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U. S. DEPARTMENT OF COMMERCE
ROY D. CHAPIN, Secretary
BUREAU OF THE CENSUS
W. M. STEUART, Director

FIFTEENTH CENSUS OF THE UNITED STATES

**DISTRIBUTION OF SALES
OF MANUFACTURING PLANTS**



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LETTER OF TRANSMITTAL

DEPARTMENT OF COMMERCE,
BUREAU OF THE CENSUS,
Washington, D. C., October 20, 1932.

SIR: I transmit herewith the volume on Distribution of Sales of Manufacturing Plants of the Fifteenth Decennial Census. This report contains statistics on the channels of sale employed by manufacturing plants for 300 industries as well as charts for all industries combined and 59 of the more important individual industries. These statistics were compiled from data obtained by mail and personal canvass at the 1929 Censuses of Manufactures and Distribution, which were taken in conformity with the act providing for the Fifteenth Decennial Census approved June 18, 1929.

The collection and compilation of these statistics and the preparation of this volume were under the supervision of Robert J. McFall, chief statistician for distribution, and Edward R. Dewey, while chief of industrial marketing, assisted by Ralph C. Janoschka and Grace W. Knott. Mr. LeVerne Beales, chief statistician for manufactures, cooperated in the collection of the data.

Respectfully,

W. M. STEUART,
Director of the Census.

Hon. ROY D. CHAPIN,
Secretary of Commerce.

amounts have in most instances been deducted from the total sales figure. Only in those instances where the figure for contract work would have disclosed data for individual establishments, has this amount been left in the sales figure.

15. **Inventory.**—The amounts reported under this head representing greater production than sales, or conversely, greater sales than goods produced, are so listed only for purposes of reconciling sales figures to production figures, and should not be regarded as actual inventories.

16. **Wholesaling.**—In addition to the sale of goods of their own manufacture, some companies buy and sell goods not made by them. In many instances, manufacturers have included the sales of such goods in their total sales. The amounts reported under

the heading, however, are not representative of the total amount of wholesaling done by the manufacturers.

17. **Interplant transfers.**—The amounts reported under this heading represent the value of goods transferred from one plant of a company to another plant of the same company, the goods so transferred being used by the plant to which they were transferred as material for further processing or fabrication, as containers, or as parts of finished products.

18. **Sales not distributed.**—In some industries, certain manufacturing plants were unable to classify their sales by types of customers. The total distributed sales figures for these industries do not include the sales of such manufacturing plants. In such instances, however, the amount of sales not distributed is shown in Table 3.

DESCRIPTIONS OF INDUSTRIES

(The numerals appearing in parentheses after the industry titles represent the group numbers under which the statistics for the several industries may be found in Tables 1 and 2.)

Agricultural implements.—(13)—This classification covers 293 manufacturing plants engaged primarily in making products falling into the following classes: (1) Plows and listers; (2) harrows, rollers, pulverizers, and stock cutters; (3) planting and fertilizing machinery; (4) cultivators and weeders; (5) harvesting machinery; (6) haying machinery; (7) machines for preparing crops for market or for use; (8) miscellaneous agricultural implements, such as straw spreaders, seed-potato cutters, equalizers, hay carriers (forks and slings), tracks for hay carriers, etc. (The annual report on the manufacture and sale of farm equipment, published separately, gives production and sales statistics for certain classes of farm equipment such as tractors, which are not treated as products of the "Agricultural implements" industry.)

Aircraft and parts.—(14)—This classification covers 132 manufacturing plants engaged primarily in making complete aircraft and aircraft parts, except engines and tires; and in repairing aircraft. Plants which make aircraft engines for sale as such are classified in the "Engine, turbine, tractor, and water wheel" industry. Plants operated by the Federal government are not included in this classification.

Alcohol, ethyl, and distilled liquors.—This classification covers 30 manufacturing plants engaged primarily in the production of ethyl alcohol, pure or denatured, whisky, and nonbeverage rum. (Methanol, or wood alcohol, is a product of the "Wood distillation and charcoal manufacture" industry.) *(No distribution of sales statistics published. See p. 2 of text.)*

Aluminum manufactures.—(12)—This classification covers 150 manufacturing plants engaged primarily in making aluminum plates and sheets; motor-vehicle and other commercial castings; kitchen and household utensils and appliances (except electrical appliances); bottle closures; and other aluminum products. The manufacture of pig aluminum from the ore is not included in this industry, but is classified in the chemicals industry. Plants engaged in the recovery of aluminum from scrap are classified in the "Smelting and refining, metals other than gold, silver, or platinum, not from the ore" industry.

Ammunition and related products.—(6)—This classification covers 21 manufacturing plants engaged primarily in making ammunition and such related products as fuses, blasting and detonating caps, miners' squibs, railroad torpedoes, etc. Plants engaged in making dynamite and other explosives for use in blasting, and nitroglycerin for "shooting" oil wells are included in the "Explosives" industry; plants making fireworks are

covered by a separate classification. Commercial manufacturers only are classified in the ammunition industry, no data having been collected from Government plants.

Artificial and preserved flowers and plants.—(16)—The 191 manufacturing plants classified in this industry are engaged primarily in making artificial flowers, leaves, buds, fruits, palms, grasses, vines, and other plants; the preservation of natural flowers and plants; and the preservation of stems and other parts for use in the manufacture of artificial flowers. The principal materials used are textiles, wax, and paper.

Artificial leather.—(2)—This classification covers 17 manufacturing plants engaged primarily in making artificial or imitation leather on a textile base. All artificial or imitation leather is included in this classification regardless of the uses of the finished product. Statistics for this industry include the distribution of sales of secondary products, such as lacquers, enamel, coated paper, rubber autotops, oilcloth, window-shade cloth, etc., valued at \$2,506,274.

Artists' materials.—(16)—The principal products of the 68 manufacturing plants covered by this classification are canvas board, prepared canvasses or frames, air brushes for portrait work, air compressors for art work, easels, drawing tables and boards, palettes, sketch boxes, and pantographs; oil colors, wax, tailors' chalk, crayons, and crayon pencils; gold and bronze mixtures, powders, paints, and size; gold and aluminum enamel and paint for china painting; pyrography goods, including platinum points; drawing inks; and drafting materials.

Asbestos products, steam and other packing, pipe and boiler covering, and gaskets, not elsewhere classified.—(10)—This classification covers 238 manufacturing plants engaged primarily in making asbestos textiles, asbestos building materials, and other commodities composed wholly or chiefly of asbestos; packing for steam, water, and other pipe joints, and for engines, air compressors, etc.; insulating materials for covering boilers and pipes; and gaskets made of fiber, paper, or any combination of materials. Manufacturers whose principal products are cork gaskets, rubber gaskets, or leather gaskets, are classified in the "Cork products," rubber goods, and the leather goods industries, respectively; but plants making two or more classes of gaskets are included in this industry classification.

This classification is a combination of two Census of Manufactures industry classifications. They are "Asbestos products, other than steam packing or pipe and boiler covering" and "Steam and other packing, pipe and boiler covering, and gaskets, not elsewhere classified." The distribution of sales data for

these two industries were combined because of a considerable overlapping between them.

Asphalted-felt-base floor covering and linoleum.—(2)—The 21 manufacturing plants covered by this classification are those whose principal products are plain, printed, and inlaid linoleum, a form of linoleum known as "cork carpet," and asphalted-felt-base floor covering. Linoleum is made on a textile (burlap) foundation or backing which is not made within the industry but is purchased.

This classification is a combination of two Census of Manufactures industry classifications. They are "Asphalted-felt-base floor covering," and "Linoleum." The distribution of sales data for these two industries were combined because of considerable overlapping between them.

Awnings, tents, sails, and canvas covers.—(2)—The 1,002 manufacturing plants covered by this classification are engaged primarily in making window, store, and veranda awnings; tents, sails, and tarpaulins; and canvas covers for trucks, furniture, etc. (Small plants which make these goods to individual order are not covered by the census.) Statistics for this industry include the distribution of sales of secondary products, valued at \$4,647,333, but do not include the distribution of sales of these commodities, amounting to \$2,176,831, made as secondary products in other industries.

Bags, other than paper, not made in textile mills.—(2)—The principal products of the 202 manufacturing plants covered by this classification are jute and canvas bags for mail, coal, cement, grain, flour, meal, money, etc.; bags for use by carpenters, newsboys, and fruit pickers; individual tea-service bags, etc. This industry does not include the manufacture of bags made and used by the same plants as containers for flour, tobacco, cement, or other commodities of their own manufacture; nor does it include the production of bags in cotton mills. Statistics for this industry include the distribution of sales of secondary products, valued at \$3,633,512, but do not include the distribution of sales of bags made as secondary products in other industries valued at \$4,099,219 (including \$2,031,568, the value of bags made in cotton mills from fabrics of their own weaving).

Bags, paper, exclusive of those made in paper mills.—(4)—The 95 manufacturing plants covered by this classification are engaged primarily in making, from purchased paper, bags for groceries and other merchandise, shopping bags, and garment bags. Some establishments in certain other industries manufacture the paper bags in which their products are shipped, but the value of such bags is not separately reported. Statistics for this industry do not include the distribution of sales of paper bags made as secondary products in other industries.

Baking powders, yeast, and other leavening compounds.—(6)—This classification covers 48 manufacturing plants engaged primarily in making baking powders, yeast, and other compounds for leavening purposes. Statistics for this industry include the distribution of sales of secondary products (flavoring extracts, bakers' supplies, vinegar, and alcohol) valued at \$5,023,405.

Baskets and rattan and willow ware, not including furniture.—(3)—This classification covers 273 manufacturing plants engaged primarily in making baskets of all kinds; fruit, floral, berry, and truck packages; laundry and bushel hampers; coffee drums; splint and wicker trays; rattan and cane webbing; and, in general, small articles made of veneer, reed, rattan, and willow. Statistics for this industry do not include the distribution of sales of these commodities made as secondary products in other industries valued at \$4,021,680.

Belting other than leather and rubber, not made in textile mills.—(2)—This classification covers 9 manufacturing plants engaged primarily in the manufacture, from purchased fabrics, of cotton and canvas belting, both sewed and endless, and balata belting.

Belting, leather.—(9)—The 207 manufacturing plants covered by this classification are engaged primarily in making leather belting for use in the transmission of power. Statistics for this industry include the distribution of sales of leather packing or other secondary products valued at \$9,005,524. Leather belts for wear on the person are products of the "Leather goods, not elsewhere classified" industry, and the manufacture of rubber belting is included in the "Rubber goods other than tires, inner tubes, and boots and shoes" industry.

Beverages.—(1)—This classification covers 5,154 manufacturing plants engaged primarily in making carbonated beverages (not including spring waters), cereal beverages, and fruit beverages. Many of the products of the industry are made according to secret formulas and sold under trade-mark names. Plants engaged solely in bottling products manufactured by others, or natural waters, are not classified in this industry, nor are plants making cider, which is a product of the "Vinegar and cider" industry. In the main, plants which manufacture fruit beverages and sell them at retail are not included in this classification, although a number of the plants canvassed sell a part of their product at retail.

Billiard and pool tables, bowling alleys, and accessories.—(3)—This classification covers 40 manufacturing plants engaged primarily in making billiard and pool tables, cues, balls, chalk, and other accessories, and bowling alleys and accessories. Statistics for this industry do not include the distribution of sales of these commodities, valued at \$1,023,580, made as secondary products in other industries.

Biscuits and crackers.—(1)—This classification covers 375 manufacturing plants operating on a factory basis and engaged primarily in making biscuit (except raised biscuit), crackers, machine-made cookies, pretzels, and similar commodities packed in containers and designed to retain palatability for an indefinite period. This is not a Census of Manufactures industry classification, but a subclassification of the industry "Bread and other bakery products."

Blacking, stains, and dressings.—(6)—The 170 manufacturing plants covered by this classification are those engaged primarily in making blackings, waxes, stains, polishes (including stove polish), dressings, etc., for leather, boots and shoes, automobile tops, etc.

Bluing.—(6)—This classification covers 20 manufacturing plants engaged primarily in the production of laundry bluing, soluble and liquid, aniline blue, etc. Statistics for this industry include the distribution of sales of secondary products, valued at \$240,510, but do not include the distribution of sales of bluing, valued at \$258,465, made as a secondary product in other industries.

Bolts, nuts, washers, and rivets, not made in plants operated in connection with rolling mills.—(11)—This classification covers 117 manufacturing plants engaged primarily in the manufacture of bolts, nuts, rivets, lock washers, plate washers, riveting burrs, turnbuckles, toggle bolts, etc. The phrase "not made in plants operated in connection with rolling mills," refers to production in plants operated entirely independently of rolling mills, although in some cases under the same ownership. Statistics for this industry do not include the distribution of sales of these commodities made in rolling mills, valued at \$18,890,021, or as secondary products in other industries, valued at \$6,899,302.

Bone black, carbon black, and lampblack.—(6)—This classification covers 77 manufacturing plants engaged primarily in the manufacture of bone black, carbon black, and lampblack. Bone black, also known as "char" or animal charcoal, is produced by the carbonization of bone in retorts; carbon black, by the imperfect combustion of natural gas; and lampblack, by the imperfect combustion of coal or wood tar, petroleum, rosin, etc. Statistics for this industry do not include the dis-

tribution of sales of bone black, carbon black, and lampblack, valued at \$2,241,415, made as secondary products in other industries.

Bookbinding and blank-book making.—(5)—This classification covers 1,108 manufacturing plants engaged primarily in the binding of books and pamphlets; the manufacture of blank books, such as ledgers, account books, sales books, receipts, checks, loose-leaf devices, inventory and similar blanks, and indexes; and related work, such as paper ruling and cutting, embossing, paper and card etching, map and sample mounting, etc. Binderies operated by publishers for their own publications are not included in this classification. Statistics for this industry do not include the distribution of sales of products normally classified in the bookbinding industry, valued at \$21,296,296, made as secondary products in other industries.

Boot and shoe cut stock, not made in boot and shoe factories.—(9)—This classification covers 210 manufacturing plants engaged primarily in making, from substances other than rubber, uppers, soles, tops, lifts, heels, tips, inner soles, etc., for sale to plants which use them as materials in the manufacture of boots, shoes, and other footwear. Cut stock is also manufactured for sale, although made principally for their own consumption, by some plants in the boot and shoe industry, and a small amount of cut stock is made as a secondary product by plants classified in other industries.

Boot and shoe findings, not made in boot and shoe factories.—(9)—This classification covers 382 manufacturing plants engaged in making, for sale as such, shoe pegs, bows, clasps, stays, metal tips and heelplates, toe caps and heel caps, buckles, staples, counters, shanks, wooden heels, shoe trimmings, boot and shoe laces, and other findings for the boot and shoe trade. Many plants engaged in making boots and shoes also manufacture findings, principally for their own consumption but also to some extent for sale, and plants in some other industries manufacture them as secondary products.

Boots and shoes, other than rubber.—(9)—This classification covers 1,341 manufacturing plants engaged in making boots, shoes, sandals, slippers, moccasins, leggings, overgaiters, and allied footwear, chiefly of leather, although footwear made of canvas and of other textile fabrics is also included. Some plants make only moccasins, sandals, spats, etc.

Boots and shoes, rubber.—(8)—This classification covers 22 manufacturing plants engaged primarily in making rubber boots, shoes, overshoes, and canvas rubber-soled shoes. Statistics for this industry do not include the distribution of sales of rubber boots and shoes, valued at \$17,179,649, made as secondary products in other industries (principally other rubber industries).

Boxes, cigar, wooden.—(3)—This classification covers 118 manufacturing plants engaged primarily in making wooden boxes in which cigars are packed for sale. (Data for paper cigar boxes are included in statistics for the "Boxes, paper, not elsewhere classified" industry.) (*No distribution of sales statistics published. See p. 2 of text.*)

Boxes, paper, not elsewhere classified.—(4)—The 1,249 manufacturing plants covered by this classification are engaged primarily in the manufacture of shipping containers; cartons and folding boxes; set-up paper boxes; paper cans; decorated, lithographed, lacquered, and fancy covered paper boxes; and other paper boxes and containers. Statistics for this industry do not include the distribution of sales of paper boxes made as secondary products in other industries.

Boxes, wooden, except cigar boxes.—(3)—The 792 manufacturing plants covered by this classification are those engaged primarily in making wooden boxes (not including cigar boxes); crates for butter, fruits, berries, and vegetables; box shooks; cases for eggs and canned goods; carrier trays; etc. Plants operating sawmills, even though their principal products may be boxes, are classified in the lumber and timber products

industry. Statistics for this industry do not include the distribution of sales of wooden boxes, valued at \$72,647,965, made as secondary products in the lumber and timber products, planing-mill products, and other industries.

Bread and other bakery products, other than biscuits and crackers.—(1)—This classification covers 20,410 manufacturing plants engaged primarily in making bread, cakes, pies, and other bakery commodities designed for consumption within a few days and distributed locally or within the radius of quick delivery. Plants making biscuits and crackers or similar products designed to be packed in containers and to retain their palatability for an indefinite period are included in a separate classification. Bakeries operated in connection with restaurants, chain stores, etc., are included whenever it is possible to segregate the bakery business from the other business, or, if such segregation is impossible, where it is obvious that the income derived from the bakery business constitutes the greater part of the total income. This is not a Census of Manufactures industry classification but a subclassification of the industry "Bread and other Bakery products."

Brooms.—(16)—This classification covers 407 manufacturing plants engaged primarily in making household brooms, whisk brooms, etc., from broom corn and from bassine, and street-sweeping brooms from heavier material. Institutions for the blind engaged in the manufacture of brooms are not included in this classification. The production of such institutions was valued at \$1,507,885.

Brushes, other than rubber.—(16)—This classification covers 303 manufacturing plants engaged primarily in making brushes, other than rubber, such as tooth, toilet, paint and varnish, household, and industrial brushes.

Butter.—(1)—This classification covers 3,527 plants (not located on farms) which are engaged primarily in making butter. Data in regard to the production of butter on farms are collected in connection with the quinquennial Census of Agriculture. Statistics for this industry include the distribution of sales of secondary products (cheese and ice cream) made and sold by these plants, or other dairy products purchased and sold by them.

Buttons.—(16)—This classification covers 242 manufacturing plants engaged primarily in making buttons, parts of buttons, and button blanks and molds, regardless of kinds of materials used.

Candles.—(6)—This classification covers 20 manufacturing plants engaged primarily in making candles for lighting or for decorative and ornamental purposes. Statistics for this industry do not include the distribution of sales of candles, valued at \$1,972,792, made as secondary products in other industries.

Canning and preserving: Fish, crabs, shrimps, oysters, and clams.—(1)—This classification covers 348 manufacturing plants engaged primarily in canning, pickling, smoking, drying and boning fish, and in canning shrimps, oysters, clams, etc. It does not include plants engaged primarily in shucking and shipping fresh oysters in nonsealed containers.

Canning and preserving: Fruits and vegetables; pickles, jellies, preserves, and sauces.—(1)—This classification covers 2,997 manufacturing plants whose principal products are canned vegetables and soups; canned fruits; dried fruits; dried and dehydrated vegetables; preserves, jams, jellies, and fruit butter; and pickles, sauces, salad dressings, ketchup, etc. The canning of meat and other products by plants classified in the meat-packing industry; the manufacture of condensed and evaporated milk, sweetening sirups, and peanut butter; and the drying and packing of fruits on farms, are not included in this industry.

Car and general construction and repairs, electric-railroad repair shops.—This classification covers 446 repair shops maintained by electric railroads for the purpose of making

repairs on rolling stock. (*No distribution of sales data published. See p. 2 of text.*)

Car and general construction and repairs, steam-railroad repair shops.—This classification covers 1,851 repair shops maintained by steam railroads for the purpose of making repairs on rolling stock and bridges. (*No distribution of sales data published. See p. 2 of text.*)

Carbon paper and inked ribbons.—(16)—This classification covers 57 manufacturing plants engaged primarily in making carbon paper for typewriters, sales books, etc., inked ribbons for typewriters, adding machines, cash registers, etc.

Cardboard, not made in paper mills.—(4)—This classification includes 13 manufacturing plants engaged primarily in surface coating and glazing paper, box board, fiber board, and the like. The principal products are printers' cardboard, display cut-outs, lithographic mounts, etc. Statistics for this industry include the distribution of sales of secondary products but do not include the distribution of sales of cardboard made as a secondary product in other industries, principally the paper industry.

Card cutting and designing.—(4)—This classification covers 70 manufacturing plants engaged primarily in making index, library, and record cards; guides, etc.; stencil cards for addressing machines; photograph mats, mounts, and folders; pattern cards for weaving; and related products.

Carpets and rugs, rag.—(2)—This classification covers 94 manufacturing plants whose principal products are rag and fluff carpets and rugs made from materials obtained from old carpets and rugs, and to some extent from cotton yarns, cut rags, and mill ends. Some of the materials were owned by the plants, and some by individuals or plants having them made up on a contract basis.

Carpets and rugs, wool, other than rag.—(2)—This classification covers 67 manufacturing plants engaged primarily in making carpets and rugs (other than rag) in which wool is one of the principal materials. Such rugs are usually made with a jute, cotton, or linen back. Jute carpets and rugs are products of the "Jute goods" industry, and the manufacture of rag carpets and rugs is classified as a separate industry under the designation "Carpets and rugs, rag."

Carriage, wagon, sleigh, and sled materials.—(14)—This classification covers 45 manufacturing plants whose principal products are materials and parts, except springs (which have a separate classification), for horse-drawn vehicles, wheelbarrows, and handcarts. These products, which are sold in part for use in the manufacture of new vehicles and in part for replacement purposes, include among other items, bodies, tops, hubs, felloes, spokes, wheels, whiffletrees, carriage boots and aprons, axles, dashboards, neck yokes, and whip sockets.

Carriages and sleds, children's.—See "*Toys, games, playground equipment, and children's carriages and sleds*" industry.

Carriages, wagons, sleighs, and sleds.—(14)—The primary products of the 88 manufacturing plants covered by this classification are complete horse-drawn vehicles (including sleighs and sleds) of all classes, handcarts, pushcarts, and wheelbarrows. Some plants manufacture, in addition to complete vehicles, parts and materials for sale as such, but those engaged exclusively or principally in the production of parts and materials are classified separately in the "Carriage, wagon, sleigh, and sled materials" industry. Statistics for the "Carriages, wagons, sleighs, and sleds" industry do not include the distribution of sales of these commodities, valued at \$3,589,656, made as secondary products in other industries.

Cars, electric and steam-railroad, not built in railroad repair shops.—This classification covers 147 manufacturing plants (not including railroad repair shops) engaged primarily in building, rebuilding, and repairing railroad cars. (*No statistics published. See p. 2 of text.*)

Cash registers and adding, calculating, and card-tabulating machines.—(13)—This classification covers 46 manufacturing plants engaged primarily in making cash registers; adding and calculating machines; fare registers and fare boxes; taxicab meters; slide rules; change-making machines; coin-counting, ticket-counting, and other counting machines; voting machines; and card-punching, card-sorting, and card-tabulating machines.

Caskets, coffins, burial cases, and other morticians' goods.—(3)—This classification covers 414 manufacturing plants engaged primarily in making caskets and coffins, of wood or of metal, burial cases, shipping cases, and morticians' supplies and accessories, such as burial garments, gloves and slippers, casket linings and draperies, ambulance baskets, lowering devices, couches, embalming tables, and embalming fluids.

Cast-iron pipe.—(11)—This classification covers 72 manufacturing plants engaged primarily in making cast-iron pipe and fittings for gas, water, sewage, etc. It has little relation to the manufacture of wrought-iron and steel pipe. Statistics for this industry do not include the distribution of sales of cast-iron pipe, valued at \$11,274,666, made as secondary products in other industries.

Cement.—(10)—This classification covers 174 manufacturing plants engaged in making hydraulic cement from rock usually quarried by the manufacturing plants. The principal product is Portland cement, but small quantities of natural and puzzolan cements are also manufactured by these establishments. Portland cement is a calcined and ground mixture of limestone, chalk or marl, and clay or shale. Natural cement is an argillaceous limestone, calcined and ground. Puzzolan cement is made by grinding a mixture of furnace slag and slaked lime.

Cereal preparations.—(1)—This classification covers 121 manufacturing plants engaged primarily in making breakfast foods, prepared flour, coffee substitutes, and similar preparations from corn, oats, wheat, and other grains. Statistics for this industry include the distribution of sales of secondary products, valued at \$40,575,140, but do not include the distribution of sales of cereal preparations, valued at \$37,354,310 made as secondary products in other industries.

Cheese.—(1)—This classification covers 2,758 manufacturing plants engaged primarily in making cheese. The sale of other products, such as butter, ice cream, milk and eggs, made and sold or purchased and sold by these plants, is included in the distribution of sales statistics for this classification.

Chemicals, not elsewhere classified.—(6)—This classification covers 551 manufacturing plants engaged primarily in making products falling within the following nine groups: (1) Acids; (2) nitrogen and fixed-nitrogen compounds; (3) sodium compounds; (4) potassium compounds; (5) alums and other aluminum compounds; (6) bleaching compounds; (7) coal-tar products; (8) plastics; (9) miscellaneous chemicals. It does not include the production of all classes of chemicals in the broad sense of the term, the principal exceptions being explosives, fertilizers, soap, and wood-distillation products, the manufacture of each of which is treated as a separate industry. Statistics for this classification include the distribution of sales of secondary products, valued at \$59,168,229, but do not include the distribution of sales of commodities falling in the nine classes of chemicals mentioned above, valued at \$87,048,026, made as secondary products in other industries.

Chewing gum.—(1)—This classification covers 37 manufacturing plants engaged primarily in making chewing gum from such materials as crude gum or chicle, paraffin, essential oils, flavoring extracts, etc.

China firing and decorating, not done in potteries.—(10)—This classification covers 27 manufacturing plants engaged primarily in firing and decorating china for the trade. Small plants engaged in such work for private customers or to individual order were not canvassed.

Chocolate and cocoa products.—(1)—This classification covers 59 manufacturing plants engaged in the manufacture of chocolate from the cocoa bean, and the further manufacture of cocoa, cocoa butter, and other chocolate products. Of the 59 plants reporting for 1929, 19 were engaged primarily in making confectionery but made chocolate coatings for their own use and some chocolate and cocoa products for sale. These plants are classified in both the chocolate and cocoa products and the confectionery industries.

Cigarettes.—(16)—This classification covers 49 manufacturing plants engaged primarily in making cigarettes. This is not a Census of Manufacture industry classification, but a subclassification of the industry "Cigars and cigarettes." (See the industry description for the "Tobacco: Chewing and smoking, and snuff" industry for a reconciliation between the number of establishments included in this classification and that shown in the report of the Bureau of Internal Revenue.)

Cigars.—(16)—This classification covers 1,587 manufacturing plants engaged primarily in making cigars. This is not a Census of Manufactures industry classification, but a subclassification of the industry "Cigars and cigarettes." (See the industry description for the "Tobacco: Chewing and smoking, and snuff" industry for a reconciliation between the number of establishments included in this classification and that shown in the report of the Bureau of Internal Revenue.)

Clay products (other than pottery) and nonclay refractories.—(10)—This classification covers 1,749 manufacturing plants engaged primarily in making brick, drain-tile, and other tile, sewer pipe, stove lining, terra-cotta products, and other refractories, both clay and nonclay.

Cleaning and polishing preparations.—(6)—This classification covers 429 manufacturing plants engaged primarily in making washing, ironing, and sweeping compounds, preparations for cleaning gloves and other wearing apparel, furniture polish, floor and laundry wax, paint and varnish removers, metal polish, etc. Statistics for this industry do not include the distribution of sales of these commodities made as secondary products of other industries valued at \$14,463,971.

Clocks, watches, and parts.—(12)—This classification covers 121 manufacturing plants whose primary products fall into one or another of four Census of Manufactures industry classifications, namely, "Clocks, clock movements, time-recording devices, and time stamps," "Watch and clock materials and parts, except watchcases," "Watchcases," and "Watches and watch movements."

Clothing (except work clothing), men's, youths', and boys', not elsewhere classified.—(2)—This classification covers 3,691 manufacturing plants engaged primarily in the manufacture of men's, youths', and boys' outer clothing, such as overcoats, suits, separate coats, separate trousers, smoking and similar jackets, raincoats, and bathing suits made from purchased fabric, and the manufacture of parts of garments, such as shoulder pads, pockets, coat fronts, and padding, when done by plants engaged primarily in the manufacture of such commodities. Neither custom tailor shops nor manufacturers whose principal products are fur and fur-lined garments, hats, gloves, and mittens, boots and shoes, hosiery, and underwear and outerwear made in knitting mills, are included in this industry.

Of the 3,691 manufacturing plants covered by this classification, 1,524 do only contract work (labor performed on materials owned by others). The service sales of these contract shops are not included in the distribution of sales data for this industry.

Clothing, men's, buttonholes.—This classification covers 32 plants engaged wholly or mainly in buttonhole making done on contract. (*No distribution of sales statistics published. See text, p. 2.*)

Clothing, women's, not elsewhere classified.—(2)—The 8,082 manufacturing plants covered by this classification are those whose principal products are women's, girls', and children's clothing (except that made in knitting mills), such as suits, dresses, skirts, petticoats, kimonos, dressing sacks, house dresses, bungalow aprons, jackets, capes, underwear, shirt waists, bathing suits, dress shields, etc. The manufacture of corsets, millinery, gloves and mittens, footwear and hosiery, and of underwear and outerwear made in knitting mills, is not included, as these products are classified in other industries.

Of the 8,082 manufacturing plants classified in this industry, 2,906 do only contract work (labor performed on materials owned by others). The service sales of these contract shops are not included in the distribution sales data for this industry.

Clothing, work (including sheep-lined and blanket-lined work coats, but not including shirts), men's.—(2)—This classification covers 511 manufacturing plants engaged primarily in making overalls, coveralls, unionalls, work pants, work coats, and jumpers, of denim, khaki, corduroy, drills, and woolen cloth. (Work shirts are classified in the shirt industry.) Sheep-lined clothing is included in this industry. Statistics for this industry include also the distribution of sales of secondary products valued at \$23,056,659.

Cloth sponging and refinishing.—The 46 manufacturing plants covered by this classification are engaged primarily in sponging and refinishing woolen cloth on contract. (*No distribution of sales statistics published. See p. 2 of text.*)

Coffee and spice, roasting and grinding.—(1)—This classification covers 928 plants engaged in the roasting and grinding of coffee and the grinding of spices for the trade. Some of the most important plants are engaged exclusively or mainly in coffee roasting or in spice grinding, but these operations are also carried on largely by wholesale grocers and by jobbers (who are included in this classification) whose records in regard to their roasting and grinding activities are not, in all cases, kept separately from those for jobbing coffee and spices or for packing and labeling commodities not subjected to any manufacturing process.

Coke, not including gas-house coke.—(7)—This classification covers 153 manufacturing plants engaged primarily in the manufacture of coke by the distillation of coal either in "beehive" ovens or in "by-product" ovens. The volatile constituents of the coal escape from the former class of ovens and are wasted, but are retained by the latter. Plants which, although they operate coke ovens, are engaged primarily in the production and distribution of gas for illuminating and heating, are classified in the "Gas, manufactured, illuminating and heating" industry. Coke plants operated in conjunction with blast furnaces are included where such plants are reported as separate industrial units.

Collapsible tubes.—(12)—This classification covers 17 manufacturing plants whose principal products are collapsible tubes, made chiefly of tin, lead, and aluminum, for use as containers for tooth paste, shoe polish, shaving cream, etc. The statistics for this industry include the distribution of sales of secondary products valued at \$1,097,154.

Collars, men's.—(2)—This classification covers 15 manufacturing plants engaged primarily in making collars for men. The distribution of sales data for this industry have been included in the "Shirts and collars, men's" classification to avoid disclosing the operations of individual plants.

Combs and hairpins, not made from metal or rubber.—(16)—The 24 manufacturing plants covered by this classification make, as their principal products, combs, hairpins, barrettes, hair ornaments, comb mountings, etc., from bone, horn, tortoise shell, celluloid, ivory, and other materials except metal and rubber. Statistics for this industry do not include the distri-

bution of sales of combs and hairpins, valued at \$653,476, made as secondary products in other industries.

Compressed and liquified gases.—(6)—This classification covers 354 plants engaged primarily in the production of gases, such as carbon dioxide, chlorine, hydrogen, oxygen, etc., for sale in compressed and liquefied forms. Statistics for this industry do not include the distribution of sales of compressed and liquefied gases, valued at \$19,670,116, made as secondary products in other industries.

Concrete products.—(10)—This classification covers 2,438 manufacturing plants engaged primarily in making concrete products, such as building block and tile, brick, cast stone, pipe, posts, vaults, and miscellaneous articles made of sand and gravel, or of sand and crushed rock or cinders, bound together with cement. The classification does not cover construction work on buildings, bridges, etc.

Condensed and evaporated milk.—(1)—This classification covers 535 manufacturing plants engaged primarily in making condensed and evaporated milk and buttermilk; powdered whole milk, cream, skim milk; dried and powdered buttermilk; sterilized milk (canned); sugar of milk; ice-cream mix; and dried casein. Plants engaged primarily in the manufacture of malted milk are classified under the designation "Food preparations, not elsewhere classified." Statistics for this industry include the distribution of sales of secondary products (butter, cheese, and ice cream), made and sold by these plants, or dairy products purchased and sold by them.

Confectionery.—(1)—The 2,021 manufacturing plants covered by this classification are engaged primarily in the manufacture of candy, confections, cake ornaments, popcorn balls and cakes, salted nuts, stuffed dates, and related products, not including chewing gum. Plants engaged primarily in the manufacture of chewing gum are covered by a separate classification.

Cooperage.—(3)—This classification covers 586 manufacturing plants engaged primarily in making barrels, kegs, tubs, pails, hogsheads, and other containers made of staves.

Copper, tin and sheet-iron work, including galvanized-iron work, not elsewhere classified.—(12)—The 2,161 manufacturing plants classified in this industry are engaged in the production, *in the shop*, of cornices, gutters, spouts, etc., for the exterior of buildings; and of radiator shields, stove and furnace pipe, ventilators and skylights, tanks and bins, and culverts; and in general coppersmithing and sheet-iron work. The materials used are copper, bronze, tin plate, sheet-iron, and galvanized iron. Statistics for this industry do not include distribution of sales data for the outside work, such as the laying of sheet-metal roofs and the installation of cornices, gutters, spouts, etc., done by some of the establishments in the industry.

Cordage and twine.—(2)—This classification covers 123 manufacturing plants engaged primarily in making rope, cordage, and twine (including binder twine), from any class of textile materials, including cotton, jute, flax, and paper. Penal institutions making binder twine were not regarded as manufacturing plants and are not included in this classification. (See also statistics for the "Linen goods" and "Jute goods" industries, the products of which are closely related.)

Cork products.—(3)—This classification covers 35 manufacturing plants engaged primarily in making cork stoppers and bottle closures; cork board, cork pipe covering, molded cork fittings, ground cork, cork lagging, and other cork insulation products; cork tiling and flooring; and disks, gaskets, life preservers, mooring buoys, and other cork specialties.

Corn sirup, corn sugar, corn oil, and starch.—(1)—This classification covers 35 manufacturing plants engaged primarily in making corn sirup (glucose), corn sugar, corn oil, starch, and related products, such as corn-oil cake and meal, etc. Statistics for this industry include the distribution of sales of secondary products valued at \$32,410,472. Manufacturers of sirups, jams, jellies, etc., making and consuming corn sirup are not

included in this classification, but are classified in the "Food preparations, not elsewhere classified" or the canning and preserving industries.

Corsets and allied garments.—(2)—This classification covers 213 manufacturing plants whose principal products are corsets, brassières, bandeaux, combinations, girdles, corset stays, etc.

Cotton goods.—(2)—This classification covers 1,281 mills engaged primarily in any of the processes preparatory to spinning, in spinning cotton yarn, or in weaving cotton or cotton-mixed piece goods. Manufacturers of cotton knit goods are classified in the "Knit goods" industry. Many of the plants in the industry sell a part or all of their products to other plants within the industry—that is, spinners sell to weavers, etc. The sales to converters, a distribution of sales classification peculiar to this industry and to the "Cotton small wares" industry, are included in the sales to wholesalers.

Cotton small wares.—(2)—This classification covers 202 mills engaged in weaving tape, webbing, figured labels, banding, belts, belting, trimmings, edgings, etc., composed of cotton or of cotton mixed with other kinds of fibers; or in making cotton or cotton-mixed flat or round braids, including shoe and corset laces. Some of these mills produce their own yarns, but the majority purchase yarns made by plants in the cotton-goods industry. The sales to converters, a distribution of sales classification peculiar to this industry and to the "Cotton goods" industry, are included in the sales to wholesalers.

Crucibles (graphite).—This classification covers 11 manufacturing plants engaged primarily in making graphite crucibles, retorts, and stopper heads. The distribution of sales data for this industry could not be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Cutlery (not including silver and plated cutlery) and edge tools.—(11)—This classification covers 239 manufacturing plants engaged primarily in making various kinds of cutting implements, which are divided, for census purposes, into two groups, namely, "Cutlery (not including silver and plated cutlery)" and "Edge tools." The cutting edge is used in so many forms that it is impracticable to collect data in detail except for the major classes. The most important of these are table and kitchen cutlery; pocket knives; razors; scissors and shears; axes, adzes, and hatchets; chisels; augers and bits; and cutting dies.

Dairymen's supplies; creamery, cheese-factory, and butter-factory equipment; and poultrymen's and apiarists' supplies.—(16)—This classification covers 172 manufacturing plants engaged primarily in making products falling in one or more of the following classes: (1) Milking machines, cream separators, and accessories; bottle sterilizers and fillers; milk testers and pasteurizers; churns, butter machines, and butter workers; and such supplies as vats, labels, molds, cheese presses and boxes, butter colors, rennet extract, and lactic ferment. (2) Incubators, brooders, coops, hovers, feeders, poultry fountains, feed cookers, egg testers, etc. (3) Beehives, sections, and honey boxes; comb foundation, smokers, bee veils, queen traps, etc. Statistics for this industry do not include the distribution of sales of these commodities valued at \$6,167,052, made as secondary products in other industries. (Statistics on sales of many of these items may be found in the annual report entitled "Manufacture and Sale of Farm Equipment.")

Dental goods and equipment.—(16)—The 87 manufacturing plants covered by this classification are engaged primarily in making such products as dental gold and alloys, artificial teeth, cements and filling materials, and equipment for use in dentists' offices.

Doors, shutters, and window sash and frames, metal.—(11)—The 148 manufacturing plants covered by this classification are engaged wholly or principally in the manufacture of hollow-metal and solid-metal doors, window sash, and window

and door frames; hollow-metal molding and trim; and metal-covered fire retardant doors, window sash, and door and window frames. The manufacture of elevator doors is not, however, included in this industry, but is classified under "Structural and ornamental iron and steel work, not made in plants operated in connection with rolling mills." Statistics for this industry include the distribution of sales of secondary products, valued at \$12,089,192, but do not include the sale of doors, shutters, etc., valued at \$12,215,271, made as secondary products in other industries.

Druggists' preparations.—(6)—This classification covers 429 manufacturing plants engaged primarily in making serums, vaccines, toxins, capsules (filled or unfilled), tablets, pills, tinctures, medicinal plasters, cough sirups, ointments, and other pharmaceuticals. Statistics for this industry include the distribution of sales of secondary products (principally patent and proprietary medicines and compounds), valued at \$30,229,571, but do not include the distribution of sales of druggists' preparations, valued at \$30,440,094, made as secondary products in other industries.

Drug grinding.—(6)—The 26 manufacturing plants classified in this industry are engaged primarily in grinding drugs, charcoal, herbs, gum, licorice, and other roots, etc. Plants which grind drugs for their own use or sale, but which are engaged primarily in some other line of manufacture, are not included in this classification.

Dyeing and finishing textiles.—(2)—This classification covers 732 plants engaged primarily in such operations as bleaching, dyeing, mercerizing, printing, or otherwise converting yarn or cloth, without regard to the kind of fiber; beaming or winding yarns (except winding and warping silk); or spooling thread.

The majority of these plants specialize in this kind of work, which is usually performed on a contract or commission basis on materials owned by others. In some cases, however, the goods are purchased, dyed and finished, and sold. The total sales for this industry represents approximately one-half the value of products, the other half being principally receipts for services. A number of cotton, silk, woolen, and worsted mills perform these operations themselves, but no separate report covering these operations is made by them.

Electrical machinery, apparatus, and supplies.—(13)—This classification covers 1,802 manufacturing plants engaged primarily in making machinery, apparatus, and supplies for employment directly in the generation, storage, transmission, or utilization of electric energy. It does not cover plants whose principal products are electric-lighting fixtures, electric signs, or motor-driven tools, mechanical refrigerators, washing machines, and other machines and appliances constructed with built-in motors, these being classified in other industries.

Electroplating.—The 534 manufacturing plants covered by this classification are engaged primarily in the plating, by the electric process, of various metal articles, such as automobile accessories, lighting fixtures, musical instruments, and jewelry, with gold, silver, nickel, copper, or chromium. (*No distribution of sales statistics published. See p. 2 of text.*)

Embroideries.—(2)—The 813 manufacturing plants covered by this classification are those engaged primarily in making embroideries and burnt-out laces.

Emery wheels and other abrasive and polishing appliances.—(10)—This classification covers 67 manufacturing plants engaged primarily in making abrasive wheels of emery, corundum, and other materials, and buffing and polishing wheels.

Engines, turbines, tractors, and water wheels.—(13)—This classification covers 199 manufacturing plants whose products of chief value fall in any one of the following four classes: (1) Steam engines (other than locomotives) and turbines; (2) internal-combustion engines of all kinds; (3) tractors and traction engines; (4) water turbines and water wheels. Engines made

for installation as parts of complete motor vehicles or other machines *manufactured in the same establishments* are not treated as products of the engine industry. Statistics for this industry include the distribution of sales of secondary products, valued at \$43,580,810, but do not include the distribution of sales of these commodities, valued at \$53,834,242, made as secondary products in other industries.

Engravers' materials.—(5)—The 19 manufacturing plants covered by this classification are engaged primarily in the preparation of boxwood for engravers' use, of cherry and maple for photo-engravers' mounts, and of steel, brass, copper, and zinc plates for the use of engravers, photo-engravers, and etchers; and in the grinding, finishing, and polishing of lithographic stone for the use of lithographers.

Engraving (other than steel, copperplate, or wood), chasing, etching, and diesinking.—This classification covers 189 plants engaged primarily in engraving (for purposes other than printing), etching, and diesinking. The engraving on silverware and jewelry is done mainly on a custom basis for the trade. The products include name plates, badges, signs, etc., and metal dies and stamps. (*No distribution of sales statistics published. See p. 2 of text.*)

Engraving, steel and copperplate, and plate printing.—The 456 plants covered by this classification are engaged primarily in engraving steel and copperplates for printing stationery, visiting and other cards, invitations, announcements, securities, bonds, stock certificates, music, maps, half tones, etc., and in printing from these plates. The plates engraved in this industry are all intended for use in printing. (*No distribution of sales statistics published. See p. 2 of text.*)

Engraving, wood.—This classification covers 27 plants engaged primarily in making woodcuts for use in printing illustrations, posters, etc. Woodcuts are also made to some extent by plants classified in the printing and publishing industry, but the value of such work was not separately reported. (*No distribution of sales statistics published. See p. 2 of text.*)

Envelopes.—(5)—This classification covers 171 manufacturing plants of which the products of chief value are envelopes of any description, including those used for filing, wrapping, etc.

Excelsior.—(3)—This classification covers 66 manufacturing plants engaged primarily in the manufacture of wood excelsiors, wood wool, and excelsior pads and wrappers.

Explosives.—(6)—This classification covers 95 manufacturing plants whose principal products are explosives (not including fireworks, cartridges, detonators, fuses, etc., which are products of the "Fireworks" or "Ammunition and related products" industries). Statistics for this industry include the distribution of sales of secondary products valued at \$9,586,671.

Fancy and miscellaneous articles, not elsewhere classified.—(16)—The principal products of the 814 manufacturing plants covered by this classification are beaded articles, celluloid novelties, art novelties, holiday goods, photo jewelry and buttons, inlaid veneer work, silk watch chains, burntwood articles, lamp shades, bric-a-brac, composition ornaments, needle and pin books, and decalcomania work (not on china or glass). Many miscellaneous small articles not covered by distinct classifications are also included. The sales of products normally belonging in this industry but made as secondary products by plants classified in other industries, valued at \$9,662,986, are included in the distribution of sales statistics for the industries within which they are made.

Feathers, plumes, and manufactures thereof.—(16)—The 39 manufacturing plants covered by this classification are engaged in the preparation of plumes and the manufacture of fancy articles made principally from feathers, plumes, and quills, and in curling, dyeing, and renovating ostrich and other feathers.

Feeds, prepared, for animals and fowls.—(1)—This classification covers 750 manufacturing plants engaged primarily in

making prepared feeds for animals and fowls. Some of the plants grind the grain which they use, and the others purchase the materials. The products consist principally of two classes, namely, prepared feeds made chiefly from grain, and prepared feeds composed principally of ingredients other than grain, such as molasses, bone meal, meat scraps, ground oyster shells, etc. Statistics for this industry do not include the distribution of sales of prepared feeds, valued at \$127,843,028, made as secondary products in other industries.

Felt goods, wool, hair, or jute.—(2)—This classification covers 54 textile mills whose principal products are felt goods (not including wool-felt hats) made of wool, hair, or jute, either by weaving or by felting without weaving. In the latter process heat, moisture, and pressure are employed.

Fertilizer.—(6)—This classification covers 638 manufacturing plants engaged primarily in making complete fertilizers (mixtures of superphosphates, potash, and ammoniates) and superphosphates. The sales also include goods purchased and sold by the plants, such as fertilizing materials for use in the natural state, and tankage from slaughtering and meat-packing plants for use without further manufacture. Statistics for this industry include the distribution of sales of secondary products not normally belonging to the industry, such as sulphuric acid, bone black, etc., valued at \$30,759,565, but do not include the distribution of sales of fertilizers, valued at \$20,979,745, made as secondary products of other industries.

Files.—(11)—This classification covers 33 manufacturing plants engaged primarily in making files and rasps and in recutting files. Their products comprise not only files and rasps for the use of machinists, blacksmiths, cabinetmakers, etc., but also small files for jewelers, dentists, and manicurists.

Firearms.—(11)—This classification covers 21 manufacturing plants engaged primarily in making unmounted firearms—weapons made to be fired from the hand or from the shoulder—and their parts. Commercial manufacturers only are classified in this industry, no data having been collected from Government plants. Statistics for this industry include the distribution of sales of secondary products valued at \$3,553,846.

Fire extinguishers, chemical.—(12)—This classification covers 28 manufacturing plants whose primary products are portable fire extinguishers, hose reels, and other apparatus (except motor-propelled apparatus) and appliances for fire extinguishing by the use of chemicals; chemical preparations for use with such apparatus and appliances; hand grenades for fire extinguishing, etc. Statistics for this industry include the distribution of sales of secondary products valued at \$1,118,546.

Fireworks.—(6)—This classification embraces 50 manufacturing plants engaged primarily in the manufacture of fireworks of all kinds, such as toy torpedoes, bombs, shells, pin wheels, torches, rockets, sparklers, firecrackers, and set pieces.

Flags and banners.—(2)—The principal products of the 54 plants covered by this classification are flags, banners, pennants, etc., made from bunting, cotton felt, leather, silk, and other materials.

Flavoring extracts and flavoring sirups.—(1)—The 642 manufacturing plants covered by this classification are engaged primarily in making flavoring extracts in liquid, paste, and powder form; sirups and fruit juices for soda-fountain use and for use as sauces for ice cream and other foods; malt sirup and other sirups used in the manufacture of soft drinks; colors for bakers' and confectioners' use; and cordials not classed as patent medicines. Statistics for this industry do not include the distribution of sales of these commodities, valued at \$24,910,092, made as secondary products in other industries.

Flax and hemp, dressed.—The six manufacturing plants covered by this classification are engaged in dressing flax and hemp, which consists in the separation of the woody portion of the straw from the fiber, a combined process of decay and mechanical treatment technically known as retting, breaking,

scutching, and hackling. The principal product (fiber, or "line") is used mainly in the manufacture of linen goods and of cordage and twine. The distribution of sales data for this industry could not be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Flour and other grain-mill products.—(1)—The 4,022 manufacturing plants covered by this classification are those engaged primarily in making flour and meal from wheat, corn, and other grains. Mills whose principal products are the result of further manufacturing processes are classified elsewhere. For example: Those making cereal breakfast foods are classified in the "Cereal preparations" industry, and those making prepared feeds for livestock and poultry in the "Feeds, prepared, for animals and fowls" industry. The "Flour and other grain-mill products" industry does not, therefore, embrace all mills which use grain as material. The canvass of this industry was restricted to merchant mills—that is, plants which mill purchased grain and sell the products made therefrom.

Food preparations, not elsewhere classified.—(1)—This classification covers 862 manufacturing plants engaged primarily in making any of a large group of food preparations which do not belong to any other classification. These include, among others, the following: Meat products other than those made in the meat-packing industry, peanut butter, blended and compounded sirups, mincemeat, potato chips, ice-cream cones, malted milk and malted-milk products, etc. The classification also covers the pulverizing of sugar, the slicing of meats, and similar operations when carried on in large establishments for the purpose of preparing foods for the trade. Statistics for this industry do not include the distribution of sales of these commodities, valued at \$26,901,083, made as secondary products in other industries.

Forgings, iron and steel, not made in plants operated in connection with rolling mills.—(11)—The 218 manufacturing plants covered by this classification are engaged primarily in the commercial production of forgings. The industry does not include the manufacture of forged products, such as tools, for which separate census classifications are provided, nor of forged parts made and installed by manufacturers of motor vehicles, railroad cars, machinery, etc. Iron and steel forgings are made to a large extent in other industries, but as the products of some of these industries are not classified as forgings, it is impossible to give data showing the distribution of sales of forgings made in all industries.

The phrase "not made in plants operated in connection with rolling mills" refers to plants operated entirely independently of rolling mills, although in some cases under the same ownership.

Foundry and machine-shop products, not elsewhere classified.—(13)—This classification covers 8,605 boiler shops, foundries, and machine shops which are not covered by separate classifications. The foundry, as the term is ordinarily defined, is an establishment in which metal is cast into various shapes, and the machine shop is an establishment in which work is done by means of machine tools; that is, power-driven tools used in cutting and shaping metals. Some of the plants which employ foundry and machine-shop processes specialize in the manufacture of specific classes of products. Such plants are covered by specific industry classifications. On the other hand, many foundries and machine shops manufacture a great variety of products. It has been necessary, therefore, to adopt the classification "Foundry and machine-shop products, not elsewhere classified" to provide for those plants which employ foundry and machine-shop processes but which can not be clearly segregated from one another. Nevertheless, despite its comprehensiveness, a great deal of overlapping occurs between this classification and a number of others. Statistics for this industry do not include the distribution of sales of foundry and machine-shop products, valued at \$316,270,186, made in the

foundry and machine-shop departments of plants engaged primarily in making nonferrous metals or in some other line of manufacture.

Foundry supplies.—(16)—This industry classification covers 59 manufacturing plants engaged primarily in making foundry facings, cement for castings, core oils and compounds, chaplets, wax, flux, "parting" composition, flasks, sieves, pipe blacking, and plumbago. Facings and supplies made by foundries for their own use are not, as a rule, reported separately, and therefore are not covered by the statistics for this classification. Statistics for this industry do not include the distribution of sales of foundry supplies, valued at \$2,370 963, made as secondary products of other industries.

Fuel: Briquettes and boulets.—(7)—This classification covers 23 manufacturing plants engaged primarily in the manufacture of fuels by pressing into briquettes or boulets such materials as anthracite culm, bituminous slack, petroleum coke, charcoal, etc., mixed with asphaltic pitch, coal-tar pitch, or other suitable materials as binders.

Fur goods.—(16)—The 2,855 manufacturing plants covered by this classification are those whose principal products are women's, misses', and children's fur sets and furs, including boas, capes, collars, muffs, scarfs, shawls, and stoles; fur coats and cloaks; fur and fur-lined overcoats; fur hats, caps, gloves, and mittens; and fur robes.

Furnishing goods, men's, not elsewhere classified.—(2)—The 598 manufacturing plants covered by this classification are engaged primarily in making men's neckwear, belts (other than leather), bath robes, lounging garments, pajamas, underwear cut and sewed from purchased fabric, etc.

Furniture, including store and office fixtures.—(3)—This classification covers 3,778 manufacturing plants engaged primarily in making furniture of wood, metal, fiber, reed, rattan, and willow. The four general classes of products are as follows: (1) Household furniture—furniture commonly used in dwellings, including hammocks and sewing-machine cases and cabinets but not including mattresses, bed springs, and refrigerators; (2) furniture and fixtures for offices and stores—desks, chairs, lockers, shelving, counters, tables, partitions, window backs, show cases, wall cases, cabinets, etc.; (3) professional, laboratory, hospital, barber, and beauty-parlor chairs, tables, cots, etc.; (4) furniture for public buildings—furniture for schools, theaters, assembly halls, and churches, together with seats for public conveyances.

Furs, dressed.—(16)—The 248 manufacturing plants covered by this classification are engaged primarily in scraping, currying, tanning, bleaching, and dyeing pelts and in dressing hair and bristles. Many of these plants operate solely on a contract basis.

Galvanizing and other coating, not done in plants operated in connection with rolling mills.—This classification covers 65 manufacturing plants engaged primarily in the coating of sheets and formed products with zinc (galvanizing or sherardizing), aluminum, lead, etc., and in retinning. (Retinning is included with these processes as an operation distinct from the manufacture of tin plate and terneplate, for which distribution of sales statistics are compiled.) (*No distribution of sales data published. See p. 2 of text.*)

Gas and electric fixtures; lamps, lanterns, and reflectors.—(12)—This classification covers 614 manufacturing plants engaged primarily in making electric lighting equipment (not including incandescent electric bulbs) for residential, commercial, and industrial use; motor-vehicle lamps; gas, kerosene, and gasoline lighting equipment; reflectors and shades; parts, etc. (Plants which manufacture incandescent electric bulbs as their primary product are classified in the "Electrical machinery, apparatus, and supplies" industry.)

Gas machines, gas meters, and water and other liquid meters.—(13)—This classification covers 72 manufacturing

plants engaged primarily in making gas meters, regulators, and governors; gas-making machines; acetylene and gasoline-gas generators; meters for the measurement of water and other liquids; and parts and appliances such as valves, stop-cocks, seals, swivels and caps, meter fittings, and indexes. Statistics for this industry do not include the distribution of sales of these commodities, valued at \$5,041,442, made as secondary products in other industries.

Gas, manufactured, illuminating and heating.—This classification covers 754 manufacturing plants, both private and municipal, engaged primarily in the commercial manufacture of gas to be delivered through mains, for illuminating, household, and industrial purposes. The products of this industry comprise not only gas, but also the by-products resulting from its manufacture, such as coke, tar, ammonia, naphthalene, and light oil and its derivatives. (*No distribution of sales data published. See p. 2 of text.*)

Glass.—(10)—This classification covers 263 manufacturing plants engaged primarily in making glass from raw materials, but does not include glass beveling, bending sheet glass, engraving glass, making glass labels, staining and ornamenting glass, or making glassware from purchased "blanks," except to the extent to which these activities are carried on by the same plants in which the glass is manufactured. The primary products of the industry are: Plate and window glass of all kinds; pressed and blown glass, comprising tableware, lamps, lamp chimneys, lantern globes, bulbs for electric lamps, opal ware, tubing, etc.; containers for food products, beverages, and medicinal and toilet preparations; and general-purpose containers.

Glass products (except mirrors) made from purchased glass.—(10)—This industry classification covers 431 manufacturing plants engaged primarily in glass cutting, glass beveling, bending sheet glass, engraving on glass, making glass labels, and staining and ornamenting glass. Products include cut-glass tableware; scientific glass apparatus; leaded, stained, and art-glass windows; and druggists' glassware. Statistics for this industry do not include the distribution of sales of glass products, valued at \$10,937,328, made as secondary products in other industries.

Gloves and mittens, cloth or cloth and leather combined, made from purchased fabric.—(2)—This classification covers 125 manufacturing plants whose principal products are men's and women's cloth and cloth-and-leather gloves and mittens made from purchased fabric.

Gloves and mittens, leather.—(9)—The 257 manufacturing plants covered by this classification are engaged primarily in making gloves (except baseball and boxing gloves, which are products of the sporting and athletic goods industry) and mittens, made of leather, lined and unlined.

Glue and gelatin.—(6)—This classification covers 74 manufacturing plants whose principal products are animal, vegetable, and other glues, and edible and inedible gelatin. Statistics for this industry include the distribution of sales of secondary products valued at \$5,594,479, but do not include the distribution of sales of these commodities, valued at \$5,332,618, made as secondary products in other industries.

Gold leaf and foil.—(12)—This classification covers 75 manufacturing plants engaged primarily in beating gold into thin sheets for use in sign painting, decorating, bookbinding, etc.

Gold, silver, and platinum, reducing and refining, not from the ore.—(12)—The 69 manufacturing plants covered by this classification are engaged primarily in refining and alloying gold, silver, and platinum for jewelers' and silversmiths' use. The materials used include old gold, silver, and platinum, sweepings, clippings, and plated scrap, as well as purchased bullion.

Graphite, ground and refined.—This classification covers 11 manufacturing plants engaged primarily in extracting from the ore or refining graphite (plumbago or black lead). The dis-

tribution of sales data for this industry could not be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Grease and tallow, not including lubricating greases.—(6)—This classification covers 297 manufacturing plants engaged primarily in rendering grease and soap stock, chiefly from animal fat, bones, meat scraps, etc., and in rendering tallow from fat. Grease and tallow are also made in large quantities as by-products by plants included in other classifications, principally "meat packing." Statistics for this industry include the distribution of sales of secondary products, valued at \$28,989,465, but do not include the distribution of sales of grease and tallow, valued at \$35,253,924, made as secondary products in other industries.

Haircloth.—(2)—This classification covers 13 manufacturing plants engaged primarily in the weaving of haircloth, mainly from cotton warp with horsehair filling. Haircloth is used principally for upholstering purposes and as a stiffening in the manufacture of clothing.

Hair work.—(16)—This classification covers 59 manufacturing plants whose principal products are wigs, switches, braids, puffs, and related articles made largely from human hair but to some extent from the hair of Angora goats or other animals. Statistics for this industry do not include the distribution of sales of hair work, valued at \$175,829, made as secondary products in other industries.

Handkerchiefs.—(2)—The principal products of the 105 manufacturing plants covered by this classification are handkerchiefs.

Handstamps and stencils and brands.—(16)—The principal products of the 332 manufacturing plants covered by this classification are rubber and metal stamps, dies, seals, and presses; steel letters and figures; check protectors, date and time stamps; copper and brass stamps for marking textiles; numbering machines; stencils for use in painting or marking or in addressing machines; and branding irons. Statistics for this industry do not include the distribution of sales of these commodities, valued at \$1,902,166, made as secondary products in other industries.

Hardware not elsewhere classified.—(11)—This classification covers 485 manufacturing plants engaged primarily in making a large and rather loosely defined group of metal commodities, such as builders' hardware, locks, vehicle hardware, furniture and cabinet hardware, casket hardware, vacuum bottles and jugs, etc., which do not belong specifically to any of the other industry classifications. Statistics for this industry include the distribution of sales of secondary products (commodities normally belonging in other industries), amounting to \$23,060,330. It should be borne in mind that many commodities retailed and generally regarded as hardware are not covered by this industry classification. Among the more important of these items are nails and spikes, wire and wire products, small machines such as grinders and lawn mowers, plumbers' supplies, tools and cutlery, screws and bolts, sporting and athletic goods, tinware, and stoves.

Hat and cap materials, men's.—(2)—The 112 manufacturing plants covered by this classification are engaged primarily in the preparation of hatters' fur, in the manufacture of linings, sweatbands, visors, and trimmings, and in printing on sweatbands, linings, and bands. The industry does not include the manufacture of certain classes of hat and cap materials, such as leather and dressed fur, which are covered by separate classifications.

Hats and caps, except felt and straw, men's.—(2)—This classification covers 576 manufacturing plants engaged primarily in making cloth hats and caps, and silk and opera or crush hats.

Hats, fur-felt.—(2)—The 159 manufacturing plants covered by this classification are engaged primarily in making stiff or

soft hats (chiefly for men's wear) or hat bodies from hatters' fur. The principal material used is the fur of the hare. Some plants perform all the various processes, beginning with the first treatment of the raw fur, while others purchase the cut fur, and still others buy the hat bodies in the rough and finish and trim them. Plants engaged primarily in cutting hatters' fur are classified in the "Hat and cap materials, men's," industry.

Hats, straw, men's.—(16)—This classification covers 50 manufacturing plants engaged primarily in making, either from the straw or from purchased shells, men's straw hats or men's, women's, and children's harvest hats, and in bleaching, shaping, and finishing Panama and other straw hats for men's wear. Statistics for this industry do not include the distribution of sales of these commodities, valued at \$4,366,578, made as secondary products in other industries.

Hats, wool felt.—This classification covers 14 manufacturing plants engaged primarily in making felt hats from wool or wool noils. These plants card the wool and make both hat bodies and finished hats. Plants whose principal products are women's wool-felt hats made from purchased bodies are classified in the "Millinery" industry. The distribution of sales data for this industry could not be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Hones, whetstones, and similar products.—This classification covers 6 manufacturing plants engaged primarily in making, from purchased materials, hones, whetstones, oilstones, and similar products. Plants whose principal products are artificial abrasive wheels are assigned to the "Emery wheels and other abrasive and polishing appliances" industry. The distribution of sales data for this industry could not be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Horse blankets, fly nets, and related products.—The principal products of the 14 plants covered by this classification are horse blankets, saddlecloths, and breast aprons, made from purchased fabrics; cotton and leather fly nets, sweat pads, etc. The manufacture of horse blankets, saddlecloths, and breast aprons from fabrics woven by the same plants is not included, such plants being treated as textile mills. The distribution of sales data for this industry could not be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

House-furnishing goods, not elsewhere classified.—(2)—This classification covers 964 manufacturing plants engaged primarily in making comfortables and quilts, bedspreads and bed sets, sheets and pillowcases, tablecloths, lunch cloths, napkins, table and dresser covers and scarfs, curtains and draperies, feather pillows and feather beds, cushions and hassocks, and mops and dusters.

Ice cream.—(1)—This classification covers 3,150 manufacturing plants engaged primarily in making ice cream, water ices, sherbets, and frozen custards. It does not cover the manufacture of these products by hotels and restaurants or by retailers for use at their soda fountains.

Ice, manufactured.—This classification covers 4,110 manufacturing plants engaged primarily in making ice for sale. The cutting and storage of natural ice is not treated as a manufacturing operation. (*No distribution of sales data published. See p. 2 of text.*)

Ink, printing.—(6)—This classification covers 147 manufacturing plants engaged primarily in the production of printing and lithographing inks.

Ink, writing.—(6)—This classification covers 29 manufacturing plants whose principal products are writing inks and fluids. Statistics for this industry include the distribution of sales of secondary products, valued at \$1,673,588, but do not include

the distribution of sales of writing ink, valued at \$1,748,602, made as a secondary product in other industries.

Instruments, professional and scientific.—(16)—The 276 manufacturing plants covered by this classification are engaged primarily in making such classes of products as the following: Surgical, dental, and veterinary instruments; physicians' diagnostic apparatus; surveyors', nautical, aeronautical, automotive, and similar instruments; precision and measuring instruments; indicating and recording instruments; hypodermic syringes; needle-gage dials; speedometers; barometers and thermometers; compasses; dental mirrors; and dental-engine equipment. Manufacturers of ophthalmic and optical instruments, such as optical testing and measuring instruments, microscopes, telescopes, etc., are classified in the "Optical goods" industry.

Iron and steel: Blast furnaces.—(11)—This classification covers 105 manufacturing plants engaged primarily in making from ore and scrap, pig iron, ferro-alloys—spiegeleisen, ferromanganese, ferrophosphorus, ferrosilicon, etc.—and castings made direct from the furnace. (The manufacture of electric ferro-alloys is included in the "Chemicals, not elsewhere classified" industry.) In many cases single establishments operate both blast furnaces and steel works; in such instances the establishments file separate reports showing the distribution of sales of each plant, which are allocated to the proper classifications. About three-fourths of the production of this industry is not sold, but is transferred to other plants of the same company.

Iron and steel, processed.—The 46 manufacturing plants covered by this classification are engaged primarily in the heat treating, hardening, tempering, annealing, rustproofing, etc., of iron and steel, chiefly on a contract or custom basis. Work of this character is also done to a very large extent in the processes of manufacturing various commodities by plants classified in other industries. (*No distribution of sales data published. See p. 2 of text.*)

Iron and steel: Steel works and rolling mills.—(11)—This classification covers 486 manufacturing plants engaged either in the conversion of pig iron and scrap into steel or the rolling of iron and steel. Products made by these plants include steel ingots and direct steel castings; rolled iron and steel, such as rails, splice bars, rail joints, bars and rods, tin-plate bars, wire rods, structural shapes, hoops, bands, and cotton ties; plates and sheets, including black plates and sheets for tinning; nail and tack plates; rolled and hammered car axles; car wheels; armor plate; gun forgings, etc. Tin plate and terneplate are manufactured almost exclusively, and wire is manufactured to a considerable extent, in departments operated in connection with rolling mills. In many cases rolling mills operate departments for the conversion of rolling-mill products into pipes and tubes, bolts and nuts, cut nails and spikes, and other finished iron and steel products. These products when manufactured in plants other than rolling mills are classified in other industries.

Ivory, shell, and bone work, not including buttons, combs, or hairpins.—(16)—The principal products of the 21 manufacturing plants covered by this classification are mosaics, knife handles and tips, buckles and other fittings for jewelers' use, manicure implements, watch chains and fobs, stick pins, inlaying for musical instruments, and other articles (not including buttons, combs, and hairpins) made from ivory, shell, horn, or bone.

Jewelry.—(12)—This classification covers 1,536 manufacturing plants engaged in making articles, chiefly for personal adornment, of gold, silver, platinum, gold-filled metal, rolled-gold plate, brass, bronze, copper, or other metals, plain, engraved, or chased, and with or without precious or semiprecious stones.

Jewelry and instrument cases.—(16)—The 113 manufacturing plants covered by this classification are engaged primarily in the manufacture of cases, trays, and fancy boxes for jewelry,

instruments, cutlery, eyeglasses, combs, compasses, cigarettes, pipes, toilet sets, etc.

Jute goods.—(2)—This classification covers 20 manufacturing plants engaged primarily in making bagging, other woven fabrics, and yarns, in which jute is the principal material. (*See also the data for the "Linen goods" and "Cordage and twine" industries, the products of which are closely related.*)

Knit goods.—(2)—This classification covers 1,888 manufacturing plants whose principal products are made by machine knitting, without regard to whether the yarns used are cotton, wool, silk, or other material. The industry is divided into four classes of establishments of which the chief products are, respectively, (1) hosiery, (2) underwear, (3) outerwear, and (4) knit cloth. Each plant has been assigned to one class or another according to the character of its principal products.

Labels and tags.—(4)—The 153 manufacturing plants covered by this classification are engaged primarily in making labels and tags of paper, cardboard, metal, celluloid, etc.; baggage and other checks, labels for clothing; patent indexes; laundry and shipping tags; pin tickets, gummed stickers, etc. Statistics for this industry include the distribution of sales of secondary products made in the industry but do not include the distribution of sales of labels and tags made as secondary products in other industries.

Lace goods.—(2)—The principal products of the 42 manufacturing plants covered by this classification are machine-made lace goods, of cotton, silk, rayon, and other materials. Nearly all the mills purchase their yarns, some of which are imported. These imported yarns are used chiefly on the Nottingham lace curtain, levers-lace, and bobbinet machines.

Lapidary work.—(16)—This classification covers 100 manufacturing plants engaged primarily in the cutting, recutting, polishing, and setting of diamonds and other precious and semiprecious stones, and the drilling of pearls; the preparation of jewels for watches and chronometers and for surveyors' instruments; and the preparation of real and imitation stones for emblems. Some jewelry manufacturers cut stones for their own use, but do not report the value of such work separately; consequently some overlapping occurs between the "Jewelry" and "Lapidary work" industries.

Lasts and related products.—(3)—This classification covers 58 manufacturing plants engaged primarily in making lasts for boots and shoes, shoe-trees, shoe stretchers, and display forms for boots and shoes.

Leather goods, not elsewhere classified.—(9)—This classification covers 392 manufacturing plants making miscellaneous leather products not included as products of any one of the other leather industries. Among these products are belts (for wear on the person); desk sets; handles, corners, straps, etc., for luggage; embossed leather; check-book covers; dog furnishings; key cases; vanity cases; washers; burnt leather; cigar and cigarette cases; and other miscellaneous leather products. Statistics for this industry do not include the distribution of sales of these commodities, valued at \$10,493,151, made as secondary products in other industries.

Leather: Tanned, curried, and finished.—(9)—This classification covers 471 manufacturing plants; either tanneries manufacturing leather, whether from hides and skins owned by them or on a contract basis from hides and skins belonging to others, or plants engaged in currying and finishing leather. Practically all the products of this industry are used as materials for further manufacture, largely in the other leather industries but to some extent in industries outside the leather group.

Lime.—(10)—This classification covers 237 manufacturing plants engaged primarily in the production of lime, chiefly from limestone but to a small extent from shell and other substances. The principal products are quicklime and hydrated (slaked) lime. The quarrying and the burning of limestone

are usually carried on by the same plant. Plants engaged exclusively in the quarrying of limestone, which is not a manufacturing operation, are not classified in this industry.

Linen goods.—(2)—This classification covers 16 manufacturing plants engaged primarily in making threads, yarns, or fabrics made wholly or principally of flax. (See also the data for the "Jute goods" and "Coradge and twine" industries, the products of which are closely related.)

Linoleum.—See "Asphalted-felt-base floor covering and linoleum" industry.

Liquors, vinous.—(6)—This classification covers 24 manufacturing plants engaged primarily in the production of fermented wines for sacramental and medicinal purposes. Statistics for this industry include the distribution of sales of secondary products, valued at \$608,074, but do not include the distribution of sales of these commodities, valued at \$261,044, made as secondary products in other industries.

Lithographing.—The 376 plants covered by this classification are engaged primarily in drawing or transferring designs and preparing lithograph plates of stone or metal, and in printing from such plates. The products include calendars, bank notes, commercial and bank forms, maps, picture post cards, advertising signs and pictures, billheads, circulars, etc. Cigar bands, blank checks and drafts, bonds, letterheads, passbooks, etc., are reported as products both of this and of the "Engraving, steel and copperplate, and plate printing" industry. Some of the plants in the lithographing industry draw designs and prepare lithograph plates for use by others in printing. (No distribution of sales data published. See p. 2 of text.)

Locomotives, not made in railroad repair shops.—The 16 manufacturing plants covered by this classification are engaged exclusively or chiefly in making steam and internal-combustion locomotives. Electric locomotives are treated as products of the "Electrical machinery, apparatus, and supplies" industry. (No distribution of sales data published. See p. 2 of text.)

Lubricating oils and greases, not made in petroleum refineries.—(7)—This classification covers 177 manufacturing plants engaged primarily in making and compounding lubricating oils and greases from mineral, animal, and vegetable oils and fats. Statistics for this industry include the distribution of sales of secondary products, valued at \$5,157,388, but do not include the distribution of sales of lubricating oils and greases, valued at \$321,446,193, made as secondary products of other industries, principally the "Petroleum refining" industry.

Lumber and timber products, not elsewhere classified.—(3)—See text, p. 57.

Macaroni, spaghetti, vermicelli, and noodles.—(1)—The 353 manufacturing plants covered by this classification are engaged primarily in making macaroni, spaghetti, vermicelli, noodles, and other alimentary pastes.

Machine-tool accessories and small metal-working tools, not elsewhere classified.—(13)—This classification covers 722 manufacturing plants whose principal products are twist-drills, reamers, milling cutters, taps, dies, etc., or which specialize in the building of dies, jigs, fixtures, and special tools. Statistics for this industry do not include the distribution of sales of these commodities, valued at \$48,865,701, made as secondary products in other industries.

Machine tools.—(13)—This classification covers 280 manufacturing plants engaged primarily in making power-driven machines. The classification conforms closely to the definition given in the tariff act approved September 21, 1922, paragraph 372, page 32, namely, "any machine operating other than by hand power which employs a tool for work on metal," but covers bending machines also. Certain types of machines designed for working metal, especially can-making machinery, welding machines, wire-drawing machines, and wireworking machines, do not come within the terms of this definition and

consequently are classified elsewhere. Statistics for this industry include the distribution of sales of secondary products, valued at \$45,900,637.

Malt.—(1)—This classification covers 28 manufacturing plants engaged primarily in making malt, chiefly from barley, but to some extent from other grains.

Marble, granite, slate, and other stone products.—(10)—This classification covers 1,881 manufacturing plants engaged primarily in cutting, shaping, and finishing marble, granite, slate, and other stone for building, monumental, and miscellaneous uses. The census does not cover the numerous small yards which are engaged in the purchase and sale of finished or partly finished monuments and tombstones but which do no work on them, except lettering and finishing to individual order. Plants manufacturing grindstones, pulpstones, hones, and whetstones are covered by a separate classification.

Matches.—(3)—This classification covers 21 manufacturing plants engaged solely in making matches. No other classes of products were reported by these plants in 1929, and no matches were made as secondary products by plants engaged primarily in other lines of manufacture. Thus the manufacture of matches, unlike most industries, neither overlaps nor is overlapped by any other industry.

Mats and matting, grass and coir.—The 7 manufacturing plants covered by this classification are engaged primarily in making doormats, floor mattings, rugs, and carpets from such materials as wire grass, reeds, and coir yarn (coir being the fiber prepared from the outer husk of the cocoanut). The distribution of sales data for this industry could not be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Mattresses and bedsprings, not elsewhere classified.—(16)—This classification covers 951 manufacturing plants engaged primarily in making mattresses and pads filled with hair, cotton, felt, moss, or similar materials; wire springs for use on beds, couches, and cots; and spring cushions. Statistics for this industry include the distribution of sales of secondary products, valued at \$23,829,855, but do not include the distribution of sales of mattresses and bed springs, valued at \$9,807,460, made as secondary products in other industries.

Meat packing, wholesale.—(1)—This classification covers 1,277 manufacturing plants engaged primarily in wholesale slaughtering and meat packing, including abattoirs engaged wholly or chiefly in custom slaughtering. Plants that slaughter for the retail trade but also wholesale considerable quantities of meats are included and the sales reported generally cover both branches of their operations. Plants slaughtering for the retail trade only were not canvassed, and those engaged exclusively or principally in the manufacture of sausage, meat puddings, headcheese, etc., and sausage casings are grouped under a separate classification.

Millinery.—(2)—This classification covers 1,293 manufacturing plants engaged primarily in making, for sale to the trade, women's and children's trimmed hats, hat frames, millinery braids, millinery trimmings and hat linings, and infants' headwear. Many of the trimmed hats are made from wool-felt and fur-felt bodies purchased in the rough. Knit headwear is a product of the "Knit Goods" industry. Custom millinery shops were not canvassed.

Minerals and earths, ground or otherwise treated.—This classification covers 88 manufacturing plants engaged primarily in the grinding or pulverizing of certain earths, rocks, or minerals, such as barium, barytes, bentonite, borax, chalk, clays, Cornwall stone, corundum, diatomaceous earth, emery, feldspar, flint, fluorspar, glass sand, haydite, iron oxide ores, kaolin, limerock, magnesite, manganese ore, mica, oxaluma, pumice, quartz, silica, sintered flue dust, spar, sulphur, and talc. The distribution of sales data for this industry could not

be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Mirror and picture frames.—(3)—This classification covers 178 manufacturing plants engaged primarily in making finished picture-frame moldings; frames, chiefly of wood, for mirrors, pictures, photographs, and medallions; and framed pictures. Plants engaged in framing pictures, etc., to individual order are not included in this classification.

Mirrors, framed and unframed.—(10)—This classification covers 304 manufacturing plants engaged primarily in making mirrors, both framed and unframed, such as pier glasses, mantel mirrors, hall mirrors, mirrors for show cases, automobile mirrors, and hand mirrors. Statistics for this industry include the distribution of sales of secondary products valued at \$7,994,665.

Models and patterns, not including paper patterns.—(16)—The 804 manufacturing plants covered by this classification are engaged primarily in making patterns and models for use in making matrices or molds for casting metal or for making brick, glassware, etc.; and of hat blocks, wax figures, dress and show forms, and similar commodities. Statistics for this industry do not include the distribution of sales of models and patterns, valued at \$8,610,354, made as secondary products of other industries.

Motion pictures, not including projection in theaters.—This classification covers 142 plants engaged in such processes and activities connected with the production of motion pictures as the photography of scenes, the development of exposed films, the printing of projection films, and other studio and laboratory work. (*No distribution of sales data published. See p. 2 of text.*)

Motor-vehicle bodies and motor-vehicle parts.—(14)—The 1,154 manufacturing plants covered by this classification are engaged primarily in the manufacture, for sale as such (or for transfer to motor-vehicle manufacturing plants located elsewhere but operated under the same ownership), of motor-vehicle bodies, tops, gears (transmission, differential, and steering), rims, frames, wheels, radiators, wind shields, axles, bumpers, bumperettes, shock absorbers, sheet metal for automobiles (such as fenders, dust shields, hoods, or bonnets), and various other assemblies except complete chassis, and parts. Plants engaged in the manufacture of certain other assemblies or parts, of which the most important are engines, motors for electric vehicles, tires, springs, ignition apparatus, batteries, and starting and lighting systems, are not included in this industry. Where a manufacturer makes various motor-vehicle parts in his main plant and assembles them into complete vehicles at branches, the main plant is classified in the bodies-and-parts industry and the branches in the motor-vehicle industry. Similarly, if a manufacturer builds bodies in one plant and installs them on chassis in another factory, the first plant is classified in the bodies-and-parts industry and the second in the motor-vehicle industry. Where all the parts, including the bodies, are made and assembled in the same plant, the entire plant is classified in the motor-vehicle industry proper and no separate report is made covering the manufacture of the bodies and parts. Statistics for this industry include the distribution of sales of secondary products valued at \$179,578,896.

Motor vehicles, not including motor cycles.—(14)—This classification covers 244 manufacturing plants whose principal products are four-wheeled motor-propelled (internal-combustion, steam or electric) steerable vehicles, or trailers for use with such vehicles. Some of these plants are engaged primarily in making motor-propelled fire-department apparatus, street sweepers, road oilers, etc. Assembling plants are included in this classification.

Motor cycles, bicycles, and parts.—(14)—The 21 manufacturing plants covered by this classification are engaged pri-

marily in manufacturing or assembling complete motorcycles and bicycles, or in manufacturing parts and accessories, other than engines, tires, lamps, and electrical supplies. Statistics for this industry include the distribution of sales of secondary products, valued at \$4,321,889, but do not include the distribution of sales of these commodities, valued at \$1,917,930, made as secondary products in other industries.

Mucilage, paste, and other adhesives, except glue and rubber cement.—(6)—The principal products of the 84 manufacturing plants covered by this classification are mucilage, paste, mending cement, sealing wax, and other adhesives, except glue and rubber cement. Statistics for this industry do not include the distribution of sales of these commodities made as secondary products in other industries valued at \$2,560,597.

Musical instrument parts and materials: Piano and organ.—(16)—This classification covers 67 manufacturing plants whose principal products are piano and organ parts and materials, for sale as such. The commodities made include piano strings, plates, keys, actions, keyboards, cases, back frames, pedal attachments, hammers, sounding boards, legs, and bridges; organ reeds, pipes, stops, knobs, and reed boards; and perforated music rolls.

Musical instruments and parts and materials, not elsewhere classified.—(16)—The 106 manufacturing plants covered by this classification are engaged primarily in making musical instruments other than pianos and organs, and parts and materials for such instruments.

Musical instruments: Organs.—(16)—This classification covers 62 manufacturing plants engaged primarily in making complete pipe organs and reed organs.

Musical instruments: Pianos.—(16)—This classification covers 81 manufacturing plants engaged primarily in making complete pianos. Statistics for this industry include the distribution of sales of secondary products valued at \$6,651,803.

Nails, spikes, etc., not made in wire mills or in plants operated in connection with rolling mills.—(11)—This classification covers 55 manufacturing plants engaged primarily in making wire nails, brads, and spikes, cut nails and spikes, horseshoe nails, tacks, staples, etc. Wire nails, brads, and spikes are made chiefly in wire mills and in wire-drawing departments of rolling mills. The phrase "not made in plants operated in connection with rolling mills" refers to production in plants operated entirely independently of rolling mills, although in some cases under the same ownership.

Needles, pins, hooks and eyes, and snap fasteners.—(12)—This classification covers 43 manufacturing plants engaged primarily in making (1) needles of all kinds, including sewing-machine needles, knitting-machine needles, and darning, canvas, and bag needles; (2) pins—common or toilet pins, safety pins, and metal hairpins; (3) hooks and eyes; and (4) snap fasteners. Pins made of precious metals are not treated as products of this industry, but are classified as jewelry. Hairpins made of materials other than metal are classified as products of the "Combs and hairpins, not made from metal or rubber" industry. Statistics for this industry include the distribution of sales of secondary products, valued at \$2,957,797.

Nets and seines.—(2)—This classification covers 19 manufacturing plants whose principal products are fish nets and netting, seines, and laundry nets.

Nonferrous-metal alloys and products, not including aluminum products.—(12)—The 1,225 manufacturing plants covered by this classification are engaged primarily in making brass, bronze, and other nonferrous alloys, such as nickel alloys, anti-friction bearing metal, type metal, solders, etc., and the rolling and drawing of these alloys and of copper, lead, and zinc into plates, sheets, rods, bars, tubing, and pipe; and castings, bearings, and other finished products from these alloys and from copper.

Oil, cake, and meal, cottonseed.—(6)—This classification covers 553 manufacturing plants engaged primarily in the manufacture of products from cottonseed, but does not cover the activities of plants engaged in the further manufacture, from refined cottonseed oil, of lard substitutes and vegetable cooking oils. The statistics relate to the 12-month period from August 1 to July 31, which coincides with the production cycle of the industry.

Oil, cake, and meal, linseed.—(6)—The 29 manufacturing plants covered by this classification are those whose principal products are linseed oil and its natural by-products, cake and meal, and ground flaxseed.

Oils, essential.—(6)—This classification covers 22 manufacturing plants engaged primarily in the distillation and refining of natural essential oils and of witch-hazel extract. Essential oils, volatile oils, or essences are distinguished by the possession of strong and characteristic odors and by being vaporized without decomposition and usually with little or no residue. A large amount of synthetic oils and perfume bases which are chiefly of coal-tar origin, are classed as chemicals and are, therefore, covered by other industry classifications.

Oils, not elsewhere classified.—(6)—This classification covers 75 manufacturing plants engaged primarily in the production of animal oils, such as fish, lard, and neat's-foot, and of certain vegetable oils, such as castor, coconut, palm, and soy bean. It does not include the production of cottonseed and linseed oils, each of which has a separate industry classification.

Oilcloth.—The 9 manufacturing plants covered by this classification are engaged primarily in making enameled, table and shelf, and wall oilcloth. Oilcloth is made on a textile foundation of unbleached cotton sheeting or drill. This foundation material is not made within the industry but is purchased, so that the process of manufacture consists principally in mixing and applying the ingredients with which the fabric is coated. The distribution of sales data for this industry could not be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Oleomargarine, not made in meat-packing establishments.—(1)—This classification covers 41 manufacturing plants engaged primarily in making commodities known as "oleomargarine," "butterine," "nut margarine," "nut butter," etc. Statistics for this industry include the distribution of sales of secondary products, valued at \$11,004,004, but do not include the distribution of sales of oleomargarine made in meat-packing plants or as a secondary product in other industries amounting to \$24,897,641.

Optical goods.—(16)—This classification covers 117 manufacturing plants engaged in making spectacles, eyeglasses, goggles, frames, and mountings; lenses and prisms; microscopes, telescopes, field glasses, and opera glasses; ophthalmic instruments and apparatus; photomicro and micro-projection apparatus; optical-testing and measuring instruments; artificial human eyes; and glass eyes for the use of furriers and taxidermists.

Paints and varnishes.—(6)—This classification covers 1,063 manufacturing plants engaged primarily in making pigments or colors (other than bone black, carbon black, and lampblack), paints in paste form, paints mixed ready for use, varnishes, lacquers, japans, enamels, fillers, stains, etc.

Paper.—(4)—This classification covers 685 manufacturing plants engaged primarily in the manufacture of paper and paperboards. (The principal material used in the paper mills is wood pulp, the greater part of which is manufactured in pulp mills operated in conjunction with the paper mills.) Statistics for this industry include the distribution of sales of secondary products valued at \$150,161,363.

Paper goods, not elsewhere classified.—(4)—The 436 manufacturing plants covered by this classification are engaged primarily in the manufacture, from purchased paper stock, of

waxed paper; glazed and fancy paper; toilet paper; coated book paper; gummed tape; paper cups, dishes, spoons, etc.; paper napkins; water-proof wrapping paper; paper towels; crêpe and lace paper; bottle caps; playing cards; paper cores and tubes; egg-case fillers; bag, barrel, and trunk linings; adding-machine and cash-register paper; soda straws; stencil paper; etc. Statistics for this industry include the distribution of sales of secondary products but do not include the distribution of sales of these commodities made as secondary products in other industries.

Patent or proprietary medicines and compounds.—(6)—This classification covers 1,522 manufacturing plants engaged primarily in making medicines and compounds sold under the protection of patents, copyrights, or trade-marks, or prepared according to secret formulas, including medicines of a proprietary character, not necessarily patented or sold under a trade-mark, and various compounds or products handled by the pharmaceutical trade, such as insecticides, corn cures, household ammonia, disinfectants, boiler compounds, etc. Statistics for this industry include the distribution of sales of secondary products, valued at \$51,729,639, but do not include the distribution of sales of patent or proprietary medicines and compounds, valued at \$46,576,022, made as secondary products in other industries (principally the "Druggists' preparations" industry).

Paving materials: Asphalt, tar, crushed slag, and mixtures.—(16)—This classification covers 126 manufacturing plants engaged primarily in making asphalt paving blocks, asphalt compounds, asphaltic concrete, emulsified asphalt, coal-tar paving materials, crushed slag, and mixtures of asphalt, crushed stone or slag, lime, sand, kerosene, gasoline, naphtha, and oil. Plants operated by contractors for the mixing of paving materials which they themselves lay on the highways are not included unless they also manufacture paving materials in considerable quantities for sale as such. Those plants making some paving materials, but engaged primarily in quarrying and crushing stone in 1929, were canvassed for the Census of Mines and Quarries, and not for the Census of Distribution or Manufactures.

Statistics for this industry include the distribution of sales of secondary products, valued at \$4,479,932, but do not include the distribution of sales of paving materials made as secondary products in other industries amounting to \$2,823,516.

Peanuts, walnuts, and other nuts, processed or shelled.—(1)—The 169 plants covered by this classification are engaged primarily in bleaching and shelling English walnuts and almonds; polishing and shelling pecans; grading, cleaning, and shelling peanuts; and similar activities, partly on a custom basis. The industry does not cover the operations of wholesale grocery and commercial establishments in which the processing of nuts is incidental to other lines of business. Statistics for this industry do not include the distribution of sales of these commodities processed as secondary products in other industries valued at \$5,233,132.

Pencils, lead (including mechanical).—The 38 manufacturing plants covered by this classification are engaged primarily in making complete wooden and mechanical lead pencils, and pencil holders, leads, and findings. (*No distribution of sales statistics published. See p. 2 of text.*)

Pens, fountain and stylographic; pen points, gold, steel, and brass.—(16)—This classification covers 76 manufacturing plants whose principal products fall into one or another of the following classes: Fountain pens, fountain pen desk sets, stylographic pens, and ink pencils; gold, steel, and brass pen points; rubber holders and other parts. Statistics for this industry include the distribution of sales of secondary products and receipts for custom work and repairing amounting to \$7,686,497.

Perfumes, cosmetics, and other toilet preparations.—(6)—This classification covers 815 manufacturing plants engaged primarily in making perfumes of all kinds; toilet waters;

creams and rouges; face, talcum, and other toilet powders; tooth pastes and other dentifrices; washes and lotions; skin emollients; etc. Statistics for this industry include the distribution of sales of secondary products, valued at \$27,720,507, but do not include the distribution of sales of these commodities made as secondary products in other industries amounting to \$35,969,111.

Petroleum refining.—(7)—This classification covers 390 manufacturing plants engaged primarily in refining crude petroleum by distillation. It does not include plants engaged in compounding refined or partly refined petroleum products nor in producing gasoline from natural gas at the wells. The principal products, named in the order of their importance as measured by value, are gasoline, fuel oils, lubricating oils, and illuminating oils.

Phonographs.—(16)—This classification covers 59 manufacturing plants engaged primarily in making machines for recording and reproducing speech, music, and other sounds, and parts and accessories for such machines. The parts and accessories include records, blanks, and cabinets, as well as constituent parts of the machines themselves. Statistics for this industry include the distribution of sales of secondary products and receipts for repair work, valued at \$19,140,008, but do not include the distribution of sales of phonographs, records, etc., valued at \$8,888,404, made as secondary products in other industries.

Photo-engraving, not done in printing establishments.—The 654 plants covered by this classification are engaged primarily in making photo-engraved plates for printing illustrations, art work, post cards, greeting cards, magazine covers, half-tone engravings, etc. Such plants do not, as a rule, print from the plates which they make, but prepare them for use by others. (*No distribution of sales statistics published. See p. 2 of text.*)

Photographic apparatus and materials.—The 115 manufacturing plants covered by this classification are engaged primarily in making cameras, motion-picture machines, photostat machines, and blue-printing machines; flashlight apparatus and materials; tripods, plate holders, film rewinders and reels, and developing tanks; sensitized paper and cloth; dry plates and films; lantern and stereopticon slides; and sheet gelatin. The distribution of sales data for this industry could not be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Pipes (tobacco).—(16)—The 24 manufacturing plants covered by this classification are engaged primarily in making tobacco pipes from brier, meerschaum, composition, corn cobs, and clay, with mouthpieces of amber, rubber, celluloid, ivory, and other materials.

Planing-mill products (including general millwork), not made in planing mills connected with sawmills.—(3)—This classification covers 4,849 "independent" planing mills; that is, planing mills not operated in conjunction with sawmills. (Planing mills operated in conjunction with sawmills are classified in the lumber and timber products industry.) The principal planing-mill products are dressed lumber, sash, doors, frames, interior woodwork, and molding.

Plated ware.—(12)—This classification covers 96 manufacturing plants engaged primarily in making silver-plated ware or other plated ware and nickel-silver and pewter ware. The products of this industry include flat and hollow tableware, toilet articles, fancy articles, etc., plated with silver or other metals, and similar articles made from nickel-silver and pewter.

Plumbers' supplies, not including pipe or vitreous-china sanitary ware.—(11)—This classification covers 255 manufacturing plants engaged in making porcelain-enameled (enameled-iron) sanitary ware (bathtubs, laundry tubs, lavatories, and sinks), plumbers' brass goods, plumbers' woodwork, galvanized-iron and copper range boilers, and miscellaneous bathroom and other

fixtures closely related to plumbing work. It does not, however, include the manufacture of vitreous-china and semivitreous or porcelain (all-clay) sanitary ware, which is treated as a product of the pottery industry. Statistics for this industry do not include the distribution of sales of these commodities made as secondary products in other industries valued at \$22,633,643.

Pocketbooks, purses, and cardcases.—(9)—This classification covers 290 manufacturing plants engaged primarily in making leather pocketbooks, purses, women's purse-handbags, cardcases, wallets, coin purses, bill folds, etc.

Pottery, including porcelain ware.—(10)—This classification covers 313 manufacturing plants whose principal products are stoneware, earthenware, porcelain ware, vitreous-china plumbing fixtures, and allied products.

Poultry killing, dressing, and packing, wholesale.—(1)—This classification covers 485 manufacturing plants engaged primarily in killing, dressing, and packing poultry or in processing and packing dressed poultry purchased, whose products for the year were valued at \$20,000 or more. Some of these plants kill and dress rabbits; also prepare and pack poultry products, such as potted chicken. Although a number of large plants operate throughout the year, the industry is mainly a seasonal one, and most of the plants are active only a few months each year. No data are included for those doing business only a few weeks.

Printing and publishing, book and job.—(5)—This classification covers 12,712 plants engaged primarily in commercial printing, machine composition for other establishments, book printing and publishing, or book publishing only. This report shows only the distribution of sales of the 597 plants which are engaged wholly or principally in book publishing and printing, or book publishing alone. *No distribution of sales data were compiled for plants doing primarily job or other commercial printing, linotyping, etc., as the receipts of these establishments represent, for the most part, the sales of services.*

Printing and publishing, music.—(5)—This classification covers 124 plants engaged primarily in music printing and publishing, or music publishing only.

Printing and publishing, newspapers and periodicals.—(5)—This classification covers 11,524 plants engaged in printing and publishing, or publishing only, newspapers and periodicals. This report shows only the distribution of sales of the 2,925 plants engaged primarily in printing and publishing, or in publishing only, periodicals. No distribution of sales data were compiled for plants printing and publishing newspapers as the greater part of the value represents sales of advertising, or receipts from subscriptions, and the distribution of sales inquiry was entirely inapplicable to the selling practices of the plants. *No distribution of sales data were compiled for plants engaged primarily in job or other commercial printing since the receipts in this case represent only sales of services.*

Printing materials, not including type or ink.—(5)—The 84 manufacturing plants covered by this classification are engaged primarily in making composing rules and sticks, mallets, planes, chases, quoins, type cases, galleys, printer's rollers, blocks, plate hooks, and locking devices.

Pulp goods.—(3)—This classification covers 45 manufacturing plants engaged primarily in making vulcanized-fiber products, such as sheets, rods, tubes, boxes, baskets, and other containers, megaphones, etc.; laminated phenolic (bakelite) products, such as sheets, rods, tubes, and fabricated pieces and parts; and dishes, etc., made of molded pulp.

Pulp (wood and other fiber).—(4)—This classification covers 198 manufacturing plants engaged primarily in making pulp from wood or other fiber.

Pumps (hand and power) and pumping equipment.—(13)—This classification covers 322 manufacturing plants engaged primarily in making hand and power pumps of all kinds, such as water pumps, gasoline pumps, air pumps (except compressors), oil pumps, hydraulic rams, spraying outfits (complete

units), spray pumps, and domestic water systems; and pump jacks, pump cylinders, and other pumping equipment. Statistics for this industry include the distribution of sales of secondary products, valued at \$27,802,466, but do not include the distribution of sales of pumps and pumping equipment, valued at \$16,786,626, made as secondary products in other industries.

Rayon and allied products.—(6)—This classification covers 29 manufacturing plants engaged primarily in making rayon yarn and allied products in sheets or other forms. No plants engaged primarily in the further manufacture of products from rayon as a material are included.

Refrigerators and refrigerator cabinets, exclusive of mechanical refrigerating equipment.—(3)—This classification covers 188 manufacturing plants engaged primarily in the factory production of refrigerators, ice boxes, water coolers, cooling rooms, display refrigerators, and ice-cream cabinets, using ice as the cooling agent; and in the manufacture of cabinets for sale as such, for use with mechanical refrigerating units. The industry does not cover the construction, by builders, of built-in cooling rooms, cabinets, etc. The manufacture of electrically-operated and heat-operated refrigerating equipment and units for commercial and for household use is classified under "Refrigerators, mechanical," and ice-making machinery for use in ice factories is made in the "Foundry and machine-shop products not elsewhere classified" industry.

Refrigerators, mechanical.—(13)—This classification covers 34 manufacturing plants engaged primarily in making mechanical refrigerators. This designation covers all types which do not use ice as the refrigerating agent. The principal products are domestic refrigerators, with or without cabinets, and commercial refrigerating machines of not more than 500 pounds ice-melting capacity in 24 hours, such as water coolers, ice-cream cabinets, etc.

Regalia, badges, and emblems.—(2)—The principal products of the 77 manufacturing plants covered by this classification are robes, costumes, badges, lodge paraphernalia, church vestments, religious medals, printed ribbons, etc., for use by military, naval, fraternal, and religious organizations.

Rice cleaning and polishing.—(1)—The 60 manufacturing plants covered by this classification are engaged in cleaning and polishing rice after it comes from the thresher. The rough rice is cleaned, the outer shell or hull and the inner cuticle or bran are removed, and the grain is scoured, polished, and graded, and in most cases given a coat of glucose and talc.

Roofing, built-up and roll; asphalt shingles; roof coatings other than paint.—(16)—This classification covers 102 manufacturing plants engaged primarily in the manufacture of asphalt roll roofing, asphalt shingles, tar and asphalt saturated felt, and asphalt and other roof coatings.

Rubber goods other than tires, inner tubes, and boots and shoes.—(8)—The principal products of the 412 manufacturing plants covered by this classification are rubber belting and hose, rubber heels and soles, reclaimed rubber, rubberized fabrics, and hard-rubber goods. The rubber-goods industry does not include the manufacture of rubber-insulated wire and cable, which are classified in the "Electrical machinery, apparatus, and supplies" industry. Statistics for this industry do not include the distribution of sales of these commodities, valued at \$83,549,885, made as secondary products in other industries, principally other rubber industries.

Rubber tires and inner tubes.—(8)—This classification covers 91 manufacturing plants which are engaged primarily in making pneumatic tires, inner tubes, and solid and cushion rubber tires, for any class of vehicles. Statistics for this industry include the distribution of sales of secondary products valued at \$93,812,206.

Saddlery and harness.—(9)—This classification covers 260 manufacturing plants engaged in making saddles and parts, harness and parts, halters, horse boots, turf boots, feed bags, etc.

Safes and vaults.—(11)—This classification covers 27 manufacturing plants engaged primarily in making fire-proof and burglar-proof safes and vaults for banks, offices, and residences; money chests; safe-deposit boxes; vault doors; and safe locks.

Salt.—(6)—This classification covers 58 manufacturing plants engaged primarily in making commercial salt, whether from rock salt or from natural or artificial brines. The greater part of the product is brine salt, which is obtained mainly by running fresh water into bore-holes in beds of rock salt, pumping the artificial brine to the surface, and evaporating it. In a few places natural brine is pumped to the surface and evaporated and in some cases salt is extracted from the ocean and from salt lakes. The figures shown in this and in the report of the Census of Manufactures differ from those published by the Bureau of Mines for the reason that there is included in the census figures (1) the value of containers in which the salt is packed, and (2) the value of products other than salt (amounting to \$1,608,425) made by plants primarily engaged in making salt.

Sand-lime brick.—(10)—This classification covers 40 manufacturing plants making brick from a combination of sand and lime molded under heavy pressure and subjected to the action of steam in a hardening chamber.

Sandpaper, emery paper, and other abrasive paper and cloth.—(16)—The 11 manufacturing plants covered by this classification are those whose principal products are sandpaper, emery paper, and other abrasive paper and cloth, made by coating paper and cloth with abrasives, such as sand, emery, and carborundum. Statistics for this industry do not include the distribution of sales of these commodities, valued at \$4,077,650, made as secondary products in other industries.

Sausage, meat puddings, headcheese, etc., and sausage casings, not made in meat-packing establishments.—(1)—This classification covers 681 manufacturing plants engaged primarily in making sausage, meat puddings, headcheese, etc., and sausage casings. Plants which are engaged primarily in slaughtering and which also manufacture sausage are classified in the meat-packing industry. Statistics for this industry include the distribution of sales of secondary products, valued at \$10,165,310, but do not include the distribution of sales of sausage, etc., valued at \$225,014,616, made as secondary products in other industries, principally the meat-packing industry, which value is greater than the production of the sausage industry.

Saws.—(11)—This classification covers 81 manufacturing plants engaged primarily in making saws. Their products comprise both woodworking and metal-working saws of all types, such as carpenters' and butchers' saws, pruning saws, and bucksaws, and saw blades for all types of hand and power saws, such as hack saws, band saws, circular saws, and drag saws. Plants making chiefly saw frames, saw tables, and sawing machines are not covered by this industry. Statistics for this industry include the distribution of sales of secondary products and repair work, amounting to \$4,381,721, but do not include the distribution of sales of saws, valued at \$2,164,729, made as secondary products in other industries.

Scales and balances.—(13)—This classification covers 59 manufacturing plants engaged primarily in making scales and balances of all descriptions—stationary and portable, light and heavy, spring and beam, counter and platform—and weighing machinery. Many of the scales and weighing machines have automatic computing devices. Coin-operated mechanisms for weighing, laboratory scales and weights, and scale parts are also made by plants covered by this classification. Statistics for this industry include the distribution of sales of secondary products and repair work valued at \$5,680,902.

Screw-machine products and wood screws.—(11)—This classification covers 273 manufacturing plants of two types: (1) Plants engaged primarily in making machine screws and other screw-machine products (a great variety of special parts,

many of which are threaded) and (2) those whose principal products are screws for use in wood. Statistics for this industry include the distribution of sales of secondary products, valued at \$18,893,753, but do not include the distribution of sales of these commodities, valued at \$17,377,446, made as secondary products in other industries.

Sewing machines and attachments.—(13)—This classification covers 39 manufacturing plants engaged primarily in making sewing machines (hand, foot, and power) for home and factory use, including those designed for sewing leather. Plants engaged primarily in making sewing-machine cases, cabinets, and tables, are classified in the "Furniture, including store and office fixtures" industry.

Ship and boat building, steel and wooden, including repair work.—(14)—This classification covers 624 privately-owned manufacturing plants engaged primarily in the construction of water craft of any kind. The term "ship," or "vessel" is applied, for census purposes, to craft of 5 or more gross tonnage; the term "boat" is used in referring to craft of less than 5 gross tonnage. Distribution of Sales data for this industry do not include receipts for repairing or rebuilding, or work on vessels which were not completed during the year.

Shirts and collars.—(2)—The 878 manufacturing plants covered by this classification are engaged primarily in making men's, boys' and juniors' shirts (including work shirts), and boys' blouses; and collars for men.

This classification is a combination of two Census of Manufactures industry classifications. They are the "Shirts," and "Collars, men's" industries. The distribution of sales data for these two industries were combined in order to avoid disclosing the operations of individual plants.

Shortenings (not including lard) and vegetable cooking oils.—(1)—The 40 manufacturing plants covered by this classification are engaged primarily in making shortenings and vegetable cooking oils from materials including both animal and vegetable substances. Statistics for this industry do not include the distribution of sales of shortenings, valued at \$57,573,659, made as secondary products in other industries.

Signs and advertising novelties.—The 1,239 manufacturing plants covered by this classification are engaged primarily in making neon and other electric signs; posters, show cards, and window and lobby displays not lithographed or printed; name plates and store-front signs; highway and other signs made in the shop; and advertising novelties and devices. Sign painting and lettering done outside the shop are not included. (*No distribution of sales data published. See text, p. 2.*)

Silk and rayon manufactures.—(2)—This classification covers 1,491 manufacturing plants falling in two classes: (1) those engaged primarily in the manufacture of silk and rayon fabrics and other finished silk and rayon products, not including knit fabrics, hosiery, and other knit goods made of silk and rayon, which are classified in the "Knit goods" industry; (2) those engaged primarily in the manufacture of silk yarn (known technically as organzine, tram, and hard or crêpe twist), spun silk, and rayon yarn (thrown, twisted, or otherwise changed into different forms from those in which purchased) and in the dressing of warps. (Organzine and tram, which, when used in weaving, constitute, respectively, the warp and the filling of silk fabrics, are made from silk by the process of "throwing." Hard or crêpe twist is yarn to which an extra twist has been given. Spun silk is produced by spinning the short-fibered silk from pierced cocoons or from waste silk which can not be thrown by the usual method.) The greater part of the work performed by throwsters and by warpers is done on contract.

Silversmithing and silverware.—(12)—This classification covers 83 manufacturing plants engaged primarily in making sterling-silver commodities, such as hollow and flat tableware,

toilet articles, ornaments, vases, fancy articles, novelties, silver-deposited glassware and chinaware, etc. Statistics for this industry include the distribution of sales of small quantities of gold ware and other commodities, made as secondary products, valued at \$5,787,839.

Smelting and refining, copper.—This classification covers 26 manufacturing plants engaged primarily in smelting and refining copper. (*No distribution of sales data published. See text, p. 2.*)

Smelting and refining, lead.—This classification covers 19 manufacturing plants engaged primarily in smelting and refining lead. (*No distribution of sales data published. See text, p. 2.*)

Smelting and refining, meta's other than gold, silver, or platinum, not from the ore.—This classification covers 106 manufacturing plants engaged primarily in the recovery of copper, lead, zinc, nickel, aluminum, and alloys thereof from scrap and dross. (*No distribution of sales statistics published. See text, p. 2.*)

Smelting and refining, zinc.—The 30 manufacturing plants covered by this classification are engaged primarily in smelting and refining zinc. (*No distribution of sales data published. See text, p. 2.*)

Soap.—(6)—This classification covers 282 manufacturing plants engaged primarily in making soap and soap products, together with the soap departments of large slaughtering and meat-packing plants. The principal products are toilet soap, white and yellow laundry soap, soap chips, and other hard soaps; granulated and powdered soaps and soap powders; shaving soap, cream, and powder; and soft, liquid, and paste soaps. Statistics for this industry include the distribution of sales of secondary products, such as lye, glycerin, candles, insecticides and disinfectants, and perfumes, cosmetics, and toilet preparations, valued at \$35,352,226.

Soda-water apparatus.—(16)—The 54 manufacturing plants covered by this classification are engaged primarily in the manufacture of complete soda fountains, and of tanks, siphons, and other parts and accessories.

Sporting and athletic goods, not including firearms or ammunition.—(16)—This classification covers 242 manufacturing plants engaged primarily in the manufacture of a group of products which are not clearly defined in all respects but which are designated in general as sporting and athletic goods. These comprise not only such specific sporting equipment as that for fishing and hunting (except firearms and ammunition) and for athletic games and sports, such as golf, baseball, football, tennis, skating, etc., but also related commodities such as exercising machines and other gymnasium equipment and shooting-gallery equipment (not including firearms and ammunition). Clothing and footwear made specifically for sporting and athletic purposes, such as hunting coats and boots, bathing suits, sweaters, tennis shoes, leggings, etc., do not come within the scope of this industry classification but are assigned to the clothing industries, the knit-goods industry, the boot and shoe industry, etc.

Springs, steel, except wire, not made in plants operated in connection with rolling mills.—(11)—The 86 manufacturing plants covered by this classification are engaged primarily in the manufacture of leaf springs—railway, motor-vehicle, carriage, wagon, etc.—and of hot-wound springs, railway and other. Wire springs are products of the "Wirework, not elsewhere classified" industry.

The phrase "not made in plants operated in connection with rolling mills" refers to production in plants operated entirely independently of rolling mills, although in some cases under the same ownership.

Statistics for this industry include the distribution of sales of secondary products, valued at \$10,824,032, but do not include the distribution of sales of steel springs, valued at \$14,450,588,

made as secondary products in other industries (including rolling mills).

Stamped ware, enameled ware, and metal stamping, enameling, japanning, and lacquering.—(12)—This classification covers 582 manufacturing plants engaged primarily in the stamping of articles from sheet steel, tin, copper, and zinc, and, in many cases, the enameling of these articles. The principal products are kitchen utensils, household and hospital ware, perforated metals, motor-vehicle parts and accessories, motor-vehicle license plates, metal seals, and bottle and can caps and stoppers. Statistics for this industry include the distribution of sales of secondary products, valued at \$21,584,296, but do not include the distribution of sales of stamped and enameled ware, valued at \$42,620,000, made as secondary products in other industries.

Stationery goods, not elsewhere classified.—(16)—The 203 manufacturing plants covered by this classification are engaged primarily in making papeterie and other stationers' specialties, inkstands, penholders, desk pads, calendars, copying devices, school supplies, etc.

Statuary and art goods, factory product.—(10)—This classification covers 171 manufacturing plants engaged primarily in making ornamental plaster work, plaster casts, ecclesiastical statuary, architectural sculpture, cast-bronze statues, and other art goods of cement, plaster, and composition. The production of statuary by individual sculptors in their own studios is not, of course, a manufacturing process, and therefore is not covered by the Census of Manufactures. The sale of bronze statues cast in bronze foundries engaged primarily in the manufacture of other classes of products is included in the distribution of sales data for the "Nonferrous-metal alloys and products, not including aluminum products" industry. The term "art goods" is necessarily vague, as there are many products of other industries to which it might be applied; but the art goods covered by this classification are more or less closely related to the art of sculpture.

Steam and other packing, pipe and boiler covering, and gaskets not elsewhere classified.—See "*Asbestos products; steam and other packing, pipe and boiler coverings, and gaskets not elsewhere classified.*"

Steam fittings and steam and hot-water heating apparatus.—(11)—This classification covers 240 manufacturing plants engaged primarily in making steam and hot-water heating boilers, radiators, safety valves, vacuum gauges, heat regulators, coils, unions, flanges, and similar fittings, and other classes of steam specialties. Statistics for this industry do not include the distribution of sales of these commodities made as secondary products in other industries, principally the "Stoves and ranges (other than electric) and warm-air furnaces" industry.

Steel barrels, kegs, and drums.—(11)—The 53 manufacturing plants covered by this classification are engaged primarily in making steel barrels, kegs, and drums for use as shipping containers.

Stereotyping and electrotyping, not done in printing establishments.—This classification covers 230 plants engaged primarily in making stereotype and electrotype plates. (*No distribution of sales statistics published. See p. 2 of text.*)

Stoves and ranges (other than electric) and warm-air furnaces.—(11)—This classification covers 609 manufacturing plants engaged primarily in making stoves, ranges, heaters, and burners of all kinds (except those made for industrial use), designed to consume coal, wood, gas, oil, alcohol, acetylene, and gasoline; flatirons heated with alcohol or other fuel burned internally; gas and oil appliances for heating water for kitchen or household use, and other gas-burning heating and cooking appliances; warm-air furnaces, auxiliary and ventilating heaters, and stove and furnace parts. The manufacture of electric stoves, ranges, and heating appliances is included in the "Electrical machinery, apparatus, and supplies" industry. Steam

fittings and steam and hot-water heating apparatus have a separate industry classification.

Structural and ornamental iron and steel work, not made in plants operated in connection with rolling mills.—(11)—This classification covers 1,482 manufacturing plants engaged primarily in assembling and fabricating structural steel for buildings and bridges, ornamental iron and steel work, balconies, bank fixtures, coal chutes, elevator inclosures, expanded metal for plaster and concrete work, iron fences, fire escapes, fireproof moving-picture booths, gratings, portable steel buildings, etc. The figures presented cover *shop work only*.

The term "not done in plants operated in connection with rolling mills" refers in some cases to plants having no connection with rolling mills, and in other cases to plants under the same ownership as rolling mills but operated as independent units and not usually located adjacent to the rolling mills.

Sugar, beet.—(1)—The 82 manufacturing plants covered by this classification are engaged wholly or mainly in the manufacture of sugar from sugar beets. The schedule used for this industry called for data in regard to sales during the seasons 1928-1929. A few of the establishments, however, appear to have reported sales for the crop year 1929-30.

Sugar, cane, not including products of refineries.—(1)—This classification covers 70 manufacturing plants engaged primarily in making various grades of sugar, including refined sugar, and sirup and molasses, from sugar-cane. The schedule used in canvassing the cane sugar industry called for data in regard to the sale of sugar during the season 1928-29 from cane grown in 1928. Most of the establishments, however, reported their sales for the calendar year 1929, or the seasons 1929-30. The industry does not cover the refining of purchased cane sugar, which is classified as a separate industry. (All the plants classified in this industry are located in Louisiana.)

Sugar refining, cane.—(1)—This classification covers 21 manufacturing plants engaged in the refining of raw cane sugar, the greater part of which is imported. The cane-sugar refineries are located in Continental United States, chiefly in or near the seaports through which the raw materials are imported.

Surgical and orthopedic appliances, including artificial limbs.—(16)—This classification covers 363 manufacturing plants engaged primarily in making surgical dressings, bandages and gauze, braces, trusses, abdominal supports, suspensories, elastic hosiery, anklets, kneecaps, pneumatic splints, extension shoes, arch supports, crutches, and artificial limbs. Manufacturers of surgical and dental instruments are included in the "Instruments, professional and scientific" industry.

Suspenders, garters, and other elastic woven goods, made from purchased webbing.—(2)—The 91 manufacturing plants covered by this classification are engaged in making suspenders, garters, and other elastic goods, made from purchased webbing. Statistics for this industry also include the distribution of sales of secondary products valued at \$5,286,735.

Tanning materials, natural dyestuffs, mordants and assistants, and sizes.—(6)—This classification covers 126 manufacturing plants engaged primarily in making tanning extracts and solutions, natural dyestuffs, mordants and assistants, and sizes. Natural dyestuffs are made from woods, barks, leaves, berries, and other forest and vegetable products. Artificial or synthetic dyes are products of the "Chemicals, not elsewhere classified" industry. Statistics for this industry include the distribution of sales of secondary products valued at \$8,700,950.

Textile machinery and parts.—(13)—This classification covers 376 manufacturing plants, of which 160 are engaged primarily in making complete machines of the following classes: (1) Fiber-to-fabric machinery—that is, machinery for working raw stock, and all textile-mill machinery used in subsequent processes in the preparation of yarn for weaving, knitting, etc.; (2) fabric machinery—looms, knitting machines, etc.;

(3) machinery for bleaching, dyeing, printing, mercerizing, finishing, etc.; (4) miscellaneous textile machinery not included in any of the foregoing classes. Of the remainder, 175 manufacture extra parts, attachments, and accessories for textile machinery, and 41 produce and cover rolls.

Theatrical scenery and stage equipment.—(16)—This classification covers 55 manufacturing plants whose principal products are scenery and curtains for theaters, halls, and schools; stage hardware and equipment, other than electrical; and floats for street pageants. Plants engaged in the manufacture of electrical stage equipment are classified in the "Electrical machinery, apparatus, and supplies" industry.

Tin and other foils, not including gold foil.—This classification covers 7 manufacturing plants engaged primarily in making tin, lead, aluminum, and composition foils. The distribution of sales statistics for this industry could not be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Tin cans and other tinware, not elsewhere classified.—(11)—This classification covers 232 manufacturing plants engaged primarily in making, from purchased tin plate, hole-top, sanitary, and general-line cans and packages, ice-cream and milk cans, pails, boxes, household and cooking utensils, and cabinet and other tinware, except stamped ware. Tin-can departments operated by plants which manufacture tin cans for use as containers for their own products are also included. Plants whose principal product is stamped tinware are classified in the "Stamped ware, enameled ware, and metal stamping, enameling, japanning, and lacquering" industry.

Tobacco: Chewing and smoking, and snuff.—(16)—This classification covers 152 manufacturing plants engaged primarily in making chewing and smoking tobacco and snuff. Statistics for this industry do not include the distribution of sales of these commodities, valued at \$87,917,300, made as secondary products in other industries chiefly the "cigars and cigarettes" industry.

The numbers of establishments shown in the census report fall below the corresponding numbers given in the report of the Commissioner of Internal Revenue. The differences are due to the following causes: (1) On the records of the Bureau of Internal Revenue the same plant may appear two or more times—for example, as a manufacturer of cigars, as a manufacturer of chewing tobacco, and as a manufacturer of cigarettes—while for census purposes such a plant might make only one report and would be classified according to its product of chief value. (2) A separate report is required by the Bureau of Internal Revenue for each factory, whereas in compiling the census returns two or more factories operated under the same ownership in the same city, town, or village are treated as a single plant. (3) Every dealer in scrap tobacco is required to register with the Bureau of Internal Revenue, whereas the distribution of sales statistics do not include data for dealers. (4) All growers of perique tobacco are required by the Bureau of Internal Revenue to register as manufacturers of tobacco, but are not covered by this classification. (5) A considerable number of manufacturers registered for taxation purposes reported products valued at less than \$5,000, and such plants are not covered by this classification. (See Explanation of Terms—manufacturing plant.)

Tools, not including edge tools, machine tools, files, or saws.—(11)—This classification covers 534 manufacturing plants engaged primarily in making plumbers' and tinnerns' tools, stonemasons' tools, wrenches, punches, pliers, calking tools, nail pullers, and other mechanical hand tools except edge tools, files, and saws; other hand tools and implements, such as shovels, scoops, hoes, rakes, forks, etc.

Toys, games, playground equipment, and children's carriages and sleds.—(16)—The 555 manufacturing plants covered by this classification are engaged primarily in making children's

carriages and certain other classes of children's wheel goods, and children's sleds; apparatus for games, both for adults and for children, except that classified under "Sporting and athletic goods, not including firearms or ammunition," and ordinary playing cards; playground equipment and lawn swings; toys of all kinds, such as dolls, doll parts, and doll clothes; toy furniture and utensils; mechanical toys and toy building blocks; toy drums; hobbyhorses and rockinghorses; kites; conjuring apparatus, tricks, and puzzles; masks; marbles; educational boards; toy pistols, air rifles, etc.

This classification is a combination of two Census of Manufactures industry classifications. They are "Carriages and sleds, children's" and "Toys (not including children's wheel goods or sleds) games, and playground equipment." The distribution of sales data for these two industries were combined because of a considerable overlapping between them.

Trimnings (not made in textile mills) and stamped art goods for embroidering.—(2)—This classification covers 639 manufacturing plants engaged primarily in making dress and coat trimmings, millinery trimmings, tucking, pleating, hemstitching, bias bindings, crochet goods, and stamped art goods for embroidering. Statistics for this industry include also the distribution of sales of secondary products valued at \$5,859,009.

Trunks, suitcases, and bags.—(9)—This classification covers 467 manufacturing plants engaged primarily in making trunks, valises, suitcases, traveling bags, satchels, Boston bags, carrying cases, brief cases, hatboxes, luncheon kits, etc. These commodities are made principally from leather, but certain other materials, such as imitation leather, canvas, and fiber board, are also used.

Turpentine and rosin.—(3)—This classification covers 1,183 manufacturing plants engaged primarily in the distillation of the semifluid exudation from certain species of pine trees. This exudation is known by various names, such as crude gum, crude turpentine, and dip. Relatively small quantities of wood turpentine and wood rosin are obtained from pine wood by steam and solvent extraction and by destructive distillation. Plants engaged in the production of turpentine, or of both turpentine and rosin, by these methods are classified in the "Wood-distillation" industry, and the sale of such production is included in the distribution of sales data for that industry.

The producing season in the turpentine and rosin industry commences in the spring when the sap begins to flow. In order to make the statistics conform as nearly as possible to the crop year and to make the task of reporting 12 months' activities less difficult for the operators, the data were collected for the crop year ending March 31.

Type founding.—This classification covers 19 manufacturing plants engaged primarily in making metal type, including that for typewriters and adding machines; and of brass rules, leads, slugs, and related items. The distribution of sales data for this industry could not be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Typewriters and parts.—(13)—This classification covers 26 manufacturing plants engaged primarily in making and rebuilding typewriters and in making typewriter parts and attachments.

Umbrellas, parasols, and canes.—(16)—This classification covers 141 manufacturing plants engaged primarily in making umbrellas, parasols, canes, umbrella and parasol cases, handles other than gold or silver, and frames and other parts for umbrellas and parasols.

Upholstering materials, not elsewhere classified.—(2)—The 53 manufacturing plants covered by this classification are those whose principal products are curled hair and ginned mass, for use as upholstering materials. Some of them also report such products as jute-fiber batting, sisal-fiber filling, palm-leaf fiber, carpet padding, gimps and binding for automobile upholstery,

and tassels. This classification does not include the manufacture of upholstering fabrics in textile mills.

Vinegar and cider.—(1)—This classification covers 172 manufacturing plants engaged primarily in making vinegar and cider in factories, not including small custom mills nor those located on farms. Statistics for this industry do not include the distribution of sales of vinegar and cider, valued at \$8,251,386, made as secondary products in other industries, principally the fruit and vegetable canning and preserving industry.

Wall paper.—(4)—The 56 manufacturing plants covered by this classification are engaged primarily in designing and printing wall paper, using as their principal material "hanging paper" manufactured in paper mills.

Wall plaster, wall board, insulating board, and floor composition.—(10)—This classification covers 236 manufacturing plants engaged primarily in making gypsum board, gypsum and other plasters, fiber wall and insulating board (except as explained below), and floor composition. Plants engaged in mixing lime and other materials for sale as pre-mixed plaster are classified in this industry, but those engaged in burning lime to be used in lime plaster are assigned to the lime industry. Plants which manufacture wall board or insulating board on paper machines without further processing it are classified in the paper industry. Statistics for this industry include the distribution of sales of secondary products, valued at \$9,003,905, but do not include the distribution of sales of these commodities, valued at \$14,671,502, made as secondary products in other industries.

Washing machines, wringers, driers, and ironing machines, for household use.—(13)—This classification covers 65 manufacturing plants engaged primarily in making washing machines, wringers, driers, and ironing machines, other than those used in commercial laundries, whether operated by hand power or by mechanical power.

Waste.—(2)—The 136 manufacturing plants covered by this classification are those engaged in cleaning or otherwise preparing purchased waste of cotton, wool, or other fiber by the use of pickers or similar machines, and in the manufacture of wiping rags and oakum.

Watch and clock materials and parts, except watchcases.—See "Clocks, watches, and parts" industry.

Watchcases.—See "Clocks, watches, and parts" industry.

Watches and watch movements.—See "Clocks, watches, and parts" industry.

Whips.—(16)—The 8 manufacturing plants covered by this classification are engaged primarily in making whips and crops, whipstocks, whip handles, whiplashes, etc. Statistics for this industry do not include the distribution of sales of whips, valued at \$103,875, made as secondary products in other industries.

Windmills and windmill towers.—(13)—The 15 manufacturing plants covered by this classification, are those whose principal products are windmills, accessories, parts, and windmill towers. Some of these plants manufacture water tanks as secondary products.

Window and door screens and weather strip.—(3)—This classification covers 280 manufacturing plants engaged primarily in making window screens, door screens, and weather strip, regardless of the materials used. Statistics for this industry include the distribution of sales of secondary products, valued at \$3,103,983, but do not include the distribution of sales of window and door screens and weather strip made as secondary products in other industries valued at \$6,996,219.

Window shades and fixtures.—(16)—This classification covers 482 manufacturing plants whose principal products are window shades, window-shade rollers, and fixtures; and curtain poles, rods, and fixtures.

Wire, drawn from purchased bars or rods.—(11)—This classification covers 81 manufacturing plants engaged primarily in drawing wire from purchased bars or rods of iron, steel, copper, or other metals. The statistics for this industry do not include the distribution of sales of wire, valued at \$361,069,774, made as secondary products in other industries, principally the wire departments of steel works and rolling mills and brass and copper rolling mills, which value is greater than that of the production of the "Wire, drawn from purchased bars or rods" industry.

Wirework, not elsewhere classified.—(11)—This classification covers 547 manufacturing plants engaged primarily in making, from purchased wire, commodities such as woven-wire fencing, fly screening, wire cloth and netting, Fourdrinier and cylinder wire cloth, wire rope and cable, barbed wire, tire chains, bale ties, wire guards, partitions and grille work, wire trays and baskets, kitchen wire goods, and wire springs. It does not cover plants which manufacture insulated wire from purchased plain wire, such plants being classified in the "Electrical machinery, apparatus, and supplies" industry. More fabricated wire products are made as secondary products in other industries than as primary products of this industry. Statistics for this classification do not include the distribution of sales of such secondary production.

Wood distillation and charcoal manufacture.—(6)—This classification covers 91 manufacturing plants of three types: (1) Those engaged in hardwood distillation; (2) those engaged in softwood distillation; (3) those engaged in charcoal manufacture by means of kilns or pits. The principal products of hardwood distillation are methanol, acetate of lime and its derivatives, charcoal, and tar. The principal products of softwood distillation are turpentine, rosin, pine oil, tar, tar oils, and charcoal. Two distinct processes are employed in wood distillation, namely, destructive distillation and the steam process. In the manufacture of charcoal by the carbonizing of wood in kilns or by the pit method the volatile substances are driven off and lost, leaving charcoal and wood tar as the only products.

Wood preserving.—(3)—This industry covers 199 manufacturing plants engaged primarily in treating wood with creosote, zinc chloride, or other preservatives to prevent decay and for protection against insects. The treatment is applied either under pressure or by a nonpressure process. Among the products are railway ties, poles, paving blocks, etc. The treatment of battery separators and the staining of wood shingles are also included under this classification. The distribution of sales statistics shown for this industry represent only sales of products owned by the plants; the value of goods made and consumed, and of wood merely treated for others, is not included in the distribution of sales statistics for this classification.

Wood turned and shaped and other wooden goods, not elsewhere classified.—(3)—This classification covers 894 manufacturing plants engaged primarily in turning and shaping wood and in making wood handles; furniture turnings and shapes; textile-machinery turnings and shapes; vehicle stock; rough-turned toys, toy parts, and novelties; turned and shaped woodenware, including wood dishes, skewers, clothespins, and clothes bars; ladders and scaffolding equipment; and miscellaneous turned and shaped wooden products.

Woolen goods and worsted goods.—(2)—This classification covers 724 manufacturing plants engaged primarily in the production of woolen goods (made of carded yarns, the fibers of which are to some extent crossed) or worsted goods (made of combed yarns from which the short fibers have been removed and the long fibers left in a more or less parallel condition). To a considerable extent woolen goods are made by worsted

mills and worsted goods by woolen mills as secondary products, and for this reason the distribution of sales data for the two types of establishments have been combined.

This classification is a combination of two Census of Manufactures industry classifications. They are "Woolen Goods" and "Worsted Goods." The distribution of sales data for these two industries were combined because of a considerable overlapping between them.

Wool pulling.—This classification covers 18 manufacturing plants engaged wholly or mainly in pulling wool from pelts. Considerable wool pulling is done in tanning and in slaughtering and meat-packing plants, but this work is not represented in the statistics for the wool-pulling industry. The distribution of sales data for this industry could not be shown separately without disclosing operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Wool scouring.—This classification covers 21 manufacturing plants of two types (1) independent plants engaged primarily in scouring, sorting, and carbonizing wool owned by others, and (2) independent plants engaged primarily in scouring, sorting, and carbonizing purchased wool. The distribution of sales data for this industry could not be shown separately without disclosing the operations of individual plants. For this reason the figures are included in the general classification "All other industries."

Wool shoddy.—(2)—This classification covers 50 manufacturing plants engaged primarily in the recovery of wool fiber from rags, waste, noils, tailors' clippings, etc. The products are termed "shoddy," "mungo," "flocks" (the result of shearing cloth), and "wool extract." The recovered fiber may be used alone or mixed with new materials for various textile purposes.

Worsted goods.—See "*Woolen goods and worsted goods*" industry.

Wrought pipe, welded and heavy riveted, not made in plants operated in connection with rolling mills.—(11)—This classification covers 50 manufacturing plants engaged primarily in making boiler tubes, oil-country casing, tubing, and pipe, other black and galvanized wrought pipe, electrical conduit, and heavy-riveted pipe. Statistics for this industry do not include the distribution of sales of these commodities, valued at \$330,617,562, made as secondary products in other industries, principally the "Steel works and rolling mill products" industry which value is greater than that of the production of the wrought pipe industry.

The production of seamless tubes from pierced billets is classified in the rolling-mill industry. The phrase "not made in plants operated in connection with rolling mills" refers to plants operated entirely independently of rolling mills, although in some cases under the same ownership.

DISTRIBUTION

TABLE 1.—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN

[Values expressed in

[Subclassifications represent (1) the sales of manufacturing plants engaged principally in the production of the commodities

INDUSTRY	TOTAL DISTRIBUTED SALES			SALES TO WHOLESALERS				SALES TO MANUFACTURERS' OWN WHOLESALE BRANCHES				SALES TO RETAILERS			
	Value of sales	Per cent of total sales	Number of plants	Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants	
						Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively
1 All industries.....	59,354,616	100.0	-----	18,249,053	30.7	-----	-----	9,979,494	16.9	-----	-----	11,614,794	19.6	-----	-----
Group 1.—FOOD AND KINDRED PRODUCTS															
2 Beverages.....	270,324	100.0	5,154	71,234	26.3	720	-----	10,573	3.9	150	-----	165,853	61.4	4,253	-----
3 Cereal beverages.....	135,825	100.0	120	14,790	41.3	69	-----	2,722	7.6	16	-----	14,928	41.6	81	-----
4 Bread and other bakery products:															
5 Biscuits and crackers.....	278,915	100.0	375	23,369	8.4	150	44	148,818	53.4	82	37	96,537	34.6	254	117
6 Bakery products, other than biscuits and crackers.....	1,186,990	100.0	16,016	87,893	7.4	1,405	401	28,252	2.4	287	45	603,329	50.8	6,418	2,180
7 Production exceeding \$500,000.....	470,845	100.0	419	28,667	6.1	58	21	20,091	4.3	79	3	293,098	62.2	290	158
8 Production between \$100,000 and \$500,000.....	314,129	100.0	1,512	32,178	10.2	216	88	4,357	1.4	50	13	190,232	60.6	1,029	596
9 Production between \$50,000 and \$100,000.....	133,009	100.0	1,947	12,153	9.1	247	64	1,028	.8	27	4	54,750	41.2	1,058	349
10 Production less than \$50,000.....	269,007	100.0	12,138	14,895	5.5	884	228	2,776	1.0	131	25	65,249	24.3	4,041	1,077
11 Butter.....	865,288	100.0	3,213	342,783	39.6	1,916	291	194,701	22.5	650	76	197,184	22.8	1,778	287
12 Vermont, New York, and Pennsylvania.....	17,128	100.0	128	7,246	42.3	55	19	696	4.0	9	-----	4,604	35.3	81	24
13 Minnesota, Missouri, Iowa, North Dakota, South Dakota, Nebraska, Kansas, Ohio, Indiana, Illinois, Michigan, and Wisconsin, Montana, Colorado, Washington, Oregon, and California.....	661,792	100.0	2,405	291,616	44.1	1,537	204	135,613	20.5	479	40	129,839	19.6	1,238	156
14 Canning and preserving: Fish, crabs, shrimps, oysters, and clams.....	76,280	100.0	299	64,677	84.8	249	163	2,810	3.7	25	10	6,659	8.7	77	22
15 Canning and preserving: Fruits and vegetables; pickles, jellies, preserves, and sauces.....	744,610	100.0	2,997	503,528	67.6	2,445	1,405	121,053	16.3	305	115	70,335	9.5	595	121
16 Cereal preparations.....	175,223	100.0	121	157,163	89.7	85	41	(*)	-----	-----	-----	15,464	8.8	61	13
17 Cheese.....	120,703	100.0	2,352	92,231	76.4	1,937	-----	(*)	-----	-----	-----	7,978	6.6	229	49
18 Chewing gum.....	60,160	100.0	37	51,812	86.1	31	21	-----	-----	-----	-----	8,234	13.7	12	5
19 Chocolate and cocoa products, not including confectionery.....	109,731	100.0	51	72,418	66.0	41	16	(*)	-----	-----	-----	15,783	14.4	17	2
20 Coffee and spice, roasting and grinding.....	441,081	100.0	925	94,944	21.5	282	85	101,108	22.9	149	71	161,878	36.7	578	289
21 Condensed and evaporated milk.....	293,035	100.0	535	124,339	42.4	332	121	105,071	35.9	230	87	19,163	6.5	104	6
22 Confectionery.....	399,532	100.0	2,021	217,280	54.4	922	281	19,024	4.8	132	30	107,161	26.8	961	289
23 Corn sirup, corn sugar, corn oil, and starch.....	165,984	100.0	35	91,310	55.0	32	6	(*)	-----	-----	-----	2,043	1.2	9	-----
24 Feeds, prepared, for animals and fowls.....	423,610	100.0	750	117,056	27.6	256	80	19,768	4.7	79	21	175,271	41.4	302	60
25 California.....	32,154	100.0	68	6,183	19.2	16	4	4,042	12.6	7	5	5,031	15.6	22	2
26 Missouri and Illinois.....	99,523	100.0	69	34,384	34.5	53	13	4,099	4.1	13	1	43,329	53.6	58	18
27 New York.....	64,980	100.0	61	7,628	11.7	10	6	2,298	3.6	9	3	40,358	62.1	20	11
28 Flavoring extracts and flavoring sirups.....	130,202	100.0	642	81,643	62.7	333	136	10,394	8.0	50	14	18,150	13.9	270	96
29 Malt extract and malt sirup, with and without hops.....	128,715	100.0	61	22,123	82.8	34	23	(*)	-----	-----	-----	2,468	9.2	23	5
30 Flour and other grain-mill products.....	1,003,612	100.0	2,495	404,673	40.3	988	139	77,262	7.7	231	34	271,858	27.1	1,479	270
31 Food preparations, not elsewhere classified.....	177,643	100.0	862	78,710	44.3	463	190	42,939	24.2	62	25	31,228	17.6	426	172
32 Sweetening sirups, and molasses for table use.....	118,705	100.0	65	13,881	74.2	51	21	176	.9	3	3	2,452	13.1	35	6
33 Potato chips.....	14,729	100.0	100	1,465	31.0	27	7	65	1.4	6	1	2,860	60.5	80	51
34 Ice cream cones.....	14,471	100.0	61	4,029	90.1	47	35	-----	-----	-----	-----	442	9.9	21	11
35 Ice cream.....	373,027	100.0	3,150	39,552	10.6	289	69	38,774	10.4	238	38	225,274	60.4	1,775	721
36 Macaroni, spaghetti, vermicelli, and noodles.....	47,074	100.0	353	25,444	54.0	196	62	1,438	3.1	19	6	16,263	34.4	204	58
37 Malt.....	23,603	100.0	28	4,461	23.1	11	2	(*)	-----	-----	-----	5,455	23.1	11	2
38 Meat packing, wholesale.....	3,454,980	100.0	1,274	615,832	17.8	518	98	1,621,521	46.9	234	32	1,057,026	30.6	915	353
39 Production over \$10,000,000.....	2,296,166	100.0	75	397,006	17.3	59	1	1,449,799	63.1	66	8	399,350	17.4	41	-----
40 Production from \$1,000,000 to \$10,000,000.....	896,542	100.0	298	180,704	20.2	176	19	161,467	18.0	97	7	475,354	53.0	231	53
41 Production from \$500,000 to \$1,000,000.....	135,746	100.0	183	20,049	14.8	71	11	4,995	3.7	19	2	101,936	75.1	159	70
42 Production under \$500,000.....	126,526	100.0	718	18,073	14.3	212	67	5,260	4.2	52	15	80,386	63.5	484	250
43 Oleomargarine, not made in meat-packing establishments.....	46,522	100.0	41	24,803	53.3	33	3	5,837	12.5	15	-----	14,826	31.9	29	5
44 Peanuts, walnuts, and other nuts, processed or shelled.....	49,609	100.0	169	36,710	74.0	113	72	7,391	14.9	49	24	1,587	3.2	34	7
45 Poultry killing, dressing, and packing, wholesale.....	142,030	100.0	485	67,196	47.3	250	126	47,132	33.2	199	47	20,163	14.2	182	40
46 Rice cleaning and polishing.....	48,794	100.0	60	44,025	90.2	59	35	1,900	3.9	9	-----	-----	-----	-----	-----
47 Sausage, meat puddings, headcheese, etc., and sausage casings, not made in meat-packing establishments.....	117,641	100.0	681	28,790	24.5	154	50	7,068	6.0	64	27	70,083	59.6	467	243
48 Shortenings (not including lard) and vegetable cooking oils.....	152,842	100.0	40	20,779	13.6	26	12	120,087	78.9	26	6	2,089	1.4	7	-----
49 Sugar, beet.....	98,636	100.0	82	92,589	93.9	74	33	-----	-----	-----	-----	-----	-----	-----	-----
50 Sugar, cane, not including products of refineries.....	17,368	100.0	70	7,627	43.9	46	25	-----	-----	-----	-----	33	.2	9	-----
51 Sugar refining, cane.....	507,389	100.0	21	270,427	53.3	16	3	132,334	26.1	7	5	61,456	12.1	9	-----
52 Vinegar and cider.....	11,014	100.0	172	7,879	71.5	133	67	313	2.8	11	2	1,417	12.9	55	9
Group 2.—TEXTILES AND THEIR PRODUCTS															
53 Artificial leather.....	32,654	100.0	17	9,515	29.1	10	-----	-----	-----	-----	-----	(*)	-----	-----	-----
54 Asphalted-felt-base floor covering and linoleum (see description of industry, p. 6).....	90,328	100.0	21	69,563	77.0	21	4	1,442	1.6	4	-----	16,993	18.8	16	-----
55 Awnings, tents, sails, and canvas covers.....	49,387	100.0	984	6,423	13.0	114	12	678	1.4	17	5	9,876	20.0	223	51
56 Bags, other than paper, not made in textile mills.....	170,176	100.0	202	15,564	9.2	67	22	6,183	3.6	19	6	11,529	6.8	35	4
57 Beltings other than leather and rubber, not made in textile mills.....	2,789	100.0	9	1,835	29.9	6	1	-----	-----	-----	-----	(1)	-----	-----	-----
58 Carpets and rugs, rag.....	5,514	100.0	94	4,451	8.2	16	4	(*)	-----	-----	-----	1,168	21.2	29	16
59 Carpets and rugs, wool, other than rag.....	174,240	100.0	67	106,508	61.1	49	15	(*)	-----	-----	-----	64,400	37.0	45	14

See footnotes at end of Table 2.

SALES OF MANUFACTURING PLANTS: 1929

27

THE UNITED STATES, BY INDUSTRY, BY TYPE OF CUSTOMER AND AGENCY

thousands of dollars]

specified, or (2) the sales of plants located in the area designated, or (3) the sales of plants with an annual production as indicated

SALES TO MANUFACTURERS' OWN RETAIL BRANCHES				SALES TO INDUSTRIAL AND OTHER LARGE CONSUMERS				SALES TO HOUSEHOLD CONSUMERS				SALES THROUGH MANUFACTURERS' AGENTS, SELLING AGENTS, BROKERS, AND COMMISSION HOUSES				SALES DIRECT TO BRANCHES, WHOLESALE, RETAILERS, OR CONSUMERS				
Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		
		Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively	
1,215,228	2.0			17,286,331	29.1			1,009,716	1.7			5,132,309	8.6			54,222,307	91.4			1
4,207	1.5	144		6,395 1,459	2.4 4.1	276 16		12,062 1,926	4.5 5.4	1,031 48		10,115 1,213	3.7 3.4	93 10		260,209 34,612	96.3 96.6	5,119 118		2
8,460	3.0	19	5	1,099	.4	33	7	632	.2	38	11	4,625	1.7	40	16	274,290	98.3	359	335	4
132,064	11.1	2,047	811	36,881	3.1	1,067	170	298,571	25.2	11,427	6,862					1,186,990	100.0	16,016	16,016	5
61,740	13.1	97	49	15,108	3.2	53	4	52,141	11.1	83	23									6
34,717	11.0	220	101	9,281	3.0	151	28	43,364	13.8	493	103									7
12,423	9.3	346	103	5,694	4.3	178	30	46,961	35.3	1,142	446									8
23,184	8.6	1,384	558	6,798	2.5	685	108	156,105	58.1	9,709	6,290									9
20,056	2.3	170	31	21,984	2.6	410	14	88,580	10.2	1,906	76	(3)				865,288	100.0	3,213	3,213	10
(4)				953	5.6	28	2	2,192	12.8	70	9	(3)								11
15,540	2.3	116	18	16,040	2.4	279	8	73,144	11.1	1,578	52	(3)								12
1,171	1.2	31	8	1,342	1.4	50		4,207	4.5	135	8	(3)								13
303	.4	7		1,530	2.0	33	11	301	.4	20		37,387	49.0	141	99	38,893	51.0	200	158	14
17,409	2.3	39	22	29,985	4.0	334	109	2,300	.3	190	15	260,440	35.0	1,441	740	484,170	65.0	2,257	1,556	15
(4)				2,596	1.5	37	3	(10)				20,097	11.5	42	7	155,126	88.5	114	79	16
1,950	1.6	45	23	9,697	8.1	356	185	8,847	7.3	493	63	4,193	3.5	132	60	116,510	96.5	2,292	2,220	17
(4)				114	.2	3						2,563	4.3	6		57,597	95.7	37	31	18
				21,530	19.6	23	7					(9)				109,731	100.0	51	51	19
65,484	14.9	78	39	13,989	3.2	144	45	3,678	.8	109	40	25,900	5.9	54	18	415,181	94.1	907	871	20
17,620	6.0	40	18	17,563	6.0	126	27	9,279	3.2	72	2	28,151	9.6	66	12	264,884	90.4	523	469	21
36,960	9.2	417	184	5,174	1.3	151		14,033	3.5	405	182	51,111	12.8	281	93	348,421	87.2	1,928	1,740	22
				72,631	43.8	20						19,041	11.5	14	3	146,943	88.5	32	21	23
39,211	9.2	106	20	72,304	17.1	464	188	(10)				46,118	10.9	85	17	377,492	89.1	733	665	24
6,548	20.4	19	10	10,350	32.2	41	16	(10)				(9)				32,154	100.0	68	68	25
(4)				7,711	7.8	44	6	(10)				7,582	7.6	11	2	91,941	92.4	67	58	26
831	1.3	8	1	13,865	21.3	39	22	(10)				(9)				64,980	100.0	61	61	27
4,903	3.8	49	22	12,881	9.9	151	57	2,231	1.7	94	27	18,680	14.3	68	19	111,522	85.7	623	574	28
				1,400	5.2	11	3	734	2.8	22	7	563	2.1	5	2	26,152	97.9	59	56	29
14,157	1.4	195	29	235,662	23.5	1,728	533					179,157	17.9	374	69	824,455	82.1	2,426	2,121	30
2,408	1.3	40	16	20,790	11.7	119	41	1,568	.9	103	22	16,738	9.4	118	27	160,905	90.6	835	744	31
				2,144	11.5	12	3	52	.3	5	1	466	2.5	15	5	18,239	97.5	60	45	32
38	.8	4	2	192	4.0	9	3	109	2.3	14	3	301	6.4	5	3	4,428	93.6	97	95	33
												403	9.0	10	5	4,068	91.0	56	51	34
17,536	4.7	379	148	10,909	2.9	216	24	40,982	11.0	1,791	904	6,708	1.8	57	29	366,319	98.2	3,121	3,093	35
(4)				3,166	6.7	47	11	743	1.6	78	20	8,439	17.9	53	16	38,635	82.1	337	300	36
				12,687	53.8	17	9					(9)				23,603	100.0	28	28	37
35,053	1.0	173	23	106,001	3.1	272	27	19,547	.6	172	38	178,141	5.2	166	24	3,276,839	94.8	1,250	1,108	38
1,543	.1	7		48,468	2.1	31						119,992	5.2	30		2,176,174	94.8	75	45	39
22,470	2.5	39	1	45,325	5.1	80	4	11,222	1.2	27		49,207	5.5	78	5	847,335	94.5	293	220	40
2,565	1.9	21	1	4,011	2.9	35		2,190	1.6	17	1	5,300	3.9	23	2	130,446	96.1	181	160	41
8,475	6.7	106	21	8,197	6.5	126	23	6,135	4.8	128	37	3,642	2.9	35	16	122,884	97.1	702	683	42
				1,056	2.3	10						4,708	10.1	7		41,814	89.9	41	34	43
				3,770	7.6	24	7	151	.3	12		16,426	33.1	66	22	33,183	66.9	147	103	44
1,398	1.0	18	6	4,121	2.9	44	9	2,020	1.4	76	13	13,172	9.3	46	21	128,858	90.7	464	439	45
				2,899	5.9	11						31,531	64.6	42	19	17,263	35.4	41	18	46
3,360	2.8	62	17	4,207	3.6	12		4,143	3.5	158	63	7,441	6.3	43	23	110,200	93.7	658	638	47
				9,287	6.1	13	2					7,981	5.2	15		144,861	94.8	40	25	48
				6,047	6.1	41		(10)				92,371	93.6	68	35	6,265	6.4	47	14	49
				9,708	55.9	38	20	(10)				6,624	38.1	38	18	10,744	61.9	52	32	50
				43,172	8.5	8						354,772	69.9	15	9	152,617	30.1	12	6	51
123	1.1	4	1	1,163	10.6	32	3	119	1.1	29	4	3,121	28.3	44	12	7,893	71.7	160	128	52
				23,139	70.9	14	6					7,337	22.5	9	3	25,317	77.5	14	8	53
				2,330	2.6	6						(9)				90,328	100.0	21	11	54
				32,410	65.6	907	619					377	.8	25		49,010	99.2	984	959	55
				136,900	80.4	169	75					2,009	1.2	20		168,167	98.8	202	182	56
				1,954	70.1	8	3									2,789	100.0	9	9	57
				85	1.5	9	2	3,807	69.1	49	32	(9)				5,511	100.0	94	94	58
				3,055	1.7	7		277	.2	5		76,575	43.9	19	8	97,665	56.1	59	48	59

See footnotes at end of Table 2.

DISTRIBUTION

TABLE 1.—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN THE

[Values expressed in

INDUSTRY	TOTAL DISTRIBUTED SALES			SALES TO WHOLESALE				SALES TO MANUFACTURERS' OWN-WHOLESALE BRANCHES				SALES TO RETAILERS			
	Value of sales	Per cent of total sales	Number of plants	Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants	
						Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively
Group 2.—TEXTILES AND THEIR PRODUCTS—Continued															
1 Clothing (except work clothing, men's, youths', and boys', not elsewhere classified):															
Regular factories.....	833,242	100.0	2,167	118,747	14.2	472	245	49,752	6.0	80	51	524,831	63.0	1,416	1,029
Contract shops (see description of industry, p. 9).															
2 Uniforms.....	1,21,963	100.0	101	4,310,5	14.1	19	9	(*)				8,115	36.9	37	19
3 Clothing, women's, not elsewhere classified:															
Regular factories.....	1,602,907	100.0	5,176	207,546	12.9	1,045	616	20,776	1.3	69	52	1,331,777	83.1	4,060	3,400
Contract shops (see description of industry, p. 9).															
4 Clothing, work (including sheep-lined and blanket-lined work coats but not including shirts), men's.	140,497	100.0	473	43,197	30.7	158	80	12,283	8.7	50	29	81,627	58.1	332	211
5 Cordage and twine.....	91,006	100.0	123	53,057	58.3	91	20	19,556	21.5	19	9	4,283	4.7	33	3
6 Corsets and allied garments.....	76,679	100.0	209	12,282	16.0	46	22	3,422	4.5	8	3	47,234	61.6	133	95
7 Cotton goods.....	1,134,337	100.0	1,068	12,607,169	53.5	696	356	64,746	5.7	68	20	57,229	5.0	176	23
8 Threads and yarns.....	1,164,666	100.0	274	14,83,506	50.9	156	103	(*)				4,404	2.7	11	3
9 Yard goods.....	1,120,950	100.0	83	17,72,330	59.8	67	41	2,108	1.7	7	2	250	.2	5	2
10 Osnaburgs, sheetings, drills, tickings, etc.	1,100,260	100.0	93	19,58,060	57.9	69	26	10,654	10.6	8	4	316	.3	12	7
11 Tire fabrics.....	1,53,967	100.0	27	21,13,458	25.0	15	12								
12 Denims.....	1,29,654	100.0	12	21,18,272	61.6	7	4								
13 Cotton plushes.....	1,34,928	100.0	35	4,11,744	33.6	19	7	(*)				1,809	5.2	4	3
14 Cotton tapestries.....	1,9,621	100.0	22	23,4,384	45.6	7	4	(*)				1,548	16.1	5	4
15 Cotton small wares.....	65,072	100.0	202	16,26,017	40.0	131	71	733	1.1	7		4,504	7.8	40	8
16 Elastic and/or non-elastic webbing.....	1,29,610	100.0	81	27,9,272	31.3	47	25					4,543	12.0	16	16
17 Dyeing and finishing textiles.....	191,932	100.0	237	60,373	31.5	73	38	17,224	9.0	15	9	10,915	5.7	37	13
18 Embroideries.....	9,799	100.0	206	4,940	50.6	120	108	4,231	2.4	4	3	2,029	20.7	29	17
19 Felt goods, wool, hair, or jute.....	45,747	100.0	54	20,346	44.5	34	22	(*)				1,924	4.2	7	7
20 Flags and banners.....	3,836	100.0	54	2,007	52.3	22	4					828	21.6	27	10
21 Furnishing goods, men's, not elsewhere classified:															
Neckwear.....	148,463	100.0	497	36,162	24.4	191	106	11,106	7.5	33	26	100,202	67.5	325	227
Sleeping garments and underwear.....	1,75,811	100.0	288	11,564	15.6	59	54	572	.8	5	4	62,732	82.7	231	183
22	1,32,938	100.0	88	15,142	46.0	49	28	5,862	17.8	22	19	11,827	35.9	31	15
23															
24 Gloves and mittens, cloth or leather combined, made from purchased fabrics.	30,807	100.0	125	26,506	87.3	97	58					2,600	8.7	43	16
25 Haireloth.....	3,855	100.0	13	4,894	23.2	5		(*)							
26 Handkerchiefs.....	28,111	100.0	78	16,595	58.3	51	28	2,776	9.9	7	4	8,882	31.6	58	18
27 Hat and cap materials, men's.....	24,021	100.0	55	4,904	10.4	17	15	(*)							
28 Hats and caps, except felt and straw, men's.....	33,534	100.0	441	11,386	34.0	151	123	1,035	3.1	9	7	19,224	57.3	270	229
29 Hats, fur-felt.....	101,962	100.0	159	32,008	31.4	74	40	5,406	5.3	13	8	54,615	53.5	83	41
30 House-furnishing goods, not elsewhere classified.....	123,907	100.0	921	38,095	30.7	508	110	5,515	4.5	27	11	65,358	52.7	536	298
31 Jute goods.....	22,175	100.0	20	(*)				14,729	66.4	9	5				
32 Knit goods.....	891,368	100.0	1,713	468,310	52.5	1,132	712	36,827	4.1	92	38	303,534	34.1	691	317
33 Hosiery.....	519,685	100.0	652	264,638	50.9	463	302	28,440	5.5	51	22	185,913	35.8	219	81
34 Knit underwear.....	152,052	100.0	237	92,975	61.2	181	106	3,782	2.5	11		50,808	33.4	99	38
35 Knit underwear.....	147,242	100.0	87	75,758	51.5	407	256	4,605	3.1	30	16	59,041	40.1	335	187
36 Knit cloth.....	72,389	100.0	157	34,959	48.3	81	48					7,772	10.7	38	11
37 Lace goods.....	30,241	100.0	42	13,063	43.0	34	17	2,839	9.4	4	3	11,353	37.5	16	3
38 Nottingham lace curtains and lace curtain nets.	1,9,255	100.0	7	4,3,159	42.6	7		(*)				5,516	57.4	6	
39 Lovers laces.....	1,6,450	100.0	22	4,5,251	81.7	22	15	(*)				(*)			
40 Linen goods.....	9,829	100.0	16	(*)				9,164	93.2	12	9	(*)			
41 Millinery.....	194,686	100.0	1,259	47,128	24.2	592	204	3,323	1.7	18	9	135,050	69.4	950	650
42 Nets and seines.....	6,164	100.0	19	1,211	19.6	7	3	2,685	43.6	5	3	(*)			
43 Regalia, badges, and emblems.....	7,927	100.0	77	484	6.1	14	3	152	1.9	5	1	1,385	17.5	19	6
44 Shirts and collars, men's (see description of industry, p. 21).	223,446	100.0	595	53,165	23.8	160	91	41,501	18.5	57	46	117,154	52.4	298	197
45 Silk and rayon manufactures.....	656,498	100.0	862	202,277	30.8	468	340	191,738	29.2	133	109	48,201	7.3	126	30
46 Broad goods (except velvets, plushes, upholsteries, and tapestries).	1,439,678	100.0	560	148,139	33.7	313	234	142,954	32.5	95	82	31,489	7.1	69	14
47 Threads and yarns produced for sale.....	1,98,580	100.0	77	(*)				27,907	28.3	28	25	(*)			
48 Ribbons.....	1,19,750	100.0	59	8,366	42.6	34	19	5,774	29.3	10	9	2,414	12.2	13	4
49 Narrow goods, except ribbons.....	1,10,126	100.0	67	3,634	35.9	37	24	(*)				435	4.3	15	
50 Suspenders, garters, and other elastic woven goods, made from purchased webbing.	30,259	100.0	88	16,099	53.2	54	25					12,197	42.6	56	28
51 Trimmings (not made in textile mills) and stamped art goods for embroidering.	32,711	100.0	275	12,913	39.5	133	93	4,124	12.6	13	6	11,216	34.3	57	34
52 Upholstering materials, not elsewhere classified.....	11,264	100.0	53	1,869	16.6	22	9	351	3.1	8		(*)			
53 Waste.....	36,014	100.0	136	8,628	24.5	64	24	595	1.7	9	3	2,410	6.7	31	7
54 Woolen and worsted goods (see description of industry, p. 24).	747,687	100.0	1,005	153,507	20.5	270	132	118,583	15.9	73	17	33,066	4.4	81	18
55 Yarns and waste.....	1,161,829	100.0	136	20,070	12.4	34	18	9,708	6.0	4	3	5,586	3.4	15	7
56 Men's-wear fabrics, worsted.....	1,131,386	100.0	77	(*)				8,705	52.3	53	22	(*)			
57 Men's-wear fabrics, woolen.....	1,68,161	100.0	110	20,381	29.9	51	33	12,077	17.7	23	10	1,928	2.8	7	
58 Blankets.....	1,17,599	100.0	35	9,621	54.7	30	11	(*)				7,601	43.2	20	2
59 Wool shoddy.....	14,171	100.0	38	4,679	40.1	13	5					(*)			

See footnotes at end of Table 2.

SALES OF MANUFACTURING PLANTS: 1929

UNITED STATES, BY INDUSTRY, BY TYPE OF CUSTOMER AND AGENCY—Continued

thousands of dollars]

SALES TO MANUFACTURERS' OWN RETAIL BRANCHES				SALES TO INDUSTRIAL AND OTHER LARGE CONSUMERS				SALES TO HOUSEHOLD CONSUMERS				SALES THROUGH MANUFACTURERS' AGENTS, SELLING AGENTS, BROKERS, AND COMMISSION HOUSES				SALES DIRECT TO BRANCHES, WHOLESALE, RETAILERS, OR CONSUMERS				
Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		
		Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively	
69,161	8.3	125	60	21,938	2.6	163	107	48,813	5.9	299	176	24,392	2.9	104	41	808,850	97.1	2,126	2,063	1
1,813	8.3	4	2	8,930	40.7	62	43					(⁶)				21,963	100.0	101	101	2
9,699	.6	86	62	7,961	.5	86	50	25,148	1.6	247	151	69,030	4.3	355	109	1,533,877	95.7	5,067	4,821	3
(⁷)				2,621	1.9	43	7	769	.6	28	13	13,995	10.0	35	20	126,502	90.0	453	438	4
7,828	10.2	14	5	14,110	15.5	57	14	5,466	7.1	49	35	16,972	18.6	48	9	74,034	81.4	114	75	5
				447	.6	5						2,863	3.7	7	3	73,816	96.3	206	202	6
				401,147	35.4	513	253	4,046	.4	60	6	¹³ 517,998	45.7	519	287	616,339	54.3	781	537	7
				76,246	46.3	142	87	140	.1	4		¹⁵ 56,719	34.4	122	73	107,977	65.6	231	182	8
				¹⁴ 46,262	38.3	36	13					¹⁸ 57,952	47.9	46	29	62,998	52.1	54	37	9
				31,240	31.2	55	24					²⁰ 60,963	60.8	45	30	39,327	39.2	63	48	10
				40,509	75.0	14	13					²¹ 16,350	30.3	16	11	37,617	69.7	21	16	11
				¹⁵ 11,382	38.4	8	5					²³ 19,653	66.3	7	4	10,001	33.7	8	5	12
				21,375	61.2	20	8					²⁴ 5,907	16.9	11	7	29,021	83.1	24	20	13
				3,689	38.3	10						(⁸)				9,621	100.0	22	22	14
(⁹)				33,278	51.1	105	50					4,937	7.6	56	16	60,135	92.4	186	146	15
(¹⁰)				16,775	56.7	45	25					1,447	4.9	22	5	28,163	95.1	76	59	16
(¹¹)				103,420	53.8	159	118					²⁸ 5,917	3.1	5	2	186,015	96.9	235	232	17
				2,220	22.6	50	40	359	3.7	9	8	192	2.0	8	5	9,607	98.0	201	198	18
				23,477	51.3	32	16					8,794	19.2	13		36,953	80.8	54	41	19
				1,001	26.1	32	13					(⁹)				3,836	100.0	54	54	20
				775	.5	16	6	218	.1	10	4	6,280	4.2	30	13	142,183	95.8	484	467	21
				581	.8	12	4	62	.1	5	3	3,025	4.0	10		72,786	96.0	298	288	22
				107	.3	4	1	(¹¹)				1,758	5.3	8		31,180	94.7	88	80	23
				1,241	4.0	36	5					3,942	12.8	27	7	26,865	87.2	118	98	24
				2,961	76.8	11	7					(⁹)				3,855	100.0	13	13	25
				¹⁰ 58	.2	4		(¹⁰)				1,532	5.4	4		26,579	94.6	78	74	26
				89.6	70	68						(⁹)				24,021	100.0	85	85	27
340	1.0	12	8	21,517	3.6	23	14	330	1.0	25	15	1,983	5.9	24	20	31,551	94.1	421	417	28
4,143	4.1	12	3	²⁹ 1,219	5.5	10	6	204	.2	14	7	6,607	6.5	23	14	95,355	93.5	145	136	29
1,061	1.3	36	18	5,586	5.3	87	29	6,762	5.5	215	126	7,312	5.9	79	18	116,595	94.1	903	842	30
				6,516	33.6	10	7					2,168	9.8	5	3	20,007	90.2	17	15	31
6,960	.8	43	2	71,713	8.0	165	67	4,024	.5	73	28	³⁰ 218,033	24.5	1,092	672	673,335	75.5	1,040	621	32
4,942	.9	18	2	⁴ 35,752	6.9	57	28	(¹¹)				³¹ 134,349	25.9	256	159	385,336	74.1	493	396	33
207	.1	7		3,154	2.1	20	2	1,126	.7	20	2	³² 48,332	31.8	98	63	103,720	68.2	174	139	34
1,811	1.2	18		3,129	2.1	31	4	2,898	2.0	53	26	27,187	18.5	138	66	120,055	81.5	621	549	35
				29,678	41.0	57	33					8,165	11.3	31	15	64,224	88.7	122	106	36
				3,046	10.1	11						2,797	9.3	10	8	27,444	90.7	34	32	37
				(¹²)								9,255	100.0	7		4,090	63.6	16	14	39
				1,179	18.3	5						2,340	36.4	8	6					
				665	6.8	6						(⁹)				9,829	100.0	16	16	40
2,780	1.4	41	23	2,790	1.4	36	22	3,615	1.9	54	37	14,040	7.2	165	48	180,646	92.8	1,211	1,094	41
				2,268	36.8	11	8					(⁹)				6,164	100.0	19	19	42
				5,906	74.5	62	45					126	1.6	5		7,801	98.4	77	72	43
2,188	1.0	26	22	2,318	1.0	18	11	7,320	3.3	126	106	8,000	3.6	36	13	215,446	96.4	582	559	44
				213,805	32.6	320	213	477	.1	13		³⁴ 126,953	19.3	204	115	529,545	80.7	747	658	45
				117,396	26.7	188	115					³⁵ 147,268	33.5	145	87	292,710	66.5	473	415	46
				70,673	71.7	51	47					3,445	3.5	10	4	95,135	96.5	73	67	47
				³⁶ 3,146	15.9	17	9					³⁶ 3,618	18.3	18	10	16,112	81.7	49	41	48
				6,057	59.8	31	22					³⁷ 2,296	22.7	10	4	7,830	77.3	63	57	49
				1,263	4.2	7						1,047	3.5	7	2	29,212	96.5	86	81	50
(³⁸)				4,187	12.8	91	59	271	.8	20	14	2,756	8.4	18	7	29,955	91.6	268	257	51
				³⁹ 9,014	80.3	38	18					(⁹)				11,234	100.0	53	53	52
				24,181	67.1	91	50					3,997	11.1	30	7	32,017	88.9	129	106	53
418	.1	9		440,582	58.9	374	207	1,531	.2	49	8	⁴⁰ 230,078	30.8	220	122	517,609	69.2	483	385	54
				126,343	78.1	96	80	122	.1	8	4	37,018	22.9	31	8	124,811	77.1	128	105	55
				62,681	47.7	55	24					43,800	33.3	32	26	87,586	66.7	51	45	56
(⁴¹)				³ 33,775	49.6	63	32					⁴¹ 21,991	32.3	39	29	46,170	67.7	81	71	57
				292	1.5	10		104	.6	9		⁴² 7,308	41.5	17	10	10,291	58.5	27	20	68
				8,492	59.9	30	23					208	1.5	5		13,963	98.5	38	33	59

See footnotes at end of Table 2.

DISTRIBUTION

TABLE 1.—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN THE

[Values expressed in

INDUSTRY	TOTAL DISTRIBUTED SALES			SALES TO WHOLESALERS				SALES TO MANUFACTURERS' OWN WHOLESALE BRANCHES				SALES TO RETAILERS			
	Value of sales	Per cent of total sales	Number of plants	Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants	
						Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively
Group 3.—FOREST PRODUCTS															
1 Baskets and rattan and willow ware, not including furniture.	22,851	100.0	273	8,391	36.7	125	49	324	1.4	9	2	4,379	19.2	91	30
2 Billiard and pool tables, bowling alleys, and accessories.	8,718	100.0	40	(¹)	-----	-----	-----	4,760	87.2	23	15	528	6.0	11	5
3 Boxes, wooden, except cigar boxes.	127,569	100.0	778	8,593	6.7	167	58	4,177	3.3	24	9	2,907	2.3	81	17
4 Caskets, coffins, burial cases, and other morticians' goods.	94,867	100.0	414	15,032	15.9	118	31	15,933	16.8	51	12	62,881	66.2	352	241
5 Cooperage.	52,366	100.0	425	6,686	12.8	76	32	1,436	2.7	13	3	3,274	6.3	49	18
6 Cork products.	23,023	100.0	35	(¹)	-----	-----	-----	16,014	69.6	25	11	1,088	4.7	8	-----
7 Excelsior.	5,009	100.0	66	1,397	27.9	34	14	666	13.3	6	-----	539	10.7	20	3
8 Furniture, including store and office fixtures.	921,176	100.0	3,290	203,851	22.1	1,034	447	29,115	3.2	141	43	482,266	52.3	1,900	1,166
9 Wood.	1,750,018	100.0	2,858	162,981	21.7	872	380	18,097	2.4	107	29	422,488	56.3	1,656	1,048
10 Metal.	199,457	100.0	268	27,055	27.2	105	47	9,963	10.0	28	13	24,620	24.8	121	62
11 Fiber, reed, rattan, and willow.	11,395	100.0	79	2,067	18.2	25	12	(¹)	-----	-----	-----	8,088	71.0	50	28
12 Office.	143,288	100.0	99	9,620	22.3	37	19	2,395	5.5	5	2	20,654	47.7	53	31
13 Furniture for public buildings.	21,447	100.0	61	6,278	29.3	16	6	829	3.9	5	3	139	.6	6	-----
14 Furniture for professional use.	19,719	100.0	34	4,288	43.9	13	5	909	9.4	6	3	1,773	18.2	14	6
15 Lasts and related products.	7,606	100.0	58	4,444	5.8	10	-----	(¹)	-----	-----	-----	67	.9	4	1
16 Lumber and timber products, not elsewhere classified.	969,833	100.0	4,377	374,998	38.7	-----	-----	34,571	3.6	-----	-----	144,889	14.9	-----	-----
17 Matches.	20,351	100.0	21	4,012	24.6	12	10	14,333	70.4	8	7	1,006	5.0	3	2
18 Mirror and picture frames.	19,167	100.0	178	5,888	30.7	68	36	340	1.8	6	3	10,992	57.4	113	55
19 Planing-mill products (including general mill-work), not made in planing mills connected with sawmills.	560,481	100.0	3,746	206,776	36.9	1,469	656	39,785	7.1	395	144	(¹¹)	-----	-----	-----
20 Pulp goods.	27,220	100.0	45	879	3.2	10	4	1,955	7.2	10	-----	-----	-----	-----	-----
21 Refrigerators and refrigerator cabinets, exclusive of mechanical refrigerating equipment.	60,161	100.0	188	12,154	20.2	55	19	6,139	10.2	10	4	25,398	42.2	93	47
22 Turpentine and rosin.	26,179	100.0	747	22,646	86.5	669	492	1,101	4.2	37	35	113	.4	6	3
23 Window and door screens and weather strip.	24,295	100.0	280	5,202	21.4	54	11	3,286	13.5	14	1	5,182	21.3	64	21
24 Wood preserving.	77,206	100.0	126	11,645	15.1	32	22	(¹)	-----	-----	-----	3,718	4.8	17	9
25 Wood turned and shaped and other wooden goods, not elsewhere classified.	67,060	100.0	851	26,661	39.8	429	158	3,983	5.9	55	16	7,356	11.0	205	46
26 Handles.	10,315	100.0	130	4,158	40.3	72	34	821	8.0	18	5	612	5.9	19	5
27 Textile turnings and shapes.	4,678	100.0	47	(¹)	-----	-----	-----	1,082	23.1	20	11	-----	-----	-----	-----
28 Furniture turnings and shapes.	5,678	100.0	59	1,178	20.7	27	16	(¹)	-----	-----	-----	192	3.4	10	3
29 Ladders and scaffolding.	3,380	100.0	36	2,224	65.8	23	7	(¹)	-----	-----	-----	834	24.7	20	5
30 Woodenware.	19,765	100.0	74	4,573	46.8	43	22	1,230	12.6	4	2	2,754	28.2	29	8
Group 4.—PAPER AND ALLIED PRODUCTS															
31 Bags, paper, exclusive of those made in paper mills.	64,621	100.0	95	25,687	39.8	44	27	10,738	16.6	11	9	1,388	2.1	14	3
32 Boxes, paper, not elsewhere classified.	279,336	100.0	1,227	45,485	16.3	470	241	3,897	1.4	39	8	10,515	5.9	286	09
33 Cardboard, not made in paper mills.	5,629	100.0	13	3,998	71.0	10	6	(¹)	-----	-----	-----	(¹)	-----	-----	-----
34 Card cutting and designing.	19,604	100.0	70	3,006	15.3	23	12	(¹)	-----	-----	-----	6,016	30.7	27	17
35 Envelopes.	60,762	100.0	165	29,311	48.3	82	26	1,659	2.7	12	2	804	2.9	19	5
36 Labels and tags.	27,481	100.0	142	1,837	6.7	34	13	(¹)	-----	-----	-----	-----	-----	-----	-----
37 Paper.	862,581	100.0	658	396,057	45.9	393	66	31,707	3.7	68	28	17,789	2.1	44	6
38 Newsprint and similar papers. ⁴⁹	186,837	100.0	36	22,697	28.1	21	6	(¹)	-----	-----	-----	-----	-----	-----	-----
39 Wrapping paper.	174,270	100.0	74	24,760	33.3	43	26	3,926	5.3	11	6	-----	-----	-----	-----
40 Paper boards.	1134,147	100.0	188	43,534	32.5	75	43	3,342	2.5	10	3	3,005	2.2	5	1
41 Tissue paper.	126,037	100.0	51	10,242	39.3	28	18	1,192	4.6	6	2	(¹)	-----	-----	-----
42 Building paper.	112,019	100.0	20	4,617	38.4	10	6	3,595	29.9	6	4	196	1.6	3	-----
43 Writing paper.	173,798	100.0	44	53,736	72.8	38	18	(¹)	-----	-----	-----	1,316	1.8	4	-----
44 Paper goods, not elsewhere classified.	182,440	100.0	436	84,533	46.3	245	114	11,279	6.2	23	4	30,418	16.7	111	25
45 Glazed and fancy paper, waterproof wrapping paper, and waxed paper.	126,646	100.0	62	7,049	26.5	39	18	(¹)	-----	-----	-----	6,689	25.1	15	5
46 Paper dishes, spoons, etc., paper cups, and paper napkins.	115,508	100.0	29	10,941	70.5	20	10	(¹)	-----	-----	-----	867	5.6	7	3
47 Pulp (wood and other fiber).	52,136	100.0	83	11,290	.6	11	9	(¹)	-----	-----	-----	(¹¹)	-----	-----	-----
48 Wall paper.	30,008	100.0	56	20,226	67.4	49	26	(¹)	-----	-----	-----	9,712	32.4	31	6
Group 5.—PRINTING, PUBLISHING, AND ALLIED INDUSTRIES															
49 Bookbinding and blank-book making.	86,664	100.0	692	17,158	19.8	107	69	368	.4	10	2	11,177	12.9	99	58
50 Engravers' materials.	3,129	100.0	19	4,989	31.6	8	6	(¹)	-----	-----	-----	(¹)	-----	-----	-----
51 Printing and publishing, book and job (see description of industry, p. 19).	155,020	100.0	597	22,620	14.6	164	32	18,789	12.1	21	10	43,888	28.3	210	62
52 Book publishing, without printing.	115,541	100.0	477	20,194	17.5	133	27	7,972	6.9	14	7	36,367	31.5	161	48
53 Book publishing and printing.	39,479	100.0	120	2,426	6.1	31	5	10,817	27.4	7	3	7,521	19.1	49	14
54 Printing and publishing, music.	14,509	100.0	124	4,849	33.4	60	26	1,008	6.9	6	2	5,102	35.2	51	19
55 Printing and publishing, newspaper and periodical (see description of industry, p. 19).	206,426	100.0	2,063	36,716	17.8	162	75	17,335	8.4	31	20	42,066	20.4	217	102
56 Periodical, publishing without printing.	113,513	100.0	1,478	27,655	24.4	112	53	4,794	4.2	13	11	23,190	20.4	140	72
57 Periodical, publishing and printing.	92,913	100.0	685	9,061	9.7	50	22	12,541	13.5	18	9	18,876	20.3	77	30
58 Printing materials, not including type or ink.	8,579	100.0	84	(¹)	-----	-----	-----	(¹)	-----	-----	-----	4,903	22.2	13	7

See footnotes at end of Table 2.

SALES OF MANUFACTURING PLANTS: 1929

UNITED STATES, BY INDUSTRY, BY TYPE OF CUSTOMER AND AGENCY—Continued

thousands of dollars]

SALES TO MANUFACTURERS' OWN RETAIL BRANCHES				SALES TO INDUSTRIAL AND OTHER LARGE CONSUMERS				SALES TO HOUSEHOLD CONSUMERS				SALES THROUGH MANUFACTURERS' AGENTS, SELLING AGENTS, BROKERS, AND COMMISSION HOUSES				SALES DIRECT TO BRANCHES, WHOLESALE, RETAILERS, OR CONSUMERS				
Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		
		Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively	
				10 9,757	42.7	152	82	(10)				3,926	17.2	55	15	18,925	82.8	258	218	1
				590	6.8	16	8									8,718	100.0	40	40	2
				111,892	87.7	667	459					8,544	6.7	87	21	119,025	93.3	757	691	3
(38)				1,021	1.1	10	3					6,554	6.9	48	17	88,313	93.1	397	366	4
				40,970	78.2	367	303					2,717	5.2	22	6	49,649	94.8	419	403	5
				5,921	25.7	19	8					447	1.9	6		22,576	98.1	35	29	6
				2,407	48.1	40	19					360	7.2	13	8	4,649	92.8	58	53	7
34,670	3.8	143	62	147,497	16.0	812	493	23,777	2.6	380	192	149,480	16.2	560	252	771,696	83.8	3,038	2,730	8
23,268	3.1	130	62	106,208	14.2	677	416	16,976	2.3	322	175	129,703	17.3	456	211	620,315	82.7	2,647	2,402	9
14,723	14.8	10	5	20,913	21.0	85	47	2,183	2.2	24	12	8,831	8.9	48	11	90,626	91.1	257	220	10
49	.4	3		732	6.4	12	4	459	4.0	19	9	1,133	9.9	16	8	10,262	90.1	71	63	11
(4)				10,619	24.5	37	24					6,233	14.4	21	8	37,055	85.6	91	78	12
(4)				14,201	66.2	51	35					2,639	12.3	12	7	18,808	87.7	54	49	13
				2,769	28.5	14	9					(*)				9,719	100.0	34	34	14
				7,095	93.3	52	45					62	.8	5	2	7,544	99.2	56	53	15
				415,375	42.8							119,213	12.3			850,620	87.7			16
				(4)								1,246	6.1	5	3	19,105	93.9	18	16	17
429	2.2	12	7	936	4.9	28	7	582	3.0	26	5	2,269	11.8	26	7	16,898	88.2	171	152	18
(38)				10 313,920	56.0	2,870	2,030	(10)				32,775	5.8	213	25	527,706	94.2	3,721	3,533	19
				24,386	89.6	40	24									27,220	100.0	45	45	20
445	.8	7	2	16,025	26.6	91	53					12,557	20.9	38	14	47,604	79.1	174	150	21
				2,319	8.9	56	14					13,565	51.8	417	390	12,614	48.2	357	330	22
(38)				10 10,625	43.8	218	142	(10)				1,235	5.1	13	2	23,060	94.9	278	267	23
(4)				61,843	80.1	90	74					10,818	14.0	19	3	66,388	86.0	123	107	24
				28,608	42.7	499	219					7,130	10.6	167	4	59,930	89.4	847	684	25
(4)				4,724	45.8	70	33					1,703	16.5	27	3	8,612	83.5	127	103	26
				3,596	76.9	36	27					778	16.6	8		3,900	83.4	47	39	27
				4,308	75.9	33	27					374	6.6	12	4	5,304	93.4	55	47	28
(4)				322	9.5	17	4					(8)				3,380	100.0	36	36	29
				1,208	12.4	27	15					1,731	17.7	17	5	8,034	82.3	69	57	30
				26,808	41.5	49	32					9,554	14.8	19	6	55,067	85.2	89	76	31
				213,439	76.4	784	564					17,024	6.1	95	38	262,312	93.9	1,189	1,132	32
(4)				1,631	29.0	7	3									5,629	100.0	13	13	33
				10,582	54.0	32	25					720	3.7	6	2	18,884	96.3	68	64	34
				49,792	49.0	133	74					4,498	7.4	19	9	56,264	92.6	156	146	35
				10 24,840	90.4	121	91	(10)				1,620	5.9	31	5	25,861	94.1	137	111	36
				417,028	48.3	398	194					68,395	7.9	133	33	794,186	92.1	625	525	37
				64,140	73.9	29	16					3,282	3.8	11		83,555	96.2	36	25	38
				45,584	61.4	36	23					9,482	12.8	15	7	64,788	87.2	67	59	39
				84,266	62.8	134	104					8,113	6.0	35	4	126,034	94.0	184	153	40
				14,603	56.1	31	20					1,339	5.1	8	2	24,698	94.9	49	43	41
				3,611	30.1	10	5									12,019	100.0	20	20	42
				18,746	25.4	24	5					6,194	8.4	8	2	67,604	91.6	42	36	43
(4)				55,574	30.5	219	122	636	.3	28	13	14,230	7.8	67	15	168,210	92.2	421	369	44
				12,908	48.4	34	17					2,677	10.0	12	5	23,969	90.0	57	50	45
				3,700	23.9	14	6					721	4.6	7		14,787	95.4	29	22	46
				51,846	99.4	74	72					10,009	19.2	14	5	42,127	80.8	78	69	47
(4)				10 70	.2	3		(10)				(*)				30,008	100.0	56	56	48
				57,961	66.9	549	482					4,177	4.8	32	17	82,487	95.2	675	660	49
				2,140	68.4	13	11					(9)				3,129	100.0	19	19	50
786	.5	28		(10)				10 68,937	44.5	435	146	3,072	2.0	29	11	151,948	98.0	586	568	51
733	.6	21	7	(10)				10 50,275	43.5	351	100	1,725	1.5	22	7	113,816	98.5	470	455	52
53	.1	7	1	(10)				10 18,662	47.3	84	46	1,347	3.4	7	4	38,132	96.6	116	113	53
223	1.5	6	2					2,129	14.7	41	8					13,565	93.5	119	116	54
8,297	4.0	42	18					88,667	42.9	1,651	1,479					206,426	100.0	2,063	2,063	55
1,242	1.1	15	7					52,277	46.1	1,234	1,121					113,513	100.0	1,478	1,478	56
7,055	7.6	27	11					36,390	39.2	417	358					92,913	100.0	585	585	57
				6,676	77.8	77	71									8,579	100.0	84	84	58

See footnotes at end of Table 2.

DISTRIBUTION

TABLE 1.—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN THE

[Values expressed in

INDUSTRY	TOTAL DISTRIBUTED SALES			SALES TO WHOLESALERS				SALES TO MANUFACTURERS' OWN WHOLESALE BRANCHES				SALES TO RETAILERS			
	Value of sales	Per cent of total sales	Number of plants	Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants	
						Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively
Group 6.—CHEMICALS AND ALLIED PRODUCTS															
1 Ammunition and related products.....	43,809	100.0	21	34,134	77.9	11	4					2,731	6.2	7	
2 Baking powders, yeast, and other leavening compounds.....	52,337	100.0	48	19,822	37.9	23	6	25,156	48.1	20	5	46,359	12.1	24	5
3 Blacking, stains, and dressings.....	24,682	100.0	170	4,16,046	65.0	97	41	(¹)				2,764	11.2	41	6
4 Bluing.....	1,365	100.0	20	1,303	95.5	17	13					462	4.5	7	3
5 Bone black, carbon black, and lampblack.....	20,170	100.0	77	4,159	20.6	25	22								
6 Candles.....	6,686	100.0	20	1,062	15.9	14	5					1,645	24.6	8	
7 Chemicals, not elsewhere classified.....	715,176	100.0	541	151,842	21.2	240	90	110,131	15.4	115	37	11,931	1.7	84	7
8 Cleaning and polishing preparations.....	50,989	100.0	429	29,746	58.3	261	76	5,289	10.4	22	7	5,930	11.6	185	30
9 Metal polishing and other polishing preparations.....	17,711	100.0	121	3,391	44.0	69	15	137	1.8	5		1,062	13.8	60	6
10 Compressed and liquefied gases.....	51,774	100.0	346	4,864	17.1	68	37	(¹)				(¹¹)			
11 Druggists' preparations.....	124,778	100.0	429	41,206	33.0	241	71	39,038	31.3	39	14	22,871	18.3	197	49
12 Drug grinding.....	9,669	100.0	26	1,693	17.5	18	3								
13 Explosives.....	70,221	100.0	69	(¹)				20,426	29.1	43	18	(¹¹)			
14 Fertilizers.....	240,667	100.0	638	37,848	15.7	179	32	24,311	10.1	104	27	77,162	32.1	219	48
15 Fireworks.....	6,583	100.0	50	5,332	81.0	31	14					252	3.8	10	
16 Glue and gelatin.....	33,882	100.0	74	4,14,455	42.7	33	19	(¹)				574	1.7	7	2
17 Grease and tallow, not including lubricating greases.....	59,815	100.0	293	12,422	20.8	140	55	1,641	2.7	30	4	4,377	5.8	61	11
18 Ink, printing.....	42,750	100.0	147	11,463	10.4	29	15	7,975	18.7	13	10	(¹¹)			
19 Ink, writing.....	4,595	100.0	29	2,575	56.0	21	3	51	1.1	3	2	1,724	37.5	17	
20 Liquors, vinous.....	2,448	100.0	24	1,624	66.3	14	4	(¹)				(¹)			
21 Mucilage, paste, and other adhesives, except glue and rubber cement.....	6,638	100.0	84	4,234	42.7	48	17	(¹)				801	12.1	32	5
22 Oil, cake, and meal, cottonseed.....	267,822	100.0	553	120,824	45.1	400	45	12,135	4.5	58	5	15,778	5.9	246	2
23 Oil, cake, and meal, linseed.....	119,927	100.0	29	55,900	46.6	26	10	7,635	6.4	11		2,526	2.1	14	
24 Oils, essential.....	6,653	100.0	22	1,320	19.8	14	8	4,614	9.2	5		246	3.7	6	2
25 Oils, not elsewhere classified.....	45,160	100.0	75	4,10,233	22.7	38	21	(¹)				162	3.6	7	3
26 Paints and varnishes.....	563,652	100.0	1,063	128,109	22.7	432	128	79,231	14.1	142	42	103,836	18.4	414	79
27 Patent or proprietary medicines and compounds.....	318,907	100.0	1,522	151,382	47.5	939	350	37,951	11.9	80	16	69,311	21.7	619	124
28 Agricultural insecticides and fungicides.....	1,673	100.0	54	2,210	32.8	23	5	461	6.9	5	2	1,968	29.2	28	8
29 Patent and proprietary medicines.....	133,080	100.0	608	92,270	69.3	433	212	9,082	6.8	33	7	17,649	13.3	225	47
30 Perfumes, cosmetics, and other toilet preparations.....	193,441	100.0	815	86,862	44.9	490	170	5,114	2.6	50	18	51,83,430	43.1	454	153
31 Rayon and allied products.....	149,546	100.0	29	(¹)				53,775	36.0	14	11				
32 Salt.....	37,869	100.0	58	15,048	39.8	51	7	329	9	5		9,973	26.3	33	
33 Soap.....	310,192	100.0	282	141,187	45.5	167	46	101,764	32.8	37	10	42,030	13.6	105	19
34 Tanning materials, natural dyestuffs, mordants and assistants, and sizes.....	39,930	100.0	122	11,940	23.6	38	19	5,114	12.8	11	6	(¹¹)			
35 Tanning materials.....	17,849	100.0	27	(¹)				4,696	8.9	6	4	(¹)			
36 Wood distillation and charcoal manufacture.....	29,594	100.0	91	8,023	27.1	61	24	7,456	25.2	19	3	873	2.9	18	
Group 7.—PRODUCTS OF PETROLEUM AND COAL															
37 Coke, not including gas-house coke.....	197,697	100.0	148	81,297	41.1	70	24	4,478	2.4	13	2	22,499	11.4	29	
38 Fuel: Briquettes and boulets.....	9,498	100.0	23	11,9,371	98.7	19	12					(¹¹)			
39 Lubricating oils and greases, not made in petroleum refineries.....	72,281	100.0	177	19,315	26.7	84	25	23,021	31.9	19	7	9,991	13.8	70	18
40 Petroleum refining.....	2,639,665	100.0	390	484,102	18.3	225	30	1,592,553	60.3	225	66	136,878	5.2	110	16
Group 8.—RUBBER PRODUCTS															
41 Boots and shoes, rubber.....	102,538	100.0	22	24,846	24.2	13		53,661	52.4	11	6	24,031	23.4	9	
42 Rubber goods other than tires, inner tubes, and boots and shoes.....	231,221	100.0	408	89,570	38.7	257	118	34,690	15.0	37	15	16,581	7.2	121	22
43 Rubberized fabrics.....	122,230	100.0	18	9,907	44.6	15	9					689	3.1	5	
44 Reclaimed rubber.....	12,771	100.0	16	828	6.5	4	3								
45 Rubber gloves.....	1,753	100.0	10	1,242	70.9	6	3					458	26.1	6	3
46 Rubber tires and inner tubes.....	770,177	100.0	91	62,939	8.2	42	12	373,314	48.5	29	5	131,207	17.0	54	16
Group 9.—LEATHER AND ITS MANUFACTURES															
47 Belting, leather.....	34,505	100.0	207	11,7,485	21.7	89	28	2,688	7.8	10	6	(¹¹)			
48 Boot and shoe cut stock, not made in boot and shoe factories.....	113,845	100.0	206	13,858	12.2	43	18	(¹)				1,094	1.0	16	5
49 Boot and shoe findings, not made in boot and shoe factories.....	58,625	100.0	382	5,092	8.7	54	27					1,220	2.1	23	10
50 Boots and shoes, other than rubber.....	964,542	100.0	1,319	210,457	21.8	623	319	254,702	26.4	138	53	431,715	44.8	800	478
51 Gloves and mittens, leather.....	42,164	100.0	254	14,516	34.4	132	69	4,696	11.2	19	14	21,260	50.4	144	77
52 Leather goods, not elsewhere classified.....	35,087	100.0	371	13,212	37.6	203	98	(¹)				13,643	38.9	165	66
53 Belts.....	19,734	100.0	68	5,850	60.1	50	41					3,613	37.1	24	15
54 Leather: Tanned, curried, and finished.....	399,543	100.0	384	113,031	32.6	163	109	79,177	19.8	70	47	(¹¹)			
55 Cattle hides: Tanning, currying, and finishing.....	179,545	100.0	176	59,097	32.9	77	42	42,808	23.8	47	31	(¹¹)			
56 Goat and kid skins: Tanning, currying, and finishing.....	53,566	100.0	27	22,496	42.0	12	8	7,103	13.3	4	2	(¹¹)			
57 Calf and kip skins: Tanning, currying, and finishing.....	135,304	100.0	17	23,361	66.2	9	9	(¹)							
58 Sheepskin and lambskin: Tanning, currying, and finishing.....	31,999	100.0	57	11,836	37.0	29	26	(¹)							
59 Pocketbooks, purses, and cardcases.....	67,994	100.0	281	12,612	18.6	104	50	903	1.3	4	3	54,081	79.5	216	146
60 Saddlery and harness.....	21,675	100.0	204	5,359	24.7	51	11	1,964	9.1	15	3	11,637	53.7	111	14
61 Trunks, suit cases, and bags.....	63,609	100.0	462	12,667	19.9	122	45	958	1.5	8	4	42,693	67.1	352	218

See footnotes at end of Table 2.

SALES OF MANUFACTURING PLANTS: 1929

UNITED STATES, BY INDUSTRY, BY TYPE OF CUSTOMER AND AGENCY—Continued
 thousands of dollars]

SALES TO MANUFACTURERS' OWN RETAIL BRANCHES				SALES TO INDUSTRIAL AND OTHER LARGE CONSUMERS				SALES TO HOUSEHOLD CONSUMERS				SALES THROUGH MANUFACTURERS' AGENTS, SELLING AGENTS, BROKERS, AND COMMISSION HOUSES				SALES DIRECT TO BRANCHES, WHOLESALE, RETAILERS, OR CONSUMERS				
Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		
		Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively	
(4)				6,944	15.9	11	8					(5)				43,809	100.0	21	2	
				1,000	1.9	16	5					(5)				52,337	100.0	48	48	
				5,872	23.8	102	58	(4)				(5)				24,682	100.0	170	170	
				16,011	79.4	55	52					13,853	68.7	51	47	1,365	100.0	20	20	
				3,979	59.5	9	3									6,317	31.3	30	26	
(35)				441,272	61.7	378	183					44,765	6.3	112	27	6,686	100.0	20	20	
				9,400	18.5	196	67	624	1.2	63	10	9,807	19.2	56	12	670,411	93.7	514	429	
				2,780	36.0	64	20	341	4.4	25	4	475	6.2	10		41,182	80.8	417	373	
																7,236	93.8	121	111	
(35)				42,910	82.9	309	278					139	.3	7		51,635	99.7	346	339	
1,229	1.0	25	12	20,434	16.4	215	89	(10)				3,398	2.7	34	8	121,380	97.3	421	395	
				7,976	82.5	23	8	(10)								9,669	100.0	26	26	
				49,795	70.9	51	26					(5)				70,221	100.0	69	69	
2,275	.9	23	4	99,101	41.2	443	282	(10)				17,272	7.2	70	27	223,425	92.8	611	568	
				999	15.2	28	16					(5)				6,583	100.0	50	50	
				18,853	55.6	49	34					386	1.1	11	4	33,496	98.9	70	63	
(4)				42,275	70.7	191	109					15,880	26.5	106	34	43,935	73.5	259	187	
				30,312	70.9	122	104					(5)				42,750	100.0	147	147	
				245	5.4	15	2					140	3.0	5		4,455	97.0	29	24	
				714	29.2	18	7	110	4.5	5		608	24.8	5	3	1,840	75.2	21	19	
				3,003	45.2	57	29					238	3.6	11	4	6,400	96.4	80	73	
1,736	.7	49		117,349	43.8	465	75	(10)				119,511	44.6	338	27	148,311	55.4	526	215	
(4)				53,866	44.9	19	3					22,901	19.1	16		97,026	80.9	28	23	
				4,473	67.3	5	2					(5)				6,653	100.0	22	22	
10,749	1.9	104	24	34,765	77.0	48	33		9,123	1.6	199	34	3,437	7.6	15	7	41,723	92.4	68	60
				232,604	41.3	619	206					18,118	3.2	95	16	545,534	96.8	1,047	968	
12,857	4.0	56	12	26,696	8.4	360	143	20,710	6.5	408	138	14,684	4.6	154	47	304,223	95.4	1,475	1,368	
				2,088	31.1	33	13					(5)				6,737	100.0	54	54	
295	.2	16	2	1,957	1.5	37	6	11,827	8.9	199	83	4,206	3.2	45	20	128,874	96.8	588	563	
2,692	1.4	40	7	2,215	1.2	58	12	13,128	6.8	202	47	14,333	7.4	69	20	179,108	92.6	795	746	
				95,771	64.0	18	13					2,757	1.8	6		146,789	88.2	29	23	
				12,519	33.0	48	4					2,096	5.5	15	4	35,773	94.5	54	43	
				23,684	7.6	148	49	1,527	.5	46	10	5,359	1.7	43	9	304,833	98.3	273	239	
				25,410	63.6	94	74									1,612	4.0	16	7	
				7,153	91.1	23	21					(5)				7,849	100.0	27	27	
				13,196	44.6	50	16	46	.2	5		6,147	20.8	41	2	23,447	79.2	89	50	
(4)				84,486	42.7	93	35	4,637	2.4	25		45,792	23.2	59	13	151,905	76.8	135	89	
								127	1.3	8	1					9,498	100.0	23	23	
				19,291	26.7	96	35	663	.9	26	4	1,295	1.8	7	4	70,986	98.2	173	170	
200,144	7.6	89	12	225,988	8.6	184	16					62,901	2.4	61	7	2,576,764	97.6	383	329	
																102,538	100.0	22	22	
859	.4	11	4	88,355	38.2	190	76	1,166	.5	23	6	11,018	4.8	61	15	220,203	95.2	393	347	
				11,634	52.3	7	2					3,487	15.7	5	3	18,743	84.3	15	13	
				11,943	93.5	14	12					(5)				12,771	100.0	16	16	
				53	3.0	3		(4)				(5)				1,753	100.0	10	10	
4,136	.5	13		197,383	25.6	33		1,198	.2	9		15,426	2.0	11	5	754,751	98.0	86	80	
(35)				24,332	70.5	168	101					3,538	10.3	29	9	30,967	89.7	198	178	
				98,893	86.8	172	133					717	.6	12	2	113,128	99.4	204	194	
				52,313	89.2	338	298					1,014	1.7	15	3	57,611	98.3	379	367	
59,591	6.2	70	10	3,855	.4	31	8	4,222	.4	61	34	26,039	2.7	97	42	938,503	97.3	1,277	1,222	
				1,692	4.0	44	11	(4)				3,753	8.9	43	12	38,411	91.1	242	211	
				7,149	20.4	99	49	1,083	3.1	17	6	1,362	3.9	42	9	33,725	96.1	362	329	
				271	2.8	4	3					189	1.9	4		9,545	98.1	68	64	
(35)				190,052	47.6	203	151					61,590	15.4	86	21	337,953	84.6	363	298	
(35)				77,640	43.3	88	55					34,475	19.2	44	11	145,070	80.8	165	132	
				23,967	44.7	17	12					9,970	18.6	7		43,596	81.4	27	20	
				11,943	33.8	8	8					1,879	5.3	5	2	33,425	94.7	15	12	
				20,163	63.0	32	26					1,566	4.9	10	2	30,433	95.1	55	47	
				142	.2	10	3	256	.4	11	3	1,517	2.2	15	4	66,477	97.8	277	266	
				2,715	12.5	76	49	(10)				(5)				21,675	100.0	204	204	
				5,698	9.0	72	26	1,593	2.5	51	13	301	.5	10	2	63,308	99.5	460	452	

See footnotes at end of Table 2.

DISTRIBUTION

TABLE 1.—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN THE

[Values expressed in

INDUSTRY	TOTAL DISTRIBUTED SALES			SALES TO WHOLESALESA				SALES TO MANUFACTURERS' OWN WHOLESALE BRANCHES				SALES TO RETAILERS			
	Value of sales	Per cent of total sales	Number of plants	Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants	
						Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively
Group 10.—STONE, CLAY, AND GLASS PRODUCTS															
1 Asbestos products, steam and other packing, pipe and boiler covering, and gaskets, n. e. c. (see description of industry, p. 5).	101,461	100.0	238	11 38,970	38.4	168	54	28,214	27.8	36	16	(11)			
2 Steam and other packing, pipe and boiler covering and gaskets.	1 24,466	100.0	116	11 7,654	31.3	64	23	3,278	13.4	11	5	(11)			
3 Asbestos building materials.	1 6,258	100.0	9	11 2,249	35.9	4		1,354	21.7	5	3	(11)			
4 Cement.	255,604	100.0	166	11 196,539	76.9	142	66	54 16,087	6.3	17	9	(11)			
5 China firing and decorating, not done in potteries.	1,246	100.0	16	446	35.8	5	4					800	64.2	12	11
6 Clay products (other than pottery) and nonclay refractories.	302,136	100.0	1,749	11 129,079	42.7	940	407	38 19,740	6.5	186	49	(11)			
7 Common brick.	140,192	100.0	479	11 15,756	39.2	237	112	38 2,177	5.4	27	12	(11)			
8 Face brick.	117,852	100.0	117	11 11,441	64.1	84	41	38 2,374	13.3	27	4	(11)			
9 Fire brick.	135,440	100.0	104	11 3,820	10.8	33	8	38 1,594	4.5	14	3	(11)			
10 Tile (except roofing tile).	125,952	100.0	61	11 19,355	74.6	43	36	11 1,115	4.3	5	4	(11)			
11 Hollow building tile.	118,015	100.0	68	11 12,507	69.4	51	35	38 703	3.9	7	3	(11)			
12 Concrete products.	92,729	100.0	2,438	11 16,553	17.8	622	277	38 2,779	3.0	107	31	(11)			
13 Blocks, tile, and brick (not including roofing tile).	124,150	100.0	928	11 6,040	25.0	225	105	38 733	3.0	33	12	(11)			
14 Art marble, Spanish floor tile, cast stone, fireplaces and mantels, or roofing tile.	116,162	100.0	223	11 2,316	14.3	34	25	38 595	3.7	11	7	(11)			
15 Irrigation pipe.	12,444	100.0	54	11 469	19.2	12	4					(11)			
16 Monuments, grave markers, or burial vaults.	12,333	100.0	109	11 1,333	57.1	57	47	38 33	1.4	4	2	(11)			
17 Culvert pipe.	12,229	100.0	52	11 82	3.7	9	3	(4)				(11)			
18 Household accessories ⁴³ .	12,117	100.0	73	11 1,251	59.1	48	33					(11)			
19 Circular structures ⁴⁶ .	11,273	100.0	43	11 42	3.3	5	2					(11)			
20 Emery wheels and other abrasive and polishing appliances.	32,154	100.0	67	11 10,216	31.8	38	3	(4)				431	1.3	7	
21 Glass.	287,246	100.0	255	11 151,822	52.9	189	82	(4)				22,728	7.9	78	9
22 Bottles and containers (except milk bottles and fruit jars).	181,790	100.0	53	21,812	26.7	29	8					1,078	1.3	8	
23 Polished plate glass.	150,291	100.0	13	11 40,016	79.6	13	6	(4)				(11)			
24 Milk bottles.	19,926	100.0	12	11 3,758	37.9	9						(11)			
25 Obscured and wire glass.	19,736	100.0	17	11 9,520	97.8	17	13					(11)			
26 Glass products (except mirrors) made from purchased glass.	32,963	100.0	423	10,755	32.6	151	67					5,802	17.6	108	46
27 Lime.	35,816	100.0	237	9,983	27.9	88	31	59 3,312	9.2	30	8	9,049	25.3	87	18
28 Marble, granite, slate, and other stone products.	181,698	100.0	1,627	11 61,377	33.8	552	402	38 8,611	4.7	60	16	(11)			
29 Monuments, tombstones, and other articles for cemetery use.	150,040	100.0	863	11 20,692	41.4	291	231	38 2,570	5.1	27	5	(11)			
30 Mirrors, framed and unframed.	31,890	100.0	304	10,315	32.3	147	45	1,983	6.2	33	21	6,807	21.3	134	32
31 Pottery, including porcelain ware.	116,405	100.0	313	49,487	42.5	179	78	17,252	14.8	28	7	4 27,651	23.8	133	41
32 Red earthenware.	11,689	100.0	45	4 478	28.3	16	12	(4)				4 287	17.0	12	10
33 Stoneware (except chemical) and yellow and Rockingham ware.	12,386	100.0	20	4 735	30.8	12	3	(4)				4 1,651	69.2	16	6
34 White ware (including cream-color, white granite, semiporcelain, and semivitreous ware).	131,608	100.0	45	9,135	28.9	31	6					4 18,608	58.9	38	11
35 Hotel china.	19,417	100.0	15	9,417	100.0	15	15								
36 Vitreous-china plumbing fixtures (exclusive of fittings).	121,750	100.0	37	15,301	70.3	32	23	5,801	26.7	10	2				
37 Porcelain electrical supplies (exclusive of fittings).	118,026	100.0	38	5,522	30.6	19	12	5,096	28.3	6	3				
38 Garden and art pottery.	11,896	100.0	23	591	31.2	8						1,093	57.6	20	5
39 Sand-lime, brick.	3,146	100.0	40	11 1,649	52.4	28	14					(11)			
40 Statuary and art goods, factory product.	9,559	100.0	165	4 1,279	13.4	32	13	(4)				1,130	11.8	39	20
41 Wall plaster, wall board, insulating board, and floor composition.	70,663	100.0	236	11 56,201	79.5	159	98	38 5,400	7.7	30	16	(11)			
42 Gypsum plasters and gypsum board.	125,878	100.0	60	11 21,003	81.2	47	35	38 3,406	13.1	10	8	(11)			
43 Floor composition.	12,080	100.0	23	11 604	29.0	9	3	38 716	34.4	7	3	(11)			
Group 11.—IRON AND STEEL AND THEIR PRODUCTS, NOT INCLUDING MACHINERY															
44 Bolts, nuts, washers, and rivets, not made in plants operated in connection with rolling mills.	104,866	100.0	117	26,972	25.7	66	16	5,117	4.9	12		618	.6	19	
45 Cast-iron pipe.	80,261	100.0	72	11 29,690	37.0	51	33	38 4,757	5.9	20		(11)			
46 Gas and water pipe and fittings.	143,067	100.0	21	11 7,481	17.4	8	3	38 1,328	3.1	5		(11)			
47 Soil pipe and plumbers' pipe and fittings.	114,710	100.0	37	11 10,749	73.1	31	24	38 1,385	9.4	9		(11)			
48 Cutlery (not including silver and plated cutlery) and edge tools.	78,918	100.0	239	55,706	70.6	140	68	12,331	15.6	25	15	6,147	7.8	67	10
49 Edge tools.	110,281	100.0	62	7,884	76.7	33	20					585	5.7	11	2
50 Pocket knives.	13,766	100.0	18	2,992	79.4	13	7					774	20.6	11	4
51 Doors, shutters, and window sash and frames, metal.	69,242	100.0	148	(4)				4 8,573	12.4	26	15	1,805	2.6	18	7
52 Files.	14,114	100.0	33	11,145	79.0	22	7					819	5.8	11	
53 Firearms.	21,335	100.0	21	17,153	80.4	17	8					4 4,013	18.8	10	

See footnotes at end of Table 2.

SALES OF MANUFACTURING PLANTS: 1929

UNITED STATES, BY INDUSTRY, BY TYPE OF CUSTOMER AND AGENCY—Continued

thousands of dollars]

SALES TO MANUFACTURERS' OWN RETAIL BRANCHES				SALES TO INDUSTRIAL AND OTHER LARGE CONSUMERS				SALES TO HOUSEHOLD CONSUMERS				SALES THROUGH MANUFACTURERS' AGENTS, SELLING AGENTS, BROKERS, AND COMMISSION HOUSES				SALES DIRECT TO BRANCHES, WHOLESALE, RETAILERS, OR CONSUMERS				
Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		
		Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively	
				34,277	33.8	144	58					5,287	5.2	43	4	96,174	94.8	234	195	1
				13,534	55.3	82	39					896	3.6	19	2	23,570	96.4	114	97	2
				2,655	42.4	5	1									6,258	100.0	9	9	3
				42,978	16.8	86	14					9,516	3.7	12	6	246,688	96.3	160	154	4
												(8)				1,246	100.0	16	16	5
(38)				153,317	50.8	1,363	628	(10)				27,132	9.0	260	96	275,004	91.0	1,653	1,489	6
(38)				22,259	55.4	336	213	(10)				4,160	10.4	60	32	36,032	89.6	447	419	7
(38)				4,037	22.6	69	25	(10)				2,418	13.5	28	10	15,434	86.5	107	89	8
(38)				30,026	84.7	92	66	(10)				2,116	6.0	18	2	33,324	94.0	102	86	9
				5,482	21.1	19	13	(10)				734	2.8	9	6	25,218	97.2	55	52	10
(38)				4,805	26.7	28	12	(10)				1,680	9.3	12	7	16,335	90.7	61	56	11
(38)				73,397	79.2	2,021	1,406	(10)				5,307	5.7	114	58	87,422	94.3	2,380	2,324	12
(38)				17,377	72.0	788	626	(10)				568	2.4	22	9	23,582	97.6	919	906	13
(38)				13,251	82.0	188	168	(10)				1,050	6.5	9	6	15,112	93.5	217	214	14
(4)				1,975	80.8	48	35	(10)								2,444	100.0	54	54	15
(38)				967	41.5	52	46	(10)				40	1.7	3	3	2,293	98.3	106	106	16
(4)				2,147	96.3	47	37	(10)				351	15.7	7	7	1,878	84.3	45	45	17
				866	40.9	40	25	(10)								2,117	100.0	73	73	18
				1,231	96.7	41	35	(10)								1,273	100.0	43	43	19
				21,507	66.9	61	25					132	.4	4		32,022	99.6	67	63	20
1,383	.5	5	1	111,313	38.7	133	44	(10)				34,905	12.2	87	15	252,341	87.8	240	168	21
				58,900	72.0	41	22					5,286	6.5	12		76,504	93.5	52		22
				2,275	20.4	7						(8)				50,291	100.0	13	13	23
				6,168	62.1	11	3					(8)				9,926	100.0	12	12	24
				216	2.2	4						(8)				9,736	100.0	17	17	25
				16,406	49.8	275	169					1,505	4.6	19	9	31,458	95.4	414	404	26
				13,472	37.6	169	69					3,087	8.6	37	13	32,729	91.4	224	200	27
(38)				86,001	47.3	589	473	25,709	14.2	600	538	8,986	4.9	115	35	172,712	95.1	1,592	1,512	28
(38)				1,069	2.1	31	14	25,709	51.4	600	538	3,931	7.9	59	10	46,109	92.1	853	804	29
215	.7	17	2	12,010	37.7	112	46	560	1.8	52	7	1,916	6.0	32	9	29,974	94.0	295	272	30
(4)				21,580	18.5	94	46	435	.4	28	5	19,780	17.0	83	29	96,625	83.0	284	230	31
(4)				924	54.7	20	15					(8)				1,689	100.0	45	45	32
												282	11.8	4		2,104	88.2	20	16	33
(4)				3,865	12.2	7						8,857	28.0	20	10	22,751	72.0	35	25	34
				648	3.0	8	2					2,104	22.3	5		7,313	77.7	15	10	35
				7,408	41.1	24	13					2,648	12.2	10	4	19,102	87.8	33	27	36
								212	11.2	10		3,032	16.8	14		14,994	83.2	38	24	37
												766	40.4	10	4	1,130	59.6	19	13	38
				1,497	47.6	26	12	(10)								3,146	100.0	40	40	39
				6,303	65.9	97	71	847	8.9	30	12	(8)				9,559	100.0	165	165	40
(38)				9,062	12.8	97	46	(10)				1,370	1.9	18	6	69,293	98.1	230	218	41
(38)				1,469	5.7	15	5	(10)				(8)				25,878	100.0	60	60	42
(38)				760	36.6	16	7	(10)				(8)				2,080	100.0	23	23	43
				72,159	68.8	96	36					8,211	7.8	30	3	96,655	92.2	114	87	44
(38)				45,814	57.1	24	16					10,597	13.2	19	6	69,664	86.8	66	53	45
(38)				34,258	79.5	15	11					3,117	21.2	8	5	43,067	100.0	21	21	46
(38)				2,576	17.5	5	3					11,593				11,593	78.8	32	29	47
				4,514	5.7	95	52	220	.3	18		5,999	7.6	54	9	72,919	92.4	230	185	48
				1,812	17.6	33	25					(8)				10,281	160.0	62	62	49
												(8)				3,766	100.0	18	18	50
				58,864	85.0	121	104	(10)				18,258	26.4	48	10	50,984	73.6	138	100	51
				2,150	15.2	22	7					388	2.7	7	2	13,726	97.3	31	26	52
				(4)				169	.8	5		1,604	7.5	9		19,731	92.5	21	12	53

See footnotes at end of Table 2.

DISTRIBUTION

TABLE 1.—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN THE

[Values expressed in

INDUSTRY	TOTAL DISTRIBUTED SALES			SALES TO WHOLESALERS				SALES TO MANUFACTURERS' OWN WHOLESALE BRANCHES				SALES TO RETAILERS			
	Value of sales	Per cent of total sales	Number of plants	Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants	
						Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively
Group 11.—IRON AND STEEL AND THEIR PRODUCTS, NOT INCLUDING MACHINERY—Continued															
1 Forgings, iron and steel, not made in plants operated in connection with rolling mills.	155,586	100.0	214	9,188	6.0	53	7	2,503	1.6	6					
2 Hardware not elsewhere classified.	229,477	100.0	485	75,708	33.0	284	103	9,741	4.3	31	3	30,383	13.2	175	29
3 Iron and steel: Blast furnaces.	198,254	100.0	95	11,433,620	22.0	31	15	387,566	3.8	9	1	(11)			
4 Iron and steel: Steel works and rolling mills.	2,990,926	100.0	480	11,177,121	39.4	238	81	381,125	3.7	93	7	(11)			
5 Nails, spikes, etc., not made in wire mills or in plants operated in connection with rolling mills.	12,855	100.0	55	4,000	31.1	38	10	1,687	13.1	10	2	4,635	5.0	16	2
6 Plumbers' supplies, not including pipe or vitreous-china sanitary ware.	129,674	100.0	255	80,310	61.9	212	122	29,873	23.1	25	4	7,792	6.0	51	10
7 Porcelain-enameled bath tubs, laundry tubs, lavatories, and sinks.	137,894	100.0	19	20,204	53.3	17	9	17,690	46.7	8	2				
8 Plumbers' brass goods (valves, faucets, spigots, etc.).	131,352	100.0	93	23,510	75.0	76	48	1,167	3.7	7	2	4,069	13.0	17	5
9 Safes and vaults.	18,989	100.0	27	4,962	10.3	11	3	(4)				8,109	42.7	12	4
10 Saws.	21,971	100.0	79	11,536	52.5	37	10	1,494	6.8	7	2	3,269	14.9	29	4
11 Screw-machine products and wood screws.	105,975	100.0	273	19,136	18.1	86	28	(4)				2,546	2.4	26	6
12 Springs, steel, except wire, not made in plants operated in connection with rolling mills.	46,356	100.0	86	14,400	31.1	35	15	4,693	1.5	11		1,106	2.4	23	7
13 Steam fittings and steam and hot-water heating apparatus.	228,109	100.0	240	69,641	30.5	138	38	492,810	40.7	63	20	23,372	10.2	76	13
14 Cast-iron and steel steam and hot-water heating boilers.	122,320	100.0	29	4,807	21.5	16	5	11,521	51.6	9	4	2,874	12.9	10	2
15 Cast-iron and copper radiators.	127,678	100.0	24	8,028	29.6	10	4	19,050	70.4	20	14				
16 Fittings and valves.	178,307	100.0	36	(4)				65,014	83.0	25	17	726	1.0	5	2
17 Specialties.	138,537	100.0	80	13,274	34.4	41	15	3,665	9.5	8		6,273	16.3	22	4
18 Steel barrels, kegs, and drums.	37,278	100.0	53	2,112	5.7	12	3					(11)			
19 Stoves and ranges (other than electric) and warm-air furnaces.	270,940	100.0	609	84,331	31.1	325	75	19,976	7.4	70	8	105,473	38.9	338	83
20 Warm-air furnaces.	123,678	100.0	86	10,075	42.6	37	9	519	2.2	8		7,517	31.7	31	7
21 Domestic fuel-oil burners.	144,573	100.0	53	4,777	32.8	20	9	2,665	18.3	7		4,851	33.3	23	5
22 Structural and ornamental iron and steel work, not made in plants operated in connection with rolling mills.	469,499	100.0	1,480	80,106	17.1	433	219	17,630	3.7	49	21	(11)			
23 Tin cans and other tinware, not elsewhere classified.	256,130	100.0	206	16,705	6.5	71	34	1,846	.7	7	1	3,063	1.2	32	11
24 Tools, not including edge tools, machine tools, files, or saws.	100,233	100.0	532	60,572	60.4	319	123	6,045	6.0	35	5	7,158	7.2	155	27
25 Wire, drawn from purchased bars or rods.	178,974	100.0	76	34,113	19.1	34	6	12,067	6.7	18	1	6,984	3.9	18	
26 Wirework, not elsewhere classified.	147,921	100.0	547	63,256	42.8	235	98	6,693	4.5	33	5	12,794	8.6	145	39
27 Wrought pipe, welded and heavy riveted, not made in plants operated in connection with rolling mills.	124,659	100.0	50	50,642	40.6	16	3	663	.5	4					
Group 12.—NONFERROUS METALS AND THEIR PRODUCTS															
28 Aluminum manufactures.	152,748	100.0	150	11,266	7.4	50	21	(4)				22,977	15.0	38	9
29 Clocks, watches, and parts (see description of industry, p. 9).	88,665	100.0	121	54,877	61.9	62	31	15,746	17.8	16	5	5,155	5.8	36	14
30 Clocks, clock movements and parts, and time-recording devices.	135,667	100.0	55	17,938	50.3	27	7	5,794	16.2	6		1,415	4.0	18	5
31 Watches, watch cases, movements, and parts.	152,998	100.0	66	36,939	69.7	35	24	9,952	18.8	10	3	3,740	7.0	18	9
32 Collapsible tubes.	8,913	100.0	17												
33 Copper, tin, and sheet-iron work, including galvanized-iron work, not elsewhere classified.	206,381	100.0	1,960	39,054	18.9	406	108	16,600	8.0	48	13	31,101	15.1	337	76
34 Fire extinguishers, chemical.	8,566	100.0	28	4,196	49.0	20	8								
35 Gas and electric fixtures; lamps, lanterns, and reflectors.	144,966	100.0	614	57,497	39.7	281	129	6,420	4.4	27	10	23,801	16.4	241	97
36 Electric residence fixtures.	131,705	100.0	231	13,808	43.6	94	53	1,686	5.3	11	8	11,523	36.3	102	61
37 Motor-vehicle lamps.	133,680	100.0	23	7,815	23.2	15	7								
38 Gold leaf and foil.	3,978	100.0	75	1,325	33.3	31	13	(4)				710	17.9	28	6
39 Gold, silver, and platinum, reducing and refining, not from the ore.	67,616	100.0	65	7,889	11.7	19	11					(11)			
40 Jewelry.	168,325	100.0	1,345	69,471	41.3	619	366	5,839	3.5	34	22	62,370	37.1	662	353
41 Needles, pins, hooks and eyes, and snap fasteners.	22,031	100.0	43	6,071	27.6	24	7	897	4.1	4		3,641	16.5	14	3
42 Nonferrous-metal alloys and products, not including aluminum products.	824,429	100.0	1,204	119,399	23.1	462	266	53,854	6.5	62	8	(11)			
43 Plated ware.	55,430	100.0	96	28,139	50.8	58	20	(4)				22,888	41.3	65	23
44 Silversmithing and silverware.	30,452	100.0	83	3,221	10.6	26	15	11,251	37.0	5	3	15,297	50.2	59	46
45 Stamped ware, enameled ware, and metal stamping, enameling, japanning, and lacquering.	192,631	100.0	491	58,431	30.3	202	86	11,901	6.2	25	4	21,261	11.0	106	22
46 Stamped household ware (not including vitreous enameled).	144,279	100.0	49	9,195	64.4	35	16	(4)				2,785	19.5	13	1
47 Stamped automotive parts and accessories.	126,206	100.0	47	4,916	22.6	12	9	(4)				(4)			
48 Vitreous enameled ware.	124,382	100.0	53	10,158	41.7	31	12	(4)				9,233	37.8	20	4
49 Bottle caps.	125,890	100.0	27	14,852	57.4	10	5	345	1.3	3					

See footnotes at end of Table 2.

SALES OF MANUFACTURING PLANTS: 1929

UNITED STATES, BY INDUSTRY, BY TYPE OF CUSTOMER AND AGENCY—Continued

thousands of dollars]

SALES TO MANUFACTURERS' OWN RETAIL BRANCHES				SALES TO INDUSTRIAL AND OTHER LARGE CONSUMERS				SALES TO HOUSEHOLD CONSUMERS				SALES THROUGH MANUFACTURERS' AGENTS, SELLING AGENTS, BROKERS, AND COMMISSION HOUSES				SALES DIRECT TO BRANCHES, WHOLESALE, RETAILERS, OR CONSUMERS				
Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		
		Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively	
				\$143,895	92.4	205	139					\$5,991	3.9	24		\$149,595	96.1	214	190	1
				113,645	49.5	281	119					20,785	9.1	133	19	208,692	90.9	466	352	2
(38)				147,068	74.2	69	29					82,027	41.4	40	20	116,227	58.6	75	55	3
(38)				1,701,680	56.9	354	214					106,271	3.6	80	6	2,884,655	96.4	474	400	4
(4)				6,533	50.8	35	11					2,121	16.5	13	2	10,734	83.5	53	42	5
				11,699	9.0	68	23					9,543	7.4	60	11	120,131	92.6	244	195	6
				2,606	8.3	20	10					1,658	4.4	5	2	36,236	95.6	17	14	7
				8,918	47.0	17	6					1,964	6.3	24	3	29,388	93.7	90	69	8
				5,672	25.8	55	22					760	4.0	6		18,229	96.0	27	21	9
				84,293	79.5	234	172					360	1.6	9		21,611	98.4	79	70	10
(4)				30,157	65.0	59	32					8,371	7.9	53	7	97,604	92.1	266	220	11
(4)				42,286	18.6	121	54					1,135	2.4	8		45,221	97.6	86	78	12
				3,118	14.0	11	5					23,394	10.3	59	18	204,715	89.7	222	181	13
				12,567	16.0	16	8									22,320	100.0	29	29	14
(4)				15,325	39.8	56	28					(5)				27,078	100.0	24	24	15
				35,166	94.3	50	41					859	1.1	6		77,448	98.9	36	30	16
15,007	5.5	45	5	46,153	17.1	282	92	(10)				12,309	31.9	30	9	26,228	68.1	71	50	17
(4)				5,567	23.5	61	29	(10)				3,798	10.2	7	2	33,480	89.8	51	46	18
				2,280	15.6	34	13	(10)				22,875	8.4	90	24	248,065	91.6	585	519	19
(38)				371,763	79.2	1,134	817	(10)				2,067	8.7	8	4	21,611	91.3	82	78	20
				234,516	91.6	147	106					136	.9	4	2	14,437	99.1	51	49	21
(4)				26,458	26.4	291	122	(10)				18,702	4.0	90	29	450,797	96.0	1,451	1,390	22
				125,810	70.3	66	30					2,482	1.0	25		253,648	99.0	206	181	23
				65,178	44.1	326	173					14,726	14.7	129	22	85,507	85.3	510	403	24
				73,354	58.9	47	32					8,719	4.9	16		170,255	95.1	76	60	25
(4)				116,087	76.0	81	63	2,418	1.6	14	3	7,567	5.1	72	19	140,354	94.9	528	475	26
				12,887	14.5	53	28					7,010	5.6	8	2	117,649	94.4	48	42	27
				10,520	29.5	33	16													
				2,367	4.5	20	12													
				8,913	100.0	17	17													
				119,626	58.0	1,620	1,004													
1,275	.9	19	13	4,370	51.0	20	8	9,217	6.4	224	56	(64)				8,566	100.0	28	28	34
				46,756	32.2	302	70					8,141	5.6	63	14	136,825	94.4	600	551	35
338	1.1	6	4	2,055	6.5	29	14	2,295	7.2	50	28	1,380	4.4	21	7	30,325	95.6	224	210	36
				25,865	76.8	14	7					(7)				33,680	100.0	23	23	37
				1,943	48.8	41	25					(7)				3,978	100.0	75	75	38
				59,727	88.3	54	46					(7)				67,616	100.0	65	65	39
3,388	2.0	40	25	17,246	10.2	124	62	10,011	5.9	198	74	9,084	5.4	124	53	159,241	94.6	1,292	1,221	40
(38)				11,422	51.8	29	15					5,151	23.4	14	4	16,880	76.6	39	29	41
				580,176	70.4	875	631					35,558	4.3	62	20	788,871	95.7	1,184	1,142	42
				4,185	7.5	20	9	218	.4	8		1,700	3.1	20	4	53,730	96.9	92	76	43
(4)				4,683	2.2	9						1,182	3.9	11	4	29,270	96.1	79	72	44
				101,038	52.5	341	219					9,210	4.8	84	14	183,421	95.2	477	407	45
				2,299	16.1	24	15					1,278	9.0	9	3	13,001	91.0	46	40	46
				20,290	77.4	36	33					2,001	7.6	8	4	24,205	92.4	43	39	47
				4,991	20.5	25	15					1,490	6.1	8		22,892	93.9	53	45	48
				10,693	41.3	19	13					300	1.2	6		25,590	98.8	27	21	49

See footnotes at end of Table 2.

DISTRIBUTION

TABLE 1.—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN THE

[Values expressed in

INDUSTRY	TOTAL DISTRIBUTED SALES			SALES TO WHOLESALERS				SALES TO MANUFACTURERS' OWN WHOLESALE BRANCHES				SALES TO RETAILERS				
	Value of sales	Per cent of total sales	Number of plants	Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		
						Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively	
Group 13.—MACHINERY, NOT INCLUDING TRANSPORTATION EQUIPMENT																
1	Agricultural implements.....	\$260,466	100.0	293	\$21,315	8.2	139	21	³⁸ \$156,178	60.0	47	17	\$36,737	14.1	164	23
2	Cash registers and adding, calculating, and card-tabulating machines.....	109,582	100.0	46	3,763	3.4	14	5	14,258	13.0	7	-----	8,774	8.0	13	-----
3	Electrical machinery, apparatus, and supplies.....	2,230,361	100.0	1,774	700,333	31.4	963	370	464,148	20.8	216	73	131,033	5.9	517	94
4	Radio receiving sets.....	1,160,783	100.0	87	129,055	80.2	50	31	8,524	5.3	12	-----	10,863	6.8	30	13
5	Radio tubes.....	1,147,928	100.0	36	26,814	55.9	23	11	15,236	31.8	6	4	1,781	3.7	14	4
6	Electrical storage batteries ⁶⁵	1,100,744	100.0	156	45,899	45.6	85	29	18,049	17.9	34	6	19,963	19.8	81	42
7	Switchboards, circuit breakers, and switches ⁶⁶	139,792	100.0	55	6,078	15.3	25	11	(⁶⁷)	-----	-----	-----	346	9	8	-----
8	Domestic apparatus and appliances ⁶⁷	125,562	100.0	47	20,725	81.1	38	17	-----	-----	-----	-----	3,494	13.7	25	5
9	Ignition apparatus for internal combustion engines, ⁶⁸	122,816	100.0	26	15,430	67.6	16	11	-----	-----	-----	-----	2,852	12.5	7	2
10	Dry batteries and flashlight cases ⁶⁸	121,298	100.0	19	18,861	88.6	16	7	(⁶⁹)	-----	-----	-----	2,301	10.8	9	-----
11	Signaling apparatus and attachments ⁷⁰	119,436	100.0	35	1,007	5.2	11	4	(⁷¹)	-----	-----	-----	992	5.1	9	5
12	Fuses ⁷¹	118,311	100.0	14	5,500	87.1	12	6	-----	-----	-----	-----	(⁷²)	-----	-----	-----
13	Interior conduits and fittings.....	121,591	100.0	34	20,708	95.9	27	13	(⁷³)	-----	-----	-----	102	5	5	2
14	Engines, turbines, tractors, and water wheels.....	449,836	100.0	190	160,311	35.6	78	25	³¹ 162,621	36.2	32	9	(⁷⁴)	-----	-----	-----
15	Foundry and machine-shop products, not elsewhere classified.....	2,476,871	100.0	6,414	441,433	17.8	2,356	1,271	³² 249,551	10.1	443	110	(⁷⁵)	-----	-----	-----
16	Oil well and oil refining machinery.....	162,511	100.0	156	9,671	15.5	55	23	³³ 15,760	25.2	28	7	(⁷⁶)	-----	-----	-----
17	Woodworking machinery.....	118,567	100.0	108	5,837	31.4	43	20	(³⁴)	-----	-----	-----	(⁷⁷)	-----	-----	-----
18	Bookbinding, printing, paper box and photo-engraving.....	158,834	100.0	82	14,735	25.0	37	24	(⁷⁸)	-----	-----	-----	(⁷⁸)	-----	-----	-----
19	Gas machines, gas meters, and water and other liquid meters.....	40,100	100.0	72	4,982	12.4	19	7	³⁸ 4,826	12.0	8	-----	(⁷⁹)	-----	-----	-----
20	Machine-tool accessories and small metal-working tools, not elsewhere classified.....	140,987	100.0	717	31,991	22.6	206	121	³⁸ 2,555	1.8	20	19	(⁸⁰)	-----	-----	-----
21	Machine tools.....	240,273	106.0	280	71,344	29.7	145	66	³⁸ 28,639	11.9	20	7	(⁸¹)	-----	-----	-----
22	Pumps (hand and power) and pumping equipment.....	155,963	100.0	320	55,062	35.3	180	84	³⁸ 36,499	23.4	45	13	(⁸²)	-----	-----	-----
23	Power pumps ⁷³	129,909	100.0	87	4,495	15.0	33	19	³⁸ 7,334	24.5	9	5	(⁸³)	-----	-----	-----
24	Gasoline filling station pumps.....	115,523	100.0	23	3,950	25.4	13	9	(⁸⁴)	-----	-----	-----	(⁸⁴)	-----	-----	-----
25	Refrigerators, mechanical.....	161,536	100.0	34	156,123	96.6	22	6	(⁸⁵)	-----	-----	-----	1,883	1.2	9	2
26	Scales and balances.....	29,328	100.0	59	(⁸⁶)	-----	-----	-----	(⁸⁶)	-----	-----	-----	18,417	62.8	43	25
27	Sewing machines and attachments.....	44,978	100.0	39	7,454	16.6	16	8	(⁸⁷)	-----	-----	-----	(⁸⁷)	-----	-----	-----
28	Textile machinery and parts.....	115,461	100.0	343	11,122	9.6	72	53	³⁸ 2,155	1.9	17	2	(⁸⁸)	-----	-----	-----
29	Typewriters and parts.....	61,858	100.0	26	(⁸⁹)	-----	-----	-----	13,450	21.7	8	4	7,268	11.8	12	-----
30	Washing machines, wringers, driers, and ironing machines, for household use.....	81,036	100.0	65	20,265	5.02	34	8	4,751	5.9	6	-----	50,741	62.6	45	16
31	Windmills and windmill towers.....	8,500	100.0	15	2,276	26.8	12	-----	2,022	23.8	6	-----	2,479	29.1	8	-----
Group 14.—TRANSPORTATION EQUIPMENT, AIR, LAND, AND WATER																
32	Aircraft and parts.....	60,643	100.0	108	19,722	32.5	41	20	³⁸ 7,210	11.9	15	2	(⁹⁰)	-----	-----	-----
33	Carriage, wagon, sleigh, and sled materials.....	2,772	100.0	45	1,445	52.1	33	11	(⁹¹)	-----	-----	-----	526	19.0	16	4
34	Carrriages, wagons, sleighs, and sleds.....	15,995	100.0	88	7,647	47.8	46	13	(⁹²)	-----	-----	-----	3,912	24.5	41	8
35	Motor-vehicle bodies and motor-vehicle parts.....	1,314,522	100.0	1,145	142,230	10.8	376	164	23,105	1.8	47	11	47,039	3.6	319	112
36	Motor vehicles, not including motorcycles.....	3,711,795	100.0	244	233,991	33.2	73	20	837,451	22.6	54	11	1,415,891	38.2	111	51
37	Passenger cars sold by manufacturer for \$1,500 or less.....	2,829,221	100.0	65	950,435	33.6	23	10	538,422	19.0	17	2	1,273,249	45.0	43	32
38	Passenger cars sold by manufacturer for more than \$1,500.....	297,286	100.0	11	178,529	60.0	5	-----	99,617	33.5	6	-----	(⁹³)	-----	-----	-----
39	Motorcycles, bicycles, and parts.....	23,611	100.0	21	8,825	37.4	14	8	-----	-----	-----	-----	11,535	48.8	9	2
40	Ship and boat building, steel and wooden.....	85,714	100.0	388	9,083	10.6	47	27	-----	-----	-----	-----	(⁹⁴)	-----	-----	-----
Group 15.—RAILROAD REPAIR SHOPS																
<i>(See text, p. 2 "Car and general construction and repairs, electric railroad repair shops" and "Car and general construction and repairs, steam-railroad repair shops.")</i>																
Group 16.—MISCELLANEOUS INDUSTRIES																
41	Artificial and preserved flowers and plants.....	14,425	100.0	191	5,653	39.2	86	43	103	.7	5	3	5,568	38.6	79	33
42	Artists' materials.....	9,460	100.0	68	6,566	69.4	42	19	-----	-----	-----	-----	1,789	18.9	30	9
43	Brooms.....	19,166	100.0	407	11,344	59.2	285	93	167	.9	13	-----	6,065	31.6	237	62
44	Brushes, other than rubber.....	45,506	100.0	303	22,404	49.2	186	59	4,910	10.8	14	-----	8,498	18.7	112	19
45	Paint and varnish brushes.....	14,888	100.0	36	8,776	58.9	25	9	1,918	12.9	4	-----	2,584	17.3	18	6
46	Toothbrushes and toilet brushes.....	7,383	100.0	29	4,525	61.3	26	9	124	1.7	3	-----	2,734	37.0	16	-----
47	Industrial and household brushes.....	9,243	100.0	131	4,735	51.2	69	22	(⁹⁵)	-----	-----	-----	1,387	15.0	35	7
48	Buttons.....	27,633	100.0	206	7,547	27.3	106	50	2,321	8.4	44	23	617	2.2	20	2
49	Fresh-water pearl, including shoe buttons.....	7,574	100.0	25	2,412	31.8	14	8	(⁹⁶)	-----	-----	-----	(⁹⁶)	-----	-----	-----
50	Ocean-pearl.....	3,667	100.0	24	1,083	29.5	15	2	(⁹⁷)	-----	-----	-----	(⁹⁷)	-----	-----	-----
51	Vegetable-ivory.....	3,468	100.0	9	2,061	59.4	7	3	(⁹⁸)	-----	-----	-----	(⁹⁸)	-----	-----	-----
52	Carbon paper and inked ribbons.....	17,295	100.0	57	4,785	27.7	30	8	1,284	7.4	8	-----	2,570	14.9	31	7

See footnotes at end of Table 2.

SALES OF MANUFACTURING PLANTS: 1929

UNITED STATES, BY INDUSTRY, BY TYPE OF CUSTOMER AND AGENCY—Continued

thousands of dollars]

SALES TO MANUFACTURERS' OWN RETAIL BRANCHES				SALES TO INDUSTRIAL AND OTHER LARGE CONSUMERS				SALES TO HOUSEHOLD CONSUMERS				SALES THROUGH MANUFACTURERS' AGENTS, SELLING AGENTS, BROKERS, AND COMMISSION HOUSES				SALES DIRECT TO BRANCHES, WHOLESALE, RETAILERS, OR CONSUMERS				
Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		
		Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively	
(35) \$33,592	30.7	9		\$46,236 49,195	17.7 44.9	142 30	29 16					7,130 3,282	2.7 3.0	44 6	11 2	\$253,336 106,300	97.3 97.0	282 44	249 40	1 2
67,762 (4)	3.0	49		859,957 11,698	38.6 7.3	857 15	381 9	\$7,128 663	.3 .4	212 17	46 5	143,726 8,102	6.4 5.0	428 13	81 3	2,086,635 152,681	93.6 95.0	1,693 84	1,346 74	3 4
(4)				4,097 16,833	8.6 16.7	7 50	3 17					9,738 5,986	20.3 5.9	9 19	6 4	38,190 94,758	79.7 94.1	30 152	27 137	5 6
				33,368 1,140	83.8 4.4	42 10	25 2					3,787 1,476	9.5 5.8	13 11	4 4	36,005 24,086	90.5 98.2	55 43	42 36	7 8
				4,534 136	19.9 .6	11 6	6 6	(4)		10		309	1.4	5	3	22,607	94.6	23	21	9
				17,437 811	89.7 12.9	24 8	18 2					1,695 586	8.0 3.0	6 6		19,603 18,850	92.0 97.0	19 35	13 29	10 11
				781	3.6	15	5					980	15.5	6		5,331	84.5	14	8	12
												6,211	28.8	13	2	15,380	71.2	32	21	13
(35)				10 126,904	28.2	138	69	(10)				22,979	5.1	39	11	426,857	94.9	179	151	14
(35)				1,785,887	72.1	4,985	3,722					220,075	8.9	1,037	293	2,256,796	91.1	6,120	5,376	15
(35)				37,080	59.3	122	80					1,984	3.2	17	9	60,527	96.8	147	139	16
(35)				12,730	68.6	88	65					1,853	10.0	24	5	16,714	90.0	103	84	17
				44,099	75.0	58	45					2,519	4.3	19	4	56,315	95.7	78	63	18
(35)				29,687	74.1	54	39	72 605	1.5	13	6	3,059	7.6	18		37,041	92.4	72	54	19
(35)				106,441	75.6	559	449					13,565	9.6	79	16	127,422	90.4	701	638	20
(35)				140,290	58.4	203	117					38,301	15.9	80	18	201,972	84.1	262	200	21
(35)				64,402	41.3	213	98					8,455	5.4	33	9	147,508	94.6	311	287	22
(35)				18,080	60.5	63	42					2,101	7.0	9		27,808	93.0	87	78	23
				11,573	74.6	14	10					(5)			15,523	100.0	23	23	24	
				2,290	1.4	7		1,240	.8	14	4	(5)			161,536	100.0	34	34	25	
(4)				10,911	37.2	34	16					1,236	4.2	16	3	28,092	95.8	56	43	26
29,308	65.1	14	4	8,216	18.3	21	11				924	2.1	4		44,054	97.9	39	35	27	
(35)				102,184	88.5	277	242				2,840	2.5	36	4	112,621	97.5	339	307	28	
40,287	65.1	15	5	853	1.4	6	3				(2)			61,858	100.0	26	26	29		
(4)				4,870	6.0	11	2	409	.5	20	4	3,413	4.2	12	5	77,623	95.8	60	53	30
				1,723	20.3	9									8,500	100.0	15	15	31	
(35)				33,711	55.6	79	55					8,473	14.0	17	7	52,170	86.0	101	91	32
				780	28.1	18	5	21	.8	4		73	2.6	4		2,699	97.4	45	41	33
				4,436	27.7	51	19					1,250	7.8	12	2	14,745	92.2	86	76	34
				101,102,548	83.8	761	461	(10)				33,069	2.5	119	28	1,281,853	97.5	1,117	1,026	35
96,774	2.6	33	3	119,331	3.2	109	42	8,357	.2	31	7	11,870	.3	19	8	3,699,925	99.7	236	225	36
7,599	.3	4		59,516	2.1	14		(4)							2,829,221	100.0	65	65	37	
13,907	4.7	4	4	5,233	1.8	5		(4)							297,286	100.0	11	11	38	
				3,251	13.8	8	2	(10)				2,095	8.9	8		21,516	91.1	21	13	39
				76,631	89.4	349	308	(10)				2,192	2.6	12	3	83,522	97.4	385	376	40
				3,101	21.5	56	40					378	2.7	7	4	14,047	97.3	187	184	41
				1,050	11.1	24	6								9,460	100.0	68	68	42	
				1,590	8.3	119	21	(4)	.6	7		2,117	11.0	60	21	17,049	89.0	386	347	43
				8,850	19.4	147	59	844	1.9	30	8	2,381	5.2	41	10	43,125	94.8	293	262	44
				1,620	10.9	18	4					885	5.9	4		14,013	94.1	36	32	45
				(4)								92	1.2	6		7,291	98.8	29	23	46
				3,071	33.2	80	43	50	.6	8		954	10.1	17	6	8,309	89.9	125	114	47
				17,148	62.1	107	48					2,250	8.1	22	5	25,383	91.9	201	184	48
				5,162	68.2	17	11					595	7.9	4		6,979	92.1	25	21	49
				2,584	70.5	22	9					190	5.2	5	2	3,477	94.8	22	19	50
				1,407	40.6	6	2								3,468	100.0	9	9	51	
5,192	30.0	9		3,464	20.0	29	11					1,476	8.5	12		15,819	91.5	57	45	52

See footnotes at end of Table 2.

DISTRIBUTION

TABLE 1.—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN THE

[Values expressed in

INDUSTRY	TOTAL DISTRIBUTED SALES			SALES TO WHOLESALERS				SALES TO MANUFACTURERS' OWN WHOLESALE BRANCHES				SALES TO RETAILERS			
	Value of sales	Per cent of total sales	Number of plants	Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants	
						Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively
Group 16.—MISCELLANEOUS INDUSTRIES—Continued															
1 Cigars and cigarettes:															
2 Cigars.....	311,663	100.0	1,587	204,249	65.5	774	337	62,271	20.0	126	28	39,701	12.7	792	360
2 Cigarettes.....	755,246	100.0	49	752,030	99.6	38	24	(¹)				4,305	.4	15	5
3 Combs and hairpins, not made from metal or rubber.	2,482	100.0	24	1,365	55.0	22	9					821	33.1	8	
4 Dairymen's supplies; creamery, cheese-factory and butter-factory equipment; and poultrymen's and apiarists' supplies.	42,247	100.0	172	14,677	34.7	91	21	6,490	15.4	22	3	5,523	13.1	75	8
5 Poultrymen's equipment and supplies.....	113,321	100.0	65	5,904	44.3	36	7					1,975	14.8	31	4
6 Dairymen's equipment and supplies.....	119,309	100.0	64	7,431	38.5	36	5	5,540	28.7	15	3	2,422	12.5	23	
7 Apiarists' equipment and supplies.....	2,328	100.0	14	1,021	43.8	7		(¹)				595	25.6	9	
8 Dental goods and equipment.....	35,180	100.0	87	26,984	76.7	72	48	6,153	17.5	16	3	(¹¹)			
8 Fancy and miscellaneous articles, not elsewhere classified.	84,655	100.0	804	32,706	38.6	372	172	1,656	2.0	27	16	37,734	44.6	437	220
10 Feathers, plumes, and manufactures thereof.....	1,055	100.0	31	47	4.5	3	3					342	32.4	14	7
11 Foundry supplies.....	10,459	100.0	59	1,701	16.3	23	5	(¹)							
12 Fur goods.....	257,641	100.0	2,704	89,111	34.6	1,060	678	2,639	1.0	9	9	77,738	30.2	657	284
13 Furs, dressed.....	23,863	100.0	126	1,507	6.3	32	8	1,047	4.4	22	1	1,472	6.2	27	2
14 Hair work.....	1,420	100.0	43	212	14.9	9	6					563	39.7	18	12
15 Hand stamps and stencils and brands.....	14,488	100.0	328	3,201	22.1	66	5	183	1.3	5		3,420	23.6	126	28
16 Hats, straw, men's.....	18,739	100.0	50	6,364	34.0	31	11	1,965	10.5	8	5	10,410	55.5	30	12
17 Instruments, professional and scientific.....	87,853	100.0	276	25,487	29.0	117	42	2,360	2.7	15	6	11,602	13.2	112	29
18 Dental and surgical instruments and parts.....	5,150	100.0	43	4,050	78.6	34	27					(¹¹)			
19 Ivory, shell, and bone work, not including buttons, combs, or hairpins.	1,260	100.0	21	398	31.6	10	6					72	5.7	3	
20 Jewelry and instrument cases.....	8,817	100.0	113	3,442	39.0	43	21	(¹)				929	10.5	36	15
21 Lapidary work.....	11,426	100.0	74	10,089	88.3	41	22					1,337	4.5	23	8
22 Mattresses and bed springs, not elsewhere classified.	121,627	100.0	951	(¹)				52,357	43.0	229	124	60,918	50.1	644	372
23 Models and patterns, not including paper patterns.	28,157	100.0	665	11,550	5.5	46	26					(¹¹)			
24 Musical instrument parts and materials: Piano and organ.	11,824	100.0	67	4,115	34.8	22	15					1,968	16.7	18	8
25 Organ parts and materials.....	1,614	100.0	13	131	21.3	3									
26 Musical instruments and parts and materials, not elsewhere classified.	14,042	100.0	106	5,633	40.1	53	26					4,521	32.2	36	15
27 Musical instruments: Organs.....	10,739	100.0	62	97	.9	3						1,274	11.9	7	5
28 Musical instruments: Pianos.....	42,255	100.0	81	4,395	10.4	22	5	2,350	5.6	14		23,095	54.6	19	14
29 Optical goods.....	40,301	100.0	117	26,710	66.3	72	33	(¹)				4,378	10.9	52	19
30 Paving materials: Asphalt, tar, crushed slag, and mixtures.	29,275	100.0	126	4,535	15.5	18	3	(¹)				(¹)			
31 Pens, fountain and stylographic; pen points, gold, steel, and brass.	34,211	100.0	76	8,070	23.6	55	31	(¹)				25,341	74.1	33	11
32 Phonographs.....	96,694	100.0	59	51,966	53.8	34	17	19,952	20.6	12		14,003	14.5	16	5
33 Pipes (tobacco).....	5,550	100.0	24	4,618	83.2	20	8					932	16.8	16	4
34 Roofing, built-up and roll; asphalt shingles; roof coatings other than paint.	103,506	100.0	102	55,972	54.1	64	26	11,527	11.1	24	7	20,034	19.4	36	8
35 Sandpaper, emery paper, and other abrasive paper and cloth.	17,219	100.0	11	8,198	47.6	11	2	(¹)				(¹)			
36 Soda-water apparatus.....	24,446	100.0	54	7,601	31.1	20	8	7,865	32.2	5	2				
37 Sporting and athletic goods, not including firearms or ammunition.	59,402	100.0	242	26,725	45.0	172	79	15,917	26.8	21	15	12,483	21.0	105	21
38 Fishing apparatus.....	17,948	100.0	81	5,856	73.7	69	39	(¹)				1,874	23.6	30	5
39 Stationery goods, not elsewhere classified.....	74,062	100.0	203	28,380	38.3	122	42					28,844	39.0	106	33
40 Surgical and orthopedic appliances, including artificial limbs.	71,432	100.0	361	21,975	30.8	82	22	1,111	1.5	6	1	22,449	31.4	129	48
41 Theatrical scenery and stage equipment.....	5,095	100.0	52	334	6.6	8	5	(¹)				(¹)			
42 Tobacco: Chewing and smoking, and snuff.....	179,333	100.0	152	148,719	82.9	115	68	26,336	14.7	13	3	1,659	.9	48	11
43 Toys, games, playground equipment, and children's carriages and sleds (see description of industry, p. 25).	96,293	100.0	496	48,070	49.9	352	127	2,669	2.8	20	9	37,086	38.5	288	70
44 Dolls, other than pyroloxin, doll parts of pyroloxin or other materials, and doll clothes.	113,149	100.0	97	6,745	51.3	57	22	290	2.2	3	2	4,673	35.5	50	18
45 Playground equipment.....	2,374	100.0	24	1,361	57.3	14	8	(¹)				(¹)			
46 Umbrellas, parasols, and canes.....	17,049	100.0	123	3,847	22.6	34	18	(¹)				10,810	63.4	82	61
47 Whips.....	224	100.0	8	138	61.6	6	3					86	38.4	5	2
48 Window shades and fixtures.....	34,038	100.0	361	4,396	12.9	35	10	6,327	18.6	15	10	11,846	34.8	88	42
49 All other industries ⁷⁵	197,739	100.0	304	91,807	46.4	113	50	22,508	11.4	18	7	17,176	8.7	63	21

See footnotes at end of Table 2.

SALES OF MANUFACTURING PLANTS: 1929

UNITED STATES, BY INDUSTRY, BY TYPE OF CUSTOMER AND AGENCY—Continued

thousands of dollars]

SALES TO MANUFACTURERS' OWN RETAIL BRANCHES				SALES TO INDUSTRIAL AND OTHER LARGE CONSUMERS				SALES TO HOUSEHOLD CONSUMERS				SALES THROUGH MANUFACTURERS' AGENTS, SELLING AGENTS, BROKERS, AND COMMISSION HOUSES				SALES DIRECT TO BRANCHES, WHOLESALE, RETAILERS, OR CONSUMERS				
Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		Value of sales	Per cent of total sales	Number of plants		
		Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively			Total	Selling exclusively	
1,710 (4)	0.6	80	29	1,105 4161	0.4 (60)	95 14	28 6	2,627 (4)	0.8	279	114	18,150 (9)	5.8	208	97	293,513 755,246	94.2 100.0	1,490 49	1,379 49	1 2
				296	11.9	5	3					142	5.7	4		2,340	94.3	20	16	3
				15,557	36.8	116	38					821	1.9	19	3	41,426	98.1	169	153	4
				5,442	40.9	42	6					130	1.0	6		13,191	99.0	65	59	5
				3,916	20.3	40	6					530	2.7	7		18,779	97.3	64	57	6
				712	30.6	14	3					(8)				2,328	100.0	14	14	7
(35)				2,043	5.8	24	11					(8)				35,180	100.0	87	87	8
				12,559	14.8	213	101					2,829	3.3	62	14	81,826	96.7	790	742	9
				666	63.1	21	13					(8)				1,055	100.0	31	31	10
				8,758	83.7	58	34					70	.7	4		10,389	99.3	59	55	11
4,513	1.8	24	16	46,457	18.0	535	388	37,183	14.4	884	608	11,239	4.4	190	40	246,402	95.6	2,664	2,514	12
				19,691	82.5	102	53	146	.6	5	2	(8)				23,863	100.0	126	126	13
				175	12.3	5	3	470	33.1	19	17	(8)				1,420	100.0	43	43	14
				7,684	53.0	265	136					303	2.1	30	5	14,185	97.9	323	298	15
												1,600	8.5	8	3	17,139	91.5	47	42	16
1,303	1.5	9	3	47,101	53.6	161	66					4,711	5.4	44	8	83,142	94.6	268	232	17
				1,100	21.4	17	3					(8)				5,150	100.0	43	43	18
				790	62.7	12	9					(8)				1,260	100.0	21	21	19
				4,446	50.5	74	36					(8)				8,817	100.0	113	113	20
				825	7.2	23	9					(8)				11,426	100.0	74	74	21
2,079	1.7	48	25	3,866	3.2	81	18	2,407	2.0	203	64	(8)				117,209	96.4	931	909	22
				26,607	94.5	639	619					4,418	3.6	42	20	27,968	99.3	661	655	23
(4)				5,631	47.6	32	25	110	.9	6						11,651	98.5	67	62	24
				483	78.7	10	9					173	1.5	5		614	100.0	13	13	25
1,116	7.9	8		575	4.1	15	10	2,197	15.7	35	13	444	3.2	11	4	13,598	96.8	102	95	26
(4)								9,368	87.2	57	47	1,300	12.1	6		9,439	87.9	62	56	27
8,882	21.0	33		43,533	8.4	27	4	(4)				(8)				42,255	100.0	81	81	28
				8,881	22.0	27	8	332	.8	12	5	(8)				39,524	98.1	117	109	29
				24,740	84.5	119	99					1,476	5.0	5	3	27,799	95.0	123	121	30
				800	2.3	18	6					(8)				34,211	100.0	76	76	31
(4)				9,581	9.9	18	8	1,192	1.2	7		(8)				96,694	100.0	59	59	32
																5,550	100.0	24	24	33
				15,973	15.4	44	15					567	.5	6	2	102,939	99.5	100	96	34
				9,021	52.4	10						(8)				17,219	100.0	11	11	35
				8,980	36.7	42	29					(8)				24,446	100.0	54	54	36
				3,651	6.1	34	8	626	1.1	38	9	5,223	8.8	56	8	54,179	91.2	234	186	37
				218	2.7	21	4					1,278	16.1	14	3	6,670	83.9	78	67	38
				16,084	21.7	83	23	754	1.0	14	3	5,288	7.1	20	5	68,774	92.9	198	183	39
				20,063	28.1	73	22	5,834	8.2	191	121	414	.6	15	3	71,018	99.4	358	346	40
				4,761	93.4	46	37									5,095	100.0	52	52	41
				2,586	1.5	19	13	33	(60)	10	3					179,333	100.0	152	152	42
(4)				7,448	7.7	98	37	1,020	1.1	55	9	9,566	9.0	123	26	86,727	90.1	470	373	43
(4)				1,441	11.0	24	15					162	1.2	7		12,987	98.8	97	90	44
				945	39.8	13	6	68	2.9	5	3	396	16.7	7		1,978	83.3	24	17	45
				2,287	13.4	21	14	105	.6	12	4	(8)				17,049	100.0	123	123	46
				5,092	15.0	84	29	6,377	18.7	234	176	(8)				224	100.0	8	8	47
491	.2	6	2	65,756	33.3	205	130	1	(60)	1		458	1.3	9	2	33,580	98.7	359	352	48
												25,248	12.8	50	17	172,491	87.2	288	255	49

See footnotes at end of Table 2.

DISTRIBUTION

TABLE 2.—SUMMARY—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN THE

[An (x) in column indicates that the amount of sales is withheld to avoid disclosure

[Values expressed in

GROUP AND INDUSTRY	Total sales	Per cent of total sales	Sales to merchandise distributing organizations							
			Total—A plus B plus C plus D		Wholesale organizations				B—Manufacturers' own wholesale branches	
			Value	Per cent of total sales	Total—A plus B		A—Wholesalers		Value	Per cent of total sales
					Value	Per cent of total sales	Value	Per cent of total sales		
All industries	\$59,354,616	100.0	\$41,058,569	69.2	\$28,223,547	47.6	\$18,249,053	30.7	\$9,979,494	16.9
Group 1. Food and kindred products.....	12,013,452	100.0	10,702,697	89.1	6,830,345	56.9	3,891,775	32.4	2,938,570	24.5
Group 2. Textiles and their products.....	8,129,209	100.0	6,366,730	78.3	3,156,898	38.8	2,494,392	30.7	662,506	8.1
Group 3. Forest products.....	3,115,138	100.0	1,899,014	60.7	1,095,570	35.2	918,562	29.5	177,008	5.7
Group 4. Paper and allied products.....	1,584,598	100.0	782,352	47.5	669,482	42.3	608,054	38.4	61,428	3.9
Group 5. Printing, publishing and allied industries.....	474,327	100.0	253,274	49.2	119,870	25.2	82,284	17.3	37,586	7.9
Group 6. Chemicals and allied products.....	3,651,757	100.0	2,162,840	59.2	1,664,537	45.6	1,117,620	30.6	546,917	15.0
Group 7. Products of petroleum and coal.....	2,919,141	100.0	2,583,949	88.5	2,214,054	75.8	594,085	20.4	1,619,969	55.4
Group 8. Rubber products.....	1,103,936	100.0	815,834	73.9	639,020	57.9	177,355	16.1	461,665	41.8
Group 9. Leather and its manufactures.....	1,801,589	100.0	1,407,594	78.1	770,660	42.7	422,282	23.4	348,378	19.3
Group 10. Stone, clay, and glass products.....	1,554,716	100.0	924,045	59.4	848,049	54.5	710,289	45.6	137,760	8.9
Group 11. Iron and steel and their products, not including machinery.....	6,092,542	100.0	2,632,560	43.2	2,389,388	39.2	2,039,892	33.5	349,496	5.7
Group 12. Nonferrous metals and their products.....	1,975,131	100.0	868,208	44.0	654,344	33.2	525,302	26.7	129,042	6.5
Group 13. Machinery, not including transportation equipment.....	6,607,136	100.0	3,257,708	49.2	2,837,329	42.9	1,653,385	25.0	1,183,944	17.9
Group 14. Transportation equipment, air, land, and water.....	5,215,452	100.0	3,866,386	74.2	2,290,709	43.9	1,420,808	27.2	869,901	16.7
Group 15. Railroad repair shops (see table 3).....										
Group 16. Miscellaneous industries.....	2,918,753	100.0	2,463,396	84.4	1,933,977	66.3	1,501,161	51.5	432,816	14.8
All other industries ⁷⁸	197,739	100.0	131,982	66.7	114,315	57.8	91,807	46.4	22,508	11.4
Industry group 1.—Food and kindred products	12,013,452	100.0	10,702,697	89.1	6,830,345	56.9	3,891,775	32.4	2,938,570	24.5
Beverages.....	270,324	100.0	251,887	93.1	81,807	30.2	71,234	26.3	10,573	3.9
Bread and other bakery products:										
Biscuits and crackers.....	278,915	100.0	277,184	99.4	172,187	61.8	23,369	8.4	148,818	53.4
Bakery products, other than biscuits and crackers.....	1,186,990	100.0	851,538	71.7	116,145	9.8	87,893	7.4	28,252	2.4
Butter.....	865,288	100.0	754,724	87.2	537,484	62.1	342,783	39.6	194,701	22.5
Canning and preserving: Fish, crabs, shrimps, oysters, and clams.....	76,280	100.0	74,449	97.6	67,487	88.5	64,677	84.8	2,810	3.7
Canning and preserving: Fruits and vegetables; pickles, jellies, preserves, and sauces.....	744,610	100.0	712,325	95.7	624,581	83.9	503,528	67.6	121,053	16.3
Cereal preparations.....	175,223	100.0	172,627	98.5	157,163	89.7	(x)	(x)	(x)	(x)
Cheese.....	120,703	100.0	102,159	84.6	92,231	76.4	79,231	76.4	(7)	(7)
Chewing gum.....	60,160	100.0	60,046	99.8	51,812	86.1	51,812	86.1	(x)	(x)
Chocolate and cocoa products, not including confectionery.....	109,731	100.0	88,201	80.4	72,418	66.0	(x)	(x)	(x)	(x)
Coffee and spices, roasting and grinding.....	441,081	100.0	423,414	96.0	196,052	44.4	94,944	21.5	101,108	22.9
Condensed and evaporated milk.....	293,035	100.0	266,193	90.8	229,410	78.3	124,339	42.4	105,071	35.9
Confectionery.....	399,532	100.0	380,325	95.2	236,304	59.2	217,280	54.4	19,024	4.8
Corn sirup, corn sugar, corn oil, and starch.....	165,984	100.0	93,353	56.2	91,310	55.0	(x)	(x)	(x)	(x)
Feeds, prepared, for animals and fowls.....	423,610	100.0	351,306	82.9	136,824	32.3	117,056	27.6	19,768	4.7
Flavoring extracts and flavoring sirups.....	130,202	100.0	115,909	88.4	92,037	70.7	81,643	62.7	10,394	8.0
Flour and other grain-mill products.....	1,003,612	100.0	767,950	76.5	481,935	48.0	404,673	40.3	77,262	7.7
Food preparations, not elsewhere classified.....	177,643	100.0	155,285	87.4	121,649	68.5	78,710	44.3	42,939	24.2
Ice cream.....	373,027	100.0	321,136	86.1	78,326	21.0	39,552	10.6	38,774	10.4
Macaroni, spaghetti, vermicelli, and noodles.....	47,074	100.0	43,165	91.7	26,882	57.1	25,444	54.0	1,438	3.1
Malt.....	23,603	100.0	10,916	46.2	5,461	23.1	(x)	(x)	(x)	(x)
Meat packing, wholesale.....	3,454,980	100.0	3,329,432	96.3	2,237,353	64.7	615,832	17.8	1,621,521	46.9
Oleomargarine, not made in meat-packing establishments.....	46,522	100.0	45,466	97.7	30,640	65.8	24,803	53.3	5,837	12.5
Peanuts, walnuts, and other nuts, processed or shelled.....	49,609	100.0	45,688	92.1	44,101	88.9	36,710	74.0	7,391	14.9
Poultry killing, dressing, and packing, wholesale.....	142,030	100.0	135,889	95.7	114,328	80.5	67,196	47.3	47,132	33.2
Rice cleaning and polishing.....	48,794	100.0	45,925	94.1	45,925	94.1	44,025	90.2	1,900	3.9
Sausage, meat puddings, headcheese, etc., and sausage casings, not made in meat-packing establishments.....	117,641	100.0	109,291	92.9	35,858	30.5	28,790	24.5	7,068	6.0
Shortenings (not including lard) and vegetable cooking oils.....	152,842	100.0	143,555	93.9	141,466	92.5	20,779	13.6	120,687	78.9
Sugar, beet.....	98,636	100.0	92,589	93.9	92,589	93.9	92,589	93.9		
Sugar, cane, not including products of refineries.....	17,368	100.0	7,660	44.1	7,627	43.9	7,627	43.9		
Sugar refining, cane.....	507,389	100.0	464,217	91.5	402,761	79.4	270,427	53.3	132,334	26.1
Vinegar and cider.....	11,014	100.0	9,732	88.3	8,192	74.3	7,879	71.5	313	2.8
Industry group 2.—Textiles and their products	8,129,209	100.0	6,366,730	78.3	3,156,898	38.8	2,494,392	30.7	662,506	8.1
Artificial leather.....	32,654	100.0	9,515	29.1	(x)	(x)	(x)	(x)		
Asphalted-felt-base floor covering and linoleum (see description of industry, p. 6).....	90,328	100.0	87,998	97.4	71,005	78.6	69,563	77.0	1,442	1.6
Awnings, tents, sails, and canvas covers.....	49,387	100.0	16,977	34.4	7,101	14.4	6,423	13.0	678	1.4
Bags, other than paper, not made in textile mills.....	170,176	100.0	33,276	19.6	21,747	12.8	15,564	9.2	6,183	3.6
Belting other than leather and rubber, not made in textile mills.....	2,789	100.0	835	29.9	835	29.9	835	29.9		
Carpets and rugs, rag.....	5,511	100.0	1,619	29.4	451	8.2	(x)	(x)	(x)	(x)
Carpets and rugs, wool, other than rag.....	174,240	100.0	170,908	98.1	106,508	61.1	(x)	(x)	(x)	(x)
Clothing (except work clothing), men's, youths', and boys', not elsewhere classified:										
Regular factories.....	833,242	100.0	762,491	91.5	168,499	20.2	118,747	14.2	49,752	6.0
Contract shops (see description of industry, p. 9).....										
Clothing, women's, not elsewhere classified:										
Regular factories.....	1,602,907	100.0	1,569,798	97.9	228,322	14.2	207,546	12.9	20,776	1.3
Contract shops (see description of industry, p. 9).....										
Clothing, work (including sheep-lined and blanket-lined work coats but not including shirts), men's.....	140,497	100.0	137,107	97.5	(x)	(x)	43,197	30.7	(x)	(x)
Cordage and twine.....	91,006	100.0	76,896	84.5	72,613	79.8	53,057	58.3	19,556	21.5
Corsets and allied garments.....	76,679	100.0	70,766	92.3	15,704	20.5	12,282	16.0	3,422	4.5
Cotton goods.....	1,134,337	100.0	729,144	64.2	671,915	59.2	167,607	14.7	64,746	5.7
Cotton small wares.....	65,072	100.0	31,794	48.9	26,750	41.1	26,017	40.0	733	1.1
Dyeing and finishing textiles.....	191,932	100.0	88,512	46.2	77,597	40.5	60,373	31.5	17,224	9.0
Embroideries.....	9,799	100.0	7,220	73.7	(x)	(x)	4,960	50.6	(x)	(x)
Felt goods, wool, hair, or jute.....	45,747	100.0	22,270	48.7	20,346	44.5	(x)	(x)	(x)	(x)
Flags and banners.....	3,836	100.0	2,835	73.9	2,007	52.3	2,007	52.3		
Furnishing goods, men's, not elsewhere classified.....	148,463	100.0	147,470	99.4	47,268	31.9	36,162	24.4	11,106	7.5
Gloves and mittens, cloth or leather combined, made from purchased fabrics.....	30,807	100.0	29,566	96.0	26,906	87.3	26,906	87.3		
Haircloth.....	3,855	100.0	894	23.2	894	23.2	(x)	(x)	(x)	(x)

See footnotes at end of table.

SALES OF MANUFACTURING PLANTS: 1929

UNITED STATES, BY INDUSTRY, BY MAJOR CLASSES OF CUSTOMERS

of individual operations, but these figures are included under the proper totals

thousands of dollars

Sales to merchandise distributing organizations—Continued										Sales to consumers					
Retail organizations					Wholesale and retail organizations					Total—E plus F		E—Industrial and other large consumers		F—Household consumers	
Total—C plus D		C—Retailers		D—Manufacturers' own retail branches		B plus D—Controlled selling organizations		A plus C—Uncontrolled selling organizations		Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales
Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales
\$12,830,022	21.6	\$11,614,794	19.6	\$1,215,228	2.0	\$11,194,722	18.9	\$29,863,847	50.3	\$18,296,047	30.8	\$17,286,331	29.1	\$1,009,716	1.7
3,872,352	32.2	3,446,958	28.7	425,394	3.5	3,363,964	28.0	7,338,733	61.1	1,310,755	10.9	800,968	6.7	509,787	4.2
3,209,832	39.5	3,103,510	38.2	106,322	1.3	768,828	9.4	5,597,902	68.9	1,762,479	21.7	1,649,042	20.3	113,437	1.4
793,444	25.5	755,517	24.3	37,927	1.2	214,935	6.9	1,674,079	53.8	1,226,124	39.3	1,201,765	38.5	24,359	.8
82,870	5.2	76,832	4.8	6,038	.4	67,466	4.3	684,886	43.2	832,246	52.5	831,610	52.5	636	(60)
113,404	24.0	104,098	21.9	9,306	2.1	46,592	10.0	186,382	39.2	241,053	50.8	81,320	17.1	159,733	33.7
498,303	13.6	465,566	12.7	32,737	.9	579,654	15.9	1,583,186	43.3	1,488,917	40.8	1,443,643	39.5	45,274	1.3
369,895	12.7	169,368	5.8	200,527	6.9	1,820,496	62.3	763,453	26.2	335,192	11.5	329,765	11.3	5,427	.2
176,814	16.0	171,819	15.6	4,995	.4	466,660	42.2	349,174	31.7	285,102	26.1	285,738	25.9	2,364	.2
636,934	35.4	577,343	32.1	59,591	3.3	407,969	22.6	999,625	55.5	393,995	21.9	386,757	21.5	7,238	.4
75,996	4.9	72,837	4.7	3,159	.2	140,919	9.1	783,126	50.3	630,671	40.6	603,120	38.8	27,551	1.8
243,172	4.0	224,172	3.7	19,000	.3	368,496	6.0	2,264,064	37.2	3,459,982	56.8	3,459,593	56.8	389	(60)
213,864	10.8	205,106	10.4	8,758	.4	137,800	6.9	730,408	37.1	1,106,923	56.0	1,084,531	54.9	22,392	1.1
420,379	6.3	245,818	3.7	174,561	2.6	1,358,505	20.5	1,899,203	28.7	3,349,428	50.8	3,340,046	50.6	9,382	.2
1,575,677	30.3	1,478,903	28.4	96,774	1.9	966,675	18.6	2,899,711	55.6	1,349,066	25.8	1,340,688	25.7	8,378	.1
529,419	18.1	499,771	17.1	29,648	1.0	462,464	15.8	2,000,932	68.6	455,357	15.6	381,989	13.1	73,368	2.5
17,667	8.9	17,176	8.7	491	.2	22,999	11.6	108,983	55.1	65,757	33.3	65,756	33.3	1	(60)
3,872,352	32.2	3,446,958	28.7	425,394	3.5	3,363,964	28.0	7,338,733	61.1	1,310,755	10.9	800,968	6.7	509,787	4.2
170,060	62.9	165,853	61.4	4,207	1.5	14,760	5.4	237,087	87.7	18,457	6.9	6,595	2.4	12,062	4.5
104,997	37.6	96,537	34.6	8,460	3.0	157,278	56.4	119,906	43.0	1,731	.6	1,099	.4	632	.2
735,393	61.9	603,329	50.8	132,064	11.1	160,316	13.5	691,222	58.2	335,452	28.3	36,881	3.1	298,571	25.2
217,240	25.1	197,184	22.8	20,056	2.3	214,757	24.8	539,967	62.4	110,564	12.8	21,984	2.6	88,580	10.2
6,962	9.1	6,659	8.7	303	.4	3,113	4.1	71,336	93.5	1,831	2.4	1,530	2.0	300	.4
87,744	11.8	70,335	9.5	17,409	2.3	138,462	18.6	573,863	77.1	32,285	4.3	29,985	4.0	2,300	.3
15,464	8.8	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	2,596	1.5	102,596	1.5	(10)	-----
9,928	8.2	7,978	6.6	1,950	1.6	1,950	1.6	100,209	83.0	18,544	15.4	9,697	8.1	8,847	7.3
8,234	13.7	8,234	13.7	-----	-----	-----	-----	60,046	99.8	114	.2	114	.2	-----	-----
15,783	14.4	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	21,520	19.6	21,520	19.6	-----	-----
227,362	51.6	161,878	36.7	65,484	14.9	166,592	37.8	256,822	58.2	17,667	4.0	13,989	3.2	3,678	.8
36,783	12.5	19,163	6.5	17,620	6.0	122,691	41.9	143,502	48.9	26,842	9.2	17,663	6.0	9,279	3.2
144,021	36.0	107,161	26.8	36,860	9.2	55,884	14.0	324,441	81.2	19,207	4.8	5,174	1.3	14,033	3.5
2,043	1.2	2,043	1.2	-----	-----	-----	-----	(x)	(x)	72,631	43.8	72,631	43.8	-----	-----
214,482	50.6	175,271	41.4	39,211	9.2	58,979	13.9	292,327	69.0	72,304	17.1	107,304	17.1	(10)	-----
23,053	17.7	18,150	13.9	4,903	3.8	15,297	11.8	99,793	76.6	15,112	11.6	12,881	9.9	2,231	1.7
286,015	28.5	271,858	27.1	14,157	1.4	91,419	9.1	676,351	67.4	235,662	23.5	235,662	23.5	-----	-----
33,636	18.9	31,228	17.6	2,408	1.3	45,647	25.5	109,938	61.9	22,358	12.6	20,790	11.7	1,568	.9
242,810	65.1	225,274	60.4	17,536	4.7	56,310	15.1	264,826	71.0	51,891	13.9	10,909	6.7	40,982	11.0
16,283	34.6	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	3,909	8.3	3,166	6.7	743	1.6
5,455	23.1	5,455	23.1	-----	-----	-----	-----	(x)	(x)	12,687	53.8	12,687	53.8	-----	-----
1,092,079	31.6	1,057,026	30.6	35,053	1.0	1,656,574	47.9	1,672,858	48.4	125,548	3.7	106,001	3.1	19,547	.6
14,826	31.9	14,826	31.9	-----	-----	-----	-----	5,837	12.5	39,629	85.2	1,056	2.3	-----	-----
1,587	3.2	1,587	3.2	-----	-----	-----	-----	7,391	14.9	38,297	77.2	3,721	7.9	151	.3
21,561	15.2	20,163	14.2	1,398	1.0	48,530	34.2	87,359	61.5	6,141	4.3	4,121	2.9	2,020	1.4
73,433	62.4	70,083	59.6	3,350	2.8	10,418	8.8	44,025	90.2	2,869	5.9	2,869	5.9	-----	-----
2,089	1.4	2,089	1.4	-----	-----	-----	-----	98,873	84.1	8,350	7.1	4,207	3.6	4,143	3.5
33	.2	33	.2	-----	-----	-----	-----	22,868	15.0	9,287	6.1	9,287	6.1	-----	-----
61,456	12.1	61,456	12.1	-----	-----	-----	-----	92,589	93.9	6,047	6.1	6,047	6.1	(10)	-----
1,540	14.0	1,417	12.9	123	1.1	436	3.9	7,660	44.1	9,708	55.9	10,978	55.9	(10)	-----
3,209,832	39.5	3,103,510	38.2	106,322	1.3	768,828	9.4	5,597,902	68.9	1,762,479	21.7	1,649,042	20.3	113,437	1.4
(x)	(x)	(x)	(x)	-----	-----	-----	-----	9,296	84.4	1,282	11.7	1,163	10.6	119	1.1
16,993	18.8	16,993	18.8	-----	-----	-----	-----	1,442	1.6	86,556	95.8	23,139	70.9	2,330	2.6
9,876	20.0	9,876	20.0	-----	-----	-----	-----	678	1.4	16,299	33.0	32,410	65.6	32,410	65.6
11,529	6.8	11,529	6.8	-----	-----	-----	-----	6,183	3.6	27,093	16.0	136,900	80.4	136,900	80.4
1,168	21.2	1,168	21.2	-----	-----	-----	-----	835	29.9	1,954	70.1	1,954	70.1	-----	-----
64,400	37.0	64,400	37.0	-----	-----	-----	-----	(x)	(x)	(x)	(x)	3,892	70.6	85	1.5
593,992	71.3	524,831	63.0	69,161	8.3	118,913	14.3	643,578	77.2	70,751	8.5	21,938	2.6	48,813	5.9
1,341,476	83.7	1,331,777	83.1	9,699	.6	30,475	1.9	1,539,323	96.0	33,109	2.1	7,961	.5	25,148	1.6
(x)	(x)	81,627	58.1	(x)	(x)	12,283	8.7	124,824	88.8	3,390	2.5	2,621	1.9	769	.6
4,283	4.7	4,283	4.7	-----	-----	-----	-----	19,556	21.5	57,340	63.0	14,110	15.5	14,110	15.5
55,062	71.8	47,234	61.6	7,828	10.2	11,250	14.7	59,516	77.6	5,913	7.7	447	.6	5,466	7.1
57,229	5.0	57,229	5.0	-----	-----	-----	-----	64,746	5.7	664,398	58.5	405,193	35.8	401,147	35.4
5,044	7.8	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	33,278	51.1	33,278	51.1	-----	-----
10,915	5.7	10,915	5.7	-----	-----	-----	-----	17,224	9.0	71,288	37.2	103,420	53.8	103,420	53.8
(x)	(x)	2,029	20.7	(x)	(x)	231	2.4	6,989	71.3	2,579	26.3	2,220	22.6	359	3.7
1,924	4.2	1,924	4.2	-----	-----	-----	-----	(x)	(x)	23,477	51.3	23,477	51.3	-----	-----
828	21.6	828	21.6	-----	-----	-----	-----	2,835	73.9	1,001	26.1	1,001	26.1	-----	-----
100,202	67.5	100,202	67.5	-----	-----	-----	-----	11,106	7.5	993	.6	775	.5	218	.1
2,660	8.7	2,660	8.7	-----	-----	-----	-----	29,566	96.0	1,241	4.0	1,241	4.0	-----	-----
(x)	(x)	(x)	(x)	-----	-----	-----	-----	(x)	(x)	(x)	(x)	2,961			

DISTRIBUTION

TABLE 2.—SUMMARY—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN

[An (x) in column indicates that the amount of sales is withheld to avoid disclosure

[Values expressed in

GROUP AND INDUSTRY	Total sales	Per cent of total sales	Sales to merchandise distributing organizations							
			Total—A plus B plus C plus D		Wholesale organizations					
					Total—A plus B		A—Wholesalers		B—Manufacturers' own wholesale branches	
			Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales
Industry group 2.—Textiles and their products—Con.										
1 Handkerchiefs.....	\$28,111	100.0	\$28,053	99.8	\$19,171	68.2	\$16,395	58.3	\$2,776	9.9
2 Hat and cap materials, men's.....	24,021	100.0	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
3 Hats and caps, except felt and straw, men's.....	33,534	100.0	31,985	95.4	12,421	37.1	11,386	34.0	1,035	3.1
4 Hats, fur-felt.....	101,962	100.0	96,172	94.3	37,414	36.7	32,008	31.4	5,406	5.3
5 House furnishing goods, not elsewhere classified.....	123,907	100.0	110,629	89.2	43,610	35.2	38,095	30.7	5,515	4.5
6 Jute goods.....	22,175	100.0	14,729	66.4	(x)	(x)	(x)	(x)	(x)	(x)
7 Knit goods.....	891,368	100.0	815,631	91.5	505,137	56.6	468,310	52.5	36,827	4.1
8 Lace goods.....	30,241	100.0	27,195	89.9	15,842	52.4	13,003	43.0	2,839	9.4
9 Linen goods.....	9,829	100.0	9,164	93.2	(x)	(x)	(x)	(x)	(x)	(x)
10 Millinery.....	194,686	100.0	188,281	96.7	50,451	25.9	47,128	24.2	3,323	1.7
11 Nets and seines.....	6,164	100.0	3,896	63.2	(x)	(x)	(x)	(x)	2,685	43.6
12 Regalia, badges, and emblems.....	7,927	100.0	2,021	25.5	636	8.0	484	6.1	152	1.9
13 Shirts and collars, men's (see description of industry, p. 21).....	223,446	100.0	213,808	95.7	94,466	42.3	53,165	23.8	41,301	18.5
14 Silk and rayon manufactures.....	656,498	100.0	442,216	67.3	394,015	60.0	302,277	30.8	191,738	29.2
15 Suspenders, garters, and other elastic woven goods, made from purchased webbing.....	30,259	100.0	28,996	95.8	16,099	53.2	16,099	53.2	(x)	(x)
16 Trimmings (not made in textile mills) and stamped art goods for embroidering.....	32,711	100.0	28,253	86.4	17,037	52.1	12,913	39.5	4,124	12.6
17 Upholstering materials, not elsewhere classified.....	11,234	100.0	2,220	19.7	(x)	(x)	(x)	(x)	351	3.1
18 Waste.....	36,014	100.0	11,833	32.9	9,423	26.2	8,828	24.5	595	1.7
19 Woolen and worsted goods (see description of industry, p. 24).....	747,687	100.0	305,574	40.9	272,090	36.4	153,507	20.5	118,583	15.9
20 Wool shoddy.....	14,171	100.0	5,679	40.1	(x)	(x)	(x)	(x)	(x)	(x)
Industry group 3.—Forest products.....										
21 Baskets and rattan and willow ware, not including furniture.....	3,115,138	100.0	1,889,014	60.7	1,095,570	35.2	918,562	29.5	177,008	5.7
22 Billiard and pool tables, bowling alleys, and accessories.....	22,851	100.0	13,094	57.3	8,715	38.1	8,391	36.7	324	1.4
23 Boxes, wooden, except cigar boxes.....	8,718	100.0	8,128	93.2	7,600	87.2	(x)	(x)	(x)	(x)
24 Caskets, coffins, burial cases, and other morticians' goods.....	127,569	100.0	15,677	12.3	12,770	10.0	8,593	6.7	4,177	3.3
25 Cooperage.....	94,867	100.0	93,846	98.9	30,965	32.7	15,032	15.9	15,933	16.8
26 Cork products.....	52,366	100.0	11,396	21.8	8,122	15.5	6,686	12.8	1,436	2.7
27 Excelsior.....	23,023	100.0	17,102	74.3	(x)	(x)	(x)	(x)	(x)	(x)
28 Furniture, including store and office fixtures.....	5,009	100.0	2,602	51.9	2,063	41.2	1,397	27.9	666	13.3
29 Lasts and related products.....	921,176	100.0	749,902	81.4	232,966	25.3	203,551	22.1	29,115	3.2
30 Lumber and timber products, not elsewhere classified.....	7,606	100.0	511	6.7	444	5.8	(x)	(x)	(x)	(x)
31 Matches.....	45,969,833	100.0	554,458	57.2	409,569	42.3	374,998	38.7	34,571	3.6
32 Mirror and picture frames.....	20,351	100.0	(x)	(x)	(x)	(x)	(x)	(x)	14,333	70.4
33 Planing-mill products (including general millwork), not made in planing mills connected with sawmills.....	19,167	100.0	17,649	92.1	6,228	32.5	5,888	30.7	340	1.8
34 Pulp goods.....	560,481	100.0	246,561	44.0	246,561	44.0	206,776	36.9	39,785	7.1
35 Refrigerators and refrigerator cabinets, exclusive of mechanical refrigerating equipment.....	77,220	100.0	2,834	10.4	2,834	10.4	879	3.2	1,955	7.2
36 Turpentine and rosin.....	60,161	100.0	44,136	73.4	18,293	30.4	12,154	20.2	6,139	10.2
37 Window and door screens and weather strip.....	26,179	100.0	23,860	91.1	23,747	90.7	22,646	86.5	1,101	4.2
38 Wood preserving.....	24,295	100.0	13,670	56.2	8,488	34.9	5,202	21.4	3,286	13.5
39 Wood turned and shaped and other wooden goods, not elsewhere classified.....	77,206	100.0	15,363	19.9	11,645	15.1	(x)	(x)	(x)	(x)
40 Wood turned and shaped and other wooden goods, not elsewhere classified.....	67,060	100.0	38,452	57.3	30,644	45.7	26,661	39.8	3,983	5.9
Industry group 4.—Paper and allied products.....										
41 Bags, paper, exclusive of those made in paper mills.....	1,584,598	100.0	752,352	47.5	669,482	42.3	608,054	38.4	61,428	3.9
42 Boxes, paper, not elsewhere classified.....	64,621	100.0	37,813	58.5	36,425	56.4	25,687	39.8	10,738	16.6
43 Cardboard, not made in paper mills.....	279,336	100.0	65,897	23.6	39,382	17.7	45,485	16.3	3,897	1.4
44 Card cutting and designing.....	5,629	100.0	3,998	71.0	(x)	(x)	(x)	(x)	(x)	(x)
45 Envelopes.....	19,604	100.0	9,022	46.0	3,006	15.3	(x)	(x)	(x)	(x)
46 Labels and tags.....	60,762	100.0	30,970	51.0	30,970	51.0	29,311	48.3	1,659	2.7
47 Paper.....	27,481	100.0	2,641	9.6	1,837	6.7	1,377	6.7	(x)	(x)
48 Paper goods, not elsewhere classified.....	862,581	100.0	445,553	51.7	427,764	49.6	396,057	45.9	31,707	3.7
49 Pulp (wood and other fiber).....	182,440	100.0	126,230	69.2	95,812	52.5	84,533	46.3	11,279	6.2
50 Wall paper.....	52,136	100.0	290	.6	290	.6	290	.6	(x)	(x)
51 Wall paper.....	30,008	100.0	29,938	99.8	20,226	67.4	(x)	(x)	(x)	(x)
Industry group 5.—Printing, publishing, and allied industries.....										
52 Bookbinding and blank-book making.....	474,327	100.0	233,274	49.2	119,870	25.2	82,284	17.3	37,586	7.9
53 Engravers' materials.....	86,664	100.0	28,703	33.1	17,526	20.2	17,158	19.8	368	.4
54 Printing and publishing, book and job (see description of industry, p. 19).....	3,129	100.0	989	31.6	(x)	(x)	(x)	(x)	(x)	(x)
55 Printing and publishing, newspaper and periodical (see description of industry, p. 19).....	155,020	100.0	86,083	55.5	41,409	26.7	22,620	14.6	18,789	12.1
56 Printing and publishing, music.....	14,509	100.0	11,182	77.0	5,857	40.3	4,849	33.4	1,008	6.9
57 Printing materials, not including type or ink.....	206,426	100.0	104,414	50.6	54,051	26.2	36,716	17.8	17,335	8.4
58 Printing materials, not including type or ink.....	8,579	100.0	1,903	22.2	(x)	(x)	(x)	(x)	(x)	(x)
Industry group 6.—Chemicals and allied products.....										
59 Ammunition and related products.....	3,651,757	100.0	2,162,840	59.2	1,664,537	45.6	1,117,620	30.6	546,917	15.0
60 Baking powders, yeast, and other leavening compounds.....	43,809	100.0	36,865	84.1	34,134	77.9	34,134	77.9	(x)	(x)
61 Blacking, stains, and dressings.....	52,337	100.0	51,337	98.1	44,978	86.0	19,822	37.9	25,156	48.1
62 Bluing.....	24,982	100.0	18,810	76.2	16,046	65.0	(x)	(x)	(x)	(x)
63 Bone black, carbon black, and lampblack.....	1,365	100.0	(x)	(x)	1,303	95.5	1,303	95.5	(x)	(x)
64 Candles.....	20,170	100.0	4,159	20.6	4,159	20.6	4,159	20.6	(x)	(x)
65 Chemicals, not elsewhere classified.....	6,686	100.0	2,707	40.5	1,062	15.9	1,062	15.9	(x)	(x)
66 Cleaning and polishing preparations.....	715,176	100.0	273,904	38.3	261,973	36.6	151,842	21.2	110,131	15.4
67 Compressed and liquefied gases.....	50,989	100.0	40,965	80.3	35,035	68.7	29,746	58.3	5,289	10.4
68 Drugists' preparations.....	51,774	100.0	8,864	17.1	8,864	17.1	(x)	(x)	(x)	(x)
69 Explosives.....	124,778	100.0	104,344	83.6	80,244	64.3	41,206	33.0	39,038	31.3
70 Fertilizers.....	9,669	100.0	1,693	17.5	1,693	17.5	1,693	17.5	(x)	(x)
71 Fireworks.....	70,221	100.0	20,426	29.1	20,426	29.1	(x)	(x)	(x)	(x)
72 Explosives.....	240,697	100.0	141,596	58.8	62,159	25.8	37,848	15.7	24,311	10.1
73 Fireworks.....	6,583	100.0	5,584	84.8	5,332	81.0	5,332	81.0	(x)	(x)

See footnotes at end of table.

SALES OF MANUFACTURING PLANTS: 1929

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THE UNITED STATES BY INDUSTRY, BY MAJOR CLASSES OF CUSTOMERS—Continued

of individual operations, but the figures are included under the proper totals]
thousands of dollars]

Sales to merchandise distributing organizations—Continued										Sales to consumers						
Retail organizations					Wholesale and retail organizations					Total—E plus F		E—Industrial and other large consumers		F—Household consumers		
Total—C plus D		C—Retailers		D—Manufacturers' own retail branches		B plus D—Controlled selling organizations		A plus C—Uncontrolled selling organizations		Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	
Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales							Value
\$8,882	31.6	\$8,882	31.6			\$2,776	9.9	\$25,277	89.9	\$58	0.2	\$58	0.2	(10)		1
(x)	(x)	(x)	(x)			(x)	(x)	(x)	(x)	21,517	89.6	21,517	89.6			2
19,564	58.3	19,224	57.3	\$340	1.0	1,375	4.1	30,610	91.3	1,549	4.6	29,149	3.6	\$330	1.0	3
58,758	57.6	54,615	53.5	4,143	4.1	9,549	9.4	86,623	84.9	5,790	5.7	5,586	5.5	204	.2	4
67,019	54.0	65,358	52.7	1,661	1.3	7,176	5.8	103,453	83.4	13,278	10.8	6,516	5.3	6,762	5.5	5
						(x)	(x)	(x)	(x)	7,446	33.6	7,446	33.6			6
310,494	34.9	303,534	34.1	6,960	.8	43,787	4.9	771,844	86.6	75,737	8.5	71,713	8.0	4,024	.5	7
11,353	37.5	11,353	37.5			2,839	9.4	24,356	80.5	3,046	10.1	3,046	10.1			8
(x)	(x)	(x)	(x)			(x)	(x)	(x)	(x)	665	6.8	665	6.8			9
137,830	70.8	135,050	69.4	2,780	1.4	6,103	3.1	182,178	93.6	6,405	3.3	2,790	1.4	3,615	1.9	10
(x)	(x)	(x)	(x)			2,685	43.6	1,211	19.6	2,268	36.8	2,268	36.8			11
1,385	17.5	1,385	17.5			152	1.9	1,869	23.6	5,906	74.5	5,906	74.5			12
119,342	53.4	117,154	52.4	2,188	1.0	43,489	19.5	170,319	76.2	9,638	4.3	2,318	1.0	7,320	3.3	13
48,201	7.3	48,201	7.3			191,738	29.2	250,478	38.1	214,282	32.7	213,805	32.6	477	.1	14
12,897	42.6	12,897	42.6					28,996	95.8	1,263	4.2	1,263	4.2			15
11,216	34.3	11,216	34.3	(35)		4,124	12.6	24,129	73.8	4,458	13.6	4,127	12.8	271	.8	16
(x)	(x)	(x)	(x)			351	3.1	1,869	16.6	9,014	80.3	9,014	80.3			17
2,410	6.7	2,410	6.7			595	1.7	11,238	31.2	24,181	67.1	24,181	67.1			18
33,484	4.5	33,066	4.4	418	.1	119,001	16.0	186,573	24.9	442,113	59.1	440,582	58.9	1,531	.2	19
(x)	(x)	(x)	(x)					5,679	40.1	8,492	59.9	8,492	59.9			20
783,444	25.5	755,517	24.3	37,927	1.2	214,935	6.9	1,674,079	53.8	1,226,124	39.3	1,201,765	38.5	24,359	.8	21
4,379	19.2	4,379	19.2			324	1.4	12,770	55.9	9,757	42.7	10,9,757	42.7	(10)		22
528	6.0	528	6.0			(x)	(x)	(x)	(x)	590	6.8	590	6.8			23
2,907	2.3	2,907	2.3			4,177	3.3	11,500	9.0	111,892	87.7	111,892	87.7			24
62,881	66.2	62,881	66.2	(39)		15,933	16.8	77,913	82.1	1,021	1.1	44,1,021	1.1			25
3,274	6.3	3,274	6.3			1,436	2.7	9,960	19.1	40,970	78.2	40,970	78.2			26
(x)	(x)	(x)	(x)			(x)	(x)	(x)	(x)	5,921	25.7	5,921	25.7			27
539	10.7	539	10.7			666	13.3	1,936	38.6	2,407	48.1	2,407	48.1			28
516,936	56.1	482,266	52.3	34,670	3.8	63,785	7.0	686,117	74.4	171,274	18.6	147,497	16.0	23,777	2.6	29
67	.9	67	.9			(x)	(x)	(x)	(x)	7,095	93.3	7,095	93.3			30
144,889	14.9	144,889	14.9			34,571	3.6	519,887	53.6	415,375	42.8	415,375	42.8			31
1,006	5.0	1,006	5.0			14,333	70.4	(x)	(x)	(x)	(x)	(x)	(x)			32
11,421	59.5	10,992	57.4	429	2.2	769	4.0	16,880	88.1	1,518	7.9	1,518	7.9	582	3.0	33
		(11)		(39)		39,785	7.1	206,776	36.9	313,920	56.0	313,920	56.0	(10)		34
25,843	43.0	25,398	42.2	445	.8	1,955	7.2	879	3.2	24,386	89.6	24,386	89.6			35
						6,584	11.0	37,552	62.4	16,025	26.6	16,025	26.6			36
113	.4	113	.4	(39)		1,101	4.2	22,759	86.9	2,319	8.9	2,319	8.9			37
5,182	21.3	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	10,625	43.8	10,625	43.8	(10)		38
3,718	4.8	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	61,843	80.1	61,843	80.1			39
7,808	11.6	7,356	11.0	452	.6	4,435	6.5	34,017	50.8	28,608	42.7	28,608	42.7			40
82,870	5.2	76,832	4.8	6,038	.4	67,466	4.3	684,886	43.2	832,246	52.5	831,610	52.5	636	(40)	41
1,388	2.1	1,388	2.1			10,738	16.6	27,075	41.9	26,808	41.5	26,808	41.5			42
16,515	5.9	16,515	5.9			3,897	1.4	62,000	22.2	213,439	76.4	213,439	76.4			43
(x)	(x)	(x)	(x)			(x)	(x)	3,998	71.0	1,631	29.0	1,631	29.0			44
6,016	30.7	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	10,582	54.0	10,582	54.0			45
						1,659	2.7	29,311	48.3	29,792	49.0	29,792	49.0			46
804	2.9	804	2.9			2,641	9.6	24,840	90.4	24,840	90.4	24,840	90.4	(10)		47
17,789	2.1	17,789	2.1			31,707	3.7	413,846	48.0	417,028	48.3	417,028	48.3			48
30,418	16.7	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	56,210	30.8	55,574	30.5	636	.3	49
		(11)		(x)	(x)	(x)	(x)	(x)	(x)	51,846	99.4	51,846	99.4			50
9,712	32.4	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	70	.2	70	.2	(10)		51
113,404	24.0	104,088	21.9	9,306	2.1	46,892	10.0	186,382	39.2	241,053	50.8	81,320	17.1	159,733	33.7	52
11,177	12.9	11,177	12.9			368	.4	28,335	32.7	57,961	66.9	57,961	66.9			53
(x)	(x)	(x)	(x)			(x)	(x)	(x)	(x)	2,140	68.4	2,140	68.4			54
44,674	28.8	43,888	28.3	786	.5	19,575	12.6	66,508	42.9	68,937	44.5	(10)		68,937	44.5	55
5,325	36.7	5,102	35.2	223	1.5	1,231	8.4	9,951	68.6	3,327	23.0	1,198	8.3	2,129	14.7	56
60,363	24.4	42,066	20.4	8,297	4.0	25,632	12.4	78,782	38.2	102,012	49.4	13,345	6.5	88,667	42.9	57
(x)	(x)	(x)	(x)					1,903	22.2	6,676	77.8	6,676	77.8			58
498,303	13.6	465,566	12.7	32,737	.9	579,654	15.9	1,563,186	43.3	1,488,917	40.8	1,443,643	39.5	45,274	1.3	59
2,731	6.2	2,731	6.2			36,865	84.1	6,944	15.9	6,944	15.9	6,944	15.9			60
6,359	12.1	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	1,000	1.9	1,000	1.9			61
2,764	11.2	2,764	11.2			(x)	(x)	(x)	(x)	5,872	23.8	5,872	23.8			62
(x)	(x)	(x)	(x)			(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)			63
1,645	24.6	1,645	24.6			4,159	20.6	2,707	40.5	16,011	79.4	16,011	79.4			64
11,931	1.7	11,931	1.7	(38)		110,131	15.4	163,773	22.9	3,979	59.5	3,979	59.5			65
5,930	11.6	5,930	11.6			5,289	10.4	35,676	69.9	441,272	61.7	441,272	61.7			66
		(11)		(38)		(x)	(x)	(x)	(x)	10,024	19.7	9,400	18.5	624	1.2	67
24,100	19.3	22,871	18.3	1,229	1.0	40,267	32.3	64,077	51.3	42,910	82.9	42,910	82.9			68
		(11)				(x)	(x)	(x)	(x)	20,434	16.4	20,434	16.4	(10)		69
79,437	33.0	77,162	32.1	2,275	.9	26,586	11.0	115,010	47.8	49,795	70.9	49,795	70.9			70
252	3.8	252	3.8					5,584	84.8	99,101	41.2	99,101	41.2	(10)		71
										999	15.2	999	15.2			72
																73

See footnotes at end of table.

DISTRIBUTION

TABLE 2.—SUMMARY—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN THE

[An (x) in column indicates that the amount of sales is withheld to avoid disclosure

[Values expressed in

GROUP AND INDUSTRY	Total sales	Per cent of total sales	Sales to merchandise distributing organizations							
			Total—A plus B plus C plus D		Wholesale organizations					
					Total—A plus B		A—Wholesalers		B—Manufacturers' own wholesale branches	
			Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales
Industry group 6.—Chemicals and allied products—Continued.										
1 Glue and gelatin.....	\$33,882	100.0	\$15,029	44.4	\$14,455	42.7	(x)	(x)	(x)	(x)
2 Grease and tallow, not including lubricating greases.....	59,815	100.0	17,540	29.3	14,063	23.5	\$12,422	20.8	\$1,641	2.7
3 Ink, printing.....	42,750	100.0	12,438	29.1	12,438	29.1	\$4,463	10.4	7,975	18.7
4 Ink, writing.....	4,595	100.0	4,350	94.6	2,626	57.1	2,575	56.0	51	1.1
5 Liquors, vinous.....	2,448	100.0	1,624	66.3	(x)	(x)	(x)	(x)	(x)	(x)
6 Mucilage, paste, and other adhesives, except glue and rubber cement.....	6,638	100.0	3,635	54.8	2,834	42.7	(x)	(x)	(x)	(x)
7 Oil, cake, and meal, cottonseed.....	267,822	100.0	150,473	56.2	132,959	49.6	120,824	45.1	12,135	4.5
8 Oil, cake, and meal, linseed.....	119,927	100.0	66,061	55.1	63,535	53.0	55,900	46.6	7,635	6.4
9 Oils, essential.....	6,653	100.0	2,180	32.7	(x)	(x)	1,320	19.8	(x)	(x)
10 Oils, not elsewhere classified.....	45,160	100.0	10,395	23.0	10,233	22.7	(x)	(x)	(x)	(x)
11 Paints and varnishes.....	563,652	100.0	321,925	57.1	207,340	36.8	128,109	22.7	79,231	14.1
12 Patent or proprietary medicines and compounds.....	318,907	100.0	271,501	85.1	189,333	59.4	151,382	47.5	37,951	11.9
13 Perfumes, cosmetics, and other toilet preparations.....	193,441	100.0	178,098	92.0	91,976	47.5	86,862	44.9	5,114	2.6
14 Rayon and allied products.....	149,546	100.0	53,775	36.0	53,775	36.0	(x)	(x)	(x)	(x)
15 Salt.....	37,869	100.0	25,350	67.0	15,377	40.7	15,048	39.8	329	.9
16 Soap.....	310,192	100.0	284,981	91.9	242,951	78.3	141,187	45.5	101,764	32.8
17 Tanning materials, natural dyestuffs, mordants and assistants, and sizes.....	39,930	100.0	14,520	36.4	14,520	36.4	9,406	23.6	5,114	12.8
18 Wood distillation and charcoal manufacture.....	29,594	100.0	16,352	55.2	15,479	52.3	8,023	27.1	7,456	25.2
Industry group 7.—Products of petroleum and coal.....										
19 Coke, not including gas-house coke.....	2,919,141	100.0	2,583,949	88.5	2,214,054	75.8	594,085	20.4	1,619,969	55.4
20 Fuel: Briquettes and boulets.....	197,697	100.0	108,574	54.9	(x)	(x)	81,297	41.1	(x)	(x)
21 Lubricating oils and greases, not made in petroleum refineries.....	9,498	100.0	9,371	98.7	9,371	98.7	9,371	98.7	(x)	(x)
22 Petroleum refining.....	72,281	100.0	52,327	72.4	42,336	58.6	19,315	26.7	23,021	31.9
23 Petroleum refining.....	2,639,665	100.0	2,413,677	91.4	2,076,655	78.6	484,102	18.3	1,592,553	60.3
Industry group 8.—Rubber products.....										
24 Boots and shoes, rubber.....	1,103,938	100.0	815,834	73.9	639,020	57.9	177,355	16.1	461,665	41.8
25 Rubber goods other than tires, inner tubes, and boots and shoes.....	102,538	100.0	102,538	100.0	78,507	76.6	24,846	24.2	53,661	52.4
26 Rubber tires and inner tubes.....	231,221	100.0	141,700	61.3	124,260	53.7	89,570	38.7	34,690	15.0
27 Rubber tires and inner tubes.....	770,177	100.0	571,596	74.2	436,253	56.7	62,939	8.2	373,314	48.5
Industry group 9.—Leather and its manufactures.....										
28 Belting, leather.....	1,801,589	100.0	1,407,594	78.1	770,660	42.7	422,282	23.4	348,378	19.3
29 Boot and shoe cut stock, not made in boot and shoe factories.....	34,505	100.0	10,173	29.5	10,173	29.5	7,485	21.7	2,688	7.8
30 Boot and shoe findings, not made in boot and shoe factories.....	113,845	100.0	14,952	13.2	13,858	12.2	(x)	(x)	(x)	(x)
31 Boots and shoes, other than rubber.....	58,625	100.0	6,312	10.8	5,092	8.7	5,092	8.7	(x)	(x)
32 Gloves and mittens, leather.....	964,542	100.0	956,465	99.2	465,159	48.2	210,457	21.8	254,702	26.4
33 Leather goods, not elsewhere classified.....	42,164	100.0	40,472	96.0	19,212	45.6	14,516	34.4	4,696	11.2
34 Leather: Tanned, curried, and finished.....	35,087	100.0	26,855	76.5	13,212	37.6	(x)	(x)	(x)	(x)
35 Pouches, purses, and cardcases.....	399,543	100.0	209,491	52.4	209,491	52.4	130,314	32.6	79,177	19.8
36 Saddlery and harness.....	67,994	100.0	67,596	99.4	13,515	19.9	12,612	18.6	903	1.3
37 Trunks, suitcases, and bags.....	21,675	100.0	18,960	87.5	7,323	33.8	5,359	24.7	1,964	9.1
38 Trunks, suitcases, and bags.....	63,609	100.0	56,318	88.5	13,625	21.4	12,667	19.9	958	1.5
Industry group 10.—Stone, clay, and glass products.....										
39 Asbestos products, steam and other packing, pipe and boiler covering, and gaskets (see description of industry p. 5).....	1,554,716	100.0	924,045	59.4	848,049	54.6	710,289	45.6	137,760	8.9
40 Cement.....	101,461	100.0	67,184	66.2	67,184	66.2	38,970	38.4	28,214	27.8
41 China firing and decorating, not done in potteries.....	255,604	100.0	212,626	83.2	212,626	83.2	196,539	76.9	16,087	6.3
42 Clay products (other than pottery) and nonclay refractories.....	1,246	100.0	1,246	100.0	446	35.8	446	35.8	(x)	(x)
43 Concrete products.....	302,136	100.0	148,819	49.2	148,819	49.2	129,079	42.7	19,740	6.5
44 Emery wheels and other abrasive and polishing appliances.....	92,729	100.0	19,332	20.8	19,332	20.8	16,553	17.8	2,779	3.0
45 Glass.....	32,154	100.0	10,647	33.1	10,216	31.8	(x)	(x)	(x)	(x)
46 Glass products (except mirrors) made from purchased glass.....	287,246	100.0	175,933	61.3	151,822	52.9	(x)	(x)	(x)	(x)
47 Lime.....	32,963	100.0	16,557	50.2	10,755	32.6	10,755	32.6	(x)	(x)
48 Marble, granite, slate, and other stone products.....	35,816	100.0	22,344	62.4	13,295	37.1	9,983	27.9	3,312	9.2
49 Mirrors, framed and unframed.....	181,698	100.0	69,988	38.5	69,988	38.5	61,377	33.8	8,611	4.7
50 Pottery, including porcelain ware.....	31,890	100.0	19,320	60.5	12,298	38.5	10,315	32.3	1,983	6.2
51 Sand-lime brick.....	116,405	100.0	94,390	81.1	66,739	57.3	49,487	42.5	17,252	14.8
52 Statuary and art goods, factory product.....	3,146	100.0	1,649	52.4	1,649	52.4	1,649	52.4	(x)	(x)
53 Wall plaster, wall board, insulating board, and floor composition.....	9,559	100.0	2,409	25.2	1,279	13.4	(x)	(x)	(x)	(x)
54 Wall plaster, wall board, insulating board, and floor composition.....	70,663	100.0	61,601	87.2	61,601	87.2	56,201	79.5	5,400	7.7
Industry group 11.—Iron and steel and their products, not including machinery.....										
55 Bolts, nuts, washers, and rivets, not made in plants operated in connection with rolling mills.....	6,092,542	100.0	2,632,560	43.2	2,389,388	39.2	2,039,892	33.5	349,496	5.7
56 Cast-iron pipe.....	104,866	100.0	32,707	31.2	32,089	30.6	26,972	25.7	5,117	4.9
57 Cutlery (not including silver and plated cutlery) and edge tools.....	80,261	100.0	34,447	42.9	34,447	42.9	29,690	37.0	4,757	5.9
58 Doors, shutters, and window sash and frames, metal.....	78,918	100.0	74,184	94.0	68,037	86.2	55,706	70.6	12,331	15.6
59 Files.....	69,242	100.0	10,378	15.0	8,573	12.4	(x)	(x)	(x)	(x)
60 Firearms.....	14,114	100.0	11,964	84.8	11,145	79.0	11,145	79.0	(x)	(x)
61 Forgings, iron and steel, not made in plants operated in connection with rolling mills.....	21,335	100.0	(x)	(x)	17,153	80.4	17,153	80.4	(x)	(x)
62 Hardware not elsewhere classified.....	155,686	100.0	11,691	7.6	11,691	7.6	9,188	6.0	2,503	1.6
63 Iron and steel: Blast furnaces.....	229,477	100.0	115,832	50.5	85,449	37.3	75,708	33.0	9,741	4.3
64 Iron and steel: Steel works and rolling mills.....	198,254	100.0	51,186	25.8	51,186	25.8	43,620	22.0	7,566	3.8
65 Nails, spikes, etc., not made in wire mills or in plants operated in connection with rolling mills.....	2,990,926	100.0	1,289,246	43.1	1,289,246	43.1	1,177,121	39.4	112,125	3.7
66 Nails, spikes, etc., not made in wire mills or in plants operated in connection with rolling mills.....	12,855	100.0	6,322	49.2	5,687	44.2	4,000	31.1	1,687	13.1

See footnotes at end of table.

SALES OF MANUFACTURING PLANTS: 1929

47

UNITED STATES, BY INDUSTRY, BY MAJOR CLASSES OF CUSTOMERS—Continued

of individual operations, but the figures are included under the proper totals]

thousands of dollars]

Sales to merchandise distributing organizations—Continued										Sales to consumers					
Retail organizations					Wholesale and retail organizations					Total—E plus F		E—Industrial and other large consumers		F—Household consumers	
Total—C plus D		C—Retailers		D—Manufacturers' own retail branches		B plus D—Controlled selling organizations		A plus C—Uncontrolled selling organizations		Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales
Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales
\$574	1.7	\$574	1.7	(x)	(x)	(x)	(x)	(x)	(x)	\$18,853	55.6	\$18,853	55.6		
3,477	5.8	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	42,275	70.7	42,275	70.7		
1,724	37.5	(11) 1,724	37.5			\$7,975	18.7	\$4,463	10.4	30,312	70.9	30,312	70.9		
(x)	(x)	(x)	(x)			51	1.1	4,299	93.5	245	5.4	245	5.4		
801	12.1	801	12.1			(x)	(x)	(x)	(x)	824	33.7	714	29.2	\$110	4.5
						(x)	(x)	(x)	(x)	3,003	45.2	3,003	45.2		
17,514	6.6	15,778	5.9	\$1,736	.7	13,871	5.2	136,602	51.0	117,349	43.8	10 117,349	43.8	(10)	
2,526	2.1	2,526	2.1			7,635	6.4	58,426	48.7	53,866	44.9	53,866	44.9		
(x)	(x)	246	3.7	(x)	(x)	614	9.2	1,566	23.5	4,473	67.3	4,473	67.3		
162	.3	162	.3			(x)	(x)			34,765	77.0	34,765	77.0		
114,585	20.3	103,836	18.4	10,749	1.9	89,980	16.0	231,945	41.1	241,727	42.9	232,604	41.3	9,123	1.6
82,168	25.7	69,311	21.7	12,857	4.0	50,808	15.9	220,693	69.2	47,406	14.9	26,696	8.4	20,710	6.5
86,122	44.5	83,430	43.1	2,692	1.4	7,806	4.0	170,292	88.0	15,343	-8.0	2,215	1.2	13,128	6.8
						(x)	(x)	(x)	(x)	95,771	64.0	95,771	64.0		
9,973	26.3	9,973	26.3			329	.9	25,021	66.1	12,519	33.0	12,519	33.0		
42,030	13.6	42,030	13.6			101,764	32.8	183,217	59.1	25,211	8.1	23,684	7.6	1,527	.5
		(11)				5,114	12.8	9,406	23.6	25,410	63.6	25,410	63.6		
873	2.9	873	2.9			7,456	25.2	8,896	30.0	13,242	44.8	13,196	44.6	46	.2
369,895	12.7	169,368	5.8	200,527	6.9	1,820,496	62.3	763,453	26.2	335,192	11.5	329,765	11.3	5,427	.2
(x)	(x)	22,499	11.4	(x)	(x)	4,773	2.4	103,796	52.5	89,123	45.1	84,486	42.7	4,637	2.4
9,991	13.8	9,991	13.8			23,021	31.9	9,371	98.7	127	1.3	127	1.3		
337,022	12.8	136,878	5.2	200,144	7.6	1,792,697	67.9	29,306	40.5	19,954	27.6	19,291	26.7	663	.9
176,814	16.0	171,819	15.6	4,995	.4	466,680	42.2	620,980	23.5	225,988	8.6	225,988	8.6	(11)	
								349,174	31.7	288,102	26.1	285,738	25.9	2,364	.2
24,031	23.4	24,031	23.4			53,661	52.4	48,877	47.6						
17,440	7.6	16,581	7.2	859	.4	35,549	15.4	106,151	45.9	89,521	38.7	88,355	38.2	1,166	.5
135,343	17.5	131,207	17.0	4,136	.5	377,450	49.0	194,146	25.2	198,581	25.8	197,383	25.6	1,198	.2
636,934	35.4	577,343	32.1	59,591	3.3	407,989	22.6	999,625	55.5	393,995	21.9	386,757	21.5	7,238	.4
		(11)		(12)		2,688	7.8	7,485	21.7	24,332	70.5	24,332	70.5		
1,094	1.0	1,094	1.0			(x)	(x)	(x)	(x)	98,893	86.8	98,893	86.8		
1,220	2.1	1,220	2.1			314,293	32.6	642,172	66.6	52,313	89.2	52,313	89.2		
491,306	51.0	431,715	44.8	59,591	6.2	4,696	11.2	35,776	84.8	8,077	.8	3,855	.4	4,222	.4
21,260	50.4	21,260	50.4			(x)	(x)	(x)	(x)	1,692	4.0	(x)	(x)	(x)	(x)
13,643	38.9	13,643	38.9			79,177	19.8	130,314	32.6	8,232	23.5	7,149	20.4	1,083	3.1
		(11)		(12)		903	1.3	66,693	98.1	190,052	47.6	190,052	47.6		
54,081	79.5	54,081	79.5			1,964	9.1	16,996	78.4	398	.6	142	.2	256	.4
11,637	53.7	11,637	53.7			958	1.5	55,360	87.0	2,715	12.5	2,715	12.5	(10)	
42,693	67.1	42,693	67.1			140,919	9.1	783,126	50.3	7,291	11.5	5,698	9.0	1,593	2.5
75,996	4.9	72,837	4.7	3,159	.2					630,671	40.6	603,120	38.8	27,551	1.8
		(11)				28,214	27.8	38,970	38.4	34,277	33.8	34,277	33.8		
		(11)				16,087	6.3	196,539	76.9	42,978	16.8	42,978	16.8		
800	64.2	800	64.2			19,740	6.5	1,246	100.0	153,317	50.8	10 153,317	50.8	(10)	
		(11)		(12)		2,779	3.0	16,553	17.8	73,397	79.2	73,397	79.2		
431	1.3	431	1.3			(x)	(x)	(x)	(x)	21,507	66.9	21,507	66.9		
24,111	8.4	22,728	7.9	1,383	.5	(x)	(x)	(x)	(x)	111,313	38.7	10 111,313	38.7	(10)	
5,802	17.6	5,802	17.6			3,312	9.2	16,557	50.2	16,406	49.8	16,406	49.8		
9,049	25.3	9,049	25.3			8,611	4.7	61,377	33.8	13,472	37.6	13,472	37.6		
		(11)		(12)		2,198	6.9	17,122	53.6	111,710	61.5	86,001	47.3	25,709	14.2
7,022	22.0	6,807	21.3	215	.7	(x)	(x)	(x)	(x)	12,570	39.5	12,010	37.7	560	1.8
27,651	23.8	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	22,015	18.9	21,580	18.5	435	.4
		(11)				(x)	(x)	(x)	(x)	1,497	47.6	1,497	47.6	(10)	
1,130	11.8	1,130	11.8			5,400	7.7	56,201	79.5	7,150	74.8	6,303	65.9	847	8.9
		(11)		(12)						9,062	12.8	9,062	12.8	(10)	
243,172	4.0	224,172	3.7	19,000	.3	368,496	6.0	2,264,064	37.2	3,459,982	56.8	3,459,593	56.8	389	(10)
618	.6	618	.6			5,117	4.9	27,590	26.3	72,159	68.8	72,159	68.8		
		(11)		(12)		4,757	5.9	29,690	37.0	45,814	57.1	45,814	57.1		
6,147	7.8	6,147	7.8			12,331	15.6	61,853	78.4	4,734	6.0	4,514	5.7	220	.3
1,805	2.6	1,805	2.6			(x)	(x)	(x)	(x)	58,864	85.0	10 58,864	85.0	(10)	
819	5.8	819	5.8			(x)	(x)	(x)	(x)	2,150	15.2	2,150	15.2		
(x)	(x)	(x)	(x)			2,503	1.6	9,188	6.0	(x)	(x)	(x)	(x)	169	.8
										143,895	92.4	143,895	92.4		
30,383	13.2	30,383	13.2			9,741	4.3	106,091	46.2	113,645	49.5	113,645	49.5		
		(11)		(12)		7,566	3.8	43,620	22.0	147,068	74.2	147,068	74.2		
		(11)		(12)		112,125	3.7	1,177,121	39.4	1,701,680	56.9	1,701,680	56.9		
635	5.0	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	6,633	50.8	6,533	50.8		

See footnotes at end of table.

DISTRIBUTION

TABLE 2.—SUMMARY—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN THE

[An (x) in column indicates that the amount of sales is withheld to avoid disclosure

[Values expressed in

GROUP AND INDUSTRY	Total sales	Per cent of total sales	Sales to merchandise distribution organizations							
			Total—A plus B plus C plus D		Wholesale organizations					
			Value	Per cent of total sales	Total—A plus B		A—Wholesalers		B—Manufacturers' own wholesale branches	
					Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales
Industry group 11.—Iron and steel and their products, not including machinery—Continued.										
1 Plumbers' supplies, not including pipe or vitreous-china sanitary ware.	\$129,674	100.0	\$117,975	91.0	\$110,183	85.0	\$80,310	61.9	\$29,873	23.1
2 Safes and vaults.....	18,989	100.0	10,071	53.0	1,962	10.3	(x)	(x)	(x)	(x)
3 Saws.....	21,971	100.0	16,299	74.2	13,030	59.3	11,536	52.5	1,494	6.8
4 Screw-machine products and wood screws.....	105,975	100.0	21,682	20.5	19,136	18.1	(x)	(x)	(x)	(x)
5 Springs, steel, except wire, not made in plants operated in connection with rolling mills.	46,356	100.0	16,199	35.0	(x)	(x)	14,400	31.1	(x)	(x)
6 Steam fittings and steam and hot-water heating apparatus.....	228,109	100.0	185,823	81.4	(x)	(x)	69,641	30.5	(x)	(x)
7 Steel barrels, kegs, and drums.....	37,278	100.0	2,112	5.7	2,112	5.7	11 2,112	5.7		
8 Stoves and ranges (other than electric) and warm-air furnaces.	270,940	100.0	224,787	82.9	104,307	38.5	84,331	31.1	19,976	7.4
9 Structural and ornamental iron and steel work, not made in plants operated in connection with rolling mills.	469,499	100.0	97,736	20.8	97,736	20.8	11 80,106	17.1	11 17,630	3.7
10 Tin cans and other tinware, not elsewhere classified.....	256,130	100.0	21,614	8.4	18,551	7.2	16,705	6.5	1,846	.7
11 Tools, not including edge tools, machine tools, files, or saws.	100,233	100.0	73,775	73.6	(x)	(x)	60,572	60.4	(x)	(x)
12 Wire, drawn from purchased bars or rods.....	178,974	100.0	53,164	29.7	46,180	25.8	34,113	19.1	12,067	6.7
13 Wirework, not elsewhere classified.....	147,921	100.0	82,743	55.9	69,949	47.3	63,256	42.8	6,693	4.5
14 Wrought pipe, welded and heavy riveted, not made in plants operated in connection with rolling mills.	124,659	100.0	51,305	41.1	51,305	41.1	50,642	40.6	663	.5
Industry group 12.—Nonferrous metals and their products.										
15 Aluminum manufactures.....	152,748	100.0	34,243	22.4	11,266	7.4	(x)	(x)	(x)	(x)
17 Clocks, watches, and parts (see description of industry, p. 9).	88,665	100.0	75,778	85.5	70,623	79.7	54,877	61.9	15,746	17.8
18 Collapsible tubes.....	8,913	100.0								
19 Copper, tin, and sheet-iron work, including galvanized-iron work, not elsewhere classified.	206,381	100.0	86,755	42.0	55,654	26.9	39,054	18.9	16,600	8.0
20 Fire extinguishers, chemical.....	8,566	100.0	4,196	49.0	4,196	49.0	4 4,196	49.0		
21 Gas and electric fixtures; lamps, lanterns, and reflectors.....	144,966	100.0	88,993	61.4	63,917	44.1	57,497	39.7	6,420	4.4
22 Gold leaf and foil.....	3,978	100.0	2,035	51.2	1,325	33.3	(x)	(x)	(x)	(x)
23 Gold, silver, and platinum, reducing and refining, not from the ore.	67,616	100.0	7,889	11.7	7,889	11.7	11 7,889	11.7		
24 Jewelry.....	168,325	100.0	141,068	83.9	75,310	44.8	69,471	41.3	5,839	3.5
25 Needles, pins, hooks and eyes, and snap fasteners.....	22,031	100.0	10,609	48.2	6,968	31.7	6,071	27.6	897	4.1
26 Nonferrous-metal alloys and products, not including aluminum products.	824,429	100.0	244,253	29.6	244,253	29.6	11 190,999	23.1	11 53,864	6.5
27 Plated ware.....	55,430	100.0	51,027	92.1	28,139	50.8	(x)	(x)	(x)	(x)
28 Silversmithing and silverware.....	30,452	100.0	29,769	97.8	14,472	47.6	3,221	10.6	11,251	37.0
29 Stamped ware, enameled ware, and metal stamping, enameling, japanning, and lacquering.	192,631	100.0	91,593	47.5	70,332	36.5	58,431	30.3	11,901	6.2
Industry group 13.—Machinery, not including transportation equipment.										
30 Agricultural implements.....	260,466	100.0	214,230	82.3	177,493	68.2	21,315	8.2	11 156,178	60.0
32 Cash registers and adding, calculating, and card-tabulating machines.	109,582	100.0	60,387	55.1	18,021	16.4	3,763	3.4	14,258	13.0
33 Electrical machinery, apparatus, and supplies.....	2,230,361	100.0	1,363,276	61.1	1,164,481	52.2	700,333	31.4	464,148	20.8
34 Engines, turbines, tractors, and water wheels.....	449,836	100.0	322,932	71.8	322,932	71.8	11 160,311	35.6	11 162,621	36.2
35 Foundry and machine-shop products, not elsewhere classified.	2,476,871	100.0	690,984	27.9	690,984	27.9	11 441,433	17.8	11 249,551	10.1
36 Gas machines, gas meters, and water and other liquid meters.	40,100	100.0	9,808	24.4	9,808	24.4	11 4,982	12.4	11 4,826	12.0
37 Machine-tool accessories and small metal-working tools, not elsewhere classified.	140,987	100.0	34,546	24.4	34,546	24.4	11 31,991	22.6	11 2,555	1.8
38 Machine tools.....	240,273	100.0	99,983	41.6	99,983	41.6	11 71,344	29.7	11 28,639	11.9
39 Pumps (hand and power) and pumping equipment.....	155,963	100.0	91,561	58.7	91,561	58.7	11 55,062	35.3	11 36,499	23.4
40 Refrigerators, mechanical.....	161,636	100.0	158,006	97.8	156,123	96.6	(x)	(x)	(x)	(x)
41 Scales and balances.....	29,328	100.0	18,417	62.8	(x)	(x)	(x)	(x)	(x)	(x)
42 Sewing machines and attachments.....	44,978	100.0	36,762	81.7	7,454	16.6	(x)	(x)	(x)	(x)
43 Textile machinery and parts.....	115,461	100.0	13,277	11.5	13,277	11.5	11 11,122	9.6	11 2,155	1.9
44 Typewriters and parts.....	61,858	100.0	61,005	98.6	13,460	21.7	(x)	(x)	(x)	(x)
45 Washing machines, wringers, driers, and ironing machines, for household use.	81,036	100.0	75,757	93.5	25,016	30.9	20,265	25.0	4,751	5.9
46 Windmills and windmill towers.....	8,500	100.0	6,777	79.7	4,298	50.6	2,276	26.8	2,022	23.8
Industry group 14.—Transportation equipment, air, land, and water.										
47 Aircraft and parts.....	60,643	100.0	26,932	44.4	26,932	44.4	11 19,722	32.5	11 7,210	11.9
49 Carriage, wagon, sleigh, and sled materials.....	2,772	100.0	1,971	71.1	1,445	52.1	1,445	52.1		
50 Carriages, wagons, sleighs, and sleds.....	15,995	100.0	11,569	72.3	7,647	47.8	(x)	(x)	(x)	(x)
51 Motor-vehicle bodies and motor-vehicle parts.....	1,314,922	100.0	212,374	16.2	165,335	12.6	142,230	10.8	23,105	1.8
52 Motor vehicles, not including motorcycles.....	3,711,795	100.0	3,584,107	96.6	2,071,442	55.8	1,233,991	33.2	837,451	22.6
53 Motor cycles, bicycles, and parts.....	23,611	100.0	20,360	86.2	8,825	37.4	8,825	37.4		
54 Ship and boat building, steel and wooden, including repair work.	85,714	100.0	9,083	10.6	9,083	10.6	11 9,083	10.6		
Industry group 15.—Railroad repair shops (see text p. 2)										
Industry group 16.—Miscellaneous industries.										
55 Artificial and preserved flowers and plants.....	14,425	100.0	11,324	78.5	5,756	39.9	5,653	39.2	103	.7
58 Artists' materials.....	9,460	100.0	8,355	88.3	6,566	69.4	6,566	69.4		
59 Brooms.....	19,166	100.0	17,576	91.7	11,511	60.1	11,344	59.2	167	.9
60 Brushes, other than rubber.....	45,506	100.0	35,812	78.7	27,314	60.0	22,404	49.2	4,910	10.8
61 Buttons.....	27,633	100.0	10,485	37.9	9,868	35.7	7,547	27.3	2,321	8.4
62 Carbon paper and inked ribbons.....	17,295	100.0	13,831	80.0	6,069	35.1	4,785	27.7	1,284	7.4
Cigars and cigarettes:										
63 Cigars.....	311,663	100.0	307,931	98.8	266,520	85.5	204,249	65.5	62,271	20.0
64 Cigarettes.....	755,246	100.0	755,085	100.0	752,030	99.6	(x)	(x)	(x)	(x)
65 Combs and hairpins, not made from metal or rubber.....	2,482	100.0	2,186	88.1	1,365	55.0	1,365	55.0		
66 Dairymen's supplies; creamery, cheese-factory and butter-factory equipment; and poultrymen's and apiarists' supplies.	42,247	100.0	26,690	63.2	21,167	50.1	14,677	34.7	6,490	15.4
67 Dental goods and equipment.....	35,180	100.0	33,137	94.2	33,137	94.2	11 26,984	76.7	11 6,153	17.5
68 Fancy and miscellaneous articles, not elsewhere classified.....	84,655	100.0	72,096	85.2	34,362	40.6	32,706	38.6	1,656	2.0

See footnotes at end of this table.

DISTRIBUTION

TABLE 2.—SUMMARY—DISTRIBUTION OF SALES, 1929, OF MANUFACTURING PLANTS IN THE

[An (x) in column indicates that the amount of sales is withheld to avoid disclosure

[Values expressed in

GROUP AND INDUSTRY	Total sales	Per cent of total sales	Sales to merchandise distributing organizations									
			Total—A plus B plus C plus D		Wholesale organizations							
			Total—A plus B		A—Wholesalers		B—Manufacturers' own wholesale branches					
			Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales		
Industry group 16.—Miscellaneous industries—Con.												
1 Feathers, plumes, and manufactures thereof.....	\$1,055	100.0	\$389	36.9	\$47	4.5	\$47	4.5	(x)	(x)	(x)	(x)
2 Foundry supplies.....	10,459	100.0	1,701	16.3	1,701	16.3	(x)	(x)	(x)	(x)	(x)	(x)
3 Fur goods.....	257,641	100.0	174,001	67.6	91,750	35.6	89,111	34.6	1,507	6.3	\$2,639	1.0
4 Furs, dressed.....	23,863	100.0	4,026	16.9	2,554	10.7	1,507	6.3	1,047	4.4	(x)	(x)
5 Hair work.....	1,420	100.0	775	54.6	212	14.9	212	14.9	(x)	(x)	(x)	(x)
6 Hand stamps and stencils and brands.....	14,488	100.0	6,804	47.0	3,384	23.4	3,201	22.1	183	1.3	(x)	(x)
7 Hats, straw, men's.....	18,739	100.0	18,739	100.0	8,329	44.5	6,364	34.0	1,965	10.5	(x)	(x)
8 Instruments, professional and scientific.....	87,853	100.0	40,752	46.4	27,847	31.7	25,487	29.0	2,360	2.7	(x)	(x)
9 Ivory, shell, and bone work, not including buttons, combs, or hairpins.....	1,260	100.0	470	37.3	398	31.6	398	31.6	(x)	(x)	(x)	(x)
10 Jewelry and instrument cases.....	8,817	100.0	4,371	49.5	3,442	39.0	(x)	(x)	(x)	(x)	(x)	(x)
11 Lapidary work.....	11,426	100.0	10,601	92.8	10,089	88.3	10,089	88.3	(x)	(x)	(x)	(x)
12 Mattresses and bed springs, not elsewhere classified.....	121,627	100.0	115,354	94.8	52,357	43.0	(x)	(x)	(x)	(x)	(x)	(x)
13 Models and patterns, not including paper patterns.....	28,157	100.0	1,550	5.5	1,550	5.5	1,550	5.5	(x)	(x)	(x)	(x)
14 Musical instrument parts and materials: Piano and organ.....	11,824	100.0	6,083	51.5	4,115	34.8	4,115	34.8	(x)	(x)	(x)	(x)
15 Musical instruments and parts and materials, not elsewhere classified.....	14,042	100.0	11,270	80.2	5,633	40.1	5,633	40.1	(x)	(x)	(x)	(x)
16 Musical instruments: Organs.....	10,739	100.0	1,371	12.8	97	.9	97	.9	(x)	(x)	(x)	(x)
17 Musical instruments: Pianos.....	42,255	100.0	38,722	91.6	6,745	16.0	4,395	10.4	2,350	5.6	(x)	(x)
18 Optical goods.....	40,301	100.0	31,088	77.2	26,710	66.3	(x)	(x)	(x)	(x)	(x)	(x)
19 Paving materials: Asphalt, tar, crushed slag, and mixtures.....	29,275	100.0	4,535	15.5	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
20 Pens, fountain and stylographic; pen points, gold, steel, and brass.....	34,211	100.0	33,411	97.7	8,070	23.6	(x)	(x)	(x)	(x)	(x)	(x)
21 Phonographs.....	96,694	100.0	85,921	88.9	(x)	(x)	51,966	53.8	(x)	(x)	(x)	(x)
22 Pipes (tobacco).....	5,550	100.0	5,550	100.0	4,618	83.2	4,618	83.2	(x)	(x)	(x)	(x)
23 Roofing, built-up and roll; asphalt shingles; roof coatings other than paint.....	103,506	100.0	87,533	84.6	67,499	65.2	55,972	54.1	11,527	11.1	(x)	(x)
24 Sandpaper, emery paper, and other abrasive paper and cloth.....	17,219	100.0	8,198	47.6	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
25 Soda-water apparatus.....	24,446	100.0	15,466	63.3	15,466	63.3	7,601	31.1	7,865	32.2	(x)	(x)
26 Sporting and athletic goods, not including firearms or ammunition.....	59,402	100.0	55,125	92.8	42,642	71.8	26,725	45.0	15,917	26.8	(x)	(x)
27 Stationery goods, not elsewhere classified.....	74,062	100.0	57,224	77.3	28,380	38.3	28,380	38.3	(x)	(x)	(x)	(x)
28 Surgical and orthopedic appliances, including artificial limbs.....	71,432	100.0	45,535	63.7	23,086	32.3	21,975	30.8	1,111	1.5	(x)	(x)
29 Theatrical scenery and stage equipment.....	5,095	100.0	334	6.6	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
30 Tobacco: Chewing and smoking, and snuff.....	179,333	100.0	176,714	98.5	175,055	97.6	148,719	82.9	26,336	14.7	(x)	(x)
31 Toys, games, playground equipment, and children's carriages and sleds (see description of industry, p. 23).....	96,293	100.0	87,825	91.2	(x)	(x)	48,070	49.9	(x)	(x)	(x)	(x)
32 Umbrellas, parasols, and canes.....	17,049	100.0	14,657	86.0	3,847	22.6	(x)	(x)	(x)	(x)	(x)	(x)
33 Whips.....	224	100.0	224	100.0	138	61.6	138	61.6	(x)	(x)	(x)	(x)
34 Window shades and fixtures.....	34,038	100.0	22,569	66.3	10,723	31.5	4,396	12.9	6,327	18.6	(x)	(x)
35 All other industries ¹⁸	197,739	100.0	131,982	66.7	114,315	57.8	91,807	46.4	22,508	11.4	(x)	(x)

¹ This value represents the total sales of those plants which are engaged principally in the production of the commodities shown. For the total production of these commodities, see the Census of Manufactures reports.

² In addition to this amount, it is believed that a large part of the sales of small plants which failed to report a distribution of their sales were made to home consumers. (See Table 3 for sales not distributed.)

³ Sales reported "to wholesale establishments of all kinds not owned or controlled by or affiliated with the plants reporting" and "sales made through manufacturers' agents, selling agents, brokers, and commission houses" were combined.

⁴ Combined to avoid disclosures of individual operations.

⁵ In addition to this amount, \$2,363,000 of sales were reported sold through these agents with no further distribution of sales reported.

⁶ Includes the value of interplant transfers. Combined to avoid disclosures of individual operations.

⁷ The sales to the two types of wholesalers were combined because many cheese factories selling to cooperative cheese federations reported their sales made to wholesalers, and others, selling in the same way, reported their sales made to branch wholesale establishments.

⁸ The amounts reported as sales through manufacturers' agents, selling agents, brokers, and commission houses are withheld to avoid disclosure of individual operations.

⁹ Consists largely of sales of milk and other dairy products purchased and marketed by plants in this industry.

¹⁰ Sales to home consumers combined with sales to industrial consumers.

¹¹ Sales to retailers are combined with sales to wholesalers. See p. 4, section 7.

¹² Includes sales to converters amounting to \$298,711,000, or 26.3 per cent, reported by 326 plants, 163 of which sold exclusively this way.

¹³ In addition to this amount, 179 plants reported sales of \$277,225,000 made through these agents with further distribution unknown.

¹⁴ Includes sales to converters amounting to \$51,136,000, or 31.0 per cent, reported by 100 plants, 63 of which sold exclusively this way.

¹⁵ In addition to this amount, 30 plants reported sales of \$21,980,000 made through these agents with further distribution unknown.

¹⁶ This classification covers print cloth, muslins, reps, broadcloth, pajama checks, dimities, voiles, crêpes, twills, sateens, gingham, etc.

¹⁷ Includes sales to converters amounting to \$38,273,000, or 31.6 per cent, reported by 34 plants, 31 of which sold exclusively this way.

¹⁸ In addition to this amount, 22 plants reported sales of \$27,353,000 made through these agents with further distribution unknown.

¹⁹ Represents sales to converters including some sales through manufacturing agents, selling agents, etc., not classified by type of customer.

²⁰ Includes sales to converters. Can not be shown separately because of disclosure of individual operations.

²¹ In addition to this amount, 7 plants reported sales of \$10,806,000 made through these agents with further distribution unknown.

²² In addition to this amount, 4 plants reported sales of \$2,118,000 made through these agents with further distribution unknown.

²³ Includes sales to wholesale branches, combined to avoid disclosure of individual operations and sales to converters amounting to \$219,000, or 2.3 per cent, reported by 3 plants.

²⁴ Includes sales to converters amounting to \$2,306,000, or 3.6 per cent, reported by 19 plants, 9 of which sold their entire output this way.

²⁵ Includes sales to converters amounting to \$1,568,000, or 5.3 per cent, reported by 8 plants, 7 of which sold their entire output this way.

²⁶ In addition to this amount, 23 plants reported sales of \$30,100,000 made through these agents with further distribution unknown.

²⁷ Consists largely of sales of uniform caps.

²⁸ In addition to this amount, 40 plants reported sales of \$19,248,000 made through these agents with further distribution unknown.

²⁹ In addition to this amount, 25 plants reported sales of \$17,564,000 made through these agents with further distribution unknown.

³⁰ In addition to this amount, 9 plants reported sales of \$1,444,000 made through these agents with further distribution unknown.

³¹ May include some sales to cutters-up who were regarded as wholesalers by some of the manufacturers reporting.

³² In addition to this amount, 45 plants reported sales of \$29,528,000 through these agents with further distribution unknown.

³³ In addition to this amount, 29 plants reported sales of \$21,396,000 through these agents with further distribution unknown.

³⁴ In addition to this amount, 12 plants reported sales of \$3,443,000 through these agents with further distribution unknown.

³⁵ In addition to this amount, 3 plants reported sales of \$3,559,000 through these agents with further distribution unknown.

³⁶ Sales to retail branches are combined with sales to wholesale branches. See p. 4, section 7.

³⁷ Includes \$8,800,000, or 78.4 per cent, of sales to manufacturers and \$214,000, or 1.9 per cent, to other large consumers, such as institutions, railroads, hospitals, etc.

³⁸ In addition to this amount, 44 plants reported sales of \$36,308,000 made through these agents with further distribution unknown.

³⁹ In addition to this amount, 11 plants reported sales of \$6,660,000 made through these agents with further distribution unknown.

SALES OF MANUFACTURING PLANTS: 1929

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UNITED STATES BY INDUSTRY, BY MAJOR CLASSES OF CUSTOMERS—Continued

of individual operations, but the figures are included under the proper totals
thousands of dollars]

Sales to merchandise distributing organizations—Continued										Sales to consumers					
Retail organizations					Wholesale and retail organizations					Total—E plus F		E—Industrial and other large consumers		F—Household consumers	
Total—C plus D		C—Retailers		D—Manufacturers' own retail branches		B plus D—Controlled selling organizations		A plus C—Uncontrolled selling organizations							
Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales	Value	Per cent of total sales
\$342	32.4	\$342	32.4			(x)	(x)	\$389	36.9	\$666	63.1	\$666	63.1		
82,251	32.0	77,738	30.2	\$4,513	1.8	\$7,152	2.8	166,849	64.8	83,640	32.4	46,457	18.0	\$37,183	14.4
1,472	6.2	1,472	6.2			1,047	4.4	2,979	12.5	19,837	83.1	19,691	82.5	146	.6
563	39.7	563	39.7					775	54.6	645	45.4	175	12.3	470	33.1
3,420	23.6	3,420	23.6				183	1.3	6,621	45.7	7,684	53.0	7,684	53.0	
10,410	55.5	10,410	55.5			1,965	10.5	16,774	89.5						
12,905	14.7	11,602	13.2	1,303	1.5	3,663	4.2	37,089	42.2	47,101	53.6	47,101	53.6		
72	5.7	72	5.7					470	37.3	790	62.7	790	62.7		
929	10.5	929	10.5			(x)	(x)	(x)	(x)	4,446	50.5	4,446	50.5		
512	4.5	512	4.5					10,601	92.8	825	7.2	825	7.2		
62,997	51.8	60,918	50.1	2,079	1.7	(x)	(x)	(x)	(x)	6,273	5.2	3,866	3.2	2,407	2.0
		(1)						1,550	5.5	26,607	94.5	26,607	94.5		
1,968	16.7	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	5,741	48.5	5,631	47.6	110	.9
5,637	40.1	4,521	32.2	1,116	7.9	1,116	7.9	10,154	72.3	2,772	19.8	675	4.1	2,197	15.7
1,274	11.9	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	9,368	87.2			9,368	87.2
31,977	75.6	23,095	54.6	8,882	21.0	11,232	26.6	27,490	65.0	3,533	8.4	(x)	(x)	(x)	(x)
4,378	10.9	4,378	10.9			(x)	(x)	(x)	(x)	9,213	22.8	8,881	22.0	332	.8
(x)	(x)	(x)	(x)			(x)	(x)	(x)	(x)	24,740	84.5	24,740	84.5		
25,341	74.1	25,341	74.1			(x)	(x)	(x)	(x)	800	2.3	800	2.3		
(x)	(x)	14,003	14.5	(x)	(x)	19,952	20.6	65,969	68.3	10,773	11.1	9,581	9.9	1,192	1.2
932	16.8	932	16.8					5,550	100.0						
20,034	19.4	20,034	19.4			11,527	11.1	76,006	73.5	15,973	15.4	15,973	15.4		
(x)	(x)	(x)	(x)			(x)	(x)	(x)	(x)	9,021	52.4	9,021	52.4		
12,483	21.0	12,483	21.0			7,865	32.2	7,601	31.1	8,980	36.7	8,980	36.7		
28,844	39.0	28,844	39.0			15,917	26.8	39,208	66.0	4,277	7.2	3,651	6.1	626	1.1
22,449	31.4	22,449	31.4					57,224	77.3	16,838	22.7	16,084	21.7	754	1.0
(x)	(x)	(x)	(x)			1,111	1.5	44,424	62.2	25,897	36.3	20,063	28.1	5,834	8.2
1,659	.9	1,659	.9			(x)	(x)	(x)	(x)	4,761	93.4	4,761	93.4		
(x)	(x)	37,086	38.5	(x)	(x)	26,336	14.7	150,378	83.8	2,619	1.5	2,586	1.5	33	.0
10,810	63.4	10,810	63.4			2,669	2.8	85,156	88.4	8,468	8.8	7,448	7.7	1,020	1.1
86	38.4	86	38.4							2,392	14.0	2,287	13.4	105	.6
11,846	34.8	11,846	34.8			6,327	18.6	16,242	47.7	11,469	33.7	7,092	15.0	6,377	18.7
17,067	8.9	17,176	8.7	491	.2	22,999	11.6	108,983	58.1	65,757	33.3	65,756	33.3	1	.0

⁴³ In addition to this amount, 2 plants reported sales made through these agents with further distribution unknown. The amount of their sales can not be shown without disclosing individual operations.

⁴⁴ Includes sales to morticians.

⁴⁵ Includes the value of interplant transfers and the balance represents sales of secondary products such as auto-dump bodies, lumber, etc.

⁴⁶ See special report on this industry, p. 57.

⁴⁷ Includes sales to producers' agents or factors.

⁴⁸ This amount may include some sales to merchants who purchased for their own use and not for resale.

⁴⁹ Represents sales to consumers, such as business houses, printers, governments, and to a small number of retail dealers.

⁵⁰ Similar papers, such as hanging, catalogue, poster, novel, news-tablet, lining papers, etc.

⁵¹ Represents \$5,506,000, or 22.3 per cent, of sales to manufacturers and \$366,000, or 1.5 per cent, of sales to railroads, public utilities, institutions, schools, etc.

⁵² Includes sales to beauty parlors and barber shops.

⁵³ Represents \$10,263,000, or 27.1 per cent, of sales to manufacturers, packers, and canners; \$916,000, or 2.4 per cent, of sales to railroads and public utility companies; and \$1,340,000, or 3.5 per cent, of sales to hotels, restaurants, institutions, etc.

⁵⁴ Represents \$16,063,000, or 22.2 per cent, of sales to manufacturers and \$3,228,000, or 4.5 per cent, of sales to other industrial and large consumers.

⁵⁵ Represents sales to manufacturers' own silos and warehouses.

⁵⁶ This classification includes garbage boxes, garden furniture, incinerators, laundry trays, septic tanks, and sanitary fittings.

⁵⁷ This classification includes cistern and manhole blocks, silo blocks, staves, and slabs.

⁵⁸ Represents \$20,207,000, or 62.9 per cent, of sales to manufacturers and \$1,300,000, or 4.0 per cent, of sales to railroads, public utility companies, contractors, institutions, and governments.

⁵⁹ Represents \$9,745,000, or 29.6 per cent, of sales to manufacturers and \$6,661,000, or 20.2 per cent, of sales to other consumers, such as contractors, institutions, churches, etc.

⁶⁰ About one-third of this amount represents sales to affiliated lime manufacturers who act as wholesalers of lime.

⁶¹ Less than one-tenth per cent.

⁶² Represents \$116,172,000, or 74.6 per cent, of sales to manufacturers and \$27,723,000, or 17.8 per cent, of sales to railroads, public utility companies, and contractors.

⁶³ Includes sales to contractors.

⁶⁴ Represents \$35,485,000, or 17.3 per cent, of sales to manufacturers; \$35,967,000, or 17.4 per cent, of sales to contractors and public utilities; and \$48,174,000, or 23.3 per cent, of sales to hotels, municipalities, home and building owners.

⁶⁵ Sales reported through manufacturers' agents, selling agents, brokers, and commission houses combined with sales to wholesalers to avoid disclosure of individual operations.

⁶⁶ This classification includes motor vehicle, radio, and other storage batteries, and parts and supplies for storage batteries.

⁶⁷ This classification includes switchboards and panel boards for light and power, outdoor switch boxes, theater switchboards, oil and air circuit breakers, indoor and outdoor disconnecting switches, and bus supports.

⁶⁸ This classification includes toasters, grills, waffle irons, percolators, flatirons, heating pads, curling irons, ironing machines; disk stoves, hot plates, and ranges (under 2½ kilowatts); air, water, and immersion heaters; and electric fireless cookers.

⁶⁹ This classification includes spark plugs, magneto-generators, coils, and distributors (timers).

⁷⁰ This classification includes single and multiple unit 6-inch batteries, radio "B" and "C" battery units, batteries for flashlight use, all other dry batteries, parts and supplies for dry batteries, and flashlight cases.

⁷¹ This classification includes automatic train controls and other railway signals and attachments; street traffic signals; fire-alarm apparatus; bells, buzzers, annunciators, burglar alarms, etc.; and clock mechanisms with electrical attachments.

⁷² This classification includes inclosed renewable and nonrenewable fuses, renewable and nonrenewable plug fuses, and open-fuse material.

⁷³ Consists of sales of carbide lighting systems and machines for producing gas for heating and cooking.

⁷⁴ This classification includes air pumps, centrifugal (all types) rotary, turbines, reciprocating type steam pumps, and other power pumps except gasoline filling-station pumps and pumps for domestic water systems.

⁷⁵ These consumers are manufacturers of laundry machines, buying parts; contractors, institutions, etc.

⁷⁶ Includes sales to dentists.

⁷⁷ Consists largely of sale of leaf tobacco.

⁷⁸ Includes sales to large consumers such as schools, churches, railroads, U. S. Government, etc., amounting to \$2,973,000, or 8.8 per cent, and sales to manufacturers (automobile, other shade manufacturers, etc.) amounting to \$2,119,000, or 6.2 per cent.

⁷⁹ All other industries: "Crucibles"; "Flax and hemp, dressed"; "Graphite, ground and refined"; "Hats, wool-felt"; "Hones, whetstones, and similar products"; "Horse blankets, fly nets, and related products"; "Mats and matting, grass and coir"; "Minerals and earths, ground or otherwise treated"; "Oilcloth"; "Photographic apparatus and materials"; "Tin and other foils, not including gold foil"; "Type founding"; "Wool pulling"; and "Wool scouring." The figures for these industries are combined in order to avoid disclosing distribution of sale data for individual establishments.

DISTRIBUTION

TABLE 3.—RECONCILIATION OF TOTAL VALUE OF PRODUCTS WITH TOTAL DISTRIBUTED SALES AND NUMBER OF PLANTS REPORTING SALES WITH NUMBER OF PLANTS IN INDUSTRY

[See "General Explanations," p. 1, sec. 3, and "Explanation of Terms," p. 3, sec. 1]

[Values expressed in thousands of dollars]

[The stub of this table can be used as an alphabetical index to Tables 1 and 2 by reference to industry group numbers shown for each industry classification]

Group number	INDUSTRY	Value of products	Receipts for contract and repair work (-)	Wholesale (sales of purchased goods) (+)	INVENTORY			Sales not distributed (-)	Total distributed sales	NUMBER OF PLANTS REPORTING				
					Net increases (-)	Net decreases (+)	Interplant transfers (-)			Total	Contract work only	Interplant transfers only	No distribution of sales	Distribution of sales
	All industries.....	\$70,434,863	\$3,542,014	\$534,110	\$173,730	\$143,709	\$2,385,793	\$5,656,529	\$59,354,616	210,959	31,317	669	31,648	147,325
13	Agricultural implements.....	277,854	1,958		15,430				260,466	293				293
14	Aircraft and parts.....	71,153	617		5,103		1,371	1,719	60,643	132		14	10	108
6	Alcohol, ethyl, and distilled liquors.....	54,285	(?)	(?)	(?)	(?)		54,285	(?)	30	(?)		30	(?)
12	Aluminum manufactures.....	153,457	709						152,748	150				150
6	Ammunition and related products.....	43,809							43,809	21				21
16	Artificial and preserved flowers and plants.....	14,425							14,425	191				191
2	Artificial leather.....	32,961			307				32,654	17				17
16	Artists' materials.....	9,460							9,460	68				68
10	Asbestos products, steam packing, pipe and boiler covering, and gaskets, not elsewhere classified. (See description of industry, p. 5.)	101,597	136						101,461	238				238
2	Asphalted-felt-base floor covering and linoleum. (See description of industry, p. 6.)	89,139				1,189			90,328	21				21
2	Awnings, tents, sails, and canvas covers.....	49,238	1,294	1,443					49,987	1,002	18			984
2	Bags, other than paper, not made in textile mills.....	170,176							170,176	202				202
4	Bags, paper, exclusive of those made in paper mills.....	64,621							64,621	95				95
6	Baking powders, yeast, and other leavening compounds.....	52,337							52,337	48				48
3	Baskets and rattan and willow ware, not including furniture.....	22,851							22,851	273				273
2	Belting other than leather and rubber, not made in textile mills.....	2,789							2,789	9				9
9	Belting, leather.....	35,632	1,127						34,505	207				207
1	Beverages.....	270,324							270,324	5,154				5,154
3	Billiard and pool tables, bowling alleys, and accessories.....	8,821	103						8,718	40				40
6	Blacking, stains, and dressings.....	24,682							24,682	170				170
6	Bluing.....	1,365							1,365	20				20
11	Bolts, nuts, washers, and rivets, not made in plants operated in connection with rolling mills.....	102,392				2,474			104,866	117				117
6	Bone black, carbon black, and lampblack.....	20,170							20,170	77				77
5	Bookbinding and blank-book making.....	102,783	10,437					5,632	86,664	1,108	192	224		692
9	Boot and shoe cut stock, not made in boot and shoe factories.....	133,448					19,603		113,845	210		4		206
9	Boot and shoe findings, not made in boot and shoe factories.....	58,625							58,625	382				382
9	Boots and shoes, other than rubber.....	965,923	1,592			211			964,542	1,341	22			1,319
8	Boots and shoes, rubber.....	102,538							102,538	22				22
3	Boxes, cigar, wooden.....	12,459	(?)	(?)	(?)	(?)	(?)	12,459	(?)	118	(?)	(?)	118	(?)
4	Boxes, paper, not elsewhere classified.....	294,253	158				14,759		279,336	1,249		22		1,227
3	Boxes, wooden, except cigar boxes.....	135,026	261				7,196		127,569	1,292		14		778
1	Bread and other bakery products: Biscuits and crackers.....	274,490		4,425					278,915	375				375
	Bakery products, other than biscuits and crackers.....	1,251,621						64,631	1,196,990	20,410		4,394		16,016
16	Brooms.....	19,166							19,166	407				407
16	Brushes, other than rubber.....	45,549	43						45,506	303				303
1	Butter.....	746,418		147,477				28,607	865,288	3,527		314		3,213
16	Buttons.....	28,978					1,345		27,633	242		36		206
6	Candles.....	6,686							6,686	20				20
1	Canning and preserving: Fish, crabs, shrimps, oysters, and clams.....	80,849		3,189	3,510			4,242	76,280	348		49		299
1	Canning and preserving: Fruits and vegetables: pickles, jellies, preserves, and sauces.....	750,342		5,564	11,296				744,610	2,997				2,997
15	Car and general construction and repairs, electric-railroad repair shops.....	85,482	(?)	(?)	(?)	(?)	(?)	85,482	(?)	446	(?)	(?)	446	(?)
15	Car and general construction and repairs, steam-railroad repair shops.....	1,184,435	(?)	(?)	(?)	(?)	(?)	1,184,435	(?)	1,851	(?)	(?)	1,851	(?)
16	Carbon paper and inked ribbons.....	17,295							17,295	57				57
4	Cardboard, not made in paper mills.....	5,629							5,629	13				13
4	Card cutting and designing.....	19,648	44						19,604	70				70
2	Carpets and rugs, rag.....	5,511							5,511	94				94
2	Carpets and rugs, wool, other than rag.....	176,915			2,675				174,240	67				67
14	Carriage, wagon, sleigh, and sled materials.....	2,792	20						2,772	45				45
14	Carriages and sleds, children's. (See Toys)	16,450	455						15,995	88				88
14	Carriages, wagons, sleighs, and sleds.....	328,220	(?)	(?)	(?)	(?)	(?)	328,220	(?)	147	(?)	(?)	147	(?)
13	Cash registers and adding, calculating, and card-tabulating machines.....	110,001	419						109,582	46				46
3	Caskets, coffins, burial cases, and other morticians' goods.....	88,282		6,585					94,867	414				414
11	Cast-iron pipe.....	80,261							80,261	72				72
10	Cement.....	267,509						11,905	255,604	174			8	166
1	Cereal preparations.....	175,223							175,223	121				121
1	Cheese.....	110,645		20,415				10,357	120,703	2,758		406		2,352
6	Chemicals, not elsewhere classified.....	738,048	6,609	16,323			13,158		715,176	551		10		541
1	Chewing gum.....	60,160							60,160	37				37
10	China firing and decorating, not done in potteries.....	1,554	146						1,246	27	2		9	16
1	Chocolate and cocoa products, not including confectionery.....	119,541							109,731	59		8		51
16	Cigars and cigarettes: Cigars.....	311,663					9,810		311,663	1,587				1,587
	Cigarettes.....	755,246							755,246	49				49
10	Clay products (other than pottery) and nonclay refractories.....	294,935				7,201			302,136	1,749				1,749
6	Cleaning and polishing preparations.....	50,780		209					50,989	429				429
12	Clocks, watches, and parts. (See description of industry, p. 9.)	90,958	1,122		1,171				88,665	121				121
2	Clothing (except work clothing), men's, youths', and boys', not elsewhere classified: Regular factories.....	836,199	2,336		621				833,242	2,167				2,167
	Contract shops. (See description of industry, p. 9.)	64,905	64,905							1,524	1,524			

See footnotes at end of table.

SALES OF MANUFACTURING PLANTS: 1929

TABLE 3.—RECONCILIATION OF TOTAL VALUE OF PRODUCTS WITH TOTAL DISTRIBUTED SALES AND NUMBER OF PLANTS REPORTING SALES WITH NUMBER OF PLANTS IN INDUSTRY—Continued

[See "General Explanations," p. 1, sec. 3, and "Explanation of Terms," p. 3, sec. 1]

[Values expressed in thousands of dollars]

[The stub of this table can be used as an alphabetical index to Tables 1 and 2 by reference to industry group numbers shown for each industry classification]

Group number	INDUSTRY	Value of products	Receipts for contract and repair work (-)	Wholesale (sales of purchased goods) (+)	INVENTORY		Interplant transfers (-)	Sales not distributed (-)	Total distributed sales	NUMBER OF PLANTS REPORTING				
					Net increases (-)	Net decreases (+)				Total	Contract work only	Interplant transfers only	No distribution of sales	Distribution of sales
2	Clothing, men's, buttonholes	\$574	(?)	(?)	(?)	(?)	(?)	\$574	(?)	32	(?)	(?)	32	(?)
2	Clothing, women's, not elsewhere classified:													
	Regular factories	1,605,220	\$1,515			\$798			\$1,602,907	5,176				5,176
	Contract shops. (See description of industry, p. 9)	104,360	104,360							2,906	2,906			
2	Clothing, work (including sheep-lined and blanket-lined work coats but not including shirts), men's	138,450	1,817			\$3,864			140,497	511	38			473
2	Cloth sponging and refinishing	3,361	(?)	(?)	(?)	(?)	(?)	\$3,361	(?)	46	(?)	(?)	46	(?)
1	Coffee and spice, roasting and grinding	424,845	\$815	\$17,551					441,081	928	3			925
7	Coke, not including gas-house coke	416,848				3,750		\$214,901	197,697	153		5		148
12	Collapsible tubes	8,913							8,913	17				17
2	Collars, men's. (See Shirts.)													
16	Combs and hairpins, not made from metal or rubber	2,482							2,482	24				24
6	Compressed and liquefied gases	52,190							51,774	354		8		346
10	Concrete products	92,901	172				416		92,729	2,438				2,438
1	Condensed and evaporated milk	209,110		83,925					293,035	535				535
1	Confectionery	393,270		6,262					399,532	2,021				2,021
3	Copperage	64,842	174				6,745	5,557	52,366	586		35	126	425
12	Copper, tin, and sheet-iron work, including galvanized-iron work, not elsewhere classified	222,485	16,104						206,381	2,161	201			1,960
2	Cordage and twine	91,455				449			91,006	123				123
3	Cork products	23,023							23,023	35				35
1	Corn sirup, corn sugar, corn oil, and starch	165,984							165,984	35				35
2	Corsets and allied garments	70,802	123						70,679	213	4			209
2	Cotton goods	1,524,177	2,251		1,075		109,289	277,225	1,134,337	1,281	2	32	179	1,068
2	Cotton small wares	65,170			98				65,072	202				202
11	Cutlery (not including silver and plated cutlery) and edge tools	78,661	219	476					78,918	239				239
16	Dairymen's supplies; creamery, cheese-factory, and butter-factory equipment; and poultrymen's and apiarists' supplies	42,247							42,247	172				172
16	Dental goods and equipment	35,180							35,180	87				87
11	Doors, shutters, and window sash and frames, metal	72,160	2,918						69,242	148				148
6	Druggists' preparations	124,778							124,778	429				429
6	Drug grinding	9,669							9,669	26				26
2	Dyeing and finishing textiles	465,821	243,780					30,100	191,932	732	484		11	277
13	Electrical machinery, apparatus, and supplies	2,300,916	13,283	17,668	24,347		50,593		2,230,361	1,802	20	8		1,774
12	Electroplating	23,728	(?)	(?)	(?)	(?)	(?)	\$23,728	534	(?)	(?)		\$534	(?)
2	Embroideries	25,287	15,130						9,799	813	581		26	206
10	Emery wheels and other abrasive and polishing appliances	32,154							32,154	67				67
13	Engines, turbines, tractors, and water wheels	457,218	\$7,382						449,836	199	0			190
5	Engravers' materials	3,129							3,129	19				19
5	Engraving (other than steel, copperplate, or wood), chasing, etching, and diesinking	10,934	(?)	(?)	(?)	(?)	(?)	\$10,934	(?)	189	(?)	(?)	\$189	(?)
5	Engraving, steel and copperplate, and plate printing	47,162	(?)	(?)	(?)	(?)	(?)	\$47,162	(?)	456	(?)	(?)	\$456	(?)
5	Engraving, wood	6,739	(?)	(?)	(?)	(?)	(?)	\$6,739	(?)	27	(?)	(?)	\$27	(?)
4	Envelopes	61,287	525						60,762	171	6			165
3	Excelsior	5,009							5,009	66				66
6	Explosives	72,540	\$2,319						70,221	95	26			69
16	Fancy and miscellaneous articles, not elsewhere classified	85,389	734						84,655	814	10			804
16	Feathers, plumes, and manufactures thereof	1,141						86	1,055	39			8	31
1	Feeds, prepared, for animals and fowls	402,753		20,857					423,610	750				750
2	Felt goods, wool, hair, or jute	45,466				281			45,747	54				54
6	Fertilizers	232,511		1,799		6,387			240,697	638				638
11	Files	14,114							14,114	33				33
11	Firearms	21,970	635						21,335	21				21
12	Fire extinguishers, chemical	8,566							8,566	28				28
6	Fireworks	6,583							6,583	50				50
2	Flags and banners	3,836							3,836	54				54
1	Flavoring extracts and flavoring sirups	129,086		1,116					130,202	642				642
1	Flour and other grain-mill products	1,060,269		50,708				107,365	1,003,612	4,022			1,527	2,495
1	Food preparations, not elsewhere classified	171,861		5,782					177,643	862				862
11	Forgings, iron and steel, not made in plants operated in connection with rolling mills	156,249	663						155,586	218	4			214
13	Foundry and machine-shop products, not elsewhere classified	2,791,462	180,834				56,691	77,066	2,476,871	8,605	1,391	34	766	6,414
16	Foundry supplies	10,459							10,459	59				59
7	Fuel: Briquettes and boulets	9,498							9,498	23				23
16	Fur goods	277,593	22,452	2,500					257,641	2,855	151			2,704
2	Furnishing goods, men's, not elsewhere classified	150,964	4,123			1,622			148,463	598	101			497
3	Furniture, including store and office fixtures	948,116	1,809						921,176	3,778			488	3,290
16	Furs, dressed	40,237	16,374						23,863	248	122			126
11	Galvanizing and other coating, not done in plants operated in connection with rolling mills	7,667	(?)	(?)	(?)	(?)	(?)	\$7,667	(?)	65	(?)	(?)	\$65	(?)
12	Gas and electric fixtures; lamps, lanterns, and reflectors	144,966							144,966	614				614
13	Gas machines, gas meters, and water and other liquid meters	40,623	523						40,100	72				72
7	Gas, manufactured, illuminating and heating	512,653	(?)	(?)	(?)	(?)	(?)	\$512,653	(?)	764	(?)	(?)	\$754	(?)
10	Glass	303,819					16,573		287,246	263		8		255
10	Glass products (except mirrors) made from purchased glass	33,273	310						32,963	431	8			423
2	Gloves and mittens, cloth or leather combined, made from purchased fabrics	29,883	137			\$1,061			30,807	125				125
9	Gloves and mittens, leather	39,123	174	2,191		1,024			42,164	257	3			254
6	Glue and gelatin	32,458							33,882	74				74
12	Gold leaf and foil	3,978							3,978	75				75

See footnotes at end of table.

DISTRIBUTION

TABLE 3.—RECONCILIATION OF TOTAL VALUE OF PRODUCTS WITH TOTAL DISTRIBUTED SALES AND NUMBER OF PLANTS REPORTING SALES WITH NUMBER OF PLANTS IN INDUSTRY—Continued

[See "General Explanations", p. 1, sec. 3, and "Explanation of Terms", p. 3, sec. 1]

[Values expressed in thousands of dollars]

[The stub of this table can be used as an alphabetical index to Tables 1 and 2 by reference to industry group numbers shown for each industry classification]

Group number	INDUSTRY	Value of products	Receipts for contract and repair work (-)	Wholesaling (sales of purchased goods) (+)	INVENTORY		Interplant transfers (-)	Sales not distributed (-)	Total distributed sales	NUMBER OF PLANTS REPORTING				
					Net increases (-)	Net decreases (+)				Total	Contract work only	Interplant transfers only	No distribution of sales	Distribution of sales
12	Gold, silver, and platinum, reducing and refining, not from the ore.....	\$67,959	\$343						\$67,616	69	4			65
6	Grease and tallow, not including lubricating greases.....	61,608					\$1,793	59,815	297		4			293
2	Haircloth.....	3,855						3,855	13					13
16	Hair work.....	1,694	140					1,420	59	3		13		43
2	Handkerchiefs.....	29,554	1,421		\$22			28,111	105	27				78
16	Hand stamps and stencils and brands.....	15,036	548					14,488	332	4				328
11	Hardware, not elsewhere classified.....	229,477						229,477	485					485
2	Hat and cap materials, men's.....	25,031	818					24,021	112	9		18		85
2	Hats and caps, except felt and straw, men's.....	35,901	1,154					33,534	576	36		99		441
2	Hats, fur-felt.....	102,004	42					101,962	159					159
16	Hats, straw, men's.....	18,739						18,739	50					50
2	House-furnishing goods, not elsewhere classified.....	127,602	3,695					123,907	964	43				921
1	Ice cream.....	328,414		\$44,613				373,027	3,150					3,150
1	Ice, manufactured.....	210,952	(?)	(?)	(?)	(?)		210,952	4,110	(?)	(?)	24,110		(?)
6	Ink, printing.....	42,750						42,750	147					147
6	Ink, writing.....	4,595						4,595	29					29
16	Instruments, professional and scientific.....	89,746	1,893					87,853	276					276
11	Iron and steel: Blast furnaces.....	771,425					573,171	198,254	105		10			95
11	Iron and steel, processed.....	3,865	(?)	(?)	(?)	(?)		3,865	46	(?)	(?)	246	(?)	(?)
11	Iron and steel: Steel works and rolling mills.....	3,365,789	3,111		\$15,124		386,876	2,990,926	486		6			480
16	Ivory, shell, and bone work, not including buttons, combs, or hairpins.....	1,260						1,260	21					21
12	Jewelry.....	177,387	9,062					168,325	1,536	191				1,345
16	Jewelry and instrument cases.....	8,827	10					8,817	113					113
2	Jute goods.....	21,870				305		22,175	20					20
2	Knit goods.....	899,717	8,346	12,918		11,261	4,934	891,368	1,888	122	16	37		1,713
4	Labels and tags.....	28,042	269				292	27,481	153	7	4			142
2	Lace goods.....	29,237	179	1,183				30,241	42					42
16	Lapidary work.....	11,942	516					11,426	100	26				74
3	Lasts and related products.....	7,690	84					7,606	58					58
9	Leather goods, not elsewhere classified.....	35,951	864					35,087	392	21				371
9	Leather: Tanned, curried, and finished.....	481,340	17,457			10,208	74,548	399,543	471	83	4			384
10	Lime.....	35,816						35,816	237					237
2	Linen goods.....	9,737				92		9,829	16					16
2	Linoleum. (See Asphalted-felt-base floor covering.)													
6	Liquors, vinous.....	2,448						2,448	24					24
5	Lithographing.....	121,014	(?)	(?)	(?)	(?)	(?)	121,014	376	(?)	(?)	2376	(?)	(?)
14	Locomotives, not made in railroad repair shops.....	83,858	(?)	(?)	(?)	(?)	(?)	83,858	16	(?)	(?)	16	(?)	(?)
7	Lubricating oils and greases, not made in petroleum refineries.....	69,584		2,697				72,281	177					177
3	Lumber and timber products, not elsewhere classified.....	1,273,472	5,052		12,133		63,440	223,014	969,833	12,915	118	107	8,313	4,377
1	Macaroni, spaghetti, vermicelli, and noodles.....	47,074						47,074	353					353
13	Machine-tool accessories and small metal-working tools, not elsewhere classified.....	144,411	2,305		1,119			140,987	722	5				717
13	Machine tools.....	244,578	5,414	584		525		240,273	280					280
1	Malt.....	23,603						23,603	28					28
10	Marble, granite, slate, and other stone products.....	192,164	495					181,698	1,881	7		247		1,627
3	Matches.....	20,351						20,351	21					21
16	Mattresses and bed springs, not elsewhere classified.....	123,280	1,653					121,627	951					951
1	Meat packing, wholesale.....	3,434,654	1,785	12,700		9,411		3,454,980	1,277	3				1,274
2	Millinery.....	195,693	1,007					194,686	1,293	34				1,259
3	Mirror and picture frames.....	19,238	71					19,167	178					178
10	Mirrors, framed and unframed.....	31,843	673	720				31,890	304					304
16	Models and patterns, not including paper patterns.....	30,621	148					28,157	804	2		137		665
16	Motion pictures, not including projection in theaters.....	184,102	(?)	(?)	(?)	(?)	(?)	184,102	(?)	(?)	(?)	2142	(?)	(?)
14	Motor-vehicle bodies and motor-vehicle parts.....	1,537,930	13,063				209,945	1,314,922	1,154		9			1,145
14	Motor vehicles, not including motorcycles.....	3,722,793	10,998					3,711,795	244					244
14	Motorcycles, bicycles, and parts.....	23,895	284					23,611	21					21
6	Mucilage, paste, and other adhesives, except glue and rubber cement.....	6,638						6,638	84					84
16	Musical instrument parts and materials: Piano and organ.....	11,883	59					11,824	67					67
16	Musical instruments and parts and materials, not elsewhere classified.....	14,274	232					14,042	106					106
16	Musical instruments: Organs.....	11,323	594					10,739	62					62
16	Musical instruments: Pianos.....	42,501	246					42,255	81					81
11	Nails, spikes, etc., not made in wire mills or in plants operated in connection with rolling mills.....	12,855						12,855	55					55
12	Needles, pins, hooks and eyes, and snap fasteners.....	22,031						22,031	43					43
2	Nets and seines.....	6,164						6,164	19					19
12	Nonferrous-metal alloys and products, not including aluminum products.....	909,804	2,315		30,682			824,429	1,225	18	3			1,204
6	Oil, cake, and meal, cottonseed.....	298,376	1,616					267,822	553					553
6	Oil, cake, and meal, linseed.....	119,927						119,927	29					29
6	Oils, essential.....	6,653						6,653	22					22
6	Oils, not elsewhere classified.....	45,160						45,160	75					75
1	Oleomargarine, not made in meat-packing establishments.....	46,522						46,522	41					41
16	Optical goods.....	40,562	261					40,301	117					117
6	Paints and varnishes.....	568,976					5,324	563,652	1,063					1,063
4	Paper.....	967,186					104,605	862,581	685		27			658
4	Paper goods, not elsewhere classified.....	182,648	208					182,440	436					436
6	Patent or proprietary medicines and compounds.....	318,907						318,907	1,522					1,522
16	Paving materials: Asphalt, tar, crushed slag, and mixtures.....	29,275						29,275	126					126

See footnotes at end of table.

SALES OF MANUFACTURING PLANTS: 1929

TABLE 3.—RECONCILIATION OF TOTAL VALUE OF PRODUCTS WITH TOTAL DISTRIBUTED SALES AND NUMBER OF PLANTS REPORTING SALES WITH NUMBER OF PLANTS IN INDUSTRY—Continued

[See "General Explanations," p. 1, sec. 3, and "Explanation of Terms," p. 3, sec. 1]

[Values expressed in thousands of dollars]

[The stub of this table can be used as an alphabetical index to Tables 1 and 2 by reference to industry group numbers shown for each industry classification]

Group number	INDUSTRY	Value of products	Receipts for contract and repair work (-)	Wholesale (sales of purchased goods) (+)	INVENTORY		Interplant transfers (-)	Sales not distributed (-)	Total distributed sales	NUMBER OF PLANTS REPORTING				
					Net increases (-)	Net decreases (+)				Total	Contract work only	Interplant transfers only	No distribution of sales	Distribution of sales
1	Peanuts, walnuts, and other nuts, processed or shelled	\$49,609							\$49,609	169				169
16	Pencils, lead (including mechanical)	27,773	(?)	(?)	(?)	(?)	(?)	\$27,773	(?)	38	(?)	(?)	38	(?)
16	Pens, fountain and stylographic; pen points, gold, steel, and brass	34,211							34,211	76				76
6	Perfumes, cosmetics, and other toilet preparations	193,441							193,441	815				815
7	Petroleum refining	2,639,665							2,639,665	390				390
16	Phonographs	96,849	\$155						96,694	59				59
5	Photo-engraving, not done in printing establishments	77,382	(?)	(?)	(?)	(?)	(?)	\$77,382	(?)	654	(?)	(?)	654	(?)
16	Pipes (tobacco)	5,558	8						5,550	24				24
3	Planing-mill products (including general mill-work), not made in planing mills connected with sawmills	553,583	10 3,529	11 \$22,416		\$37,857	\$2,426	47,420	560,481	4,849	16	2	1,065	3,746
12	Plated ware	55,430							55,430	96				96
11	Plumbers' supplies, not including pipe or vitreous-china sanitary ware	129,674							129,674	255				255
9	Pocketbooks, purses, and cardcases	68,628	634						67,994	290	9			281
10	Pottery, including porcelain ware	110,622		5,519		264			116,405	313				313
1	Poultry killing, dressing, and packing, wholesale	130,161		11,869					142,030	485				485
5	Printing and publishing:													
	Linotype and job	840,338	12 840,338						155,020	12,115	12,115			
	Book	166,319	12 11,299						597					597
5	Printing and publishing, music	15,240	12 731						14,509	124				124
5	Printing and publishing:													
	Newspaper	1,149,898	12 1,149,898						206,426	8,599	3,599			
	Periodical	588,401	13 363,751	6,775				14 24,999	2,925	84	235		627	2,063
5	Printing materials, not including type or ink	8,579							8,579	84				84
3	Pulp goods	27,220							27,220	45				45
4	Pulp (wood and other fiber)	238,928							52,136	198		115		83
13	Pumps (hand and power) and pumping equipment	164,009	8 8,046						155,963	322	2			320
6	Rayon and allied products	149,546							149,546	29				29
3	Refrigerators and refrigerator cabinets, exclusive of mechanical refrigerating equipment	60,483	322						60,161	188				188
13	Refrigerators, mechanical	161,566	30						161,536	34				34
2	Regalia, badges, and emblems	7,927							7,927	77				77
1	Rice cleaning and polishing	48,794							48,794	60				60
16	Roofing, built-up and roll; asphalt shingles; roof coatings, other than paint	103,506							103,506	102				102
8	Rubber goods, other than tires, inner tubes, and boots and shoes	244,746					13,525		231,221	412		4		408
8	Rubber tires and inner tubes	770,177							770,177	91				91
9	Saddlery and harness	23,339	299					1,365	21,675	260			56	204
11	Safes and vaults	19,382	373						18,989	27				27
6	Salt	37,869							37,869	58				58
10	Sand-lime brick	2,971				175			3,146	40				40
16	Sandpaper, emery paper, and other abrasive paper and cloth	17,219							17,219	11				11
1	Sausage meat pudding, headcheese, etc., and sausage casings, not made in meat-packing establishments	108,246				9,395			117,641	681				681
11	Saws	22,615	644						21,971	81	2			79
13	Scales and balances	30,381	1,053						29,328	59				59
11	Screw-machine products and wood screws	105,975							105,975	273				273
13	Sewing machines and attachments	45,095	117						44,978	39				39
14	Ship and boat building, steel and wooden, including repair work	231,300	6 114,728		13 \$22,034		8,824		85,714	624	16 227	9		388
2	Shirts and collars, men's. (See description of industry p. 21)	237,062	17,831			4,215			223,446	878	283			595
1	Shortenings (not including lard) and vegetable cooking oils	154,553			1,711				152,842	40				40
16	Signs and advertising novelties	118,044	(?)	(?)	(?)	(?)	(?)	\$118,044	(?)	1,239	(?)	(?)	1,239	(?)
2	Silk and rayon manufactures	731,200	57,274			16,507	4,407	\$29,528	656,498	1,491	570	8	45	862
12	Silversmithing and silverware	30,452							30,452	83				83
12	Smelting and refining, copper	994,784	(?)	(?)	(?)	(?)	(?)	\$994,784	(?)	26	(?)	(?)	26	(?)
12	Smelting and refining, lead	232,115	(?)	(?)	(?)	(?)	(?)	\$232,115	(?)	19	(?)	(?)	19	(?)
12	Smelting and refining, metals other than gold, silver, or platinum, not from the ore	105,883	(?)	(?)	(?)	(?)	(?)	\$105,883	(?)	106	(?)	(?)	106	(?)
12	Smelting and refining, zinc	118,901	(?)	(?)	(?)	(?)	(?)	\$118,901	(?)	30	(?)	(?)	30	(?)
6	Soap	310,192							310,192	282				282
16	Soda-water apparatus	24,510	64						24,446	54				54
16	Sporting and athletic goods, not including firearms or ammunition	58,289	131	1,244					59,402	242				242
11	Springs, steel, except wire, not made in plants operated in connection with rolling mills	46,672							46,356	86				86
12	Stamped ware, enameled ware, and metal stamping, enameling, japanning, and lacquering	204,306							192,631	582	91			491
16	Stationery goods, not elsewhere classified	74,062	11,675						74,062	203				203
10	Statuary and art goods, factory product	10,045	486						9,559	171	6			165
16	Steam and other packing, pipe and boiler covering, and gaskets, not elsewhere classified. (See Asbestos products)													
11	Steam fittings and steam and hot-water heating apparatus	228,310	201						228,109	240				240
11	Steel barrels, kegs, and drums	37,825	547						37,278	53				53
5	Stereotyping and electrotyping, not done in printing establishments	35,617	(?)	(?)	(?)	(?)	(?)	\$35,617	(?)	230	(?)	(?)	230	(?)
11	Stoves and ranges (other than electric) and warm-air furnaces	271,747	807						270,940	609				609
11	Structural and ornamental iron and steel work, not made in plants operated in connection with rolling mills	477,037	7,538						469,499	1,482	2			1,480

See footnotes at end of table.

TABLE 3.—RECONCILIATION OF TOTAL VALUE OF PRODUCTS WITH TOTAL DISTRIBUTED SALES AND NUMBER OF PLANTS REPORTING SALES WITH NUMBER OF PLANTS IN INDUSTRY—Continued

[See "General Explanations," p. 1, sec. 3, and "Explanation of Terms," p. 3, sec. 1]

[Values expressed in thousands of dollars]

[The stub of this table can be used as an alphabetical index to Tables 1 and 2 by reference to industry group numbers shown for each industry classification]

Group number	INDUSTRY	Value of products	Receipts for contract and repair work (-)	Wholesaling (sales of purchased goods) (+)	INVENTORY			Total distributed sales	NUMBER OF PLANTS REPORTING					
					Net increases (-)	Net decreases (+)	Interplant transfers (-)		Sales not distributed (-)	Total	Contract work only	Interplant transfers only	No distribution of sales	Distribution of sales
1	Sugar, beet.....	\$108,553				\$9,917		\$98,636	82					82
1	Sugar, cane, not including products of refineries.....	18,326				958		17,368	70					70
1	Sugar refining, cane.....	507,389						507,389	21					21
16	Surgical and orthopedic appliances, including artificial limbs.....	71,607	\$175					71,432	363	2				361
2	Suspenders, garters, and other elastic-woven goods, made from purchased webbing.....	30,473	214					30,259	91	3				88
6	Tanning materials, natural dyestuffs, mordants and assistants, and sizes.....	39,836		\$1,032			\$938	39,930	126		4			122
13	Textile machinery and parts.....	122,439	6,978					115,461	376	33				343
13	Theatrical scenery and stage equipment.....	5,508	413					5,095	55	3				52
11	Tin cans and other tinware, not elsewhere classified.....	296,901						256,130	232		26			206
16	Tobacco: Chewing and smoking, and snuff.....	179,333						179,333	152					152
16	Tools, not including edge tools, machine tools, files, or saws.....	99,462	489	1,260				100,233	534	2				532
16	Toys, games, playground equipment, and children's carriages and sleds. (See description of industry, p. 23.).....	103,647	236					96,293	555			59		496
2	Trimmings (not made in textile mills) and stamped art goods for embroidering.....	45,180	12,469					32,711	639	364				275
9	Trunks, suitcases, and bags.....	63,969	360					63,609	467	5				462
3	Turpentine and rosin.....	36,282	17 77			401		26,179	1,183			436		747
13	Typewriters and parts.....	61,858						61,858	26					26
16	Umbrellas, parasols, and canes.....	17,994	203					17,049	141			18		123
2	Upholstering materials, not elsewhere classified.....	11,234						11,234	53					53
1	Vinegar and cider.....	10,450				\$564		11,014	172					172
4	Wall paper.....	30,008						30,008	56					56
10	Wall plaster, wall board, insulating board, and floor composition.....	70,663						70,663	236					236
13	Washing machines, wringers, driers, and ironing machines, for household use.....	82,330	1,294					81,036	65					65
2	Waste.....	36,014						36,014	136					136
12	Watch and clock materials and parts, except watch cases. (See Clocks, watches and parts.).....													
12	Watchcases. (See Clocks, watches, and parts.).....													
12	Watches and watch movements. (See Clocks, watches, and parts.).....													
16	Whips.....	224						224	8					8
13	Windmills and windmill towers.....	8,640	140					8,500	15					15
3	Window and door screens and weather strips.....	24,452	157					24,295	280					280
16	Window shades and fixtures.....	36,965	413					34,038	482			121		361
11	Wire, drawn from purchased bars or rods.....	213,997	18 596			1,018	35,445	178,974	81	2		3		76
16	Wirework, not elsewhere classified.....	146,805		1,714		598		147,921	647					547
6	Wood distillation and charcoal manufacture.....	29,594						29,594	91					91
3	Wood preserving.....	190,945						77,206	199	36	37			126
3	Wood turned and shaped and other wooden goods, not elsewhere classified.....	69,620	1,125				1,435	67,060	894	26	17			851
2	Woolen and worsted goods. (See description of industry, p. 24.).....	827,006	14,741			7,196		747,687	724	56	16	44		605
2	Wool shoddy.....	15,345	1,174					14,171	50	12				38
2	Worsted goods. (See Woolen and worsted goods.).....													
11	Wrought pipe, welded and heavy riveted, not made in plants operated in connection with rolling mills.....	124,659						124,659	50					50
	All other industries ²²	208,205	5,900	115		50	41	197,730	346	19		23		304

¹ 14 plants reported that their total value of products, amounting to \$576,000, represented experimental work. In addition to this amount, \$2,495,000 worth of experimental work was reported by other plants in the industry.

² No distribution of sales data were tabulated. See p. 3 of text.
³ Includes \$2,363,000 worth of sales reported by 16 plants made through manufacturers' agents, selling agents, brokers, and commission houses, with no further distribution of sales reported. This amount is not included in the sales of this industry shown in Tables 1 or 2.

⁴ Includes value of products made and consumed in plants reporting.
⁵ Represents amounts received for roasting or grinding coffee, spices, or peanuts owned by others.

⁶ Includes amounts received for rebuilding.
⁷ Represents amounts received for contract work in shooting wells.
⁸ Includes a certain amount of wholesaling. Combined to avoid disclosure of operations of individual establishments.

⁹ Represents sales reported through manufacturers' agents, selling agents, brokers, or commission houses with no further distribution of sales reported. This amount is not included in the sales shown for this industry on Tables 1 or 2.

¹⁰ Represents amounts received for custom planing of materials owned by others.
¹¹ Includes receipts for construction work reported by some manufacturers.
¹² Represents amounts received for commercial printing.

¹³ Represents \$318,676,000 received for advertising and \$45,075,000 received for commercial printing.

¹⁴ Includes Government organization publications valued at \$304,000.

¹⁵ Includes the value of work reported done on boats under construction, \$21,485,000

¹⁶ Includes 223 plants engaged exclusively in repairing or rebuilding boats; and 4 reporting only work on vessels not completed during year.

¹⁷ Represents amounts received for distilling for others.

¹⁸ Represents amounts received for drawing wire on contract or custom basis from rods or bars furnished by others.

¹⁹ Represents the value of forest products treated for others, plus the value of the treatment.

²⁰ Includes \$33,829,000 worth of products treated for the companies' own use. (Railroads, etc.)

²¹ Includes 4 plants treating wood for the companies' own use. (Railroads, etc.)

²² "Crucibles"; "Flax and hemp, dressed"; "Graphite, ground and refined";

"Hats, wool-felt"; "Hones, whetstones, and similar products"; "Horse blankets, fly nets, and related products"; "Mats and matting, grass and coir"; "Minerals and earths, ground or otherwise treated"; "Oilcloth"; "Photographic apparatus and materials"; "Tin and other foils, not including gold foil"; "Type founding";

"Wool pulling"; and "Wool scouring". The figures for these industries are combined in order to avoid disclosing distribution of sales data for individual establishments.

LUMBER AND TIMBER PRODUCTS INDUSTRY

[Not elsewhere classified]

This table shows the sales channels used by logging camps producing logs, bolts, and rough timber products, such as hewn crossties, poles, posts, mine timbers, wheel and handle stock, excelsior stock, etc.; sawmills producing rough lumber, laths, shingles, staves, heading, hoops, veneer stock, veneers, and other products from logs and bolts; and planing mills operated in conjunction with sawmills. Data for independent planing mills are not included in this table, but are included in statistics for the classification "Planing-mill products."

The sales of logging camps are included in the following table under the heading "Value of other products" and the sales to manufacturers under this heading represent largely the sales of logs by these logging camps. Under the heading "Lumber" on the following table are included the sales by sawmills and affiliated planing mills of rough and dressed lumber, showing the quantity sold in thousands of board feet. The sale of products of sawmills, other than rough lumber and the sale of products of affiliated planing mills other than dressed lumber, are included under the heading "Value of other products."

It should also be noted that the total quantity of lumber shown sold for export in the following table for the United States is less than the quantity reported exported in the 1929 report on "Foreign Commerce and Navigation of the United States," issued by the Bureau of Foreign and Domestic Commerce. This difference is accounted for by the fact that the items included opposite this classification in the following table represent direct export sales by mills and do not include export sales made by wholesalers.

The items shown for "interplant transfers" do not include data pertaining to lumber used as material in planing mills operated in conjunction with sawmills; nor do they cover logs and other lumber products used as materials for further manufacture in the same establishment. Interplant transfers shown in the accompanying table represent transfer of goods to affiliated plants in other lines of manufacturing.

There are 12,915 plants engaged primarily in the production of logs, lumber, and other timber products, each with an annual output valued at more than \$5,000. Of these, 8,313 plants each with an annual output of less than \$20,000 did not report the distribution of their sales; and data for 118 plants engaged exclusively in contract logging, sawing or planing are not included in the accompanying table, which show the distribution of sales of the other 4,484 plants in the industry. (This table does not include any data for sawmills reporting products valued at less than \$5,000. Production figures only for these small mills are given in Census of Manufactures reports.)

The total of the sales as shown below is \$17,186,000 less than the value of products reported by the 4,484 plants whose sales are included in this table. This difference represents amounts received for contract logging and custom or contract sawing and planing of material owned by others; and net increases or decreases in inventory.

The following table presents statistics for the United States and each State for which figures can be given without disclosing operations of individual establishments.

TABLE 4.—DISTRIBUTION OF SALES, 1929, OF THE PLANTS ENGAGED PRIMARILY IN THE PRODUCTION OF LOGS, LUMBER, AND OTHER TIMBER PRODUCTS

UNITED STATES

	LUMBER				Value of other products	Value of lumber and other products (f. o. b. factory)	Per cent of sales	NUMBER OF PLANTS	
	Quantity (M. ft. b. m.)	Per cent of quantity	Value	Per cent of value				Total	Selling exclusively as indicated
Total sales.....						\$1,256,287,000		12,915	
Sales not distributed.....						223,014,000		8,313	
Sales distributed by manufacturers reporting.....	26,617,151	100.0	\$740,865,000	100.0	\$292,408,000	1,033,273,000	100.0	4,484	
Sales to manufacturers.....	3,674,124	13.8	128,786,000	17.4	135,310,000	264,096,000	25.6	1,963	701
Interplant transfers.....	1,162,920	4.4	30,817,000	4.2	32,623,000	63,440,000	6.1	462	107
Sales to railroads, public-utility companies, and contractors.....	1,241,447	4.7	32,872,000	4.4	10,643,000	43,515,000	4.2	1,136	154
Sales through branch wholesale establishments.....	1,246,287	4.7	29,837,000	4.0	4,734,000	34,571,000	3.4	196	49
Sales through brokers and commission houses.....	3,729,967	14.0	94,904,000	12.8	24,309,000	119,213,000	11.5	803	252
Sales through wholesalers and jobbers.....	8,034,956	30.2	212,783,000	28.7	44,690,000	257,473,000	24.9	1,526	415
Sales for export.....	2,254,156	8.4	61,876,000	8.3	7,845,000	69,721,000	6.8	509	13
Sales to retailers, including retail yards owned by the manufacturer.....	3,971,719	14.9	115,423,000	15.6	10,988,000	126,411,000	12.2	658	83
Local sales.....	1,250,909	4.7	32,307,000	4.4	17,642,000	49,949,000	4.8	1,727	327
Sales to other industrial consumers.....	50,666	.2	1,260,000	.2	3,624,000	4,884,000	.5	104	27

See footnotes at end of table.

DISTRIBUTION

TABLE 4.—DISTRIBUTION OF SALES, 1929, OF THE PLANTS ENGAGED PRIMARILY IN THE PRODUCTION OF LOGS, LUMBER, AND OTHER TIMBER PRODUCTS—Continued

	LUMBER				Value of other products	Value of lumber and other products (f. o. b. factory)	Per cent of sales	NUMBER OF PLANTS	
	Quantity (M. ft. b. m.)	Per cent of quantity	Value	Per cent of value				Total	Selling exclusively as indicated
Total sales.....						¹ \$51,063,000		² 1,142	
Sales not distributed.....						16,700,000		914	
Sales distributed by manufacturers reporting.....	1,202,009	100.0	\$30,485,000	100.0	\$3,878,000	34,383,000	100.0	³ 224	
Sales to manufacturers.....	166,187	13.8	4,156,000	13.7	2,119,000	6,275,000	18.3	86	52
Interplant transfers.....	23,003	1.9	468,000	1.5	106,000	574,000	1.7	10	4
Sales to railroads, public-utility companies and contractors.....	18,726	1.6	469,000	1.5	334,000	803,000	2.3	29	
Sales through branch wholesale establishments.....	40,741	3.4	889,000	2.9	153,000	1,042,000	3.0	14	5
Sales through brokers and commission houses.....	131,820	11.0	3,164,000	10.4	811,000	3,975,000	11.6	34	15
Sales through wholesalers and jobbers.....	587,952	48.9	14,332,000	47.0	260,000	14,592,000	42.5	94	47
Sales for export.....	105,680	8.8	3,632,000	11.9	18,000	3,650,000	10.6	32	2
Sales to retailers, including retail yards owned by the manufacturer.....	101,319	8.4	2,776,000	9.1	28,000	2,804,000	8.1	21	4
Local sales.....	26,581	2.2	599,000	2.0	49,000	648,000	1.9	55	10

ARKANSAS									
Total sales.....						¹ \$56,977,000		² 625	
Sales not distributed.....						8,041,000		397	
Sales distributed by manufacturers reporting.....	1,087,518	100.0	\$36,905,000	100.0	\$12,031,000	48,936,000	100.0	³ 224	
Sales to manufacturers.....	251,537	23.1	10,752,000	29.1	5,944,000	16,696,000	34.1	110	53
Interplant transfers.....	78,168	7.2	2,091,000	5.7	1,067,000	3,158,000	6.5	21	6
Sales to railroads, public-utility companies and contractors.....	15,062	1.4	331,000	.9	101,000	432,000	.9	29	3
Sales through branch wholesale establishments.....	7,338	.7	249,000	.7	211,000	460,000	.9	10	
Sales through brokers and commission houses.....	174,183	16.0	5,492,000	14.9	1,549,000	7,041,000	14.4	41	17
Sales through wholesalers and jobbers.....	341,100	31.4	10,705,000	29.0	1,316,000	12,021,000	24.6	69	19
Sales for export.....	10,933	1.0	486,000	1.3	878,000	1,364,000	2.8	20	
Sales to retailers, including retail yards owned by the manufacturer.....	170,024	15.6	5,676,000	15.4	400,000	6,076,000	12.4	28	5
Local sales and sales to other industrial consumers.....	39,173	3.6	1,123,000	3.0	565,000	1,688,000	3.4	76	10

CALIFORNIA									
Total sales.....						¹ \$61,090,000		² 148	
Sales not distributed.....						2,243,000		16	
Sales distributed by manufacturers reporting.....	1,617,265	100.0	\$49,693,000	100.0	\$9,154,000	58,847,000	100.0	³ 132	
Sales to manufacturers.....	314,852	19.5	8,563,000	17.2	924,000	9,487,000	16.1	57	17
Interplant transfers.....	68,315	4.2	1,346,000	2.7	1,007,000	2,353,000	4.0	28	6
Sales to railroads, public-utility companies, and contractors.....	5,533	.4	154,000	.3	317,000	471,000	.8	23	5
Sales through wholesalers and jobbers and through branch wholesale establishments.....	433,878	26.8	14,279,000	28.7	938,000	15,217,000	25.9	25	2
Sales through brokers and commission houses.....	271,709	16.8	8,829,000	17.8	2,478,000	11,307,000	19.2	26	6
Sales for export.....	70,665	4.4	3,054,000	6.1	160,000	3,220,000	5.5	20	
Sales to retailers, including retail yards owned by the manufacturer.....	377,490	23.3	11,405,000	23.0	1,941,000	13,346,000	22.7	31	5
Local sales.....	74,823	4.6	2,063,000	4.2	1,383,000	3,446,000	5.8	76	23

COLORADO									
Total sales.....						¹ \$2,265,000		² 61	
Sales not distributed.....						607,000		34	
Sales distributed by manufacturers reporting.....	46,417	100.0	\$1,039,000	100.0	\$619,000	1,658,000	100.0	³ 27	
Sales to railroads, public-utility companies, contractors, and interplant transfers.....	19,653	42.3	348,000	33.5	581,000	929,000	56.0	17	7
Sales through brokers and commission houses, and sales to retailers, including retail yards owned by the manufacturer.....	23,069	49.7	597,000	57.5		597,000	36.0	11	2
Local sales.....	3,695	8.0	94,000	9.0	38,000	132,000	8.0	16	3

CONNECTICUT									
Total sales.....						¹ \$815,000		² 42	
Sales not distributed.....						291,000		22	
Sales distributed by manufacturers reporting.....	14,852	100.0	\$489,000	100.0	\$35,000	524,000	100.0	³ 20	
Sales to manufacturers and interplant transfers.....	5,675	38.2	187,000	38.3		187,000	35.7	9	
Sales to railroads, public-utility companies, and contractors.....	7,440	50.1	231,000	47.2	29,000	260,000	49.6	17	7
Sales through wholesalers and jobbers and branch wholesale establishments and sales to retailers, including retail yards owned by the manufacturer.....	507	3.4	19,000	3.9		19,000	3.6	4	
Local sales.....	1,230	8.3	52,000	10.6	6,000	58,000	11.1	8	

See footnotes at end of table.

SALES OF MANUFACTURING PLANTS: 1929

TABLE 4.—DISTRIBUTION OF SALES, 1929, OF THE PLANTS ENGAGED PRIMARILY IN THE PRODUCTION OF LOGS, LUMBER, AND OTHER TIMBER PRODUCTS—Continued

FLORIDA

	LUMBER				Value of other products	Value of lumber and other products (f. o. b. factory)	Per cent of sales	NUMBER OF PLANTS	
	Quantity (M. ft. b. m.)	Per cent of quantity	Value	Per cent of value				Total	Selling exclusively as indicated
Total sales.....									
Sales not distributed.....						¹ \$35,841,000		² 302	
Sales distributed by manufacturers reporting.....	842,781	100.0	\$25,919,000	100.0	\$3,064,000	28,983,000	100.0	² 117	
Sales to manufacturers.....	80,731	9.6	2,732,000	10.5	286,000	3,018,000	10.4	35	12
Interplant transfers.....	10,035	1.2	507,000	2.0	31,000	538,000	1.9	10	5
Sales to railroads, public-utility companies, and contractors.....	24,741	2.9	695,000	2.7	36,000	731,000	2.5	22	2
Sales through brokers and commission houses.....	138,497	16.4	3,799,000	14.6	1,028,000	4,827,000	16.7	29	6
Sales through wholesalers and jobbers.....	373,894	44.4	10,903,000	42.1	117,000	11,020,000	38.0	63	17
Sales for export.....	91,880	10.9	3,026,000	11.7		3,026,000	10.4	26	2
Sales to retailers, including retail yards owned by the manufacturer.....	95,934	11.4	3,371,000	13.0	57,000	3,428,000	11.8	27	
Local sales.....	21,271	2.5	579,000	2.2	1,153,000	1,732,000	6.0	36	7
Sales to other industrial consumers.....	5,798	0.7	307,000	1.2	356,000	663,000	2.3	5	2

GEORGIA

Total sales.....						¹ \$32,337,000		² 1,158	
Sales not distributed.....						10,042,000		855	
Sales distributed by manufacturers reporting.....	788,042	100.0	\$19,897,000	100.0	\$2,398,000	22,295,000	100.0	² 292	
Sales to manufacturers.....	114,812	14.6	3,137,000	15.8	714,000	3,851,000	17.3	77	46
Interplant transfers.....	34,037	4.3	1,161,000	5.8	78,000	1,239,000	5.5	12	5
Sales to railroads, public-utility companies, and contractors.....	15,199	1.9	410,000	2.1	67,000	477,000	2.2	32	4
Sales through branch wholesale establishments.....	12,541	1.6	287,000	1.4	99,000	386,000	1.7	7	5
Sales through brokers and commission houses.....	85,103	12.1	2,576,000	12.9	49,000	2,625,000	11.8	67	48
Sales through wholesalers and jobbers.....	437,129	55.5	9,921,000	49.9	662,000	10,583,000	47.5	122	79
Sales for export.....	31,029	3.9	1,230,000	6.2		1,230,000	5.5	12	2
Sales to retailers, including retail yards owned by the manufacturer.....	17,121	2.2	408,000	2.0		408,000	1.8	20	6
Local sales and sales to other industrial consumers.....	31,071	3.9	767,000	3.9	729,000	1,496,000	6.7	58	19

IDAHO

Total sales.....						¹ \$33,336,000		² 101	
Sales not distributed.....						1,654,000		15	
Sales distributed by manufacturers reporting.....	957,246	100.0	\$25,950,000	100.0	\$5,732,000	31,682,000	100.0	² 85	
Sales to manufacturers.....	119,031	12.4	3,145,000	12.1	928,000	4,073,000	12.9	37	8
Interplant transfers.....	70,588	7.4	1,154,000	4.5	1,047,000	2,201,000	6.9	15	3
Sales to railroads, public-utility companies, and contractors.....	34,726	3.6	631,000	2.4	1,706,000	2,337,000	7.4	28	4
Sales through brokers and commission houses.....	143,068	15.0	3,746,000	14.5	131,000	3,877,000	12.2	14	4
Sales through wholesalers and jobbers and through branch wholesale establishments.....	303,683	31.7	9,638,000	37.1	820,000	10,458,000	33.0	27	3
Sales to retailers, including retail yards owned by the manufacturer.....	245,013	25.6	6,820,000	26.3	386,000	7,206,000	22.8	17	2
Local sales.....	35,959	3.8	729,000	2.8	446,000	1,175,000	3.7	35	7
Sales to other industrial consumers.....	5,178	.5	87,000	.3	268,000	355,000	1.1	9	2

INDIANA

Total sales.....						¹ \$16,693,000		² 207	
Sales not distributed.....						2,062,000		96	
Sales distributed by manufacturers reporting.....	119,461	100.0	\$6,023,000	100.0	\$8,608,000	14,631,000	100.0	² 107	
Sales to manufacturers.....	49,605	41.5	2,782,000	46.2	7,418,000	10,200,000	69.7	73	24
Interplant transfers.....	3,135	2.6	165,000	2.7	27,000	192,000	1.3	8	2
Sales to railroads, public-utility companies, and contractors.....	8,161	6.8	316,000	5.2	473,000	789,000	5.4	22	
Sales through branch wholesale establishments.....	1,076	.9	57,000	.9	5,000	62,000	.4	6	
Sales through brokers and commission houses.....	20,679	17.3	708,000	11.8	501,000	1,209,000	8.3	15	2
Sales through wholesalers and jobbers.....	23,594	19.8	1,253,000	20.8	116,000	1,369,000	9.4	42	
Sales for export.....	667	.6	80,000	1.5	27,000	116,000	.8	5	
Sales to retailers, including retail yards owned by the manufacturer.....	1,307	1.1	70,000	1.2	21,000	91,000	.6	10	
Local sales.....	11,237	9.4	583,000	9.7	20,000	603,000	4.1	52	2

KENTUCKY

Total sales.....						¹ \$15,945,000		² 341	
Sales not distributed.....						3,605,000		269	
Sales distributed by manufacturers reporting.....	149,923	100.0	\$6,356,000	100.0	\$5,984,000	12,340,000	100.0	² 70	
Sales to manufacturers.....	66,373	44.3	3,267,000	51.4	4,921,000	8,188,000	66.4	41	18
Interplant transfers.....	17,561	11.7	532,000	8.4	753,000	1,285,000	10.4	12	7
Sales to railroads, public-utility companies, and contractors.....	6,937	4.6	237,000	3.7	141,000	378,000	3.1	19	3
Sales through brokers and commission houses.....	4,848	3.2	195,000	3.1	13,000	208,000	1.7	9	
Sales through wholesalers and jobbers.....	28,157	18.8	1,184,000	18.6	117,000	1,301,000	10.5	22	7
Sales for export.....	8,786	5.9	431,000	6.8	18,000	449,000	3.6	8	
Sales to retailers, including retail yards owned by the manufacturer.....	2,687	1.8	109,000	1.7		109,000	.9	5	
Local sales.....	14,574	9.7	401,000	6.3	21,000	422,000	3.4	18	4

See footnotes at end of table.

DISTRIBUTION

TABLE 4.—DISTRIBUTION OF SALES, 1929, OF THE PLANTS ENGAGED PRIMARILY IN THE PRODUCTION OF LOGS, LUMBER, AND OTHER TIMBER PRODUCTS—Continued

	LUMBER				Value of other products	Value of lumber and other products (f. o. b. factory)	Per cent of sales	NUMBER OF PLANTS	
	Quantity (M. ft. b. m.)	Per cent of quantity	Value	Per cent of value				Total	Selling exclusively as indicated
Total sales.....									
Sales not distributed.....						¹ \$77,100,000		² 274	
Sales distributed by manufacturers reporting.....	1,761,693	100.0	\$57,534,000	100.0	\$5,916,000	63,450,000	100.0	³ 148	
Sales to manufacturers.....	259,614	14.7	10,354,000	18.0	2,331,000	12,685,000	20.0	66	12
Interplant transfers.....	64,288	3.7	2,225,000	3.9	83,000	2,308,000	3.6	29	3
Sales to railroads, public-utility companies, and contractors.....	177,882	10.1	5,650,000	9.8	144,000	5,794,000	9.1	32	
Sales through branch wholesale establishments.....	27,692	1.6	963,000	1.7	137,000	1,100,000	1.7	8	
Sales through brokers and commission houses.....	132,970	7.5	3,692,000	6.4	991,000	4,683,000	7.4	36	10
Sales through wholesalers and jobbers.....	418,200	23.7	11,926,000	20.7	1,138,000	13,064,000	20.6	75	16
Sales for export.....	131,667	7.5	5,924,000	10.3	296,000	6,220,000	9.8	49	
Sales to retailers, including retail yards owned by the manufacturer.....	494,541	28.1	15,300,000	26.6	471,000	15,771,000	24.9	39	2
Local sales.....	54,839	3.1	1,500,000	2.6	325,000	1,825,000	2.9	76	3
MAINE									
Total sales.....						¹ \$10,782,000		² 235	
Sales not distributed.....						1,825,000		117	
Sales distributed by manufacturers reporting.....	157,891	100.0	\$4,940,000	100.0	\$4,017,000	8,957,000	100.0	³ 113	
Sales to manufacturers.....	31,886	20.2	846,000	17.1	1,658,000	2,504,000	27.9	63	16
Interplant transfers.....	32,586	20.6	1,110,000	22.5	1,165,000	2,275,000	25.4	13	6
Sales to railroads, public-utility companies, and contractors.....	7,023	4.5	253,000	5.1	148,000	401,000	4.5	22	2
Sales through brokers and commission houses.....	38,409	24.3	1,147,000	23.2	534,000	1,681,000	18.8	18	
Sales through wholesalers and jobbers.....	27,327	17.3	813,000	16.5	224,000	1,037,000	11.6	24	2
Sales to retailers, including retail yards owned by the manufacturer.....	4,185	2.7	167,000	3.4	75,000	242,000	2.7	14	
Local sales.....	16,475	10.4	604,000	12.2	213,000	817,000	9.1	64	16
MARYLAND									
Total sales.....						¹ \$2,872,000		² 98	
Sales not distributed.....						906,000		65	
Sales distributed by manufacturers reporting.....	19,884	100.0	\$585,000	100.0	\$1,381,000	1,966,000	100.0	³ 33	
Sales to manufacturers.....	6,349	31.9	153,000	26.2	868,000	1,021,000	51.9	14	5
Sales to railroads, public-utility companies, and contractors.....	2,076	10.5	83,000	14.2	27,000	110,000	5.6	9	4
Sales through brokers, commission houses, wholesalers and jobbers.....	5,215	26.2	151,000	25.8	143,000	294,000	15.0	7	4
Sales to retailers, including retail yards owned by the manufacturer.....	4,500	22.6	150,000	25.6	233,000	383,000	19.5	3	3
Sales to other industrial consumers and local sales.....	1,744	8.8	48,000	8.2	110,000	158,000	8.0	10	6
MASSACHUSETTS									
Total sales.....						¹ \$3,781,000		² 82	
Sales not distributed.....						138,000		10	
Sales distributed by manufacturers reporting.....	51,564	100.0	\$2,010,000	100.0	\$1,633,000	3,643,000	100.0	³ 66	
Sales to manufacturers.....	27,788	53.9	1,095,000	54.5	1,117,000	2,212,000	60.7	47	7
Interplant transfers.....	7,545	14.6	219,000	10.9	237,000	456,000	12.5	9	3
Sales to railroads, public-utility companies, and contractors.....	5,246	10.2	159,000	7.9	53,000	212,000	5.8	24	
Sales through branch wholesale establishments.....	2,155	4.2	59,000	2.9		59,000	1.6	3	
Sales to retailers, including retail yards owned by the manufacturer, and sales through wholesalers and jobbers.....	3,042	5.9	112,000	5.6	72,000	184,000	5.1	13	2
Local sales.....	5,788	11.2	366,000	18.2	154,000	520,000	14.3	34	5
MICHIGAN									
Total sales.....						¹ \$30,560,000		² 110	
Sales not distributed.....						1,921,000		30	
Sales distributed by manufacturers reporting.....	433,147	100.0	\$17,169,000	100.0	\$20,479,000	37,648,000	100.0	³ 77	
Interplant transfers and sales to manufacturers.....	208,985	48.3	8,852,000	51.6	15,021,000	23,873,000	63.4	54	13
Sales to railroads, public-utility companies, and contractors.....	27,312	6.3	677,000	4.0	694,000	1,371,000	3.6	37	2
Sales to branch wholesale establishments.....	15,803	3.6	690,000	4.0	93,000	783,000	2.1	4	
Sales through brokers and commission houses.....	24,923	5.8	848,000	4.9	1,163,000	2,011,000	5.3	12	
Sales through wholesalers and jobbers.....	93,725	21.6	3,560,000	20.7	588,000	4,148,000	11.0	24	
Sales for export.....	4,871	1.1	174,000	1.0	297,000	471,000	1.3	7	
Sales to retailers, including retail yards owned by the manufacturer.....	49,269	11.4	2,105,000	12.3	1,507,000	3,612,000	9.6	13	
Local sales and sales to other industrial consumers.....	8,259	1.9	263,000	1.5	1,116,000	1,379,000	3.7	40	8

See footnotes at end of table.

SALES OF MANUFACTURING PLANTS: 1929

TABLE 4.—DISTRIBUTION OF SALES, 1929, OF THE PLANTS ENGAGED PRIMARILY IN THE PRODUCTION OF LOGS, LUMBER, AND OTHER TIMBER PRODUCTS—Continued

MINNESOTA

	LUMBER				Value of other products	Value of lumber and other products (f. o. b. factory)	Per cent of sales	NUMBER OF PLANTS	
	Quantity (M. ft. b. m.)	Per cent of quantity	Value	Per cent of value				Total	Selling exclusively as indicated
Total sales.....								86	
Sales not distributed.....								47	
Sales distributed by manufacturers reporting.....	258,430	100.0	\$8,175,000	100.0	\$5,993,000	14,168,000	100.0	37	
Interplant transfers and sales to manufacturers ⁴	80,351	31.1	2,430,000	29.7	3,615,000	6,045,000	42.7	19	5
Sales to railroads, public-utility companies, and contractors.....	1,371	.5	58,000	.7	654,000	712,000	5.0	14	
Sales to retailers, including manufacturers' own branches, and sales through brokers and commission houses.....	147,145	57.0	4,542,000	55.6	1,030,000	5,572,000	39.3	12	4
Sales through wholesalers and jobbers.....	19,392	7.5	744,000	9.1	258,000	1,002,000	7.1	14	4
Local sales and sales to industrial consumers.....	10,171	3.9	401,000	4.9	436,000	837,000	5.9	14	3

MISSISSIPPI

Total sales.....								916	
Sales not distributed.....								702	
Sales distributed by manufacturers reporting.....	1,661,386	100.0	\$48,735,000	100.0	\$7,401,000	56,136,000	100.0	214	
Sales to manufacturers.....	317,806	19.1	10,466,000	21.5	2,674,000	13,140,000	23.4	91	40
Interplant transfers.....	29,618	1.8	500,000	1.0	1,038,000	1,538,000	2.7	20	11
Sales to railroads, public-utility companies, and contractors.....	74,413	4.5	2,707,000	5.5	318,000	3,025,000	5.4	43	4
Sales through branch wholesale establishments.....	57,990	3.5	1,193,000	2.4	371,000	1,564,000	2.8	25	14
Sales through brokers and commission houses.....	138,727	8.3	3,498,000	7.2	193,000	3,691,000	6.6	31	5
Sales through wholesalers and jobbers.....	449,088	27.0	12,365,000	25.4	2,022,000	14,387,000	25.6	97	31
Sales for export.....	235,228	14.2	8,142,000	16.7	25,000	8,167,000	14.6	41	
Sales to retailers, including retail yards owned by the manufacturer.....	312,106	18.8	8,608,000	17.7	667,000	9,275,000	16.5	23	3
Local sales.....	46,410	2.8	1,256,000	2.6	93,000	1,349,000	2.4	67	7

MISSOURI

Total sales.....								230	
Sales not distributed.....								176	
Sales distributed by manufacturers reporting.....	110,976	100.0	\$4,758,000	100.0	\$2,271,000	7,029,000	100.0	54	
Sales to manufacturers.....	71,943	64.8	3,491,000	73.4	509,000	4,000,000	56.9	30	9
Sales to railroads, public-utility companies, and contractors.....	6,822	6.2	174,000	3.6	1,273,000	1,447,000	20.6	19	2
Sales through wholesalers and jobbers, also branch wholesale houses ⁴	24,916	22.5	722,000	15.2	399,000	1,121,000	15.9	16	8
Sales for export, including sales through brokers and commission houses ⁴	1,036	.9	165,000	3.5	87,000	252,000	3.6	6	2
Sales to retailers, including retail yards owned by the manufacturer.....	4,250	3.8	154,000	3.2		154,000	2.2	5	3
Local sales.....	2,009	1.8	52,000	1.1	3,000	55,000	.8	8	2

MONTANA

Total sales.....								86	
Sales not distributed.....								18	
Sales distributed by manufacturers reporting.....	359,724	100.0	\$8,326,000	100.0	\$2,008,000	10,334,000	100.0	65	
Sales to manufacturers and interplant transfers.....	76,948	21.4	1,580,000	19.0	684,000	2,264,000	21.9	23	3
Sales to railroads, public-utility companies, and contractors.....	47,992	13.4	749,000	9.0	170,000	919,000	8.9	33	16
Sales through brokers and commission houses.....	23,384	6.5	546,000	6.5	233,000	779,000	7.5	9	
Sales to retailers, including retail yards owned by the manufacturer, and sales through wholesalers and jobbers and branch wholesale establishments ⁴	195,477	54.3	5,143,000	61.8	297,000	5,440,000	52.7	20	5
Sales to other industrial consumers and local sales.....	15,923	4.4	308,000	3.7	624,000	932,000	9.0	27	12

NEW HAMPSHIRE

Total sales.....								165	
Sales not distributed.....								75	
Sales distributed by manufacturers reporting.....	84,849	100.0	\$2,671,000	100.0	\$4,135,000	6,806,000	100.0	77	
Sales to manufacturers.....	51,870	61.1	1,537,000	57.5	3,151,000	4,688,000	68.9	58	25
Interplant transfers.....	15,732	18.6	440,000	16.5	391,000	831,000	12.2	12	4
Sales through brokers and commission houses.....	4,182	4.9	119,000	4.5	406,000	525,000	7.7	12	
Sales to retailers, including retail yards owned by the manufacturer and sales through wholesalers and jobbers ⁴	8,507	10.0	359,000	13.4	73,000	432,000	6.3	14	
Local sales.....	4,558	5.4	216,000	8.1	114,000	330,000	4.9	26	9

See footnotes at end of table.

DISTRIBUTION

TABLE 4.—DISTRIBUTION OF SALES, 1929, OF THE PLANTS ENGAGED PRIMARILY IN THE PRODUCTION OF LOGS, LUMBER, AND OTHER TIMBER PRODUCTS—Continued

	LUMBER				Value of other products	Value of lumber and other products (f. o. b. factory)	Per cent of sales	NUMBER OF PLANTS	
	Quantity (M. ft. b. m.)	Per cent of quantity	Value	Per cent of value				Total	Selling exclusively as indicated
NEW YORK									
Total sales.....						\$10,277,000		174	
Sales not distributed.....						1,082,000		70	
Sales distributed by manufacturers reporting.....	98,810	100.0	\$6,026,000	100.0	\$3,169,000	9,195,000	100.0	101	
Sales to manufacturers.....	20,312	25.6	1,821,000	30.2	978,000	2,799,000	30.4	51	5
Interplant transfers.....	7,609	7.7	378,000	6.3	848,000	1,226,000	13.3	10	6
Sales to railroads, public-utility companies, and contractors.....	11,342	11.5	505,000	8.4	40,000	545,000	5.9	40	2
Sales through brokers and commission houses.....	16,036	16.2	597,000	9.9	15,000	612,000	6.7	9	3
Sales through wholesalers and jobbers.....	21,863	22.1	1,214,000	20.1	870,000	2,084,000	22.7	30	6
Sales for export.....	3,534	3.6	506,000	8.4	43,000	549,000	6.0	4	
Sales to retailers, including retail yards owned by the manufacturer.....	6,430	6.5	343,000	5.7	136,000	479,000	5.2	10	
Local sales.....	6,684	6.8	662,000	11.0	239,000	901,000	9.8	41	15
NORTH CAROLINA									
Total sales.....						\$39,520,000		1,150	
Sales not distributed.....						14,016,000		947	
Sales distributed by manufacturers reporting.....	492,799	100.0	\$13,664,000	100.0	\$11,840,000	25,504,000	100.0	200	
Sales to manufacturers.....	117,944	23.9	3,159,000	23.1	9,822,000	12,981,000	50.9	107	64
Interplant transfers.....	20,642	4.2	447,000	3.3	779,000	1,226,000	4.8	23	8
Sales to railroads, public-utility companies, and contractors.....	8,337	1.7	262,000	1.9	19,000	281,000	1.1	23	
Sales through branch wholesale establishments.....	10,956	2.2	562,000	4.1	152,000	714,000	2.8	6	4
Sales through brokers and commission houses.....	25,267	5.1	775,000	5.7	487,000	1,262,000	4.9	15	3
Sales through wholesalers and jobbers.....	189,207	38.4	5,088,000	37.2	156,000	5,244,000	20.6	64	20
Sales for export.....	28,233	5.7	677,000	5.0	10,000	687,000	2.7	15	
Sales to retailers, including retail yards owned by the manufacturer.....	44,739	9.1	1,327,000	9.7	82,000	1,409,000	5.5	18	4
Local sales and sales to industrial consumers.....	47,474	9.7	1,367,000	10.0	333,000	1,700,000	6.7	69	20
OHIO									
Total sales.....						\$9,008,000		258	
Sales not distributed.....						2,645,000		156	
Sales distributed by manufacturers reporting.....	71,891	100.0	\$4,273,000	100.0	\$2,190,000	6,463,000	100.0	97	
Sales to manufacturers.....	33,256	46.3	2,260,000	52.9	1,789,000	4,049,000	62.6	61	18
Interplant transfers.....	3,905	5.4	108,000	2.5		108,000	1.7	7	2
Sales to railroads, public-utility companies, and contractors.....	11,823	16.4	342,000	8.0	45,000	387,000	6.0	45	7
Sales through branch wholesale establishments.....	1,585	2.2	108,000	2.5		108,000	1.7	7	
Sales through brokers and commission houses.....	2,263	3.2	93,000	2.2	7,000	100,000	1.5	9	
Sales through wholesalers and jobbers.....	4,848	6.7	509,000	11.9	117,000	626,000	9.7	21	
Sales for export and sales to retailers, including retail yards owned by the manufacturer.....	3,084	4.3	472,000	11.1	43,000	515,000	8.0	15	
Local sales.....	11,127	15.5	381,000	8.9	189,000	570,000	8.8	43	9
OREGON									
Total sales.....						\$133,353,000		608	
Sales not distributed.....						24,119,000		271	
Sales distributed by manufacturers reporting.....	3,680,959	100.0	\$79,417,000	100.0	\$29,817,000	109,234,000	100.0	335	
Sales to manufacturers.....	220,393	6.0	5,380,000	6.8	13,848,000	19,228,000	17.6	95	34
Interplant transfers.....	169,121	4.6	3,496,000	4.3	5,337,000	8,833,000	8.1	37	4
Sales to railroads, public-utility companies, and contractors.....	214,342	5.8	3,916,000	4.9	133,000	4,049,000	3.7	107	13
Sales through branch wholesale establishments.....	436,076	11.8	8,813,000	11.1	1,428,000	10,241,000	9.4	17	
Sales through brokers and commission houses.....	770,089	20.9	14,980,000	18.9	2,523,000	17,503,000	16.0	120	35
Sales through wholesalers and jobbers.....	972,080	26.4	23,564,000	29.7	2,642,000	26,206,000	24.0	117	30
Sales for export.....	435,022	11.8	9,104,000	11.5	1,053,000	10,157,000	9.3	49	
Sales to retailers, including retail yards owned by the manufacturer.....	252,089	6.9	5,737,000	7.2	969,000	6,706,000	6.1	43	3
Local sales.....	196,118	5.4	4,201,000	5.3	1,805,000	6,006,000	5.5	152	24
Sales to other industrial consumers.....	14,729	.4	256,000	.3	79,000	335,000	.3	14	
PENNSYLVANIA									
Total sales.....						\$10,475,000		324	
Sales not distributed.....						5,418,000		185	
Sales distributed by manufacturers reporting.....	117,504	100.0	\$3,672,000	100.0	\$1,385,000	5,057,000	100.0	137	
Sales to manufacturers.....	25,545	21.7	1,003,000	27.3	354,000	1,357,000	26.8	54	16
Interplant transfers.....	5,208	4.5	149,000	4.0		149,000	2.9	8	
Sales to railroads, public-utility companies, and contractors.....	26,789	22.8	768,000	20.9	434,000	1,202,000	23.8	76	18
Sales through branch wholesale establishments.....	1,014	.9	29,000	.8		29,000	.6	5	
Sales through brokers and commission houses.....	1,302	1.1	32,000	.9	31,000	63,000	1.2	10	
Sales through wholesalers and jobbers.....	35,358	30.1	1,056,000	28.7	90,000	1,146,000	22.7	37	6
Sales to retailers, including retail yards owned by the manufacturer and sales for export.....	6,727	5.7	219,000	6.0	133,000	352,000	7.0	10	
Local sales.....	11,321	9.6	322,000	8.8	46,000	368,000	7.3	52	10
Sales to other industrial consumers.....	4,240	3.6	94,000	2.6	297,000	391,000	7.7	14	8

See footnotes at end of table.

SALES OF MANUFACTURING PLANTS: 1929

TABLE 4.—DISTRIBUTION OF SALES, 1929, OF THE PLANTS ENGAGED PRIMARILY IN THE PRODUCTION OF LOGS, LUMBER, AND OTHER TIMBER PRODUCTS—Continued

SOUTH CAROLINA

	LUMBER				Value of other products	Value of lumber and other products (f. o. b. factory)	Per cent of sales	NUMBER OF PLANTS	
	Quantity (M. ft. b. m.)	Per cent of quantity	Value	Per cent of value				Total	Selling exclusively as indicated
Total sales.....						\$28,430,000		627	
Sales not distributed.....						5,191,000		478	
Sales distributed by manufacturers reporting.....	614,138	100.0	\$18,366,000	100.0	\$3,873,000	22,239,000	100.0	142	
Sales to manufacturers.....	94,989	15.5	2,769,000	15.1	2,418,000	5,187,000	23.3	55	28
Interplant transfers.....	4,516	0.7	66,000	0.4	838,000	904,000	4.1	8	
Sales to railroads, public-utility companies, and contractors.....	8,976	1.5	289,000	1.6		289,000	1.3	9	
Sales through branch wholesale establishments.....	23,479	3.8	644,000	3.5		644,000	2.9	8	3
Sales through brokers and commission houses.....	125,571	20.4	3,610,000	19.6	342,000	3,952,000	17.8	20	10
Sales through wholesalers and jobbers.....	248,534	40.5	7,849,000	42.7	57,000	7,906,000	35.5	59	26
Sales for export.....	9,460	1.5	413,000	2.2	17,000	430,000	1.9	12	
Sales to retailers, including retail yards owned by the manufacturer.....	68,056	10.8	1,904,000	10.4	69,000	1,973,000	8.9	16	4
Local sales.....	32,557	5.3	822,000	4.5	132,000	954,000	4.3	45	13

TENNESSEE

Total sales.....						\$36,811,000		614	
Sales not distributed.....						5,988,000		480	
Sales distributed by manufacturers reporting.....	533,070	100.0	\$22,964,000	100.0	\$7,859,000	30,823,000	100.0	131	
Sales to manufacturers.....	207,086	38.8	8,734,000	38.0	4,590,000	13,324,000	43.2	76	22
Interplant transfers.....	86,957	16.3	3,422,000	14.9	813,000	4,235,000	13.7	13	2
Sales to railroads, public-utility companies, and contractors.....	7,312	1.4	218,000	1.0	151,000	369,000	1.2	30	
Sales through branch wholesale establishments.....	24,833	4.7	717,000	3.1	163,000	880,000	2.9	6	2
Sales through brokers and commission houses.....	13,593	2.6	828,000	3.6	672,000	1,500,000	4.9	21	4
Sales through wholesalers and jobbers.....	120,630	22.6	6,178,000	26.9	902,000	7,080,000	23.0	54	14
Sales for export.....	15,506	2.9	770,000	3.4	108,000	878,000	2.8	18	
Sales to retailers, including retail yards owned by the manufacturer.....	29,029	5.4	984,000	4.3	106,000	1,090,000	3.5	20	2
Local sales.....	28,124	5.3	1,113,000	4.8	364,000	1,467,000	4.8	52	8

TEXAS

Total sales.....						\$43,314,000		325	
Sales not distributed.....						12,244,000		210	
Sales distributed by manufacturers reporting.....	976,934	100.0	\$30,173,000	100.0	\$897,000	31,070,000	100.0	115	
Sales to manufacturers.....	101,175	10.4	3,983,000	13.2	465,000	4,448,000	14.3	36	7
Interplant transfers.....	13,537	1.4	382,000	1.3	84,000	416,000	1.3	16	
Sales to railroads, public-utility companies, and contractors.....	57,097	5.8	2,141,000	7.1	10,000	2,151,000	6.9	39	2
Sales through branch wholesale establishments.....	131,914	13.5	3,356,000	11.1	117,000	3,473,000	11.2	19	5
Sales through wholesalers and jobbers.....	188,880	19.3	5,276,000	17.5	69,000	5,345,000	17.2	54	9
Sales for export.....	4,833	.5	186,000	.6	25,000	211,000	.7	15	
Sales to retailers, including retail yards owned by the manufacturer.....	422,751	43.3	13,268,000	44.0	99,000	13,367,000	43.0	49	5
Local sales.....	56,742	5.8	1,681,000	5.2	78,000	1,659,000	5.4	72	8

VERMONT

Total sales.....						\$7,228,000		174	
Sales not distributed.....						1,584,000		82	
Sales distributed by manufacturers reporting.....	48,588	100.0	\$2,196,000	100.0	\$3,448,000	5,644,000	100.0	92	
Sales to manufacturers.....	22,708	46.7	1,181,000	53.8	2,414,000	3,595,000	63.7	52	13
Interplant transfers.....	4,888	10.1	182,000	8.3	405,000	587,000	10.4	11	6
Sales to railroads, public-utility companies, and contractors.....	1,870	3.8	61,000	2.8	19,000	80,000	1.4	14	
Sales through branch wholesale establishments.....	565	1.2	32,000	1.4		32,000	.6	3	
Sales through brokers and commission houses.....	1,840	3.8	105,000	4.8	255,000	380,000	6.4	8	2
Sales through wholesalers and jobbers.....	6,066	12.5	241,000	11.0	53,000	294,000	5.2	14	2
Sales to retailers, including retail yards owned by the manufacturer.....	931	1.9	33,000	1.5	206,000	239,000	4.2	10	
Local sales.....	9,720	20.0	361,000	16.4	96,000	457,000	8.1	45	17

VIRGINIA

Total sales.....						\$20,270,000		811	
Sales not distributed.....						6,300,000		614	
Sales distributed by manufacturers reporting.....	300,363	100.0	\$9,266,000	100.0	\$4,704,000	13,970,000	100.0	178	
Sales to manufacturers.....	58,288	19.4	1,853,000	20.0	3,339,000	5,192,000	37.2	86	37
Sales to railroads, public-utility companies, and contractors.....	9,638	3.2	238,000	2.6	16,000	254,000	1.8	33	2
Sales through brokers and commission houses.....	39,907	13.3	1,105,000	11.9	543,000	1,648,000	11.8	22	6
Sales through wholesalers and jobbers.....	94,948	31.6	2,200,000	23.7	12,000	2,212,000	15.8	67	27
Sales for export.....	17,830	5.9	962,000	10.4	16,000	978,000	7.0	13	
Sales to retailers, including retail yards owned by the manufacturer.....	57,918	19.3	2,163,000	23.4	44,000	2,207,000	15.8	25	8
Local sales.....	21,825	7.3	745,000	8.0	734,000	1,479,000	10.6	56	18

See footnotes at end of table.

DISTRIBUTION

TABLE 4.—DISTRIBUTION OF SALES, 1929, OF THE PLANTS ENGAGED PRIMARILY IN THE PRODUCTION OF LOGS, LUMBER, AND OTHER TIMBER PRODUCTS—Continued

	LUMBER				Value of other products	Value of lumber and other products (f. o. b. factory)	Per cent of sales	NUMBER OF PLANTS	
	Quantity (M. ft. b. m.)	Per cent of quantity	Value	Per cent of value				Total	Selling exclusively as indicated
Total sales.....						\$255,610,000		\$772	
Sales not distributed.....						34,751,000		302	
Sales distributed by manufacturers reporting.....	6,198,813	100.0	\$129,697,000	100.0	\$91,162,000	220,859,000	100.0	\$468	
Sales to manufacturers.....	203,440	3.3	5,336,000	4.1	42,877,000	48,213,000	21.8	177	79
Interplant transfers.....	154,065	2.5	3,130,000	2.4	949,000	4,079,000	1.8	54	7
Sales to railroads, public-utility companies, and contractors.....	192,528	3.1	4,078,000	3.2	706,000	4,784,000	2.2	105	18
Sales through branch wholesale establishments.....	391,315	6.3	8,444,000	6.5	956,000	9,400,000	4.3	26	
Sales through brokers and commission houses.....	1,050,166	16.9	22,290,000	17.2	7,982,000	30,272,000	13.7	129	44
Sales through wholesalers and jobbers.....	2,140,412	34.5	41,896,000	32.3	24,787,000	66,683,000	30.2	169	29
Sales for export.....	1,025,922	16.6	21,384,000	16.5	4,374,000	25,758,000	11.7	112	
Sales to retailers, including retail yards owned by the manufacturer.....	662,308	10.7	15,399,000	11.9	1,793,000	17,192,000	7.8	73	7
Local sales.....	376,446	6.1	7,709,000	5.9	6,738,000	14,447,000	6.5	212	21
Sales to other industrial consumers.....	2,211	(^b)	31,000	(^b)		31,000	(^b)	5	

WEST VIRGINIA									
Total sales.....						\$24,383,000		\$245	
Sales not distributed.....						3,619,000		172	
Sales distributed by manufacturers reporting.....	479,142	100.0	\$18,384,000	100.0	\$2,380,000	20,764,000	100.0	\$70	
Sales to manufacturers.....	94,131	19.6	3,804,000	20.7	1,562,000	5,366,000	25.9	31	4
Interplant transfers.....	16,128	3.4	633,000	3.4	367,000	1,000,000	4.8	12	2
Sales to railroads, public-utility companies, and contractors.....	19,456	4.1	712,000	3.9	57,000	769,000	3.7	25	
Sales through wholesalers and jobbers.....	206,405	43.1	7,461,000	40.6	208,000	7,669,000	36.9	41	10
Sales through brokers and commission houses.....	44,254	9.2	2,099,000	11.4	20,000	2,119,000	10.2	12	8
Sales for export.....	15,659	3.3	841,000	4.6	18,000	859,000	4.1	22	
Sales to retailers, including retail yards owned by the manufacturer.....	73,914	15.4	2,488,000	13.5	8,000	2,496,000	12.0	12	
Local sales and sales to other industrial consumers.....	9,195	1.9	346,000	1.9	140,000	486,000	2.4	22	3

WISCONSIN									
Total sales.....						\$44,063,000		\$139	
Sales not distributed.....						3,155,000		43	
Sales distributed by manufacturers reporting.....	714,273	100.0	\$24,591,000	100.0	\$16,317,000	40,908,000	100.0	\$94	
Sales to manufacturers.....	239,907	33.6	8,489,000	34.5	5,948,000	14,437,000	35.3	61	7
Interplant transfers.....	15,374	2.2	445,000	1.8	1,295,000	1,740,000	4.3	19	
Sales to railroads, public-utility companies, and contractors.....	60,672	8.5	2,131,000	8.7	652,000	2,783,000	6.8	48	
Sales through brokers and commission houses.....	26,473	3.7	960,000	3.9	380,000	1,340,000	3.3	19	
Sales through wholesalers and jobbers.....	244,056	34.2	8,528,000	34.7	6,159,000	14,687,000	35.9	52	5
Sales for export.....	317	(^b)	19,000	.1	99,000	118,000	.3	10	
Sales to retailers, including retail yards owned by the manufacturer.....	109,686	15.3	3,405,000	13.8	538,000	3,943,000	9.6	37	
Local sales and sales to other industrial consumers.....	17,788	2.5	614,000	2.5	1,246,000	1,860,000	4.5	49	4

ALL OTHER STATES *									
Total sales.....						\$29,720,000		\$286	
Sales not distributed.....						2,573,000		146	
Sales distributed by manufacturers reporting.....	564,809	100.0	\$20,517,000	100.0	\$6,630,000	27,147,000	100.0	\$139	
Sales to manufacturers.....	97,440	17.3	4,935,000	24.1	3,030,000	7,965,000	29.3	45	12
Interplant transfers.....	38,524	6.8	830,000	4.1	756,000	1,586,000	5.8	15	
Sales to railroads, public-utility companies, and contractors.....	102,952	18.2	2,694,000	13.1	1,261,000	3,955,000	14.6	62	16
Sales through brokers and commission houses.....	114,950	20.4	5,111,000	24.9	365,000	5,476,000	20.2	24	7
Sales through wholesalers and jobbers.....	64,611	11.4	2,152,000	10.5	352,000	2,504,000	9.2	26	7
Sales for export.....	1,604	.3	295,000	1.4	267,000	562,000	2.1	4	
Sales to retailers, including retail yards owned by the manufacturer.....	126,220	22.3	3,936,000	19.2	61,000	3,997,000	14.7	28	2
Local sales.....	18,458	3.3	562,000	2.7	284,000	846,000	3.1	62	13
Sales to other industrial consumers.....	50	(^b)	2,000	(^b)	254,000	256,000	1.0	9	2

* Includes Arizona, Delaware, District of Columbia, Illinois, Iowa, Kansas, Nebraska, Nevada, New Jersey, New Mexico, North Dakota, Oklahoma, Rhode Island, South Dakota, Utah, and Wyoming.

¹ The differences between the total sales figures given in this report and the value of products figures as shown in the reports of the Census of Manufacturers are accounted for as follows: (1) Amounts received for contract logging done for others and custom or contract sawing and planing of materials owned by others were not included in sales, but were included in value of products; (2) net increases or decreases in inventory.

² This figure represents the total number of establishments in the area covered by this table, including those engaged exclusively in contract logging, sawing, or planing.

³ Inasmuch as some plants sell to more than one type of customer, this figure is less than the total of the figures shown below it.

⁴ Combined to avoid disclosure of data for individual establishments.

⁵ Less than one-tenth of 1 per cent.

CHARTS

A graphic portrayal of statistics contained in this report is given in the following charts for all industries combined and for some of the more important individual industries. The solid area to the left represents the total sales of those manufacturing plants that reported the manner in which they marketed their product, and the smaller areas to the right represent

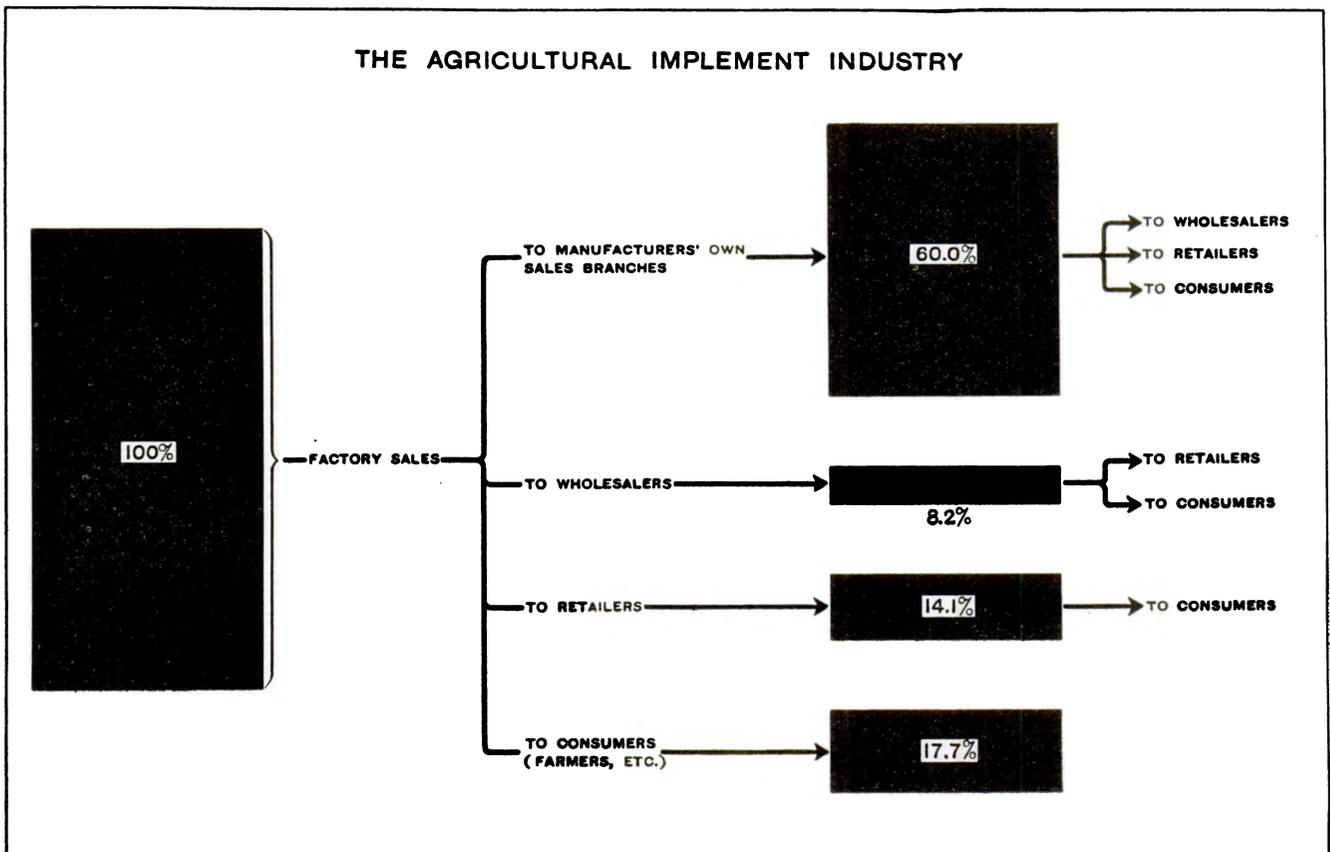
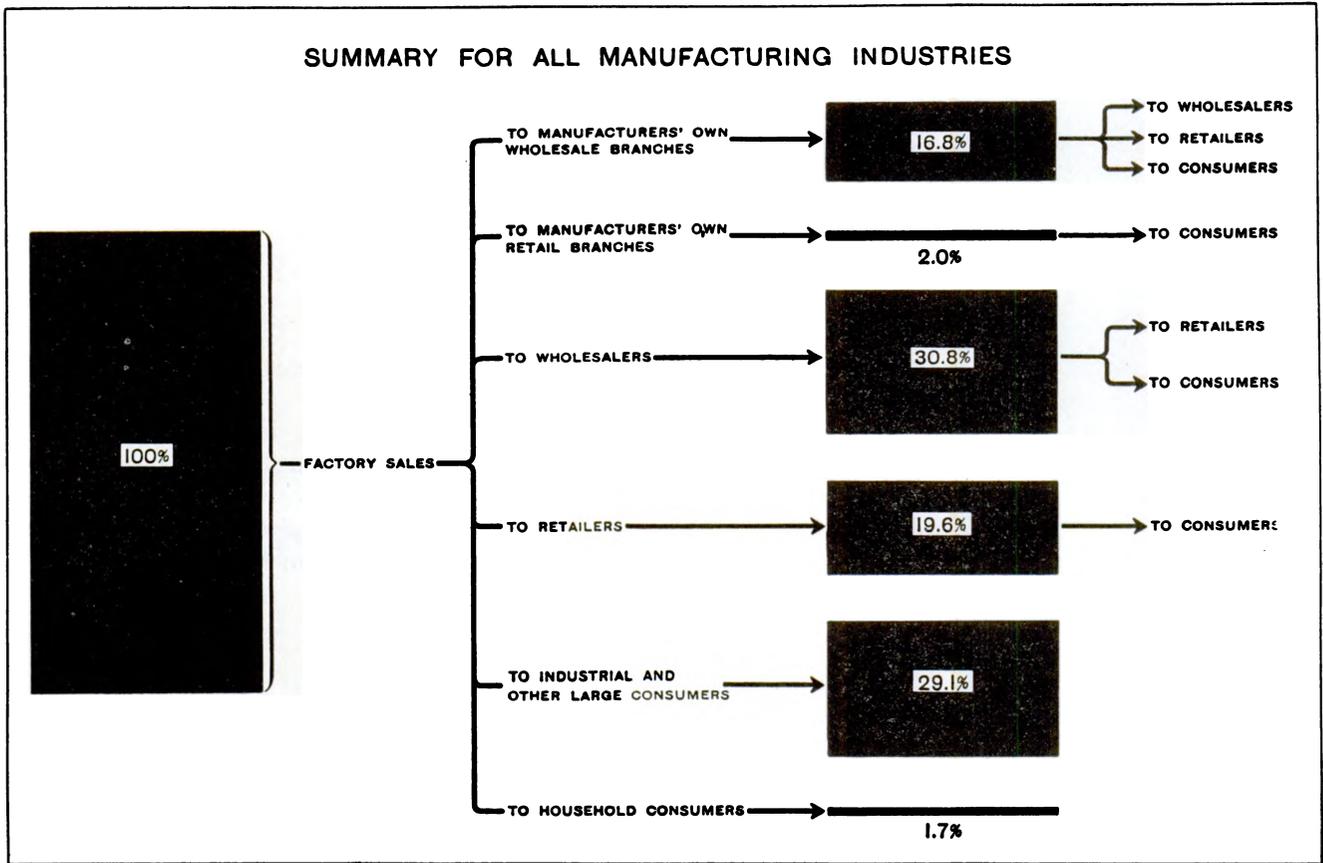
the distribution of these sales, according to type of purchaser.

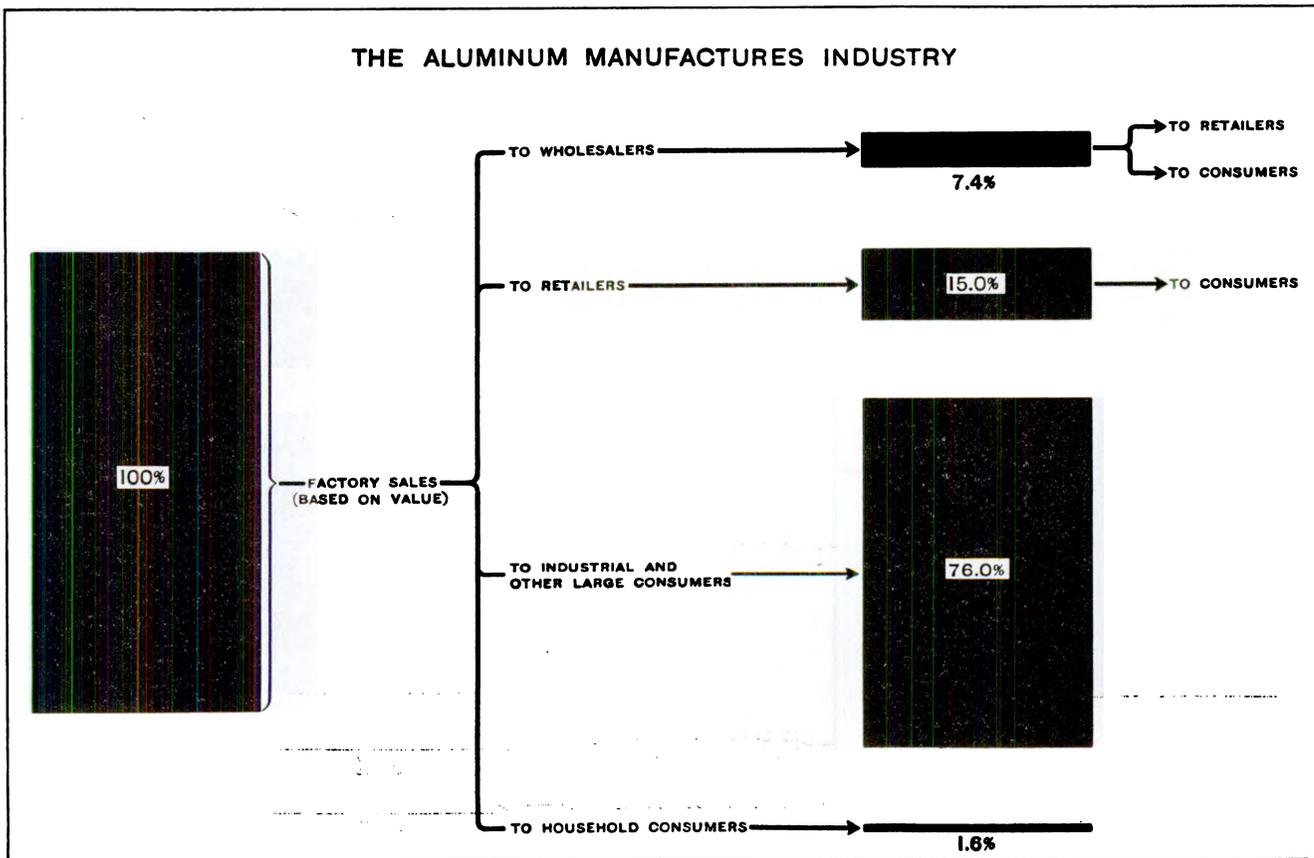
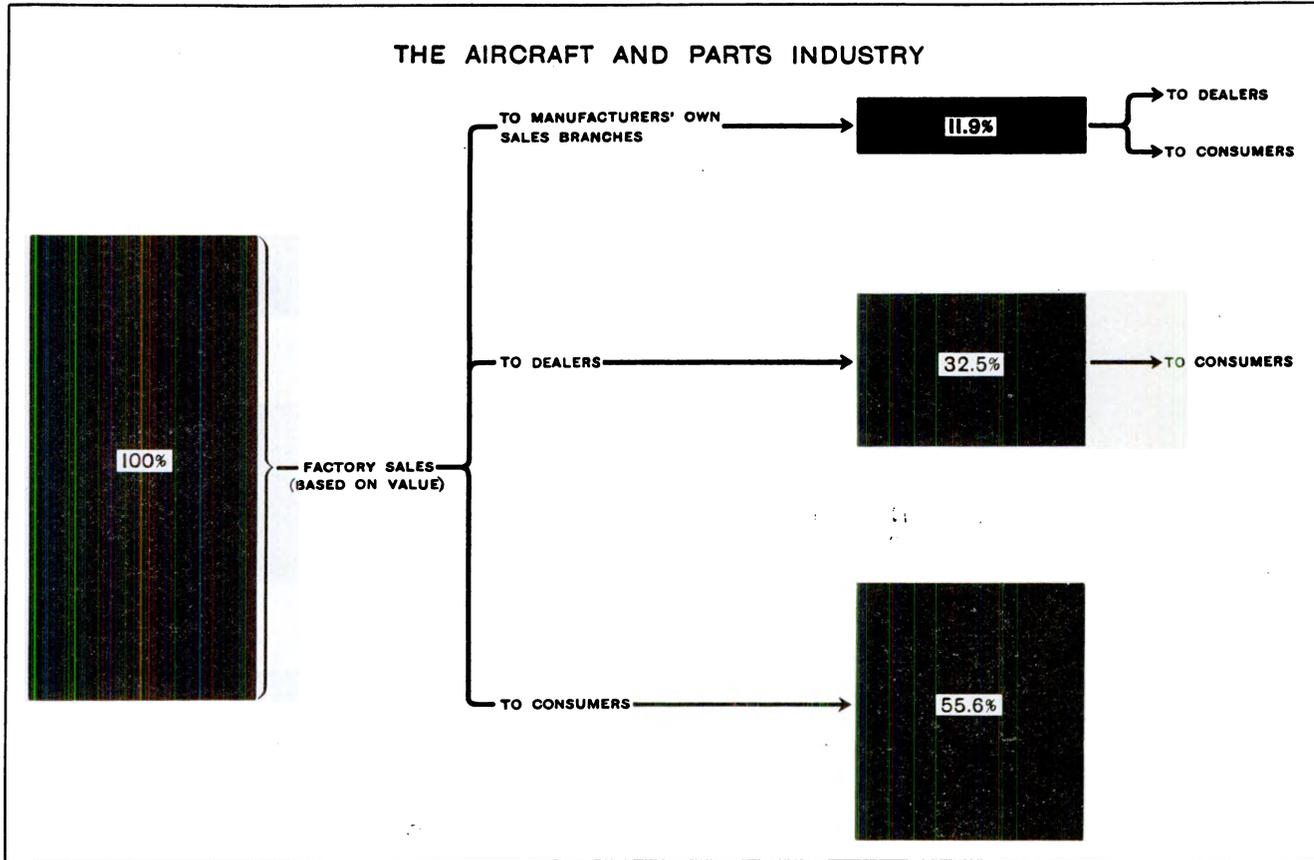
While only 60 charts are presented in this report, more than 60 additional charts have been published in connection with the individual industry reports on distribution of sales of manufacturing plants. Copies of these may be secured from this bureau.

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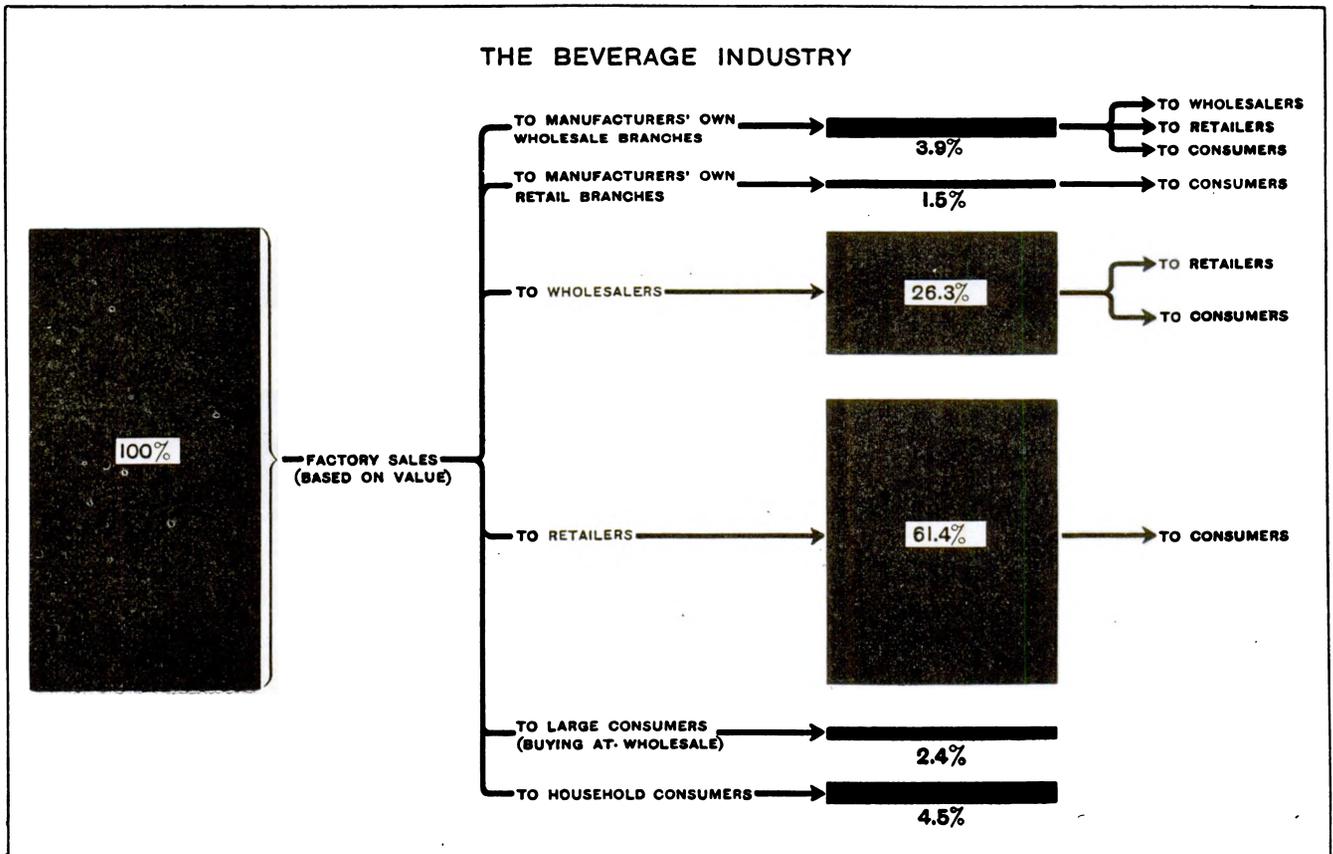
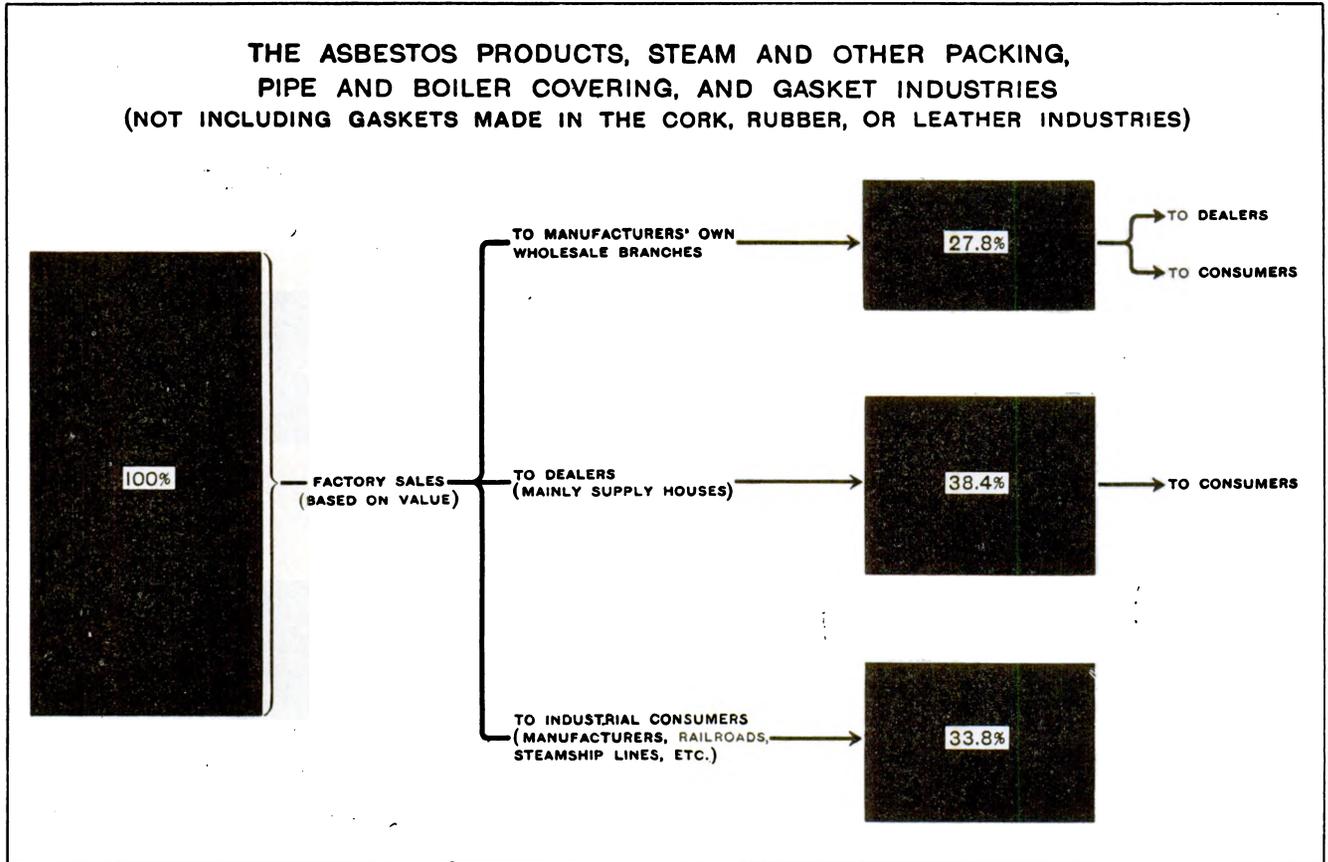
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DISTRIBUTION

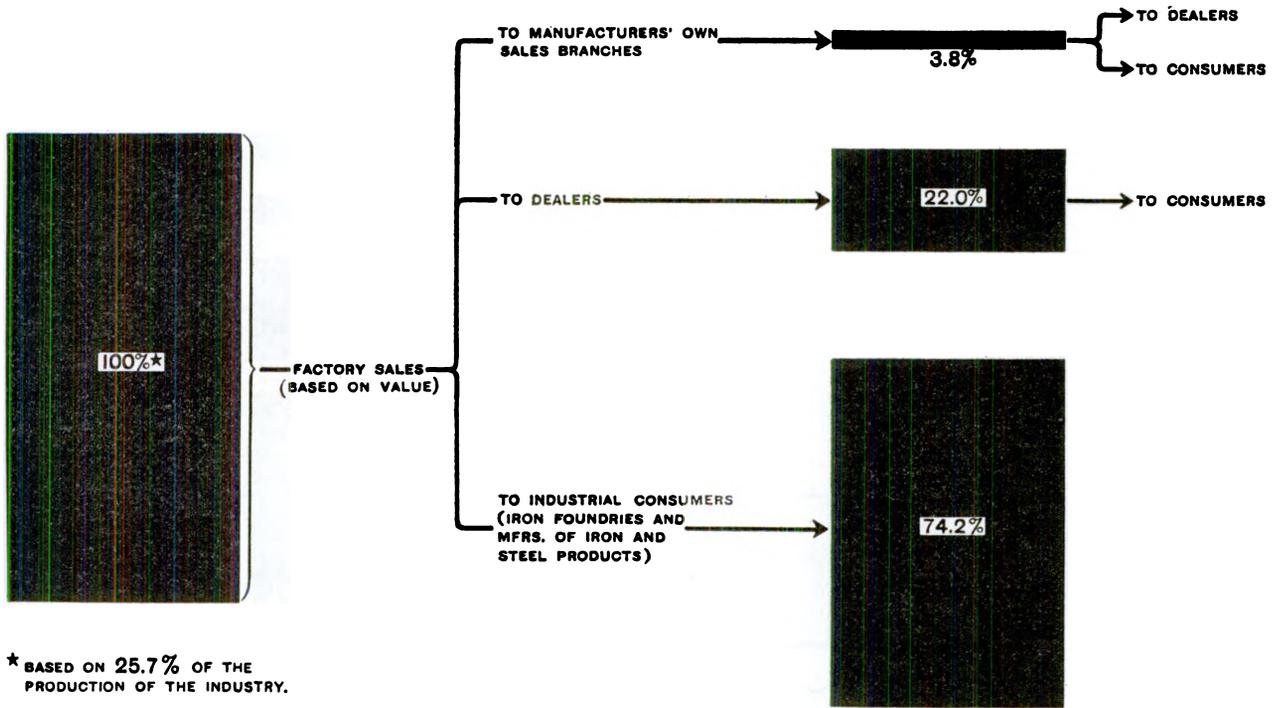




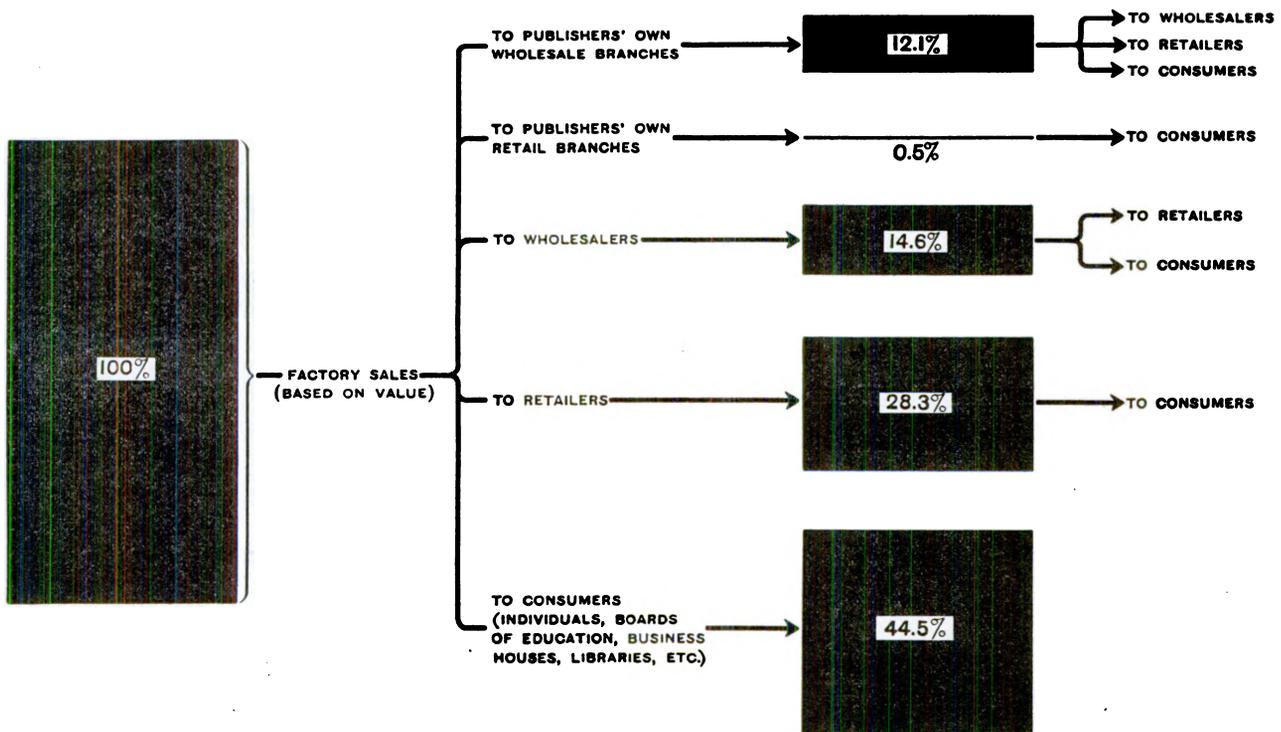
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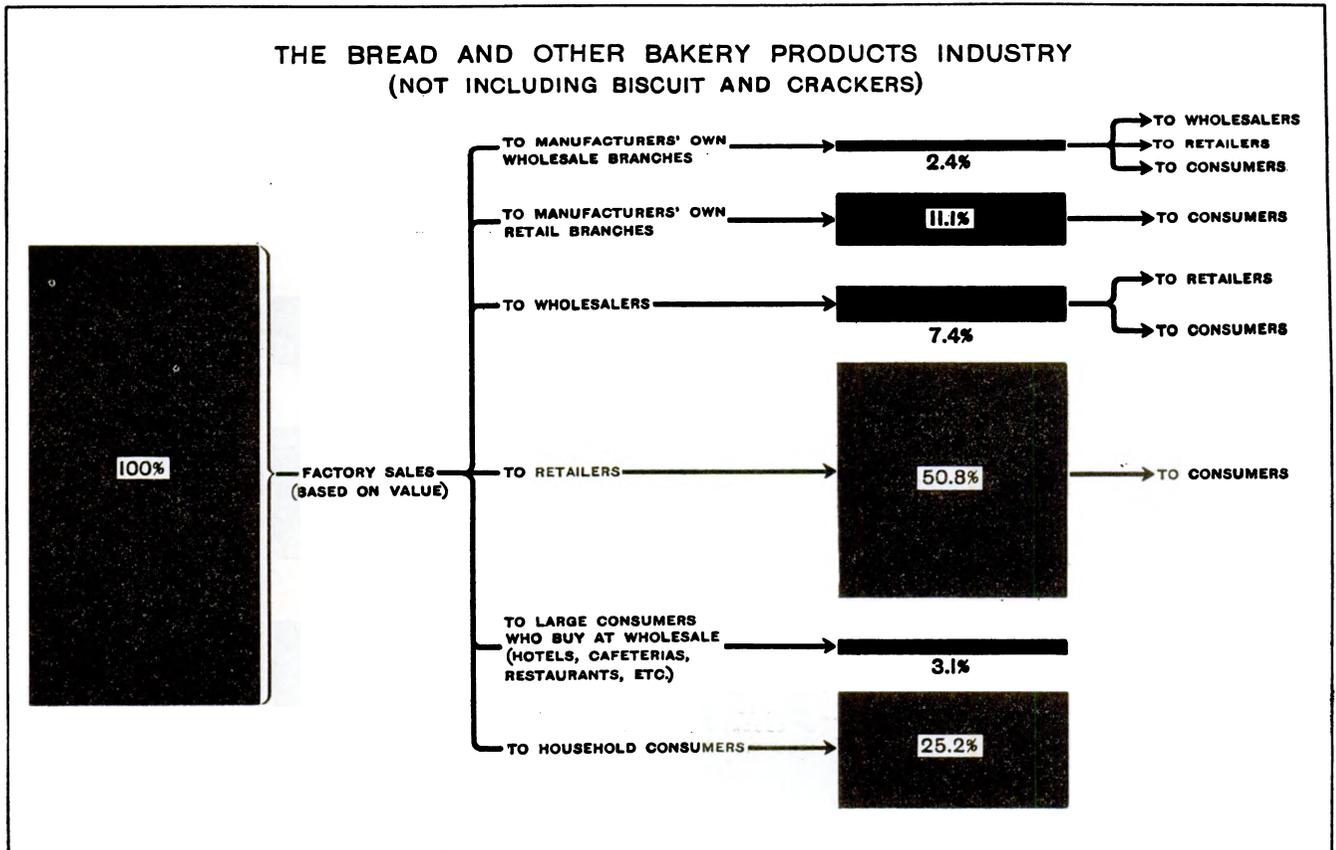
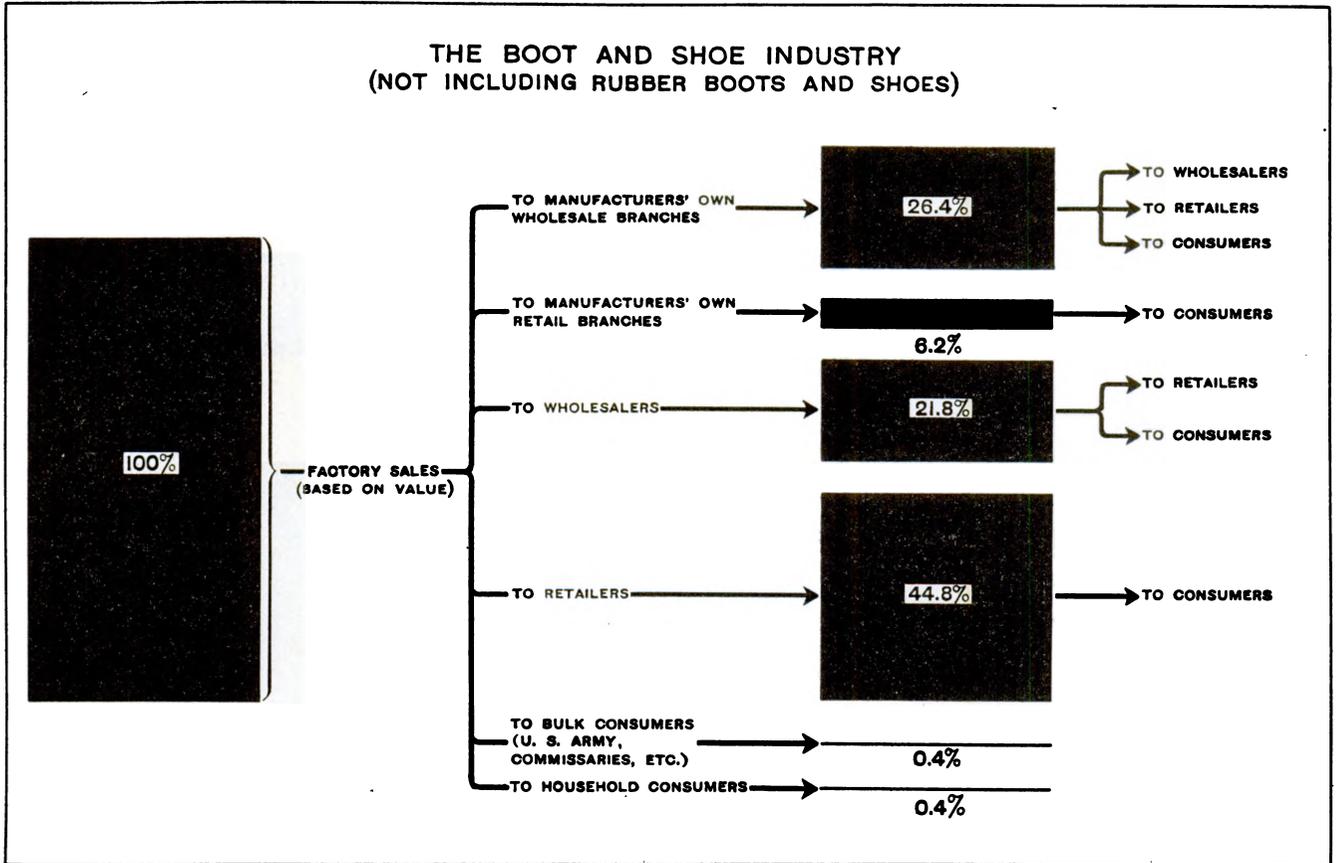
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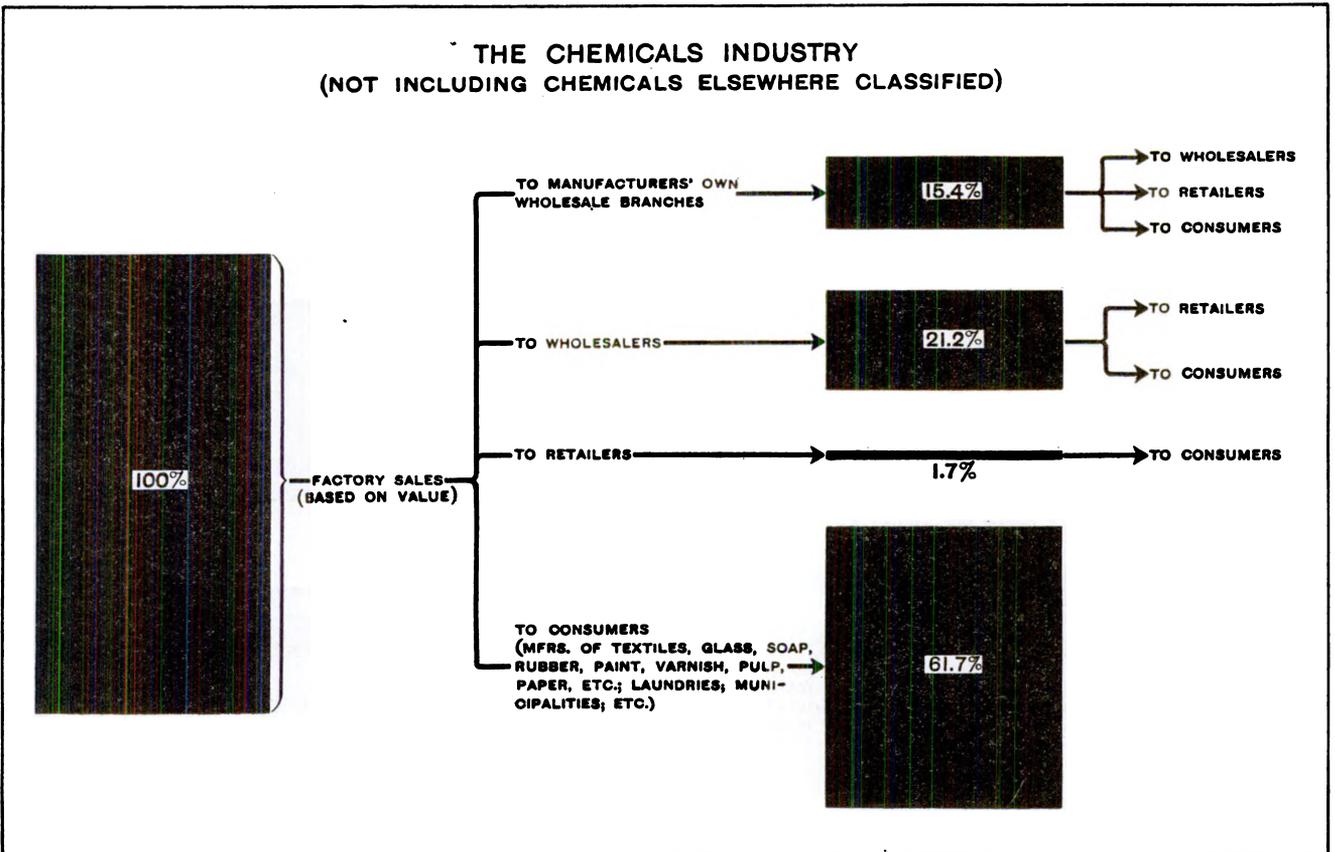
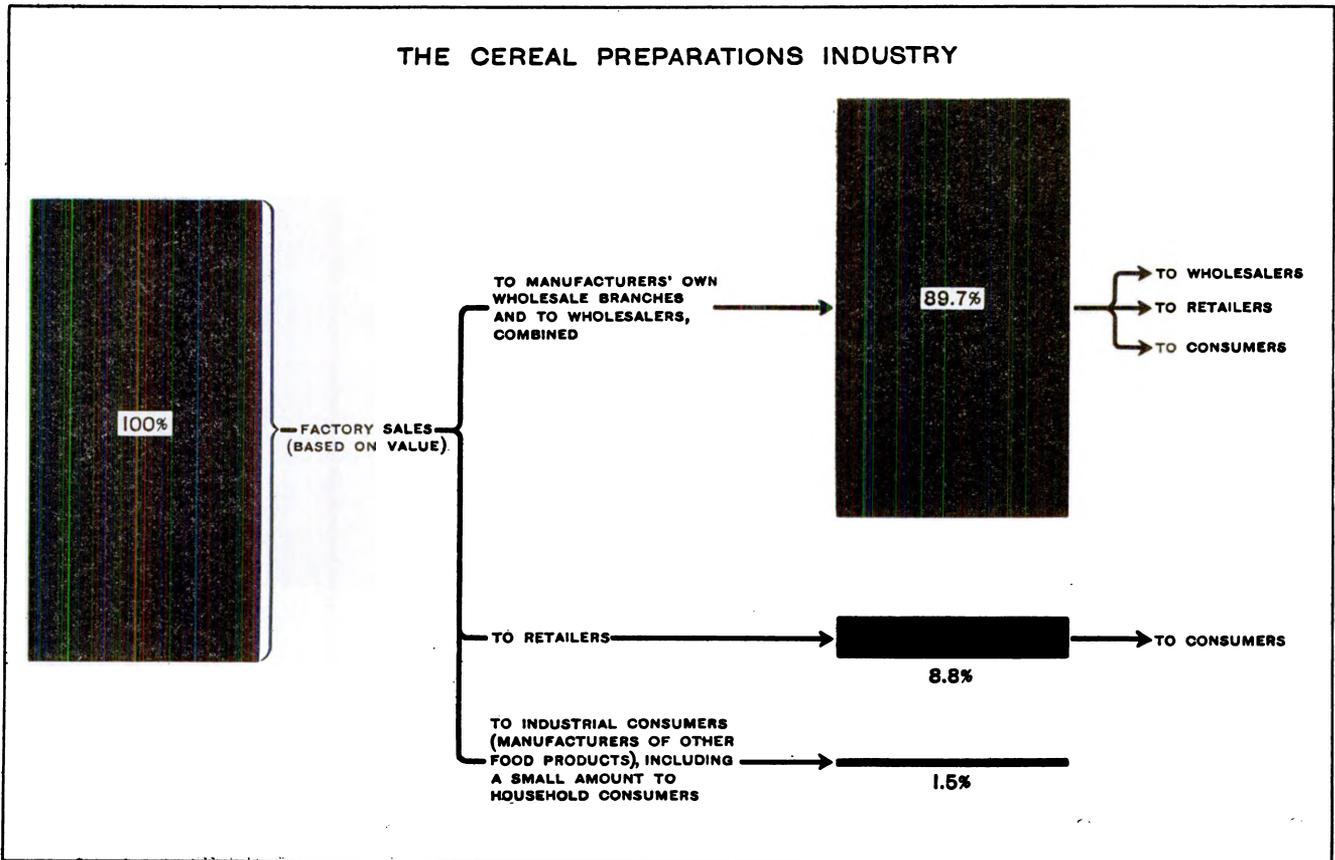


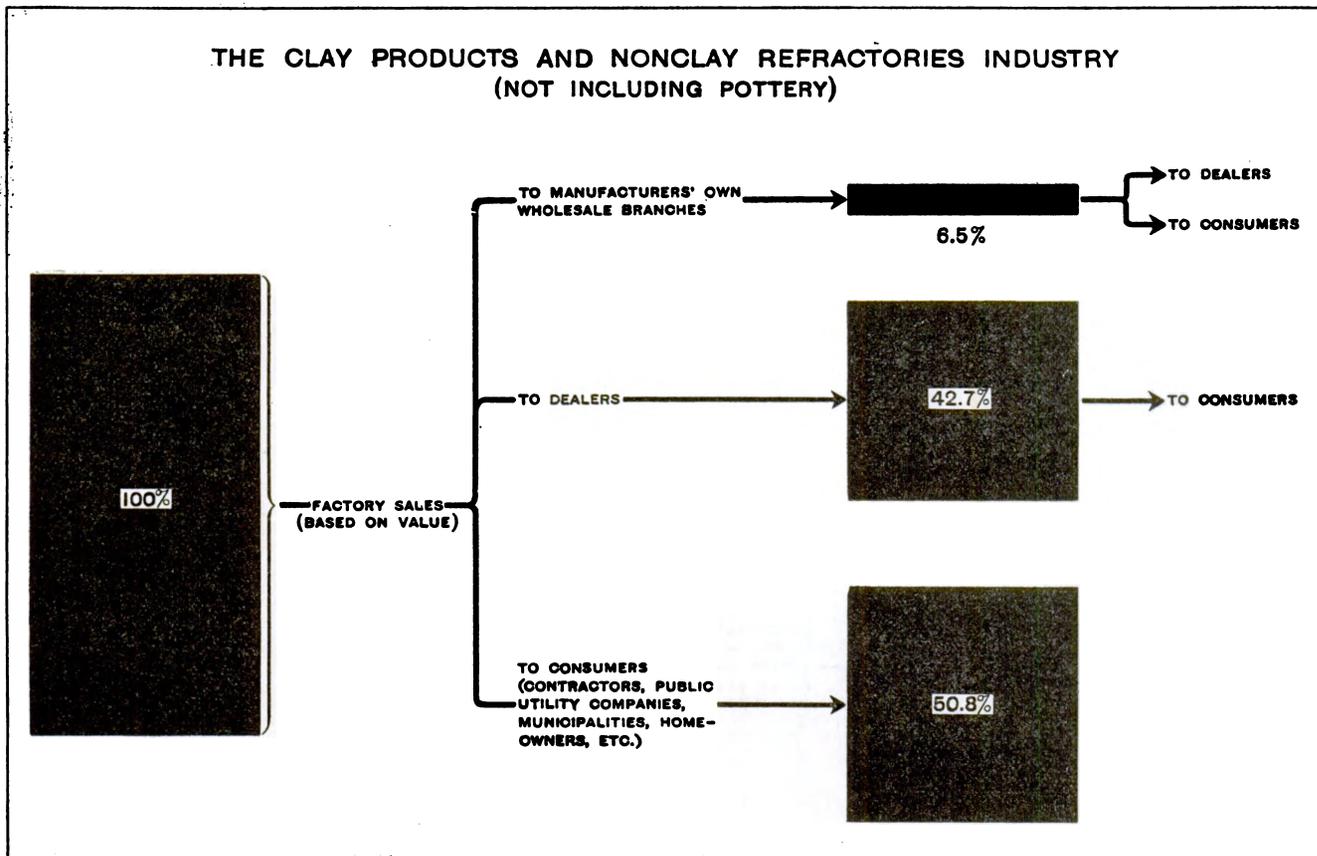
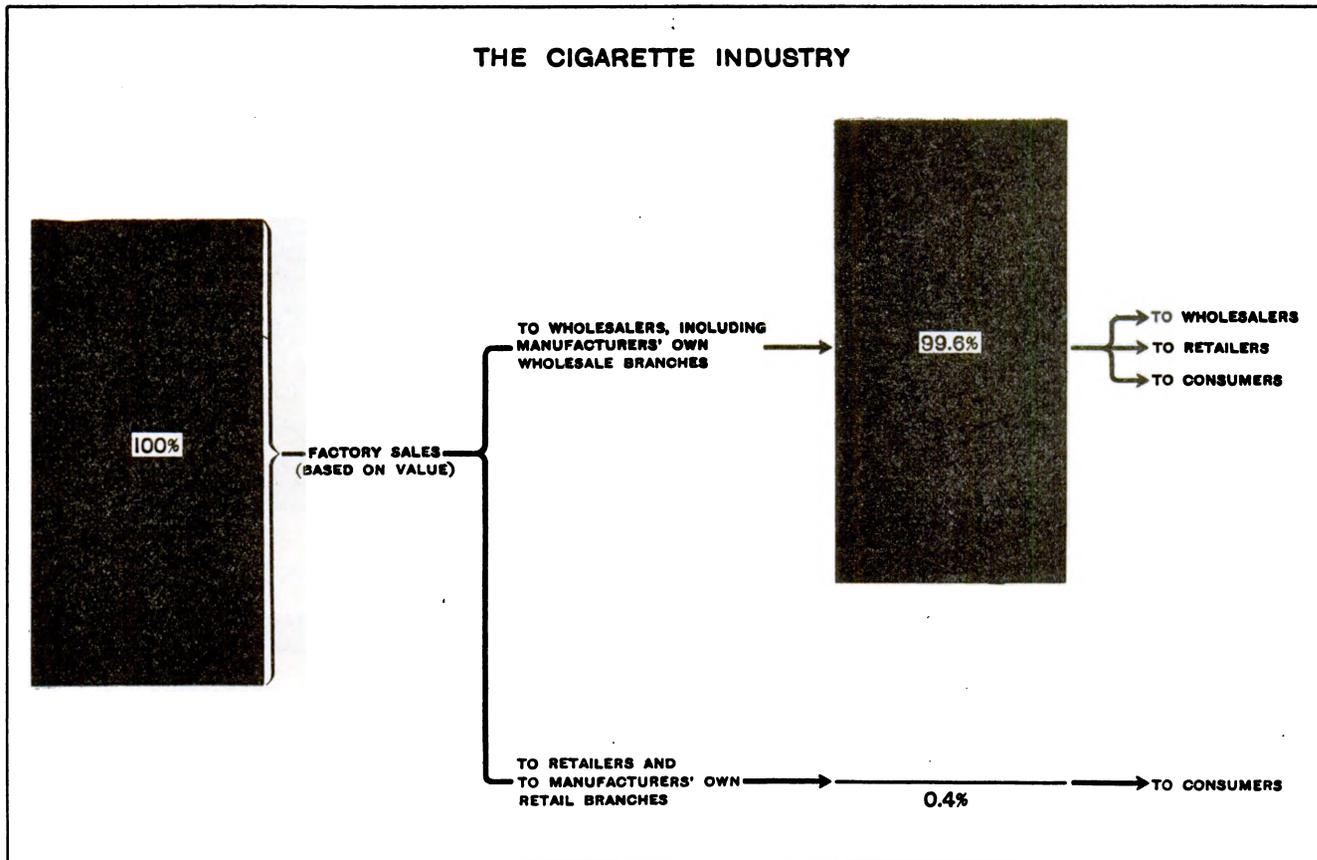
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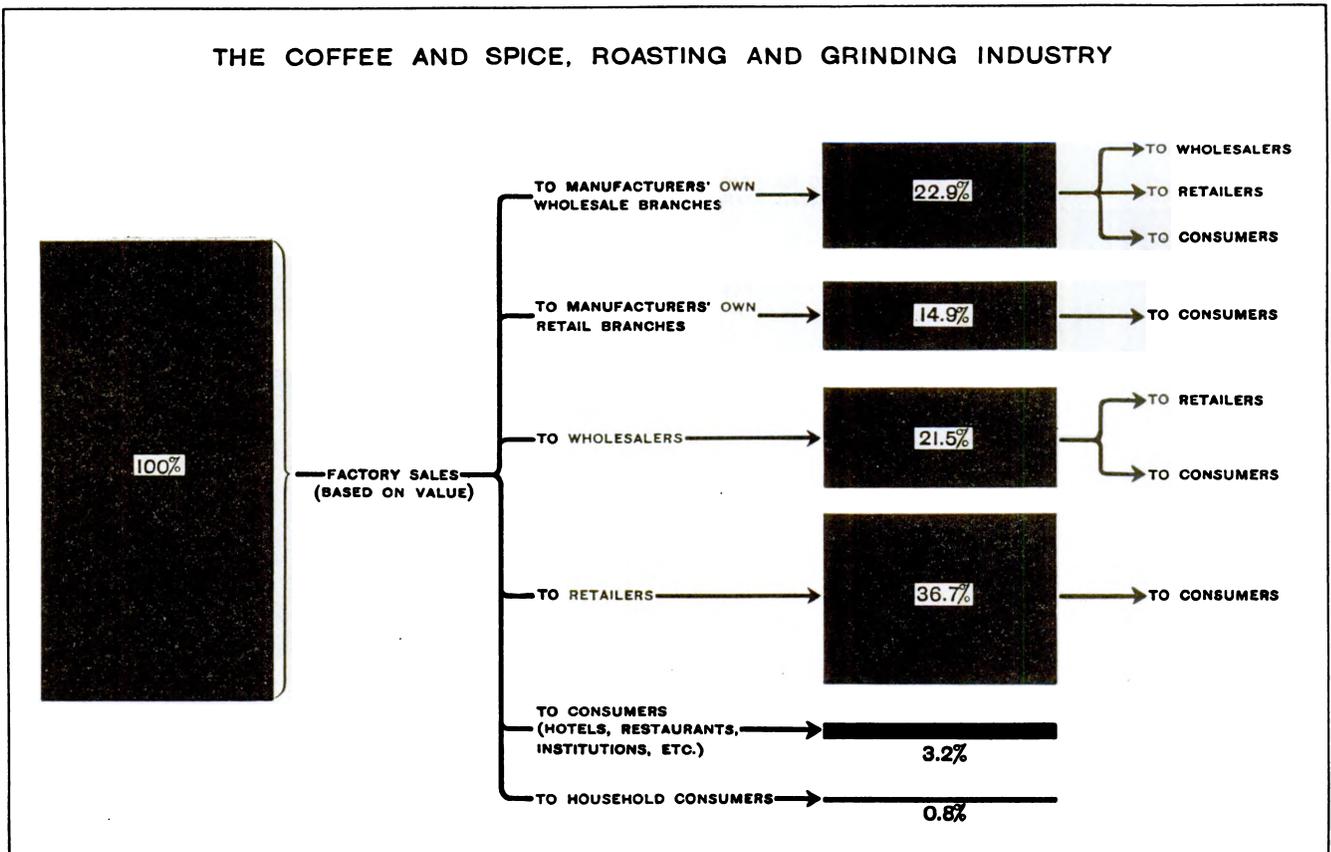
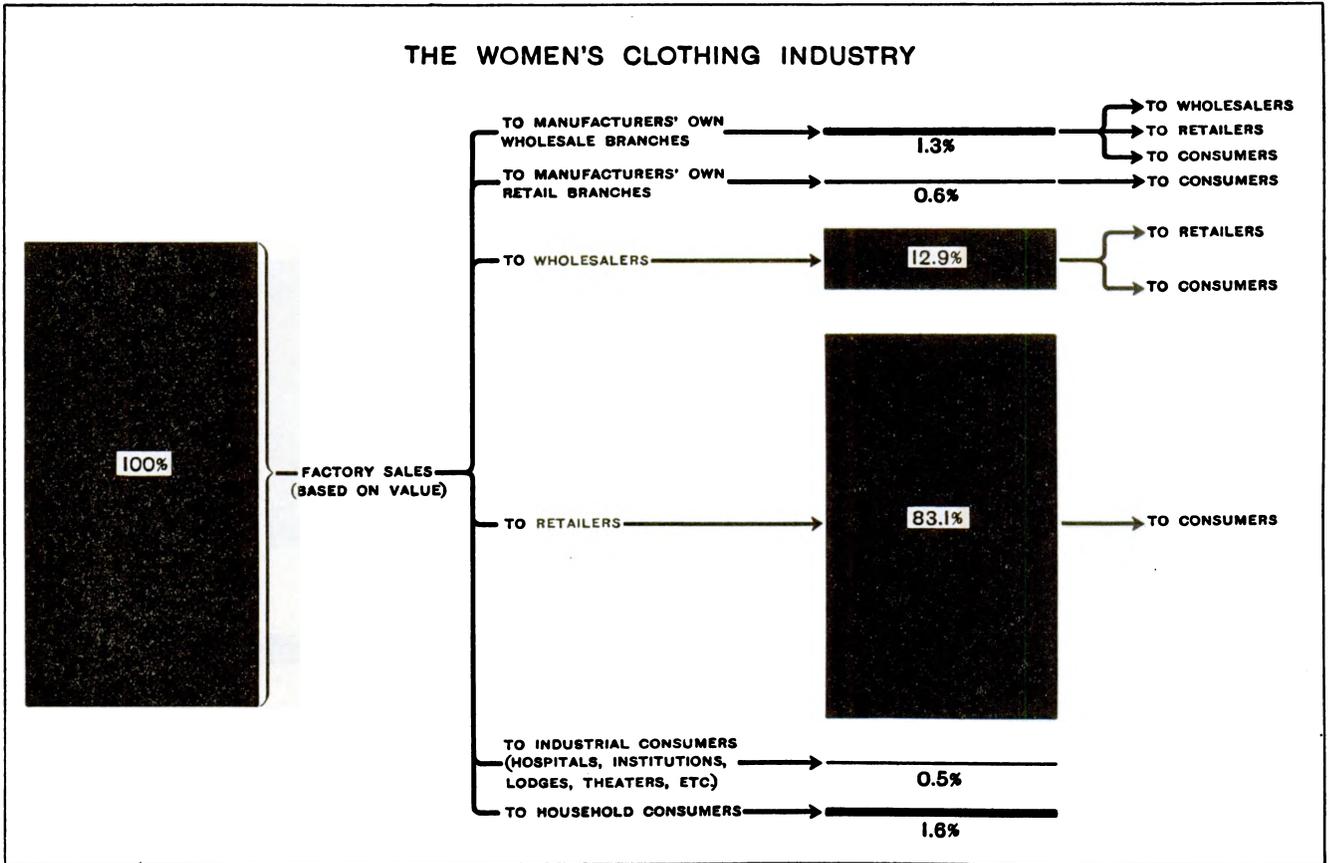
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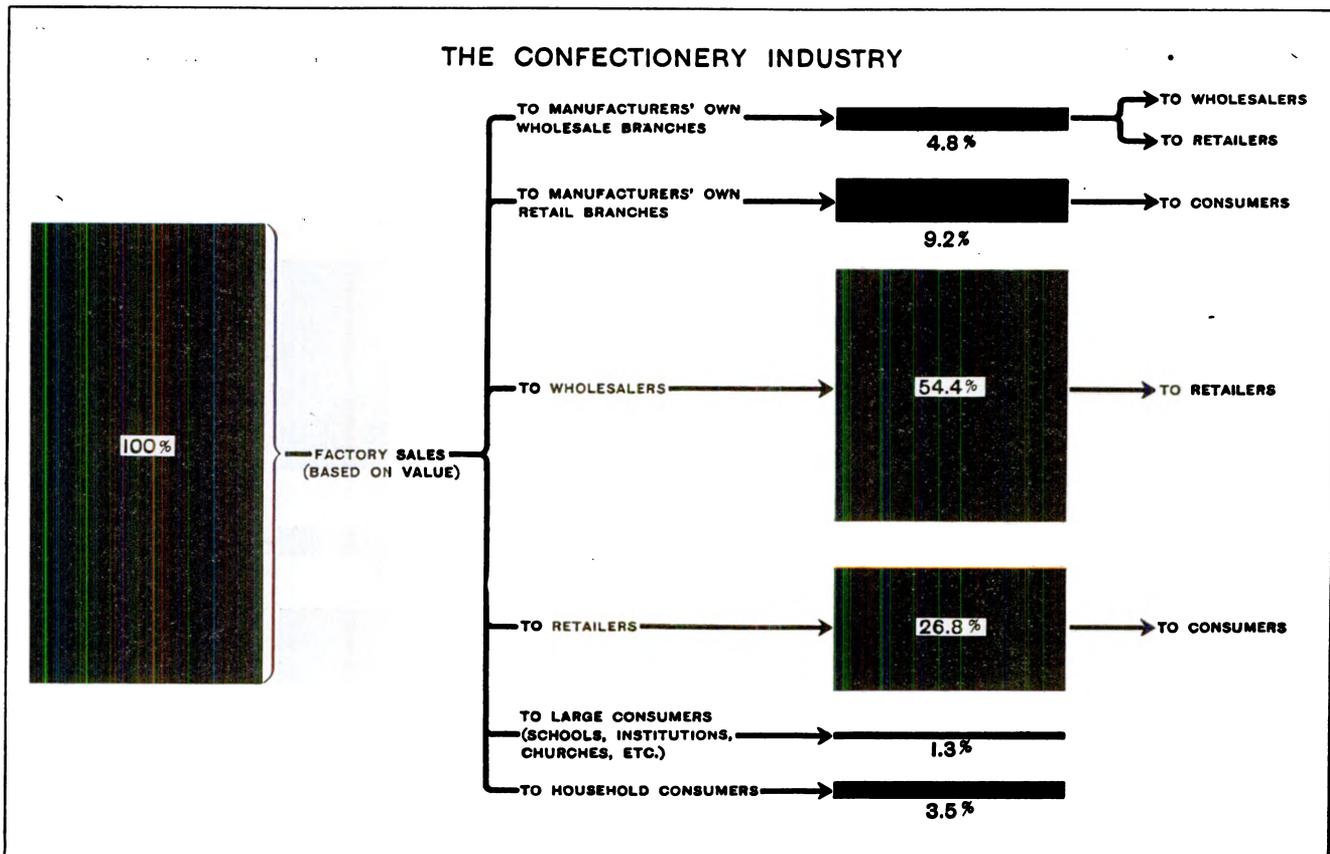
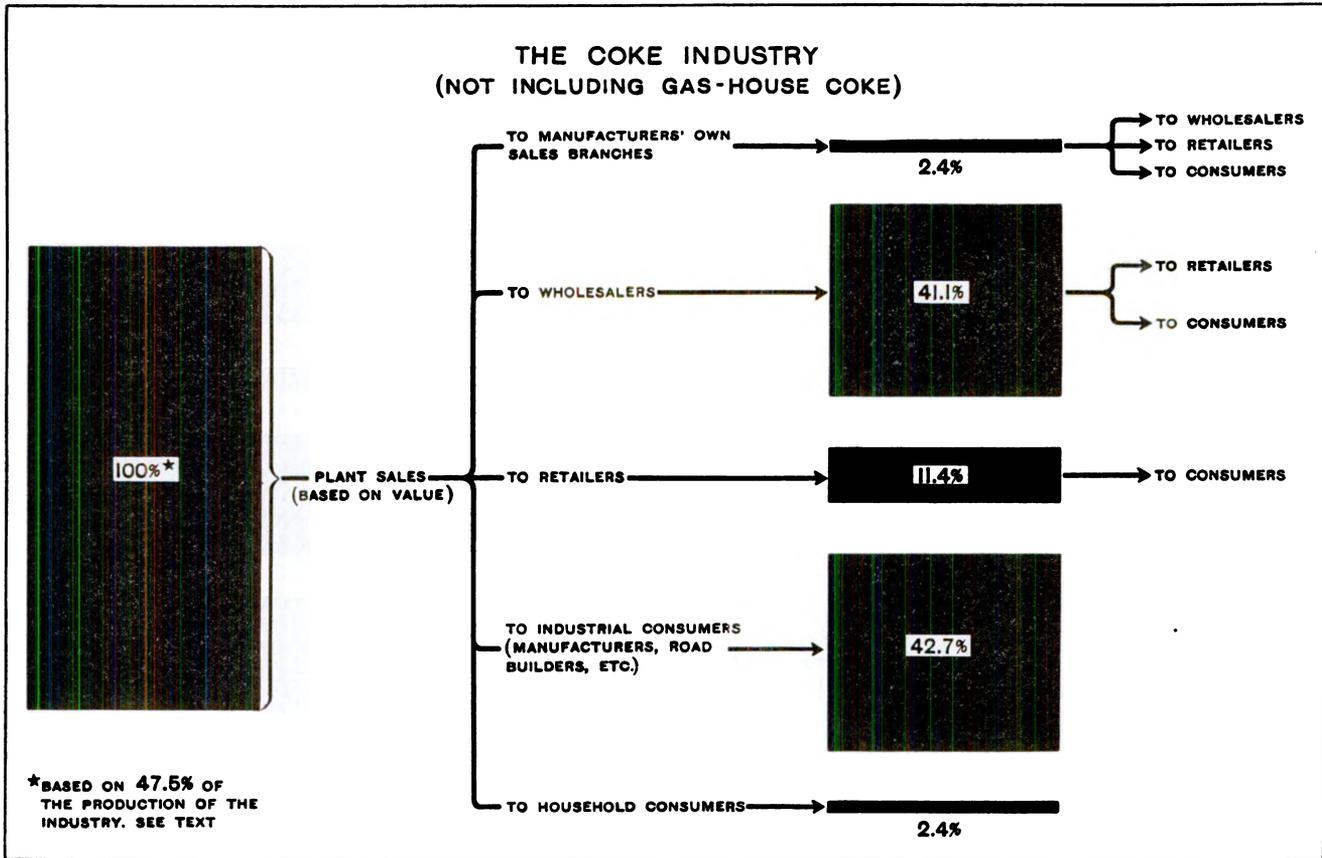




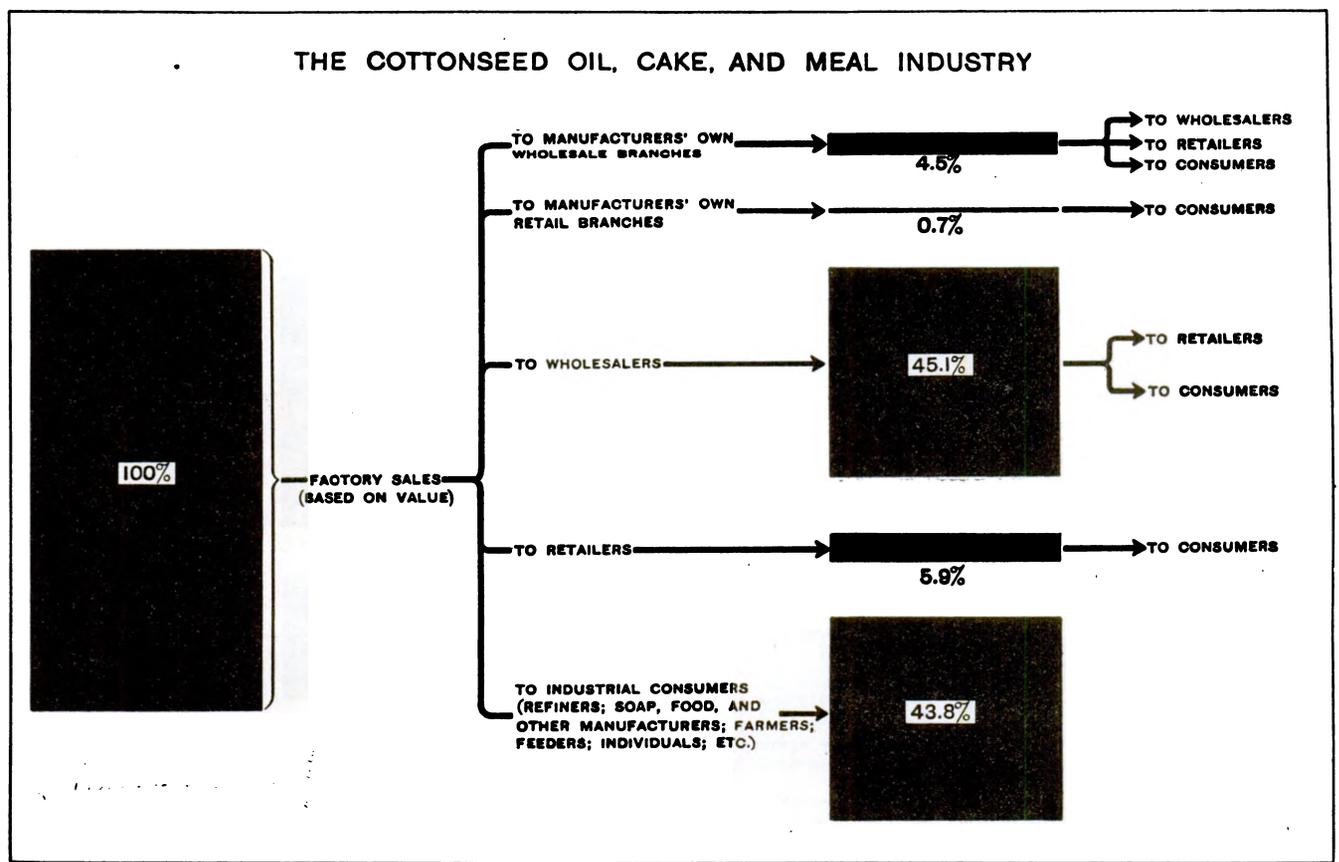
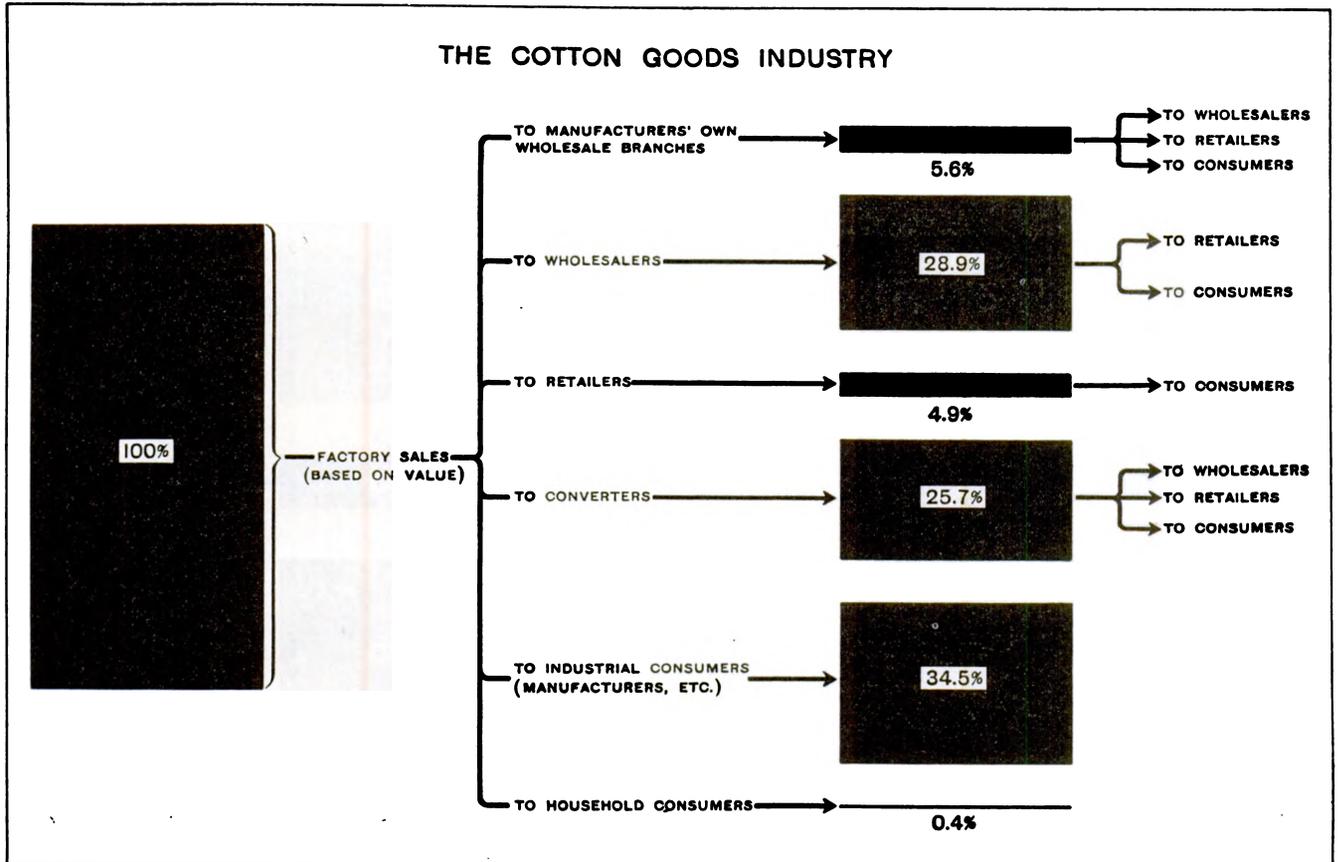


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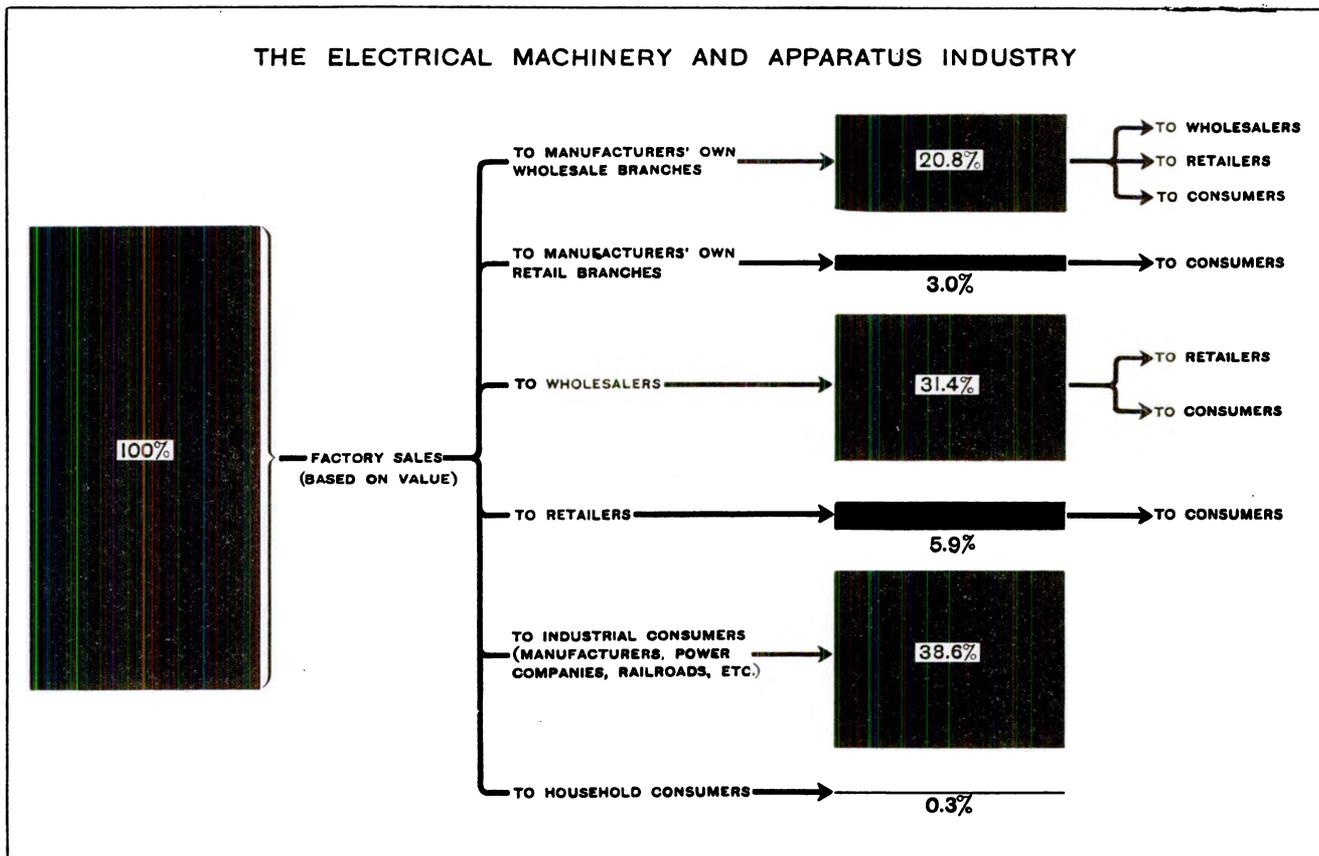




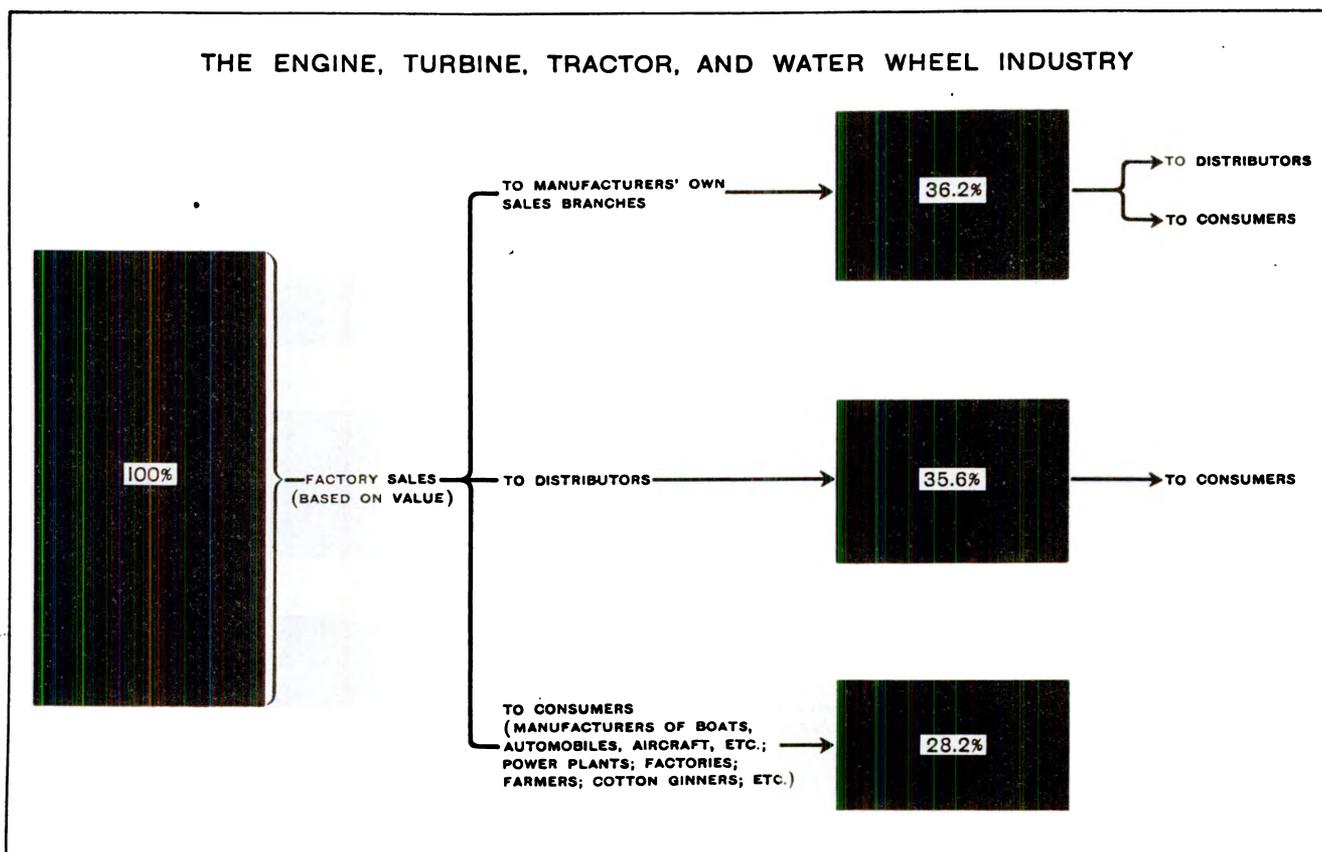
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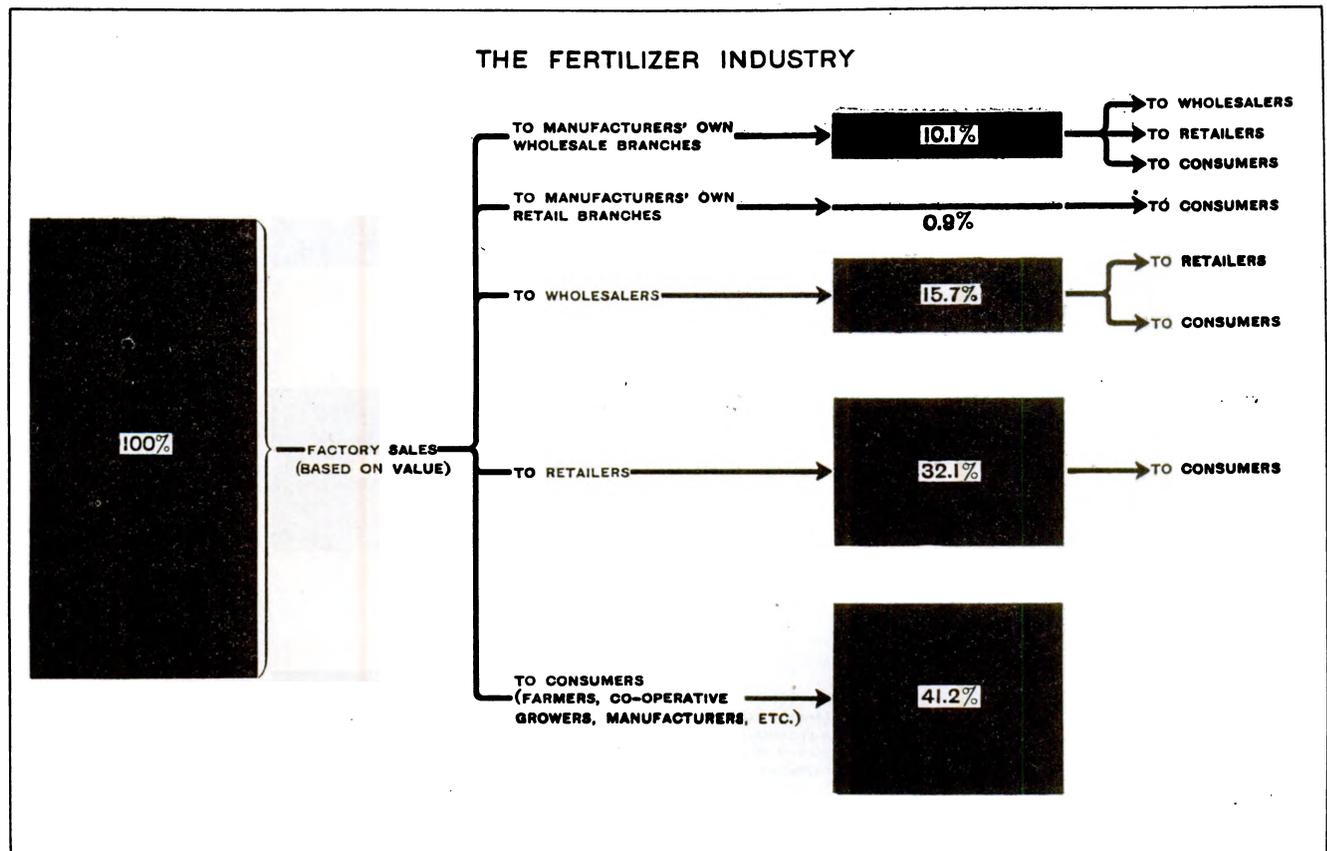
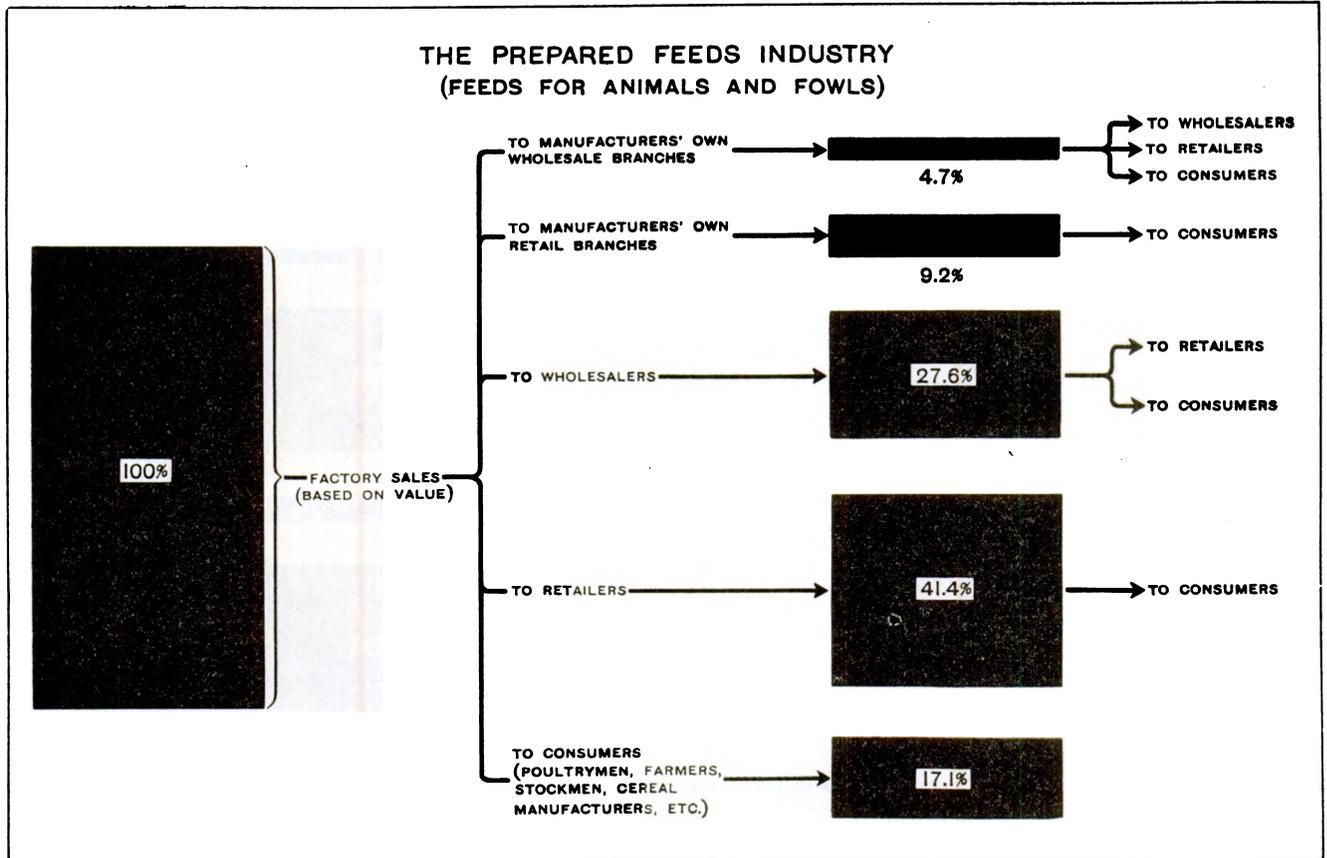


THE ELECTRICAL MACHINERY AND APPARATUS INDUSTRY

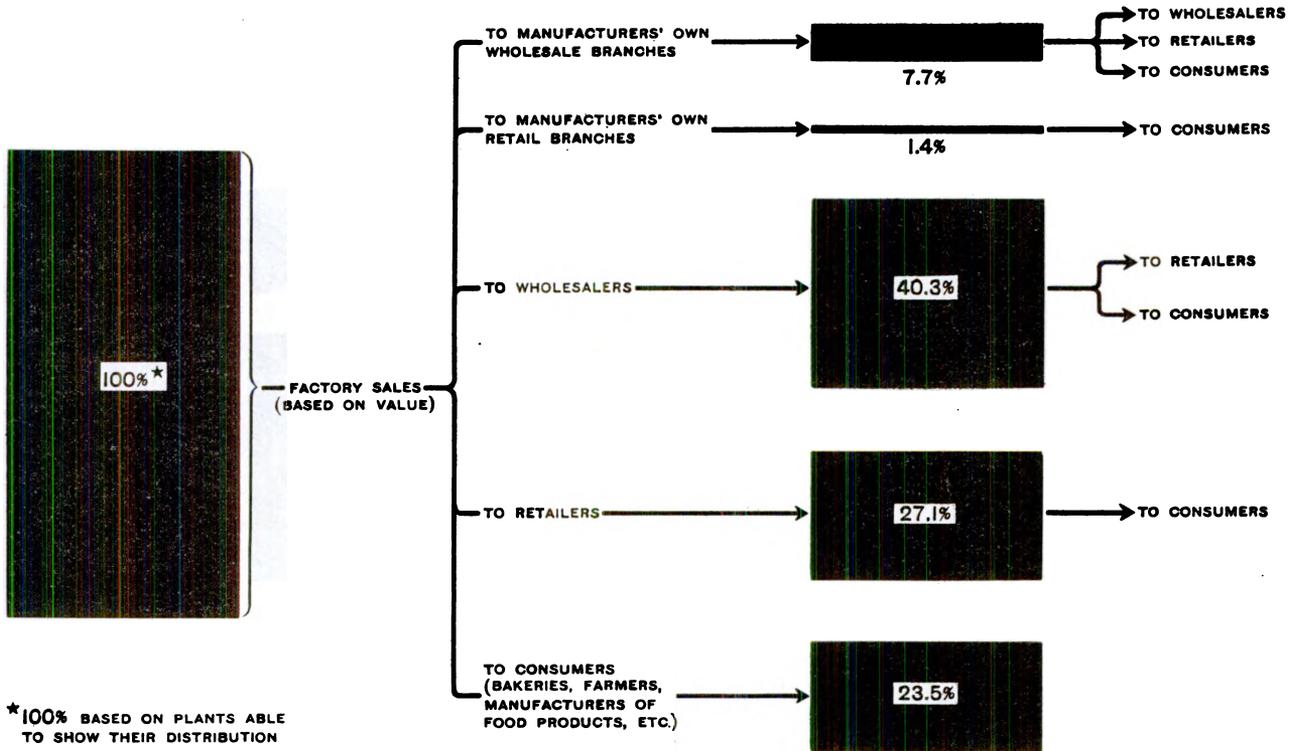


THE ENGINE, TURBINE, TRACTOR, AND WATER WHEEL INDUSTRY

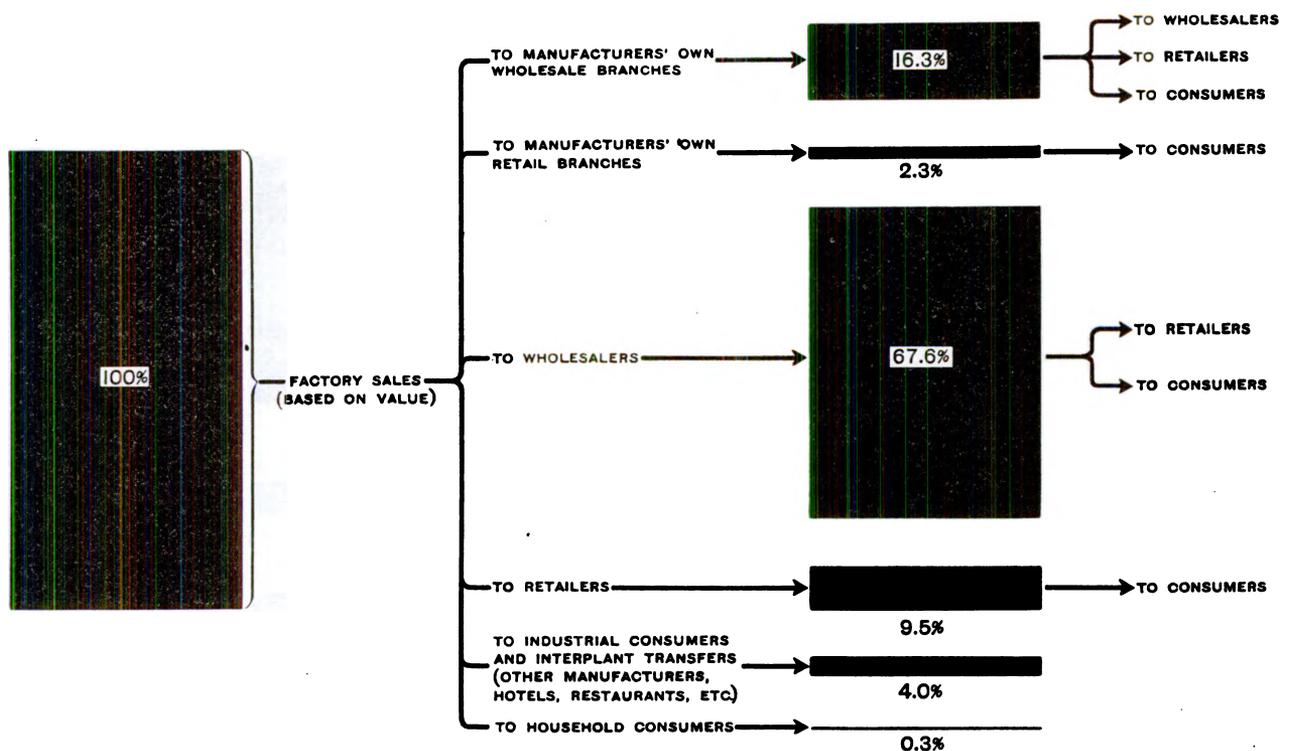




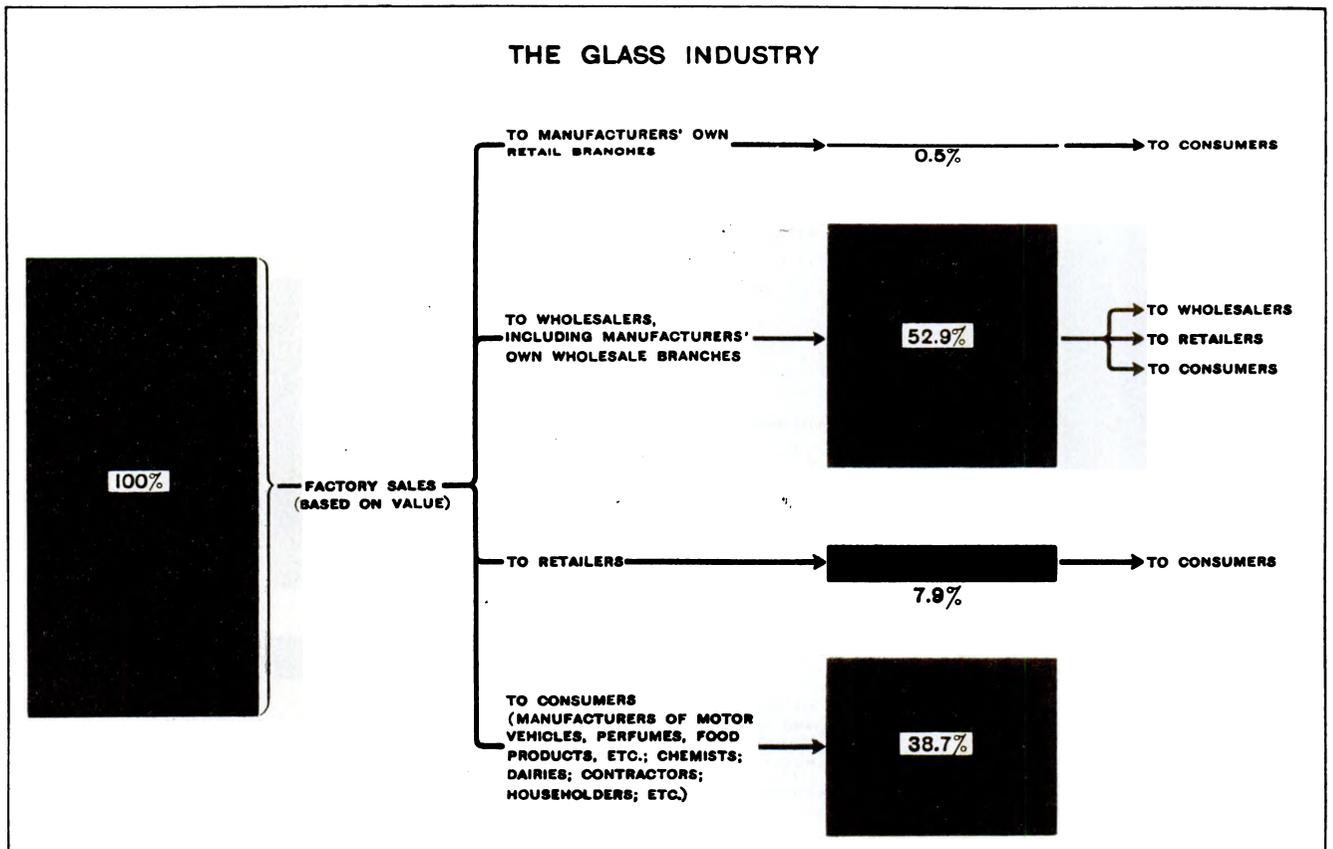
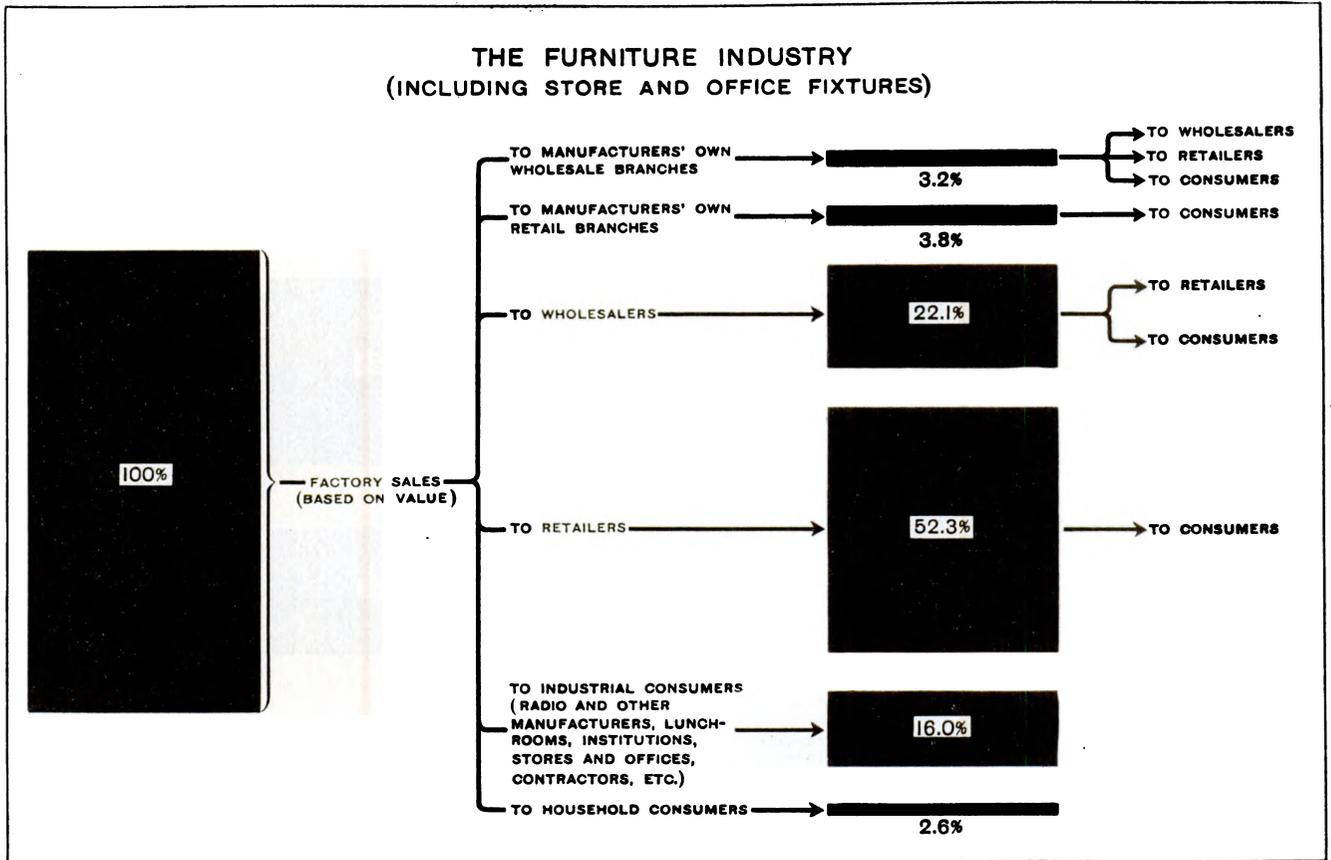
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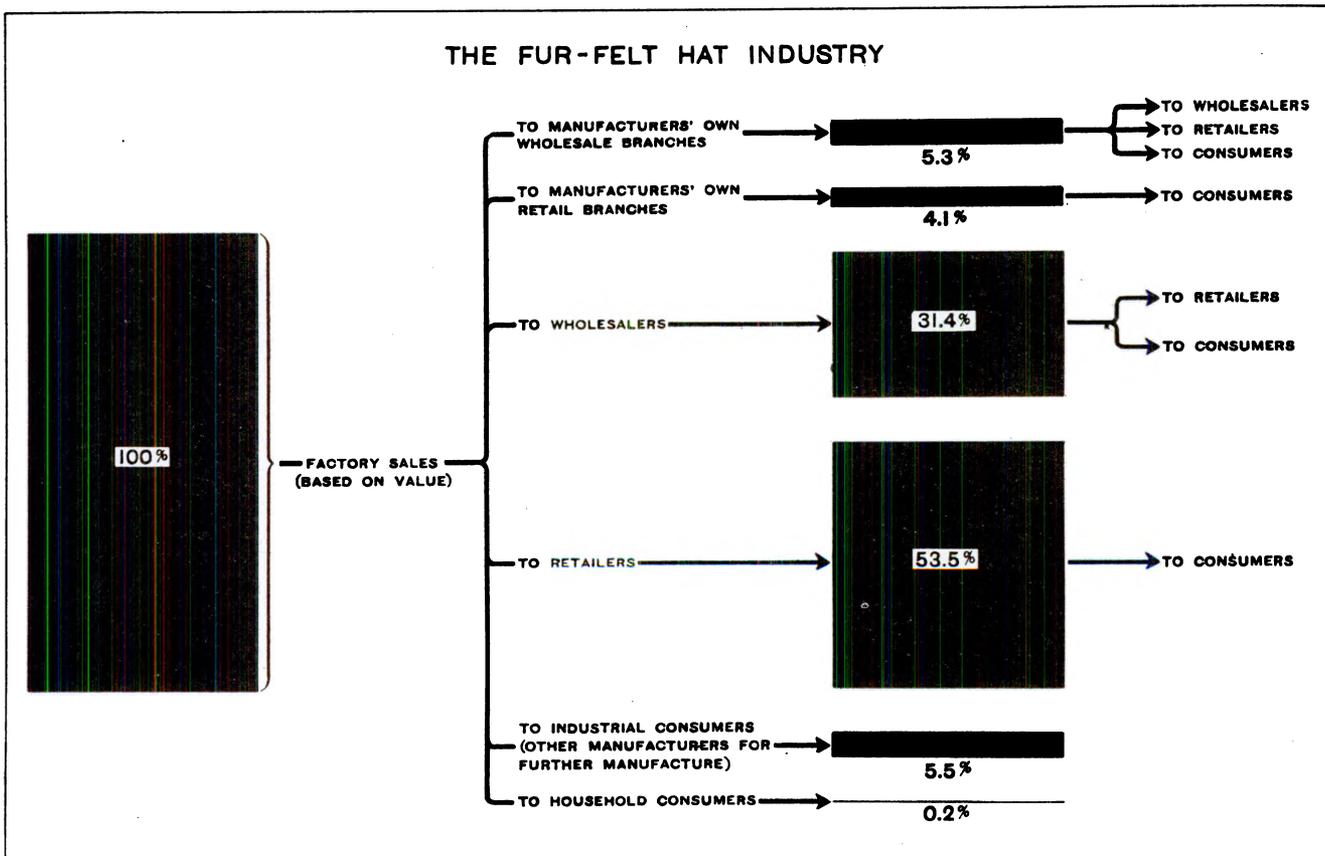
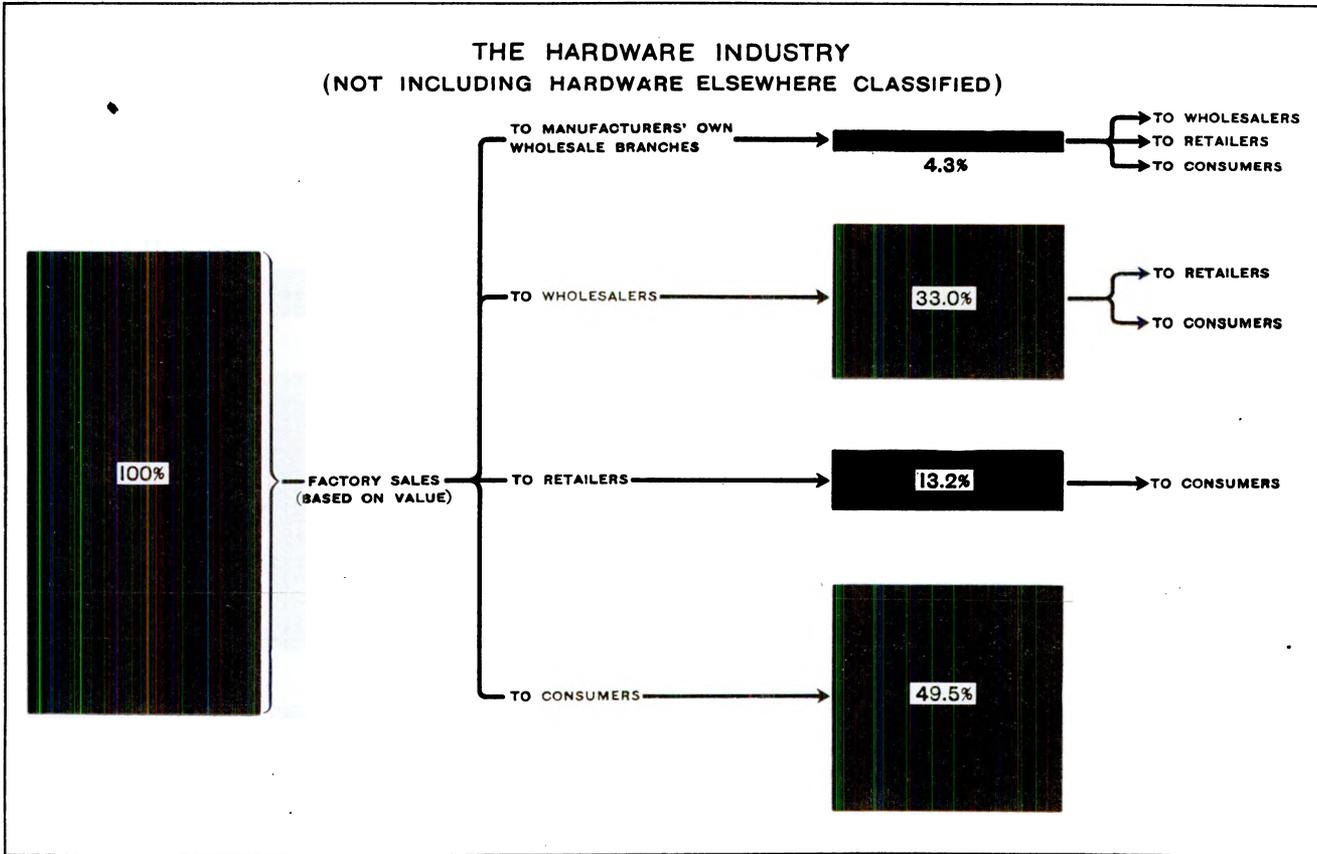


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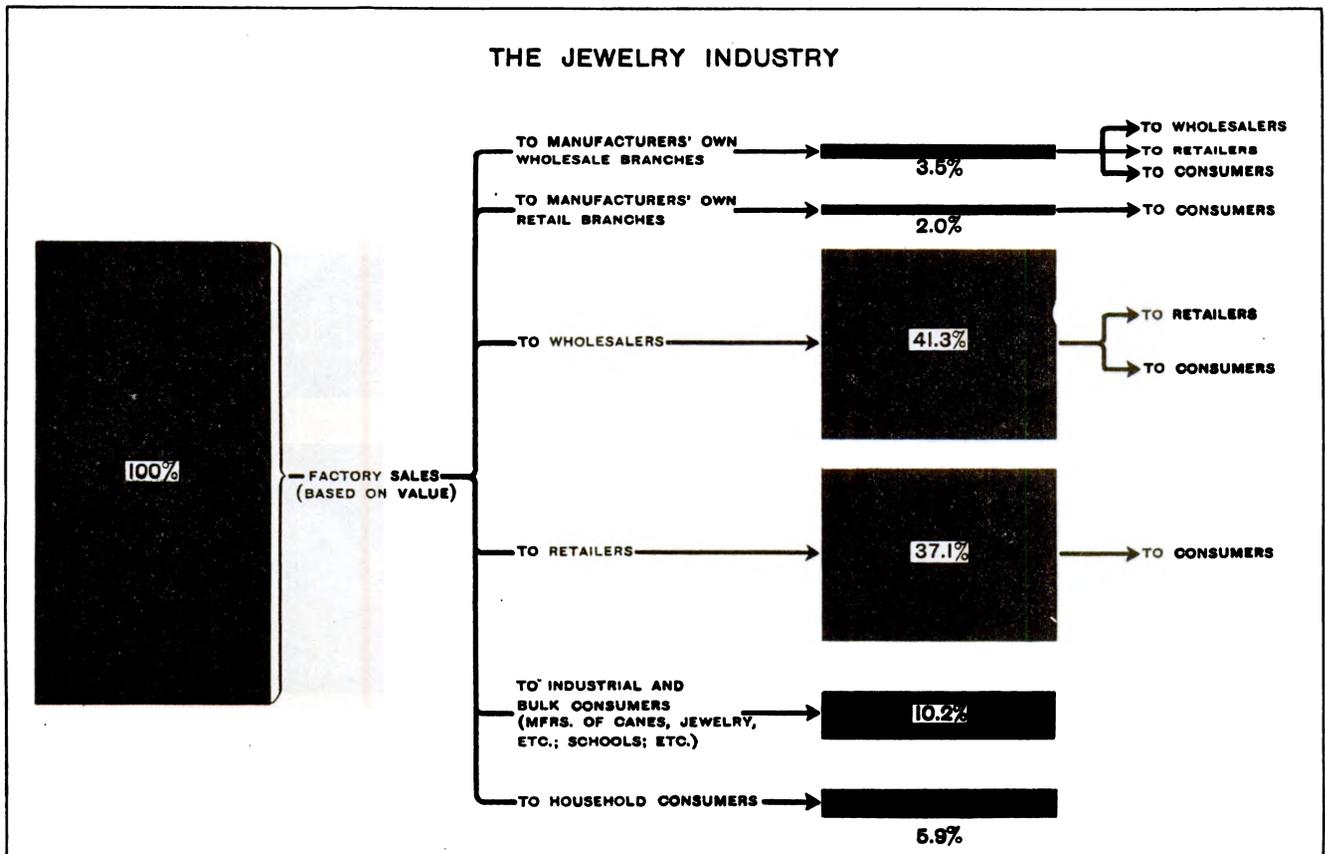
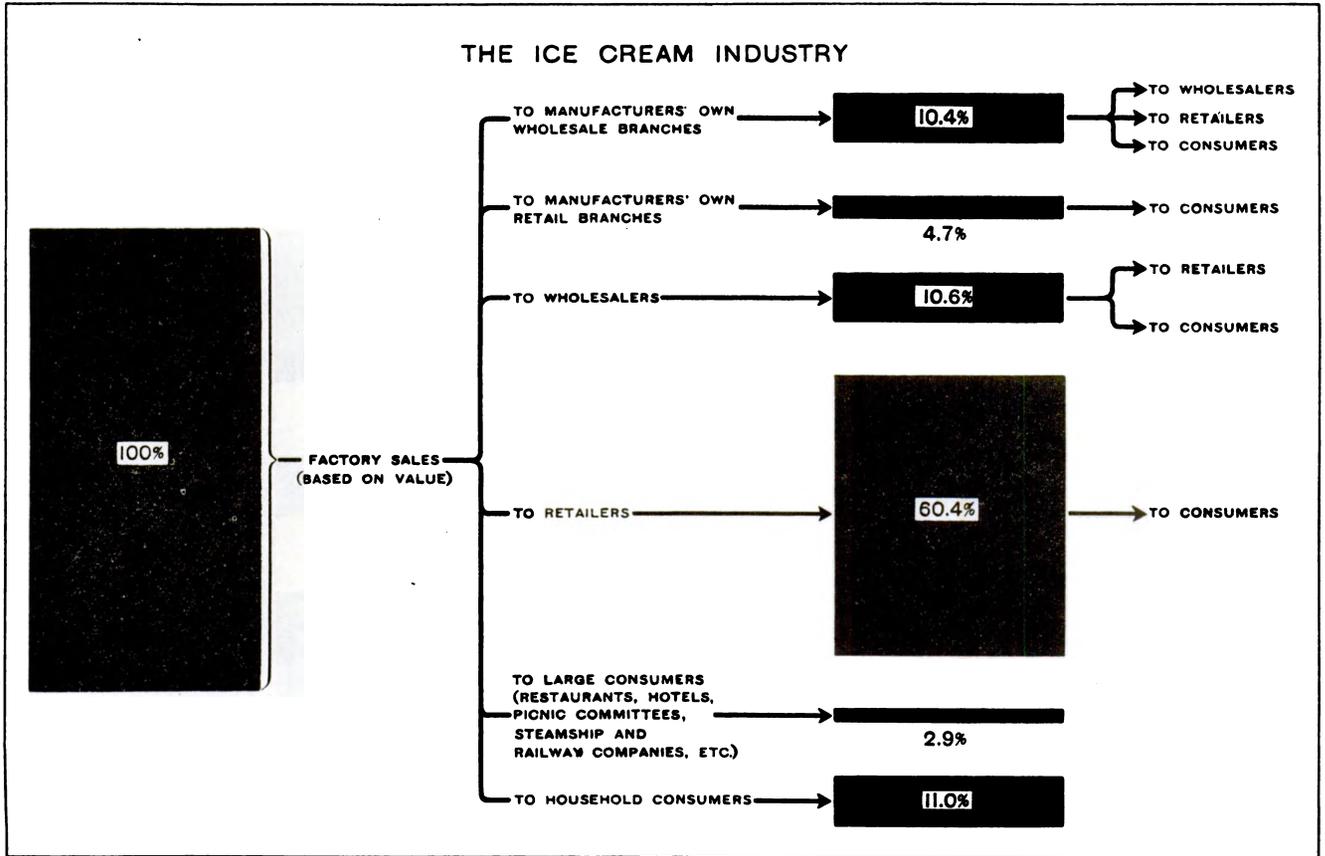


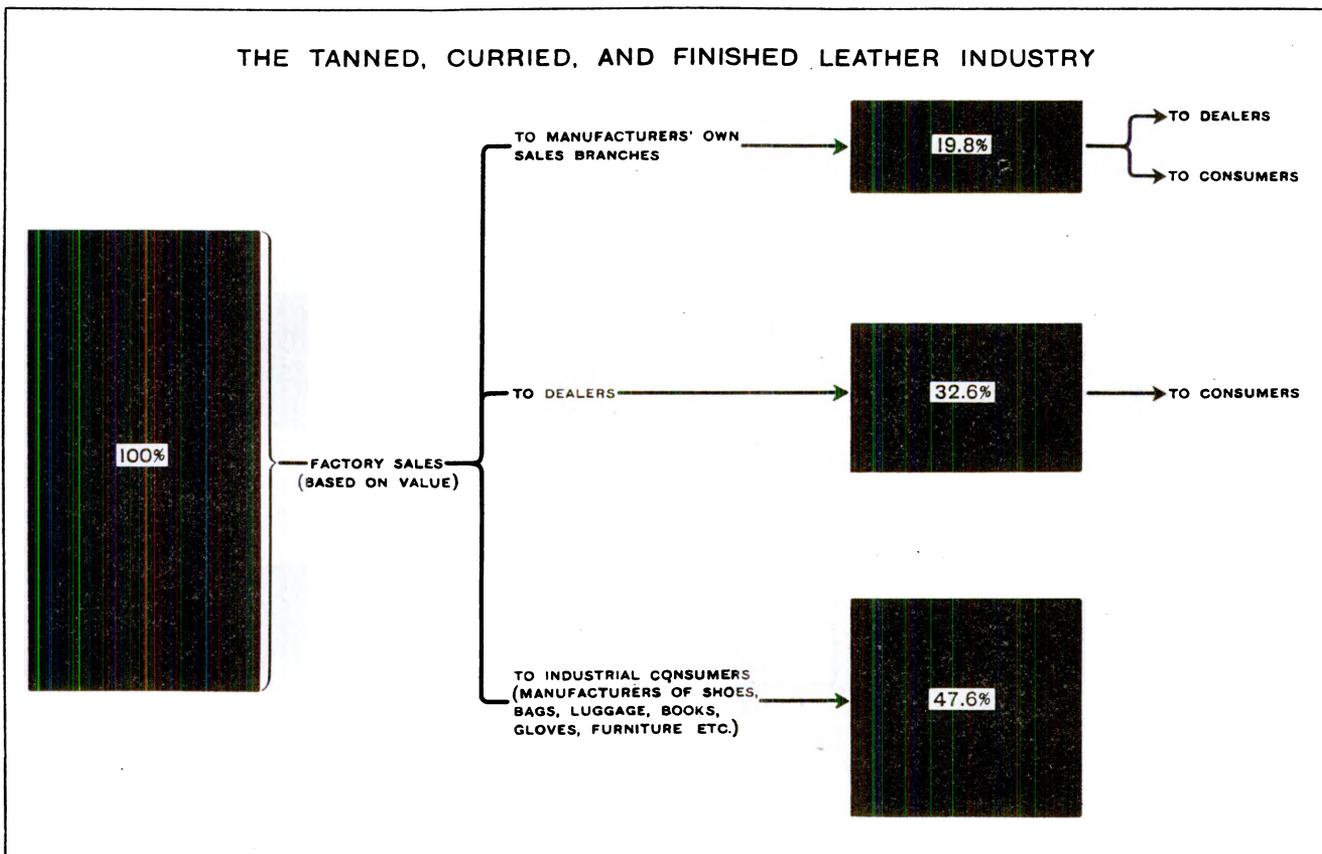
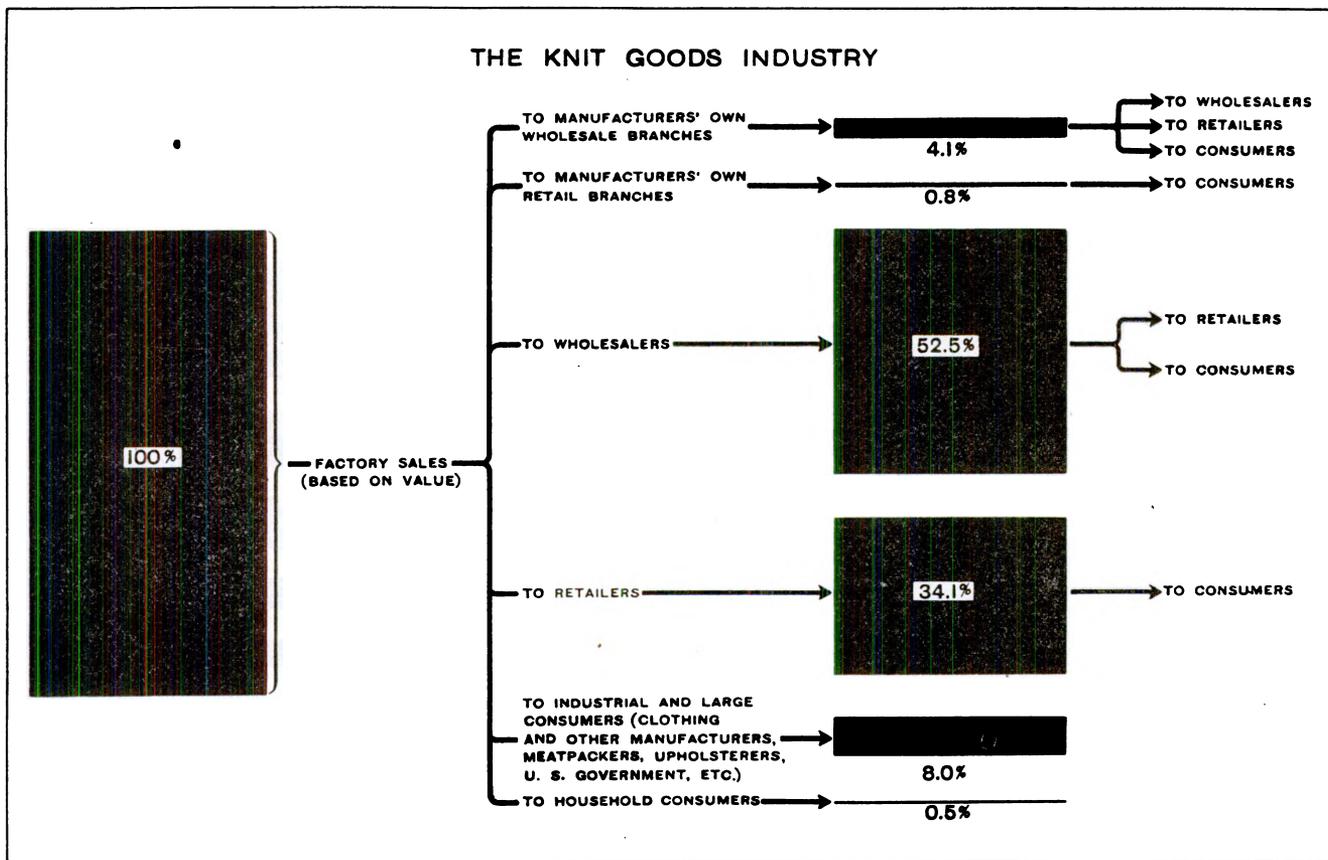
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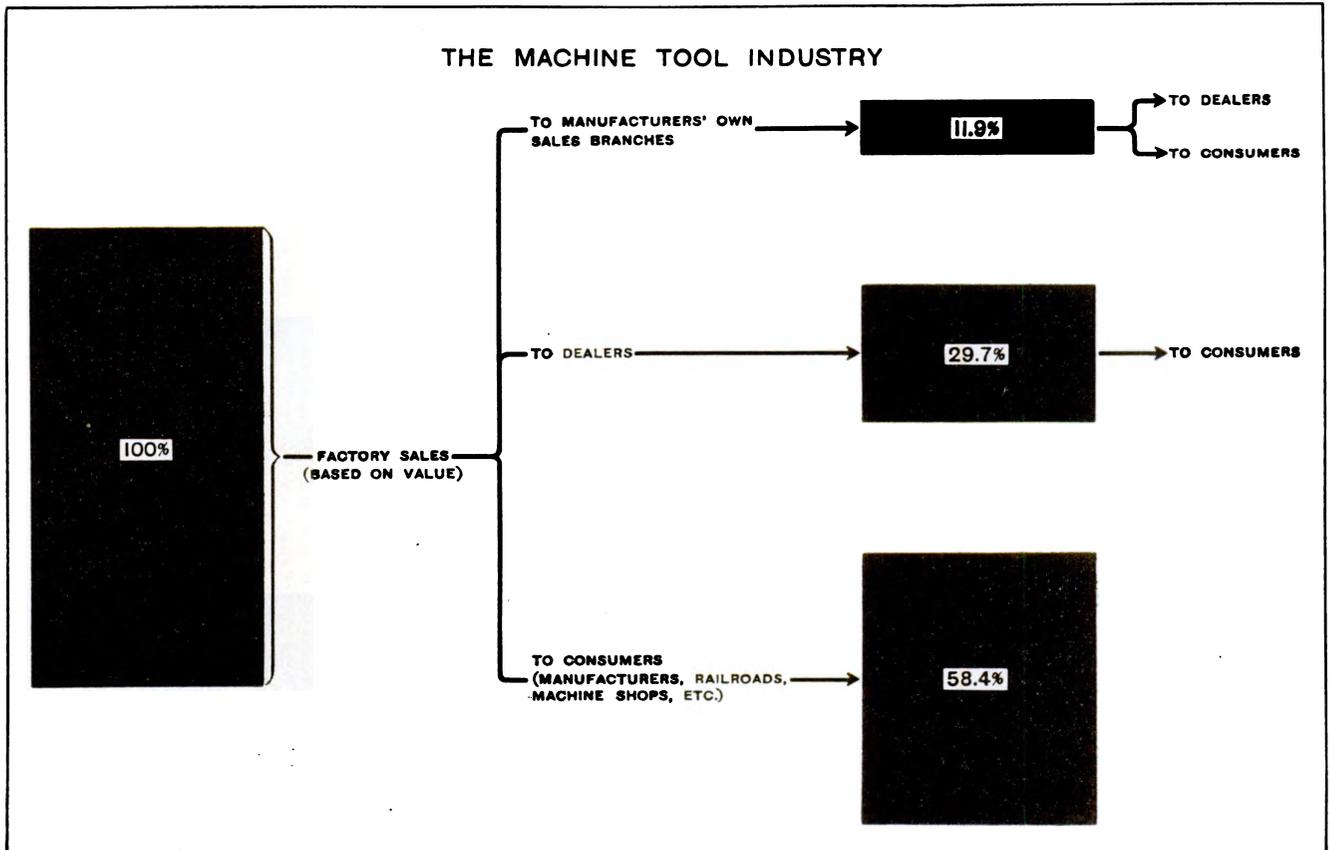
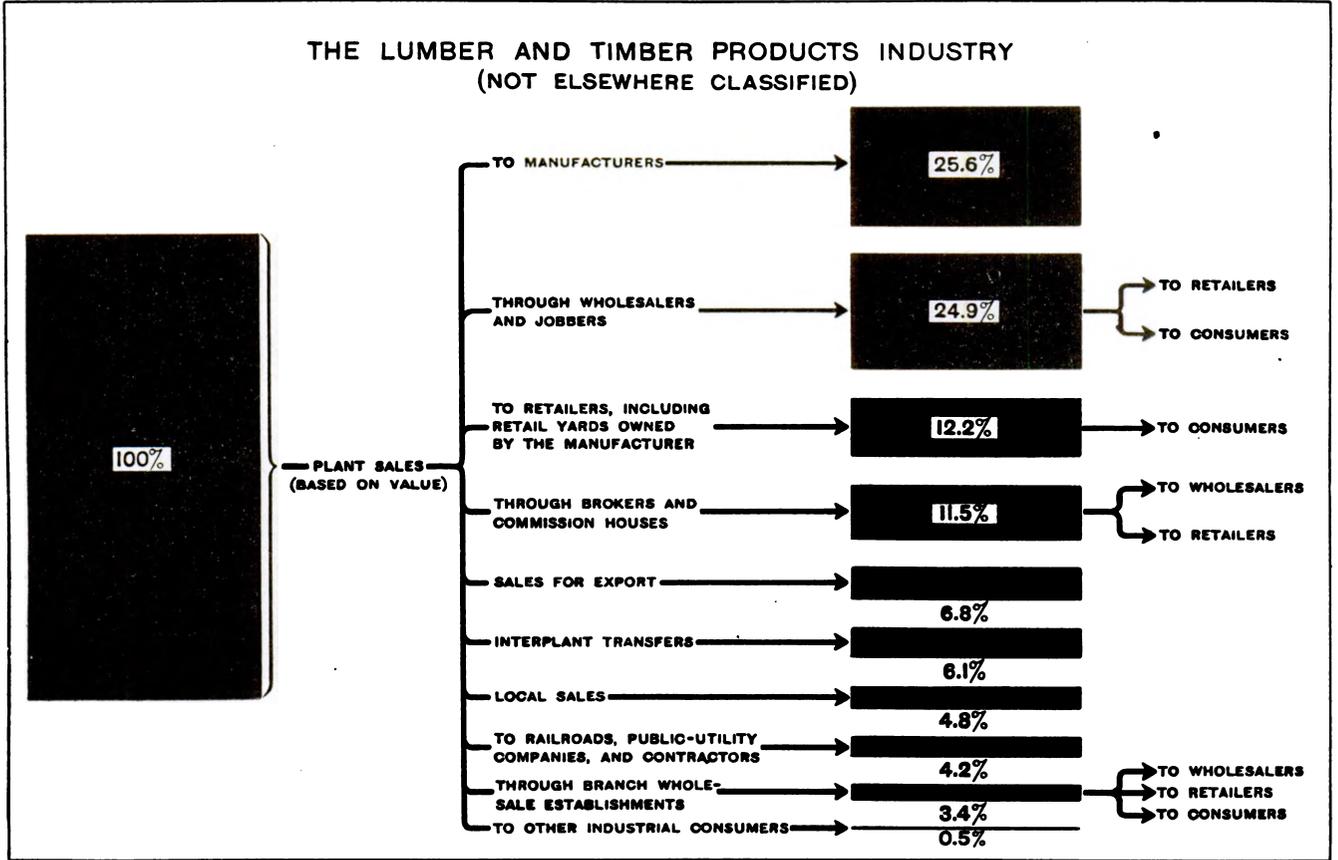


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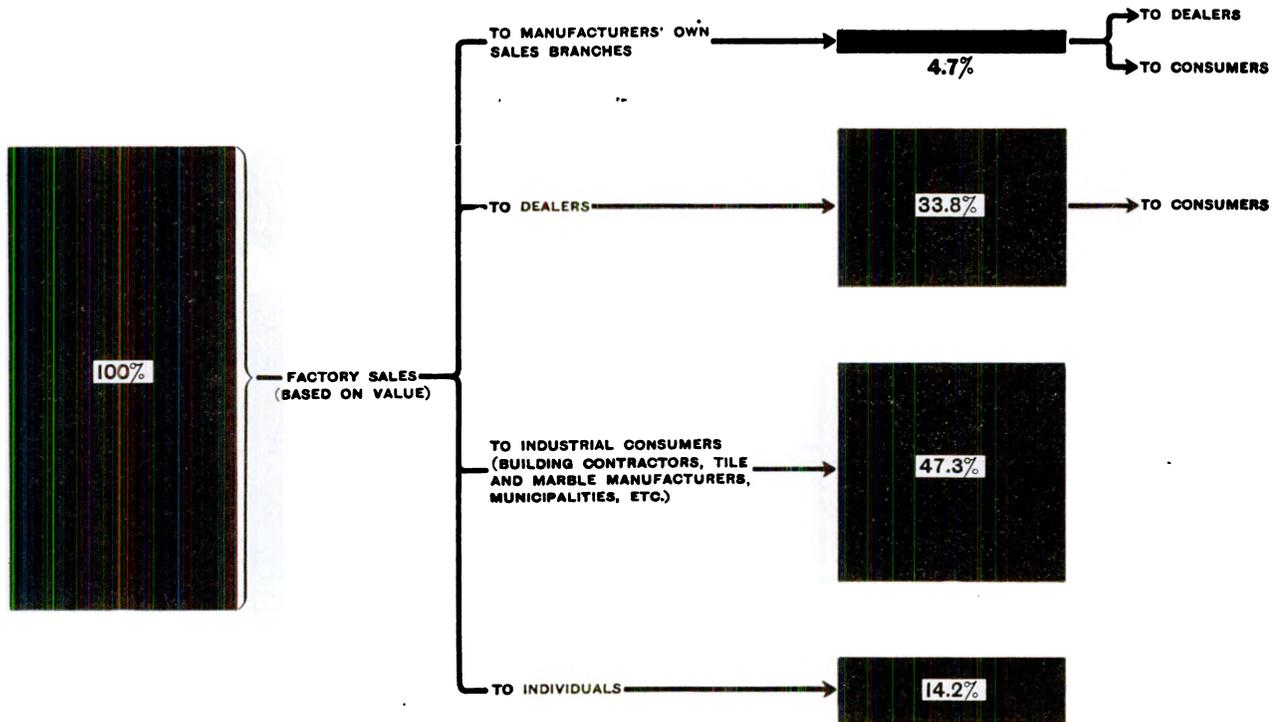




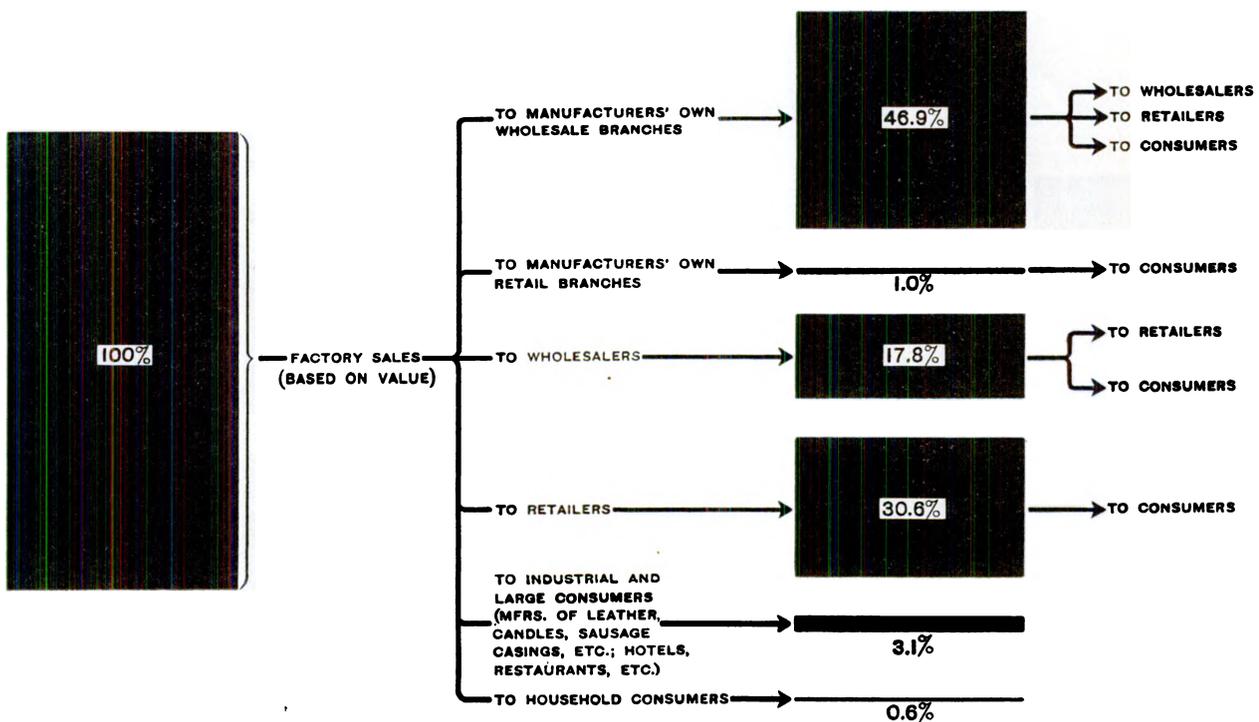
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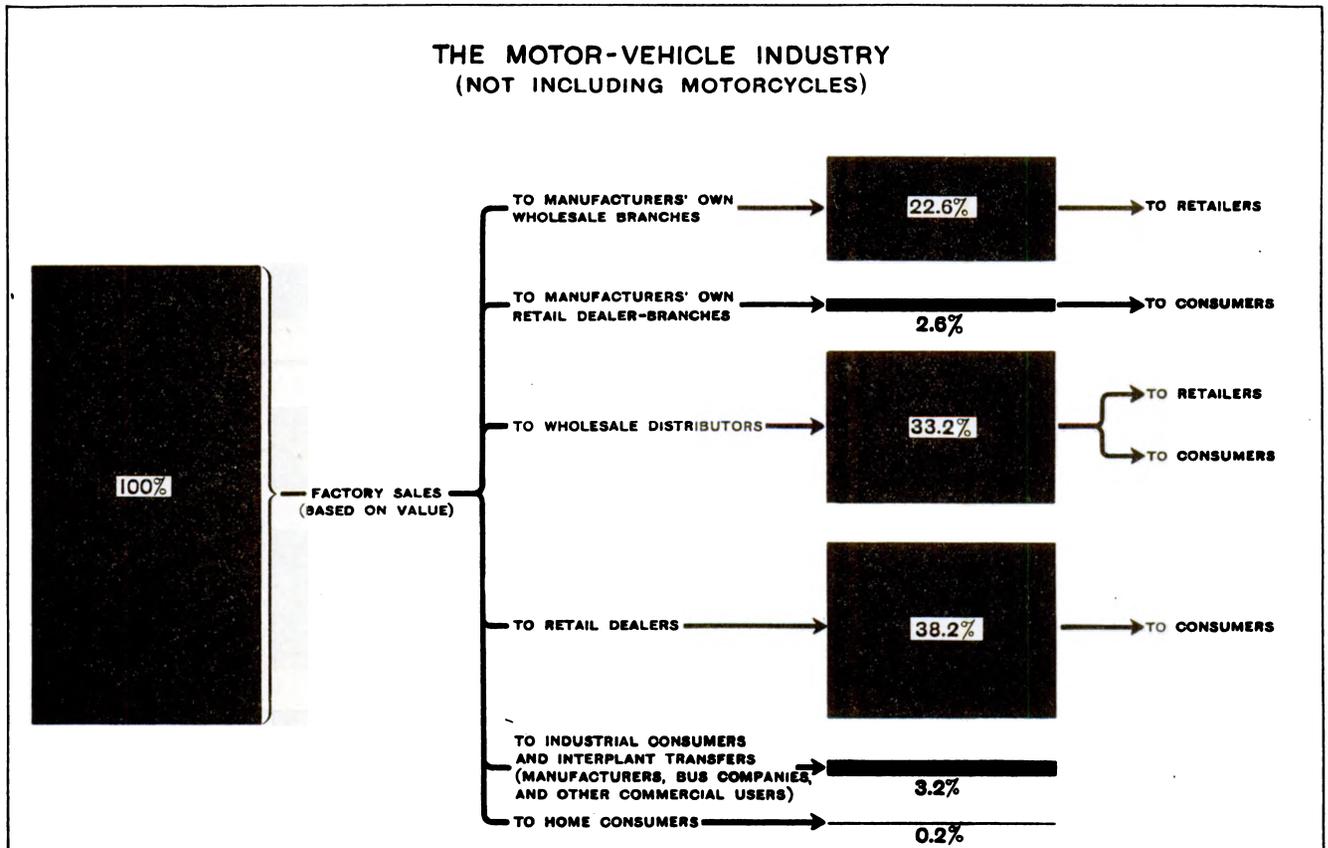
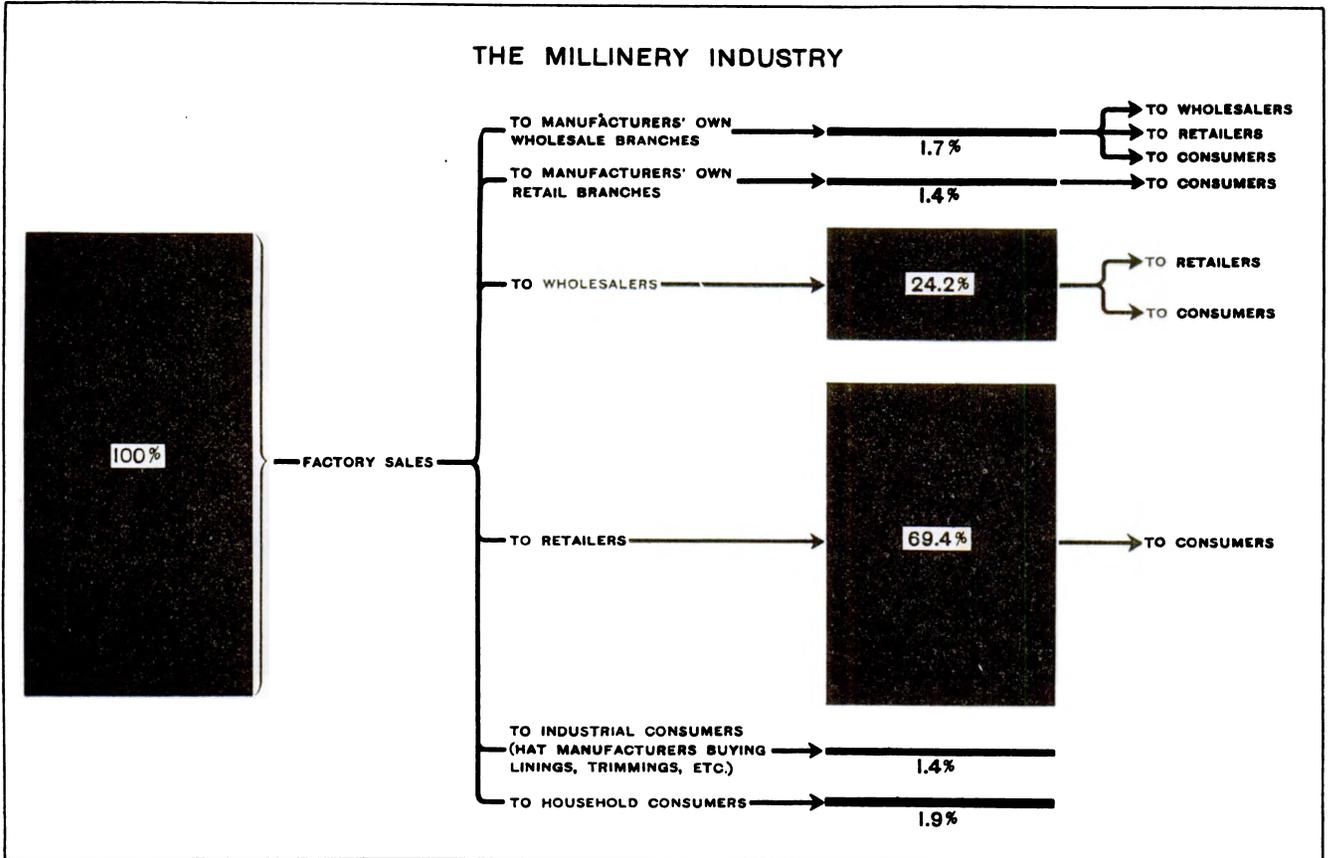


THE MARBLE, GRANITE, SLATE, AND OTHER STONE INDUSTRY

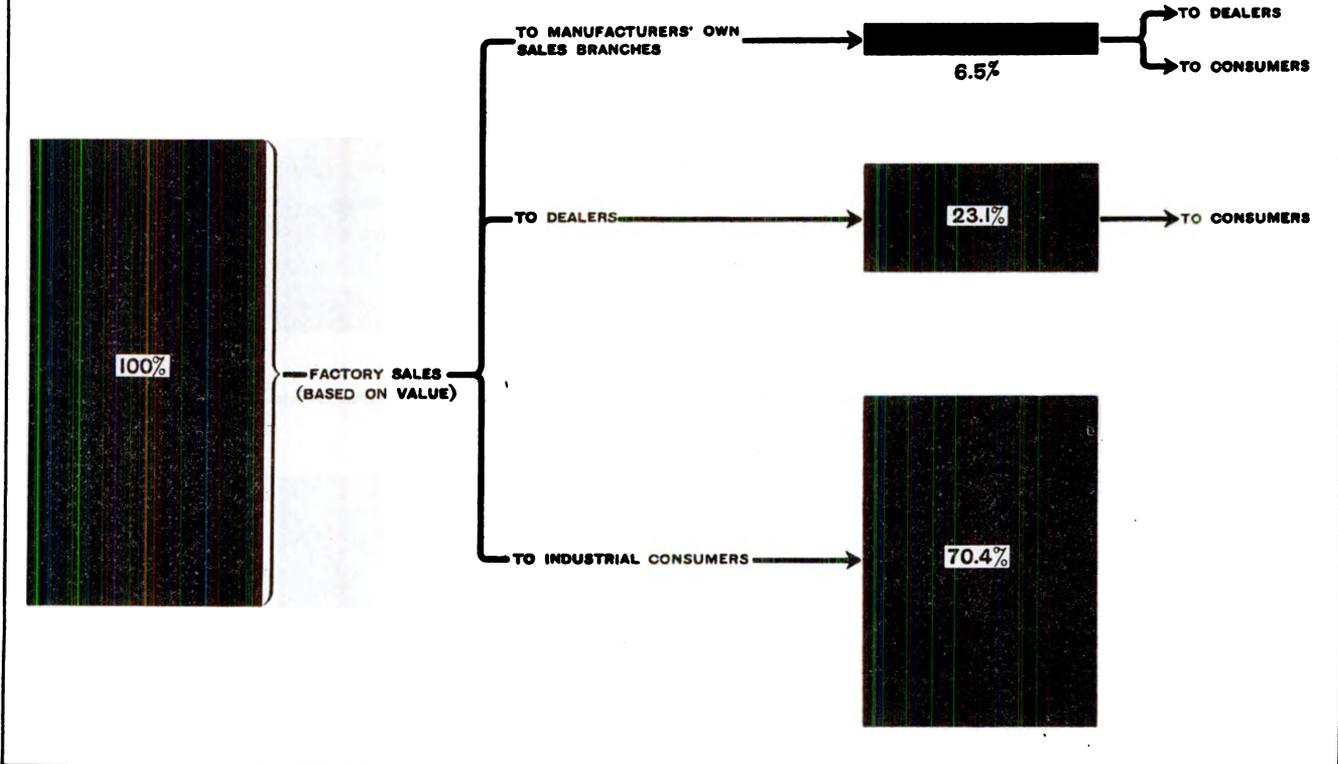


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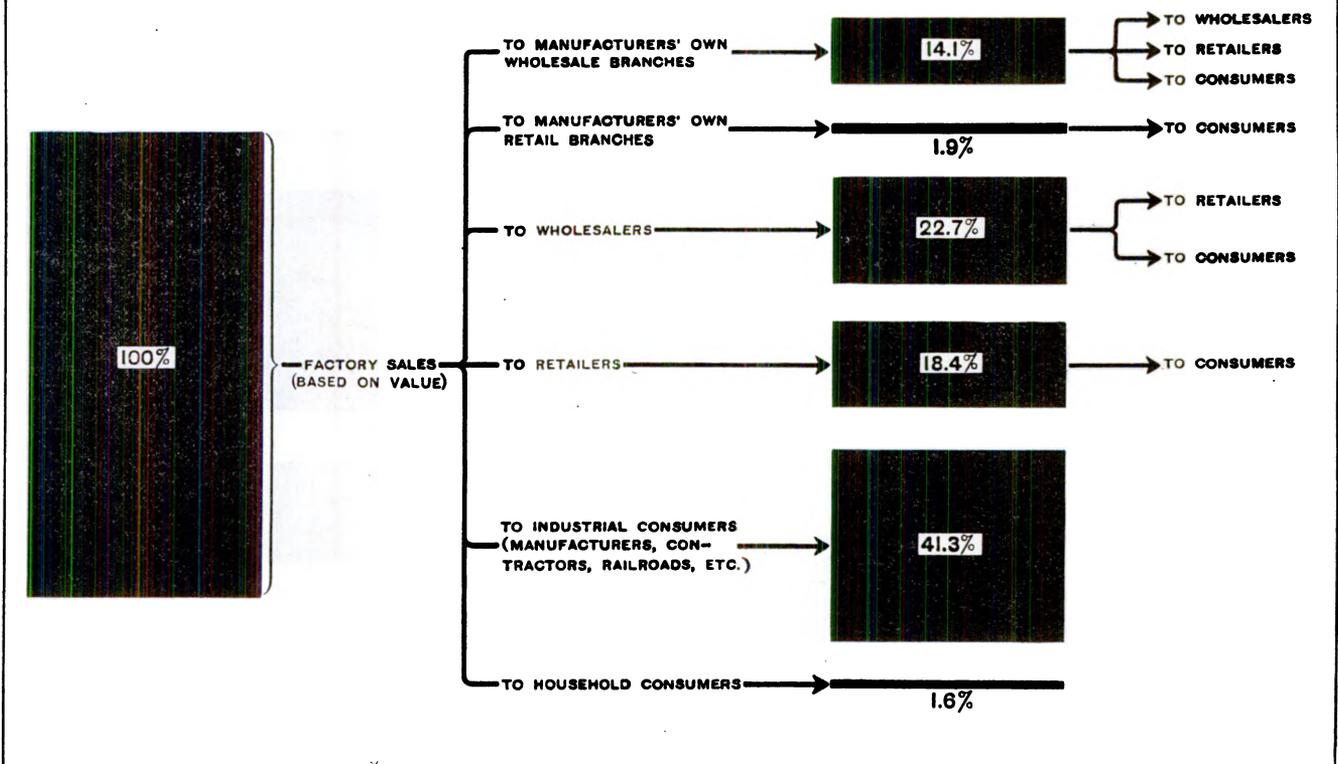


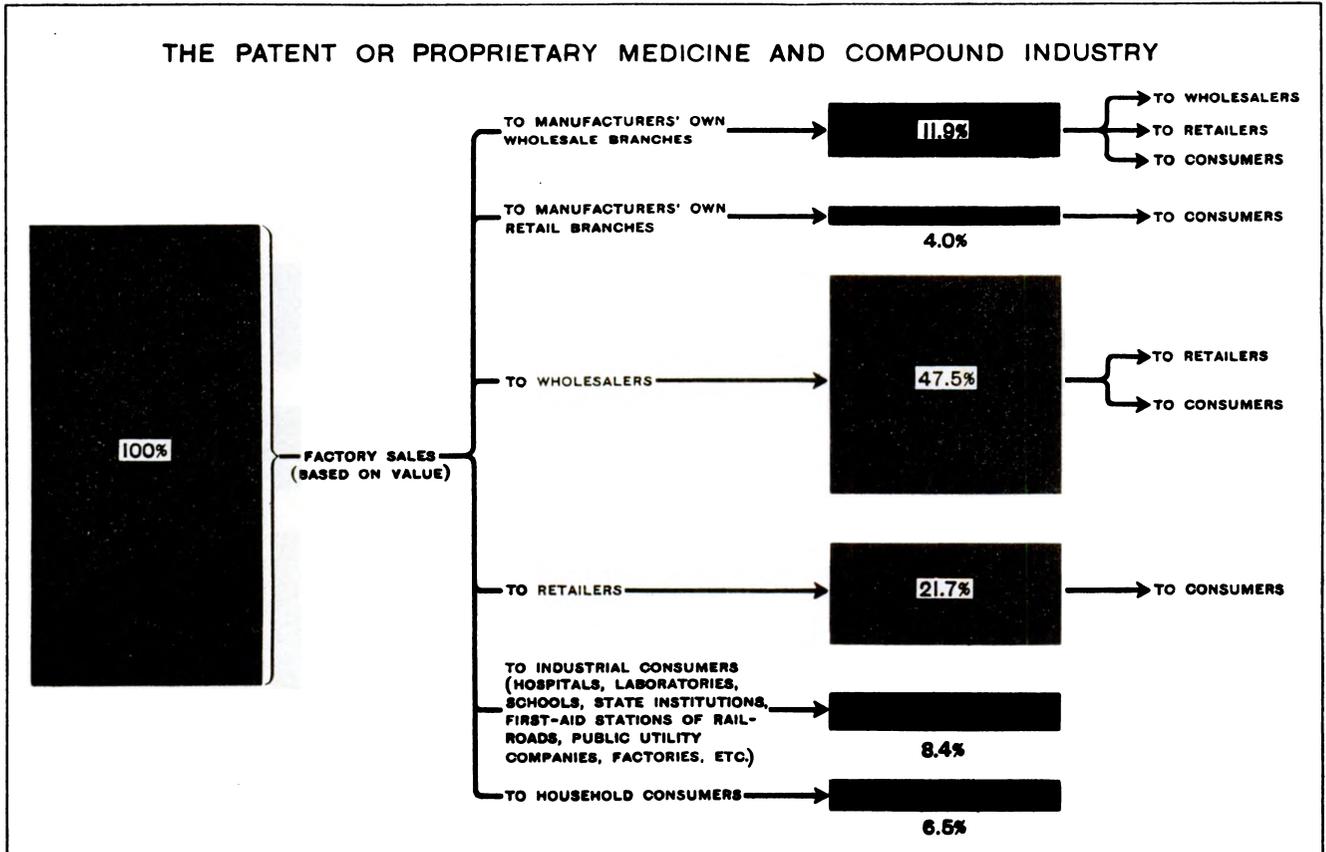
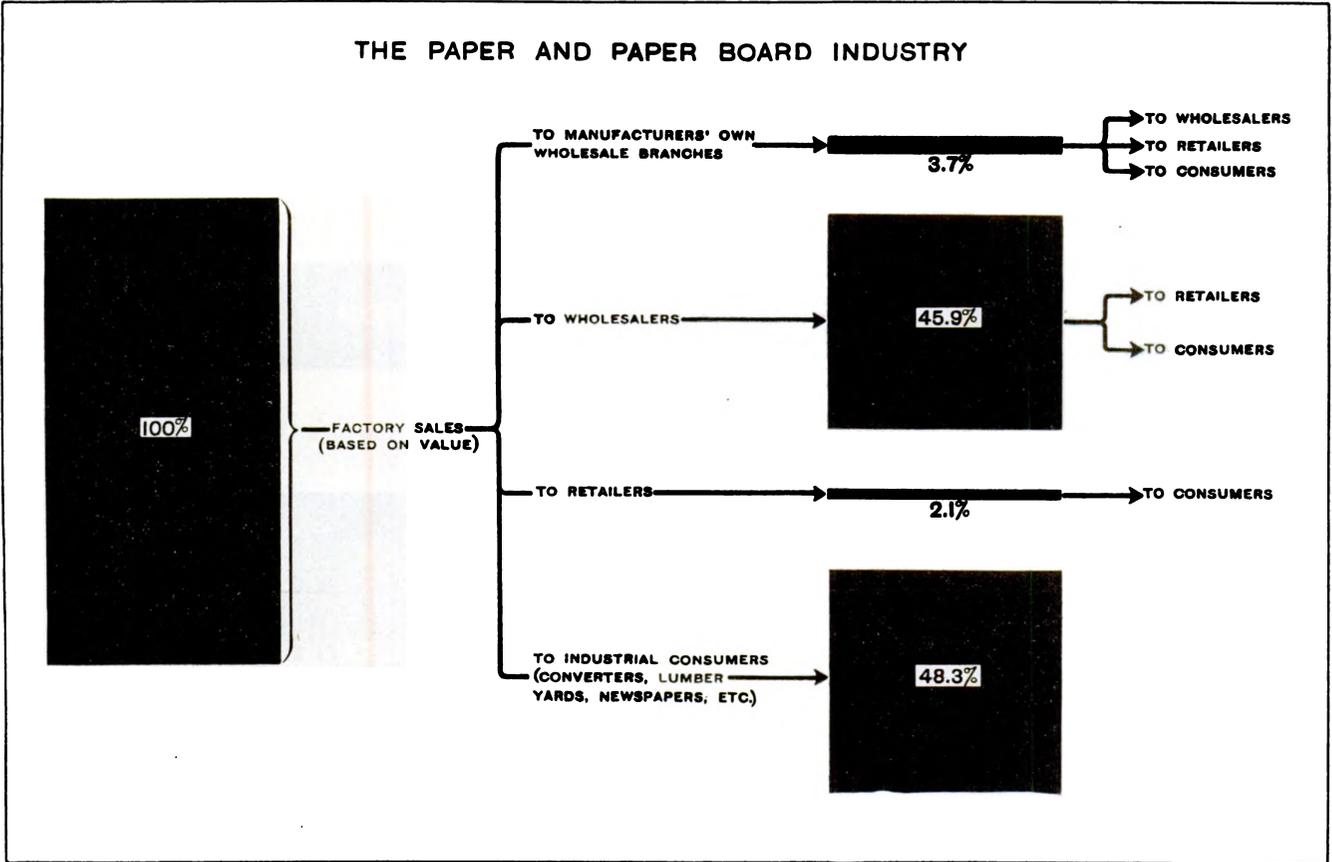


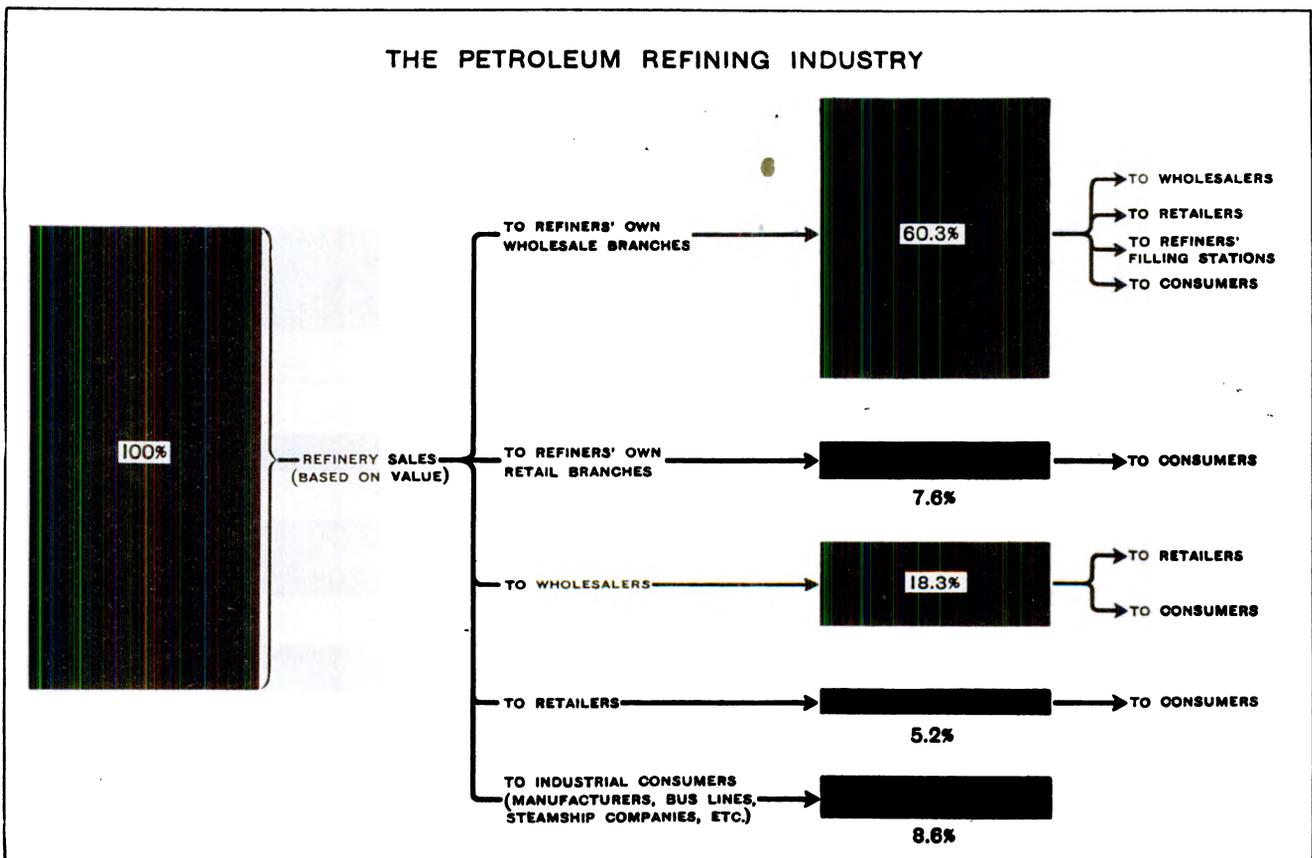
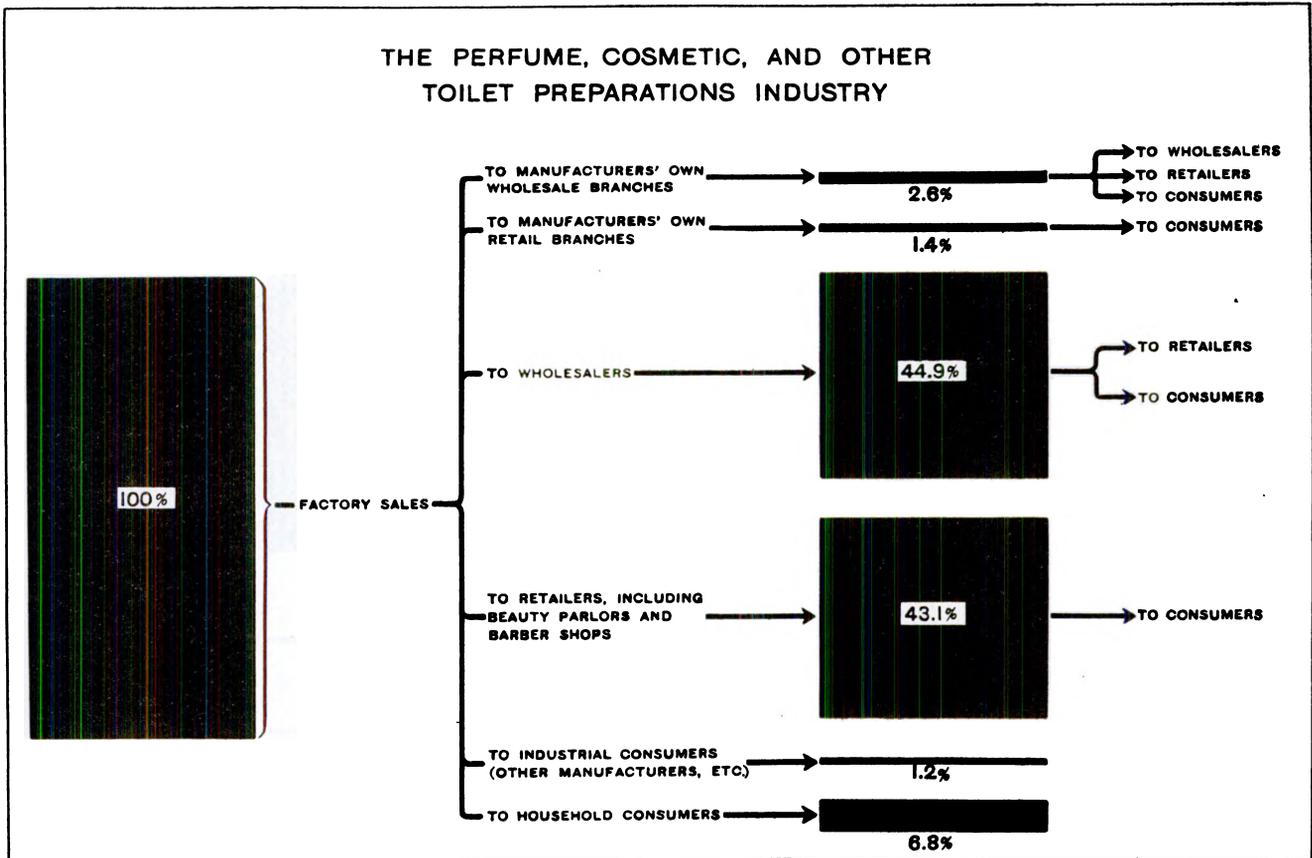
THE NONFERROUS METAL ALLOYS AND PRODUCTS INDUSTRY



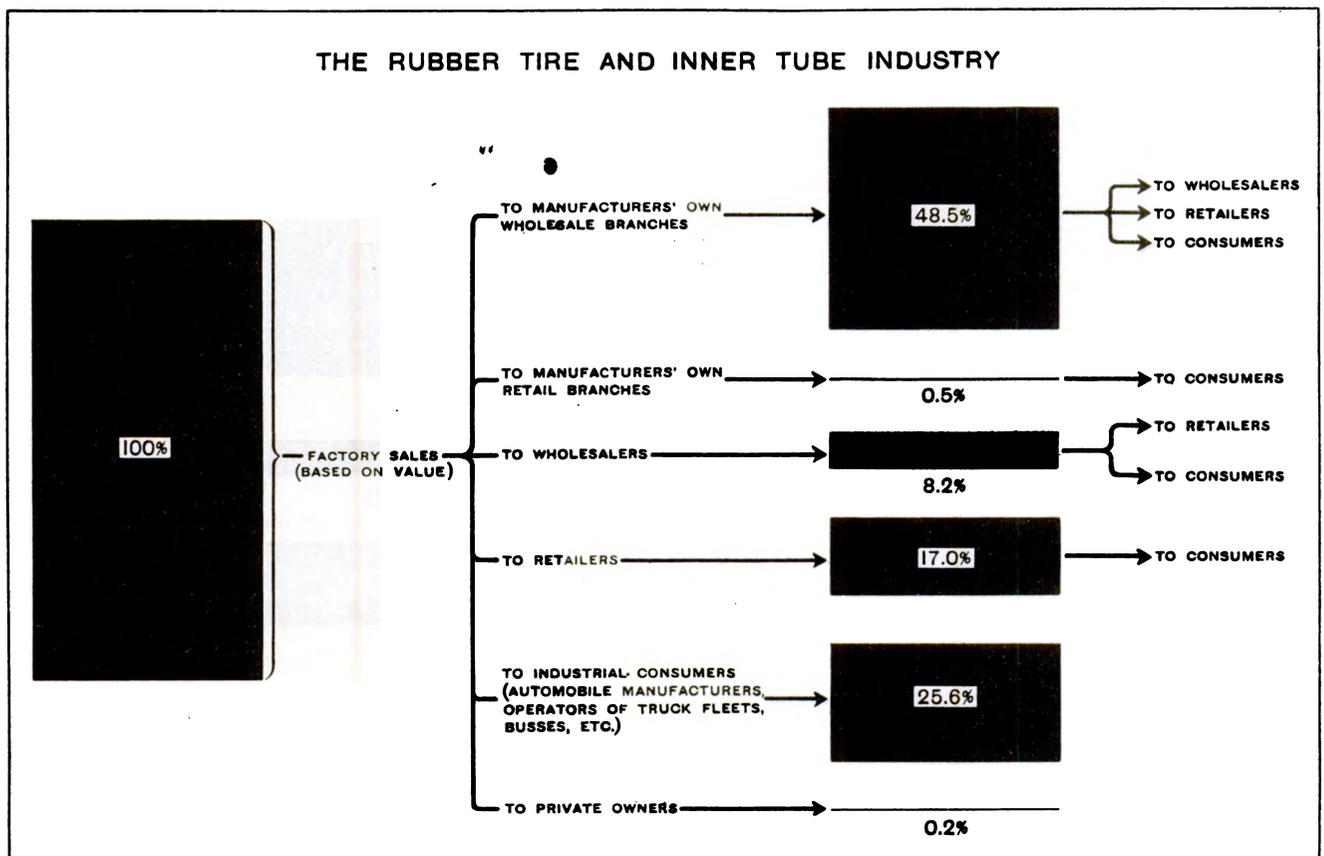
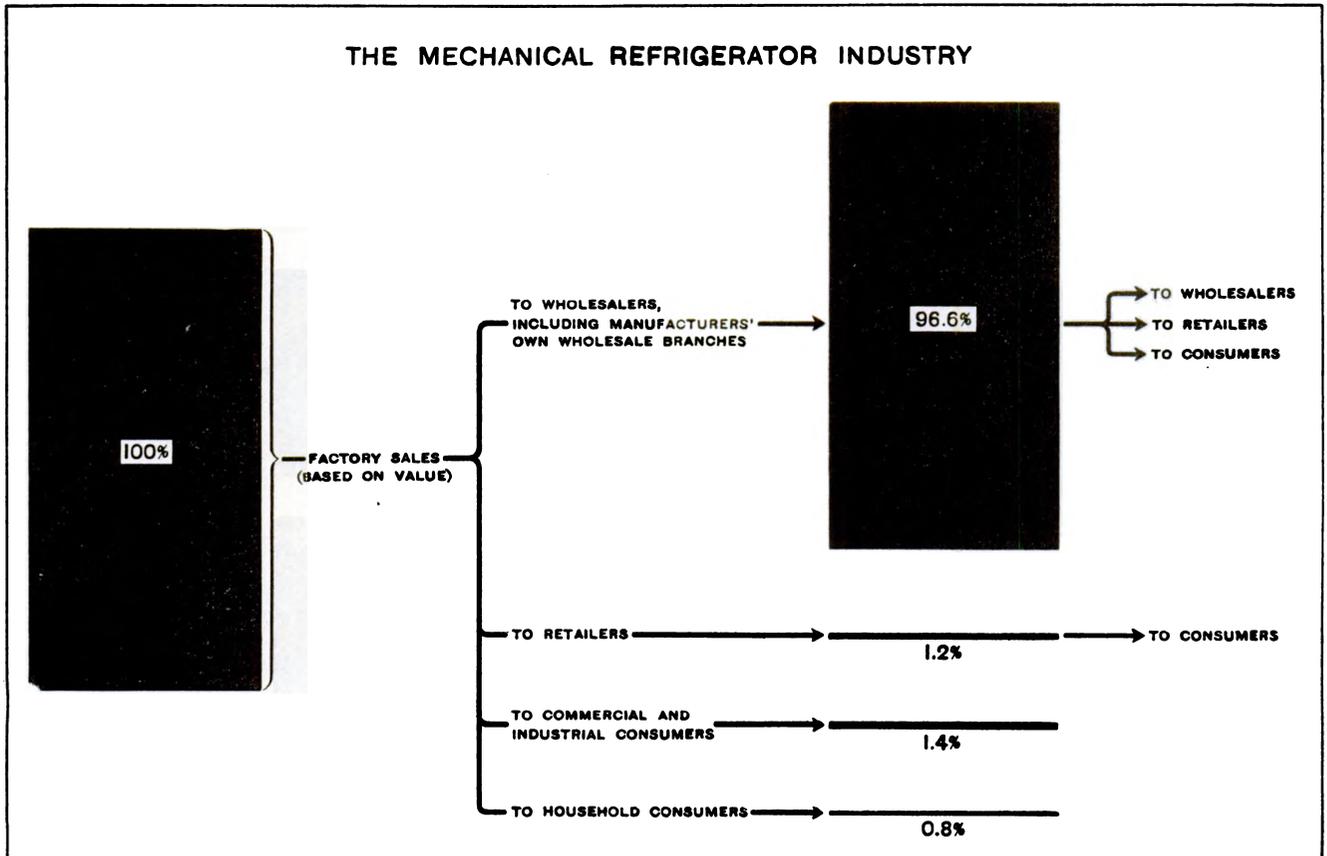
THE PAINT AND VARNISH INDUSTRY

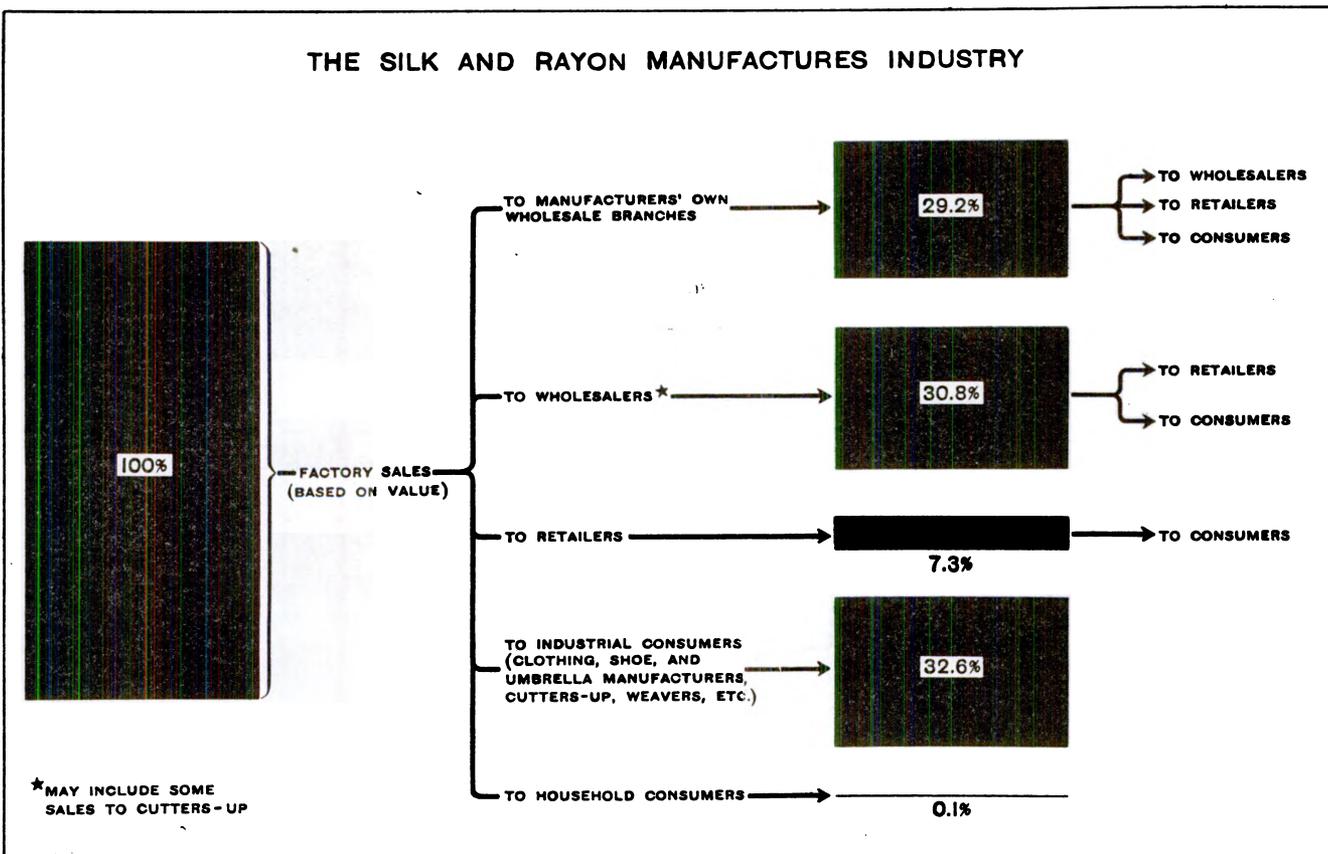
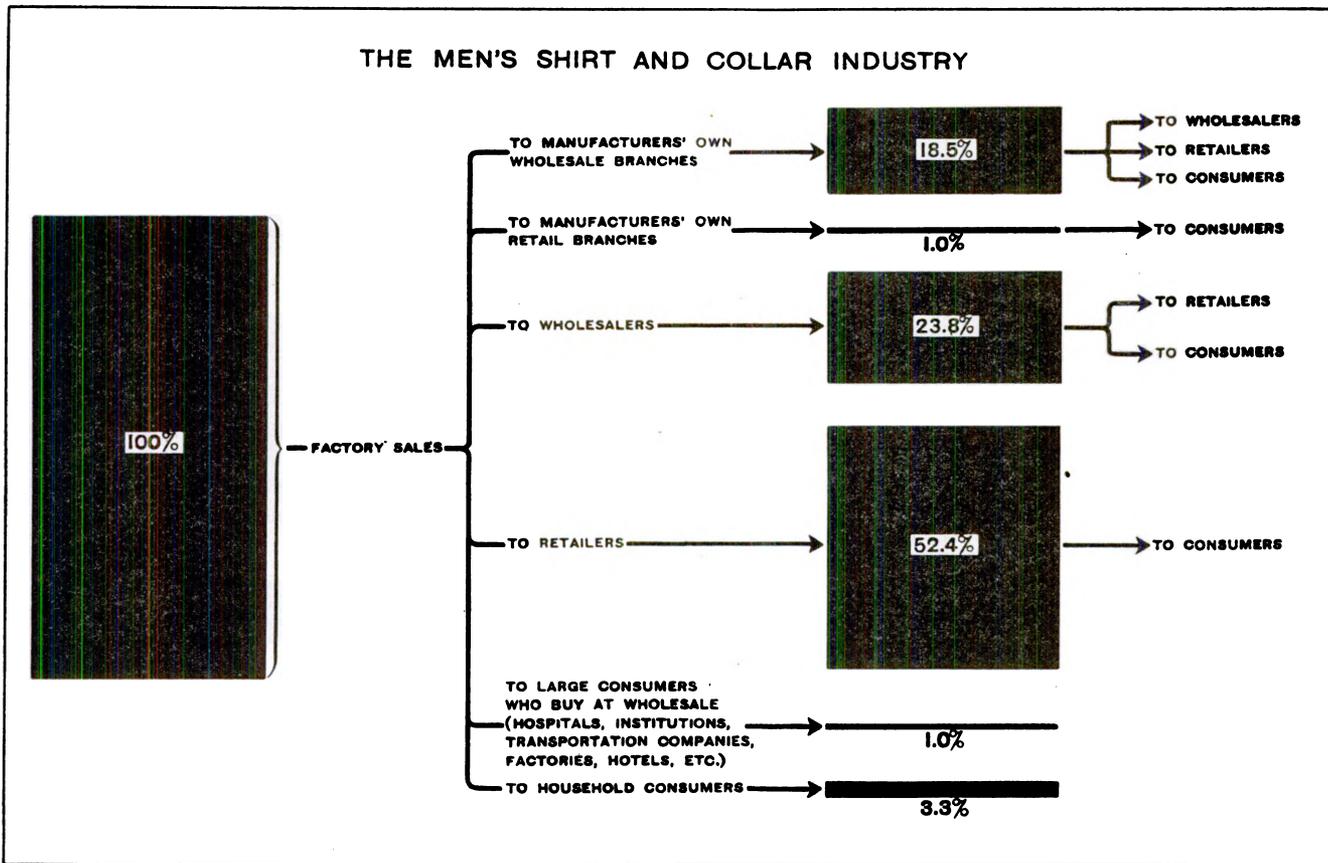




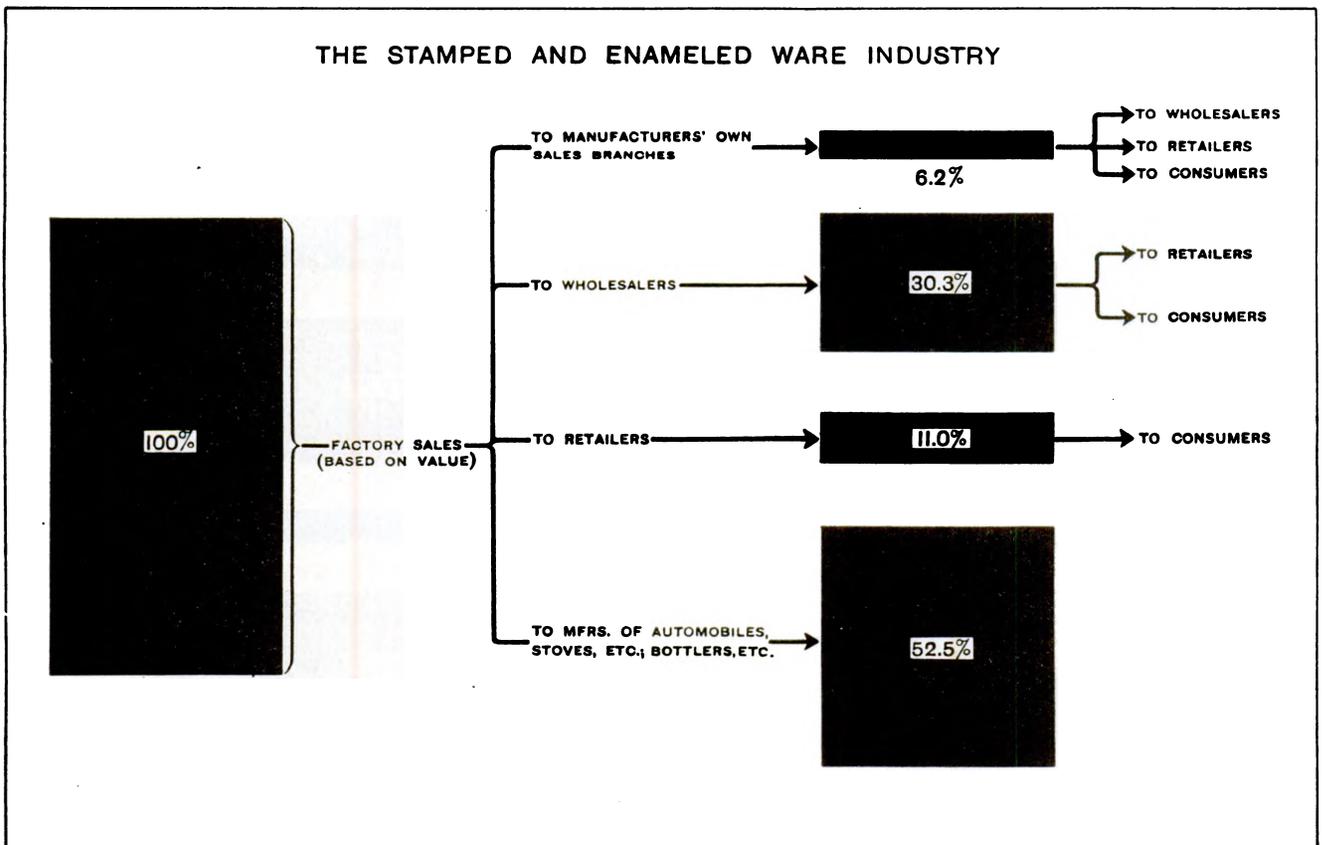
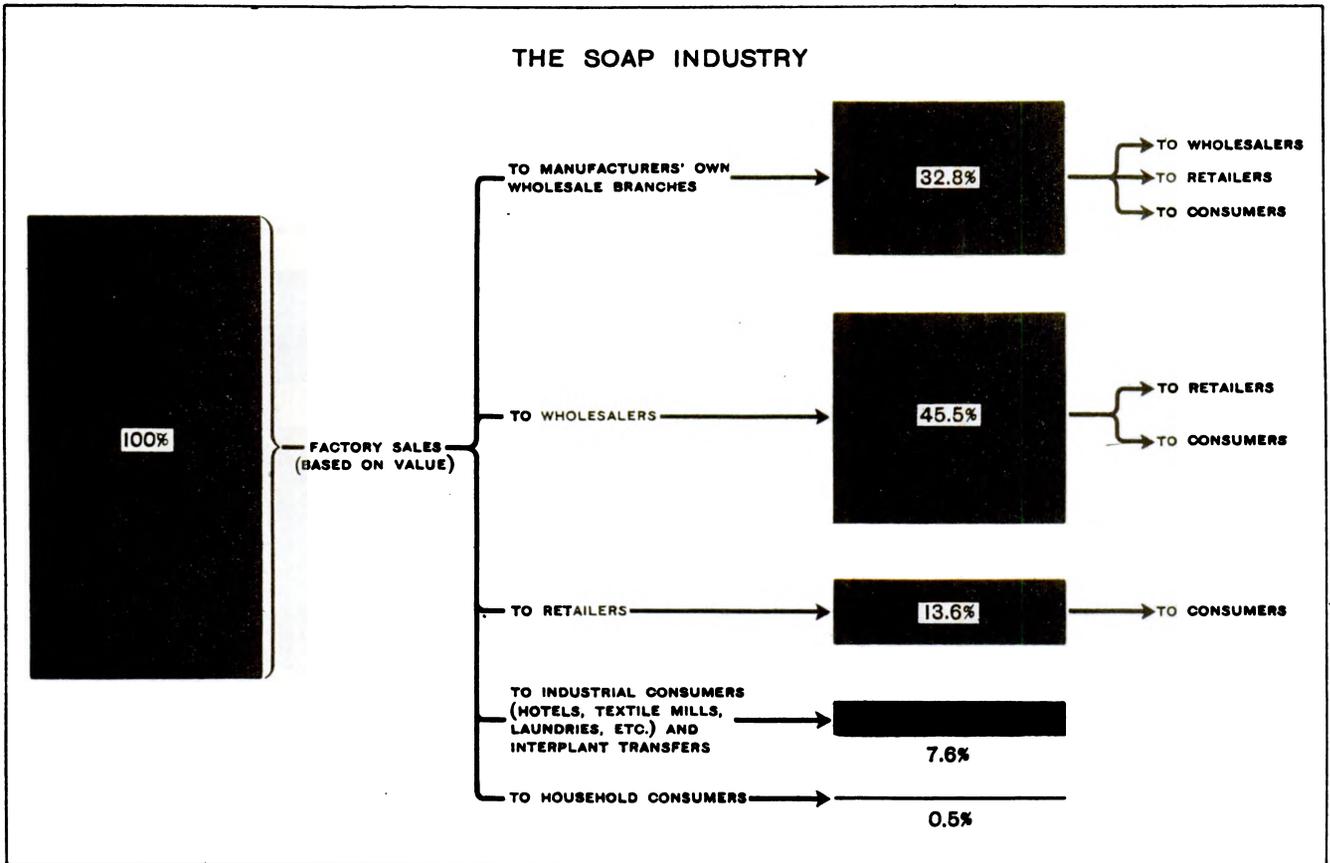


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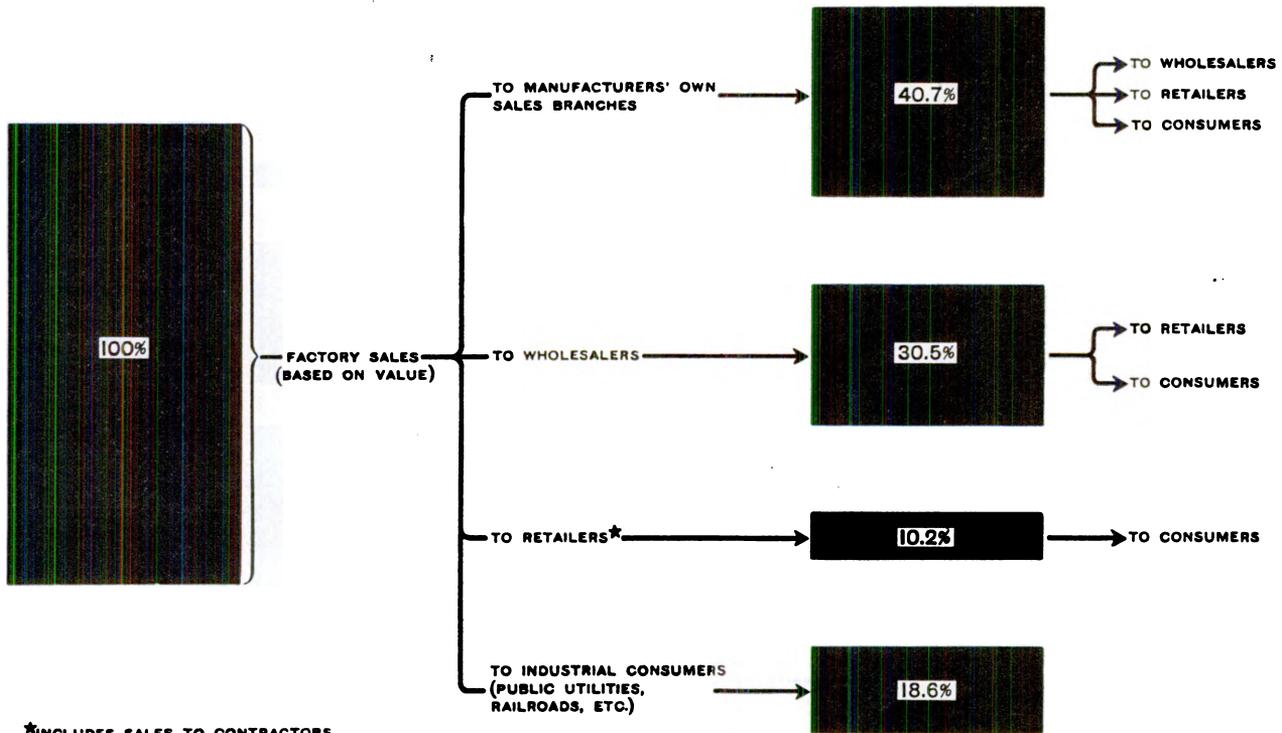




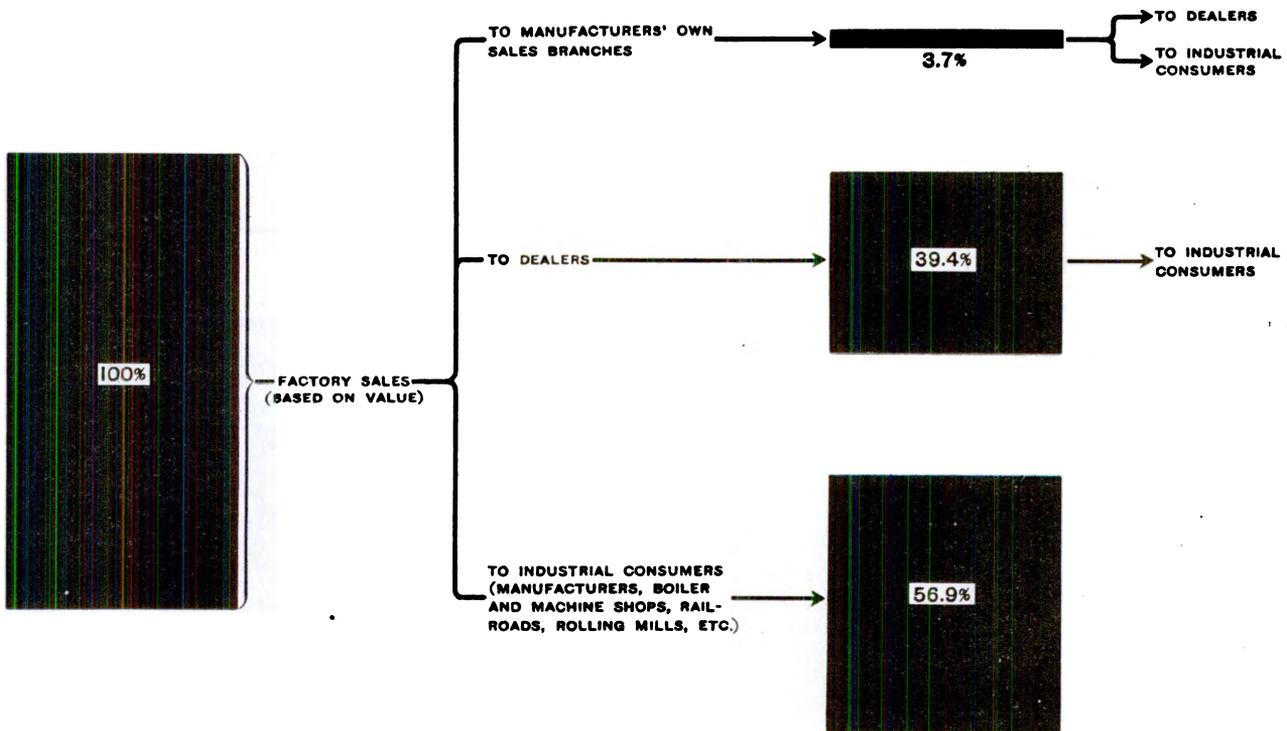
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