance of premises—excluding extraordinary additions, alterations, or repairs.....	9007
Parks or buildings (n. o. c.)—used for exhibition, convention, or show purposes—owner's risk only—all employees engaged in care, custody, and maintenance of premises, including elevator attendants—excluding extraordinary additions, alterations, or repairs.....	9102
Public libraries—all employees engaged in care, custody, and maintenance of premises, including elevator attendants—excluding extraordinary additions, alterations, or repairs.....	9104

	Manual number.
Group 530. Care, Custody, and Maintenance of Buildings—Concluded.	
Public museums of art or natural history—all employees engaged in care, custody, and maintenance of premises, including elevator attendants—excluding extraordinary additions, alterations, or repairs.	9104
Public picture galleries—all employees engaged in care, custody, and maintenance of premises, including elevator attendants—excluding extraordinary additions, alterations, or repairs.	9104
Sanatoriums. (Classify as Hospitals.)	
Schools. (Classify as Colleges and Schools. See page 68, group 530.)	
Tenements	9008
Vacuum cleaning—by means of portable air suction cleaning machines—including drivers and drivers' helpers, also chauffeurs and chauffeur's helpers	9010
Window cleaning	9170
Group 531. Care of Grounds.	
Cemetery companies—all employees except clerical office (no blasting)	9220
Private estates—all employees	9221
Group 532. Hotels, Restaurants, and Clubs.	
Athletic clubs	9065
Baths (n. o. c.)	9064
Catering—including services away from store	9069
Clubhouses (not athletic, country, or yacht club)	9072
Commissary—cooks, waiters, and other employees engaged in furnishing board for employees in connection with manufacturing, lumbering, or contracting risks (not exposed to mechanical hazard of such risk)	9078
Country clubs (not available to parks or other grounds where admission is charged)	9066
Hotels—excluding laundry	9050
Hotels which operate in connection therewith cottages, gymnasiums, or grounds for recreation or sports shall be classified as Country clubs.	
Lunch rooms	9070
Lunch wagons	9077
Restaurants	9071
Yacht clubs	9067
Y. M. C. A. and Y. W. C. A. institutions—all employees except clerical, teachers, and preachers	9062

SCHEDULE 2.—PERSONAL.

Group 540. Theaters.	
Motion-picture theaters—rate to apply to all employees of the theater	9152
Theater companies—rate applicable to players or entertainers only—for operas, dramas, and comedies	9153
Theater companies—rate applicable to players or entertainers only—for vaudeville, burlesque, farce, and continuous performance, including incidental moving pictures	9151
<i>Premium computation basis.</i> —The actual remuneration of players or entertainers of the two classifications preceding must be used unless the amount exceeds \$100 per week, in which event that sum shall be used as representing the actual weekly remuneration of each player or entertainer provided that, subject to the above limitation, the pay-roll basis for vaudeville, burlesque, farce, and continuous-performance players shall be the amounts paid by the theaters for each act.	

	Manual number.
Group 540. Theaters—Concluded.	
Theater employees—including managers (not stage managers), box-office employees, ushers, and others not employed upon the stage, but excluding care, custody, and maintenance of premises.....	9154
Theater employees—with stage duties or engaged in care, custody, or maintenance of premises—excluding extraordinary additions, alterations, or repairs.....	9150
Group 541. Amusements—Indoor (other than Theaters).	
Billiard and bowling halls:	
When alcoholic drinks are served on the premises.....	9085
When no alcoholic drinks are served on the premises.....	9084
Billiard halls (no bowling alleys):	
When alcoholic drinks are served on the premises.....	9087
When no alcoholic drinks are served on the premises.....	9086
Bowling halls:	
When alcoholic drinks are served on the premises.....	9083
When no alcoholic drinks are served on the premises.....	9082
Dance halls—including dance floors, galleries, and instruction rooms— instructors, musicians, and attendants.....	9080
Shooting galleries (not rifle ranges).....	9088
Skating rinks—ice or roller.....	9081
Group 542. Amusements—Outdoor.	
Amusement parks. (Classify as Exhibitions.)	
Baseball clubs and parks—all employees engaged in care, maintenance, and operation of grounds and care of teams, including ticket sellers and collectors, trainers, managers (not playing managers), bat boys, and special officers.....	9182
Baseball clubs and parks—all players on salary list of assured, whether regularly played or not, including umpires.....	9181
Bathhouses and bathing pavillions—beach.....	9183
Exhibitions (n. o. c.)—employees engaged in care, operation, and maintenance of merry-go-rounds, swings, roller coasters, and other amusement devices—including all employees connected with such amusement devices, including ticket sellers and ticket collectors....	9180
Group 543. Individual Service.	
Barber shops.....	9580
Hairdressing (for women).....	9583
Manicuring.....	9584

SCHEDULE 3.—PROFESSIONAL.

Group 550. Inspectors and Appraisers.	
Appraising of buildings, their contents, and machinery.....	8721
Auditors, accountants, and systematizers—factory cost systematizers.....	8722
Boiler inspecting.....	8731
Boiler scaling.....	8732
Elevator inspecting.....	8730
Inspection of mercantile, manufacturing, and marine risks for insurance and valuation purposes.....	8720
Inspectors—grain and fruit at railroad or steamship terminals. (Classify as Weighers and samplers of merchandise. See page 62, group 465.)	

	Manual number.
Group 551. Institutions.	
Asylums—professional employees.....	8830
Churches—rectors and assistants—organist and members of choir.....	8840
Dentists—including employees.....	8832
Hospitals—professional employees.....	8830
Hospitals—veterinary	8831

Group 552. Teachers and Instructors.

Colleges and schools:

Agricultural—professors and teachers.....	8860
Domestic science—professors and teachers.....	8861
Manual training—professors and teachers.....	8862
Military—professors and teachers.....	8863
Not otherwise classified—professors and teachers.....	8865
Veterinary—professors and teachers.....	8864
Y. M. C. A. and Y. W. C. A. institutions—teachers and preachers....	8866

Group 553. Undertakers.

Undertakers	9620
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Group 554. Motion Pictures.

Motion pictures—production of, in studios and outside, including all operations up to the development of negatives.....	9610
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Premium computation basis.—The actual remuneration of players or entertainers must be used unless the amount exceeds \$100 per week, in which event that sum shall be used as representing the actual weekly remuneration of each player or entertainer.

SCHEDULE 4.—MUNICIPAL AND PUBLIC.

Group 560. (Undivided.)

Detective agencies. (Classify as Policemen.)	
Firemen—minimum premium \$10 per man per annum.....	7701
Fire patrol and salvage corps (not salvage operations).....	7700
Fumigation of buildings.....	9210
Garbage collecting—refuse and ashes (excluding garbage reduction or fertilizer plants)—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	9403
Lamplighting	9405
Municipal, township, county, or State employees—employees, not laborers, workmen, or mechanics, not engaged in manual labor and not engaged in clerical office duties (n. o. c.).....	9410
This classification includes employees engaged in laboratory work, inspectors of the board of health, electrical inspector, building inspectors, and similar occupations.	
Policemen—minimum premium \$10 per man per annum.....	7720
Scavengers—including drivers and drivers' helpers, also chauffeurs and chauffeurs' helpers.....	9403
Sewer cleaning.....	9407
Snow and ice removal (no blasting).....	9400
Street cleaning.....	9402

CLASSIFICATION OF ACCIDENT CAUSES.¹

GENERAL CAUSE CLASSIFICATION.

- I. Machinery.
- II. Boilers and steam-pressure apparatus.
- III. Vehicles.
- IV. Explosives, electricity, fires, and hot and corrosive substances.
- V. Poisonous substances.
- VI. Falls of persons.
- VII. Stepping on or striking against objects.
- VIII. Falling objects.
- IX. Objects being handled.
- X. Hand tools.
- XI. Animals.
- XII. Miscellaneous causes.

I. MACHINERY.

A. Prime Movers.

- 1. Steam engines.
- 2. Gas or gasoline engines.
NOTE.—Include all internal combustion engines.
- 3. Electric motors and dynamos.
- 4. Compressed-air motors.
- 5. Water motors.
- 6. Other prime movers.

B. Power-Transmission Apparatus.

- 1. Shafts.
- 2. Shaft collars and couplings.
- 3. Set screws, keys, and bolts.
- 4. Belts and pulleys.
- 5. Chains and sprockets.
- 6. Ropes, cables, and drums.
- 7. Cogs, cams, gears, and friction wheels.

NOTE.—Accidents upon gears, belts, pulleys, etc., which are an integral part of individual working machines should be charged to the specific machine.

C. Power-Working Machinery.

NOTE.—The committee believes that power-working machines should be classified by industry, and that within each industry group the principal types of working machines should be grouped by operative hazard. The committee is unable to undertake such a classification at present because of the lack of time in which to make the special study essential to such a technical classification.

Pending the development of such a classification the committee calls attention to the list of working machines prepared by the Workmen's Compensation Service Bureau. This list is exhaustive, and the committee believes that each industrial accident board or commission can select therefrom such working machines as may be of importance.²

¹ For explanation of classification of causes, see page 12 et seq.

² An example of a tentative classification of working machines, by industry, is that used by the New York Industrial Commission, printed as Appendix A.

D. Hoisting Apparatus and Conveyors.**1. Elevators (not construction elevators).**

- (a) Cable, breaking.
- (b) Cable, unwinding.
- (c) Cable, caught by.
- (d) Counterweight, struck by.
- (e) Machinery, breaking.
- (f) Machinery, caught in.
- (g) Car, caught between floor and.
- (h) Car, caught between shaft side and.
- (i) Car, caught between gate and.
- (j) Car, struck by, in pit.
- (k) Car, struck by, on top of.
- (l) Car, struck by, elsewhere.
- (m) Fall of person into shaft, from floor.
- (n) Fall of person into shaft, from car.
- (o) Objects falling down shaft, from floor.
- (p) Objects falling down shaft, from car.
- (q) Gates, n. o. c.
- (r) All other.

2. Cranes—traveling.

- (a) Car, striking person.
- (b) Cable, catching person.
- (c) Load, swinging.
- (d) Load, lowering.
- (e) Load falling, broken cable.
- (f) Load falling, broken machinery.
- (g) Load falling, hitch slipping.
- (h) Objects falling from bucket or clam.
- (i) Falls from crane or crane track (not in erecting or rigging).
- (j) All other.

3. Derricks.**4. Construction hoists and elevators (not derricks).****5. Escalators.****6. Mine cages, skips, buckets, and self-acting inclined planes.****7. Blocks and tackles, windlasses, capstans, and winches, n. o. c.****8. Hay forks, derricks, and stackers.****9. Conveyors.**

NOTE.—Accidents due to mine cages, etc., should be analyzed in the same way as accidents due to elevators, and derrick accidents in the same way as crane accidents.

E. Miscellaneous Machinery.**1. Pumps.****2. Fans and blowers.****3. All other.**

The committee recommends that machine accidents should be further classified by manner of occurrence and part of machine, as follows:

(a) Manner of occurrence, machine accidents.

- (1) Adjusting machine, tool, or work.
- (2) Starting, stopping, or operating machine.
- (3) Cleaning or oiling machine.

- (4) Repairing machine.
- (5) Breaking of machine or tool.
- (6) Flying objects.
- (7) All other.
- (b) Part of machine on which accident occurred.
 - (1) Point of operation.

NOTE.—Point of operation means that part of machine at which work is actually inserted and maintained during any process of forming, cutting, shaping, or other operation.

- (2) Belts.
 - NOTE.—Charge to belt, gear, set screw, key, or bolt of working machine only accidents on the drive belts, gears, set screws, etc., which are an integral part of that specific machine.
- (3) Cranks or eccentrics.
- (4) Flywheels.
- (5) Gears.
- (6) Set screws, keys, and bolts.
- (7) Counterweights.

GENERAL NOTE.—The classification of part of machine and manner of occurrence applies as well to prime movers and hoisting or conveying machinery as to working machines.

II. BOILERS AND STEAM-PRESSURE APPARATUS.

- 1. Steam boilers, explosions of.
- 2. Steam boilers, all other causes.
- 3. Steam pipes, explosions of.
- 4. Steam pipes, all other causes.
- 5. Steam and hot water gauges, explosions of.
- 6. Steam and hot water gauges, all other causes.
- 7. Other steam-pressure apparatus, explosions of.
- 8. Other steam-pressure apparatus, all other causes.

III. VEHICLES.

A. Cars and Engines—Steam and Electric Railways.

- 1. Train wrecks.
 - (a) Collisions.
 - (b) Derailments.
- 2. Falls from or in.
 - (a) In getting on or off, in motion.
 - (b) In getting on or off, at rest.
 - (c) While riding on, due to sudden start or stop.
 - (d) While riding on, due to slipping or loss of balance.
 - (e) While riding on, contact with overhead structure.
 - (f) While riding on, contact with side structure.
 - (g) Falls, n. o. c.
- 3. Struck by or caught between.
 - (a) While coupling or uncoupling.
 - (b) While switching.
 - (c) While repairing cars or engines.
 - (d) While repairing track.
 - (e) While crossing track.
 - (f) While standing or walking on track.

A. Cars and Engines—Steam and Electric Railways—Concluded.

4. Other causes.

- (a) Setting or releasing hand brakes.
(Exclude falls due to.)
- (b) Objects falling from (*not* in loading or unloading).
- (c) Objects shifting on load.
- (d) All other.

B. Mine and Quarry Cars.

- 1. Collisions.
- 2. Derailments.
- 3. Falls from, due to sudden start or stop.
- 4. Falls from riding on tail chain.
- 5. Riding on, contact with roof.
- 6. Riding on, contact with rib or side structure.
- 7. Struck by or caught between, while braking or spragging.
- 8. Struck by or caught between, while repairing track.
- 9. Struck by or caught between, while standing or walking on track.
- 10. Coal or rock falling from (*not* in loading or unloading).
- 11. All other.

C. Automobiles and other power vehicles.

- 1. Collisions with cars or engines.
- 2. Collisions with other vehicles.
- 3. Collisions with stationary objects.
- 4. Overturning.
- 5. Cranking.
- 6. Falls from.
- 7. Struck by.
- 8. Objects falling from (*not* in loading or unloading).
- 9. Objects shifting on load.
- 10. All other.

D. Animal-drawn vehicles.

- 1. Collisions with cars or engines.
- 2. Collisions with other vehicles.
- 3. Collisions with stationary objects.
- 4. Overturning.
- 5. Whiffletrees.
- 6. Falls from.
- 7. Struck by.
- 8. Objects falling from (*not* in loading or unloading).
- 9. Objects shifting on load.
- 10. All other.

NOTE.—All vehicle accidents due to runaways should be charged to animals (XI-A-2).

E. Water transportation.

- 1. Collisions with vessels.
- 2. Collisions with other objects.
- 3. Capsizing.
- 4. Hawsers and other ropes.
- 5. All other.

F. All other vehicles.

IV. EXPLOSIVES, ELECTRICITY, FIRES, AND HOT AND CORROSIVE SUBSTANCES.

A. Explosive substances.

1. Explosives, manufacturing and storing.
2. Explosives, transportation and handling.
3. Explosives, blasting.
 - (a) Premature or delayed shot.
 - (b) Misfires.
 - (c) Windy shot.
 - (d) Tamping.
 - (e) All other.
4. Dust.
5. Gas.
6. Gasoline and other petroleum products.
7. All other.

B. Electricity.

C. Conflagrations.

D. Hot Substances and Flames.

1. Hot water.
2. Asphalt, pitch, and tar.
3. Other hot liquids.
4. Molten metal, explosions of.
5. Molten metal or slag, all other.
6. Oxyacetylene or electric cutting and welding.
7. Flames.
8. All other hot objects.

E. Corrosive Substances.

V. POISONOUS SUBSTANCES.

NOTE.—In case of occupational disease or industrial poisoning it is desirable to subdivide specifically so as to show each occupational disease or poisoning. In the present state of knowledge in regard to the subject it is not possible to prepare a satisfactory code.¹ It must be built up as various occupational diseases and poisonings are reported and experience is accumulated. For this purpose it is especially desirable that detailed information should be published rather than general groups which will conceal the exact name of the disease or poison. The correlation of this information with industry and occupation is also exceedingly important.

VI. FALLS OF PERSONS.

A. From Elevations.

1. Benches, boxes, chairs, and tables.
2. Boats, bridges, dams, docks, or gangways.
3. Buildings in construction or demolition.
4. Cranes, derricks, and hoists in erecting and rigging.
5. Floors, temporary.
6. Ladders.
7. Machines and boilers.
8. Piles.

¹A tentative code for occupational diseases which has been prepared by the Workmen's Compensation Service Bureau, 18 Park Row, New York City, will be found to be helpful.

A. From Elevations—Concluded.

9. Poles and trees.
10. Roofs.
11. Runways, balconies, and platforms.
12. Scaffolds or staging.
13. Stairs.
14. Tramways and trestles.
15. Windows or wall openings.
16. All other.

B. Into Excavations, Pits, and Shafts.

1. Bins and vats.
2. Floor openings (not elevator shafts).
3. Manholes.
4. Mine shafts.
5. Excavations, n. o. c.

C. On Level.

1. Slipping.
2. Stumbling.
3. All other.

VII. STEPPING ON OR STRIKING AGAINST OBJECTS.**A. Stepping on Objects.**

1. Nails.
2. All other sharp objects.

B. Striking Against Objects.

1. Nails.
2. Splinters or sharp projections from walls or structures.
3. All other objects.

VIII. FALLING OBJECTS.**A. Collapse of.**

1. Buildings and walls.
2. Piles (stored or piled-up materials).
3. Scaffolds or staging.

B. From Elevations.

1. Buildings.
2. Chutes, conveyors, or slides.
3. Machines and workbenches.
4. Piles.
5. Racks and shelves.
6. Runways, balconies, and platforms.
7. Scaffolds and staging.
8. Temporary floors or through floor openings (not elevator shafts).
9. Tramways and trestles.
10. Other elevations.

C. Into Excavations.

1. Into ditches or trenches.
2. Into other excavations.
3. Cave-ins of ditches.
4. Cave-ins of tunnels.
5. Cave-ins of other excavations.

D. In Mines and Quarries.

1. Falls of coal, rock, or ore at working face.
2. Falls of roof.
3. Falls from pillars, walls, or stopes.
4. Falls from chutes or pockets (underground).
5. Falls from surface into shaft.
6. Falls from or in bins.
7. Falls or rolls from or on dumps.

E. Other Falling Objects.

1. Poles.
2. Trees and limbs.
3. Objects tipping over (except vehicles).

IX. OBJECTS BEING HANDLED.

A. Heavy Objects (loading, unloading, carrying, lifting, rolling, or piling).

1. Objects dropped.
2. Objects falling from load or pile (while loading, unloading, or piling).
NOTE.—1 refers to an object which is dropped while being handled;
2 to an object which falls *after* it has been placed upon the load or pile.
3. Caught or squeezed between object handled and other object.
4. Strain in lifting.

NOTE.—Include only strains, hernias, etc., caused by excessive weight of object handled.

B. Sharp Objects.

1. Glass.
2. Sheet metal.
3. Objects with protruding nails.
4. All other sharp objects (not tools).

C. Hand Trucks, Carts, and Wheelbarrows.

1. Collisions with persons.
2. Collisions with objects.
3. Overturning.
4. Objects falling from (*not* in loading or unloading truck, cart, etc.).
5. All other.

X. HAND TOOLS.

1. Glancing or slipping of tool in use.
2. Breaking or coming apart of tool.
3. Flying nails, chips, or particles set in motion by tool.
4. All other.

XI. ANIMALS.

A. Horses, Mules, and Oxen.

1. Kicks.
2. Runaways.

NOTE.—Under runaways include all vehicle accidents due to runaways.

3. All other causes.

B. Other Animals.

XII. MISCELLANEOUS CAUSES.

1. Flying particles (n. o. c.).

NOTE.--Chips, dust, sparks, and other particles set in motion by working machines or tools are to be charged to the specific machine or tool. The above number relates only to nonassigned flying particles.

2. Doors, windows, and gates, exclusive of elevators.
3. Asphyxiation.
4. Drowning.
5. Heat prostration and sunstroke.
6. Cold, including frostbites.
7. Lightning.
8. Intentional violence of coemployee.
9. Intentional violence, all other.
10. All other.

CLASSIFICATION OF INDUSTRIAL ACCIDENTS BY LOCATION AND NATURE OF INJURY AND EXTENT OF DISABILITY.¹

The committee recommends that accidental injuries be classified by—

- I. Location of injury (or part of body affected).
- II. Nature of injury (meaning thereby the character of the injury sustained at the time of the accident).
- III. Extent of disability.
- IV. Degree of partial disability.

I. LOCATION OF INJURY.

A. Head.

1. Brain.
2. Eye.
3. Both eyes.
4. Internal ear.
5. Both internal ears.
6. External ear.
7. Skull.
8. Scalp.
9. Head (n. o. c.).

B. Face and Neck.

1. Forehead.
2. Eyelids.
3. Nose.
4. Cheek.
5. Upper jaw.
6. Lower jaw.
7. Teeth.
8. Tongue.
9. Lips and chin.
10. Face (n. o. c.).
11. Neck.

C. Trunk.

1. Spinal cord.
2. Vertebrae.
3. Back (external).
4. Sternum.
5. Ribs.
6. Thorax (generally) external.
7. Thoracic organs, internal.
8. Abdomen, external.
9. Abdominal viscera.
10. Groin.
11. Sacrum or coccyx.
12. Pelvis (n. o. c.).

¹ For explanation of classification by location and nature of injury and extent of disability, see page 15.

C. Trunk—Concluded.

13. Anus, rectum, or perineum.
14. External generative organs.
15. Hernia, umbilical.
16. Hernia, inguinal.
17. Hernia, other.

D. Upper Extremities.

1. Scapula.
2. Clavicle.
3. Shoulder joint.

NOTE.—Use this number only for dislocations of shoulder or fractures of head of humerus.

4. Humerus.
5. Upper arm.
6. Elbow.
7. Radius.
8. Ulna.
9. Radius and ulna.
10. Forearm.
11. Wrist.
12. Arm, general.
13. Both arms or one arm and one hand.
14. Arm and leg.
15. Hand, general.
16. Both hands.
17. Hand and foot.
18. Palm.
19. Back of hand.
20. One metacarpal.
21. Two or more metacarpals.
22. Thumb, one phalange.
23. Thumb, more than one phalange.
24. Index finger, one phalange.
25. Index finger, more than one phalange.
26. Middle finger, one phalange.
27. Middle finger, more than one phalange.
28. Ring finger, one phalange.
29. Ring finger, more than one phalange.
30. Little finger, one phalange.
31. Little finger, more than one phalange.
32. Thumb and one finger.
33. Thumb and two or more fingers.
34. Two fingers.
35. Three fingers.
36. Four fingers.

E. Lower Extremities.

1. Hip joint.

NOTE.—Use this number only for dislocations of hip or fractures of head of femur.

2. Femur.
3. Upper leg.
4. Patella.
5. Knee, other than patella.

E. Lower Extremities—Concluded.

6. Tibia.
7. Fibula.
8. Tibia and fibula.
9. Lower leg.
10. Both legs or one leg and one foot.
11. Ankle.
12. Metatarsals.
13. Foot.
14. Both feet.
15. Great toe, one phalange.
16. Great toe, more than one phalange.
17. Lesser toe, one phalange.
18. Lesser toe, more than one phalange.
19. Great toe and lesser toe or toes.
20. Two or more lesser toes.

II. NATURE OF INJURY.

1. Bruises, contusions, and abrasions.
2. Burns and scalds.
3. Concussions.
4. Cuts, punctures, and lacerations.
5. Dislocations.
6. Fractures.
7. Sprains and strains.
8. All other.

NOTE.—In case of infection, nature of injury should be correlated with the infection. This is especially important in cases of bruises, contusions, and abrasions, burns and scalds, and cuts and lacerations.

III. EXTENT OF DISABILITY.

1. Fatal.
2. Permanent total disability—dismemberment.
3. Permanent total disability—other.
4. Permanent partial disability—dismemberment.
5. Permanent partial disability—other.
6. Temporary total disability.
7. Temporary partial disability.

IV. DEGREE OF PARTIAL DISABILITY.

NOTE.—This classification should be used only for permanent injuries not dismemberments, and for temporary partial disabilities. It relates only to the degree of impairment of the specific organs or members affected.

1. 10 per cent and under.
2. 11 to 20 per cent.
3. 21 to 30 per cent.
4. 31 to 40 per cent.
5. 41 to 50 per cent.
6. 51 to 60 per cent.
7. 61 to 70 per cent.
8. 71 to 80 per cent.
9. 81 to 90 per cent.
10. 91 to 100 per cent.

MULTIPLE INJURIES.

In case of an injury involving more than one part or one classification of nature of injury, as specified above, as a rule the injury should be placed in that classification which indicates the most serious disability. If one or more dismemberments are involved, each should be separately listed. If the injury is a temporary injury only, it may be charged to the general part of the body; but if it is a permanent injury, the above rule should be strictly followed.

APPENDIX A.

GROUPING OF WORKING MACHINES USED BY NEW YORK STATE INDUSTRIAL COMMISSION.

30-99 STONE, CLAY, AND GLASS WORKING MACHINES.

- 030 **Brick-making machinery (not elsewhere classified).**
- 031 Dry pans and crushers (grinding brick).
- 032 Molding machines.
- 033 Pug mill (grinding and tempering clay).
- 040 **Cement making machinery (n. e. c.).**
- 041 Bag-filling machines.
- 050 **Glassmaking machinery (n. e. c.).**
- 051 Polishing wheels.
- 052 Surface grinding machines.
- 060 **Pottery-making machinery (n. e. c.).**
- 070 **Stone cutting, rubbing, and polishing machinery (n. e. c.).**
- 071 Gang saws.
- 072 Planers.
- 075 **Stone crushers.**
Rock crushers.

100-219 METAL-WORKING MACHINES.

- Abrasive wheels (belts).**
- 100 Bursting of wheel.
- 101 Contact with wheel.
- 102 Flying objects (except bursting), including particles of wheels and material.
- 104 Other (n. e. c.).
- 105 **Bending and straightening machines.**
 - a. Revolving rolls.
 - b. Screw or clamp.
- Bolt and nut machines.**
- 107 Cutting.
- 108 Nut tapping.
- 109 Threading.
- Boring machines or mills.**
- 110 Horizontal (tool moves).
- 111 Vertical (work moves).
- 112 **Broaching machines.**
- 113 **Cleaning mills—tumblers or rumblers.**
- 114 **Drills (drill presses).**
- 114a Radial.
- 114b Upright or gooseneck.
- Forging machines.**
- 115 Forging hammer.
- 116 **Bradley hammer.**
 - Helve and strop.
- 117 **Bulldozers.**
- 118 **Eye and wrapper machines.**
- Upsetting machines.**
- 119 Bolt machines.
- 120 **Swaging machines.**

- Gear-cutting machines.**
- 123 Gear cutters.
- 124 Gear shapers.
- Hammers.**
- 126 Board drop.
- Cylinder.
- 127 Steam.
- 128 Air.
- 129 Electric.
- 130 Scrap breaker.
- 131 Spring.
- 132 Indefinite.
- Lathes.**
- 133 Binding and coil winding lathes.
- 134 Engine lathe.
- Precision.
- 135 Speed lathe.
- Turret lathe.
- 136 Horizontal.
- 137 Vertical.
- 138 Wheel lathe.
- 139 Unclassified.
- 140 **Milling machines.**
- 140a Horizontal.
- Vertical.
- 140b Die sinkers.
- 140c Profilers.
- Molding machines.**
- 145 Core and molding.
- 146 Jarring.
- 147 Sand mixers and shakers.
- 148 Tamping.
- Pipe machines (including hand).**
- 150 Cutting.
- 151 Threading.
- 153 **Planers.**
- Horizontal (work moves).
- Open side.
- Rotary.
- 155 **Polishers and buffers.**
- Portable power tools.**
- Electric.
- 160 Drills.
- Hammers.
- 161 Chipping.
- 162 Riveters.
- Pneumatic.
- 165 Drills.
- Hammers or guns.
- 166 Chipping.
- 167 Riveters.
- 168 Sand rammer.

- Presses.**
- 170 Arbor.
- 171 Cylinder.
Hydraulic.
Pneumatic.
- 172 Drop presses (including drop hammers for light work).
- 173 Forging (bending or forming work by power press).
Flanging.
- 174 Punch.
- 175 Stamping.
- 176 Trimming.
- 177 Bottle-capping machines.
- 178 Presses (sheet-metal work).
- 179 Presses (metal and celluloid buttons).
- 179a Presses (n. e. c.).
- Riveters.**
- 180 Hydraulic.
- 181 Pneumatic (tool moves).
- 182 Power (press type).
- 185 **Rolling mills.**
- 186 Rolling machines.
- Saws.**
- 188 Jig.
- 189 Band.
- 190 Circular.
Circular (stereotype trimmer).
- 191 Hack.
- 192 Indefinite.
- Screw machines.**
- 193 Auto.
- 194 Hand.
- Shapers.**
- 195 Horizontal.
Stationary head.
Traveling head.
- 196 Vertical.
- Shears and punches.**
- 197 Punches.
- 198 Rotary shears.
- 199 Shears, indefinite.
- 200 Slitting shears (power driven and hand driven).
- 201 Spacing punches.
- 202 Punch and eyeletting machines.
- 203 **Slotters.**
- Welding and heat cutting machines.**
- Electric arc.
- 205 Carbon.
- 206 Metallic.
- 207 Electric spot or riveter.
Gas.
- 208 Oxyacetylene.
- 209 Oxyhydrogen.

Wire-working machines.

- 211 Covering machines.
- 212 Drawing machines (includes tube-drawing machines).
- 213 Rolling machines.
- 214 Stranding machines.
- 215 Crimping.

220-329 WOOD WORKING MACHINES.**220 Bending machines.**

- 221 Boring machines (horizontal and vertical spindles).
 - 221a Boring tools (power).
 - 222 Cork-cutting machines, block cutters, cork slicers, etc.
- Lathes.**

- 223 Automatic and wood copying lathes.
- 224 Auto wood forming.
- 225 Back knife.
- 226 Hand-turning wood knife.
- 227 Rod and dowel.
- 229 Indefinite.

Mortising and tenoning machines.

- Mortising machines.
 - 230 Chain mortisers.
 - 231 Chisel mortisers.
 - 232 Pocket and boring machines.
- Tenon cutters.**
- 233 Auto blind slat.
 - 234 Tenon machine.

Planers, jointers, and edgers.

- Surface planers.
 - 236 Diagonal planer.
 - 237 Panel-raising machine.
 - 238 Surfacer.
 - 239 Timber sizer.
- Edgers and jointers.**
- 241 Buzz planer.
 - 242 Edger.
 - 243 Glue jointer.
 - 244 Hand surfacer or jointer.
 - 245 Jointer.
 - 246 Pony planer.
 - 247 Planer, not specified.

Presses.

- 248 Clamping machine.
- 249 Box nailer.
- 250 Box-board squeezer.
- 251 Door and blind clamp (hand).

Sanding machines.

- 253 Belt (including felloe and panel).
- 254 Disk.
- 255 Spindle or post.
- 256 Surface or drum (power feed; hand feed).
- 257 Unclassified (wheel).

Saws.

Circular.

- 260 Buzz.
- 261 Chamfering.
- 262 Circular saw.
- 263 Circular rip.
- 264 Crosscut.
- 265 Cut-off.
- 266 Dado.
- 267 Gaining machine.
- 268 Gang circular.
- 269 Gang rip.
- 270 Grooving.
- 271 Job.
- 272 Lath (bolter).
- 273 Plow.
- 274 Sash cut-off.
- 275 Self-feed rip.
- 276 Slitting.
- 277 Swing.
- 278 Table.
- 279 Trim.
- 280 Universal bench.
- Indefinite (place with 262).

Band.

- 285 Band.
- 286 Band mill.
- 287 Band resaw.
- 288 Band and rip.
- 289 Lumber saw.
- 290 Lumber carriage.
- Indefinite (place with 285).
- 295 Scroll or jig.
- 299 Indefinite.

Shapers.

- 300 Friezing (includes fraising machines on umbrella handles).
- 301 Molding machine (hand feed).
- 302 Shaper.

Molders.

- 305 Auto-blind slat planer.
- 306 Box-board matcher.
- 307 Door sticker.
- 308 Flooring.
- 309 Grooving.
- 310 Matcher.
- 311 Molding machine (n. e. c.).
- 312 Molding sticker.
- 313 Sash sticker.
- 314 Sticker.
- 315 Surface planer and matcher combination.

Special head cutters.

- 317 Core-box machine.
- 318 Variety or universal woodworker (variety molder).

Veneering machines.

- 320 Veneer cutter.
- 321 Veneer machine.
- 322 Veneer press.
- 323 **Brush and broom making machines.**
- Wood-box machines.**
- 325 Corner-lock machine.
- 326 Dovetailer.
- 327 Wood hogs or wood grinders.
- 328 Wood trimmers or miter cutters.
- 329 Woodworking machines (indefinite).

330-351 LEATHER-WORKING MACHINES—TANNERIES.

- 330 Buffing drums.
- 331 Dry-milling drums.
- 332 Dyeing drums.
- 333 Stuffing drums.
- 334 Tanning drums.
- 335 Fur-dressing machines.
- 336 Fur-combing machines.
- 336a Fur-pulling machines.
- 337 Fleshing machines.
- 338 Graining rolls, etc.
- 339 Jacks—felting, glassing, pebbling, rolling, stoning.
- 340 Hair washing, drying, and baling machines.
- 341 Paddle vats (baiting, pickling, tanning).
Presses.
- 342 Hydraulic.
- 343 Power tan.
- 344 Wet machines.
- 345 Setting-up (or setting-out) machines.
- 346 Shaving machines.
- 347 Splitting and skiving machines.
- 348 Unhairing machines.
- 349 Whitening machines.
- 350 Water extractors, centrifugal.
- 351 Trimmers.

352-394 LEATHER-WORKING MACHINES—LEATHER PRODUCTS.

- 352 **Cementing machines.**
- Channelers.**
- 353 Channelers.
- 354 Channel turners.
- Cutting machines.**
- 355 Die cutter.
- 356 Rotary cutter.
- 357 Drag knife.
Sole-rounding machine.
- Drop knife (direct cut).
- 358 Heel breaster.
- 359 Stripping machine.
- 359a Cutting machines (n. e. c.).
- 360 Edge folders.

- 361 Eyeletting and hook-setting and punching machines.
 362 Heelers.
 Automatic.
 Rapid.
 Lasting machines.
 363 Bed.
 364 McKay.
 Puller over.
 Levelers.
 Direct pressure.
 366 Embossing machine.
 367 Heel compressers.
 368 Levelers.
 369 Molding machine.
 370 Sole-stamping machine.
 Rolling pressure.
 372 Levelers.
 Nail (loose) or wire-fastening machines.
 374 Heel slugger.
 375 Nailer.
 376 Sole fastener.
 377 Welt tacker.
 378 Riveters.
 Rolling and cutting machines.
 380 Skiving machines.
 381 Smoothing machines.
 382 Splitting machines.
 Sewing machines.
 Sole.
 384 Fair stitcher.
 385 Inseamer.
 386 McKay.
 387 Sole stitcher.
 Upper.
 389 Light-stitching machine.
 390 Buttonhole machine.
 392 Embossing machines.
 393 Buffing and scouring machines.
 394 Other.

395-429 PAPER-MAKING MACHINES.

- 395 Barkers (knife, drum).
 396 Beaters (rag washers).
 397 Chippers.
 398 Grinders.
 399 Paper cutters and slitters.
 Paper machines (by parts thereof).
 400 Head box.
 401 Apron.
 402 Wire.
 403 Suction roll.
 404 Couch rolls.
 405 Dryers.
 406 Calenders.
 407 Doctors.

- 410 **Rolls and winders.**
- Screens.
- 415 Centrifugal.
- 416 Flat.
- 417 Knotter (including dusting machine for rags).
- 418 Revolving.
- 419 Riffler.
- 420 Shaker.
- 421 Washers or thickeners.
- 425 **Splitters.**
- 426 **Wet machines.**
- 427 **Fiber-cutting machines.**

430-539 PAPER PRODUCTS AND PRINTING MACHINES.

- 430 **Automatic feeders.**
- Automatic machines.**
- 431 Automatic square box machines.
- 432 Baling machines.
- 433 Egg-case filler machines.
- 434 Egg-tray filler machines.
- 435 S. & S. box machines.
- 436 S. & S. stencil machines.
- Bending machines (rotary rolls for bending plate for cylinder press [see 105]).**
- Composing machines.**
- 441 Monotype.
- 442 Monotype caster.
- 443 Linotype.
- Covering machines (a wide class of machines used to cover board with paper).**
- 445 Case-making machine.
- 446 Casing-in machine.
- 447 Collaring machine.
- 448 Covering machine.
- 449 Labeling (covering) machine.
- 450 Lacing machine.
- 451 Liner (Perry) necker or cylinder machine.
- 452 Paper-box machine (bonbon cups).
- 452a Finishers.
- 453 Topper machine.
- 454 Turn-in machine.
- 455 Wrapping machine.
- Cutting machines and saws (paper).**
- Shears.
- 460 Cutter.
- 461 Chopper.
- 462 Shears.
- 463 Paring machine.
- 464 Trimming machine.
- Die.**
- 467 Corner cutter.
- 468 Thumb-holing (indexing) machine.
- 469 Round corner.

- Punching machines.
- 472 Drilling.
- 473 Perforating.
- 474 Punching.
- Rotary cutter and creaser.
- 476 Creaser.
- 477 Paper slitter.
- 478 Rotary card slitter.
- 479 Rotary board cutter.
- 480 Scorers (single).
- 481 Scorers (double).
- 484 Indefinite (paper cutters, n. e. c.).
- Saws.
- 485 Circular.
- Cutting machines (metal). (Included in Nos. 190-192.)
- Saws.
- Circular.
- Linotype.
- Sawing machine.
- Shears.
- Rule-cutter shear (metal). (Included in Nos. 197-201.)
- Doming and embossing machines.
- 490 Corrugating machine.
- 491 Doming machine.
- 492 Doming machine (E. R. & T. W. Sheridan).
- Ending machines.
- 495 Ending machine.
- 496 Ending machine (gluer).
- Folding machines.
- 497 Paper box.
- 498 Other.
- 498a Point.
- 498b Book and job.
- 500 Gathering machines.
- 501 Leaders.
- Dry.
- Wet.
- Presses.
- 502 Bliss press.
- 503 Bundling press.
- 504 Compressing press.
- 505 Molding press.
- 506 Smashing press.
- 507 Stamping press.
- 508 Punch press.
- Printing presses.
- 510 Cylinder.
- 511 Platen.
- 512 Web.
- 513 Embossing.
- 514 Kind of printing press not stated.

- 515 Routing and roughing machines.**
Sewing machines.
- 516** Basting.
517 Sewing.
518 Stabbing.
519 Thread.
 (Wire stitching under staying machine.)
- Shaving machines.**
- 521** Metal.
522 Wax.
- Spiral tube machines.**
- 524** Spiral tube machine.
525 Tube cutting machine.
- Staying machines.**
- 527** Gummer.
528 Gum stayer.
529 Setting-up machine.
530 Stapling machine.
531 Staying machine.
532 Wire stitcher.
533 Envelope machine.
- Trimming and beveling machines.**
- 534** Beveling.
535 Trimming.
536 Glueing machine.
539 Bookbinding machinery (n. e. c.).

540-669 TEXTILE AND LAUNDRY MACHINES.

- Carding machines.**
- 540** Baller.
541 Cards, revolving flat cards.
542 Comber.
543 Drawing frames; railway heads.
544 Fine speeders.
545 Garnett machine.
546 Gilling machine; porcupine.
547 Ribbon lap machine.
548 Roving frame; intermediate speeders; intermediate fly frame.
549 Sliver lap machine.
550 Slubber.
551 Spindle drawing frames.
552 Setting machine.
- Cloth cutting and stamping machines.**
- 555** Die cutters.
556 Electric cutters.
557 Inking stampers.
558 Press cutters—collar trimmers.
559 Rib cutters.
560 Band knife cutter.
561 Button, eyeletting.

Finishing and laundering machines.

- 562 Calenders.
- 563 Collar tippers.
- 564 Collar shapers and molders.
- 565 Dampeners.
- Dye kettles.
- 566 Lorimer dye kettle.
- 567 Klauder Weldon dye kettle.
- 569 Folding machines.
- 570 Hydro extractors.
- Ironers.
- 571 Body.
- 572 Bosom.
- 573 Collar and cuff.
- 574 Neck band.
- 576 Mangles (water and starch).
- 577 Measuring machines.
- Napping machines.
- 578 Brushes.
- 579 Gigs.
- 580 Nap raisers.
- 581 Nappers.
- 582 Shearing machines.
- 584 Presses (bosom, cuff, clothing).
- 585 Printing machines.
- 586 Singing machines (oil or gas).
- 587 Starchers.
- 588 Tentering frames.
- Washing and soaping machines.
- 589 Squeezers.
- 590 Overhauling machines.
- 591 Finishing machines, knit goods.
- 595 **Knitting machines.**
- 595a Knitting frames; cylinders; tables.
- 595b Rib knitting frames; flat rib knitting frames.
- Opening machines.**
- 597 Automatic hopper feeding machine.
- 598 Bale breaker.
- 599 Cone duster.
- 600 Craton opener.
- 601 Exhaust compound opener.
- 602 Opener.
- 603 Waste opener.
- 604 Wool breaker.
- Picking machines.**
- 610 Breaker picker or lapper.
- 611 Burr picker; cylinder burr picker.
- 612 Duster or willow.
- 613 Hard-waste machine.
- 614 Intermediate picker.
- 615 Lap machine; scutcher, finishing picker or lapper.
- 616 Mixing picker.
- 617 Picker.
- 618 Shredder.

Sewing machines.

- 620 Buttonholing machines.
- 621 Button-sewing machines.
- 622 Cover seamers.
- 623 Cylindrical-sewing machines.
- 624 Embroidery-sewing machines.
- 625 Looper-sewing machines.
- 626 Plaiting-sewing machines.
- 627 Portable sewing machines.
- 628 Sewing machine (n. e. c.).

Spinning machines.

- 630 Banders.
- 631 Doublers.
- 632 Dressers; warpers; warping machines.
- 634 Mules; jacks.
- 635 Spinning frames; warp spinning frames; filling spinning frames; ring-frame spinner.
- 636 Twisters.

Washing and drying machines (new stock).

- Washer.
- 640 Apron.
- 641 Duck.
- 642 Fork.

Dryer.**Weaving machines.**

- 645 Beamers.
- 646 Knotters.
- 647 Looms.
- 648 Slashers.
- 649 Weft looms.
- 650 Wetting-up machines.

Winding machines.

- 655 Cop winders.
- 656 Reelers.
- 657 Spoolers.
- 658 Yarn reelers.
- 659 Cloth winders.

Hat-making machinery.

- 660 Blocking machines (lathes).
- 661 Rounding and cutting machines.
- 662 Wire-sewing machines.
- 663 Pouncing machines.
- 664 Hydraulic presses.

Rope-making machinery.

- 666 Forming machine.
- 667 Mattress-filling machines.

670-739 FOOD PRODUCTS, LABORATORY, AND TOBACCO MACHINES.

- 670 Apple corers.
- 671 Apple peelers.
- 672 Apple slicers.
- 674 Blanchers (canneries).

- 675 Blending machines.
- 676 Bottle washing, filling, and capping (or corking) machines.
- 676a Explosion or breaking of bottles when in or being removed from washing, filling, pasteurizing, crowning machines.
- 677 Bread-proofing machines.
- 679 Cherry pitters.
- 680 Cleaners.
- 681 Confectionery and sugar refining machines.
- 682 Presses.
- 687 Rolls (for forming candy).
- 688 Bagging and packing machines (bag rollers).
- 689 Other.
- 690 Corncutters.
- 691 Corn huskers.
- 692 Corn mixers.
- 693 Corn silkers.
- 695 Dough brakes.
- 696 Dough-depositing machines.
- 697 Dough dividers.
- 698 Dough mixers.
- 699 Dough molders.
- 700 Dough rounding and balling machines.
- 701 Dough machines (indefinite, and n. e. c.).
- 702 Egg beaters.
- 703 Filling and capping machines (canneries).
- 704 Graders (canneries).
- 705 Icing and marshmallow mixers.
- 706 Macaroni presses.
- 707 Choppers and slicers for meat, bread, etc.
- 708 Mills and grinders (flour, drug, paint, etc.).
- 709 Ice-crushing machines.
- 711 Ovens.
- 713 Coffee roasters.
- 714 Picking tables (canneries).
- 715 Pie-crust rollers.
- 716 Pie machines.
- 717 Pie markers.
- 718 Pie rimmers.
- 720 Sausage casers.
- 721 Tobacco-working machines.
- 730 Viners (canneries).
- 731 Washers (canneries).
- 732 Washing machines (except bottles).
- 739 Indefinite.

APPENDIX B.

RESOLUTIONS IN REGARD TO ACCIDENT AND WORKMEN'S COMPENSATION STATISTICS ADOPTED BY THE INTERNATIONAL ASSOCIATION OF INDUSTRIAL ACCIDENT BOARDS AND COMMISSIONS AT CHICAGO, JANUARY 12 AND 13, 1915.

In order that all the definitions and classifications approved and recommended by the association either as a result of the work of the Committee on Statistics and Compensation Insurance Cost or directly may be brought together and presented in one place, it has seemed desirable to review briefly the action of the association which immediately preceded the appointment of this committee, and to include as a part of this report the resolutions dealing with this subject which were adopted at the special meeting of the association held in Chicago January 12 and 13, 1915.

A special meeting of the National Association of Industrial Accident Boards and Commissions for the purpose of taking steps toward working out a plan for uniform statistics of industrial accidents which could be recommended to all the States and would thus make comparison of the experience of the various States possible was held at Chicago January 12 and 13, 1915.

The first action of the meeting was the adoption of the definition of a tabulatable accident practically uniform¹ with that which had been formulated at the joint conference on standardization of accident reports and tabulations held at Chicago October 12 and 13, 1914. This definition is as follows:

"All accidents causing death, permanent disability, or loss of time other than the balance of the day, turn, or shift on which the accident occurred shall be classified as tabulatable accidents, and a report of all such accidents to some State or national authority shall be required."

A standard report blank for the first report of accident was then agreed upon. This form is the same in all respects as that also agreed upon at the Chicago conference above referred to, having been adapted with a few changes from the earlier form recommended by a committee of the American Association for Labor Legislation. The standard report blank as finally adopted is as follows:

¹The definition finally adopted differed from the earlier one only in the substitution of the word "tabulatable" for "reportable." The resolutions adopted at the Chicago conference are given in full in Appendix C (p. 101).

STANDARD BLANK FOR ACCIDENT REPORTS.

FIRST REPORT OF ACCIDENT TO EMPLOYEE.

[To be filled out and sent in within 7 days of the accident.]

1. Employer, place, and time.

- a. Employer's name
- b. Office address: Street and No.; City or village
- c. Business (goods produced, work done, or kind of trade or transportation).....
- d. Location of plant or place of work where accident occurred, if not at office address: Street and No.; City or village
- e. Date on which accident occurred
- f. Hour of day; g. Hour injured person began work that day

2. Injured person.

- a. Name; Address
- b. Sex; c. Age; d. Single, married, widowed, or divorced.....
- e. Number of children under years.....
- f. Speak English?.....; If not, what language?
- g. Occupation when injured; In what department or branch of work?; Was this regular occupation?
- If not, state regular occupation
- h. Length of experience both here and elsewhere in occupation followed when injured.....
- i. Piece or time worker?; j. Wages, or average earnings, per day
- k. Working hours per day; l. Working days per week

3. Cause.

- a. Name of machine, tool, or appliance in connection with which accident occurred; By what kind of power driven?
- Hand feed or mechanical feed?; Part on which accident occurred.....
- b. Describe in full how accident happened
-
-

4. Nature and extent of injury.

- a. State exactly part of person injured and nature of injury.....
- b. Did injury cause loss of any member or part of a member? If so, describe exactly.....
- c. Attending physician or hospital where sent: Name and address
-
- d. Has injured person returned to work?; If so, give date and hour

Date of report; Made out by

The time for submitting the first report of accident was provided for in the following resolution:

"Unless the State law otherwise provides, notices of accidents terminating fatally within 7 days of the accident occurrence shall be given within 24 hours after death; all reportable accidents shall be reported on standard accident blanks, in full, within 7 days of the occurrence of the accident."

With these few fundamentals agreed upon, a further resolution was adopted providing—

"that the chairman appoint a permanent committee to which can be referred the item or items that can not be disposed of by the conference at this time."

The duties of this committee were outlined in the following resolution:

That it is the sense of this meeting that the committee on statistics and compensation insurance cost prepare as expeditiously as possible the following reports:

- (1) Uniform tables for the establishment of compensation costs.
- (2) Uniform classification of industries.
- (3) Uniform classification of causes of injuries.
- (4) Uniform classification of nature of injuries.

That the committee is directed without further authority to send a copy of this report to each member of this organization, and make final report at the regular meeting in September, 1915.

This committee was later named by the chairman as follows:

E. H. Downey, chairman, chief statistician, Wisconsin Industrial Commission, Madison, Wis.

Royal Meeker, Commissioner of Labor Statistics, Washington, D. C.

Robert K. Orr, manager State Accident Fund, Lansing, Mich.

W. N. Magoun, chief, Workmen's Compensation Bureau, Massachusetts Insurance Department, 508 Pemberton Building, Boston, Mass.

H. E. Ryan, associate actuary, New York Insurance Department, 165 Broadway, New York City.

Floyd L. Daggett, chairman, Industrial Insurance Commission, Olympia, Wash.

Fred C. Croxton, chief statistician, Industrial Commission, Columbus, Ohio.

Two additions to the committee were subsequently made:

Leonard W. Hatch, chief statistician, Industrial Commission, Albany, N. Y.

E. E. Watson, actuary, Industrial Commission, Columbus, Ohio.

APPENDIX C.

RESOLUTIONS RELATING TO ACCIDENT AND WORKMEN'S COMPENSATION STATISTICS ADOPTED BY THE CHICAGO CONFERENCE OF OCTOBER 12 AND 13, 1914.

A full account of the conferences held upon the initiative of the United States Bureau of Labor Statistics, for the purpose of standardizing accident and workmen's compensation reports and statistics prior to the Chicago meeting of the International Association of Industrial Accident Boards and Commissions, January 12 and 13, 1915, was given in Bulletin 157 of the United States Bureau of Labor Statistics and need not be repeated here. The resolutions of the Chicago conference of October 12 and 13, 1914,¹ reviewed and revised the work of all the earlier conferences, and it will, therefore, be useful to reprint them here. They are as follows:

1. *Definition of reportable accident.*—(a) All accidents causing death, permanent disability, or loss of time other than the balance of the day, turn, or shift on which the accident occurred shall be classified as reportable accidents, and a report of all such accidents to some State or national authority shall be required. (b) Where a compensation act provides for any expense on account of medical attendance or hospital treatment, thus necessarily involving a report of such cases, even though resulting in no loss of time or in a loss less than that specified above, such minor accidents should be classified separately in all tabulations and compiled reports. (c) The employer shall be required to enter upon his record all reportable accidents as above defined, and also all accidents causing a loss of time less than that above specified or requiring any medical attention.

2. *Classification of accidents according to their consequences.*—(a) Accidents should be classified according to their consequences, as resulting in death, total permanent disability, partial permanent disability, and temporary disability.

¹The minutes of the meeting give the following list of the persons present:

Representatives of official bodies handling accident statistics.—Commissioner Meeker, C. H. Verrill, United States Bureau of Labor Statistics; A. H. Fay, H. M. Wilson, F. H. Willcox, J. M. Sampson, United States Bureau of Mines; J. B. Vaughn, P. J. Angsten, Robert Eadie, W. V. Conley, Thomas A. Murphy, Industrial Board of Illinois; Edwin Mulready, Commissioner of Labor, Massachusetts; Richard L. Drake, Michigan Industrial Accident Board; Fred C. Croxton, Industrial Commission of Ohio; A. R. Houck, Lew R. Palmer, Pennsylvania Department of Labor and Industry; E. H. Downey, W. H. Burhop, Wisconsin Industrial Commission.

Members of National Council of Safety Committee on Standard Forms.—C. L. Close, United States Steel Corporation; James B. Douglas, United Gas Improvement Co.; Frederick L. Hoffman, Prudential Insurance Co.; W. B. Spaulding, St. Louis & San Francisco Railroad Co.

Representative of committee on standard schedules, American Association for Labor Legislation.—Dr. John B. Andrews.

Representatives of Workmen's Compensation Service Bureau, insurance companies, and employers.—Albert W. Whitney, C. E. Scattergood, C. M. Hanson, Workmen's Compensation Service Bureau, New York City; E. G. Trimble, Employers' Indemnity Corporation, Kansas City, Mo.; Louis I. Dublin, Metropolitan Life Insurance Co.; Dudley R. Kennedy, Youngstown Sheet & Tube Co., Youngstown, Ohio; George T. Fonda, Bethlehem Steel Co.; R. C. Richards, Chicago & North Western Railway Co.; Dr. D. Z. Dunoff, Western Maryland Railway Co.

(b) Accidents resulting in temporary disability should be classified according to length of temporary disability so as to show the number terminating in the 2d and 3d days, number terminating in the 4th to 7th days, inclusive, number terminating in the 2d week, in the 3d week, in the 4th week, in the 5th to 13th weeks, inclusive, in the 14th week and later.

3. *Time of reporting accidents.*—(a) In the case of accidents terminating fatally within 7 days of the accident occurrence, notice shall be given within 24 hours of death. All reportable accidents shall be reported, upon standard accident blanks, in full, within 7 days of the occurrence of the accident. (b) A committee shall be appointed to formulate a resolution covering the subject of the final report.

4. *Accident report forms.*—[The form of report adopted to be recommended for first reports of accidents does not differ from that adopted by the International Association at its Chicago meeting of January 12 and 13, 1915, except in question 2-e, which in the earlier form called for the number of children under 18 years. The later form is given in full on page 99.]

5. *Average number of men.*—(a) The basis used for the average number of men should be the actual number of man-hours for the year; that is, the total working time for all employees of the establishment or the department for the year reduced to the number of hours required for one man to do the same work. This should be taken from exact records if such records are in existence. (b) If this exact information is not available in this form in the records, then an approximation should be computed by taking the number of men at work (or enrolled) on a certain day of each month in the year, and the average of these numbers multiplied by the number of hours worked by the establishment for the year would be the number of man-hours measuring the exposure to risk for the year.

6. *Computation of rate of accidents.*—Accident rates should be expressed in terms of number of accidents per 1,000 full-time workers; that is, workers employed 300 days of 10 hours each.¹

7. *Classification of causes of accidents.*—The chair shall appoint a committee on the classification of causes of accidents, the committee to meet not later than early in December and to submit its report to a later meeting of the conference.

8. *Classification of nature and extent of injury.*—The chair shall appoint a committee on the classification of the nature and extent of injury, the committee to meet not later than early in December and to submit its report to a later meeting of the conference.

¹ This is in accordance with the practice of Germany, Austria, and a number of other European countries, and also in accordance with the recommendations of a joint committee of the permanent international committee on social insurance and the International Institute of Statistics. This method was used in Germany as early as 1897. See Germany: *Antliche Nachrichten des Reichsversicherungsamts 1899*. Beiheft. I. Teil, Unfallstatistik für das Jahr 1897. Berlin, 1899, pp. 5 ff. See also *Bulletin de l'Institut International de Statistique*, Vol. XV, pp. 54, 55. London, 1906; *Ibid.*, Vol. XVIII, Part II, p. 461, et seq. Paris, 1909.

APPENDIX D.

DEFINITIONS AND METHODS OF TABULATING THE VARIOUS KINDS OF INJURIES AND OF COMPENSATION PAYMENTS IN USE BY THE WORKMEN'S COMPENSATION SERVICE BUREAU.

[From Circulars 2603 and 2840 of the Workmen's Compensation Service Bureau.]

One of the most important purposes of the plan for securing and compiling workmen's compensation statistics is to determine the duration and the kind of benefits awarded under various acts for different kinds of disabilities resulting from injuries¹ broadly classified as follows:

1. Temporary total.
2. Temporary partial.
3. Permanent total.
4. Permanent partial—dismemberment.
5. Permanent partial—loss of use.
6. Permanent partial—exclusive of 4 and 5.
7. Disfigurement.

As an illustration of our meaning in the foregoing paragraph, let us take a dismemberment case in Massachusetts. In this State such a case may be compensated by three different kinds of payments—a benefit for the period of temporary total disability, another for the period of partial disability, the third being for the specific period allowed for the loss of member. Here we are confronted with a problem. The limiting conditions of the punch card do not permit the punching of more than one kind of payment on one card. Unless means were adopted to identify each one of the payments with the class of injury which gave rise to the different disabilities, the bureau when tabulating the experience would have no way of knowing whether the duration of and the payment for, say, temporary total disability was in connection with a dismemberment injury or one in the temporary total class.²

Therefore, to enable the bureau to allocate the payments to proper classes of injuries, a column has been provided on the punch card entitled "Kind of injury." In this column will be punched the injury in accordance with the definitions for "Kinds of injuries." In the column headed "Kind of compensation" will be punched the symbol for the particular kind of payment made, in accordance with the definitions for "Kinds of compensation benefit payments."

The designation of payment, of course, will always correspond with the kind of disabilities compensated.

In "Duration of injury" field will be punched the number of weeks during which the particular kind of benefit was paid, with waiting period added in case of temporary total payments. Thus it will be seen that the duration is associated with the kind of payment and not with the kind of injury.

The following illustrations show how the information will appear on punch cards.

¹ An injury involving amputation produces total disability for a time which may or may not be followed by partial disability; a laceration of the hand may totally disable at first and then partially.

² It is true that the various payments in dismemberment cases can be allocated to this class of injuries by means of the nature of injury field [of the punch card], but this is the only instance where this field can be utilized for such purposes.

(1) An injury in any State resulting, for example, in temporary total disability of 10 weeks' duration followed by temporary partial disability of 5 weeks' duration.

	Per cent impairment.	Kind of injury.	Duration, weeks.	Compensation paid.		Counter.
				Kind of payment.	Amount.	
1st card.....		Temporary total. (1)	10	Temporary total. (11)	\$56	1
2d card.....	29	Temporary total. (1)	5	Temporary partial. (12)	10	0

(2) Dismemberment case in Massachusetts receiving three kinds of benefits.

	Per cent impairment.	Kind of injury.	Duration, weeks.	Compensation paid.		Counter.
				Kind of payment.	Amount.	
1st card.....		Dismemberment (4)	20	Temporary total. (11)	\$180	1
2d card.....		Dismemberment (4)	50	Dismemberment (14)	500	0
3d card.....	40	Dismemberment (4)	380	Permanent partial. (16)	1,140	0

The attached tabulation of losses in 10,515 hypothetical cases gives at a glance the results that can be attained by the methods described above.

TABULATION OF LOSSES IN 10,515 HYPOTHETICAL NONFATAL CASES, ALLOCATING KINDS OF BENEFITS PAID TO CLASS OF INJURY PRODUCING THE DISABILITY SO COMPENSATED.

Sym- bol.	Kind of injury.	Total number of cases.	(11) Temporary total.			(12) Temporary partial.		
			Number of cases.	Dura- tion.	Amount.	Num- ber of cases.	Dura- tion.	Amount.
(1)	Temporary total.....	10,000	10,000	50,000	\$300,000	100	1,000	\$2,500
(2)	Temporary partial.....	50				50	500	1,000
(3)	Permanent total.....	10						
(4)	Dismemberment.....	200	100	1,000	10,000	40	1,200	3,600
(5)	Loss of use.....	200	100	1,000	10,000	40	1,200	3,600
(6)	Permanent partial.....	50	50	1,000	10,000	30	900	1,800
(7)	Disfigurement.....	5	5	50	500			
		10,515	10,255	53,050	330,500	260	4,800	12,500

Sym- bol.	Kind of injury.	(13) Permanent total.			(14) Dismemberment.			(15) Loss of use.		
		Num- ber of cases.	Dura- tion.	Amount.	Num- ber of cases.	Dura- tion.	Amount.	Num- ber of cases.	Dura- tion.	Amount.
(1)	Temporary total.....									
(2)	Temporary partial.....									
(3)	Permanent total.....	10	4,000	\$40,000						
(4)	Dismemberment.....				150	11,000	\$110,000			
(5)	Loss of use.....							150	11,000	\$110,000
(6)	Permanent partial.....									
(7)	Disfigurement.....									
		10	4,000	40,000	150	11,000	110,000	150	11,000	110,000

TABULATION OF LOSSES IN 10,515 HYPOTHETICAL NONFATAL CASES, ALLOCATING KINDS OF BENEFITS PAID TO CLASS OF INJURY PRODUCING THE DISABILITY SO COMPENSATED—Concluded.

Sym- bol.	Kind of injury.	(16) Permanent partial.			(17) Disfigurement.		
		Number of cases.	Duration.	Amount.	Number of cases.	Duration.	Amount.
(1)	Temporary total.....						
(2)	Temporary partial.....						
(3)	Permanent total.....						
(4)	Dismemberment.....	30	6,000	\$24,000	10	500	\$5,000
(5)	Loss of use.....	30	6,000	24,000			
(6)	Permanent partial.....	20	8,000	32,000			
(7)	Disfigurement.....				5	250	2,500
		80	20,000	90,000	15	750	7,500

DISTINCTION BETWEEN "KIND OF INJURY" AND "KIND OF PAYMENT."

The purpose of the "Kind of injury" column is to classify all accidents in accordance with their gravity. The nature of an injury may be complex from the very beginning, or may change from time to time. Nevertheless, each accident must be placed in a definite group according to the most predominant feature.

The purpose of the "Kind of payment" column is to analyze payments made. Many injuries call for more than one kind of payment, as for instance, dismemberment may call for temporary total disability payments, then for specific dismemberment payments, and for additional payments for either temporary or permanent partial disability.

Some difficulty is created by the use of similar terms in both columns. This is inevitable, but is easily overcome if the distinction between an injury and the resulting disability is carefully kept in mind.

Detailed instructions as to grouping of injuries and classification of payments are given in the following rules.

DISTRIBUTION OF INJURIES INTO GROUPS ACCORDING TO GRAVITY.

(In connection with "Kind of injury" column.)

1—TEMPORARY TOTAL.

To this group shall be assigned every injury which totally disables the injured person from performing any work at any gainful occupation without involving amputation or a permanent loss of any function, but from which injury the recovery is so complete in time that the workman is able to resume work in the same or other occupation and earn the same wages which he earned at the time of accident.

To this group shall also be assigned every injury where the resulting temporary total disability, as defined above, is followed by a period of temporary partial disability described in the paragraph immediately following.¹

2—TEMPORARY PARTIAL.

To this group shall be assigned every injury which does not involve amputation nor result in the permanent loss of any function, which does not disable the injured person from work in the same or other gainful employment, but which, for a time, merely impairs his earning power.

The decreased earnings may be due to inability to work full time, or to turn out as much product (if working piecework), or to inability to do heavy work and accepting lighter work at lesser wage.

¹ Temporary partial disability is very infrequently the immediate result of injuries; it is usually preceded by a period of temporary total disability. It is evident that an injury resulting in both total and partial disabilities must be designated either one or the other. Injuries first resulting in temporary total disability will, throughout, carry the designation "Temporary total." The fact that it was followed by temporary partial disability will be brought out by means of "Kind of compensation" column where the duration of and the payment for such disability will be indicated by the symbol for temporary partial payment, "12."

3—PERMANENT TOTAL.

To this group shall be assigned every injury resulting in loss of both eyes, total loss of eyesight or mental faculties, paralysis, or any other condition permanently incapacitating the workman from performing any work at any gainful occupation.

Certain injuries are conclusively presumed to constitute permanent total disabilities. In other cases the awards by industrial boards and courts will indicate whether the injury was adjudged permanent total. In other words, the act itself or the interpretation of the act by industrial boards should govern in this matter.

4—DISMEMBERMENT.

To this group shall be assigned every injury involving the loss of member or members or parts of members by traumatic or surgical amputation, including enucleation of eye.

Multiple amputations in combinations which render the injured person permanently totally disabled, or which the law conclusively presumes to constitute permanent total disability, shall not be considered Dismemberment so far as this classification is concerned, but shall be assigned to Permanent total group.

5—LOSS OF USE.

To this group shall be assigned every injury which results in total loss of use of that which can be dismembered, including loss of sight in one eye and total loss of hearing in one or both ears.

Loss of use of more than one member in such combinations as to render the injured person permanently totally disabled, or which by law is conclusively presumed to constitute permanent total disability, shall not be considered Loss of use, but shall be assigned to Permanent total group.

6—PERMANENT PARTIAL. (Other than dismemberment and loss of use.)

To this group shall be assigned every injury which results in partial loss of any function of the body, as of any member, or in permanent physical impairment, such as permanent stiff neck, chronic traumatic neurosis or neurasthenia, weakening of mental faculties, general debility on account of internal injuries, etc.

Examples of partial loss of function of members:

(1) Ankylosis of elbow joint (often result of compound comminuted fractures and sometimes due to improper treatment of simple fractures and dislocations) which, though preventing supination, pronation, or other motions, is not the same as loss of use of arm, there being some important functions that can still be performed with the arm itself and the hand; (2) ankylosis of wrist joint; (3) contracted palm from infection or other cause, where fingers are not involved; (4) severance of muscles and ligaments and the consequent loss of certain motions; (5) ankylosis of ankle and knee joints; (6) considerable shortening of leg, say $\frac{1}{4}$ of an inch or more, as a consequence of fractures; (7) partial loss of eyesight in one or both eyes; (8) impairment of hearing in one or both ears.

7—DISFIGUREMENT.

To this group shall be assigned every injury which results in *facial* disfigurement, even though accompanied by temporary total or partial disability. Facial disfigurements concurrent with dismemberment or loss of use are excluded from the group and shall be assigned to Dismemberment or Loss of use group, as the case may be.

NOTE.—An injury involving both amputation and loss of use may be assigned either to Dismemberment or Loss of use group, the choice to be governed by the predominating feature of the injury. Thus, an injury resulting in amputation of a finger and the loss of use of a leg should be placed in the Loss of use group.

TO RECAPITULATE.

Injuries producing temporary total disability, as defined in paragraph 1, and nothing else, or temporary total disability followed by temporary partial disability, and nothing else, shall be classified as temporary total.

Injuries producing temporary partial disability only, as defined in paragraph 2, shall be classified as temporary partial.

Injuries resulting in permanent total disability, as defined in paragraph 3, shall be classified as permanent total.

Injuries involving amputation of members, exclusive of combinations rendering injured person totally disabled, shall be classified as dismemberments.

Injuries resulting in complete loss of use of members, exclusive of combinations which render the injured person permanently totally disabled, shall be classified as loss of use.

Injuries resulting in partial loss of use of members, etc., as defined in paragraph 6, shall be classified as permanent partial.

Injuries resulting in facial disfigurement, and nothing else except temporary total or partial disability, shall be classified as disfigurements.

CODE FOR KINDS OF COMPENSATION BENEFIT PAYMENTS.

(In connection with "Kind of payment" column.)

DEFINITIONS.

Symbol.

11—**TEMPORARY TOTAL BENEFIT** shall mean the payment which is made for the time the injured party is rendered temporarily totally disabled, irrespective of whether such disability is in connection with temporary total, dismemberment, or any other class of injury.

Temporary total benefits are paid:

1st. In all States for an injury which, for a temporary time after the expiration of the specified waiting period, totally incapacitates the injured from all work;

2d. In Massachusetts, Rhode Island, and a number of other States in cases of amputation and other permanent partial injuries for the period during which the injured is totally incapacitated.

12—**TEMPORARY PARTIAL BENEFIT** shall mean the payment made for *temporary* impairment of earning power, irrespective of whether the partial disability so compensated results from an injury classified as Temporary total, Dismemberment, or any other class.

In other words, temporary partial benefit is awarded for the time the injured workman is working at reduced wages. This means that such compensation is usually applied in cases where the injured returns to work before he has fully recovered from the injury or become fully rehabilitated, and, therefore, unable to earn as much as he did before the accident.

Temporary partial payments may begin immediately after the termination of waiting period or after a period of temporary total disability.

13—**PERMANENT TOTAL BENEFITS** shall mean payments made in the case of injuries conclusively presumed by law or judicially determined by courts and industrial accident boards to constitute permanent total disability.

In some instances it is often impossible to predetermine whether the injury will result in temporary total or permanent total disability. If as a matter of policy or because the physician holds out hopes for complete or partial recovery the case is for the time being designated as temporary total, it may be treated as such until the expiration of the maximum period. Upon completion of last payment, change the designation of entire payment from temporary total to permanent total. It will be admitted that failure to recover in 400 or 500 weeks makes the likelihood of ultimate recovery rather nil, and for this reason the disability may from the statistical point of view be safely considered as permanent total.

14—**DISMEMBERMENT BENEFITS** shall mean only that portion of payments made in the case of loss of members which is based upon the specific or fixed number of weeks allowed in the act.

In States providing specific indemnity in lieu of all other, the entire benefit shall be designated "Dismemberment."

In States providing other benefits in addition to specific, only the specific benefit shall be considered a dismemberment payment. No part of the benefit shall be designated dismemberment in States where dismemberments are compensated on basis of time lost from work and impairment of wage-earning power.

- 15—LOSS OF USE.—Since loss of use is compensated in all States on the same basis as dismemberment it follows that the remarks under “Dismemberment” apply equally well to “Loss of use” payments. The specific benefits paid in cases of total or partial loss of use of that which can be dismembered shall be designated as “Loss of use” payments.
- 16—PERMANENT PARTIAL BENEFITS shall mean only those payments which are made for *permanent* impairment of earning power and nothing else. The term permanent partial shall not be used to designate a payment for dismemberment in States providing for such injury, compensation based on a fixed number of weeks in lieu of all other compensation; nor should it be used for this purpose in Illinois and States having similar laws where compensation for permanent partial *injuries* is based on temporary total disability in addition to the specific indemnity.
- The term permanent partial, as applied to payments, should not be confounded with a similar term used in our classification of injuries and in all compensation acts to designate such injuries as amputation of finger, hand, leg, etc., or loss of use of such members. The confusion, if any, arises from the failure to differentiate between “Permanent *injury*” and “Permanent *disability*.” A laborer does not necessarily become permanently partially disabled because of the loss of his little finger. In a short time he can wield his pick and shovel as well as ever. In Massachusetts and Rhode Island a case like this would be compensated on basis of time lost from work (temporary total payment) in addition to the fixed (specific dismemberment) sum allowed for loss of finger. *It is to be noted that the term permanent partial is not used at all in this case so far as it concerns the kind of payment.* Should, however, the loss of finger, upon his return to work, prevent the workman from following his usual occupation, and force him to do work at a lower wage, he would, in above States, be entitled to further compensation for the impairment of his earning power (50 per cent or some other per cent of the difference between his former wage and the wage he is now earning).
- If the impairment is only temporary, the payment should be designated “Temporary partial”; but if the impairment is lasting, or at least continues for the maximum period fixed by law, then the payment is to be designated *permanent partial*.
- 17—DISFIGUREMENT BENEFITS.—Payments shall be considered as such only when the award by the industrial board specifically states that they were made under the disfigurement section of the act. In California and one or two other States, such compensation is only paid for facial disfigurement. It is only in Illinois that disfigurements to hand (including amputation of fingers, with or without involvement of metacarpal bones) may be compensated under the disfigurement section. If the files indicate that the loss of fingers or a similar injury was compensated under this section, then the payments *must* be shown as disfigurement and not dismemberment.
- 18—ALL OTHER COMPENSATION PAYMENTS.—This classification was inserted in the code to provide for amendments to laws establishing forms of compensation other than those enumerated in the code. Its use will readily suggest itself when the proper occasion arises.
- 19—LIABILITY CLAIM PAYMENTS shall mean amounts paid to an injured employee who has either elected not to come under the workmen’s compensation act, or who is otherwise excluded from compensation benefits under the act and recovers damage under common law.

NOTE.—The entire amount of the benefit paid in the State of California for permanent disability in all cases of injuries classed as Dismemberment, Loss of Use, or Permanent Partial, shall be designated as Permanent Partial Payments (symbol 16).

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