

Some Statistics relating to Production in the Cotton Piece-goods Industry in India.

H. Calcutta 1931.

1. The production of cotton piece-goods in the cotton mills of India from 1900-01 to the middle of 1930-31 is set out year by year in column 2 of Table I. These figures of actual annual production have been graphed in Figure I and are represented by the thick black broken line. It will be observed from both the table and the graph that there has been, on the whole, a fairly continuous growth of production throughout the period. There have of course been years of low production, sometimes two in succession, when the output did not reach the figure of the previous year. Such are 1913-14 ; 1914-15 ; 1918-19 ; 1920-21 ; 1922-23 ; 1923-24 ; 1925-26 and 1928-29 ; but the succeeding years in each case have made up for these defects and have shown relatively greater increases, with the result that over the whole period, from the beginning of the century to the present time, there has been an upward trend of cotton piece-goods manufacture in India.

2. As is well-known there are various methods of depicting this gradual growth (or decline) in a time series. We can draw a free-hand smooth curve, which to the eye runs as closely through the actual data as possible ; or we may take the running three yearly, or five yearly, averages and join the corresponding points plotted from such results by a smooth curve. In many cases these simple methods will give results which for practical purposes, are all that is required. Another method is to assume the form of an appropriate " fitting " curve and to determine the values of the constants from the actual data by any suitable method, say by the method of least squares. Experience or trial soon indicates the form of curve which will give a " good fit ". (There is nothing fundamental about the form of the curve chosen and when the constants are determined it must always be remembered that the form was *assumed* and that the equation to the curve does not mean that any definite " law of growth " has been found. Whatever the form of function assumed it will generally be found that at some region or other of the curve the fit is not as good as it is in other regions.)

3. In this particular case the form of " fitting curve " which has been adopted is :—

$$\log y = a + bx + cx^2,$$

where y is the annual production, x is the interval in years from the chosen origin or zero year and a , b and c are constants to be determined from the actual annual production figures. With this series of figures of annual production of cotton piece-goods in India the period considered is from 1900-01 to 1930-31, *i.e.*, thirty-one years and in order to simplify the arithmetical labour involved the origin has been taken at the mid-year of the period, *viz.*, 1915-16. The calculation to determine the constants a , b and c results in the following equation :—

$$\log y = 2.12806 + .02358x - .00053x^2,$$

where y is the annual production in crores of yards and x is the number of years, positive or negative, from the mid-year 1915-16 of the whole period, 1900-01 to 1930-31.

4. The values of this function for each year of the period have been determined by giving x its appropriate value; these values have been entered in column 3 of Table I and they have been plotted on Figure I and joined up by the smooth "dashed" line. This smoothed curve may be taken to represent the long period trend or the long period growth of production of cotton piece-goods in the cotton mills in India. It is a smoothed curve for the growth of production through all years of different conditions, through the pre-war years, the war years and the post-war years; through years of high production and years of widespread strikes.

5. If it is thought that at the boundaries of the period the form assumed does not give as close a fit as is desired other forms of curves may be fitted to meet this point; or the running average of three, five, etc., years may be taken as a basis. The three yearly running average figures have been given in column 6 of Table I. It will be seen however that such running average figures are strongly affected by abnormal conditions, such as strikes, etc., when the period over which the average is taken is short; and for many purposes the long period trend curves as determined in the manner indicated above are regarded as superior.

6. In some studies of trends in industrial production it is not infrequently considered desirable to examine figures for a much shorter period and a common practice is to study the figures for the post-war period alone. Following up this practice the short period trend curve (eleven years 1920-21 to 1930-31) has also been determined and its equation works out as follows:—

$$\log y = 2.30249 + .0190754x - .000407x^2 \text{ where } x=0 \text{ at } 1925-26.$$

The curve represented by this equation is also drawn in Figure I and is represented by the thick black line C from 1920-21 to 1930-31. The values of this function are set forth in column 3 of Table II. It will be observed that the upward slope of this short period trend curve is greater than that of the portion of the long period trend which relates to the same years 1920-21 to 1930-31. This is largely explained by the fact that this short period of eleven years begins in the depressed times of 1920-21 and ends in the year 1930-31 when conditions in the cotton mill industry in India are evidently such as to justify a fairly high volume of production.

7. If we take a smooth free-hand curve through the general line of the points which represent the figures of actual production, or alternately if we take the long period trend curve whose equation we have calculated, as representative of what may be termed the normal growth of production in this industry in India then the deviations of the points representing the actual production each year from this "normal" will give a measure of the excess (or defect) activity of production in the industry. These deviations can be expressed either as actuals in so many crores of yards for each year considered, or as percentages of the normal for each year, the normal for any year being the trend figure, or the figure given by a smooth free-hand curve, by the running average or by any other appropriate method of smoothing the time series. The values of these deviations expressed as percentages of the corresponding values of the long period trend are given in column 5 of Table I and they have also been set forth in Figure II as percentage deviations from a horizontal zero line which represents the level of the long period trend curve and may be considered as the normal growth base.

8. So far we have only been considering the annual deviations from a line of normal growth of production. The same process obviously may be extended to give some idea of the activity in production month by month. Figure III sets forth in the form of a graph the results of this extension of the process, showing the percentage deviations of the actual monthly production from the monthly normal as calculated from the trend line. In this particular case the short period trend from 1920-21 to 1930-31 has been chosen in order to remove any criticism to the effect that the long period trend does not make sufficient allowance for recent developments. (The existence of any definite seasonal variation is not obvious from either the figures or the graphs.) Notes indicating the dates and the duration of strikes have been added to the graph, in order to explain some of the larger negative deviations. Table III gives the relative figures. If the long period trend had been chosen as the normal the positive deviations would have been larger and the negative ones smaller.

9. As it was thought that a comparison of the textile production activity in various other important countries might also prove interesting Table IV and Figure IV have also been prepared. Table IV gives the monthly values of "Indices of Textile Production" in the following five countries, India, United Kingdom, Japan, United States of America and France. The base year chosen for these "Indices of production" is 1928 and in order to eliminate the effect of the big strike in some of the cotton mills in India in that year the production figure for 1928-29 as obtained from the trend curve has been taken as the base production figure for India. This base figure for India works out at 189.2 million yards per month. The values of the Index Numbers for the other countries have been taken from the League of Nations Bulletin. In some cases the foreign Index Numbers of textile production take into account textiles other than cotton piece-goods. The values of these Index Numbers for the various countries mentioned above have been plotted in Figure IV.

10. The conclusions from these tables and charts are so obvious that they need hardly be set out specifically.

- (a) Production in the cotton mill industry in India has gone on increasing generally during the whole period examined, *i.e.*, from the beginning of the century up to 1931. This is seen from Figure I.
- (b) From a period of comparatively low production between 1921 and 1925 the industry in India has changed over to one of relatively high production. That is the position in the industry at the present moment. This is obvious from Figure II.
- (c) While textile production in other important countries has fallen very considerably during the last two years the same statement cannot be made regarding India where the production has *actually increased largely* during that period. See Figure IV.

CALCUTTA ;

The 8th November 1931.

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TABLE I.

Production of Cotton Mills in India annually and percentage Deviations from a Normal Growth and 3 year running average.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Year.	Actual production in crores yards.	Long period trend of Column 2.	Deviation, i.e., Column 2 minus Column 3.	Percentage Deviation, i.e., Column 4 as percentage of Column 3.	3 years running average.	Deviation, i.e., Column 2 minus Column 6.	Percentage Deviation, i.e., Column 7 as percentage of Column 6.
1900-01	42	45	-3	-6.7	..	..	..
1901-02	51	49	2	4.1	48.3	2.7	5.6
1902-03	52	54	-2	-3.7	54.0	-2.0	-3.7
1903-04	59	59	0	0	59.7	-0.7	-1.2
1904-05	68	64	4	6.25	65.7	2.3	3.5
1905-06	70	69	1	1.4	69.7	0.3	0.4
1906-07	71	75	-4	-5.3	74.0	-3.0	-4.1
1907-08	81	80	1	1.25	78.0	3.0	3.8
1908-09	82	86	-4	-4.6	86.3	-4.3	-5.0
1909-10	96	93	3	3.2	94.0	2.0	2.1
1910-11	104	99	5	5.05	104.7	-0.7	-0.7
1911-12	114	106	8	7.5	113.3	0.7	0.6
1912-13	122	114	8	7.0	117.3	4.7	4.0
1913-14	116	120	-4	-3.3	117.3	-1.3	-1.1
1914-15	114	127	-13	-10.2	124.7	-10.7	-8.6
1915-16	144	134	10	7.5	138.7	5.3	3.8
1916-17	158	142	16	11.3	154.3	3.7	2.4
1917-18	161	149	12	8.1	154.7	6.3	4.1
1918-19	145	157	-12	-7.6	156.7	-11.7	-7.4
1919-20	164	164	0	0	155.7	8.3	5.3
1920-21	158	171	-13	-7.6	165.0	-7.0	-4.2
1921-22	173	178	-5	-2.8	167.7	5.3	3.2
1922-23	172	185	-13	-7.0	171.7	0.3	0.2
1923-24	170	192	-22	-11.5	179.7	-9.7	-5.4
1924-25	197	198	-1	-0.5	187.3	9.7	5.2
1925-26	195	205	-10	-4.9	206.0	-11.0	-5.3
1926-27	226	211	15	7.1	219.0	7.0	3.2
1927-28	236	216	20	9.3	217.0	19.0	8.8
1928-29	189	221	-32	-14.5	222.3	-33.3	-15.0
1929-30	242	226	16	7.1	229.0	13.0	5.7
1930-31	256	230	26	11.3	..	..	..

TABLE II.

Mill-made Cotton Piece-goods Production.—All India (1920-21 to 1930-31):

Unit of Production = 10 million yards.		Short period 11 years.		
(1)		(2)	(3)	(4)
Financial year.		Actuals y	Trend y. ¹	y — y ¹ .
		10 million yards.	10 million yards.	10 million yards.
1920-21	. . . . .	158	157·4	·6
1921-22	. . . . .	173	165·8	7·2
1922-23	. . . . .	172	174·4	—2·4
1923-24	. . . . .	170	183·1	—13·1
1924-25	. . . . .	197	191·9	5·1
1925-26	. . . . .	195	200·7	—5·7
1926-27	. . . . .	226	209·5	16·5
1927-28	. . . . .	236	218·3	17·7
1928-29	. . . . .	189	227·0	—38
1929-30	. . . . .	242	235·7	6·3
1930-31	. . . . .	256	244·1	11·9

TABLE III.

Monthly Mill-made Cotton Piece-goods Production.—All India (1920-21 to 1931-32).

(In million yards.)		Short period 11 years.				(6)
(1)	(2)	(3)	(4)	(5)		
Year and Month.	Actual production.	Trend.	Deviation (2) — (3).	Percentage deviations (4) × 100	Remarks.	
	Million yards.	Million yards.	Million yards.	(3)		
1920-21—						
April	119.2	127.9	—8.7	—6.8		
May	111.3	128.5	—17.2	—13.4		
June	148.9	129.1	19.8	15.3		
July	146.3	129.7	16.6	12.8		
August	131.3	130.3	1.0	.8		
September	140.8	130.9	9.9	7.5		
October	135.3	131.5	3.8	2.9		
November	152.2	132.1	20.1	15.2		
December	137.7	132.7	5.0	3.8		
January	108.7	133.3	—24.6	—18.5		
February	104.6	133.9	—29.3	—21.9		
March	144.8	134.5	10.3	7.7		
1921-22—						
April	166.2	134.9	31.3	23.2		
May	144.4	135.5	8.9	6.6		
June	149.0	136.1	12.9	9.5		
July	129.0	136.7	—7.7	—5.7		
August	148.7	137.3	11.4	8.3		
September	155.4	137.9	17.5	12.7		
October	151.2	138.5	12.7	9.3		
November	117.4	139.1	—21.7	—15.6		
December	143.3	139.7	3.6	2.6		
January	145.8	140.3	5.5	3.9		
February	129.3	140.9	—11.6	—8.2		
March	152.9	141.5	11.4	8.1		
1922-23—						
April	140.0	142.0	—2.0	—1.4		
May	152.4	142.6	9.8	6.9		
June	141.0	143.2	—2.2	—1.5		
July	143.0	143.8	—0.8	—0.6		
August	149.5	144.4	5.1	3.5		
September	131.5	145.0	—13.5	—9.3		
October	128.6	145.6	—17.0	—11.7		
November	150.4	146.2	4.2	2.9		
December	144.1	146.8	—2.7	—1.8		
January	163.4	147.4	16.0	10.9		
February	134.5	148.0	—13.5	—9.1		
March	146.9	148.6	—1.7	—1.1		
1923-24—						
April	122.3	149.3	—27.0	—18.1		
May	119.4	149.9	—30.5	—20.3		
June	131.1	150.5	—19.4	—12.9		
July	145.4	151.1	—5.7	—3.8		
August	140.6	151.7	—11.1	—7.3		
September	162.2	152.3	9.9	6.5		
October	185.0	152.9	32.1	21.0		
November	179.6	153.5	26.1	17.0		
December	147.2	154.1	—6.9	—4.5		
January	148.2	154.7	—6.5	—4.2		
February	105.2	155.3	—50.1	—32.3		
March	115.2	155.9	—40.7	—26.1		

TABLE III—*contd.*

(In million yards.) Short period 11 years.

(1)	(2)	(3)	(4)	(5)	(6)
Year and Month.	Actual production.	Trend.	Deviation (2) — (3).	Percentage deviations (4) × 100	Remarks.
	Million yards.	Million yards.	Million yards.	(3)	
1924-25—					
April	149.1	156.6	-7.5	-4.8	
May	155.8	157.2	-1.4	-.9	
June	152.9	157.8	-4.9	-3.1	
July	166.7	158.4	8.3	5.3	
August	171.7	159.0	12.7	8.0	
September	165.4	159.6	5.8	3.7	
October	156.5	160.2	-3.7	-2.3	
November	178.9	160.8	18.1	11.3	
December	175.3	161.4	13.9	8.6	
January	166.3	162.0	4.3	2.7	
February	154.3	162.6	-8.3	-5.1	
March	177.3	163.2	14.1	8.6	
1925-26—					
April	170.5	163.9	6.6	4.0	
May	167.4	164.5	2.9	1.8	
June	158.3	165.1	-6.8	-4.1	
July	158.8	165.7	-6.9	-4.2	
August	153.7	166.3	-12.6	-7.6	
September	178.0	166.9	11.1	6.6	
October	164.7	167.5	-2.8	-1.7	
November	123.4	168.1	-44.7	-26.6	
December	136.0	168.7	-32.7	-19.4	
January	167.5	169.3	-1.8	-1.1	
February	197.0	169.9	27.1	15.9	
March	179.2	170.5	8.7	5.1	
1926-27—					
April	182.6	171.3	11.3	6.6	
May	189.0	171.9	17.1	9.9	
June	197.8	172.5	25.3	14.7	
July	194.5	173.1	21.4	12.4	
August	185.9	173.7	12.2	7.0	
September	187.4	174.3	13.1	7.5	
October	179.5	174.9	4.6	2.6	
November	173.4	175.5	-2.1	-1.2	
December	196.9	176.1	20.8	11.8	
January	191.6	176.7	14.9	8.4	
February	187.6	177.3	10.3	5.8	
March	192.6	177.9	14.7	8.3	
1927-28—					
April	190.0	178.7	11.3	6.3	
May	201.1	179.3	21.8	12.2	
June	201.6	179.9	21.7	12.1	
July	200.1	180.5	19.6	10.9	
August	203.1	181.1	22.0	12.2	
September	207.0	181.7	25.3	13.9	
October	193.1	182.3	10.8	5.9	
November	198.6	182.9	15.7	8.6	
December	205.6	183.5	22.1	12.1	
January	189.3	184.1	5.2	2.8	
February	182.0	184.7	-2.7	-1.5	
March	185.1	185.3	-0.2	-.1	

TABLE III—concl'd.

(In million yards.) Short period 11 years.					
(1)	(2)	(3)	(4)	(5)	(6)
Year and Month.	Actual production.	Trend.	Deviation (2) — (3).	Percentage deviations (4) × 100	Remarks.
				(3)	
	Million yards.	Million yards.	Million yards.		
1928-29—					
April	162.5	185.9	—23.4	—12.6	
May	104.4	186.5	—82.1	—44.1	
June	116.8	187.1	—70.3	—37.6	
July	127.4	187.7	—60.3	—32.1	
August	116.5	188.3	—71.8	—38.2	
September	110.4	188.9	—78.5	—41.5	
October	154.1	189.5	—35.4	—18.7	
November	185.7	190.1	—4.4	—2.3	
December	226.0	190.7	35.3	18.5	
January	219.1	191.3	27.8	14.6	
February	179.3	191.9	—12.6	—6.6	
March	191.1	192.5	—1.4	—0.7	
1929-30—					
April	199.0	193.1	5.9	3.1	
May	157.0	193.7	—36.7	—18.9	
June	160.8	194.3	—33.5	—17.3	
July	176.8	194.9	—18.1	—9.3	
August	191.3	195.5	—4.2	—2.2	
September	202.4	196.1	6.3	3.2	
October	221.6	196.7	24.9	12.6	
November	220.2	197.3	22.9	11.6	
December	239.5	197.9	41.6	21.0	
January	228.4	198.5	29.9	15.1	
February	208.4	199.1	9.3	4.7	
March	213.7	199.7	14.0	7.0	
1930-31—					
April	213.1	200.1	13.0	6.5	
May	213.2	200.7	12.5	6.2	
June	215.2	201.3	13.9	6.9	
July	211.1	201.9	9.2	4.6	
August	187.1	202.5	—15.4	—7.6	
September	193.0	203.1	—10.1	—5.0	
October	191.4	203.7	—12.3	—6.0	
November	208.1	204.3	3.8	1.9	
December	236.6	204.9	31.7	15.5	
January	240.2	205.5	34.7	16.9	
February	225.8	206.1	19.7	9.6	
March	226.3	206.7	19.6	9.5	
1931-32—					
April	236.0	207.3*	28.7	13.9	*Simply prolonged
May	240.0	207.9*	32.1	15.4	with the same
June	246.8	208.5*	38.3	18.4	monthly move-
July	246.3	209.1*	37.2	17.8	ment.
August	233.0	209.7*	23.3	11.1	
September	268.6	210.3*	58.3	27.7	
October	233.8	210.9*	22.9	10.9	
November	227.7(a)	211.5*	16.2	7.7	

(a) Provisional figures.

TABLE IV.

Textile Production Indices for various countries.

Base (1922=100).

Country.	India.	U. K.	Japan.	U. S. A.	France.	Remarks.
Source.		Board of Trade.*	Cotton Spinners Association.*	Federal Reserve Board.*	Statistique générale.*	*Taken from League of Nations Bulletin.
						*It should be remembered however that the original indices vary very much in regard not only to the base period but also to their composition and construction.
Original base.	(a)	1924 (b)	1928	1923—25	1913	(a) For India the Indices are based on the monthly average trend figure for 1928-29 (189.2 million yards) of cotton piecegoods. (b) Index for quarter.
1928—						
January . . .	100	..	} Not available.	100.0	101.0	
February . . .	96	..		100.9	103.0	
March . . .	98	107.0		100.0	106.1	
April . . .	86	..		94.4	103.0	
May . . .	55	..		100.0	102.0	
June . . .	62	99.6		100.9	101.0	
July . . .	67	..		93.5	101.0	
August . . .	62	..		100.0	97.0	
September . . .	58	92.0		100.0	93.9	
October . . .	82	..		104.7	97.0	
November . . .	98	..		105.6	101.0	
December . . .	120	101.3		103.7	100.0	
1929—						
January . . .	116	..	} Not available.	108.4	98.0	
February . . .	95	..		105.6	97.0	
March . . .	101	101.9		108.4	94.9	
April . . .	105	..		112.1	96.0	
May . . .	83	..		113.1	93.9	
June . . .	85	99.7		113.1	96.0	
July . . .	94	..		110.3	92.9	
August . . .	101	..		112.1	88.9	
September . . .	107	91.3		108.4	87.9	
October . . .	117	..		110.3	90.9	
November . . .	116	..		100.0	91.9	
December . . .	127	100.8		89.7	91.9	

TABLE IV—*contd.**Textile Production Indices for various countries—contd.*

Base (1922=100).

Country.	India.	U. K.	Japan.	U. S. A.	France.	Remarks.
Source.		Board of Trade.*	Cotton Spinners Association.*	Federal Reserve Board.*	Statistique générale.*	*Taken from League of Nations Bulletin.
						*It should be remembered however that the original indices vary very much in regard not only to the base period but also to their composition and construction.
Original base.	(a)	1924 (b)	1928	1923—25	1913	(a) For India the Indices are based on the monthly average trend figure for 1928-29 (189.2 million yards) of cotton piecegoods. (b) Index for quarter.
1930—						
January . . .	121	..	115.1 (c)	96.3	87.9	(c) For Japan, the index is that of cotton yarn production. No. 2 Bulletin (1931).
February . . .	110	..	114.6	92.5	88.9	
March . . .	113	92.5	107.2	91.6	85.9	
April . . .	113	..	111.3	89.7	87.9	
May . . .	113	..	111.6	84.1	86.9	
June . . .	114	78.3	104.5	78.5	87.9	
July . . .	112	..	86.7	78.5	82.8	
August . . .	99	..	88.5	75.7	80.8	
September . . .	102	71.6	95.5	82.2	80.8	
October . . .	101	..	96.4	85.0	84.8	
November . . .	110	..	101.0	86.9	86.9	
December . . .	125	75.8	103.0	81.3	85.9	
1931—						
January . . .	127	..	98.2	80.4	83.8	
February . . .	119	..	96.9	86.9	83.8	
March . . .	120	72.7	96.8	90.7	82.8	
April . . .	125	..	100.8	91.6	81.8	
May . . .	127	..	99.3	91.6	78.8 (d)	(d) Strikes.
June . . .	131	75.1	100.9	90.7	71.7 (d)	
July . . .	130	..	106.3	95.3	64.6 (d)	
August . . .	123	..	108.3	93.5	65.7	
September . . .	142	70.8	109.8	93.5	65.7	
October . . .	124	..	109.6	86.9	63.6	
November . . .	120 (e)	..	110.9	84.1	62.6	(e) Provisional.
December . . .	.	.	.	.	.

Import duties on Cotton piece-goods into India.

- 5 per cent. from 27th December 1894.
 3½ per cent. from 3rd February 1896.
 7½ per cent. from 1st March 1917.
 11 per cent. from 1st March 1921.
 15 per cent. from 1st March 1930.
 Thereafter from 4th April 1930—

Plain greys of British manufacture were liable to 15 per cent. or 3½ annas per lb. whichever is higher, which has been raised to 20 per cent. or 3½ annas per lb. whichever is higher from 1st March 1931.

Plain greys not of British manufacture from 4th April 1930, 20 per cent. or 3½ annas per lb. whichever is higher, and from 1st March 1931, 25 per cent. or 3½ annas per lb. whichever is higher.

Other piece-goods of British manufacture—15 per cent. from 4th April 1930 and 20 per cent. from 1st March 1931.

Other piece-goods not of British manufacture—20 per cent. from 4th April 1930 and 25 per cent. from 1st March 1931.

Excise Duty on Cotton goods.

The excise duty on cotton goods was suspended from 1st December 1925 and finally abolished in March 1926.

Strikes and Lock-outs affecting more than one industrial concern.

	No. of factories affected.
1. Strike in Ahmedabad (October 7th, 1921)	6 spinning and weaving mills.
*2. Strike in Ahmedabad (October 19th to 29th, 1921)	47 Ditto.
*3. Strike in Ahmedabad (January 27th to 28th, 1922)	13 Ditto.
4. Strike in Sholapur (March 2nd, 1922, to March 24th, 1922)	6 Ditto.
*5. Strike in Bombay (August 1st to 2nd, 1922)	34 Ditto.
6. Strike in Surat (October 3rd to October 23rd, 1922)	4 Ditto.
*7. Strike in Ahmedabad (November 10th to November 17th, 1922)	29 Ditto.
*8. Strike in Ahmedabad (April 1st to June 4th, 1923)	56 Ditto.
*9. General Strike in Bombay (January 17th to March 25th, 1924)	75 Ditto.
*10. General Strike in Bombay (September 15th to December 3rd, 1925)	76 cotton mills, 2 silk mills, 2 dye works.
11. Strike in Bombay (January 2nd to February 25th, 1928)	9 spinning and weaving mills.

* Only those marked have been indicated in Figures II and III.

Strikes and Lock-outs affecting more than one industrial concern—contd.

	No. of factories affected,
*12. General Strike in Bombay (April 16th to October 6th, 1928)	All spinning and weaving mills in Bombay except Colaba Land and J. W. Mills and 2 silk mills and one bleaching mill.
13. Strike in Sholapur Mills (April 21st to October 6th, 1928)	5 spinning and weaving mills.
14. Strike in Kurla Mills (May 14th to October 6th, 1928)	2 Ditto.
*15. Strike in Bombay (February 25th to March 18th, 1929)	7 Ditto.
*16. Strike in Bombay (March 3rd to March 18th, 1929)	5 Ditto.
*17. Strike in Bombay (April 26th to September 1929)	64 Ditto.

*Only those marked have been indicated in Figures II and III.

CRÖRES YARDS.

FIGURE I

CRÖRES YARDS.

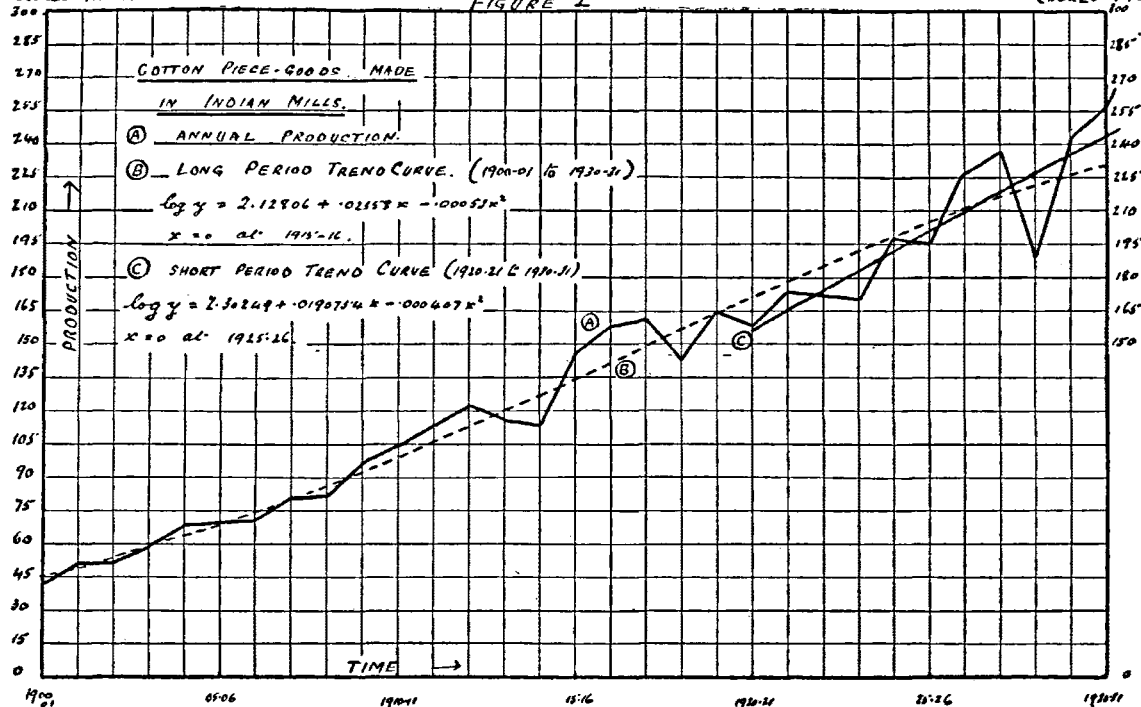


FIG. II

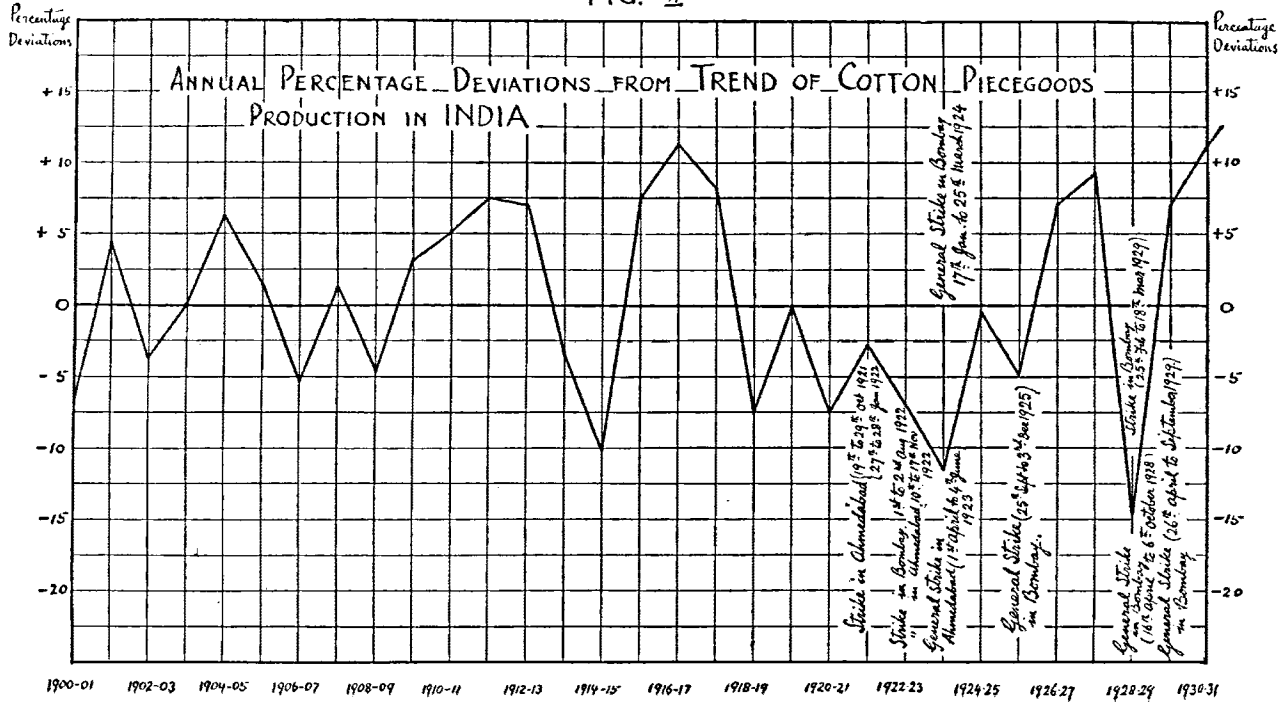


FIG. III

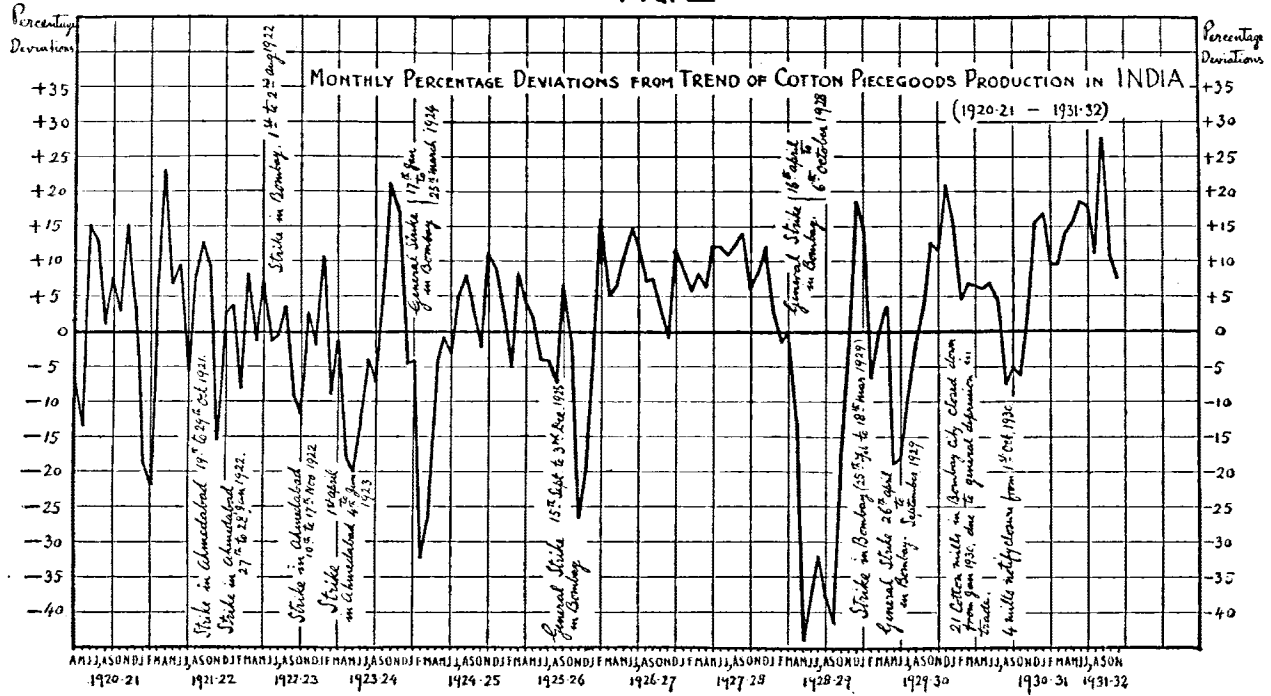


FIGURE IV

