

earners to each salary earner in 1922. This is probably due to the fact that in the depression of 1920-22, wage-earners, with a less secure tenure of their positions, were laid off to a proportionately much greater extent than salary earners, so that the proportion of salary earners on the 1922 staffs was abnormally large.

**Value of Products.**—The gross value of manufactured products in 1929 was reported as \$4,063,987,279; the cost of materials was \$2,066,636,914, leaving \$1,997,350,365 as the value added by manufacture. As the finished products of one branch of manufacture are constantly used as materials in other branches in the ascending scale of modern industry, it follows that they are counted over and over again, swelling in this manner the total gross value of products. The total value of manufactured products, strictly defined, would include: (1) the value of all raw materials obtained from the extractive and primary production industries which have entered into the manufacturing output; and (2) the entire value added to these raw materials by manufacturing processes from the time they first entered any factory up to the close of the census year. This total value would be very much greater than the \$1,997,350,365 shown as having been added by manufacture, but not so great as the \$4,063,987,279 shown as the gross value of production. (The decline of \$635,000,000 in gross value of products in 1930 was mainly accounted for by a drop of almost \$400,000,000 in the cost of materials).

**Volume of Manufacturing Production in Recent Years.**<sup>1</sup>—An investigation of the greatest importance, especially in a period when values are rapidly changing (see p. 310, also Chapter XX dealing with price movements), is that of the volume of manufacturing production as distinguished from its value. Since real income is ultimately measured in goods and services, the growth of the volume of manufactures therefore becomes a matter of great importance. The important thing to know is whether consumers are getting more goods and services, not whether they are expending more dollars and cents.

The ever-increasing use of factory products is one of the most significant features of modern life. Its beginnings are sketched in the introduction to this Chapter on pp. 305-309. The process has continued until at the present time fresh fruits and vegetables are about the only articles which reach the consumer without, in some way, being first processed at a factory. Fresh milk is pasteurized and bottled in a dairy plant, fresh fish and meats are dressed principally in packing plants, and the home preserving of fruits and vegetables is being superseded by more efficient processes in the canning factory. Thus even the foods we eat, as well as the clothing we wear, our household conveniences and our instruments of production and transportation are increasingly products of factories. The growing volume of factory production, therefore, measures approximately the total flow of the economic goods upon which the rising standards of modern life so vitally depend.

The statistics of manufactures afford a variety of measures of the growth of factory production. The number of wage-earners, capital invested, value of production and value added by manufacture all show to some extent the direction and volume of growth. The value of production and that added by manufacture, being reported in dollars, are influenced by price changes as well as the quantity of goods produced and, as already explained, become misleading under the violent price changes of the past fifteen years. The capital invested is also affected by changing money values, while the relation between capital invested and value of goods produced varies greatly as between one industry and another. Neither is

<sup>1</sup>For a much more detailed and comprehensive treatment of this subject see the study "The Physical Volume of Manufactures" by A. Cohen, B. Com., Acting Chief of the Census of Industry, Dominion Bureau of Statistics.