

factory up to the close of the census year. This total value would be very much greater than the \$1,635,923,936 shown as having been added by manufacture, but not so great as the \$3,425,498,540 shown as the gross value of production.

Volume of Manufacturing Production in Recent Years.—An investigation of the greatest importance, especially in a period when values are rapidly changing, is that of the volume of manufacturing production as distinguished from its value. This is a difficult subject of research, particularly on account of the constant changes in the commodities manufactured and in their relative proportions. It is, however, a matter in which tentative conclusions are better than none, and accordingly an estimate of the volume of manufacturing production in recent years has been attempted in Table 4, on the following plan. First, the gross value of the manufactured commodities produced in 1917, the first year of the annual census of manufactures, is taken as 100, and later years given as a percentage of this. Gross values, although they include numerous duplications, are used since the purpose is to determine changes in the volume of manufactured commodities produced irrespective of the relative value of the raw materials used. A better figure than gross values would be the one outlined above, *i.e.*, the sum of the values of all original raw materials used plus the values added in the various ascending stages of manufacture. But unfortunately such a figure is not available. Next, the average index number of the wholesale prices of the 276 manufactured commodities used in the Bureau's index number of wholesale prices is given for each year, and, in the next column, reduced to a percentage relative to 1917. Finally, the values, expressed as a percentage, are divided by the prices, also expressed as a percentage, and the quotient is considered to indicate the volume of manufacturing production. In the table which follows may be noted the decline in the volume of production between 1918 and 1920, in spite of increasing values, the recovery in the volume of production in 1922, 1923 and 1924, in spite of diminished values, and the increase in both volume and values in 1925, when the volume of manufacturing production, thus estimated, was about one-eighth greater than in 1917. In 1928, although the prices of manufactured goods were more than 16 p.c. below the level of 1917, total value had increased by 31 p.c. and volume by 57 p.c.

4.—Volume of Manufacturing Production, 1917-1928.

Years.	Values.		Prices.		Index No. Volume of Manufacturing Production.
	Gross Value Manufacturing Production.	Percentage relative to 1917.	Index No. Prices of Manufactured Commodities.	Percentage relative to 1917.	
	\$	p.c.		p.c.	
1917.....	2,873,268,183	100.00	113.7	100.0	100.0
1918.....	3,289,764,146	114.49	127.6	112.2	102.0
1919.....	3,290,500,585	114.52	132.5	116.5	98.3
1920.....	3,772,250,057	131.28	156.8	137.9	95.2
1921.....	2,576,037,029	89.65	116.7	102.6	87.4
1922.....	2,482,209,130	86.38	100.5	88.4	97.7
1923.....	2,781,165,514	96.79	103.1	90.7	106.7
1924.....	2,695,053,582	93.80	101.9	89.6	104.7
1925.....	2,948,545,315	102.62	103.8	91.3	112.4
1926.....	3,247,803,438	113.03	100.0	87.9	128.6
1927.....	3,425,498,540	119.22	96.5	84.9	140.4
1928.....	3,769,850,364	131.20	95.0	83.5	157.1

Consumption of Manufactured Products.—One of the beneficial results of placing the classification of external trade and of production upon a common