

# **TURKEY ON THE WAY OF INDUSTRIALIZATION**

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“We shall continue to move onward in unison, as we did up to now, upholding one another and supported by the Nation’s will. There is an arduous road lying open before the people. Whatever aims we are bound to reach shall be reached, and we shall fulfil our glorious destiny. That is why our watchword must be: Forward! Forward! Always forward!,,

**Kamâl Atatürk**

45101

Until the close of the World War, the so - called "development," of a backward country meant, to all intents and purposes, its occupation and enthrallment for the benefit of some foreign nation.

Invasion and oppression were two primary and unavoidable elements at the basis of every scheme supposedly designed to enhance the prestige of a power, or to revive culture and technical knowledge in the subdued lands.

Nowadays, when we think of regeneration, we have in mind the definite picture of a nation striving towards a higher culture and technique, but on its own soil, without recourse to outside help, and on its own account.

A Turkey fighting as a pioneer of civilization, toiling and thriving within her boundaries, — such is the Turkey of our ideal.

## I.

*How, from an industrial country, Turkey had become an agricultural one, producer of raw materials only:*

The initial point in Turkey's economic and politic enslavement can be traced back to the days when a new economic order was being set up in Western Europe, — long before the

bloodshed imposed upon her along the Sakarya as the price for her emancipation. If we run over the history of this bondage that took nearly two centuries to achieve, we find out that the Ottoman Empire had actually passed through all the phases of a disguised colonization, that its trade, industry and finances lent themselves most readily to exploitation by the daring and shrewd Europeans.

Under the aegis of the Capitulations, - that batch of privileges obtained by some of the western powers in the course of the 17th and 18th centuries, — alien subjects were quite free to carry on business throughout the Empire, whilst they were amenable only to the laws of their own country. Covered by those immunities, they had succeeded in gradually acquiring exorbitant rights. The Ottoman administrative and judicial laws were inoperative insofar as they were concerned. They were exonerated from all tolls and taxes, first of all from customs duties, beside being liable to trial only before the consular courts. In the course of time, the decaying Empire was compelled to renew, in an aggravated form, the privileges which its rulers had originally granted out of unmitigated munificence. Between 1535 and 1740 the Capitulations were prorogated seventeen times. In a Turkey tightly fettered by such an array of international obligations, the intruders had, indeed, only to pile up wealth with an unruffled serenity, at the expense of the country's nominal masters, — until the moment came when the Revolution wrote "finis," to this state of affairs.

The industrial revolution, which began in Europe in the latter half of the 18th century, submerged Turkey with a flood of cheap machine made articles, forced into the country duty-free, under favour of the Capitulations. Originally intended to guarantee freedom of trade to foreign merchants, the Capitulations had degenerated into a bundle of tools for breaking open the doors of our custom-houses to allow

foreign good to rush in. If we want to realize the handicap which the national industry suffered from, in the presence of its European competitors, we have only to recall the fact that goods imported from abroad had merely to pay a uniform duty of 5 per cent, whereas Turkish products were liable to an export-duty of 10 per cent under the various commercial treaties signed in the early 19th century, apart from the existing Capitulations.

In days bygone, Turkey reckoned within her frontiers many centres of textile industry, namely Brusa, Biledjik, Damascus, Scutari in Albania, Tirnovo, etc., which were able to provide the needs of the home markets, and even to export a large surplus of their production. Above all, the art of weaving silk fabrics had been carried at a very high degree of perfection. The harsh competition of European fabricated goods, which were dumped over the Eastern markets by an ever growing machinery, soon overcame the native handlooms and the handicraftsmen who manufactured similar articles.

“At a time when the doors of our custom-houses lay wide open, the silken textures imported from Europe promptly laid waste the mulberry groves in the province of Biledjik. At six hours’ walk from Sögüt, the village of İnhisar, whereto one can ride only on mule-back to-day for want of a road, still boasts an old inn of forty chambers which, in times of old, afforded shelter to cocoon merchants. A cocoon market used to be held in these places, at present inaccessible even to ox-carts. Europeans took the trouble to come and lodge in that inn, which alone bears witness to the past prosperity of the district.” [1]

“In Scutari of Albania, there were only forty handlooms left, of six hundred, by 1821. Likewise, of two thousand hand-

[1] Hayrettin, deputy of Biledjik, “A Glance on the National Wealth,” a report dated 27th November 1932, submitted to the National Assembly.

looms which were at work in Tirnovo about the year 1812, scarcely a hundred had outlived, by 1830., [1]

Charles Texier, a French traveller, describing Ankara as he saw it on his journey through Asia-Minor, in 1836, writes: "During the last century, a great number of foreign factories were at work in this city. None of them exists today. The export of fabrics, socks, stockings and other manufactured goods amounted to 5.000 bales., [2]

Another Frenchman who had resided in this country during the latter quarter of the 18th century, was struck by the decrepitude of our cloth industry. "Salonica and Adrianople,, he writes, "supply the broadcloth for the use of the public and of the army. Until recently, it was produced also in Constantinople. This industry, however, is now yielding to the pressure exerted by the Europeans who seek out new outlets for their products., [3]

As a matter of fact, foreign rivalry brought about alterations in many other branches of our industry. Thus, silk weaving came to be replaced by an export trade of reeled and spun silk. In proportion as the craze for european silk fabrics spread over the country, our national industry was constrained to turn, for a livelihood, to the production of raw and thrown silk. The export trade of Angora mohair was in the same plight. From a town whose main export trade consisted of finished tissues, Ankara turned a producer of raw mohair.

This degradation was conspicuous in the textiles, as well as in the other classes of industry, and there was but little upon which to build the hope that they might one day return to life. Ever since, Turkey has ranked among the producers of raw materials, that is, the nations who depend, for the manu-

[1] D. Urquhart, "*La Turquie*.,, 1836. Vol. II., p. 57.

[2] Charles Texier, "*L'Asie - Mineure*.,, Vol. II., p. 447.

[3] Eliss Abessi, 1792, "*L'Etat actuel de l'Empire Ottoman*., Vol. II., p. 231.



factured goods they need, on countries where the principal industries are concentrated.

An open market for the products of western industries, Turkey was doomed to become a sort of colony. She permitted foreigners to gain a strangle-hold on her financial life, through the borrowing of money at amazing rates of interest and on crushing terms. The Ottoman Government was not content with assigning its most substantial revenues as security of the loans it raised abroad; it had, moreover, entrusted foreigners with the practical control of its finances. Besides, the negotiations leading up to the granting of those external loans were, as a rule, besmirched with astounding manipulations, so that, everything reckoned, the Government hardly received a minute fraction of the nominal proceeds of such loans.

The first foreign loan of the Ottoman Empire goes as far back as 1854, when the Treasury got 60 million francs, out of a sum of 75 millions advanced by Palmers Bank of London. Between 1881 and 1891, our foreign indebtedness had reached, in the aggregate, 5,297,676,500 francs. At the rates of issue applied to those transactions, the Government had got in some 3,012,884,714 francs. If we make allowances for the bankers' fees, brokerage, and a multitude of sundry expenses, we will notice that Turkey had collected no more than one-half of her loans' face value, that is, about 2 billion francs out of 5,3 billions.

On the eve of the World War, the Ottoman public debt stood at 158,642,734 gold-Turkish pounds.

In the Budget for the fiscal year 1914-1915, the foreign debt annuities absorbed over one-third of the total estimates. This proportion exceeded by far the national capacity of payment.

We have but to glance at some chapters of the same Budget :

	<i>Estimated expenditures : (Gold LT)</i>	<i>Per cent of total :</i>
<i>War</i>	6,000,000	17.65
<i>Public works</i>	557,320	1.62
<i>Interior</i>	1,044,650	3.07
<i>Education</i>	554,590	1.61
<i>Public debt</i>	11,657,280	34.29

By the end of the War, the capital issued for the financing of various enterprises was estimated as follows :

<i>Banks</i>	<i>LT</i> 10,210,000
<i>Railways</i>	39,163,000
<i>Industries and mining</i>	5,495,000
<i>Trade</i>	3,593,000
<i>City planning works</i>	4,983,000

The Turkish nation has been deprived of the benefit of all these undertakings. The country was unable to derive any accumulation of capital from them, all the profits having been drained by foreign banks.

That is just how the Ottoman Empire became a land given up to foreign exploitation and forfeited the autonomy both of its customs and its finances.

## II.

### *The start of Turkey's industrial development :*

The military occupation by the powers which had planned beforehand the partition of the country, after the World War, was calculated to change into a complete serfdom its state of economic and financial subordination. But when the Turkish nation, by the victory of the Sakarya, sent its enemies ree-

ling in utter defeat to the coast in 1922, and succeeded through the treaty of Lausanne, concluded the next year, in consolidating its independence, it was, in fact, creating at the same time the conditions which were to help it recovering its economic integrity.

The years which followed the victory of her arms, and the opening days of the Revolution, mark for Turkey a period of latent preparation in the economic domain. Since those days, the impressive example of economic maturity set by Turkey has been a worthy counterpart of the soldierly gallantry she had displayed some years before.

The movement of industrialization, started after the Revolution, can be divided into two parts. The first represents the period during which individual undertakings received a great stimulus from the State. The law for the encouragement of industry, the multifarious exemptions and advantages granted by the legislation which was enacted to this effect, the solicitude shown by the Government in this matter, aimed at creating a propitious atmosphere for the free development of private enterprise. This phase, which extends from 1923 to 1933, corresponds to the liberal progress of our national industry.

The second period has its salient feature in the direct intervention of the State, and its broadened participation in the economic activity. Basing its action upon the solid groundwork of its authority, it has assumed singlehanded the task of creating the key-industries which, during the first period, private capital and initiative had been unable to organize. Thenceforward, it renounced its attitude of neutral protector, the liberal and somewhat faltering policy which had characterized the previous stage, and resolutely embarked on a policy of state nationalism, gave its support to private enterprises, and partially took upon itself the duty of endowing the country with an industrial equipment. Such is, in its



(a) A factory girl at work

(b) Young workmen during recreation period

outline, the genesis of the Five Year Plan, which has been in application since 1934.

The number of undertakings enjoying the advantages extended by the Law for the encouragement to industry rose, from 342 in 1923, to 1,473 in 1932, though it declined to 1,397 during the following year. The distribution of the firms, by industrial groups, in the years 1932 and 1933, is brought out in the following table.

	1932	Per cent in total	1933	Per cent in total
1) <i>Farming, livestock breeding, fishing and hunting</i>	651	44.30	614	43.95
2) <i>Textile industry</i>	351	23.83	335	23.98
3) <i>Lumbering and cellulose industry</i>	134	9.10	115	8.23
4) <i>Mining, metallurgy, manufacturing and repairing</i>	85	5.57	77	5.51
5) <i>Chemical industries</i>	76	5.16	54	3.87
6) <i>Combined industries</i>	48	3.25	68	4.87
7) <i>Paper and cardboard</i>	41	2.79	41	2.93
8) <i>Miscellaneous</i>	39	2.65	39	2.79
9) <i>House building</i>	31	2.10	36	2.66
	17	1.15	18	1.29
<i>Total:</i>	<u>1,473</u>		<u>1,397</u>	

The above percentages show clearly that cattle breeding, fishing and hunting detained the highest ratios during both years (44.20 % in 1932, — 43.95 % in 1933), among the enterprises taken as a whole, and that the national industry was, consequently, still mainly agricultural in character. The figures given below with regard to capital outlay and production confirm this fact.

Although there has been an evident decrease in the number of enterprises during 1933, as compared to a year earlier, the cost of installations, that is, the capital outlay on machinery, implements and utensils, of the factories benefiting by

industrial protection was higher by 12.60 per cent. The funds vested in industrial outfit in the course of the same year reached £T 62,953,893, as against £T 55,882,396 in 1932, the expenditure being distributed as follows by groups of industry:

<i>Groups of industry :</i>	<i>1932 (£T) :</i>	<i>1933 (£T) :</i>	<i>Increase (+), or decrease (—) per cent, as compared with the prece- ding year :</i>
<i>1) Foodstuffs, cattle breeding and hunting</i>	<i>20,238,975</i>	<i>21,805,511</i>	<i>+ 7.00</i>
<i>2) Textile industry</i>	<i>9,836,204</i>	<i>8,657,533</i>	<i>— 12.00</i>
<i>3) Lumbering and cellu- lose</i>	<i>2,962,376</i>	<i>5,524,607</i>	<i>+ 86.50</i>
<i>4) Paper and cardboard</i>	<i>2,033,557</i>	<i>2,067,651</i>	<i>+ 1.70</i>
<i>5) Mining</i>	<i>2,228,464</i>	<i>1,746,661</i>	<i>— 2.10</i>
<i>6) House building</i>	<i>2,577,177</i>	<i>2,492,772</i>	<i>— 0.30</i>
<i>7) Chemical industries</i>	<i>2,563,109</i>	<i>2,857,661</i>	<i>+ 1.10</i>
<i>8) Combined industries</i>	<i>2,157,309</i>	<i>4,848,367</i>	<i>+124 70</i>
<i>9) Miscellaneous</i>	<i>3,098,832</i>	<i>3,162,745</i>	<i>— 0.20</i>
<i>10) Extraction</i>	<i>8,186,393</i>	<i>9,790,385</i>	<i>— 19.60</i>
	<i>55,882,396</i>	<i>62,953,893</i>	<i>+ 12 60</i>

Capital outlay by individual enterprises stood at £T 37,937 in 1932, and at £T 45,064 in 1933. The following table shows the average investments by groups of industry:

<i>Groups of industry</i>	<i>1932 :</i>	<i>1933 :</i>
<i>Extraction</i>	<i>£T 481,529</i>	<i>543,888</i>
<i>Foodstuffs, cattle breeding, hun- ting and fishing trades</i>	<i>31,089</i>	<i>35,514</i>
<i>Textile industry</i>	<i>28,022</i>	<i>24,388</i>
<i>Lumbering and cellulose industry</i>	<i>22,104</i>	<i>48,043</i>
<i>Paper and cardboard</i>	<i>49,609</i>	<i>50,439</i>
<i>Mining industry</i>	<i>26,211</i>	<i>22,688</i>
<i>House building industries</i>	<i>83,129</i>	<i>63,256</i>
<i>Chemical industries</i>	<i>33,723</i>	<i>52,925</i>
<i>Combined industries</i>	<i>44,937</i>	<i>71,254</i>
<i>Miscellaneous</i>	<i>79,461</i>	<i>81,102</i>

It is worth noting that the immediate result of this quick industrial development was to increase steadily the effective force of national labour. A host of potential workers, who were thus far unable to find employment, either in the rural districts, or in the cities, have been attracted into new fields of activity. The huge expansion of industry is supplying lifeblood to a mass of skilled and value-creating workers.

The number of persons (hands, foremen, technical and managing staffs) employed in all the factories and workshops enjoying the advantages provided by the Law for the encouragement of industry rose, from 55,321 in 1932 to 64,989 in 1933, the ratio of the advance being 19.4 per cent. In this total, the contingent of workers and foremen stood at 52,173 in 1932, and at 62,215 in 1933, with a corresponding payroll amounting in the aggregate to £T 12,902,493 in 1932 and £T 12,236,952 in 1933, an increase of £T 665,541 (5.4 per cent).

The predominant result of the industrial revival was not, though, to provide employment for workers. The peasant was enabled, at the same time, to dispose readily of his produce. The industrial enterprises are assured, on the one hand, with a wide market in the rural districts, while they become, on the other hand, important purchasers of crude materials, which interchange has, in its turn, a far-reaching bearing upon the distribution of labour and the movement of commodities.

The value of raw materials for use in manufacturing, consumed by the enterprises enjoying industrial protection, slagged slightly, from £T 74,154,484 into £T 73,583,336 in 1933, a drop of £T 571,138 (0.7 per cent). Actually, however, the volume of this intake of materials has rather increased. The falling off in the value is due to the depreciation brought about by the economic depression. The share contributed by foreign countries was, in value, about 18.6 per cent in 1932, and 16.8 per cent in 1933, whereas the proportion of native pro-

ducts climbed, from 81.4 per cent in 1932, to 83.2 per cent in 1933:

	1932	Per cent of total	1933	Per cent of total.
<i>Native products</i>	£T 60,349,599	81.4	62,208,161	83.2
<i>Imported products</i>	13,804,885	18.6	12,375,175	16.8
<i>Total:</i>	74,154,484		73,585,336	

A close examination of these figures brings out the fact that the home products are encroaching upon the share of imported materials. Thus, the value of the foreign portion has declined by £T 1,429,710, or 10 per cent, in comparison with 1932, as against a gain of £T 858,652, or 1.4 per cent, on the side of domestic supplies.

The gross value of the output of the same undertakings has risen by £T 16,398,715 (11.8 per cent), in spite of their diminishing number. It has heavily increased from £T 137,927,475 in 1932, to £T 154,326,190 in 1933.

The following table presents a vivid picture of the cost of production in the various groups of industry, in 1932 and 1933:

<i>Groups of industry:</i>	1932:	1933:	<i>Ratio of variation (per cent):</i>
1) <i>Farming industries</i>	£T 74,692,631	91,422,428	+ 22.3
2) <i>Textile industry</i>	20,723,557	20,911,590	+ 0.9
3) <i>Lumbering and cellulose industry</i>	6,033,247	5,606,315	- 7.0
4) <i>Paper</i>	1,923,947	2,288,788	+ 18.9
5) <i>Mining industry</i>	4,235,392	3,475,280	- 17.9
6) <i>House building industries</i>	3,578,991	3,317,910	- 7.2
7) <i>Chemical industries</i>	5,917,609	5,087,904	- 14.0
8) <i>Combined industries</i>	8,898,967	8,484,611	- 4.5
9) <i>Miscellaneous</i>	1,584,004	3,332,888	+ 112.2
10) <i>Extraction</i>	10,338,170	10,388,476	+ 0.4
<i>Total:</i>	137,927,475	154,326,190	11.8



The average gross value of the output by enterprise rose, from £T 93,637, to £T 110,469 in 1933.

If we follow up separately the respective curves of the woolen cloth and cotton piece goods production, which are everywhere the harbingers of the industrial movement, we get at still more interesting data.

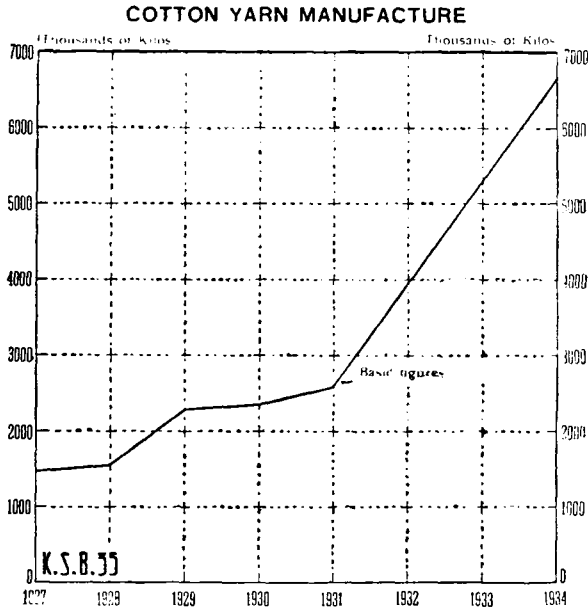
In connection with the cotton industry, it should be pointed out that its very structure has undergone a tremendous change. The progress registered is reflected by the number of spindles and power looms in service. There were, as against 72,000 spindles at work in 1931, 94,000 in 1932, 101,000 in 1933, and 115,000 in 1934. The average gain during those three years corresponds to 17.0 per cent; in other words, there has been an increase of 60 per cent in 1934, over 1931.

The industrial plan which is being carried out provides for a notable multiplication of the spindles which will be available by the end of the five year period. If we take into account the 33,000 spindles of the Kayseri factory, which is at work since 1935, we obtain a total of 148,000 for the whole country during the same year.

When the cotton textile combine of Ereğli will be in working order with its 16,200 spindles, the total for 1936 will reach 164,000, then 189,000, when the 25,000 spindles of the Nazilli combine will come into operation. With the contingent of 29,000 spindles of a fourth plant whose installation is decided, though its location is not yet determined, the total spindleage of Turkey will stand at 218,000.

The machine-looms of our national cotton factories have risen, from 1,200 in 1932, to 1,400 in 1933, an annual average gain of 16.5 per cent, and of 35 per cent in 1934 as against 1932. Including the power-looms of the Nazilli (730), Kayseri (1,080), and Ereğli (3,680) works, and an additional one

whose erection is decided for the close of the five years period, we have a total of 4,680. [1]



With regard to the woollen textile industry, it is worth noting that the number of looms went up, from 401 in 1927, to 552 in 1932, thence to 807 in 1933, registering an average annual increase of 42 per cent, or a progress of 101.2 per cent in 1933 over 1927.

During 1934, the number of applications filed with the Ministry of Economy by various woollen textile factories, for

[1] The following table shows the number of spindles and looms of the factories which have been, or will be, equipped by the Sümer Bank whose dependencies they are:

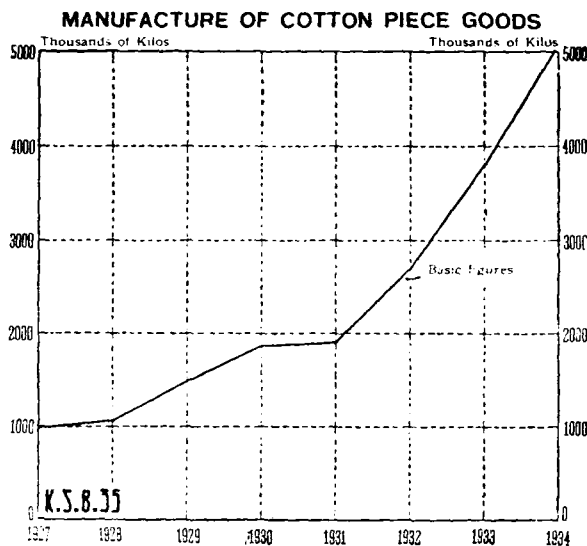
The Bakırköy factory	10,000 spindles	300 looms.
The Kayseri factory	33,000 —	1,080 —
The Ereğli factory	16,200 —	250 —
The Nazilli factory	25,000 —	750 —
A fourth combine	29,000 —	1,000 —
<b>Total:</b>	<b>113,200</b>	<b>3,360</b>

obtaining authorization to purchase new power- looms, involved a number equal to that now in service.

The output of the national woollen and cotton goods factories, which was moderately increasing between 1927 and 1929 denoted, thereafter, an accelerated rhythm, as it can be deduced from the following table:

### *Output of the national factories*

<i>Cotton piece goods [1]:</i>			<i>Woollens</i>		
<i>Thousands</i>	<i>Variation</i>		<i>Thousands</i>	<i>Variation</i>	
<i>of kilogs.:</i>	<i>as against 1928:</i>		<i>of kilogs.:</i>	<i>as against 1928:</i>	
<i>1928</i>	<i>1,059.0</i>	<i>. . .</i>	<i>596.0</i>	<i>. . .</i>	
<i>1929</i>	<i>1,475.0</i>	<i>+ 39 per cent.</i>	<i>763.0</i>	<i>+ 28 per cent.</i>	
<i>1930</i>	<i>1,871.0</i>	<i>+ 77</i>	<i>928.0</i>	<i>+ 56</i>	
<i>1931</i>	<i>1,888.6</i>	<i>+ 78</i>	<i>1,224.0</i>	<i>+ 105</i>	
<i>1932</i>	<i>2,693.2</i>	<i>+ 154</i>	<i>1,694.0</i>	<i>+ 184</i>	
<i>1933</i>	<i>3,804.6</i>	<i>+ 259</i>	<i>2,281.0</i>	<i>+ 283</i>	
<i>1934</i>	<i>5,070.6</i>	<i>+ 379</i>	<i>2,680.0</i>	<i>+ 350</i>	



[1] Cotton yarn production is not included in these figures.

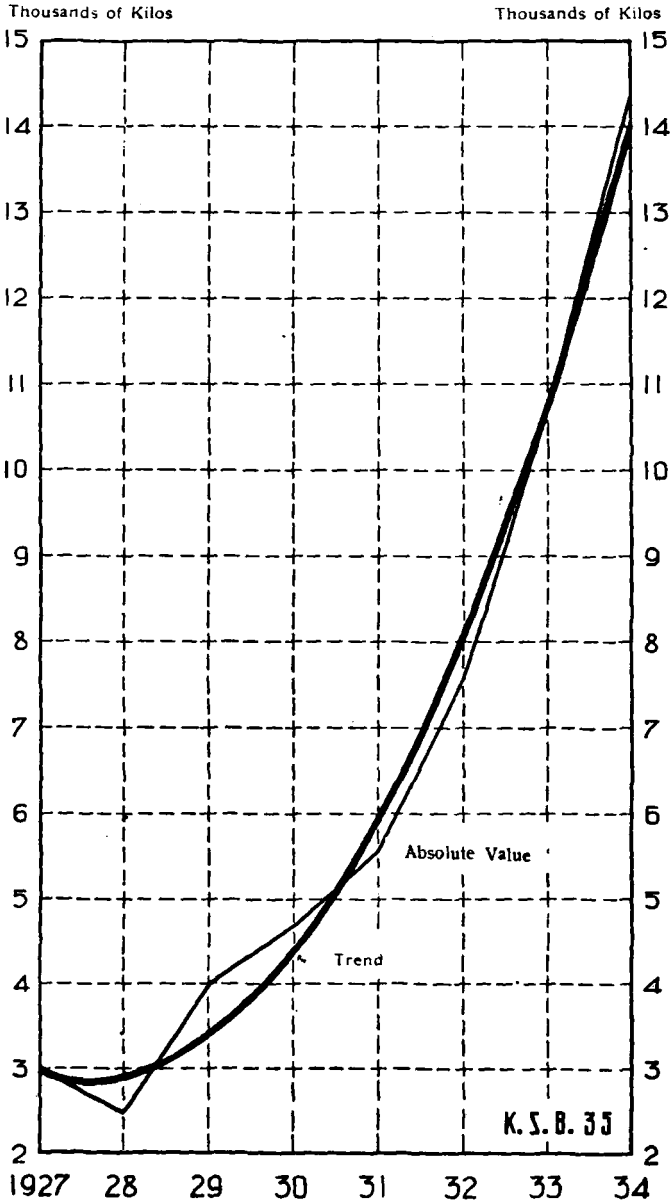
Year	Cotton industry:		Woollens industry:	
	Ratio of variation as compared with a year earlier.		Ratio of variation as compared with a year earlier.	
1929	+ 39	per cent.	+ 28	per cent.
1930	+ 27		+ 22	
1931	+ 1		+ 32	
1932	+ 43		+ 38	
1933	+ 41		+ 35	
1934	+ 33		+ 18	

The annual increase, during six years, has averaged 31 per cent for the cotton, and at 29 per cent for the wool, industries. The rapid progress made by both branches of industry had its natural repercussion upon the returns of our foreign trade. As the national factories intensified their production, a simultaneous contraction was registered in the volume of foreign made goods in the same line. In 1934, the imports of cotton piece goods and woollen manufactures have decreased respectively by 33 and 73.7 per cent as against 1927, the falling off being much heavier in connection with the latter category of fabrics. Between 1928 and 1934, the average reduction is therefore 17.6 per cent for woollen, and 5.46 per cent for cotton goods. The following figures mark the stages of this evolution:

Year	Cotton piece goods		Hair and woollen manufactures	
	Thousands of kilogs.:	Variation in comparison with 1927:	Thousands of kilogs.:	Variation in comparison with 1927:
1927	2,241	. . .	19,528	. . .
1928	2,340	— 4.1 per cent.	18,759	— 3.9 per cent.
1929	2,516	+ 3.1	22,369	+ 14.6
1930	1,574	— 35.5	14,043	— 28.1
1931	1,147	— 53.0	17,320	— 11.3
1932	579	— 76.3	13,600	— 30.3
1933	641	— 73.7	13,068	— 33.1
1934	492	— 79.8	11,199	— 42.7

Among the global imports of tissues, the share of the woollen and cotton manufactures is declining from year to year without interruption. Besides, the percentage of woollen textiles has decreased far more rapidly than that of the cotton piece goods.

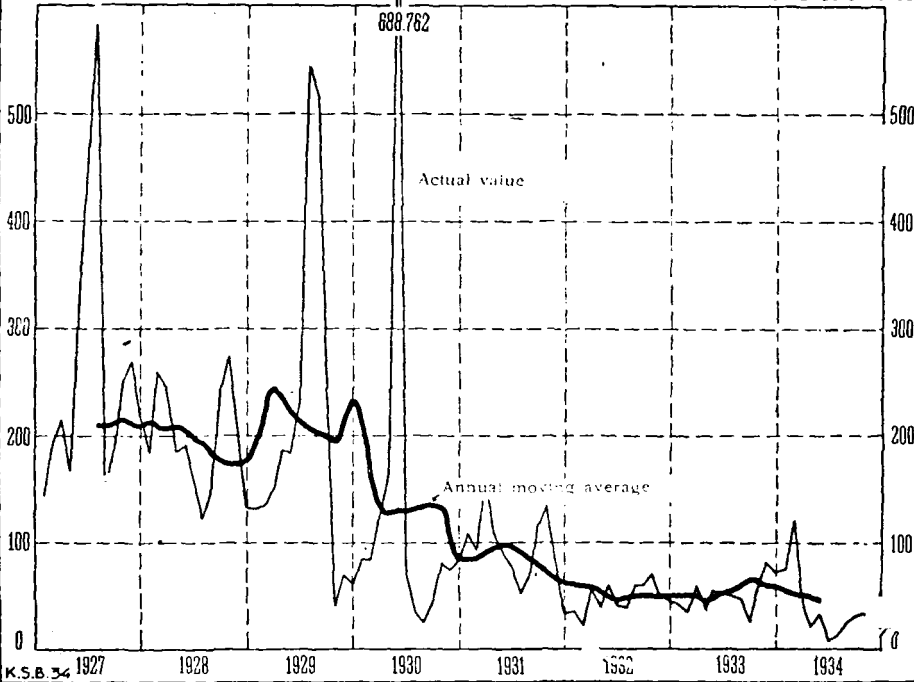
# RAW COTTON CONSUMED BY THE NATIONAL COTTON WORKS



# IMPORTS OF WOOLLEN HAIR AND COTTON TEXTILES

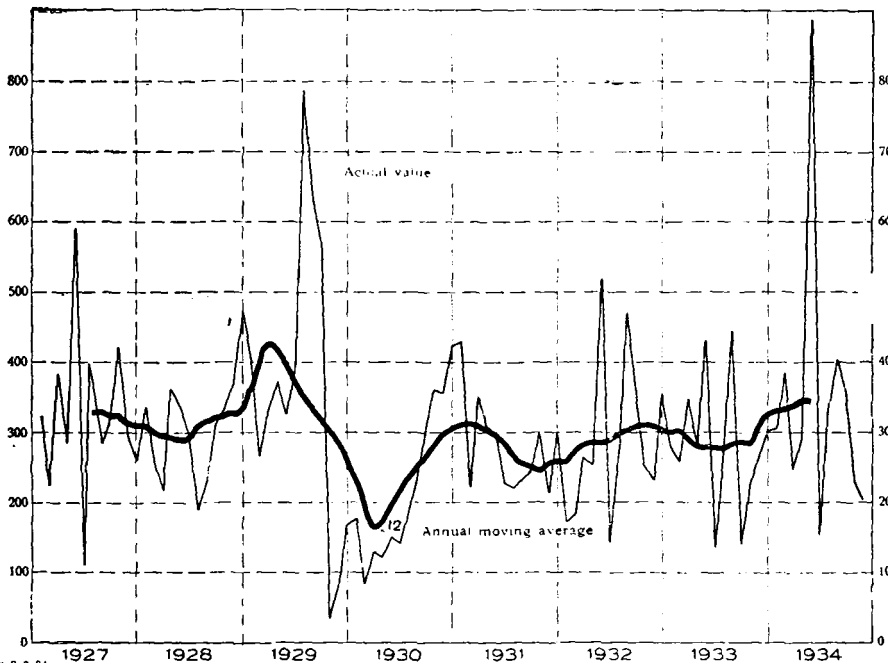
Thousands of Kilos

Thousands of Kilos



K.S.B. 34

# IMPORTS OF COTTON THREADS



K.S.B. 34

## Proportional repartition of the total Imports of textiles

(Thousands of Kilogs.)

	1930	%	1931	%	1932	%	1933	%	1934	%	Annual average variation
Cotton piece goods. . .	14.043	53,44	17.320	62,40	13.600	59,99	13.068	56,78	11.199	48,53	— 4.09
Woolens . . . . .	1.574	6,00	1.147	4,13	579	2,05	641	2,79	492	2,13	— 22.30
Linens and hemp tissues.	7.185	27,34	4.857	1,75	3.750	16,54	4.594	19,96	5.192	22,50	— 4.92
Silk tissues . . . . .	53	0,20	33	0,12	11	0,05	98	0,43	511	2,22	+ 276.98
Cotton thread . . .	2.684	10,21	3.354	12,08	3.485	15,37	3.313	14,40	4.240	18,38	+ 11.02
Hair and woollen yarns .	518	1,97	672	2,42	910	4,01	1.023	4,44	1.189	5,15	+ 23.45
Flax and hemp yarns . .	77	0,29	153	0,55	83	0,37	103	0,45	183	0,79	+ 38.68
Silk thread . . . . .	144	0,55	221	0,80	254	1,12	173	0,75	70	0,30	+ 0.51
<b>Total</b>	<b>26.278</b>	<b>100,—</b>	<b>27.757</b>	<b>100,—</b>	<b>22.672</b>	<b>100,—</b>	<b>23.013</b>	<b>100,—</b>	<b>23.076</b>	<b>100,—</b>	—

The foregoing table reveals the fact that cotton cloth still occupies an important place among imported textiles. It is obvious that, notwithstanding the rapid development of her cotton manufactures, Turkey is not yet capable of supplying her own requirements in this item. In this connection, it should be emphasized that cotton piece goods are, on the list of textiles, the wares responsible for the strongest outward flow of foreign currencies. When the Five Year Plan is brought to successful completion, our national industry will supply the bulk, viz., 80 per cent of the cotton goods consumed in the quantity of foreign payment instruments and, at the same time, our self-sufficiency under this heading.

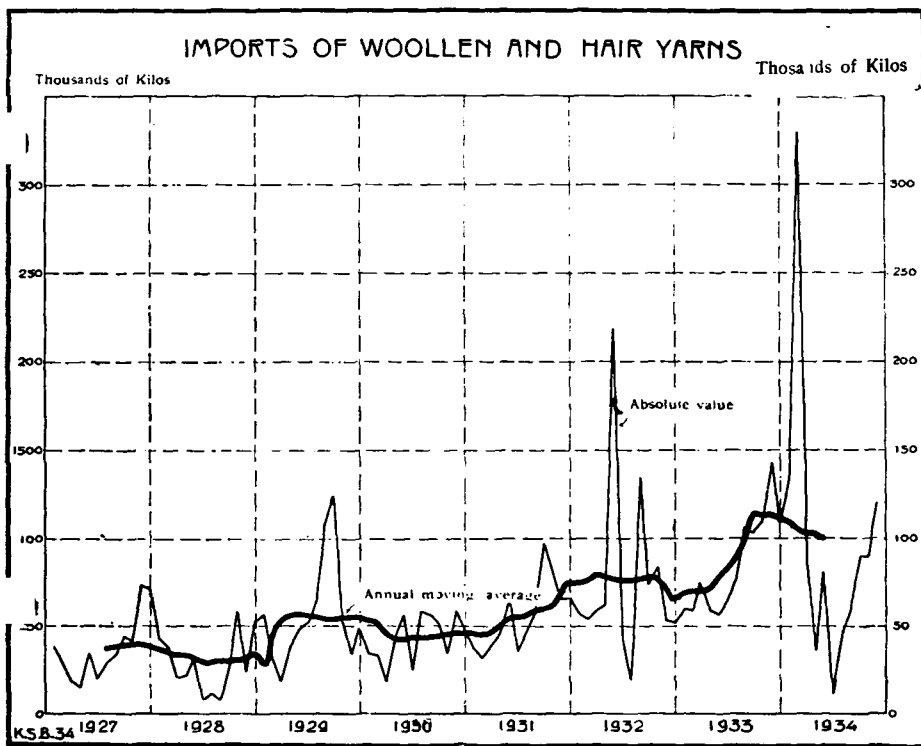
The same table brings out that the slowing up of our imports of tissues has been accompanied, on the other hand, by an increase in the quantity of half-manufactured articles, namely of the threads and yarns purchased abroad. The share of woollen yarns in the total of textiles imported from different countries has shifted from 1.97 per cent in 1930, to 5.15 per cent four years later. Between 1927 and 1934, the increase averaged 23.4 per cent. The percentage of augmentation, under this heading, was 164.2 in 1934, compared to 1927. Nevertheless, the imports of cotton thread did not rise in the same proportion. In fact, they underwent a setback averaging 8.4 per cent annually between 1927 and 1934, though they stand at 8.2 per cent higher, in the latter year, than the 1927 level.

The growing activity of our cotton spinning factories accounts largely for the decreasing volume of imported threads, as against a more substantial quantity of woollen yarns supplied by foreign manufactures. This transformation is reflected in the following figures:

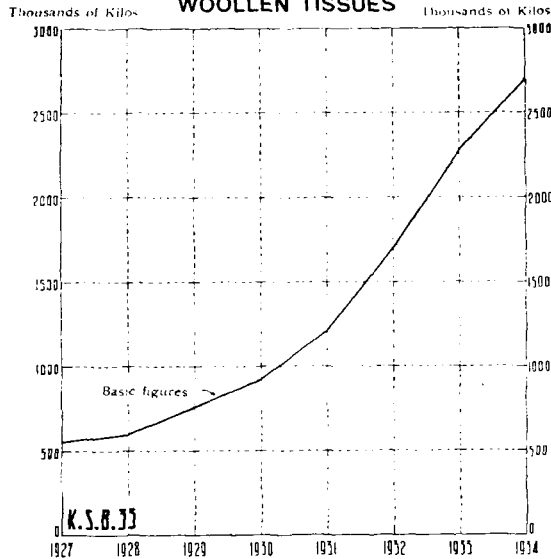


Imports of hair and woollen yarns      Imports of cotton yarns  
 (In Kilogs. — 000's omitted)

Year:	Weight :	Variation as against 1927	Weight :	Variation as against 1927
1928	347	- 22.9 per cent	3,702.0	- 5.5 per cent
1929	682	+ 51.6	4,345.7	+ 10.9
1930	518	+ 15.1	2,684.4	- 31.5
1931	672	+ 49.3	3,354.2	- 14.4
1932	910	+ 102.2	3,485.3	- 11.1
1933	1,023	+ 127.3	3,313.4	- 15.5
1934	1,189	+ 164.2	4,240.0	+ 8.2



## DOMESTIC MANUFACTURE OF WOOLLEN TISSUES



The production of native cotton yarns has increased by 350 per cent in 1934 as against 1927, averaging annually 25 per cent during the period 1927-1934. From 1927 onward, the output of the national spinning factories has moved as follows.

<i>Year</i>	<i>Thousands of Kilogs. :</i>	<i>Variation as against 1927 :</i>	<i>Variation in comparison with a year earlier:</i>
1927	1,477.8	. . .	. . .
1928	1,558.0	+ 5 per cent	+ 5 per cent
1929	2,298.0	+ 56	+ 48
1930	2,354.5	+ 59	+ 3
1931	2,584.0	+ 75	+ 10
1932	3,962.0	+ 168	+ 53
1933	5,305.3	+ 259	+ 34
1934	6,650.0	+ 350	+ 25

Cotton thread is consumed locally, in the first place, by the factories themselves, and next, by the hand-loomers in the districts of Merzifon, Kastamonu, Ayintap, Denizli, İstanbul, etc.,

which produce, for the rural, and even urban, populations, cotton cloth such as brocades, sheetings, shirtings, curtains, napkins, etc. It is the yarns of medium counts, which our factories are for the moment unable to spin, which are imported, to make up for the deficit of the domestic supply. When the Five Year Plan was evolved, cotton yarns for various specific uses were not provided for. Either they will continue to be purchased abroad, or they will be supplied by national enterprises which will be created in the future.

We have seen already that, simultaneously with the decrease in the quantity of imported cotton yarns, there was a growth in the imports of woollen yarns. As there is no factory for spinning worsteds, this variety of yarn is imported, for the time being, by the textile factories on the one hand, and by some knitting works on the other. In point of fact, the consumption of worsted yarns has been steadily increasing in weight, — by 46.5 per cent in 1932, 157.2 per cent in 1933, and 233 per cent in 1934 as against 1931, which gives us an average rise of 50 per cent for the three last years.

*Worsted yarns consumed in the main cloth  
factories (+)*

<i>Year</i>	<i>Kilogs. :</i>	<i>Increase over the precedent year :</i>	<i>Variation as against 1927 :</i>
1931	150,127	—	—
1932	219,873	+46.5 per cent.	+ 46.5 per cent
1933	386,068	+75.6	+157.2
1934	500,000 (+)	+29.5	+233.1

The imports of merino wool and cheviote have risen in proportion to the widening use of these yarns by the national works. Most of the woollens factories are spinning their own supply of merino and cheviote thread.

(+) The consumption stood at 233,330 kilogs. for the early six months of 1934. The figures for the later periods are estimates.

### *Imports of merino and cheviote wools.*

Year	Kilogs.	Increase over the precedent year :	Variation, in compa- rison with 1927 :
1927	39,710		
1928	51,625	+30.0 per cent.	+ 30.0 per cent
1929	76,083	+47.4	+ 91.6
1930	142,631	+87.4	+ 259.2
1931	279,821	+96.2	+ 604.7
1932	288,026	+ 2.9	+ 625.3
1933	311,429	+ 8.1	+ 684.3
1934	559,623	+79.7	+1,309.3

From 1927 to 1934 : the imports under this heading have registered an average increase of 50 per cent annually. When the worsted spinning factory, projected by the Sumer Bank will have been erected at Brusa, the national woollens works will be able to furnish themselves within the country. The new plant will be equipped with 16,000 spindles.

Besides, the consumption of native wool in the national factories is visibly growing. Thus, the farmers find a good opportunity to dispose of their crops whose potential purchasers abroad are now rather reluctant. The production of native merino wool, however, is still far from sufficing to the demand of our factories. The imports of merino sheep, which started since 1929, have scarcely reached 2,873 heads, producing a net weight of wool of 7,299 kilogs. Aside from this the cross-bred sheep has produced 17,633 kilogs. of wool. The following table shows the increasing consumption of raw cotton in the national enterprises :

Year	Consumption (Thousands of Kilogs)	Variation as against a year earlier :	Variation as against 1927 :
1927	2,938		
1928	2,480	-15.6 per cent	- 15.6 per cent
1929	4,026	+62.3	+ 37.0
1930	4,686	+16.4	+ 59.5
1931	5,587	+19.2	+ 90.1
1932	7,645	+36.9	+160.2
1933	10,703	+40.0	+264.3
1934	14,213	+33.0	+383.8

The average increase stands, therefore, at 27 per cent between 1927 and 1934. The consumption of raw cotton is rising quite normally, with the progressive expansion of the national industry. Apart from the quantity utilized at present, the works to be set up under the Five Year Plan will need annually about 13,760,000 kilogs., or 55,000 bales of cotton. It would be fair to provide a further margin of 55,000 bales for the requirements of private enterprises during the same period apart from the consumption in the plants erected under the Plan. Therefore, supposing that the needs of the existing works remain at a stable level, the annual stock of raw cotton for use in the cloth industry will average 190,000 bales with a further quota of 70,000 bales (14,213,000 kilogs.)

According to the exploitation scheme sketched out for the factories which are built up under the Five Year Plan, the requirements of the various works are estimated as follows:

<i>Name of factory:</i>	<i>Quantity (Thousands of Kilogs)</i>	<i>Staple:</i>	<i>Variety of cotton:</i>
<i>Bakırköy (extension)</i>	750	25/27	<i>İzmir, in part. Cleveland, in part.</i>
<i>Kayseri combine</i>	1,600	18/22	<i>Adana native.</i>
	3,900	22/24	<i>Adana, "İane",</i>
<i>Ereğli combine</i>	1,400	28/30	<i>Cleveland.</i>
	200	18/22	<i>Adana native.</i>
<i>Nazilli combine</i>	2,200	24/26	<i>İzmir, or Cleve- land.</i>
	1,000	25/27	<i>Cleveland.</i>
<i>Projected 4th combine</i>	1,350	28/30	<i>Cleveland.</i>
	1,600	25/26	<i>İzmir.</i>
	110	22/24	<i>"İane"</i>
	150	18/20	<i>Adana, native.</i>

As it appears from the length of fibres required for the various factories, the Kayseri combine will turn out coarse

cabot, brocade, caramandols, Japanese drills; that of Ereğli, light muslin, cambric, gingham, lining cloth, *mermershahi*, zephyr - satin; that of Nazilli, muslin and, mainly, printed cotton piece goods.

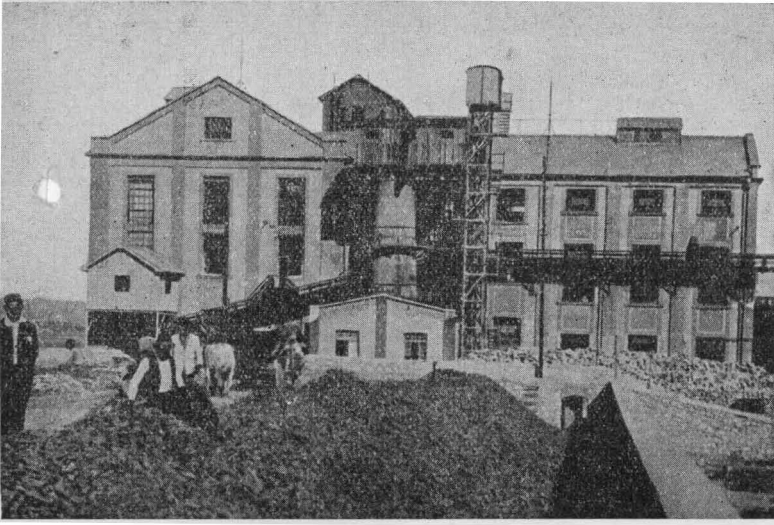
The following figures enable us to follow up the development of the other branches of national industry, viz., the production of sugar, leather and cement, as distinct from the textiles:

#### Production of sugar:

Year	Thousands of Kilogs.	Increase or decrease as compared to 1927	Variation as against a year earlier:
1927	5,184	...	...
1928	5,184	...	...
1929	8,050	+ 153.3 per cent.	+ 55 per cent.
1930	13,350	+ 157.1	+ 66
1931	22,260	+ 329.3	+ 67
1932	27,550	+ 431.4	+ 24
1933	65,285	+ 1159.4	+ 137
1934	60,630	+ 1169.6	- 7

#### Leathers

Year	Thousands of Kilogs.	Increase or decrease as compared to 1927	Variation as against a year earlier:
1927	3,029	...	...
1928	3,349	+ 10.6 per cent.	+ 11 per cent.
1929	3,480	+ 14.9	+ 4
1930	3,312	+ 9.3	- 5
1931	4,450	+ 46.9	+ 34
1932	4,105	+ 35.5	- 8
1933	4,360	+ 43.9	+ 6
1934	—	—	—



**Sugar Refinery (Uşak)**

**Leather factory (Beykoz)**



## Cements

Year	Thousands of Kilogs.	Increase or decrease as compared to 1927	Variation as against a year earlier:
1927	41,400	...	...
1928	62,500	+ 51.0 per cent.	+ 51 per cent.
1929	72,800	+ 75.8	+ 17
1930	105,100	+ 153.8	+ 44
1931	104,100	+ 151.4	- 1
1932	129,170	+ 212.0	+ 24
1933	145,000	+ 250.2	+ 12
1934	181,500	+ 338.4	+ 25

## Coals (Ereğli collieries)

Year	Thousands of Kilogs.	Increase or decrease as compared to 1927	Variation as against a year earlier:
1927	1,323	...	...
1928	1,251	- 5.4 per cent.	- 5 per cent.
1929	1,421	+ 7.4	+ 14
1930	1,596	+ 20.6	+ 12
1931	1,574	+ 19.0	- 1
1932	1,594	+ 20.5	+ 1
1933	1,852	+ 40.0	+ 16
1934	2 228	+ 79.2	+ 24

That the industrialization of Turkey, as well as that of the countries situated on the same economic level, implies necessarily a revision of the division of labour among agricultural and industrial nations, as it was settled up to now, is quite obvious.



The structural shift which is taking place in the world economics can be assimilated to the industrial revolution of the 19th century. Just as Turkey was bereft of her industry,—like many other countries—, when mechanic industry dawned over Western Europe, the industrial revival of the former class of nations is bound to bring about a new industrial upheaval, which will result in a more rational re - distribution, throughout the world, of the industrial activity hitherto confined to a few parts of Europe.

### *The Turkish industrial Five Year Plan:*

In an article contributed to the Press, general İsmet İnönü, Prime Minister of Turkey, has summed up the factors which, in the present circumstances and since the Revolution, are responsible for the drive to State nationalism, characterizing the second stage in the industrial development of this country:

«In order to endow the State with a structure capable of making up for centuries of indifference, of restoring what was wrongfully destroyed,— that is, one fit to stand the severe tests of modern times, it was necessary first to remove the causes of economic weakness. I maintain that we are forced to accept economic State nationalism as a system of safeguard on the way of progress, and hence as a point of departure and a safety device. It represents for us a fruitful and positive orientation, which is bound to lead to recovery and a new order. I mean by this that we do not trust to it merely in a conservative spirit of safety, but also as the concrete, effective and necessary instrument for a policy of expansion and regeneration. I therefore hope that in ten years time Turkish State nationalism will be cited as a masterpiece, as the most perfect scientific expression of a nationalist conception of State organization in the economic domain.»

In the report published by the Ministry of Economy in connection with the industrial Five Year Plan, the motives inspiring the new tendency towards State nationalism centre around this main idea:

«The purpose of making Turkey an independent nation finds its expression, nowadays, in the will to change her into a thoroughly constituted and self - sufficient body».

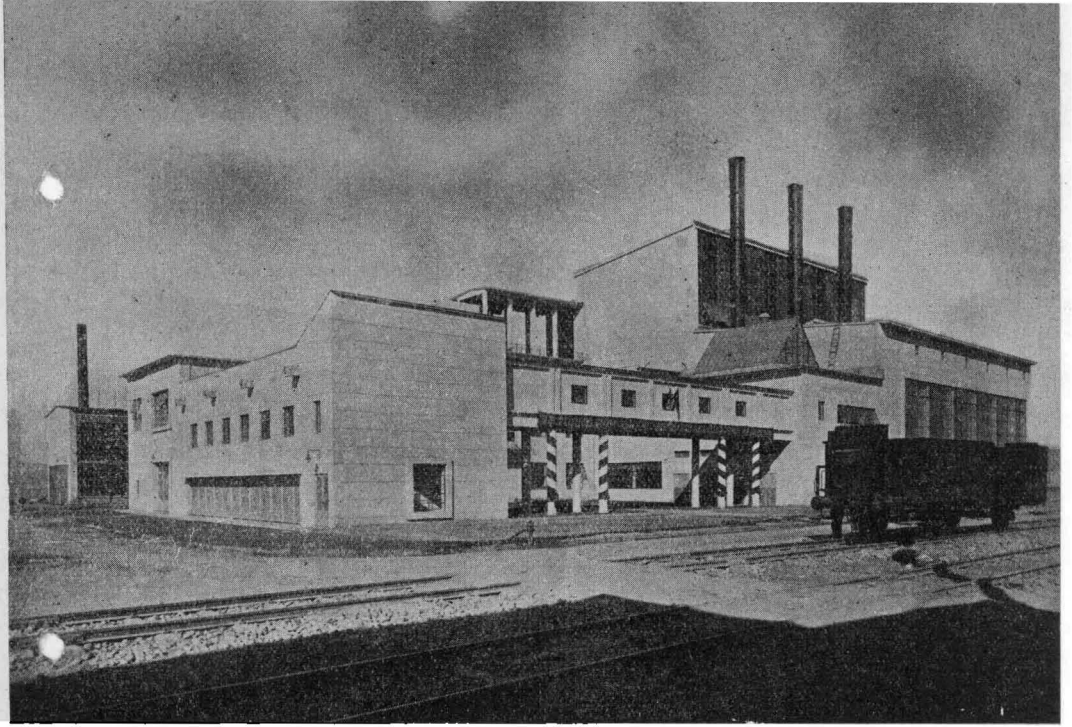
When the Government set forth, during recent years, a series of measures designed to fulfil these purposes, he was anxious to evolve a comprehensive scheme, embracing our economic life as a whole, our agriculture as well as our industry, - a scheme worth studying as such.

The comparative insufficiency of the means which would make it easy to accomplish an economic revolution contrived on a large scale obliges the State, by this time, to ponder with the utmost care over the steps to be taken with a view to foster national development. A rational utilization of the national energy, on the one hand, and the general trend of world economics, on the other, urge the Government to adopt, so to speak, a long - range programme.

The following considerations constitute an additional argument in support of a scheme clearly devised to realize our economic integrity.

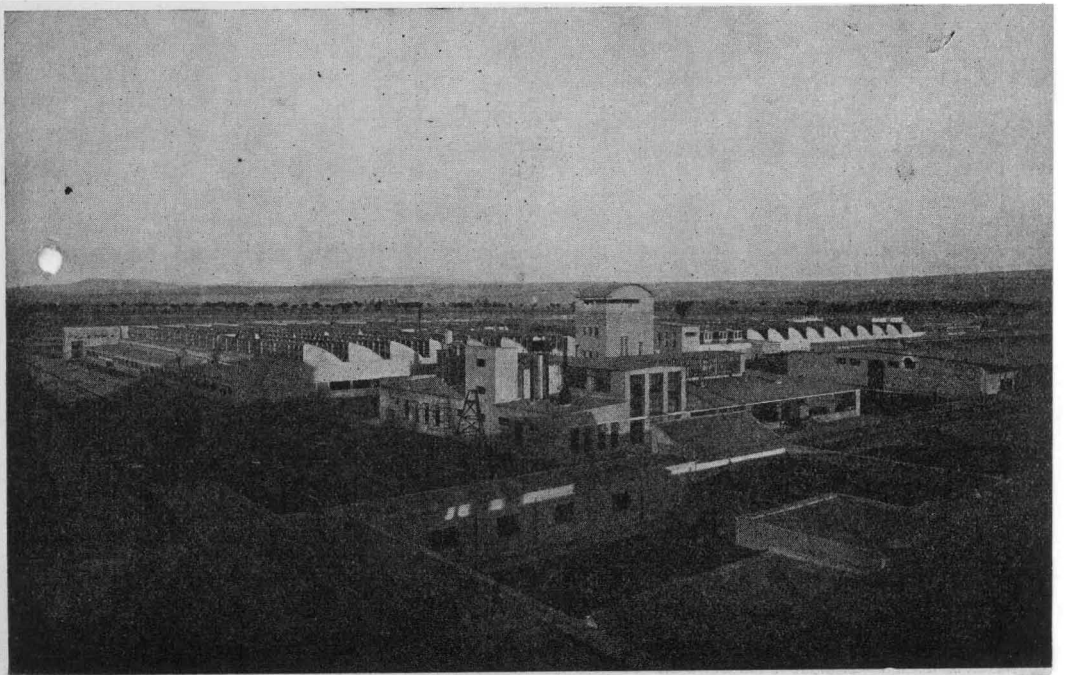
a) The scarcity of foreign currencies, which is more and more difficult to make up for in the present slackening of business resulting from the world depression.

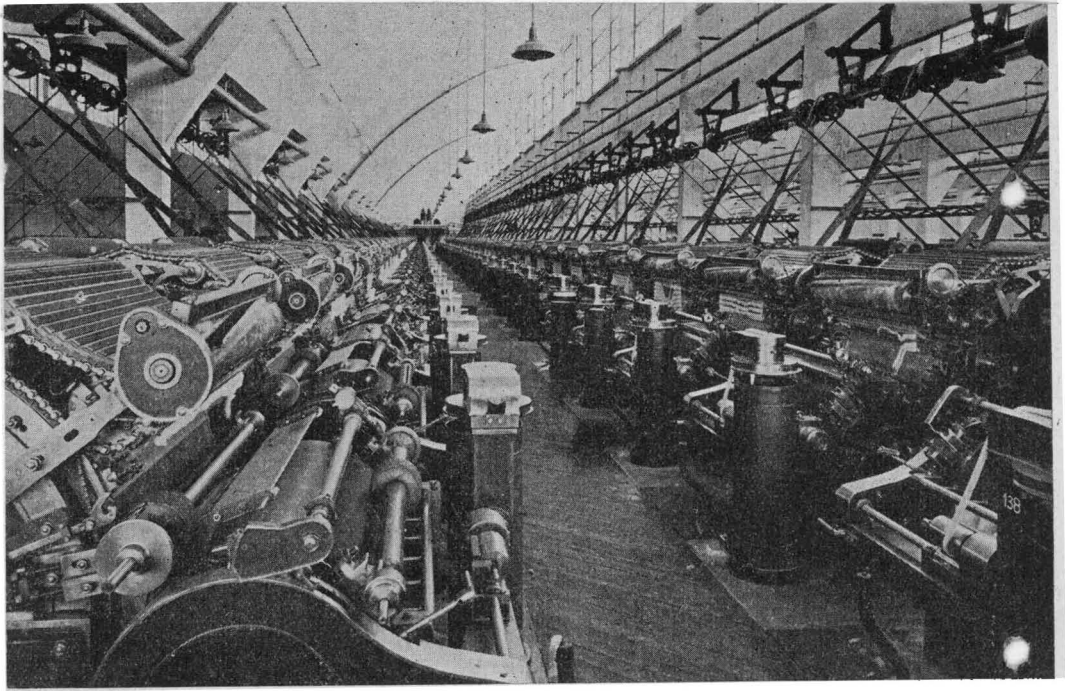
b) The desire to ensure, for the Turkish workers and farmers, which have been severely affected by the persistent decline of the international level of prices, a more retributive field of activity.



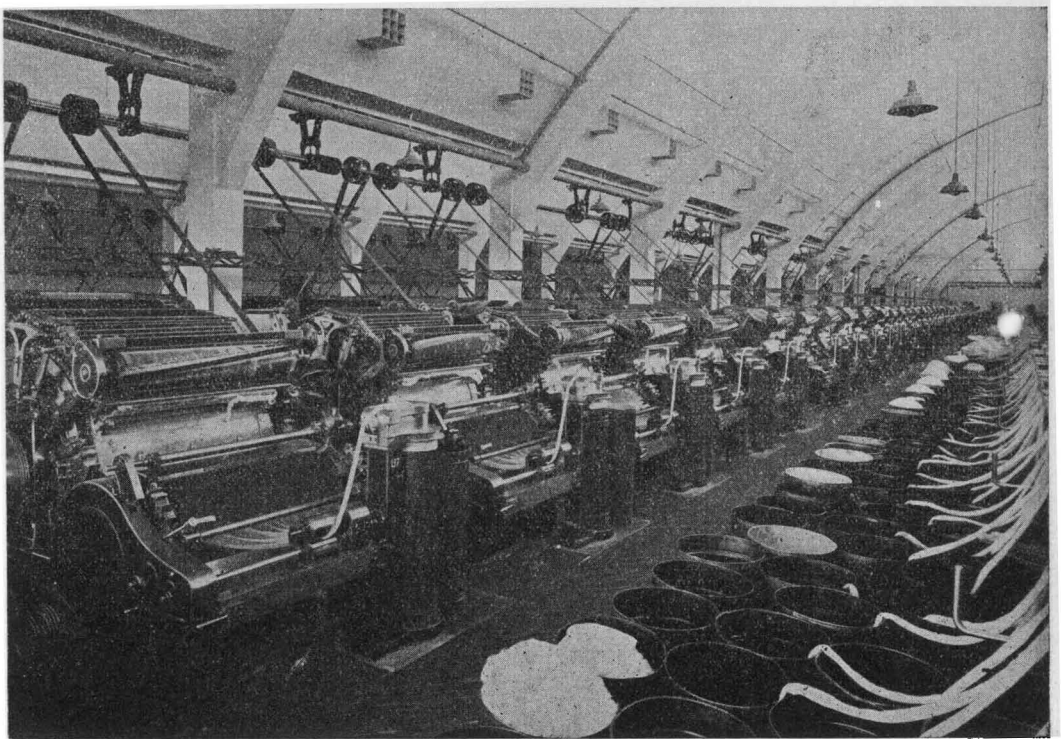
Main building of the Combine of Kayseri

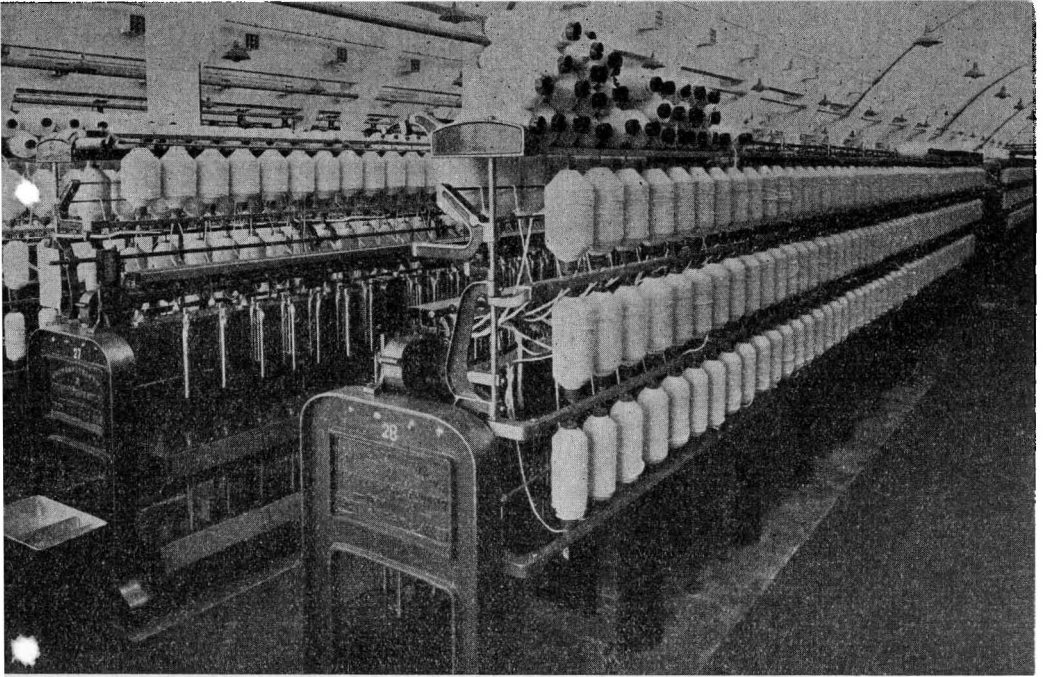
Textile Combine of Kayseri





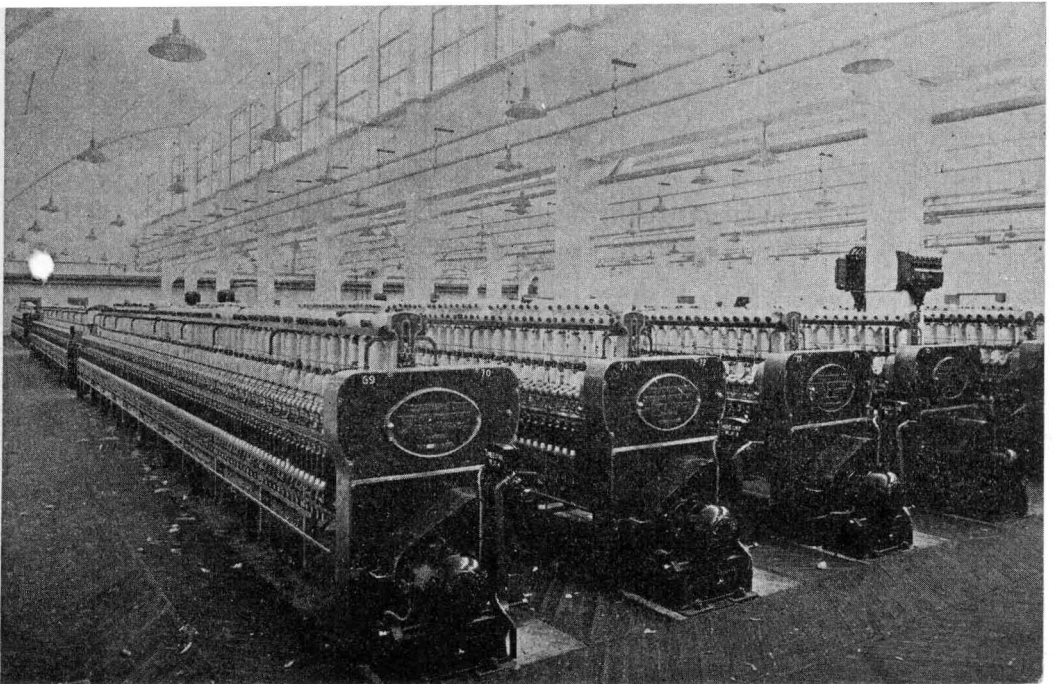
Some aspects of the textile combine of Kayseri





Another aspect of the same combine

One of the engine - rooms of the same combine



c) Judging from the international trade conditions now obtained, the possibility of furnishing the country with a proper equipment at an advantageous cost.

The Five Year Plan, which is being carried out since 1934, has been delineated, at the very outset, with due consideration to both divisions of the economic activity, namely, the production of consumable goods, and the building up of the means of production. In fact, the Plan embraces the creation of the elements which are deemed indispensable for a perfectly organized national production.

The following industries of consumable wares are to be established in the course of the first five year period:

- 1 — Cotton, hemp, woollen and artificial silk goods.
- 2 — Paper, glass and bottles, porcelains.

The industries providing for the means of production are:

- 1 — The manufacture of iron, coke, and of the by-products of coal.
- 2 — The production of copper and sulphur.
- 3 — The chemical industries (sulphuric acid, chlore, caustic soda, super - phosphates).

When the foundations of both groups industry which have been laid, certain undertakings requiring a more advanced technique, to wit, the electrification of the land and the heavy industry, will be dealt with in a further programme.

The Government had in view the following objects, at the time it was working out the details of the Five Year Plan:

“1) The main lines of the programme, and the extent of the projected industries, were determined solely by the desire to enable the country to meet its own requirements. In other

words, the ultimate aim of the Plan is not the eventual exportation of the goods manufactured in our factories, - with the exception, perhaps, of copper and sulphur. The copper industry will be especially organized with a view to marketing abroad, local prospects being very favourable in this regard.

As to sulphur, if the hopes founded upon the preliminary developments and tests carried out thus far are confirmed by a few years of experiment and further research, this mineral may be expected to cope successfully with international competition. The predominant feature of both the first and the second Five Year Plans will, nevertheless, remain unaltered: the magnitude of our industry will be determined by the exact volume of our domestic markets. To ignore deliberately the reaction of the universal crisis upon the countries whose industry is fundamentally established in view of the external trade, and to waste capital and labour on hazardous attempts, is out of question.

2 — Another outstanding feature of the Plan is that it envisages the erection of factories which use crude materials produced in the country. The cotton necessary for the cotton manufacturing establishments is grown in Turkey, and we will cultivate such varieties of this plant as are not yet available. Our soil supplies us with the iron ore and coal needed by our future iron and steel plants. We can rely upon our wealth of coal, now and in the future, and in case of possible war. Our woodlands afford us a great variety of timber - trees, therefore, the wood pulp and cellulosic materials which will meet the demands of our paper mills. We will make the best of the native hemp for the manufacture of cords, ropes and sacks. We find, on the surface of the earth and underground, sulphur and pyrites for the fabrication of sulphuric acid, and also abundant quantities of chlore and sodium in our brine works. Neither do we lack of sand and marble to feed the furnaces of our glass works.

3 — It was found expedient to include in the Plan, and to entrust either the State, or some national concerns, with the building up of such industries as, it was thought, private capital was unable to establish efficiently.

Furthermore, it should be borne in mind that the foregoing key-industries will give considerable stimulus to private initiative and capital. Once it is established by the State, our iron and steel plant will supply at low cost, the factories manufacturing machinery, piping, bolts, screws, nails, the wiremills and the smelting — houses to be founded by private enterprises, with the half — manufactured materials they will require.

The new textile industry leaves a fair margin for the progress of the existing national works, beside promising an increased activity to the cotton, rope, velvet, plush, ribbon, lace and hosiery trades. It will, incidentally, bring forth a multitude of petty industries which will grow up as the national industry expands, and be much more viable than many similar enterprises created in the present circumstances.

It may be safely asseverated that the headlong impulsion given to the national economy through the application of the Five Year Plan will bring in an accumulation of capital, which, in its turn, will search for investment in industrial enterprises, and help further the small trades.

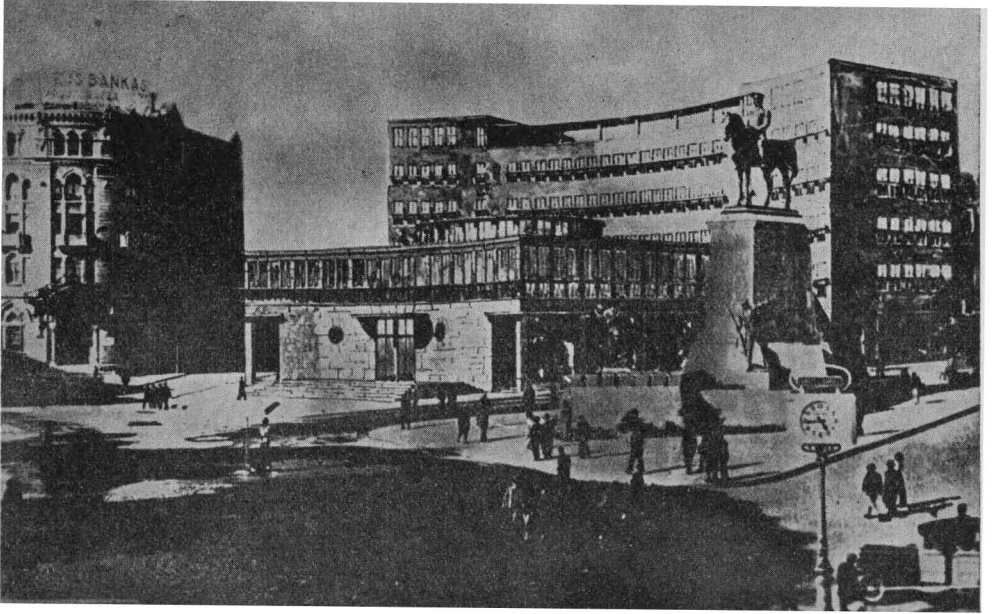
The financial plan devised by the State provides for an expenditure of £T 41,533,000 for the application of the Five Year Plan. If we add to that sum the capital to be set aside by the İş Bankası for the factories with the creation of which it has been entrusted viz. £T 1,000,000 for the semi - coke plant, £T 1,250,000 for the glass works, plus its participation of £T 150,000 in the sulphur refineries, the capital outlay will reach, in the aggregate, some £T. 43,953,000.



The share of each branch of industry in this total, which includes the installation and the floating capital of the works, is as follows .

Industries :	£T :
<i>Cotton</i>	18,538,000
<i>Hemp</i>	1,700,000
<i>Worsted</i> s	1,650,000
<i>Iron</i>	10,000,000
<i>Copper (55 per cent)</i>	550,000
<i>Sulphur</i>	300,000
<i>Cellulose</i>	1,025,000
<i>Paper</i>	3,790,000
<i>Rayon</i>	490,000
<i>Porcelains (estimates)</i>	800,000
Chemical industries :	
<i>a) sulphuric acid</i>	550,000
<i>b) super - phosphates</i>	400,000
<i>c) caustic soda and chlore</i>	1,410,000
<i>Scholarships</i>	500,000
<i>Semi - coke factory</i>	1,000,000
<i>Glass and bottle works</i>	1,250,000
	43,953,000

The Sümer Bank has received from the Government the mission of carrying out the industrial Five Year Plan. Created in 1933, with a new and vast object, this establishment is a successor to the Industrial and Mining Bank, now abolished, which had been set up in 1935. Its original capital, of £T. 20,000,000 in June 1930, has been raised by the Government to £T, 62,000,000 in 1934, in order to provide the Bank with the funds required for the application of the Five Year Plan. Here is an extract of the Law providing for the constitution of the Bank, which defines its object: - To exploit the factories which it takes over from the Industrial and Mining Bank;



The office of the Sümer Bank (Ankara) in construction

to administer the State participations in private industrial enterprises; to prepare the reports and plans of all new State industrial installations which it is to create and manage, excepting those which are to be erected in virtue of licences granted by special Laws; to participate in, or give its support to the extent of its financial capacity, to the industrial enterprises the creation or the extension of which are considered of profit to national economy.

Separately from the Sümer Bank, the İş Bankası has assumed the duty of carrying out a part of the Five Year Plan. It has erected already a semi-coke plant and a glass works.

The sugar industry henceforth supplies the needs of the country. It has been therefore left outside the framework of the programme.

Furthermore, the Government has allotted credits for the training of skilled workers, technicians and engineers, for the execution of the Plan. In order to bring the national scheme to a successful end, an army of expert and tested workers



The Kammgarn factory in construction

and technicians is, at least, as important as the machinery, plants and premises. The projected factories will require roughly 12,000 or 15,000 workmen during the first five year period. We should mention also that the Sümer Bank is issuing scholarships and sending students to Europe in order to form the bulk of its future staff.

The 70 apprentices (foremen and technicians), who had been sent to the U. S. S. R. in 1933, have terminated their period of instruction and returned home. They have been affected to the Kayseri combine, for which they were intended. A new contingent of 70 apprentices and 10 engineers has been sent over to soviet Russia for training.

A school for the education of weaving experts has been opened of late and annexed to the Kayseri combine. It will train up skilled workers for this plant, as well as for the future factories, and give adequate instruction to hundreds of young Turks.

Likewise, the Sümer Bank has organized in the course of 1933 a competition among the young men who have graduated, with a good degree, from the high schools during the last three years. Sixteen competitors, out of ninety, have been admitted, of whom fourteen were sent over to Germany and two to Belgium, where they are to receive a special training

in textile chemistry, ceramics, textile technique, electro - mechanics, smelting and industrial management. They are now in Germany and Belgium, and they will attend theoretic courses as soon as their probation period is over. The Bank will continue to grant foreign scholarships in the forthcoming years, in order to prepare the staff required for the new enterprises.

The following lines, which we quoted from the Report of the Sümer Bank for the year 1934 shows how far the application of the Five Year Plan was carried off in the course of 1934 and by the end of the early six months of 1935:

Setting aside the extension of the Bakırköy cotton factory, which began to operate in 1934, the first plant erected by the Sümer Bank and started in 1935 pursuant to the Five Year Plan is the combine of Kayseri. The foundation of the works were laid on the 24th of May 1934, its construction ended on the 1st of July 1935, and it actually started production by the 16th of September, all having taken 483 days, at the close of which time our largest industrial unit was ready to partake in the division of the national activity.

The Kayseri combine will turn out, with its 33,000 spindles and 1,080 looms, yearly 30,000,000 metres, or 5,000 metric tons of cloth. It will manufacture grey and white shirtings Japanese striped drills, and various prints. Its raw cotton consumption will reach 5,5 millions kilogrammes per annum. It is, for the time being, operated by a single team of workers. Later on, when its broadened activity will require it, it is to employ about 4,500 workers divided into three teams. The wares it offers to the market seem to be superior in quality to similar foreign goods, and as they are very popular, orders begin to flow in.

The Ereğli cotton factory, whose foundationstone was laid by the 20th of October 1934, has been completed. The construction of the lodging quarters for the staff has just begun.

Further premises are also built up for single workmen. The machinery has been set up, and the junction line which is to link up the factory with the main railway has been also completed. The factory will be equipped with two power stations, the one being a steam plant, and the other deriving energy from the Ivris river. Its 15,200 spindles and 300 looms will consume 1,400 metric tons of raw cotton per annum, if they are to keep working night and day. Its annual output will consist of 4,000,000 metres, or 600,000 kilogrammes of cotton cloth, beside 600,000 kilogrammes of thread which it will put on the market. The factory will manufacture cotton piece goods such as *salaschpour*, *mermershahi*, fine cambric, zephyr, white or printed cambric, gingham, satins, popeline, etc; it will provide employment to 1,500 workers, divided into two teams.

Most of the cotton needed by the Ereğli combine will be supplied by the farms (growing *Akala* type), which have been created by the Ministry of Agriculture in the plain of Sakarya, north of Eskişehir. This cotton is grown from seeds cultivated under the supervision of the cotton improving farm of Sazova, Eskişehir. The crop of last year was 12,000 kilogrammes. The Ministry of Agriculture has ordered also a modern ginnery to be constructed in the village of Mayıslar, in the vicinity of Sakarya. It will start work in the course of next December, with five gin stands and one balingbox. Next year, it will be equipped with twenty gins and two machines, which will enable it to manipulate 1,000 metric tons of cotton, roughly one-quarter of the whole regional crop. Experiments carried out in Europe have shown that yarns up to 50 counts can be spun with the specimens of *Akala* cotton, taken from last year's crops. The building up of the third factory provided for by the Five Year Plan has begun, at Nazilli, on the 24 of September 1935. The plans of the lodging quarters intended for the workers and the staff, the canteen and the other premises are ready. The junction line

has been laid down, and the construction of the lodging quarters and canteen has started. By the close of the year, the works are expected to be over. The construction of the plant itself will start by the end of 1935. The machinery of the Nazilli, and that of the Kayseri, combines, has been supplied by the U. S. S. R. According to the exploitation scheme, the factory will be in working order in a few months' time, that is, early in 1937. It will use 29,500 spindles, 768 power-looms, and employ 2,400 hands divided into two teams. It is expected to consume 2,000,000 kilogrammes of raw cotton, and turn out 20,000,000 metres of cotton cloths, or 1,800,000 kilogrammes of calico, madapolam, prints, satins, printed calico, shirtings and flannels.

In the textile section of the industries projected by the Five Year Plan, the worsted yarns come next to the cotton manufactures. All the plans of a factory which will produce worsted yarns have been completed, and its foundations have just been laid in Brusa. The construction of the plant will begin before the close of the year. It will be equipped with 16,340 single-spindles and 6,790 double-spindles. Its consumption of raw materials will reach 3,000,000 kilogrammes of wool, and its output 1,100,000 kilogrammes of yarns. When the factory has been installed, it will supply the requirements of all the native manufacturers, with the exception, however, of the highest grades of yarns.

The improvement of the native varieties of cotton has been undertaken since the introduction of the cotton industry in Turkey. The ministry of Agriculture has prepared, likewise, a programme dealing with the improving of sheep breeds. It is proposed to cross, with the Merino breed, a flock of 750,000 sheep of native stocks, in the districts of Bandırma, Mudanya, Balıkesir and Thrace, in order to obtain a better grade of wool, namely, the A½-B quality, that is, the Merinos and half-blood Merinos, which constitute 80 per cent of the wool required by the factory. The other 20 per cent

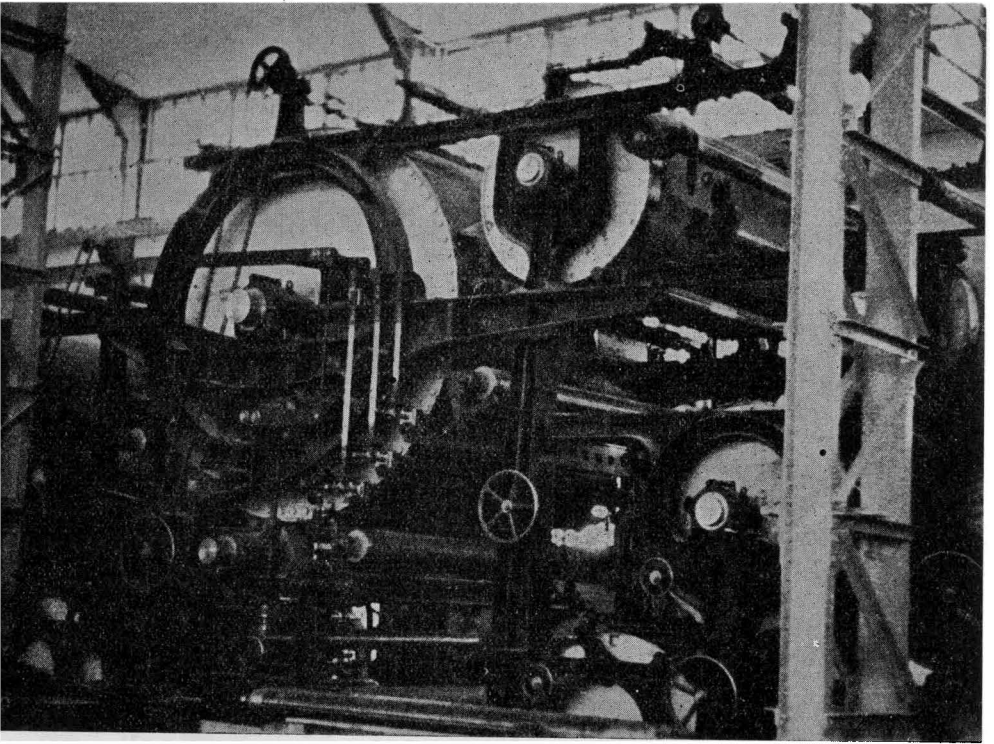
must be a very fine Merino wool, and the Ministry of Agriculture will try to obtain this type in the country by a further plan.

The Bank has under consideration the problem of hemp. It will deal effectively with this branch of industry, as soon as the research work, which is proceeding in the İzmir and Kastamonu districts, comes to an end.

Another important aim of the Five Year Plan is the setting up of the paper industry. The foundation-stone of the paper mill has been laid on the 14 th of August 1934. Excepting the turbines department, the construction and installation works have been completed, and a contract placed for the buildings intended for the personnel. The factory presents, from the technique point of view, a far more complicated aspect than any other branch of industry. Its installation is almost a display of the latest scientific achievements, and it may be said to have no equivalent, even in Europe.

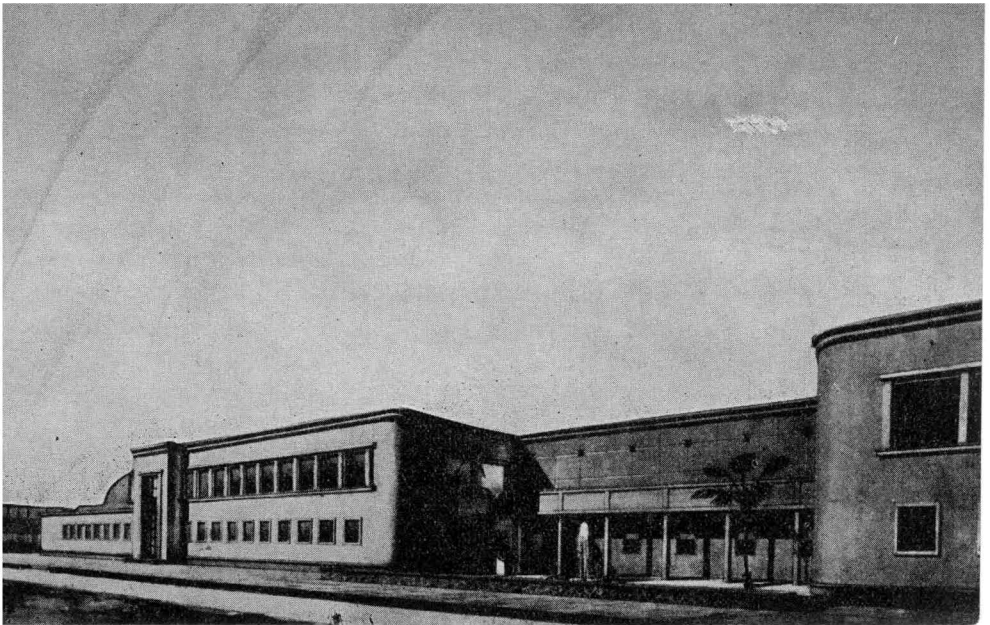
The mills will produce an average of 11,000 metric tons of paper per annum. Its output could be raised up to 15,000 tons in case of need. It will turn out writing paper (ordinary and high qualities), newsprint paper (of both qualities), packing paper and cardboard. Its annual output will meet half the total needs of Turkey. If we take into account only the varieties of paper we have just mentioned, the production will correspond, in the average, to 60 per cent of our imports of this merchandise.

The raw materials to be used by the factory fall into two categories, viz., fibrous matters and subsidiary substances. The former include wood pulp, cellulose and paper rags. The cellulose will be purchased abroad for the time being, but it is to be produced locally in the future, when a cellulose factory will have been erected. Kaolin, alum and glue, which are the secondary ingredients, are manufactured in



Satinage cylinders of the İzmit paper factory

Front view of the Nazilli combine



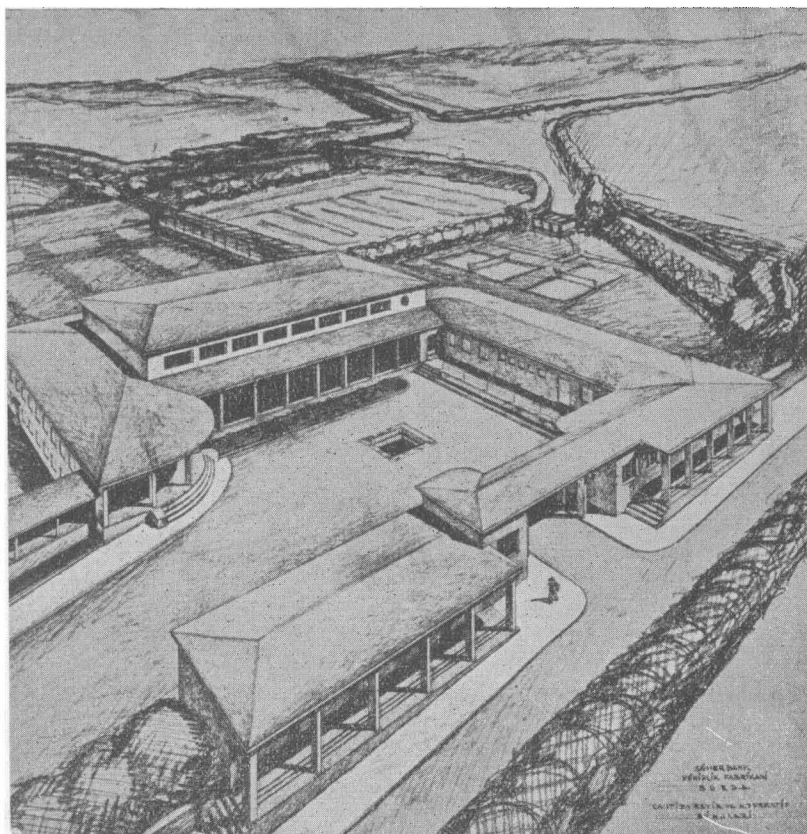


the country. The consumption will comprise 13,000 cubic metres of timber from 5 to 6 thousand tons of cellulose and 2,500 tons of rags.

The factory will be operated by three alternative teams of workers. The process of manufacture requires but a few number of attendants, about 300. Motive power will be supplied by two turbines, totalling 2,720 kilowatts.

An order has already been placed in connection with the machinery, for the equipment of the artificial silk factory, which is to start production by September 1936 and will meet all the needs of the internal market, with an annual output of 300,000 kilogrammes. Its staff will consist of 200 workers classed on three teams. The present consumption of rayon in the country corresponds exactly to the produc-

Cotton Yarn Manufacture (Bursa)

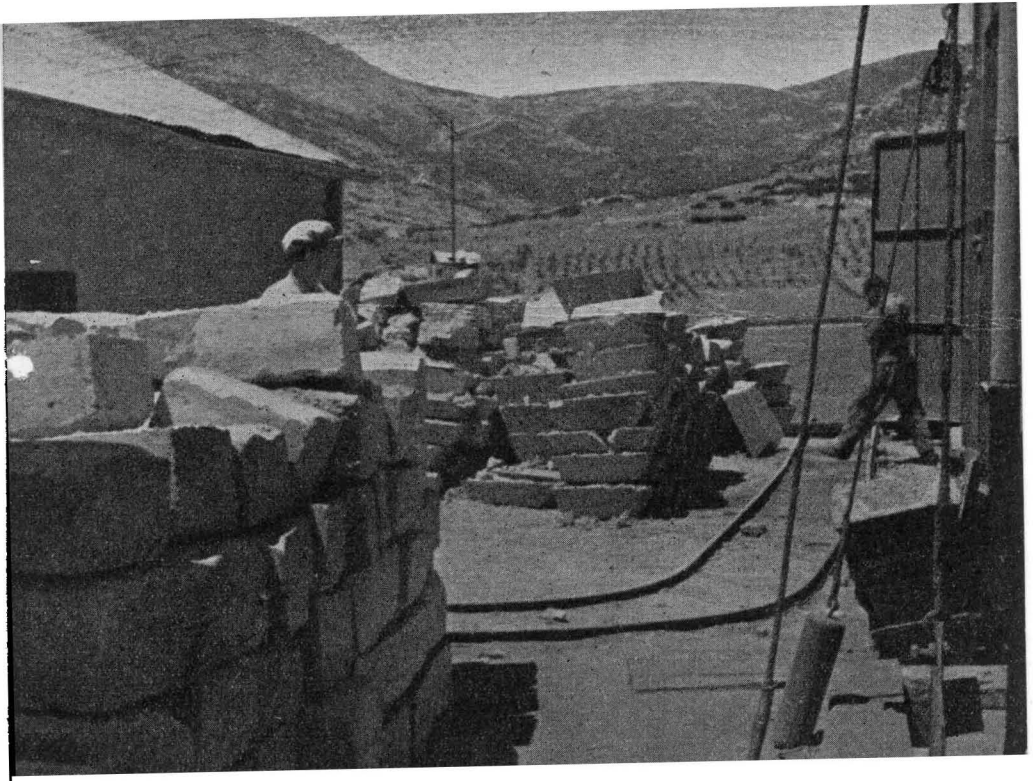


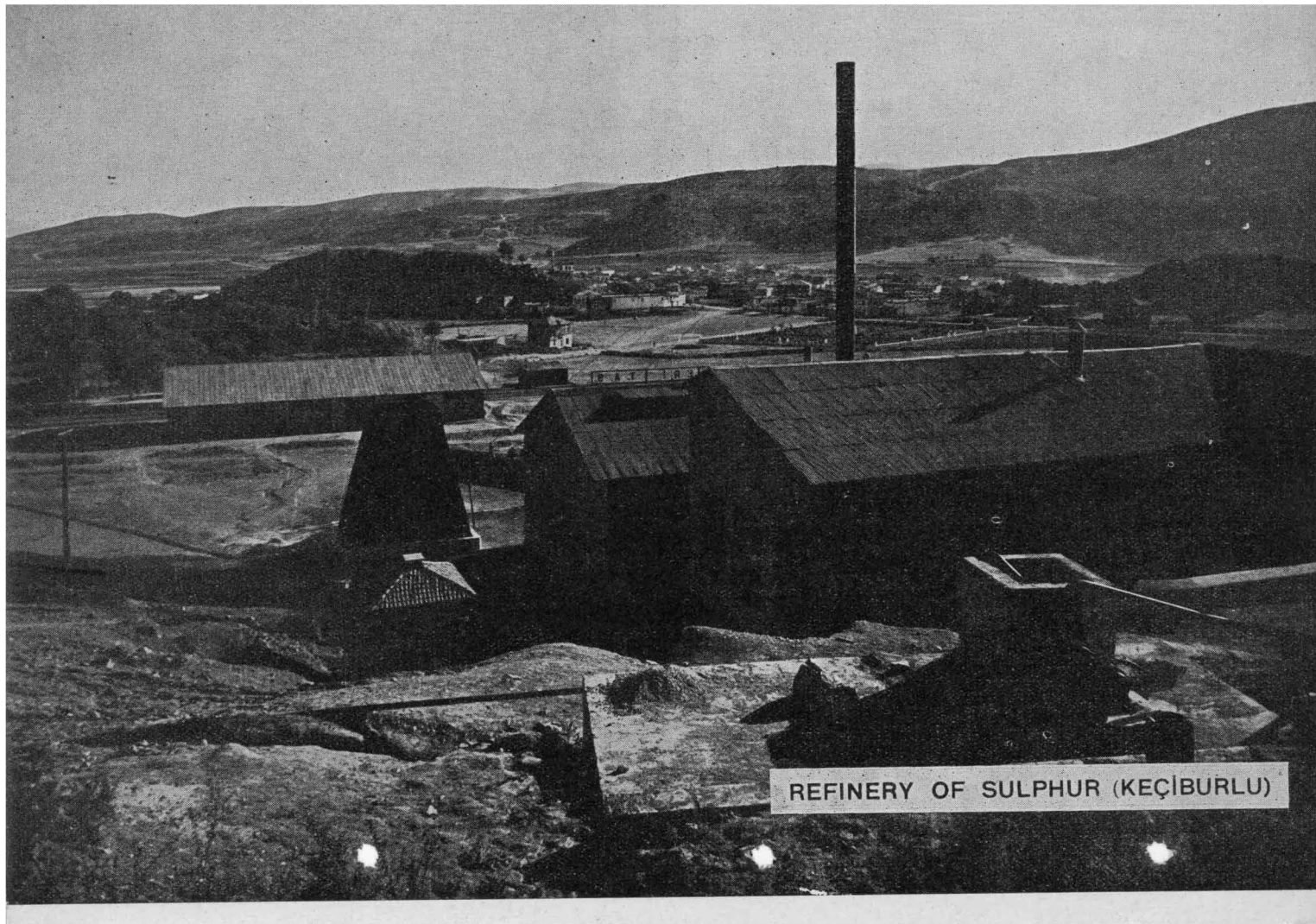
tion of this factory, though it is rather limited, owing to the high price of the textile which is about £T 4 a kilogramme, including custom rates. When the factory will be operated, it will turn out cheap rayon, so that consumption will increase, and indirectly contribute to the progress of the enterprise.

The expert who has been asked to consider the possibilities of erecting a ceramics factory is carrying out preliminary tests with our kaolins. The projected manufacture will produce 700 tons of wares per annum, of which one-third will consist of porcelains and two-thirds of ceramics.

The sulphur refinery of Keçiburlu has already turned out 23,000 sacks of material, weighing 50 kilogrammes each, from its inception in April 1935 to the close of September

Lumps of sulphur (refinery of Keçiburlu)



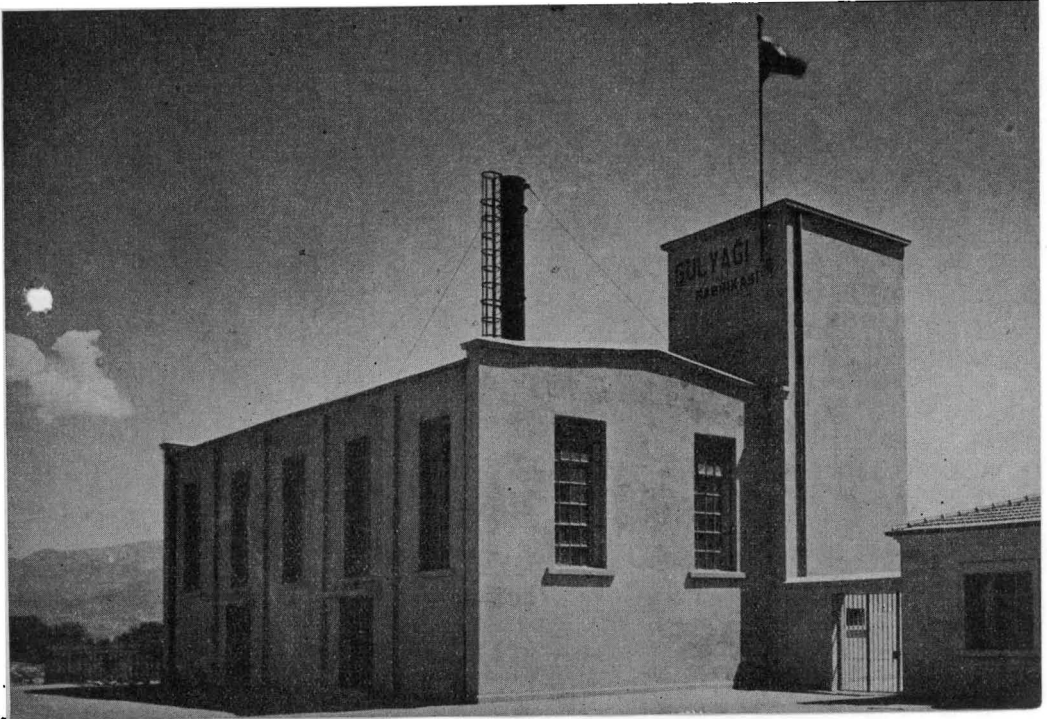


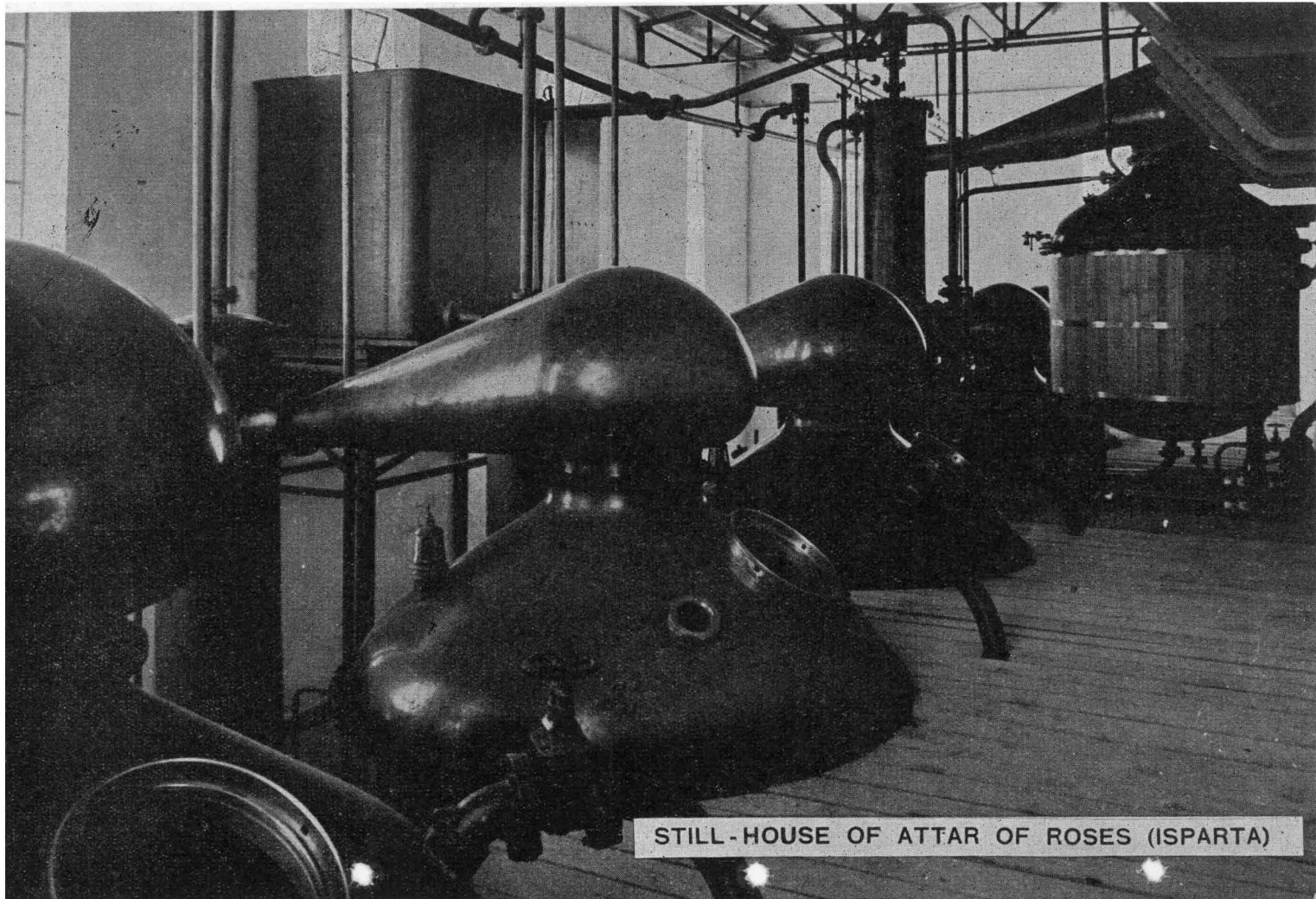
REFINERY OF SULPHUR (KEÇIBURLU)

of the same year. It produces 4,000 tons of flowers of sulphur per annum. The Keçiburlu sulphur has met with an immediate, and seemingly, durable demand on the market. It is mostly purchased by the wine-growers in the Aegean districts. The factory has been established, and is operated, jointly by the Sümer Bank and the İş Bankası. Preliminary surveys have revealed the existence of very rich beds, estimated about 7 millions tons of sulphur (grade: 99,3 per cent). Once it will have acquired additional plant, the refinery will be able to consider the exportation of its products.

A factory of attar of roses, in the creation of which the same Banks have cooperated, is working since the opening of the 1935 season (in May). It has consumed, during the same year 148,000 kilogrammes of roses. The estimated output was to stand between 250,000 and 350,000 kilogrammes of essence; unfortunately a severe drought has deceived these expectations. The attar of roses produced by the still-house has met with an earnest demand on the foreign markets.

Factory of attar of roses





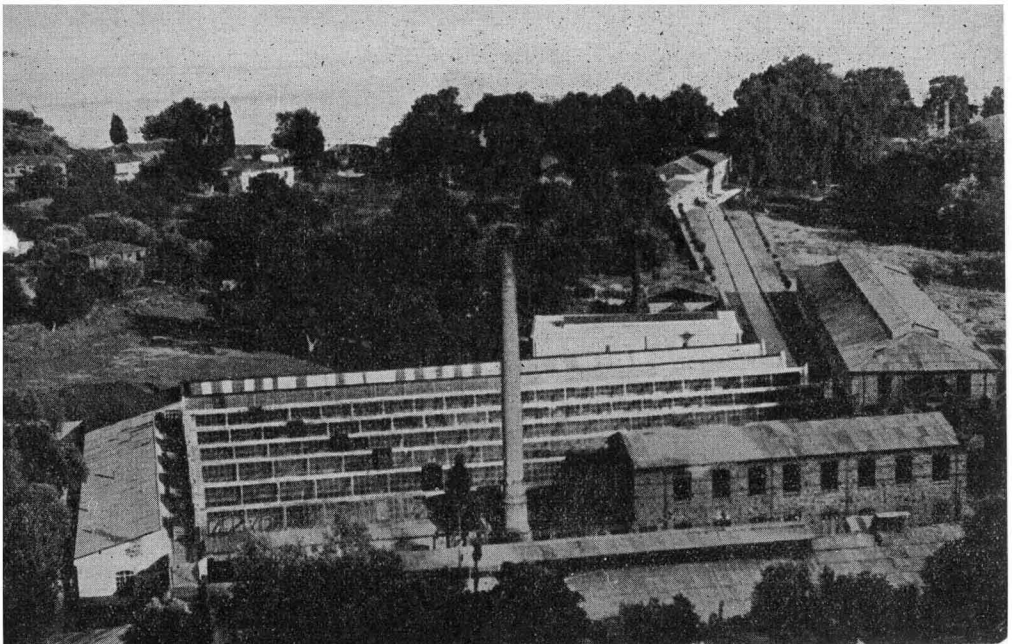
STILL - HOUSE OF ATTAR OF ROSES (ISPARTA)

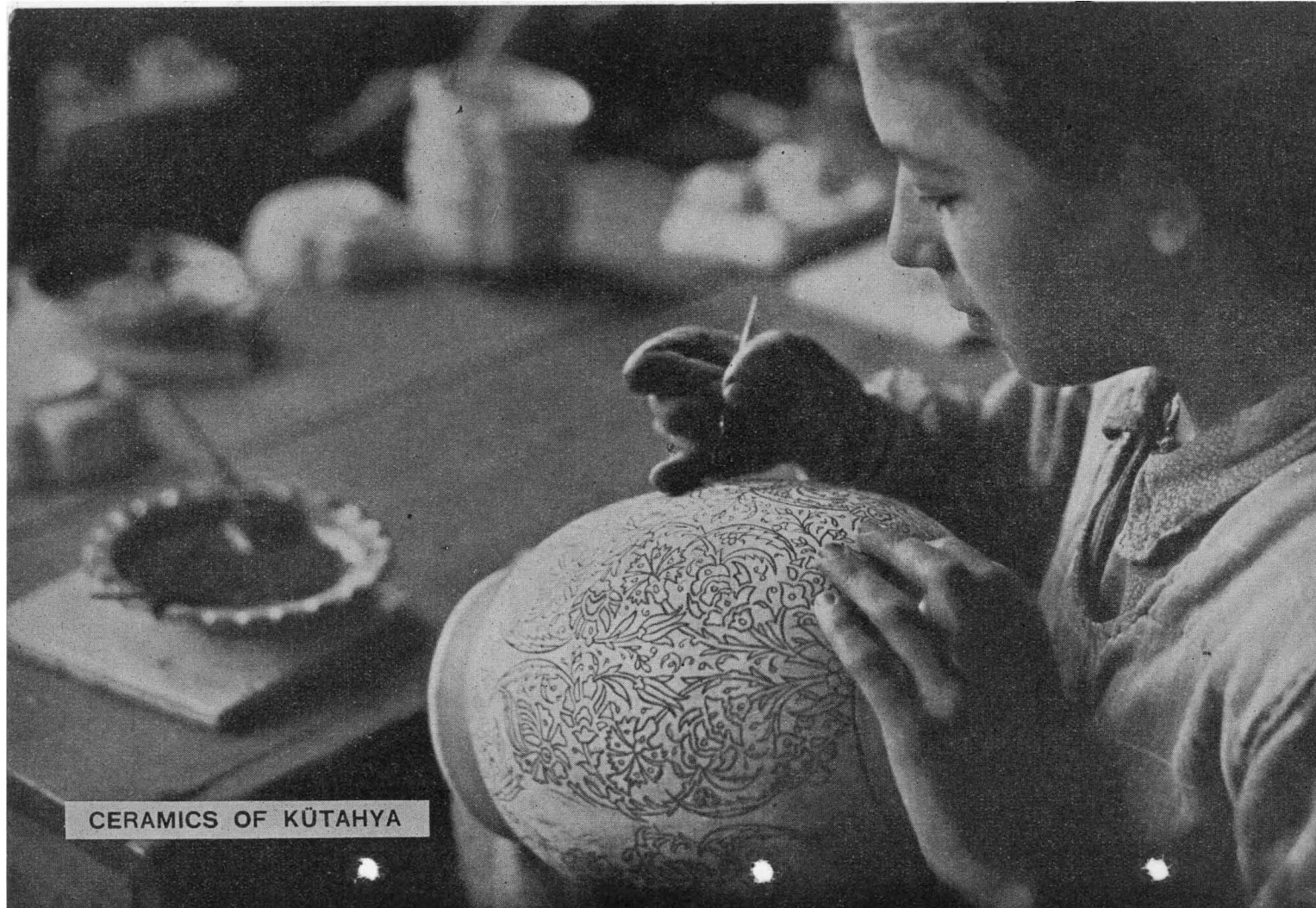
The part of the Five Year Plan, assumed by the İş Bankası includes the erection of a glassware manufacture and a semi-coke plant, both of which have been built up and commenced production. The foundation-stones of these enterprises had been laid in 1934.

At the suggestion of the Government, preliminary researches are being carried out in Anatolia with a view to erecting a cement factory, outside the frame work of the Five Year Plan. If the results of the investigations prove satisfactory, a new plant, totally different from the existing undertakings, will be created, which will mark a turning-point on the way towards a policy of cheap cement.

In the course of 1936, the Sümer Bank has tackled the creation of an iron and steel industry, and also the installation of a cement factory, beside a cotton factory, included in the Five Year Plan, the latter to be established at Malatya. The Bank has already accomplished a good deal of preparatory work in connection with all these enterprises.

Factory of Woollen Tissues (Hereke)





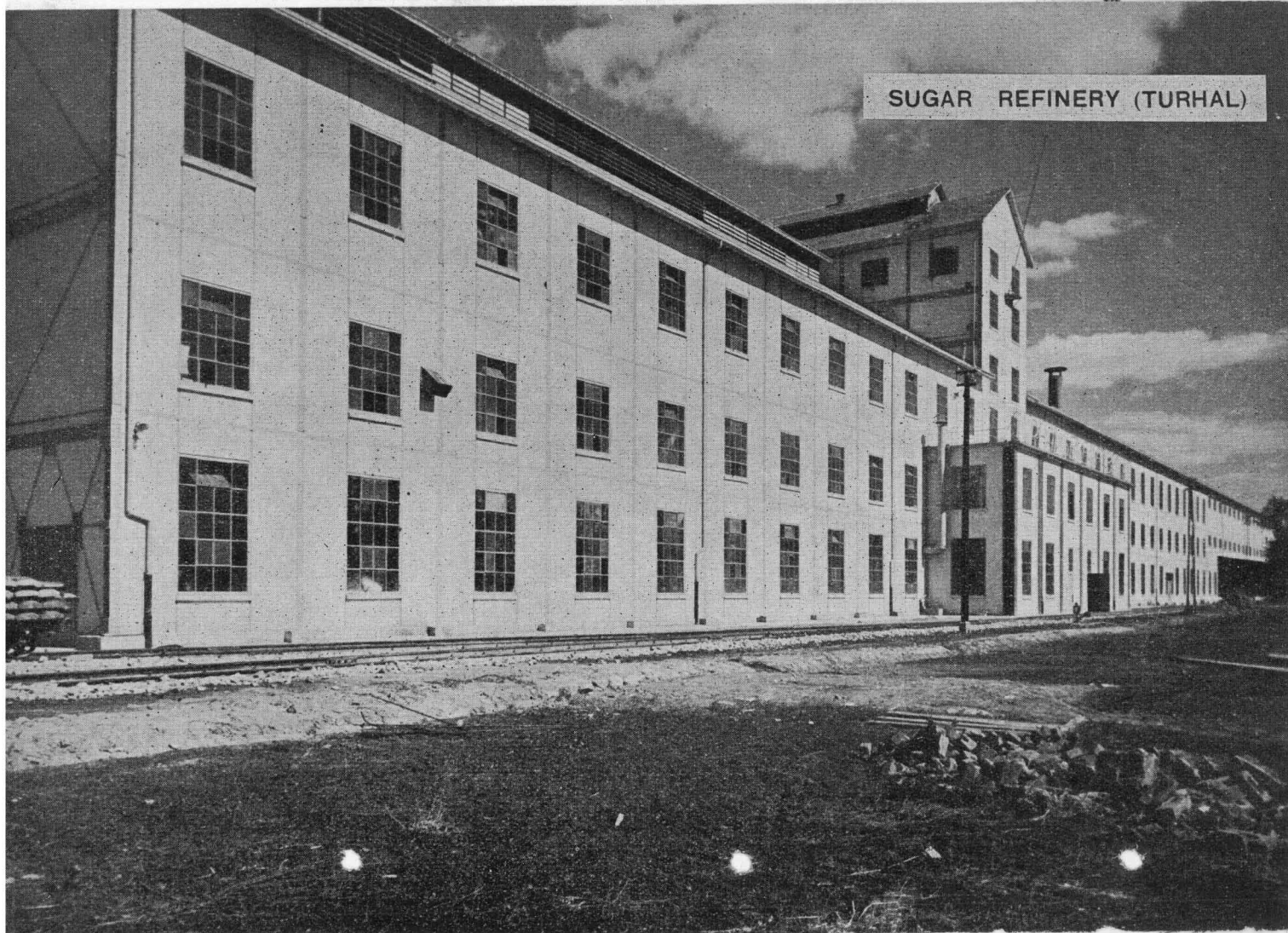
CERAMICS OF KÜTAHYA

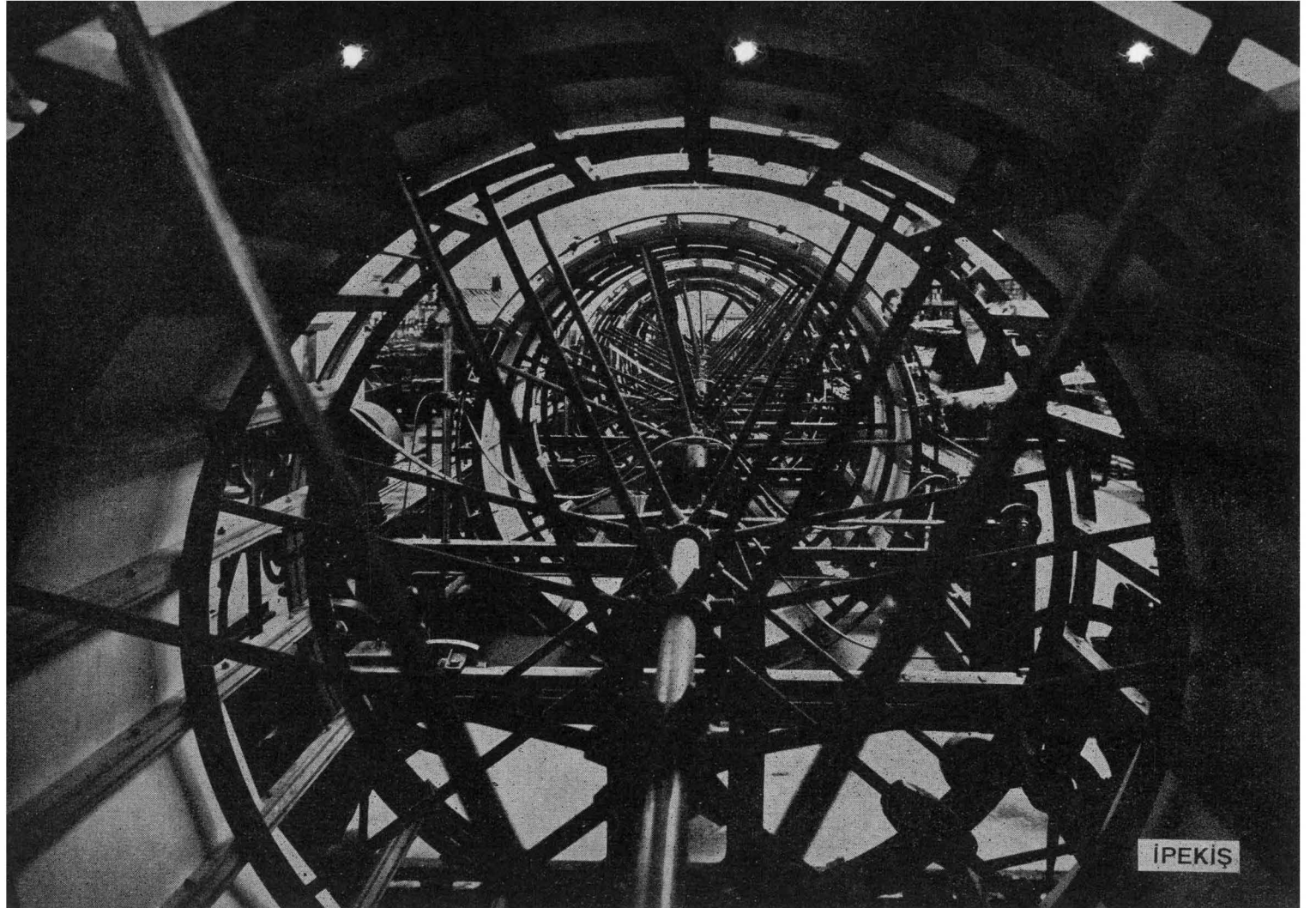
CERAMICS OF KÜTAHYA





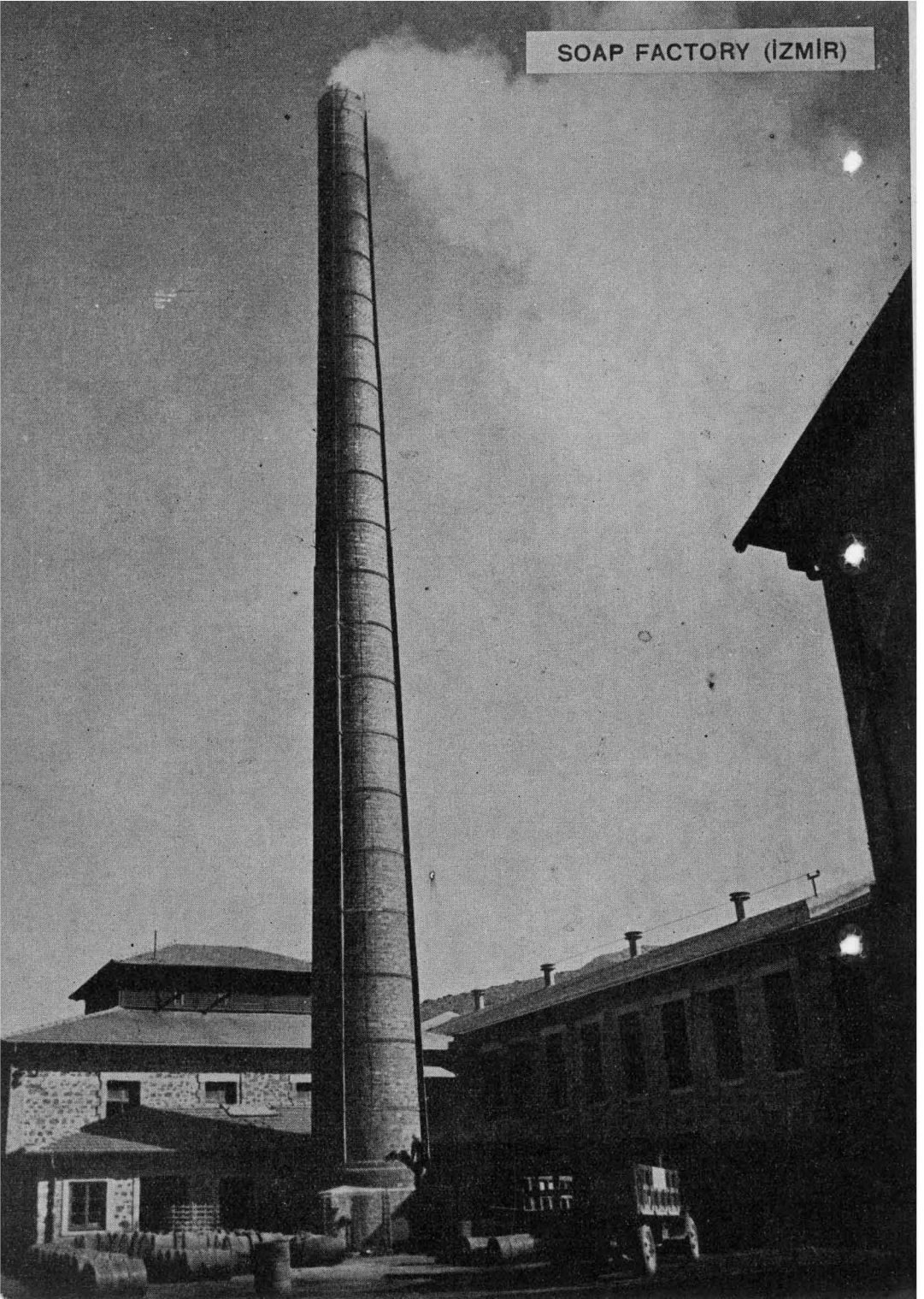
SUGAR REFINERY (TURHAL)

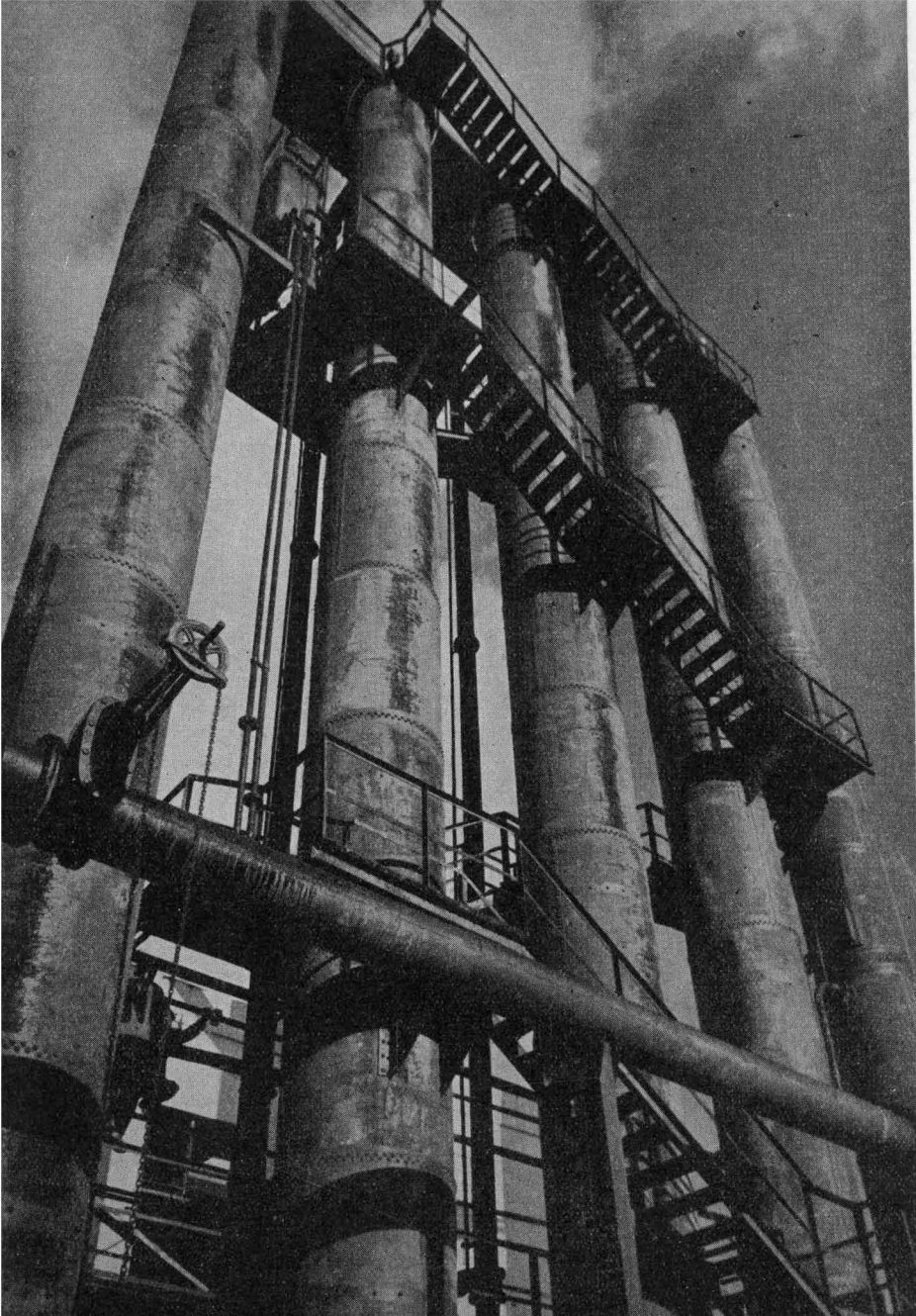




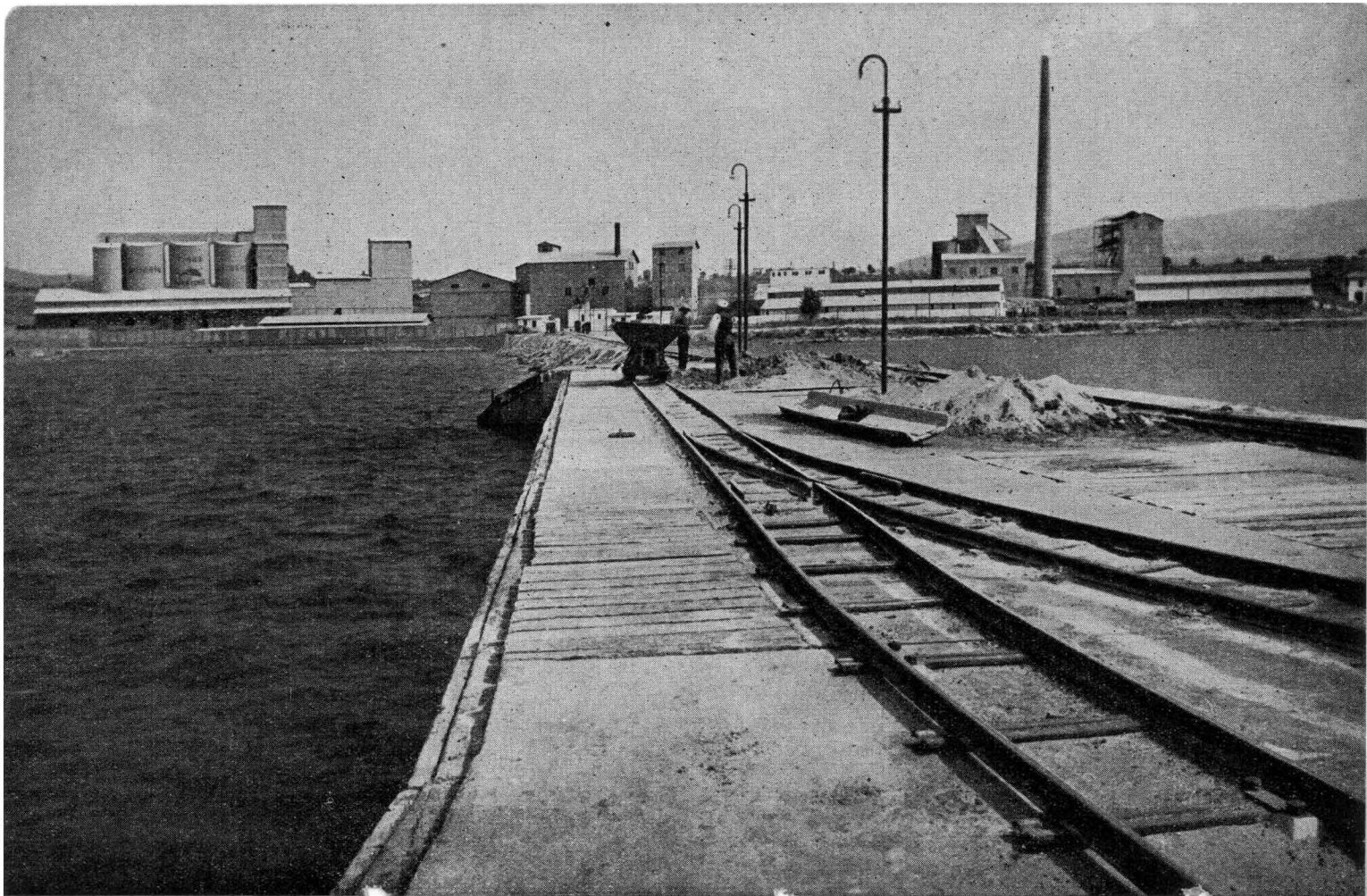
İPEKİŞ

SOAP FACTORY (İZMİR)



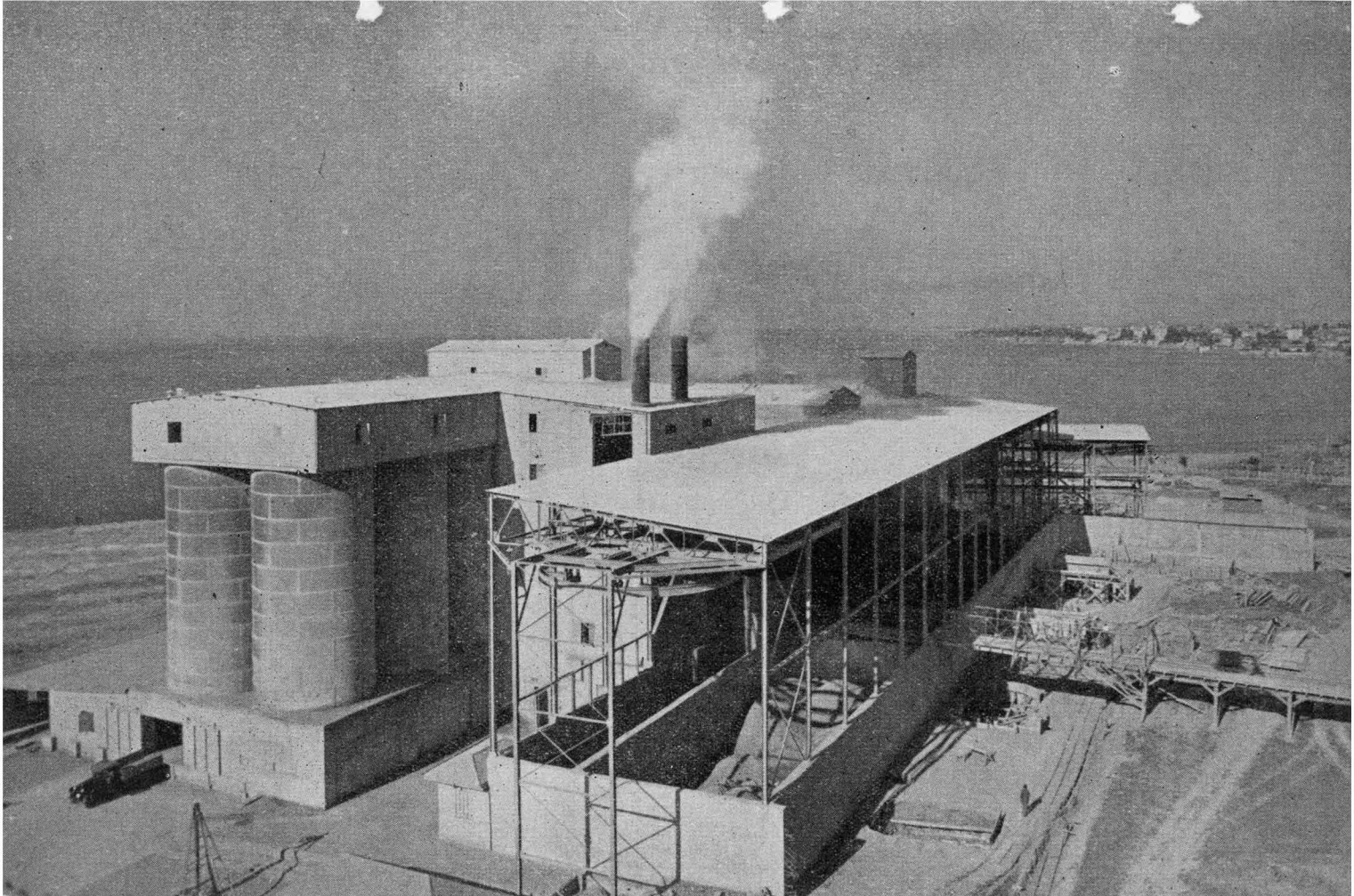


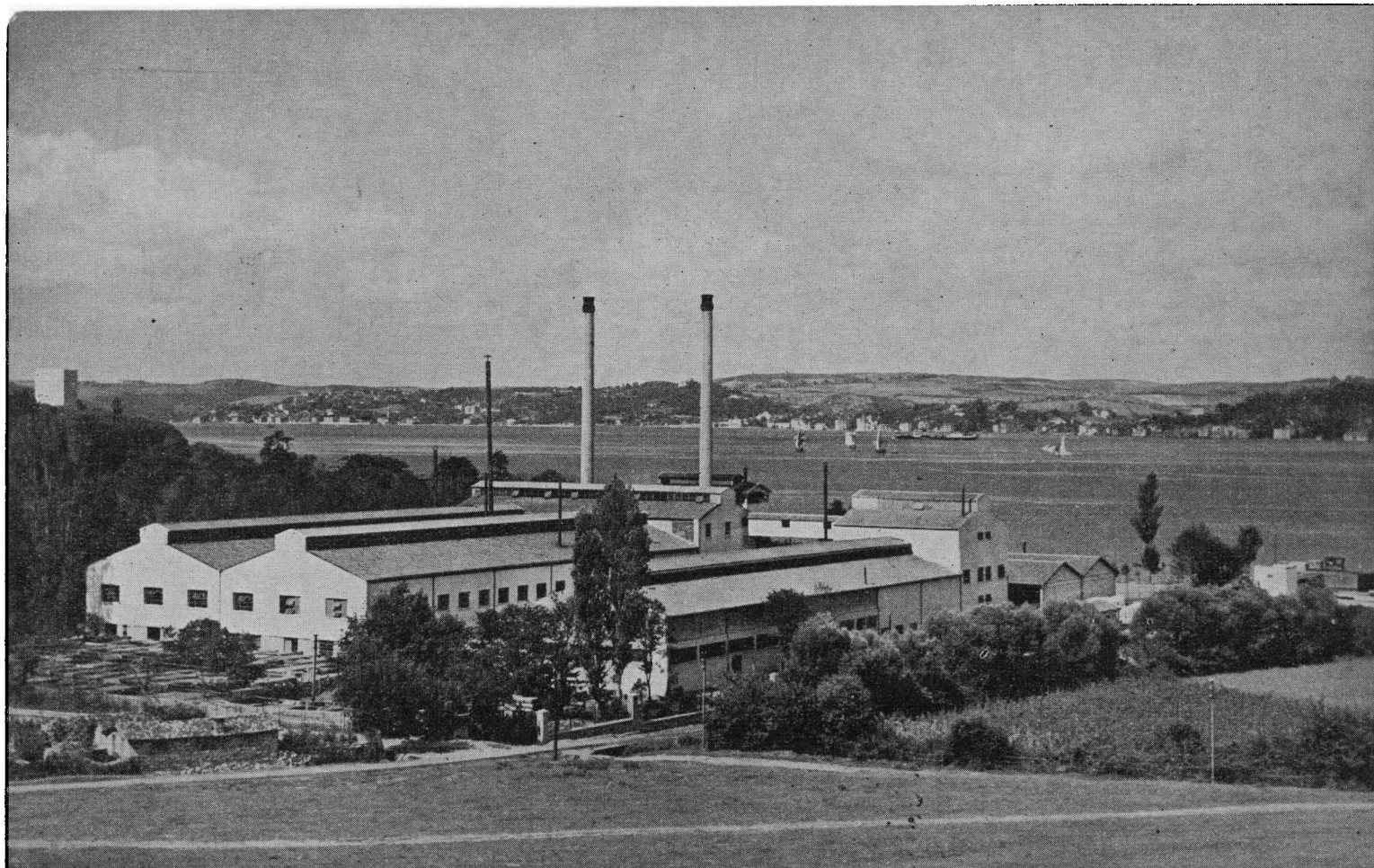
**Semi - Coke Plant**



Another cement factory

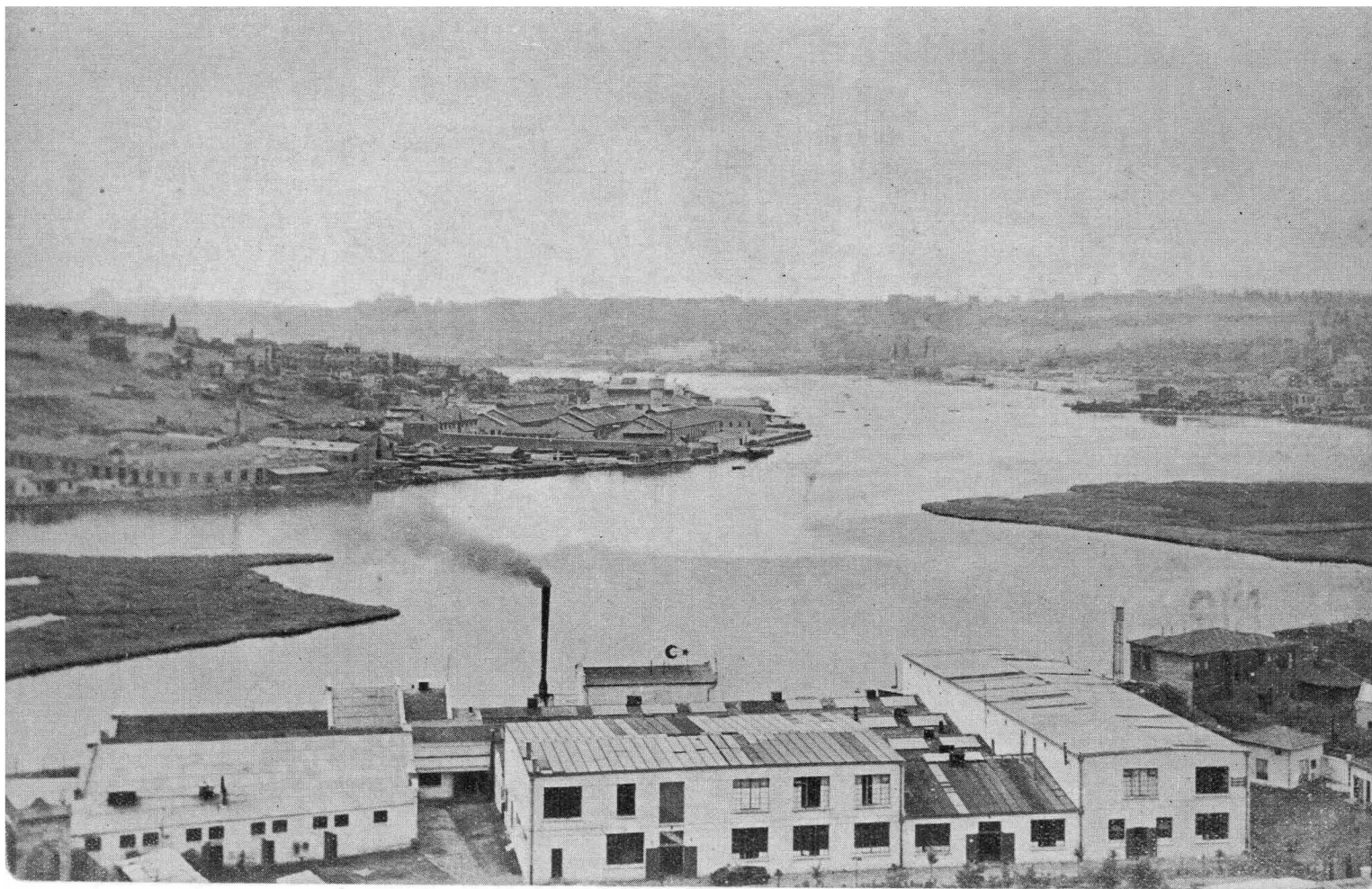
A view of the cement factory





**Glassware manufacture (Paşabahçe - Istanbul)**

The caoutchouc - factory





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**2003-04**