

within the scope of the reform which is now so satisfactorily on its trial. The logical and necessary consequence will be the complete abolition of the Capitulations in Egypt, be their fate in Turkey what it may. It is, therefore, of good augury for the national progress that the new tribunals have already won the full confidence of both natives and foreigners, and that the Government also loyally bows to their authority. The independence of the Court of Appeal in unanimously affirming its jurisdiction over both the Government and the private estates of the Khedive himself in the matter of foreign claims against either,* has especially strengthened popular faith in the reality of the reform, and shown how safely its agents may be entrusted with larger powers. There can be little doubt that the confidence thus felt will continue to be justified, and that in 1881 this new *régime*, modified as experience may have suggested, will permanently and exclusively replace the old. Egypt will then present a unique example of a Mussulman State governed by a system of laws in harmony with modern civilisation, under the ægis of which all classes of its population will, for the first time, enjoy equal justice and protection from administrative abuse. History will contain no grander monument of the reign of ISMAÏL I.

* This assertion of jurisdiction arose in connection with the decree of May, 1876, unifying the whole of the Government and Daïra debts, the validity of which was disputed by certain foreign holders of bills of exchange drawn by the Daïra and accepted by the Minister of Finance. The Tribunal of First Instance having held that the decree in question barred such claims, the Court of Appeal reversed the decision, and decided that no administrative act to which the Powers were not parties could affect the right of their subjects in respect of claims against either the Government or the personal estate of the Khedive. His Highness demurred to this interpretation of the section of the organic law on which the Court relied, but consented to be bound by the opinion of the foreign Governments; and this being against his own view, he has since loyally acknowledged the jurisdiction thus affirmed

CHAPTER XIV.

MANUFACTURING AND OTHER INDUSTRIES.

Skilled Industries not Improved Proportionately to Agriculture and Commerce—Misdirected Efforts of Mehemet Ali to Promote Them—Official List of Trades, Incomplete—*Esnafs*, or Trade Guilds—Weavers—Metal Workers—Workers in Wood—Masons and Bricklayers—Tanners and Curriers—Potters—Paper-making—The Boulak Mill—Bakers and Millers—Embroiderers—Goldsmiths—Turners—The Old *Mushrabeeyahs*—Modern Skilled Labour chiefly done by Europeans—Artificial Egg-hatching—Cotton-factory Workers—Poverty of Mineral Resources—Salt-pits—Natron Lakes—Petroleum—Fisheries—Nile Boatmen—General Inferiority of Native Skilled Work—No Chance of Competing with Europe—True Policy of Government to Encourage Agriculture.

THE great development in Egyptian agriculture and trade within the past twenty or thirty years has not been attended by corresponding improvement in the skilled industries of the country. With a few exceptions these are still as backward as they were a hundred years ago. In the three centuries of mixed Turkish and Mamlouk misrule which followed Ottoman conquest, Arab art of every kind lost its cunning, and when Bonaparte's *savants* entered Cairo they found its handicrafts, as its learning, at the lowest ebb of decadence. Twenty years later Mehemet Ali began a series of efforts to revive the old mechanical skill for which Egyptian workmen had once been famous, but the special aim and the methods of his reforms in this direction were alike unsound, and costly failure was the result. Fascinated by the flattering theory then cherished by more than one European Gov-

ernment, of making his country independent of all others for its manufactures, he imported foreign artisans and machinery on a large scale, and established factories to produce everything required for home consumption which the old handicrafts of the country did not already supply. But he worked the whole on a vicious system of close Government monopolies which underpaid, and consequently discouraged rather than developed native skill. As the products, too, of his new workshops cost more than they could have been bought for in the European markets, industrial failure was not compensated by commercial success, and even before the death of the old reformer most of his factories were closed. During the reign of Abbas Pasha, in this, as in all else, the country rather retrograded than advanced; and although monopolies were abolished by Saïd Pasha, native industry received from him little or no other stimulus or relief. Not much more can be claimed for the earlier years of the present reign, when the energies of the Khedive were chiefly applied to the extension of public works, the skilled labour on which was mostly done by foreigners; but the later Hausmannisation of Cairo and Alexandria, and the impetus given to technical education in the Government schools, have materially improved the class of work done by the constructive trades within the past six or eight years. The Government and Daïra factories and private enterprise (mostly foreign) have also contributed their quota to the same result; but barring this comparatively small aggregate of improvement, little or no industrial progress has been made since before the French occupation. This lack of advance in the mechanical arts is no doubt in part explained by the fact that agriculture absorbs so preponderant a share of the native labour, the proportion of cultivators to artisans being, roundly, about

1,000,000* to 60,000. But the main cause has been the low level of material civilisation among nine-tenths of the population, and till lately, the absence of Government encouragement except during the spurt of misdirected manufacturing effort made by Mehemet Ali. The latest official return on this subject gives the subjoined statistics † of the industrial classes; but the list is incomplete, omitting as it does bakers, millers, bookbinders, printers, carriage-builders, cotton-pressers, mechanical engineers, sugar-refiners, and several other crafts of modern date which, although chiefly worked by foreigners, also afford employment to many natives; and in the instance of papermakers, it is obviously inaccurate, as the Daïra mill at Boulak, which has a monopoly of this industry, employs a large number of Arab and Copt hands.

The great majority of the forty or more trades practised in Egypt form separate *esnafs* or guilds, membership of which is obligatory on all who work at the re-

* M. de Régnys *Statistique de l'Égypte* reckons the whole, including gardeners, at only 410,000; but his estimate omits the provinces of Ghizeh, Beni-souef, and the Fayoum, and takes no count of the many thousand hands employed on more than 100,000 *sakkias*, *shadoufs*, *taboots*, and steam-pumps.

† Armourers	371	Painters	686
Blacksmiths	2,605	Papermakers	1
Brickmakers	434	Pipemakers	257
Caulkers	910	Plasterers	530
Carpenters and Sawyers	6,473	Plumbers	35
Charcoal-burners	320	Potters	834
Clockmakers	77	Ropemakers	19
Coppersmiths	1,296	Saddlers	770
Dyers	5,109	Shoemakers	2,275
Embroiderers	1,871	Sievemakers	598
Engravers	321	Stone-cutters	1,404
Glaziers	86	Tailors	2,520
Goldsmiths and Jewellers	2,630	Tanners	971
Lime-burners	2,482	Tinmen	515
Marble-cutters	285	Tinsmiths	436
Masons	4,113	Upholsterers	582
Matmakers	1,463	Weavers	10,001

spective crafts. This system of *esnafs*, which also obtains in Turkey, is said to have originated during the Baghdad Caliphate; but a similar organisation prevailed among the ancient Egyptians, and it is probable therefore that these trade corporations of Alexandria and Cairo—to which and a few other large towns the industrial population of the country is chiefly confined—are in the main native relics of the old time. At any rate, the system has been in immemorial use, and is probably maintained for the facilities it affords in the collection of personal taxes, as well as for the guarantee it is made to offer for the due execution of works ordered by the Government. Each *esnaf* is presided over by a sheikh, who is in practice chosen by the higher members of the craft, but is formally appointed by the Government, to which he pays a nomination fee of about 20*l.* He is, in fact, the ruler of the guild, admitting members, fixing the scale of wages, directing the manner in which contracts shall be carried out, and selecting the workmen by whom they shall be executed. He also collects the taxes payable by the guild, and is responsible to the Government for all matters connected with it. The members of the craft receive on admission certificates stating their proficiency and the rate of wages it entitles them to demand. They are, as a rule, restricted to the particular trade of the guild; or if, as is rarely the case, allowed to follow two crafts, or even separate branches of the same one, they are charged an increased tax, unless they can arrange matters privately with the sheikh. They may contract to do piece-work, but if employed by the day they can only ask for the wages fixed in their certificate. Besides these guild regulations, however, there is little or no legislation specially affecting the industrial classes.

The costliness and magnitude of the Khedive's sugar-

factories would entitle them to rank among the public works of Egypt; while, as they are at the same time industrial adventures of his Highness, they might with equal fitness be described here. They fall still more appropriately, however, within the scope of the chapter on the Daira, to which they belong, and will therefore be noticed in that connection. Of the private trade of the country, numerically the most important is that of the weavers. Of these about 1,600 are employed in the three Daira factories of Foueh (belonging to the Queen-mother), Boulak, and Shoubrah, near Cairo. The first of these manufactures nearly 50,000 *tarboushes* (the Egyptian fez) a year, of which the supply required for the army and navy is sold to the Ministry of War, and the remainder to the public. They also turn out annually about 315,000*l.* worth of woollen cloth, the greater part of which is similarly bought for the troops. The wages in these establishments average about 8*d.* a day. This industry, however, is mainly carried on in private workshops, of which, according to the latest available statistics, there are in Cairo—sixty weaving mixed cotton and flax, twenty woollen cloth, and eleven manufacturing carpets, besides 107 others spinning and preparing woollen and cotton yarn for the loom; and in Alexandria thirty-eight weaving cotton cloth and thirty-one making carpets. In Damietta 166 shops weave silk, besides sixty-two others which are employed in dyeing it. One of the chief industries of Beni-souef, also, is carpet-making, and the weaving of coarse linen stuffs for the fellaheen. The rest of the hands engaged in textile work are employed in various other parts of the country in shops of from one to a dozen or more looms. The wages in this trade vary in different districts, but 9*d.* a day is about an average of the whole.

In metal work the Government takes the lead with three large establishments at Cairo—a cannon foundry, a rifle factory (with machinery for producing the latest Remington arms), the large engineering shops at Boulak, and a cartridge factory, which annually consumes a great quantity of raw copper. At Alexandria there are also an arms factory and extensive engineering workshops for the navy and the Khedivieh Steam Company, besides a small similar establishment at Suez. The official return is incomplete as to the distribution of private native industry among these trades, but Cairo may be mentioned as employing 85 iron foundries, 80 whitesmiths' shops, 73 copper ditto, and 240 workers in gold and silver—chiefly Copts, Jews, and Armenians—besides a large number of armourers and blacksmiths. Alexandria, according to the same authority, reckons 6 iron foundries, 43 smiths' forges, 100 tinmen's shops, and 93 workers in the precious metals. The large provincial towns absorb the rest. The wages of these various trades range, for native workmen, from averages of 1s. 6d. to 2s. a day, as much of the work is done by piece, and the amount earned therefore depends on the skill and activity of the mechanic.

Workers in wood, from water-wheelwrights to house carpenters, now earn about a similar average wage. Of these also the great majority are employed in Cairo and Alexandria, but within the past eight or ten years the extension of building in the chief provincial towns has attracted thither large numbers of this class of mechanics, and correspondingly improved their rate of pay, which previously ranged below that of metal-workers. In what may be called the two capitals, however, the best work is all done by foreigners, at wages double, or even treble those paid to native hands. The same may also be said of bricklayers, masons, and other workers in stone, whose

methods of labour are still for the most part as rude as when hardly anything better than a mud-hut was to be seen outside Cairo and Alexandria. Throughout the interior, sun-dried tiles are the structural material still most in vogue; and even where imperfectly-burned bricks* are used, the mortar, and the workmanship in laying it, are generally so bad as to give the wall built with them little advantage, except in appearance, over the homelier mud one on which neither fire nor lime has been spent. Under European guidance the Egyptian mason or bricklayer can work fairly well; but left to himself, he troubles little with rule or plummet, and if his wall keep at all within the perpendicular, accident, quite as much as his eye, is to be credited with the result. Building-stone in Cairo is obtained from the Mokattem quarries, behind the Citadel, and in Alexandria from those of Mex, five miles west of the city. These together now also supply the limited wants of the interior—where, barring in the capital, a stone structure is a rarity—which, until a few years ago, were chiefly dug out of the nearest temple or other ancient monument. But this vandalism has been stopped, and Mex and the Mokattem now furnish nearly all the stone used throughout the country, except what is imported ready cut from Trieste.

Tanners and curriers, although unable to compete with the more scientific processes of Europe, still turn out excellent leather of cow, buffalo, sheep, and goat skins—the last of which, as upholsterers' "morocco," finds a ready market abroad. The Government works a large tannery at Alexandria, which annually prepares between 30,000 and 40,000 skins, chiefly for army use; and private indus-

* The best native bricks are those made in the Government yard at Galioub, where some sixty workmen produce nearly 4,700,000 red bricks a year the ordinary market price of which is about 18s. a thousand.

try maintains some thirty others there and in Cairo, with an outcome of above 200,000 skins a year. The wages in this trade range from 10*d.* to 1*s.*, and those of curriers and saddlers from about 1*s.* 4*d.* to 1*s.* 8*d.* a day.

Of the once famous ceramic art of Egypt only pottery and the commonest glass work now survive. The first of these, however, forms perhaps historically the most interesting, though far from the most flourishing of the contemporary industries of the country; barring only that the processes and results of the craft as now worked are ruder than those of 3,000 years ago, both are almost identical with its pictured presentments in the tombs of Upper Egypt. In fact, what may there be seen in colours that have survived a hundred generations may now any day be witnessed in real life and tangible substance at Memphis, at Mellawee, at Manfalout, at Assiout, and especially at Ballas and Kenneh, whence jars, jugs, tiles, and porous water-bottles, absolutely identical in form and method of manufacture with those in use before the Exodus are still annually floated down the Nile by thousands. The total produce of the trade averages nearly 500,000 pieces a year of all descriptions. Glass-blowing has dwindled to eight or ten small shops in Cairo, which manufacture annually some 10,000 objects of the commonest ware, and about 20,000 chimneys for the petroleum lamps now in general use. The wages of these two kindred crafts range from 1*s.* to 1*s.* 6*d.* a day.

Although paper-making figures in the official list of trades with only a single representative, the fine Daïra factory at Boulak, which, as above remarked, monopolises this industry in Egypt, employs nearly 220 hands, the whole of whom, barring a few English foremen and engineers, are natives. The machinery of this establishment—which was erected in 1870—is English, and like

that of many of the sugar-factories, has the sole defect of being on far too large and costly a scale for the local wants of the trade. It annually manufactures some eighteen tons of coarse packing paper—chiefly for use at the sugar-factories—and about 70,000 reams of printing and writing papers of various qualities, for the coarser of which the species of grass called *hilfa** and sugar-cane fibre stalks supply cheap and abundant raw material. As most of the writing paper made is specially adapted for Oriental caligraphy, the surplus beyond what is used in the Government offices and sold to private consumers is exported to the Hedjaz, and a few bales are also sent yearly to India. In immediate connection with this factory is the "national" printing office, which, with a large annexed lithographic shop, also belongs to the Daïra Sanieh. Besides the forms required by the various Ministries, the railway administration, the Daïras, and other branches of the public service, this establishment prints all the school books issued by the Ministry of Public Instruction, in Arabic, Turkish, and the European languages; and although the whole of the hands employed—nearly 100 in all—are natives, the work would do credit to most London or Paris printing offices. Besides this large Daïra establishment, private industry carries on five other printing and as many lithographic shops in Cairo and four in Alexandria, in which however many of the workmen are foreigners. The pay of the 200 or more natives engaged in these trades varies from 1*s.* 9*d.*

* Some three years ago the director of this establishment assured the writer that, with the available abundant supply of this grass, he could compete advantageously with the cheap "straw" papers of Europe, and was then executing a contract for a Glasgow newspaper of large circulation. As paper, however, has not since figured noticeably among the exports from Alexandria, it is to be feared that the experiment did not prove a complete success.