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THE ECONOMIC DEVELOPMENT
OF MODERN EGYPT

THE ECONOMIC DEVELOPMENT OF MODERN EGYPT

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PREFACE

THIS study is an attempt to trace, in outline, the principal features of the economic development of modern Egypt. The need for some such book has long been felt among students and others interested in life and conditions in Egypt. It is now several years since Mr. J. I. Craig, financial secretary to the Ministry of Finance, first suggested to me the need for such a study, and my investigation into the investment of foreign capital, later published by the Ministry of Finance, was an attempt to clear the ground and obtain some insight into one of the more obscure aspects of this development. Later, with the introduction of new courses in economic history at the Egyptian University, a plain, straightforward account of the economic development of modern Egypt for the use of students became a necessity, and this book has been written primarily for that purpose. At the same time it is hoped that it will prove useful to all who are interested in the development of Egypt in modern times.

For the most part, the book has been based upon original sources—official and semi-official orders, reports, enquiries, statements, etc.—in various archives. A great mass of material frequently conflicting and obscure, has been sifted to provide the materials for this study, but much still remains to be done. The diversity of material and the difficulty of evolving order from such an unsystematised mass of records must be my excuse for the shortcomings of this Study. The necessary limitations in length, too, has inevitably meant the drastic curtailment of many sections that could have benefited by more extensive treatment.

I have to acknowledge, with gratitude, my thanks to the many who, in one way or another, have helped me in this study. For the period of Mohamed Ali and Ismail, I have been fortunate in being permitted to make use of the important archives now collected

PREFACE

in the Royal Palace, Abdin. I have to record my profound homage and gratitude to H.M. King Fouad I, and to his gracious successor, H.M. King Farouk I, for this kind permission. At the same time, I wish to express my thanks to Joseph Gelet Bey, Director of European Administration and Controller of the Royal Palace Archives, and to Georges Guindi Bey, chief archivist, for the many facilities they have accorded me in the use of these archives.

I have also to thank Sir Stephen Gciselee, K.C.M.G., His Majesty's Keeper of the Archives in the Foreign Office, London, for permission to consult some valuable records in the library of the Foreign Office.

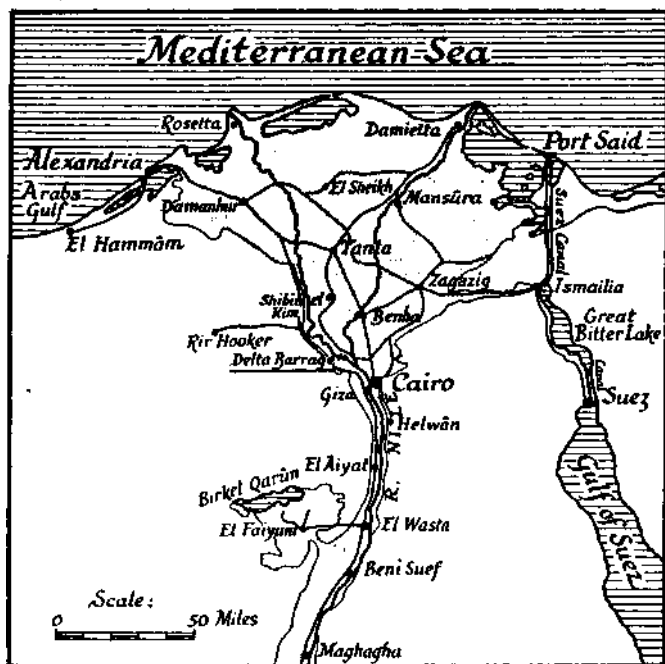
My special thanks are due to Mr. J. I. Craig, of the Ministry of Finance, and to Abdil Wahhab Pasha, formerly Minister of Finance, for permission to use the valuable library of the Ministry of Finance, Cairo. To Mr. Craig also, I am indebted not only for the first idea of this study, but also for invaluable advice and suggestions on many occasions during its preparation.

Finally, I wish to express my gratitude to Henein Bey Henein, director of the Egyptian Government Statistical Dept., to Abdcl Aziz Sabry Eff., and to Ismail Rifast Eff. of the Economic Research Section of this Department for statistical tables and information supplied ; to Mohamed Hamdi Bey, Dean of the Faculty of Commerce, Egyptian University, to Sir Gcoffry Corbett, Expert Adviser to the Ministry of Commerce and Industry, to Mr. W. M. Hayes, Director of Cadastral Survey, to Mohamed Rifaat Bey, Assistant-Controller of girls' education, formerly chief inspector of history to the Ministry of Education, and others, who have helped with useful information and suggestions ; and to Kamel Bey Slim, Vice-Dean of the Faculty of Commerce and Professor of Economic History, for kindly reading the proofs and for many useful suggestions.

A. E. CROUGHLEY

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THE NILE DELTA, SHOWING CULTIVATED LAND

CHAPTER I - EGYPT BEFORE 1800

Economically, as well as politically, modern Egypt, in the strict sense of the word, dates from the beginning of the last century, or more accurately from the French invasion in 1798. This event marks like a boundary stone the end of one era, the beginning of another. This study is concerned with the economic development of Egypt since that date and with the profound changes that have taken place in the economic structure of the country.

To appreciate the scope and extent of those changes it is necessary, first, to review the outstanding movements in the economic development of Egypt previous to the time of the French invasion and, secondly, to describe the economic organisation of Egypt as it was at the end of the eighteenth century. These two studies form sections 1 and 2 of this chapter. Section 3 is a brief summary of the causes and economic results of the French expedition to Egypt.

SECTION ONE

ECONOMIC DEVELOPMENT PRIOR TO THE 19th CENTURY

The Nile.—The study of Egypt can but commence with the Nile. The Nile made Egypt. Across the desert it carved a long, winding valley. Inch by inch, throughout countless centuries, it built up a thick layer of mud until, out of the swamps and marshes of antiquity, the fertile land of the Nile valley and delta emerged and settled habitation became possible.

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The Nile rises from two main sources. Its main tributary, the White Nile, comes from the equatorial regions of Central Africa. It flows out of Lake Victoria Nyanza, fed by the equatorial rains. After leaving the lake, it flows through a vast swamp area, the so-called "Sudd" region, which acts as an enormous regulator and reservoir, and provides a steady supply of water all the year round. The effect of the heavy rains of spring and early summer is largely damped out in this vast swamp region. The increased inflow of water, however, passing through this vast area of floating vegetation gives a greenish tinge to the water issuing from the Sudd in the rainy season, and this "green water" is the annual precursor of the main Nile flood in the lower reaches.

The main flood comes from two turbulent tributaries, the Blue Nile and the Atbara, which flow down from the mountains of Abyssinia and join the White Nile in the Sudan. During the winter these great river beds are practically dry, but during the rainy season in the spring and early summer, they rapidly become rushing torrents, and pour down enormous quantities of turbulent red-brown water into the parent river. This is the source of the annual flood which for time out of mind has been the distinctive feature of Egypt and the Nile and which, in ancient times, was attributed to Divine origin. The rainfall itself, in Central Africa and Abyssinia is said to be the precipitation of water vapour from clouds originally formed by evaporation over the South Atlantic.

For the last 2,000 kilometres of its course, the Nile flows across a vast rainless desert. From Wadi Haifa, where it enters Egyptian territory, to Cairo, where it enters the broad, fan-shaped plain of the Delta, the Nile flows through a long narrow valley, 1,200 kilometres in length, whose width varies from less than a kilometre in the granite and sandstone region south of Aswan, to more than twenty kilometres between

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Asiut and Cairo, where the bordering cliffs are composed chiefly of limestone. This long, narrow valley and the triangular plain of the Delta, together with the fertile province of the Fayoum, form almost the whole of the cultivated area of Egypt.

In ancient times, the area which now forms the Delta was under the sea. The sediment carried down from the mountains of Abyssinia was gradually deposited as the water of the flood slackened its pace, and each year the departing flood left behind it a layer of mud on the surface of the land. The water that poured northward into the sea met an obstacle in the long spur of rock that now runs along the northern coast of the Delta, near Alexandria, and the flood, held back by this impediment, slackened speed and dropped its load of mud. In this way, through countless centuries, a thick layer of soil, many metres in depth, was formed, and the Delta slowly rose above the sea.

The larger and heavier particles of mud were deposited nearest to the river and the land nearer the river was thus built up to a higher level than the more distant areas. In this way, the Nile valley came to be cambered, something like a modern road, with the Nile running along the crest and the level of the land falling away towards the sides of the valley. In the Delta, too, the land along the sides of the water courses was higher than the intervening areas, so that to this day the ancient water courses are marked by lines of higher land, and the surface of the Delta is rather like the back of a leaf on which the ribs mark the higher land along the ancient branches of the river, with basins of lower land between them.

The history of Egypt is the story of the use man has made of the Nile. Left to herself, the river would be a capricious and changeful mistress, bringing prosperity one year, famine the next. Ever since man settled down in the Nile valley, he has endeavoured

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with the varying degrees of success, to tame the river and turn it to his service.

The earliest historical records that we have of ancient Egypt, show the country already in an advanced state of civilisation. When, out of the mists of antiquity, the first dynasty, founded by Menes emerged, some 5,000 years before Christ, the social and economic order had already crystallised. The principles of irrigation and agriculture laid down at that remote epoch were to continue practically unchanged through seventy centuries of changing history.

How long it took for this ancient system to develop is not known. We know that the earliest inhabitants lived, not in the valley, but along the edges of the desert fringing the high water mark of the flood. Presumably, each year, as the flood receded, they descended into the valley with their flocks and herds ; sooner or later, they learned to grow a crop of cereals on the land which had been watered by the flood. At some early period they settled on the higher land in the valley itself and later undertook the enormous task of building transversal banks of earth across the valley from the river to the hills, dividing the land into great basins to hold the waters of the flood. But in actual historical records of this period we have practically nothing. Between the time of the prehistoric nomads with their desert homes along the edge of the valley and the first dynasty founded by Menes, there is a gap—the period of gestation and birth of civilisation—that must have lasted for many thousands of years.

During this period, the ancient Egyptians had gradually evolved a system of irrigation admirably suited to the special conditions of the Nile valley. It must be remembered first, that Egypt is a country absolutely without rain except in the very north, where there is slight winter rainfall along the coastal

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regions, and that all cultivation depends upon irrigation from the Nile. Secondly, that the principal feature of the Nile régime is its annual flood which, starting in July, rises to a maximum in September and falls rapidly again to the following January. During the spring and early summer, the water runs many metres below the level of the land. From August to November, however, the water rises to such an extent, that in many places it is running well above the level of the surrounding land, and is only prevented from overflowing, by great banks of earth on either side.

In ancient times, before this protection had been provided, the water of the flood spread over the floor of the valley. When the flood passed, and the water receded from the land, a crop of cereals could be grown and ripened in the winter sunshine, without further watering being required.

This was only possible on land which had been covered by the flood. In years when the flood was below normal however, in height or duration, a considerable part of the land was condemned to sterility. To extend as far as possible the area which benefited by the flood, great transversal banks of earth were built across the valley, dividing the land into basins which were filled during the flood. This method had the double advantage of extending as far as possible the area covered by the water and at the same time, of holding back the flood so that the fertilising sediment was deposited on the surface of the land and the water penetrated deeply into the rich earth. In order to extend still further the area covered by the water of a low flood, shallow canals were dug, which, taking their source a considerable distance higher up the river, and falling on a gentler slope than the river, had the effect of raising the level of the water and carrying it to more distant basins.

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As the flood began to recede, in October or November, the water in the basins was allowed to drain away, and sowing commenced almost immediately.

This was the so-called basin system which lasted, without essential change until modern times. Under this system the land, its fertility annually renewed by the rich coating of sediment and its long period of rest in the sunshine, produced, through countless centuries, crops that were the admiration and envy of travellers from all nations. This system appears to have been brought to a very high pitch of development in ancient Egypt, and a great lake, Lake Moeris, was used as a regulator, to take up some of the water of a too high flood, and to supplement the supply when deficient.

In addition to the winter crop grown in the basin areas, summer cultivation was possible whenever water could be obtained. Along the banks of the Nile and its principal canals, in the Fayoum and where well water was available, it was possible to produce crops practically without interruption, all the year round. To protect the standing crops on this land from being destroyed by the flood, the higher, land near the river was separated from the inundated basin area by banks of earth.

The highly artificial nature of the irrigation system in Egypt and the absolute dependence of agriculture upon irrigation has led to the axiom, often repeated in one form or another, that in no other country of the world does prosperity depend so immediately or so directly upon the government as in Egypt. To be successful, irrigation must be organised and administered by a strong central administration having in view, the ultimate benefit of the whole country. Not only is it necessary to construct banks, canals, dykes, works which, by their very nature, tend to fall into disrepair if neglected for even a short period, but year by year, according to the state

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of the flood, the distribution of the water must be controlled so as to obtain the maximum benefit for the country as a whole. And as the water required varies according to the crops grown, the government extends its control to agriculture.

From time immemorial, the government in Egypt has always exercised close and detailed control over agriculture, a control that, generally speaking, was intensified in times of prosperity, relaxed in moments of maladministration and economic decline.

This control was exercised all the more readily, that in theory, all the land was considered to be the personal property of the sovereign. The Pharaoh or ruler of ancient Egypt wielded absolute temporal and spiritual power. Considered to have derived his authority direct from the Gods, he was head of the religion, supreme head of the army, final dispenser of justice and owner of all the land in the country. Only to the priests were considerable areas of land given in full possession ; for the rest, all the land belonged to the sovereign. The cultivator was only allowed to cultivate the land as a concession, a privilege that might be withdrawn at any time. He had no right in the land itself, but might take what was left of the usufruct after meeting the demands of the tax-collector.

The prosperity of ancient Egypt, adversely affected for a time, by the Hyksos invasions, was re-established under the second Theban Empire. In this period many successful foreign expeditions were made by different Pharaohs and great stores of captured wealth and captives were brought back in triumph to Thebes. This period marked the apogee of ancient Egypt as an independent country.

Then came the period of invasions. First the Assyrians, then the Persians descended upon Egypt. The period of ancient Egyptian independence was at an end, and Egypt fell under foreign domination.

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The Persians gave way to the Greeks, and they, in turn, were replaced by the Romans- With the division of the Roman Empire in the 4th century, A. D., Egypt came under the Eastern or Byzantine Empire of which it remained a province until captured by the Arabs in 639 A.D. In 1517, Egypt was captured by the Turks and from then until the British Protectorate was declared in 1914, Egypt was, nominally, at least, a Turkish province.

The Greek conquest led to the establishment of Alexandria, which rapidly became the greatest city on the Mediterranean. The earlier self-contained civilisations had given way to wider empires, and under the influence of the Phoenicians and other trading nations, international transport and commerce had taken a wide extension. Alexandria became a great trading centre, with a fine harbour, the entrance to which was lit up by a great beacon tower on the island of Pharos—the first lighthouse in the world. It was also a famous centre of learning and philosophy, centred around its famous library and museum. The town itself had magnificent streets, palaces and temples, and a cosmopolitan population of several hundred thousands.

Under the Greeks, the former greatness of Egypt was revived, softened and refined by the influences of Hellenic civilisation.

It was under the Romans, however, that the agricultural prosperity of Egypt was raised to its highest point. Particular attention was paid to agriculture by the early Roman governors and Egypt rapidly became the richest agricultural province of the Roman Empire, and the granary of Rome. Cheap Egyptian wheat imported into Rome led to the decline of cereal cultivation in Italy itself in much the same way as, thousands of years later, the cheap wheat from the new areas of production **in the** second half of the nineteenth century led to

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the decline of wheat cultivation in England, and even in Egypt itself.

Later, however, Egyptian agriculture began to suffer from a steadily increasing burden of taxation accompanied by neglect of the essential irrigation services and mal-administration. After the fall of Rome, the exactions of the Byzantine emperors became heavier and heavier and Egypt groaned under its oppressive burden of taxation. Irrigation was neglected, and agriculture declined. Finally, in the seventh century, the Copts turned to the Arabs who, under the new force of Mohammedanism had already conquered Syria and Palestine. In 639 the Arabs invaded Egypt. Babylon, the Coptic capital, was captured without difficulty. The only real resistance came from the Greeks. Alexandria (the Greek capital, as Babylon was the Coptic capital), withstood a siege of fourteen months before being captured. As punishment for their resistance, the land of the Greeks was seized by the Arabs and divided partly among the Coptic cultivators and partly among the Arab invaders. The Arabs pitched their capital at Fostat, on the site where now stands Old Cairo, slightly to the north of the older city of Babylon. (The whole history of Cairo is the story of its development on successive sites moving gradually northwards as the head of the Delta receded and left firm dry land between the foot of the Mokattam hills and the river.)

Amr, the leader of the invaders, imposed tribute and collected a revenue of L.E.6,000,000. Apart from this, and his confiscation of the land of the Greeks, he treated Egypt very fairly. The Christian (Coptic) inhabitants were left in undisturbed possession of their land (though in theory the land was considered to belong to the government by right of conquest) and were not persecuted for their religious opinions. Irrigation was improved—Amr's precept, which, unfortunately, many of his successors did not follow—

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was to apply one-third of the revenue to the upkeep of the irrigation system and canals. He re-opened the ancient canal from the Nile to the Red Sea and cleaned out the canal joining Alexandria to the Nile. After a few years, however, he was recalled. Perhaps he had been too successful.

Under the Umayyad Dynasty, conditions changed. Egypt was now treated as a captured province. There was a constant demand for money. At the same time, religious intolerance appeared. In addition to the tribute, a poll tax was imposed on non-Mohammedans. Under financial and other pressure, many of the Copts turned Mohammedan: the burden of those who remained was proportionately increased. There followed a period of oppression and exaction when Egypt had to foot the bill for the intrigues and extravagance of its rulers.

With the various dynasties that succeeded each other in the government of Egypt in this period we need not here concern ourselves. From the 8th to the 12th century was, on the whole, a period of modified prosperity, marred by exaction and recurring oppression. There were high spots. In 969, Gohar captured Egypt for his Fatimid master, El Muizz, and founded his new capital Kahira (the Victorious) on the spot still occupied by Cairo to-day, to the north of Fostat (the site of Old Cairo of to-day), just as Fostat itself had been founded to the north of the Greco-Roman capital of Babylon. Another notable figure was Saladin, who proclaimed himself Sultan of Egypt in 1171, and conquered a mighty empire. His battles against the crusaders, with all the pageant of mediaeval chivalry and bravery form a stirring page of history. He founded the Ayyubid dynasty under which, in the 12th and 13th centuries, A.D., Egypt enjoyed a period of peace and prosperity under a series of strong and energetic rulers. The irrigation system was closely controlled, religious

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toleration was observed. The principal source of the increased prosperity, however, was the development of trade. The unification of countries under Arab rule had already led to a freer movement of trade in those countries ; the re-awakening of Europe after the 11th century led to a development of European trade ; the returning crusaders, in the 11th and 12th centuries carried back with them a taste for Eastern stuffs and spices. In Egypt, the old trade route from the East, across the Red Sea and down the Nile, took on a new importance and an important transit trade developed. Commercial treaties were made with Italian City States, Pisa, Genoa and Venice, and Italian merchants and seamen (who had already made fortunes in carrying the crusaders to the holy wars) bought Eastern merchandise in the bazaars of Cairo and distributed it to Europe.

After the Arab conquests the unification, under Moslem rule, of the countries round the Red Sea and Eastern Mediterranean facilitated the development of trade routes across those countries from India and the Far East to the Mediterranean states and Western Europe. The crusades of the 11th and 12th centuries, though they failed in their political and military objectives, stimulated the already growing trade between East and West by spreading throughout Europe the knowledge of and taste for Eastern luxuries and spices. A number of well-defined trade routes developed, one of the principal of which came from Arabia across the Red Sea to Kosseir in Upper Egypt, by caravan across to the Nile near Keneh, and down the Nile to Cairo. Other caravans from Central Africa brought slaves, gum, and ivory down to the Nile. Cairo was a vast international market thronged with merchants from all parts of the world. This was the period of Cairo's greatest glory. The Sultans and merchants drew immense profits from this transit trade, and fabulous stories

are told of their splendour and wealth. These were the days of the Arabian nights, when Baghdad and Cairo drew almost boundless wealth from their position athwart the main lines of communication from East to West, and Cairo, Kahira the Great as it was called, was one of the wonders of the world. Across the Mediterranean, the City States of Venice and Genoa rose to prosperity on the same wave of international trade, their merchants buying from Egypt the products of the East and distributing them to the countries of Western Europe.

The wealth thus gained by Egypt and Venice led to a corresponding increase in the price of the goods sold. The trade was entirely in goods of small bulk and high value—precious stones, spices, silks, slaves, gum and ivory—which could be sold at prices that would repay the cost of transport, the exactions and dangers of the journey and the profit of the merchants. Spices in Cairo already cost five times their value in Calcutta.

The trade routes were jealously guarded, and attempts by other nations to take part in this lucrative trade were repulsed. The Portuguese in particular tried hard to find a way to participate in this profitable trade. Towards the end of the 15th century, successive expeditions explored the west coast of Africa in an attempt to find an alternative passage to India and the Far East. Finally, in 1497-8, Vasco da Gama was successful in rounding the Cape of Good Hope and sailing across the Indian Ocean to Calicut. The all-sea passage to India was discovered.

This expedition was followed by many others. Within a few years the Portuguese had ousted the Venetians as the chief commercial nation of Europe. The long sea route, though ships were small, and the voyage long and perilous, was infinitely cheaper than the overland route, and Portuguese merchants could

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sell Eastern goods at only a fraction of the price charged by the Venetians. The latter tried to react to the new situation. They even proposed to build a canal across Egypt and thus open direct communication between India and Venice, but internal dissensions arose, the power of Venice declined and the project was abandoned.

On Egypt itself, the effect of the new sea route was disastrous. At one blow, the prosperity gained from this rich transit trade was lost.

In 1415, less than 20 years after Vasco da Gama sailed round the Cape, Selim I conquered Egypt, and henceforth Egypt was under Turkish domination.

The Turkish conquest completed the ruin of foreign trade. For three hundred years, Egypt was shut off from Western Europe, a closed book, with its institutions and social system in a state of arrested development while its economic system crumbled through neglect into decay.

Under Arab rule, the Sultan had ruled the country in person, on the spot. Under the Turks, Egypt was ruled from a distance. The Turkish Sultan had no faith in the Pashas he appointed to rule this rich province, and to limit their-power, he appointed the Mameluke Emir̄s the executive and military council. These Mamelukes had their origin in the employment of foreign mercenaries and slaves in the army of Saladin and his successors. Soon, however, the slave became the master ; the Mamelukes seized the reins of power. Already, two hundred years before the Turkish conquest, the country had been ruled by a succession of these proud and warlike feudal lords. After the Turkish conquest, they again became the real power in the country. The Pashas appointed from Constantinople as governors were, for the most part, venal and corrupt. They had acquired their position by bribery and their only care was to make their fortune before a rival in Constantinople bribed

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himself into their shoes and the inevitable envoy arrived with his order, " Ensel, Pasha " (Come down, Pasha). The same spirit permeated the administration from top to bottom. Taxes were farmed out, land and labour were sold to the highest bidder. Administration was neglected and the irrigation system fell into decay. The revenue was insufficient to meet the insatiable demands of the soldiery, and forced levies were made upon merchants and farmers alike. The entire country was exploited and plundered for the benefit of the governor and the Mameluke beys and soldiery.

In the 18th century these conditions came to a climax.[^] There was constant fighting. Taxation killed industry ; customs dues ruined commerce. All semblance of organised central government was lost. Irrigation works were in decay. The distribution of water, instead of being based upon an ordered economy, depended upon force or ruse. Village fought against village for the right to a water channel ; farmers came in the night, cut the dykes and emptied their neighbours' water on to their land. Deprived of water, beaten and oppressed by their overlords, many of the fellahin deserted their land and turned to a life of brigandage and crime on the waste lands between the villages. In agriculture, in industry and in commerce, the country sank, during the 18th century, to its lowest level in historical times.

The measurement of decay is best indicated by the decline of the population. The population of ancient Egypt is generally estimated to have been from 10 to 12 millions. A census taken in Roman times gave a population of 10 millions. Later, under the Arabs, the population was estimated at 14 millions. Possibly this figure included a certain exaggeration. Even allowing for this, it is probable that the time of the Turkish conquest, the population was upwards of 10 millions. After four centuries of Turkish domination, it had been reduced to less than two and

a half millions, most of whom were in utmost degree of poverty and wretchedness.

SECTION TWO

EGYPT AT THE END OF THE 18TH CENTURY

We now turn to the condition of Egypt at the end of the 18th century.

The first impression is one of ruin. Egypt in the 18th century was a mere ruin of its former self. Its irrigation system was in ruin, its commerce was ruined, its industry decayed. Its reduced population lived in towns that were frequently, as in the case of Alexandria, but the ruins of former greatness.

The next impression is one of arrested development. Egypt had stood still for many centuries while the world moved on. On the land, the old mediaeval feudal system continued unchanged. The bey was the feudal lord, with his armed retainers, his estate, his privileges. The fellah was virtually a serf, with no right to the land he cultivated or the crops he grew, bound to the land by the fact that if he left it he had no other means of subsistence. In the towns, the artisans and merchants were organised in associations exactly on the lines of the primitive guilds of the middle ages. The fact is that from the time of the Turkish conquest, Egypt had been cut off from the Western World. The tide of international trade had receded and left her high and dry; her isolation had been completed by the anarchy, lawlessness and fanaticism that ensued, and her development had stopped.

Let us look closer at the economic organisation. Egypt was still, as it always had been, primarily an agricultural country. The vast majority of its two and half million inhabitants were still dependent upon agriculture. In the country districts the in-

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habitants were grouped in villages. Around each village was the cultivated area. The towns were centres of primitive industry and market places for the surrounding villages. Each town, with its surrounding area formed, to a large extent, a self-contained economic unit, with little need of communication with the outside world.

Each group of villages was under the control of a Mameluke bey who was usually at the same time the concessionaire of taxes for that area. The system of farming out taxes was one of the most characteristic abuses of the Ottoman administration. Among others, the miri or land tax was farmed out by groups of villages. The concessionaire (or Moultezim as he was called), of each area, paid an annual sum in advance and recouped himself by what he could collect in taxes from the fellahin. Theoretically, he was only supposed to take the amount due from the farmer to the government, but in actual practice the government was too weak to exercise this control, and the bey was left free to extort what he could. Under these circumstances, the only limit to his enactions was the point at which nothing more could be wrung from the unfortunate taxpayer.

For his "services." in the collection of taxes, the Moultezim was granted an area of tax-free land, *Wissiya* land as it was called, and had the right to *corvée* the fellahin to labour on this estate. In the course of time the privilege of the Moultezim from being annual, came to be granted for lifetime and to be passed from father to son so that the *Wissiya* land became the private estate of the Moultezim's family.

When, as frequently happened, the bey was away, engaged in fighting or intrigue, his place was taken by his chief steward (*Kashef*) who occupied the baronial house and superintended the cultivation of the estate and the collection of taxes.

The cultivation of the land round the village was to a large extent in common. The land was usually in the form of a big single field in which the holdings of different farmers consisted of long strips, often without visible boundaries. In addition to their work on their land, the farmers were liable to be called upon to provide free labour on the estate of their overlord and to be corvèed for irrigation or other public works.

The cultivated land around each village was Kharadj land. From time immemorial the land had belonged to the community, and by extension to the sovereign. The farmer had no right of ownership in the land he cultivated. As a general rule a farmer was allowed to continue to cultivate the land he occupied so long as he paid the taxes due. But there was no guarantee of possession and he could be expropriated at any time without compensation. As the farmer had no right of ownership, he could not pass any such right by inheritance to his children. The distribution of the land around a village was very largely in the hands of the village sheikh, who was himself usually one of the biggest cultivators. He was responsible for the allocation of the land tax between the different cultivators and for its collection and payment.

Each village community had its imam, or priest, drawing his livelihood from the offerings of the villagers ; its barber and its carpenter who worked for the community and were provided with board and lodging at the general expense. The villagers were represented in their dealings with the bey by the sheikh or head of the village. In his own little sphere, the sheikh was a person of consequence. It was he who distributed the land, and allocated the taxes to be paid. It was through him that requisitions of men or materials were collected, and he was thus in the position of being able to spare

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himself and pass on the burden to others. But if the taxes or requisitions should be short, it was on the sheikh that the first brunt of oppression fell, and he who received the severest beatings.

In each village were one or more Coptic scribes who recorded the area of land held by each cultivator, and the taxes due by each. The perception of taxes was carried out by the "sarraf" or tax gatherer. For the most part, the cultivators acquitted their taxes by delivery of produce. In many parts of the country, especially in Upper Egypt, the use of money was practically unknown.

The unfortunate farmer was defrauded at every turn. False measures to measure his land, false weights to weigh his crops, and all kinds of additional impositions and requisitions took from him all the fruit of his toil and left him with barely sufficient to maintain existence. Nor were the taxes thus collected used for the government and organisation of the country. At every stage the amount originally collected oozed away in private profit and speculation, in the dime taken by the tax-collector, the fraudulent gains of the Coptic scribes, the "gifts" to the Kachef: the "profit" of the Bey, the private fortunes amassed by the governors, till after payment of the tribute to Constantinople, nothing remained beyond the barest expenses of administration.

AGRICULTURE IN 1800

The principal crops were the winter crops, sown immediately after the water had retired from the land. The principal winter crops (chetwi) were wheat, barley, beans, lentils, peas, bersim, saffron, flax, tobacco, onions and lettuce.

Summer crops (serf) and autumn crops (nili) required artificial irrigation and could only be grown

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where summer water was available, either from the river, canals, or wells. The principal were : rice, indigo, cotton, sugar, durra, maize and hemp.

In general, the spring and summer crops were more expensive to cultivate than the winter crops owing to the necessity for artificial irrigation. The spring crop of maize and durra was only grown to satisfy the need for food of the agricultural population until the summer crop should be ripe. The other crops, rice, sugar, cotton and indigo were all expensive to cultivate, so that, although they yielded more profit than the other crops, their cultivation was limited to the richer cultivators.

Wheat.—This was the principal crop and formed the chief article of export. In Upper Egypt, where the standard of life appears to have been lower than in the Delta, wheat was little used as an article of food, its place being taken by durra, a kind of maize. The wheat grown in Upper Egypt was destined for the payment of taxes in kind or for sale. The wheat was shipped down the Nile to Cairo for sale. In Lower Egypt wheat, together with maize, formed the staple article of diet. The surplus wheat, after allowing for the needs of the country was exported. The amount available for export depended upon the crop, which, in turn, depended largely upon the height attained by the Nile flood.

Maize and Durra.—Durra in Upper Egypt and Maize in Lower, formed the principal food of the inhabitants. In general these crops were grown for consumption, not for sale, and they were not accepted for payment of taxes in kind. Two crops were grown, a relatively small crop in the early summer and a much more important crop at the end of the summer, when irrigation was made easy by the rising flood.

Barley.—This was an important cereal crop, grown partly for use inside the country and partly for export. As in the case of wheat, barley was accepted in

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payment of taxes in kind and the stock thus collected was stored in Cairo for sale or export.

Rice.—Rice was cultivated in the northern part of the Delta around Rosetta. The crop was grown chiefly for export. The primitive cleaning and polishing factories were concentrated in Rosetta.

Pulses.—Beans, peas and lentils were grown in considerable quantities and were used partly for food and partly for payment of taxes. The surplus accumulated was exported. One advantage of the cultivation of these nitrogenous plants is that they improve the nitrogen content of the soil, and Egyptian soil has a tendency to be poor in nitrates.

Flax.—The flax plant was doubly useful. In addition to the seeds of the plant (linseed) from which linseed oil was extracted, the fibrous stems were used for the manufacture of linen cloth. Part of the flax produced was used for the local linen industry, the rest was exported.

Cotton.—Cotton was grown in both Upper and Lower Egypt, though not to a very great extent. In Upper Egypt the cotton plant was a tree, producing annually for a space of 8 to 10 years. In the first three years this plant yielded three kantars per feddan. After three years, the quality and yield declined. There was a considerable cotton industry in Upper Egypt which consumed all the cotton produced locally in addition to a certain quantity imported from Syria.

Onions.—Were extensively cultivated for food. In the interior of the country they were very cheap. Most of the crop was consumed in the district where it was grown though a certain quantity was exported to Arabia.

Vegetable Dyes.—Previous to the discovery of aniline dyes later in the century, the production of vegetable dyes was an important industry. Two important vegetable dyes were produced in Egypt, indigo (blue)

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and saffron (yellow) and were two of the most profitable articles of cultivation and exports.

Indigo.—Was grown chiefly in Middle Egypt. The cultivation of indigo required considerable preparation and expenditure which could only be undertaken by a person of means, and was therefore only undertaken by the beys and larger cultivators. The colouring matter was obtained from the leaves of the plant which were picked four times, chopped up and soaked in water in which the colouring matter was dissolved. In spite of the expense of cultivation and preparation, the production of indigo was very remunerative.

Saffron.—The saffron plant, like flax, served a double purpose. The flower was used for the production of yellow colouring matter and the seeds gave an edible oil. The centre of the saffron trade was Assiut. The flowers were beaten into a paste which was made up into cakes and sold to the merchants in Assiut. As in the case of indigo, the cultivation and preparation of saffron required considerable expenditure.

Sugar.—Was grown in Upper Egypt and, in small quantities, in the Delta. In Upper Egypt there was a small sugar extracting industry carried on under the Mamelukes in primitive factories at Farshut and Akhmim. Elsewhere the sugar cane was eaten raw.

Tobacco.—Was grown in Upper Egypt. The product was not of very good quality and was consumed by the inhabitants of the country.

Vegetable Oils.—Previous to the discovery and use of petroleum, various kinds of vegetable oils were used for illumination and burning as well as for food. Plants for this purpose were grown all over Egypt and not a village but had its local oil press where vegetable oil to meet the local requirements could be produced. The principal varieties of oil thus produced were : saffron oil, linseed oil, lettuce oil, colza oil

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and oil of sesame. The last-named was much esteemed in flavouring food.

Bersim.—Was cultivated all over Egypt except in the extreme south. It was used as food for animals, being either eaten in the field or cut and carried to the towns or dried. Large areas near Cairo were cultivated with bersim which was brought daily into the city for the consumption of the large number of animals there. The number of animals in the country depended upon the area that could be cultivated with bersim. In Upper Egypt one-sixth of the land was cultivated with bersim, in Lower Egypt about one-quarter. Any extension of the area under bersim could only be possible by a corresponding reduction of the area under cereals (both were winter crops).

Trees.—The most important was the date palm. The tree belonged to the fellah in full property even though he had no right of property in the land on which the tree stood. The dates were eaten either fresh or dried. The various parts of the tree were used for a variety of purposes.

Some fruit trees were found in gardens near the towns. Figs grew near Alexandria and vines in the Fayoum. The only other tree of importance was the sycamore which was usually found near the villages. Generally speaking, however, Egypt was short of trees and of wood for construction purposes.

Animals.—Cattle and buffaloes were kept to help the farmer in his work on the land and to provide milk, cheese and butter. They suffered terribly from periodical epidemics of cattle plague which swept over the country and killed great numbers of animals. Camels were used for transport. A fresh supply came in annually from the Soudan by the caravans from Sennaar and Darfur. Donkeys were the most widely used beasts of burden. No cultivator would be without one. In the towns they were

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for hire at every street corner. Sheep and goats were found in every village, especially in Upper Egypt. The wool of the sheep was sheared, washed and spun in each village. The goats provided milk and cheese and their skins were used for carrying water. Horses were objects of luxury and display. Only persons of higher rank were allowed to ride on horseback. They were used only in war or for show. Hens and pigeons were found in great numbers in all the villages. The chicks were hatched in incubators, to the astonishment or the amusement, as the case might be, of visitors from other lands where this method of producing chicks was not in use. Finally, apiculture (bee-keeping) was carried on, the hives being, as to-day, hollow clay pipes.

From the above notes the following conclusions appear. In the first place the farmer was to a very large extent self-supporting. He grew his own food; from the wool of his sheep he or his women-folk spun thread which was made into coarse cloth in the local town. His surplus products, usually of cereals, paid his taxes. In the neighbouring town were produced most of the other articles he required—oil, flour, agricultural implements, mats, jars, etc. He had, indeed, little or no money at his disposal—In parts of Upper Egypt money was practically unknown at the time of the French invasion. His standard of life was low, very low—a mere existence, and his purchasing power practically nil. In the circumstances, interior commerce was very limited.

The principal crops were the winter crops. These depended entirely upon the caprice of the Nile flood. A high flood brought prosperity, a low flood caused misery and starvation.

The profitable summer crops : indigo, rice, cotton and sugar, were not much cultivated because of the limited area of land where summer water was available and because of the expense of cultivation.

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There were marked differences of price from one place to another. This was probably due to the difficulty and cost of transport. Wheat, for example, in Egypt, sometimes cost only one-third the price in France. Onions grown near ports from where they could be exported were worth two or three times as much as onions grown in the interior, where export was impossible. The development of transport in the nineteenth century was to be an important influence in smoothing out these differences in price.

Finally, the perpetually renewed fertility of the land, and the basin system of irrigation provided, with a minimum of labour and expense, at least one abundant crop per annum from the land which was covered by the waters of the flood.

INDUSTRIES

Industry, like agriculture, was in decline. Gone was the time when the products of art and industry of Egypt were famous all over the civilised world. Many of the old industries had disappeared completely and their secrets had been lost. The only industries that remained were those necessary to supply the immediate wants of a primitive agricultural community.

Gilds.—In Egypt, at the beginning of the last century the existing industries were still in the gild stage of development, as it had existed in Europe from the 12th to the 15th century. The workers in each industry in each town were small, independent masters, working in small workshops with a few assistants and were organised into associations, each under the control of its sheikh. These associations were officially recognised by the government which found in them a convenient means of collecting taxes from the members of the corporation.

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Textiles.—The weaving industry, the most important industry in the country, is an excellent example of this type of organisation. Woollen cloth was manufactured in nearly every town and village in the country, from the wool of the sheep of the district. The best wool was that of the Fayoum and there was a considerable weaving industry in the town of Medina (Fayoum). Cotton was manufactured in the towns of Upper Egypt : Esna, Kous, Keneh and Beni-Souef; linen was made in the Delta and in the Fayoum from locally produced flax, and was sold in the weekly markets in Tanta and Samanhoud ; and the silk industry was found in the towns in the north of the Delta, particularly Mehalla el Kubra, the raw silk being obtained chiefly from Syria.

As a general rule, the weaving was carried on in the towns, the spinning in the country districts around. The weavers bought the raw material, whether cotton, flax, wool or silk, and distributed it to the spinners, usually women from the surrounding villages, who came into the town on market days to take a fresh supply of material and deliver the yarn (spun thread) they had prepared. The spinning was done by hand by the women in their houses, or sometimes by the men while watching their flocks, or in the period of enforced idleness during the flood.

In each town the weavers were organised into a corporation, or gild. No man was allowed to engage in the industry unless he were a member of the gild, or worked for a member as an apprentice. No man could be admitted a member of the association until he had served an apprenticeship. When he wished to set up as a master weaver, he had first to produce a piece of cloth himself and submit it to the masters of the corporation as proof of his proficiency. If he was considered sufficiently expert, he was accepted, and after a banquet, offered by the new member to the other members of the association,

he was admitted to the privileges, and charges, of the corporation. Each gild was governed by a sheikh, elected from the principal members of the industry. His duty was to look after the general interests of the members, to detect and punish bad workmanship, to settle quarrels between the members of the gild, to portion out the tax imposed upon the industry and to arrange for its collection and payment to the tax collectors.

The cloth produced, especially the woollen cloth, was of poor quality. Good quality woollen cloth was imported from abroad, chiefly from France. The fine cloth of France had made a name for itself in all the Near East and France was by far the largest supplier of textiles in the Mediterranean in the 18th century. Her predominant position was soon to be challenged, however, by English factory-made goods.

Pottery and Bricks.—These were made throughout the country to supply local needs. The bricks were of the crudest kind, merely Nile mud mixed with chopped straw and dried in the sun. Of these simple bricks the country dwellers built their houses—as they do to this day. Pottery was made chiefly in Upper Egypt from the Nile clay. At Kena, grey porous pots were made and shipped down the Nile for sale in Cairo and Lower Egypt. These porous jars were, and still are, in great demand as they have a pronounced cooling effect on water stored in them. At Mellawi and Manfalout were made big glazed jars used for industrial purposes—the preparation of indigo, sugar, dyes, and use in tanning and dyeing, etc., and for storing oil and grain in the houses of the people.

Straw Matting.—The manufacture of straw mats went on in all the villages from such materials as were available locally. The best mats were made in Menufia from the rushes collected by the Arabs

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from the borders of the lakes, canals and swamps of the northern part of the Delta. In poorer houses these mats were used to sit on by day and sleep on at night. Mats and pottery were required in every house.

Vegetable Oils.—Various forms of vegetable oil were used for burning and illumination or for seasoning the rough and unpalatable food. In Upper Egypt, lettuce oil was produced for food and saffron oil for burning; in Middle Egypt and the Fayoum, colza oil and linseed oil were used for illumination (and sometimes for food), and sesame oil was used for seasoning the food; in Lower Egypt linseed oil was produced for burning and sesame oil for food. As oil was indispensable, oil presses were found in every town in Egypt. The oil was kept in the houses in big glazed earthenware jars.

Colouring Matter.—Indigo (blue) was obtained from the leaves of the indigo plant. The leaves were cut up and allowed to stand in water. The colouring matter went into the water, which was then allowed to stand in big jars. The colouring matter then settled down at the bottom, in the same way as mud, and the clear water could be run off at the top. The methods of manufacture were primitive and defective. Saffron (yellow) was obtained by beating the yellow petals of the saffron flower into a paste.

Sugar.—Coarse sugar of low quality was manufactured in Upper Egypt, at Farshut and Akhmim, in primitive factories, equipped with wooden rollers turned by oxen.

Rose Water.—At Medina in the Fayoum, rose water was distilled from the roses grown in the district, and sent to Cairo for sale.

Sal-Ammoniac (Ammonium Chloride).—The production of sal-ammoniac was an old established industry. The salt was prepared from the animal manure in the villages and was an article of export.

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Salt-Petre (Potassium Nitrate).—The soil of Egypt is impregnated with mineral salts. Salt-petre, used in the preparation of gunpowder was prepared from the dust of the ruins of old villages, particularly in Old Cairo and in Kena. Part of the product was used in the country and the rest exported.

Salt.—Was obtained by evaporation at various places round the coast. A better quality was obtained from saline wells in the Fayoum.

Incubators.—This artificial method of hatching eggs was in use in all the towns and villages of the country. The eggs were brought by the farmers. In return for each hundred eggs the farmer received from 25 to 50 chickens, the balance serving to pay the expenses and profit of the owner of the incubator. Generally, the incubators belonged to the governors of the provinces and were farmed out to the Copts.

Arts and Crafts in the Towns.—In the towns there were the necessary arts and crafts and trades : bakers, millers, weavers, saddlers, carpenters, blacksmiths, coppersmiths, jewellers, etc. Each trade was concentrated in a special quarter. There were whole streets of blacksmiths, of sweet-makers, of saddlers. The jewellers and goldsmiths had a special quarter, which could be completely closed in times of disturbance.

Fishing.—The permission to fish was reserved as a state monopoly and farmed out to beys who either employed their own fishermen or took a tax from all who wished to fish in their waters. The fishing industry was chiefly on Lake Borillos and Lake Menzaleh.

General.—From the above survey of the industries of the time it is clear that, apart from salt-petre, sal-ammoniac and a small amount of cotton and silk yarn and cloth, the industrial products were entirely for home consumption. They were, for the most part, in a primitive state and the products were

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coarse and of low quality. Articles of fine quality or precision had to be imported.

COMMERCE AND COMMUNICATIONS

Interior.—From the fact that each town formed, together with the surrounding agricultural area, a largely self-contained economic unit, it is obvious that interior trade was very restricted. The towns were centres of trade. The inhabitants of the surrounding districts came into the town to sell their surplus products and to buy, from the merchants in the town or from each other, the goods or animals they required. In each important town there was a market day, usually once a week. Sellers had to pay a bazaar tax to expose their goods for sale. For example, in Medina (Fayoum) the farmer had to pay 10 barat per ardeb on wheat sold. This bazaar tax, like nearly all other taxes under the Mamelukes, was farmed out, a practice which naturally led to abuses.

In Upper Egypt, Esna was an important commercial centre. In addition to the trade of the surrounding agricultural district, it was also the centre from which the desert tribes around obtained their provisions of grain, metal and cloth in exchange for slaves (stolen from the slave caravans in the desert or brought up from the Sudan) and gum. At the same time it was the terminus of the caravan route from Sennaar, along which came several caravans every year, bringing slaves, gum, ivory, and camels. Assiut was the terminus of the great annual caravan from Darfur. Kous and Keneh lay at the end of the routes across the desert in Upper Egypt from Kosseir on the Red Sea, and were the centres for trade with Arabia.

A large part of the land tax in Upper Egypt was

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paid in kind, cereals in particular being used. The surplus stores of grain from Upper Egypt together with the slaves, ivory, gum, etc. brought up from the interior of Africa to Esna and Assiut, and the coffee and other goods from Arabia coming via Kous and Keneh, were all sent down to Cairo. In return, metal goods, cloth, mirrors, beads, etc. coming from Europe were sent from Cairo to the various trading centres in Upper Egypt. All this trade was carried on the Nile. By land there were no roads. Wheeled vehicles were unknown. Along the edge of the valley were bands of predatory Arabs ready to attack and plunder unwary travellers. Nor was travel by the Nile entirely safe. Pirates were not unknown and possible attack had to be guarded against. In addition, the various towns along the river took toll on the goods passing through. Thus the slave traders of the Sennaar Caravan going down the Nile to Cairo had to pay 22 barat per head of slaves at Manfalout, 12 barat at Minia and 10 at Boulac.

Cairo was the largest trading centre of the country. It had two ports on the Nile, Old Cairo and Boulac. Goods coming down the Nile from Say'd (Upper Egypt), Fayoum, Darfur, Sennaar and Arabia arrived at the port of Old Cairo. The customs returns there show the arrival of sugar, linen, gum, eggs, saffron, fruit, dates, coffee, vegetable oils, slaves, skins, earthenware jars, raw wool and woollen goods, carpets, shawls, linen cloth, wheat, barley, etc. The "port" of Boulac received from "Christianity" (i.e. Europe) metals, hardware, arms, mirrors, glass beads, ornaments, spices, cloth, nails, etc. For each variety of goods there was a special district or bazaar, or failing that, a special market held on fixed days.

In the Delta, Tanta was the most important commercial centre. In addition to being the centre of a rich agricultural area, it was the seat of very

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important annual fairs, held on the occasion of the Moulded, or religious feast, when great crowds gathered there from all the provinces of Egypt and even from foreign countries, and where devotion and commerce were profitably mixed. Religious fairs of this nature must have offered some of the earliest opportunities for traders from widely separated districts to meet. Cloth and animals of all kinds were the principal objects sold in the Tanta fairs.

Mehalla was a market for the cloth manufactured in the town and district. Samanhoud and Mansourah were other market places of importance, the one as an entrepôt for foreign goods imported via Damietta, the other by reason of its central position on the routes between Damietta, Rosetta and Cairo.

Communications in the Delta.—As in the case of Upper Egypt, the Nile and its canals formed almost the sole means of long distance communication. There were no carts, and practically speaking, no roads. The absence of effective government and order made travelling by land very dangerous and travellers used to unite into caravans for mutual protection. Even on the Nile there were pirates, and boats which went too near the banks or approached too near to certain villages were liable to be attacked and pillaged. The canal that had formerly connected Alexandria with the Nile, in the days prior to the Arab invasion, had fallen into disuse, so that goods and passengers from Alexandria to Cairo and Upper Egypt had either to go across the Delta to the Nile by land, or to sail in small ships round to Rosetta or Damietta.

Foreign Trade.—Despite the primitive standard of living of most of the people, it was still necessary to import certain goods not found or manufactured in the country. The finer qualities of cloth, metal goods, glassware, oriental spices and articles of luxury for the beys were imported. To pay for these, Egypt was able to export the surplus of her

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agricultural products, cereals, beans, etc., a certain amount of yarn and cloth made in the country and salts such as salt-petre and sal-ammoniac.

Side by side with this very restricted movement of trade was a not inconsiderable transit trade. Goods from Central Africa and more particularly slaves, came across the desert to the Nile in Upper Egypt, coffee and products of the Orient came from Arabia across the Red Sea and across the desert from Kosseir to the Nile. These goods took their way through Egypt to Europe and the Ottoman Empire. In return came metal and glassware, cloth, and other goods which went through Egypt to these more distant countries.

Caravans from the Interior of Africa.—(i) *The Darfur Caravan.* Darfur, in the Sudan, was the centre of the slave traffic. Slaves and cloth in Darfur took the place of money, the use of which was there unknown. The principal objects brought by the caravan were black slaves, ivory, gum, rhinoceros hides and tamarind. The caravan consisted of 5,000 camels and after a long and painful journey, involving very severe hardships for the unfortunate slaves, many of whom died on the way, arrived at Assiut. Before entering the town, the caravan was met by the officials from the town, and the tax, calculated at so much per slave and per camel load of goods, had to be paid. The goods and slaves were embarked in boats on the Nile and sailed down to Cairo. Most of the camels were sold, only about one-fifth being retained for the return journey of the merchants to Darfur. In Cairo, the merchants usually remained for several months selling the slaves and merchandise they had brought, and buying goods to take back with them. On the return journey they carried with them cotton, silk and woollen goods, equipment for horses, coffee, sugar, arms, metals, coloured glass from Venice, mirrors, rings, beads and ornaments,

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and small shells used as money in the centre of Africa.

(2) *The Sennaar Caravan.* This caravan came several times a year up from the Soudan. The goods carried were very much the same as those brought by the Darfur Caravan. The caravan route came across the desert from Ibrym to Daraou and Esna. At Esna, taxes were taken on the slaves, camels and goods. The goods and slaves were then embarked for Cairo. As they passed down the Nile, they had to pay taxes at Manfalout, Minia and again at Boulac. The goods brought by the caravan were much the same as those brought by the Darfur Caravan, viz., slaves, gum, ostrich feathers, ivory, rhinoceros skins, alum and gold dust. The merchants sold most of the camels. They took back with them, cloth, glassware (beads, ornaments, little mirrors, etc.), spices, scent. The Sennaar caravan was smaller than the Darfur one but came several times a year.

There was also a small caravan trade between Egypt and the Barbary States, across the Western desert, bringing dates and woollen tarboushes and taking back Egyptian products.

Trade with Arabia.—The trade with Arabia depended upon two factors. In the first place, owing to differences of soil and climate each country had need of the products of the other. Arabia needed the agricultural products of the fertile Nile valley, cereals, beans, etc. while Egypt consumed the coffee produced in Arabia. In addition, there was a considerable movement of Indian goods, stuffs and spices, brought by pilgrims to Mecca from the East, or by boats up the Red Sea. This latter route was not much used, however. The Red Sea was closed to non-Mohammedan vessels. In addition, the wind in the Red Sea blows for nine months in the year from north to south thus making it very difficult for sailing ships to go up the Red Sea from the south. It was

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not until the invention of steam transport that the Red Sea route became really important.

The principal Egyptian port on the Red Sea was Kosseir. The principal import was coffee which came from Yemen to Kosseir, then across the desert by camel to Kena. The same camels carried back to Kosseir wheat, flour, beans, lentils, sugar, butter, edible oils and linen cloth for export to Arabia.

Suez was in decline and only had some two hundred inhabitants. It was only saved from complete extinction by the passage of part of the annual pilgrimage to and from Mecca. Mecca as a meeting place for pilgrims from East and West served as a commercial centre and pilgrims took with them glass beads, ornaments, etc., metal ware, copper and paper and brought back the silks, stuffs and spices of the East.

Mediterranean Trade.—Eastern Mediterranean commerce, at the beginning of the nineteenth century was almost exclusively in the hands of European traders, Venetians, Tuscans and French. The reasons for this may be found partly in historical development, but largely in the fact that these nations had commercial treaties with the Ottoman Empire which gave their nationals preferential treatment. Local subjects, on the other hand, had to pay higher duties on imports and exports and, moreover, were absolutely at the mercy of the local governor who could impose whatever taxes or contributions he pleased without any appeal being possible, whereas the foreign merchants could always appeal to their consuls who were placed there with the special object of protecting their commercial rights.

Trade was still entirely by sailing ships. Steamships did not come into use until the second quarter of the century.

The principal Mediterranean ports of Egypt were Rosetta and Damietta. They did not offer good harbours, however. The water is shallow and there is

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little protection from the wind and waves. Alexandria, the only good natural port had been allowed to fall into decay. Larger ships coming from Europe still had to go to Alexandria, however. Goods and passengers for the interior had to disembark there and either cross the desert to the Nile, or re-embark on smaller boats and go round to Rosetta or Diametta and thence up the Nile. All travel at that time was characterised by its extreme slowness and discomfort. From Marseilles to Alexandria was frequently a journey of a month or more.

Trade with France.—Most of the fine cloth imported by Egypt came from France, especially from the district of Languedoc (Provence). French goods were preferred because of their high quality. For a long time in the 18th century the French merchants formed the most important foreign colony in Egypt. The exactions of the Mamelukes in the second half of the century caused the French merchants to leave Cairo, and formed the pretext for the French invasion of Egypt. At the time of the French expedition, there were 61 Frenchmen living in Egypt. As in the case of the other foreign communities, however, their number rapidly increased in the reign of Mohamed Ali.

The principal imports from France were : fine woollen cloth, tarboushes, metalware, paper, liqueurs, cochineal (red dye, used for dyeing silk), wood and perfumes. Also arms and metal goods were shipped from Germany via Marseilles.

Egypt exported to France : products of the country, rice, wheat, saffron, sal-ammoniac, soda, cotton and linen thread and hides ; from the interior of Africa: gum, ivory, ostrich feathers and gold dust ; from Arabia and India : coffee, gum, incense, drugs. Rice was exported via Damietta. Wheat was sent to Rosetta and from there by boat to Alexandria. The exports of these crops varied greatly from year

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to year. The exports to France were much less than the value of the imports and the balance had to be made up in money. Owing to the depreciation of Turkish money it was no longer received in France and payment had to be made in Spanish Piastres or German or Austrian Thalers.

Trade with Venice, Trieste and Tuscany.—This was the old East to West trade route of the Middle Ages and was still important. Egypt imported: cloth, paper, glassware (beads, necklaces, ornaments, etc.), and from Germany via Trieste: iron, copper, nails, mirrors, etc. The goods were addressed to Jewish and Venetian firms in Cairo and Alexandria. From Egypt were sent: Egyptian produce, hides of cattle, sal-ammoniac, natron, saffron; from the interior of Africa; gum, ivory, tamarind and ostrich feathers; from Arabia and India, coffee, gum and incense.

Trade with Turkey.—The larger part of the goods coming from the interior of Africa, especially the slaves, were exported to Turkey, together with coffee from Arabia and the products of Egypt, rice, wheat, beans, etc. also money in payment of tribute and presents to the Sultan and his advisers.

Customs Houses.—There were customs houses at Alexandria, Damietta, Rosetta, Suez, Boulac, Old Cairo and Kosseir. Taxes were taken on goods entering and leaving. In each place the customs were farmed out to a concessionaire.

SECTION THREE

ECONOMIC EFFECTS OF THE FRENCH INVASION

The French invasion marks an epoch in the history of Egypt. It struck a deadly blow at the old economic and political order and at the same time opened up to outside influences, a country that, for nearly four

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Centuries, had been isolated from the growing civilisation and culture of the Western world.

The reasons for the invasion were economic, almost as much as political. To secure, in the eastern Mediterranean, a market for French stuffs already threatened by the cheap, machine-made products of England ; to develop that market by bringing back the ancient prosperity of Egypt ; to make of Egypt an open doorway to the East and to strike a blow at the extension of British power in India, itself based upon economic motives, such were the primary reasons that led to the invasion of Egypt.

The immediate and avowed objectives were themselves, economic : to avenge the losses, injuries and insults suffered by the French merchants—the principal foreign traders in the country—under the later Mamelukes, and to deliver the population from Mameluke oppression. Actually, however, Napoleon aimed further than this. He aimed at making Egypt a prosperous and powerful French colony athwart the road to India, and with this object took with him a group of the most able and energetic scientists in France, destined, in his mind to help in the projected re-organisation of the country.

The expedition failed to realise its military and political objectives. But it had profound and far-reaching effects upon the subsequent history, both political and economic, of this country.

In the first place, the power of the Mamelukes was shattered, and a decisive blow was thus struck at the old feudal order, which was soon to crumble to pieces.

In the second place, a number of reforms were instituted and still others, many of them of the most far-reaching character, were projected. No sooner had the French arrived in Egypt than the scientists set to work upon the most comprehensive survey of the country ever attempted. Every aspect of

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the country was put under study, the ultimate object being to establish a basis for future developments, the directions of which were indicated in reports made. The proposals included a plan to reform the system of land ownership (General Desaix, in Upper Egypt, considered that the quickest and best way to improve the condition of the people there, was to divide the land between them and give them ownership in the land they cultivated) the repair of the ruined irrigation system ; the extension of summer irrigation in the Delta by the construction of canals—even the project of building a barrage across the Nile at the head of the Delta was considered—the building of a canal across the isthmus of Suez to join the Mediterranean and Red Sea ; the reform of the currency system and of the system of taxation. It is interesting to note that all of these have since been carried into effect.

Thirdly, the invasion attracted the attention of Europe to Egypt, put Egypt, so to speak, on the map. At the same time, the rapid increase in British interests in India led, in the period immediately following the French occupation, to a growing number of travellers who found in the overland route across Egypt a shorter way to India than the three or four months' voyage round the Cape. This was the beginning of a movement of transit traffic that was rapidly to assume important proportions and which led directly to the construction of the first railways in Egypt and to the enterprise of the Suez Canal.

The French did not stay long enough in Egypt and were not sufficiently well established to go far with their projected reforms. But the study undertaken, and the recommendations made, pointed the way to future development. The great reforms of the 19th century followed, in nearly every case, the projects of the scientists who accompanied the French expedition. Napoleon's invasion not only broke

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down the old régime, but indicated the way to build up the new. Certainly the position when the French left was confused and obscure, but in Mohamed Ali, Egypt found a ruler whose greatness of soul enabled him to overcome his lack of education and to lay the foundation of the new economic and political order which is modern Egypt.

CHAPTER II

MOHAMED ALI (1805-1849)

1. CHRONOLOGICAL SURVEY

THE departure of the French left Egypt in a very unsettled state. The Sultan, nominal master of the country, was not strong enough to assert his authority; the remnants of the Mamelukes came back and attempted, without success, to regain their former authority; the English still had an army near Alexandria; and finally, numbers of foreign mercenaries, mainly Albanians, brought in during the war, were elements of disorder and unrest. There was a period of lawlessness, intrigue and factional fighting out of which a young Albanian captain, Mohamed Ali, by his ability and force of character hoisted himself to the position of power. By 1805 he had already succeeded in getting himself named Pasha. The next thirty-five years were to be spent in a struggle to keep, extend, and consolidate the position thus acquired. His clear intellect grasped the essential fact that his success in that struggle depended upon the strength he could draw from the potentially rich province of which he had made himself the temporary master. He set himself, with boundless energy and determination, to make of Egypt a country richer and stronger than its nominal master, Turkey. And in the struggle and effort of his reign modern Egypt was born.

Economically, the period of his reign divides itself into three main sections.

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In the first period, from 1805 to 1816, Mohamed Ali dealt one by one with the English, the Turks, the Mamelukes and finally the Albanians, who had helped him to power. By 1816, he thus had, apart from the latent jealousy and hostility of the Sultan, no serious challenge to his power.

In this same period, he reformed the system of taxation, abolished the *Iltizam* system of farming out the land tax, readjusted the basis of taxation and arranged for taxes to be paid direct to the government.

By successive steps, from 1808 to 1814 he swept away the privileged classes of landowners that had developed under the previous régime, gathered into his own hands the nominal ownership of all the land in the country, and imposed the *miri*, or land tax, on all cultivated land.

By firm discipline and ruthless suppression of revolts and disorders, the country was gradually pacified and subdued. Having thus asserted his dominion at home, Mohamed Ali turned to wider fields, and from 1811 to 1818 he was engaged in a war in Arabia, originally undertaken at the request of the Sultan, but destined in his own mind to bring Arabia under Egyptian domination.

The second period, 1816-1840, saw Mohamed Ali, in a great effort to achieve independence and empire, gather into his hands all the productive resources of Egypt and with indomitable will impose upon the people an almost incredible effort of development. To his ownership of all the land of the country, Mohamed Ali added the ownership of all the agricultural and manufactured products by declaring one after another of them government monopolies and ordering that all such products must be delivered to government storehouses. The products thus received were paid for at a tariff of prices fixed in advance by the government. These prices were very low, sometimes only one-half or one-third of the market value of the

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goods, and in the resale, particularly for export, Mohamed Ali drew large profits from these monopolies, which became, indeed, the keystone of his financial policy and the means of equipping his army and navy and paying for his military operations. At the same time a vast programme of agricultural, industrial, military and naval development was undertaken.

Chronologically, the period resolves itself into a number of alternating periods of warfare, during which the resources of the country were strained practically to breaking point, and periods of peace, during which the boundless energy of the Pasha was engaged in strengthening and developing the economic organisation of the country in preparation for the next struggle. In this way the war in Arabia, 1811-1815 and 1816-1818, was followed by the expeditions to the Soudan and Abyssinia, 1818 to 1820. In the meantime, from 1816 to 1820, Mohamed Ali monopolised the industries and the principal summer crops. To extend the cultivation of the latter, large numbers of canals were constructed in the Delta designed to carry water in summer for the purposes of irrigation. In 1819, the Mohmoudia Canal, was built, joining Alexandria to the Nile at Atf, thus providing an outlet for the export of crops to Europe by way of Alexandria.

During this period, too, the new army of fellahin was started, and large-scale industry introduced.

In the short period of peace after 1820, the reforms introduced were carried on apace. The irrigation works in the Delta were rapidly extended, every possible effort was exerted to increase agricultural production and—event of capital importance—the cultivation of cotton on a large scale was undertaken. New factories were opened. The army and navy were increased. A great fleet was built up, with ships bought from abroad. The increased power at the command of the Pasha was revealed in the war

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in Greece, 1824-1826. It was during this war, under the stress of war conditions, that he was able finally to impose his new system of administration and monopoly on all branches of the economic life of the country.

After the disaster of Navarino, in 1827, where his fleet was destroyed, and the evacuation of Morea, there was a period of calm and relative prosperity. Mohamed Ali used it to undertake a big programme of development of public works destined to extend the cultivated area, to increase agricultural production and to develop his industries. In Alexandria, the Arsenal was established. The monopoly system was extended to crops consumed in the country itself. Hitherto the agricultural monopolies had been aimed at crops to be sold to foreign merchants, or in the towns.

The brief period of peace and prosperity soon gave way to war. In the first Syrian campaign, 1831-1833, all efforts were again directed to the prosecution of the war. During the war, as usual at such periods, finances were strained and various expedients were resorted to in order to obtain money. The salaries of government officials fell in arrears ; loans were obtained from merchants on the security of crops for future delivery.

The successful termination of the first Syrian campaign, in 1833, was followed by a great burst of economic activity. In the great year of projects, 1834, work was started on two huge schemes, the Delta Barrage and the Cairo-Suez railway, neither of which, however, was destined to be completed for many years. In the same year a currency reform endowed Egypt with a system of national currency. The next few years saw a big increase in agricultural production and trade, though there was a commercial crisis in Alexandria in 1837, as a result of a sudden fall in the price of cotton.

This second period terminated with the second

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Syrian campaign in 1839-1840, the coalition of European powers against Mohamed Ali and the Treaty of London. The political aspects therein involved do not concern this study, except that in so far as the political status of Mohamed Ali as hereditary ruler of Egypt was formally established, an end was put to the strained conditions which had so markedly affected the economic progress of the country in the earlier period. His army, which by 1840 had risen to 200,000 men, was reduced to 18,000.

The Treaty of London, however, had most important economic effects. In particular, it made effective a commercial convention, passed in 1838, between England and the Porte. This convention allowed foreign merchants to enter freely into all parts of the Ottoman dominions, Egypt specifically included, and to buy from the inhabitants, the products of the soil and industry of those regions. The application of this treaty meant the collapse of the whole system of monopolies erected by Mohamed Ali and a profound modification of the economic structure of the country. Henceforth the farmers were free, within limits, to cultivate what they pleased. The development of agriculture and the choice of crops to be grown became dependent upon the will of the farmers rather than the imposed orders of an autocratic government. The industries collapsed under the weight of their own top-heavy superstructure. The government, deprived of the profits drawn from the monopolies was obliged to seek for other sources of revenue, in reformed taxation. Mohamed Ali, freed from the fear of war, turned again to the development of agriculture and, at the very end of his reign, again took up the plan for the Delta barrage abandoned since 1836. A new start was made, but before it could be completed, the old Pasha died.

These are the principal features in chronological

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order, of the long reign of Mohamed Ali. The economic development of the period must be studied against this background. For greater clarity, however, it is necessary to separate out the various elements of the economic situation during that period. In the following sections we shall deal successively with land ownership, population, irrigation, agriculture, industries, communications, commerce and finance.

2. LAND OWNERSHIP

From high antiquity, the ownership of the land in Egypt was vested in the sovereign. The cultivators were merely given permission to cultivate the land and to enjoy the usufruct on payment of the land tax. This permission was a privilege, not a right, and could be withdrawn at any time.

Under the succeeding dominations, down to the end of the Greco-Roman period and the Arab invasion, the land continued to be held and cultivated in common. The land tax was levied on each village as a whole, and the people of the village were left to arrange the distribution of the cultivated area and the tax to be paid by each cultivator.

The Arabs did not interfere much with the economic organisation of the country as they found it, beyond imposing tribute on the inhabitants. But the Arabic conception of land and property, and the religious rules which they brought remained for centuries the law of the land. For our purpose, the Arab conception of landed property is particularly important. Under Hanefite law, land under Arab rule is divided into Ouchouii land, which is privileged and pays only the tithe, and Kharadj land which has to pay miri, or land tax, imposable at the will of the ruler and, in the last resort, at the absolute disposal of the ruler. Ouchouri land could only be held by Mohammedans. Kharadj land could be owned by

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either Mohammedans or non-Mohammedans. Egypt, considered to have been conquered by the sword, was held to be Kharadj land and as such, to be at the disposal of the sovereign. The former was allowed to cultivate the land ; he had even a certain right to be allowed to cultivate an area which he had reclaimed so long as he paid the taxes due, but he had no right of ownership in the land itself, he could neither sell, let, nor mortgage it and when he died he could not guarantee its succession to his heirs. The land could, at any time, be taken from him for public works without any right to compensation arising. The land belonged to the community, and by extension to the sovereign.

In one way, this was no great change. Since the days of ancient Egypt, the ownership in the land had been vested in the ruler. But whereas, in Western Europe, communal ownership gradually gave way to the rights of private property, in Egypt those rights did not develop until the middle of the 19th century. The closing of the country to outside influences that followed the Turkish invasion crystallised in Egypt the feudal system of the Middle Ages and left its economic organisation unchanged in principle, but slowly decaying through four centuries of anarchy and neglect.

This communal ownership is the mark of a backward order of society. By its very nature it is an obstacle to the development of better methods of cultivation. It keeps the farmers in a state of perpetual dependence, submerges their individuality.

In Western Europe, the breakdown of the Feudal System had led the way to the ownership of land in full possession by the cultivators, and this development was one of the main reasons underlying the improvement of agricultural methods and the increase of production. These changes were spread over a number of centuries. In Egypt, the same develop-

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ments took place in the first three-quarters of the nineteenth century. The development of private ownership of land must be counted as one of the major economic features of the century.

Under the Turkish rule, the custom had developed of farming out the collection of the land tax to the Mameluke beys, each of whom made himself responsible for a certain number of villages. In course of time, this concession became a family privilege, handed down from father to son. The holder of the privilege—the Moultczim as he was called—was allowed a certain area of tax-free land, called Wissiya land, and had the right to corvée the peasants of his district to cultivate this estate. As the Iltizam (concession) came to be considered hereditary, the estate became the private property of the family of the Moultezim.

Another privileged category of landowners were those who had been granted " Rizka " estates. These were gifts of land, made in the name of the Sultan, to various officers and high officials. The land thus granted was exempted from payment of the miri or land tax.

Another large group of tax-free land was that formed by the creation of wakfs, or religious foundations. Land constituted as " wakf " could not be alienated. The government had no power over it, and as the revenues of the wakf could be constituted to the benefit of a particular person or members of a particular family, it was a method frequently adopted by rich men to provide for their dependants without fear of the government seizing the estate.

Mohamed Ali abolished practically all of these privileges. He dealt first with the system of farming out the collection of land taxes. This system lent itself to the greatest abuses, and but a fraction of the taxes originally taken from the fellahin eventually reached the treasury. In 1808, Mohamed Ali requested

the Moultezims or tax-farmers to state the annual profit they gained from their concessions. Fearing that he intended to demand from them an increased contribution they estimated their profits as low as possible. This was exactly what the astute ruler had foreseen ; he decreed the abolition of the Iltizams and granted the Moultezims a life-pension (Faiz), based upon their returns of profits. He then arranged for taxes to be collected direct by government agents.

This operation was exceedingly profitable to the government. Within a few years, most of the Moultezims had died, and their pensions were extinguished. It left Mohamed Ali free to reform the land tax itself, and to assure the regularity of its perception.

When he abolished their concessions, Mohamed Ali left to the Moultezims their Wissiya estates. After the final defeat of the Mamelukes however, in 1811, he confiscated the private estates of the Mamelukes and at the same time took from the Moultezims their Wissiya estates. Those in Lower Egypt were paid an annual life pension as indemnity for their loss. In Upper Egypt however, as punishment for the rebellion which had taken place there, no indemnity was granted to the dispossessed owners.

Mohamed Ali had thus become the owner of practically all the land in the country. In 1814, the last titles to land fell into his hands. In the meantime, in 1813, he instituted a general cadastral survey, and ordered the cultivated land to be divided between the farmers. The holding of each farmer—from three to five feddans on an average—was then inscribed in his name on the official registers.

In doing this, no ownership was granted to the farmers in the land itself. On the contrary, it was definitely laid down that the ownership of all the land was vested in the government. The farmers were given the ownership in the usufruct of the land (the crops they produced), and not in the land itself.

Thus they had no right to sell or mortgage the land, and the state retained the right to expropriate land without giving compensation.

At the same time, the fact that each farmer had his cultivated area inscribed in the official registers and the acknowledged right to the usufruit of the land, was already a step in the direction of individual ownership. For when a farmer has a right to the usufruit, he can arrange for its sale in advance, or borrow money against future delivery of crops, or he can allow another person to replace him in cultivation and take part of the usufruit for his labour. In such cases, in practice it rapidly becomes difficult to disassociate the usufruit itself from the land upon which it is produced. Such agreements lead to a condition of affairs which approximates very closely in fact, if not in law, to actual ownership, and this development was actually taking place throughout the reign of Mohamed AH. It was held back for a time by the application of the system of agricultural monopolies which obliged the farmers to deliver their crops at fixed low prices into the government storehouses, but even this, though it weakened the value of the concession, did not affect the legal principle involved. The government *bought* the crops ; It did not, as in the days of the Mamelukes, merely seize them. It is true that the price given was far below the market price, but in principle the farmer remained the owner of the crops he grew.

After 1840, the breakdown of the monopoly system led to a big development of transactions involving the transfer of land, and of mortgage loans on the security of crops. In 1846 these developments were legalised by a decree which gave the holder of a piece of land the right to mortgage his land, or to transfer it to another person by a certificate (*hodga*) of the Sheikh el beled, or by oral transfer in front of witnesses. (The great majority of the

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agricultural population were, of course, unable to read or write.) A tenant could be dispossessed for non-payment of taxes, but could regain possession of his land on payment of arrears.

In the meantime, Mohamed Ali had, himself, affirmed the principle of ownership in land by granting, from about 1829, areas of uncultivated land to rich notables in full ownership and free of tax for a period of ten years, on condition that the land was brought under cultivation. The land thus given was known as Abadich land. A few years later, he attempted to prohibit the transfer or sale of such land outside the family of the original owner, but he had to withdraw the prohibition.

Some of the concessions of Abadich land were made to rich foreigners. This, strictly speaking, was in opposition to the capitulations which forbade foreigners to become the owners of land, but allowed them to enter into Ottoman dominions and engage in trade. It was, however, in accordance with the growing practice of the period, not only in Egypt, but in other Ottoman countries. Mohamed Ali emphasized the right to ownership by delivering a taxit, or certificate of ownership, to the foreign holders of Abadich land. The right of foreigners to hold land was finally confirmed by Imperial Decree from Constantinople in 1867, which authorised foreigners to possess land in all dominions of the Ottoman Empire.

3. POPULATION

Throughout the reign of Mohamed Ali, there was a shortage of agricultural labour. The low state into which the population had fallen, the wasteful methods of irrigation, the drafting of men into the army, the navy, the factories and the arsenal and the annual corveés to which they were liable, left

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insufficient labourers for the increasing needs of agriculture.

In 1800, the population was estimated at 2,460,200. In 1821, at 2,536,400. Neither of these figures claims to be more than an estimation, but it does not appear that there was much increase in these 20 years. In the next thirty years, however, the population nearly doubled. In 1847, it was 4,476,440. It appears therefore, that the increase in population coincided with the development of cultivation and summer irrigation after 1820.

This increase is all the more remarkable if it is remembered that from 1820 to 1840, a large proportion of the young men of the country were away from their families, serving in the armies, navies or factories of the Pasha, and moreover, that plague and disease carried off large numbers every year. Small-pox was virulent and killed a great part of the infant population. (A slave marked by small-pox brought a higher price in the slave market than one who had never had the disease.) Bubonic plague and cholera too, raged unchecked. There was an epidemic of plague every 10 or 11 years—in 1813, 1824, 1835. In 1835, the plague carried off one-quarter of the population—some 800,000 persons.

Up to 1840, the highest estimates of population did not exceed 3,500,000. It thus appears that there was a rapid increase after 1840. This is probable, in view of the return of the soldiers and workers to their homes, and the lightening of the burdens upon the people, as Mohamed Ali's campaign for independence came to an end, and his monopoly system and industrial experiment were likewise terminated.

The drain on the population for service in the army, the factories and the corvée was very considerable. The army of fellahin, built up after 1820, increased from 19,000 men in 1823 to 90,000 in 1826, and 200,000 in 1840. A further 20,000 men were

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in the navy and another 30,000 in the state factories. In 1819, 300,000 men were corvéed to build the Mohmouclia Canal. Clot Bey estimates that after 1825, 355,000 men were employed for 4 months every year in digging out the canals and other irrigation works. Between the corvée, the army, the factories and the plague, one wonders how the agricultural work was done at all. In fact, travellers of the time have left on record, that in travelling through the villages in the spring there were no able-bodied men to be seen—nothing but women and children and old men.

This shortage of labour was still further intensified by large-scale desertion from the villages. To escape from military service or from the payment of taxation beyond their resources, thousands of farmers left their villages. In 1830, 6,000 peasants fled from Sharkia and took refuge with the Pasha of Acre. From time to time, as in 1826, 1831, and 1836, Mohamed Ali sent soldiers to round up the fugitives in the big towns and fringes of the Delta and sent them back to their villages. In 1831, for example, an order of Mohamed Ali stated that 10,000 had been seized in Alexandria and another 5,000 were being seized.

Two striking aspects of population in this period are worthy of note. In the first place, the population of Alexandria, passed from some 15,000 in 1800 to 143,000 in 1848. (Cairo in the same period passed from 263,700 to 253,500.)

Secondly, there was a notable increase in the foreign population, particularly in Alexandria. At the time of the French invasion, there were probably not a hundred Europeans in Egypt. During the reign of Mohamed Ali, however, there was a large influx of foreigners. Many of them were brought to Egypt by the Pasha himself, to serve in his factories, his army and navy, as doctors, engineers, surveyors,

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etc. A great many of these were French. Others came in the wake of the great commercial development. After 1820, English, French, Austrian, Tuscan, Swiss, Greek and other business houses were rapidly established. As the sales of agricultural produce for export took place in the government warehouses in Alexandria, most of these foreign merchants established themselves in Alexandria, round the new Mohamed Ali square.

4. IRRIGATION

"In no other country," said Napoleon, "does the prosperity and welfare of the inhabitants depend so directly upon the government as in Egypt." He referred to the fact that in a country such as Egypt, all agriculture depends upon irrigation, and by their very nature, the irrigation works of the country must be constructed and organised on a single plan, designed to serve the needs of the whole country, a task that can only be undertaken by the government. At the same time, the just and equitable distribution of water can only be efficiently assured when directed by a strong central government.

The ancient rulers of Egypt covered the whole country with a network of basins, surrounded by great banks of earth and fed by canals. Over the greater part of the land, one winter crop only could be grown, as the land was too dry in summer to allow of further cultivation. Near the Nile or its canals, however, or where well water was available, it was possible for the farmers to grow crops in spring and in summer. In the Fayoum too, where the water supply was obtained from the Bahr Youssef, cultivation was possible all the year round.

This age-old system of irrigation was still the basis of the agricultural organisation of the country

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when Mohamed Ali came to the throne. According to modern standards, it was a wasteful system, limiting as it did, the period of cultivation to one-third of the year. Apart from this defect, however (which, it must be admitted, was partly compensated for by the greater ease of cultivation and the constantly renewed fertility of the land), the system itself had been neglected for centuries, the banks of the basins were in disrepair, breaches made by the floods had not been repaired, many of the canals had been allowed to silt up, so that, at its best, the irrigation was halting and imperfect.

The irrigation works of Mohamed Ali may be divided into three main developments :

First.—In the early years of his reign, he put in order the existing irrigation system. The banks around the basins were strengthened, breaches were repaired, canals were re-opened.

Secondly.—Following the development of summer crops after 1816, and particularly of cotton, after 1820, he conceived the plan of converting the Delta from basin to perennial irrigation by covering it with a network of canals deep enough to hold water in summer and numerous enough to supply the whole area with summer water. The conversion of the land from basin to perennial irrigation which he thus inaugurated has since been extended to cover almost the whole country, and has proved to be one of the most important features of the economic development of modern Egypt.

From about 1820, then, Mohamed Ali began to construct numerous canals in the Delta. The construction of these canals was an enormous undertaking for a country with a population of only two and a half million inhabitants, especially when it is remembered that after 1820, a large part of the able-bodied adult male population was away in the army, the navy or the factories of the Pasha. The canals had fre-

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ciently to be dug to a depth of six metres or more in order to receive the summer water. Nor was this the end of the difficulty, for even when the water could be persuaded to run along the canals, it was far below the level of the land, and had to be *lifted to the fields by the "shadoof" or "sakia," thus adding greatly to the cost and difficulty of cultivation, and a large part of the agricultural population had to be engaged in raising water to the fields.

To get over this difficulty, the *third* stage of development was started—the attempt to raise the level of water in the canals. From 1825, barrages or regulators were built across the irrigation canals in the Delta to hold back the water and so raise its level. In this they were partly successful, but, the flow of the water being thus stopped by the regulator, the mud held in suspension dropped to the bottom of the canal where it formed a layer sometimes several metres in thickness, so that in the following summer, unless the accumulated mud had been cleaned out in the spring, the canal was dry. Every year, therefore, an army of workmen had to be taken from the villages and put to work to clean out the mud from the irrigation canals. After 1825, 355,000 men were employed for 4 months every year in cleaning out the canals and other irrigation works. To reduce this enormous waste of labour, Mohamed Ali adopted the proposal to build a huge barrage right across the Nile where it bifurcates at the head of the Delta, and to supply the whole of the Delta from great canals taking their source just above the barrage, where the Nile water would be raised to its highest level. In 1834, a start was made, under the direction of M. Linant, and masses of materials and workmen were collected. Two years later, however, the project was abandoned. There were too many other things urgently requiring attention, and the Pasha had not *the*. money. nor the men, for them all. In

1847 a fresh start was made, this time a little lower down the river, under the command of Mougel Bey, and at the same time three great canals were commenced, to distribute water to the provinces of Behera, Menufia and Sharkia. Two hundred thousand men were gathered and employed, but before the barrage was completed, the old Pasha died.

Until the end of his reign, therefore, and indeed for long after, until near the end of the century, the annual clearing of the canals and the lifting of water continued, with all the waste of labour and expense that this entailed. At the same time, however, the new system of perennial irrigation, incomplete and imperfect as it was, led to far reaching changes in the agricultural system of the country, and a notable increase in production, foreign trade and wealth. Under the new system two or three crops per annum could be grown. Profitable summer crops, such as cotton, indigo, flax, rice, were cultivated on a wider scale. The winter crop of cereals still provided the food supply of the nation and usually left a surplus for export, but the bulk of the exports came to be made up, more and more, of these more valuable summer products, particularly cotton.

Mahmoudia Canal.—Two other developments in this period must be noted. The Mahmoudia Canal, Duilt in 1819, under the supervision of Osman Bey Nour el Din with 300,000 workmen, though not built primarily for irrigation purposes—it was constructed to provide a navigable waterway and fresh water to Alexandria—did in fact, enable land on either side to be cultivated. Much more important, however, was its use as a means of transport, enabling the greatly increased surplus agricultural products to be carried to Alexandria for export abroad.

Nile Banks.—The other development was the building up of the Nile banks. Until that time, a high Nile flood was a benefit rather than a disaster. For

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centuries the fear of a low Nile had been a constant menace. A high Nile, on the other hand, though it might overflow its banks and do a little damage here and there, for the most part poured its water on to fallow, uncultivated land and the small damage suffered was amply compensated by the increased crops of the following winter. Under the new system of perennial irrigation, however, an overflow of water would pour into areas of cultivation, destroying the crops on the land and causing heavy loss. This, in fact, is what happened, as in 1829, when a high Nile did damage to crops estimated at three million dollars and ten years later, in 1839, when a particularly high flood caused damage said to be over ten million dollars. To guard against these floods, the Nile banks had to be built up and strengthened. In one year the Nile banks from Gebel Silsila to the sea were built up, 200,000 men being employed on the work. Even so, the clanger of a high flood was not altogether avoided. Serious floods occurred till near the end of the century, and to this day, a particularly high Nile is still a menace.

5. AGRICULTURE

The chief features of agriculture in the reign of Mohamed Ali were : the increase in the cultivated area, despite the shortage of agricultural labour ; the imposition of government control of all land, and the government monopolies of different crops ; the detailed personal supervision of Mohamed Ali ; the increased agricultural production ; and the development of summer crops, and particularly of cotton.

Increase in cultivated area.—At the time of the French invasion, the cultivable area was 3,217,671 feddans. When, in 1813, the cultivated lands were surveyed, the total cultivated area was found to be 3,054,710

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feddans. In 1824, the cultivated area was estimated at about 3,000,000 feddans ; in 1835, at 3,500,000 feddans, in 1840, at 3,856,226 feddans, and in 1852, at 4,160,169 feddans. Part of this increase of a million feddans in the reign of Mohamed Ali is accounted for by a reduction in the size of the feddan, but after 1820, there was a progressive increase in the area under cultivation, an increase due, in large measure, to the development of irrigation and partly to the efforts of Mohamed Ali to bring under cultivation the areas of uncultivated land by making plantations, as at Wadi Toumilat, or giving waste land free of tax for a certain period, as he did from 1828 to 1840, with the so-called Abadieh land, on condition that the land was reclaimed and cultivated.

Shortage of labour.—This increase in the cultivated area is all the more remarkable in view of the shortage of agricultural labour during this period. The larger part of the able-bodied agricultural male population was away in the army, navy or factories of the Pasha, and every year all the able-bodied men who remained were taken for three or four months a year to clean or build irrigation canals. At such times, there were only women, old men and boys left in the villages. Mohamed Ali himself, tried to overcome this shortage of labour by importing blacks from central Africa to work on the land, but without success. He ordered the fellahin to marry their children, to increase the population. Time after time he rounded up fugitives and sent them back to the fields to work.

Government Control.—In 1808, Mohamed Ali suppressed the Iltizams and gave the Moultezims a life pension in place of their concessions. In 1811 and 1812 he confiscated the land of the Mameluke Beys. In 1814, the last titles to land fell into his hands. The ownership of all the land of the country had reverted to the government. In 1813, to attach

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the peasants more firmly to the soil, he granted to each of them the usufruct (product) of a certain area of land against payment of miri or land tax, but the ownership of all the land remained vested in the government.

Having thus gained control of the land, he next turned to its cultivation. Behind all his policy of cultivation was the deep-rooted commercial instinct of making profit. The relative profit to be gained at that time from the different crops is indicated by the following table, based on figures collected by Girard at the time of the French expedition to Egypt.

RELATIVE PROFIT OF THE PRINCIPAL CROPS. 1800
(per 10 Feddans)

Crop	Expense of Cultivation	Value of Crop	Profit
	Patak ¹	Patak	Patak
Sugar ..	803	2010	1207
Indigo ..	961	1504	543
Rice ..	908	1222	314
Cotton ..	374	534	160
Linseed (flax)	166	417	251
Onions ..	68	235	167
Wheat ..	52	200	148
Beans ..	35	162	127
Trefoil ..	18	136	118
Barley ..	28	85	57

The above figures show that sugar, indigo, rice, cotton and flax were the five most profitable crops. The cultivation of these crops was limited, however, by two important factors : in the first place, all of these crops were summer crops and could only be grown where summer water was available ; in

¹ Note on currency. The money of account at that time was the patak or rial. This was fixed at the value of 90 bara, 40 of which went to the piastre. See later section on currency for further details.

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the second place, as will be seen by a glance at the first column, the expense of cultivation was much higher in the case of these crops, chiefly owing to the cost of watering the land during the summer. As a result the cultivation of these articles had been left to the rich beys and notables, and the common farmer grew only the cheaper, winter crops : wheat, barley, beans, maize and trefoil, which had the further advantage of supplying his immediate requirements of food for himself and his animals, whereas cotton, rice, sugar and indigo were grown for sale rather than consumption by the farmer.

To the Pasha, however, these summer crops had a double advantage. In the first place they were more profitable, and in the second place they could be sold to the foreign merchants and thus provide funds, and none better than Mohamed Ali knew the truth of the adage " P argent fait la guerre." He gave orders that these summer crops were to be grown wherever possible. He lent the farmers the necessary seeds and advanced funds to cover the cost of cultivation ; he sent his agents round to every village to see that his orders were carried out. When the crop was ripe, the farmers had to deliver into the government warehouses a sufficient quantity of their crop to repay the advances made and to pay the miri, or land tax. The value of the crop thus received was calculated, not at the market price, but according to a fixed tariff laid down by the government.

The greater part of the crops of the country thus passed into the warehouses of the Pasha at prices far below their market value. The crops thus collected were used for the needs of the government, to supply the army, to provide raw materials for the industries, and the surplus was sold for export, realising a very handsome profit for the government.

The Pasha's next step was to gather the whole of this lucrative trade into his hands by declaring

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these crops government monopolies, and decreeing that the entire crop must be sold to the government at the fixed tariff. In this way, cotton, rice, sugar, linen, indigo, flax, linseed, oil of sesame and other vegetable oils, beeswax and honey, were all declared government monopolies between 1816 and 1820, and opium, aligan and other crops were added in the next few years, until the whole agricultural production of the country was concentrated in the hands of the Viceroy, who thus became, in the words of one of his contemporaries, the sole farmer, sole manufacturer, sole landowner and sole trader of the country.

Throughout his reign Mohamed Ali devoted himself with energy and determination to the extension and improvement of agriculture. He was indefatigable in ordering, planning and controlling, and regularly toured the country, going into the smallest details of the work in progress so that, says one of the consuls of the time, " He was more like a former visiting his estate than a ruler touring his kingdom." He was ever issuing orders and instructions. His agents were instructed every year what crops should be grown, and what areas of land brought under cultivation. And he imposed his commands with a will of iron. " Let the mudirs, nazirs, etc. take care of agriculture," he wrote in an order in 1824, " or they will be buried in a common trench ! "

Truth to tell, it needed all his energy and determination to impose on the farmers the new system of cultivation. The new summer crops demanded not only more expense, but much more labour. Under the old system of communal production, the farmer had not the stimulus of private profit to encourage him to work. Mohamed Ali's reform of 1813 might have provided this stimulus had the farmers been free to sell their crops at remunerative prices, but the imposition of fixed low tariffs took away the

possibility of gain, and the farmers relaxed into their attitude of passive obedience rather than active enterprise. Mohamed AH had to impose his commands by force and threats and the farmers had to be driven to undertake the new cultivation. Cotton, particularly, was unpopular among the farmers for many years. It represented more work and expense without any corresponding benefit to the farmer, and its cultivation was only extended by the inflexible determination of the Pasha who even sent soldiers and sailors into the fields to watch over the peasants and see that they worked.

Cotton.—Cotton had long been known in Egypt, where it was used in the manufacture of hand-made cotton goods of coarse quality. Girard's figures show that even at the time of the French expedition its cultivation was profitable. About the year 1818, Mohamed Ali attempted to establish factories for the manufacture of woollen goods. The first attempt was not successful ; wool is much more difficult to adapt to machine production than cotton. A French engineer, Monsieur Jumel brought out to superintend work in the wool factory, then suggested to Mohamed Ali the possibility of developing a cotton industry, using locally grown cotton. He produced a good strain of cotton from local plants—tradition states that he started with a single plant found growing in the garden of a Pasha in Cairo—and Mohamed Ali obliged the fellahin on land near the river to take up its cultivation. As the crop increased, cotton factories were opened, one after another and a big cotton spinning industry rapidly developed.

In the meantime however, in 1821, Samuel Briggs, an English merchant in Alexandria, took a consignment of the new cotton with him to England and introduced it to the Lancashire spinners. It found a ready market. The cotton industry was increasing rapidly. Raw cotton was in keen demand and was

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fetching a good price. Egyptian exports jumped from 944 kantars in 1821 to 228,078 kantars in 1824. Mohamed AH bought from the farmers at 5 dollars a kantar and sold to merchants at from 15 to 17 dollars. At a single bound, cotton had come to be the outstanding product of the country and the main source of the government's revenue. It attracted the attention of foreign countries. Foreign merchants, particularly English, came and settled in Alexandria. It led to the great extension of perennial irrigation and summer crops and caused a complete change in the agricultural economy of the country.

Previously, the principal products had been the winter crops, and the exports of the country had been limited to its surplus supplies of wheat, barley, beans, vegetable oils and a little rice. Almost immediately, cotton took its place as the principal export of the country, though its relative importance varied greatly from year to year. Each fall in price caused a reduction in the following crop, but the next rise in price was followed by still greater production, each wave of production taking the total higher than before. In 1825, ^{over} 200,000 kantars were exported at a price of 17 rials. In the next few years its price declined to 10 rials, and the cotton exported sank to less than 100,000 kantars. After 1831, prices again rose rapidly—to over 30 rials in 1834, ^{and} which year cotton formed over 80 per cent, of the exports, and wheat, formerly the principal export of the country, had fallen to 5 per cent. Prices fell heavily in 1837 and 1839. After 1840, there was a long period of low prices, from 6 to 10 rials. In 1842, however, the government's monopoly of cotton came to an end and farmers were free to sell their crops direct to foreign merchants. In spite of the low prices ruling, the farmers appear to have found it profitable to grow cotton and its production tended on the whole to increase. In 1849, 257,510 kantars were produced and sold at

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io rials per kantar. In spite of its low price, cotton represented 31 per cent, of the total exports. The next most important export, wheat, was less than half the value of the cotton (L.E.245,200 against L.E.515,000).

The extension of the cotton crop affected the production of cereals. With the increased area of cultivated land, the cereal crop did actually increase considerably during the reign of Mohamed Ali, but not in proportion to the population. As a result, in years of low Nile, there was a shortage of cereals. Thus, in 1824 ^and 1825, Mohamed Ali had to prohibit the export of cereals, in 1836, wheat represented only 6 per cent, of the exports and in 1837 and 1838 there was an acute shortage of wheat and considerable quantities had to be imported from abroad. In good years, there was generally a surplus of wheat, barley and beans for export, but for purposes of foreign trade these winter crops were overshadowed in importance by the summer crops—rice, indigo and above all, cotton.

The cotton plant at that time was a tree which would produce cotton for many years if left in the ground. The yield and quality were best in the first three years, and usually the trees were pulled up after three years and new ones planted. Picking continued for nine months of the year so that there was barely three months between the end of one crop and the beginning of the next. The average production was probably about 2 kantars per feddan, though some observers speak of a yield as high as 4 kantars.

The cotton Maho, developed by Jumel, was a long-staple cotton, slightly brown in colour. It was developed from a plant found growing in the garden of a Pasha in Cairo, and not from imported cotton. Like every other superior variety of cotton since developed in Egypt, its quality soon began to de-

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teriorate, and a few years later Mohamed Ali introduced cotton from Ceylon. The story of cotton ever since has been the successive introduction and deterioration of one superior variety after another, with in the background, the native brown cotton, the basis of the cotton, crop to this day.

Sugar.—Under the Mamelukes, sugar had been cultivated in both Upper and Lower Egypt, and there were primitive factories in Upper Egypt for crushing the canes and extracting the juice. Under Mohamed Ali the cultivation of the sugar cane was considerably increased, especially in Upper Egypt, where Ibrahim Pasha had big estates, and extracting and refining factories were opened.

Indigo.—Before the discovery of aniline dyes, later in the century, vegetable colouring matters had an importance they have since lost. Indigo, the leaves of which give a fine blue colour, was an important crop early in the 19th century in Egypt and in India. It was one of the first crops to be monopolised by Mohamed Ali, and its production increased steadily to about 1838, but after that date it was in decline owing to the competition of cheap indigo from the plantations in India. Exports ceased, and its production was limited to the needs of Egypt.

Rice.—The cultivation of rice in the north of the Delta was extended so that, in favourable years, as much as 200,000 ardebs of rice were produced. Many factories for cleaning and polishing the rice were erected, especially at Rosetta, where a fine modern factory driven by steam was erected in 1821. For the most part the rice was grown for export, and frequently served to pay for ships or guns which Mohamed Ali bought from abroad.

Silk.—In 1815, Mohamed Ali planted 7,800 feddans in Wadi Toumilat with mulberry trees for the rearing of silkworms. There were many difficulties, but the production of raw silk increased to 8,000 okes per

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annum. In 1840, over 1,000,000 mulberry trees had been planted, but the industry tended to decline, the climate of Egypt being sometimes unfavourable to the development of the silkworm.

Flax, Linseed, and Vegetable Oils.—The area under flax was increased. It was valuable for its fibre, used in the textile industry, in the preparation of linen, and for the linseed oil provided from its seeds. Other vegetable oils, such as lettuce oil, oil of sesame and oil of carthame remained important products all through the reign of Mohamed Aii. Later in the century these vegetable oils lost much of their importance owing to the introduction of petroleum.

There were many smaller, yet important developments. Mohamed Ali was constantly endeavouring to introduce new crops or improve the old ones. He established large botanical gardens near Cairo where plants from all over the world were collected and experimented with to see if they could be grown with profit in Egypt. He had numbers of valuable sheep, cattle and goats brought from abroad in attempts to improve the strain of Egyptian animals. He employed doctors to combat the periodical ravages of cattle plague. Finally, he undertook a large scheme of afforestation and planted a large number of trees in various parts of the Delta.

6. INDUSTRIES

The few industries in existence in Egypt at the beginning of the nineteenth century were still in the gild stage of organisation. In each town, the members of each industry were organised into an association, or gild, controlled by one or more principal masters, or sheikhs. The principal industries were the textile industries—wool, cotton, silk and linen. Spinning was done by the country people and weaving was carried on in the towns. Other industries were flour

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milling, oil pressing, the manufacture of vegetable dyes, particularly saffron and indigo, and of pottery, matting, saltpetre as well as the various arts and crafts in the towns.

Government monopoly.—In 1816, having got into his hands the whole of the land of the country, and having monopolised the principal crops, Mohamed Ali next proceeded to extend government control to industry. The 16th Shabaan, 1231 A.H. (A.D. 1816), the existing industries were decreed government monopolies. The system of industry was not changed, the artisans remained in their workshops and kept their machines, but they had to take their raw materials from the government and deliver to the government their finished product at prices imposed by the government. The government reserved to itself the sole right to sell to commerce, or for consumption. Articles delivered to the government were marked with the government stamp before being sold. Any goods discovered without the government stamp were confiscated.

As the government obtained its raw materials at low imposed prices and supplied this material to the manufacturers at much higher rates, then again took the manufactured products at imposed low prices and sold them at the highest prices possible under a monopolistic *régime*, the new system proved very profitable. So profitable indeed that the Pasha thought that if he could extend it on a very wide scale he could make enormous wealth. At that time the industrial revolution was in full swing on the Continent. England, with a good start, was reaping rich rewards from the large-scale factory industry. Mohamed Ali's foreign advisers, among them Bokti, the Swedish consul, advised the Pasha to develop this new system of industry in Egypt. To the imagination of the Pasha, always easily fired by new and gigantic projects (he once proposed to run canals

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all over the country, from the Assouan **Dam**, and **thus** provide the whole country with cheap power from the falling water wherever required) the industrial project appeared to offer almost limitless possibilities of profit and development, and he undertook it with his customary enthusiasm and energy.

Woollen factories.—In 1818 orders were given for the erection of the first factory, and the following year there were two factories in Cairo, at Boulac and Khoronfish. The first factories were intended for the manufacture of fine quality woollen goods, which at that time represented the most important item of imports. In this they were not immediately successful, and some of the woollen factories were converted into cotton factories. Later, following the engagement of foreign experts and the importation of sheep from abroad, a certain amount of success was achieved, but the manufacture of fine quality woollen goods never had any permanent success, though there was a considerable extension of the manufacture of coarse woollen cloth for the needs of the army.

Other industries.—At the same time other industries were being developed. Iron foundries were built, a sugar extracting factory was started at Reremoun, a glass factory in Alexandria, arms and gunpowder were made in Cairo and a big extension was given to the indigo, oil pressing, flour milling, rice husking and other native industries.

Cotton.—The most important development, however, was the beginning of the cotton industry. Cotton as a plant had long been known in Egypt, and cotton spinning and weaving were carried on as village industries in Upper Egypt long before the time of Mohamed Ali. After the initial failure of the woollen factories, M. Jumel, one of the French engineers, suggested to Mohamed Ali the possibility of extending the cultivation of cotton and using it as the basis of an Egyptian cotton industry with the new machines

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and methods. A good strain of cotton was developed and its cultivation rapidly extended. Simultaneously a number of factories for spinning and weaving cotton were erected up and down the country ; two in 1821, four in 1824, four more in 1825, and others year by year. By 1828 one-quarter of the cotton grown was being consumed in the factories of this country ; in 1833 the annual production of cloth was 2,000,000 pics ; in 1837 50,000 kantars of yarn per annum were being produced in twenty-nine factories in Upper and Lower Egypt. For ten years or more, Egyptian factories provided the country with the greater part of its requirements of the cheaper kinds of cotton cloth.

The Arsenal,—From 1820 to 1827 Mohamed Ali built up, at great expense, a powerful fleet, with ships bought from abroad. This fleet was destroyed at the battle of Navarino. Nothing daunted, the Pasha set to work with redoubled energy to put into operation a plan he already had in mind, to build his own naval dockyard and construct his own ships. With the able assistance of M. de Cerisy, a complete arsenal was erected with foundry, workshops, rope factory, etc., which could turn out everything required to make and fit out a complete ship-of-war except for the finer nautical instruments, brass nails and cannons, all of which were brought from England. In this arsenal a formidable fleet was created as if by enchantment. Work was begun in June, 1829. Eighteen months later the first ship, a warship of 100 guns was launched, and in the next ten years ten large warships were constructed, others brought from abroad were armed and repaired and many smaller boats were built. Before 1840 the Egyptian fleet was again the strongest in the Eastern Mediterranean.

Boat building.'—The construction of canals, particularly the Mahmoudia Canal ; the greatly increased agricultural production ; the increasing volume of

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foreign trade ; and the development of the overland route, led to a great increase in navigation on the Nile, and to a demand for boats. Boulac and Rosetta became important centres of construction and thousands of boats were built for use on the Nile and its canals.

Small arms.—One of the first industries to be developed was the manufacture of arms for the use of the army. The armoury at the Citadel had been established long before the time of Mohamed Ali, but with the growth of the army there was a considerable extension of its work after 1816. A foundry was installed and the manufacture of small arms for the troops was greatly increased.

Foundries.—The development of large factories using machinery, and the need for repairs and spare parts, as well as the requirements of the army and navy, led to the opening of foundries. The biggest in the country was at Boulac, where in 1820 a foundry was erected by an Englishman, Mr. Galloway, for many years chief engineer to the Pasha, in which tactically every kind of ironwork could be undertaken. It contained eight furnaces and could turn out 50 cwts. of melted iron a day. Machines, tools, spinning machines, weaving looms, even steam engines could be made or repaired there. It was said to be an exact replica of a big London foundry owned by Galloway's father.

Tarbouches.—In 1824 a factory was opened at Foua for the manufacture of tarbouches. The factory was under the control of a Tunisian, the wool used was from fine quality Spanish sheep specially imported, and the tarbouches produced were of good quality. These were used for the army and navy, and the surplus was sold in the country and even exported to neighbouring countries.

Silk.—Mohamed Ali made great efforts to extend the silk industry. He planted the Wadi Toumilat

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with mulberry trees, and brought workmen from Syria for the silk industry. There were factories at Darb el Gamamiz, Boulac, Rosetta and Mansoura. The silkworm, however, did not thrive as well as was hoped, and raw silk was again an important import by the end of his reign.

Linen.—The linen industry, in common with the other textile industries at this period, was considerably extended. Linen cloth was required for the sails of boats, both by sea and on the Nile. After 1830, 3,000,000 pics per annum of linen cloth were being produced. Most of the cloth was hand-made.

Cotton ginning and pressing.—Previous to 1820, cotton was ginned by primitive machines turned by hand. One man could gin six to eight rotl of cotton per day ! The big extension of cotton after 1820 called for bigger and more modern machines, and from 1822 a number of ginning factories were established, equipped with the latest English machinery. At the same time, cotton pressing machinery was brought in, to press the cotton into bales ready for export.

Sugar.—Under the Mamelukes, primitive factories, with wooden rollers turned by cattle, had been in use for the extraction of sugar. In 1818 a factory was erected at Reremoun for extraction by more modern methods. Other factories were later established at Sakiet Mousa, and at Roda. These factories were only for extraction, and the juice was sent to Marseilles to be refined. In 1830 a refinery was erected at Reremoun. The sugar produced, however, was not of good quality and not fit for export.

Other industries developed in the time of Mohamed Ali included *Rice cleaning and polishing* at Rosetta, where a big steam-driven factory was erected ; the manufacture of *Indigo*, in many of the country towns ; *Oil pressing* in the villages and towns ; the *Tanning* of leather ; *Flour milling* ; the manufacture of *Glass*—two glass factories were founded, one in 1821 and

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another in 1836 ; *Paper*—a paper factory was opened in Cairo in 1834 ; *Printing*—the government press was established in 1823; and many smaller factories and workshops.

Motive power.—In most of these factories the motive power was provided by animals—bullocks, asses, or camels. There were a few steam engines, but coal was expensive and there were few mechanics capable of looking after the steam engines properly. In almost all the big cotton and woollen factories the machinery was driven by oxen. Apart from the limited power thus available, the feeding and cost of oxen was a heavy expense, large numbers of cattle were carried off from time to time by the cattle plague, and the jerky motion of the animals was responsible for frequent breakage of the machines.

There can be no doubt that when he undertook this gigantic industrial development Mohamed Ali was spurred by hopes of great profit from the enterprise. In this he was deceived. Far from being a source of profit, the industries were a drain of money and an expense as long as they continued to exist. The reasons for this may be stated briefly to have been : the high cost of machines and spare parts from abroad, the lack of suitable overseers and engineers, the apathy and discontent of the labourers, dragged from their fields and workshops to labour in the factories, the waste of raw material, the breakage of machinery, delays, confusion, even deliberate obstruction in the working of the factories. Waste and inefficiency brought up the cost of production to such a level that for the most part the goods cost more to produce than the price of imported foreign goods. In the very early years of the experiment, Mohamed Ali tried to keep out foreign goods, by imposing high import duties on them, but by Imperial decree in 1820, it was decreed that foreign goods should be allowed to enter into any part of the Ottoman dominions against payment

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of a 3 per cent, ad valorem duty, and the consuls saw to it that this decree was not violated. The locally produced goods had to withstand the competition of foreign goods. This kept down their price and the profit on manufacture was correspondingly reduced.

Indeed it appears doubtful whether the industries were ever run at a profit. It is true that some of his accounts appear to show a profit on sale. Thus in 1837, it was stated that the cost of manufacture of cotton cloth was 49 P.T. per piece and the cloth was sold at 50 P.T. per piece. But in the accounts of the factories it appears that the calculation took into consideration only the cost of the raw material and the wages of the workmen, without any allowance for overhead charges, rent, loss of material in manufacture, interest on capital and depreciation of machinery, plant and buildings. When properly established by an expert economist, the account showed that even cotton goods were being produced at a loss. Dr. Bowring found in 1838 that cotton cloth produced in Egypt cost 8.7 piastres per yard, whereas English cloth of the same quality could be bought in Egypt at 71 piastres per yard. Even this did not take into account the enormous cost of new factories, machinery, spare parts, to say nothing of the restriction of agriculture because of the men employed in the factories. From 1830 to 1840, over 30,000 men were constantly employed in the factories and another 5,000 in the arsenal.

The defective system of accountancy in the factories and central administration, by omitting to take into account any but the immediate costs of material and labour, gave an illusory appearance of profit to many of the factories. Even this semblance of profit, however, could only be maintained by the fact that the raw materials were obtained at prices far below their real value through the operation of the agricultural monopolies. The end of these monopolies,

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by raising the price of raw materials to their real value, took away the last semblance of prosperity from the factories.

In 1838, a Commercial Treaty was signed between England and the Porte, by which English merchants were given the right to enter into any part of the Ottoman dominions and buy from the natives the products of the soil and industry of the country. This was a blow at the system in Egypt, where, under the monopoly system of Mohamed Ali, the farmers and manufacturers were forbidden to sell their products to anyone except the government. The articles of the Treaty expressly stipulated its application in Egypt, and it was undoubtedly designed to break the monopoly system which was considered to have given such profits and power to Mohamed Ali.

The application of this Treaty meant, inevitably, the collapse of the system of monopolies and with it, the final breakdown of the industrial system. For a few years Mohamed Ali was strong enough to defy the decree and it did not come into operation in Egypt until 1842. In the meantime, however, the industrial system had begun to collapse. The strain of the expense had become too heavy to bear and its ultimate failure became evident even to the Pasha. In 1840, in his final effort for independence, many factories were closed to save expense, and thousands of workpeople were conscripted into the army. In the same year, orders were given that all factories that could not show a profit on their operations were to be closed down. Many of them were closed immediately ; others dragged on for a few years. The application of the 1838 Treaty, in 1842, completed their ruin. One after the other the factories were abandoned. A few years later all that remained of the vast industrial structure, which had cost millions to erect, was a quantity of rusting machinery in old, deserted buildings scattered here and there throughout

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the country. The attempt to make Egypt an industrial country had failed.

Its failure was perhaps inevitable. The attempt to impose upon a primitive agricultural and guild economy a totally new system of industrial production was bound to meet with very great obstacles that could only be overcome by the determined and enlightened efforts of a class of capitalist employers spurred on by the incentive of private profit. That class, and that incentive were lacking in Egypt. Under the system imposed by Mohamed Ali, all the profits were reserved to the government ; the managers of the factories were, for the most part, salaried government officials, ignorant and unenthusiastic about the work they were called upon to do. The machines imported were still novelties and enormously expensive, while few, very few, in Egypt had mastered the new machine technique.

In addition, the attempt ran directly counter to the prevailing economic trend and policy of the period. This was setting strongly in the direction of free trade on the broadest lines. Under the lead of England, there was a widespread belief that international prosperity was best achieved by national specialisation and interchange of products ; industrial countries, such as England, found that their interests could best be served by making use of their resources of coal and iron in industrial production on a large scale. This was only possible, however, if, on the one hand, they were able to obtain supplies of raw materials, and if, on the other hand, they were able to dispose of their manufactured goods in foreign markets. The two went together ; a country such as Egypt, it was said, would find its greatest prosperity in growing and exporting cotton, for which it had great natural advantages, and importing manufactured goods which could be made cheaper in specialised industrial countries than at home. It was this policy which

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led on the one hand to the remarkable development of transport in the nineteenth century, designed to open up foreign markets and sources of supply by linking them by railway and steamer to centres of production, and on the other hand to the conclusion of a large number of commercial conventions, designed to promote international commerce by free-trade agreements. It was for these reasons that the industrial policy and the monopoly system of Mohamed Ali were constantly the subject of attacks, and, as we have seen, were finally broken down by the operation of the Convention of 1838.

In the meantime, the new system of industry had led to the breakdown of the older system. When the factories were established, the existing industrial workers were taken from their workshops and set to work in the factories. Fellahin, too, were press-ganged for work in the factories. The older system of individual craftsmen, organised in guilds, gave way to the factory system of groups of wage-earning employees. The guild system broke down and those guilds which continued no longer had their old authority. Under Said Pasha the right of the sheikh to inflict fines or corporal punishment was taken away and finally, in 1882, the last remaining guilds were definitely abolished.

The breakdown of the factory system, the destruction of the guilds, and the failure of the experiment led to the discredit of industry in Egypt and to a long-enduring prejudice against industrial development in this country. It was not until the War brought home forcibly the extent to which Egypt depended upon imported industrial products that any serious attempt was made to extend Egyptian industries. In the meantime, such industries as had grown up in connection with the preparation for marketing or conditioning of local products had been very largely developed on foreign capital.

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7. COMMUNICATIONS

Transport in 1800.—At the beginning of the 19th century there were no roads, and no wheeled vehicles in Egypt. The carriage of Napoleon is said to have been the first wheeled vehicle in modern Egypt. The streets in the towns were so narrow and ill-paved that, in any case, the use of carts would have been impracticable. Transport by land was all done by animals, chiefly, of course, camels and donkeys. The development of the stage-coach, and of paved roads, which took place in northern Europe in the 17th and 18th centuries and provided quicker and more regular means of locomotion, had no counterpart in Egypt. The insecurity in the country was so great that travellers by land were constantly liable to attack by bands of marauders. It was not possible to visit the pyramids near Cairo without a regiment of soldiers for protection. Travellers by land gathered in caravans for mutual protection. As far as possible, long distance journeys were made by water. The Nile has always been the great highway of commerce in Egypt. From the cataracts of Aswan to the Mediterranean and southwards to the heart of Africa, the Nile offers a broad, navigable waterway passing through the heart of the country, with an easy-flowing current to the north. Its value as a means of transport in Egypt is enhanced by the fact that the prevailing wind in the Nile valley blows from north to south, that is, in the opposite direction to the current, so that sailing boats, having been carried down the stream to the north by the current, can usually count upon the prevailing wind to help them in their return journey to the south. Even here, however, there were dangers. Savary in 1800 reported : " The Nile is full of pirates who attack and decapitate unwary passengers and carry off their belongings."

Transport by sea.—Transport by sea was by sailing

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ships. Voyages were long and uncomfortable and the ships were small, a few hundred tons at the most. In normal times it took three weeks to a month to come from Marseilles to Alexandria, but in bad weather it might take twice as long. The Mediterranean ports of Egypt were Rosetta, Damietta and Alexandria. Only vessels of less than two hundred tons could enter the harbours at Rosetta or Damietta, and ships coming from Europe usually went to Alexandria. The canal that had formerly connected Alexandria to the Nile had been allowed to fall into disuse, however, and Alexandria was a mere vestige of its former self. Travellers and goods for the interior were transhipped at Alexandria into small ships of 50 to 100 tons and sailed round to Rosetta—a disagreeable and even dangerous voyage in bad weather. An alternative way was to hire camels and ride across the Delta to the Nile, but here, in addition to the expense and the discomfort of the journey, was the danger of attack by bandits.

Restoration of law and order.—In the first few years of his reign, Mohamed Ali ruthlessly put down disorders and punished attacks on travellers so that the country soon became as safe for travellers as it had hitherto been dangerous. "As safe as Yorkshire," one traveller of the time describes it, "and much safer than many parts of Ireland." This pacification made possible the subsequent development of communications and of commerce.

The Mahmoudia Canal.—The next important development was the building of the Mahmoudia Canal in 1819. The economic importance of the Mahmoudia Canal to Egypt has been enormous. In the first place it made possible the regeneration of Alexandria. (It is a striking coincidence that the two men most closely connected with the history of Alexandria—Alexander the Great, who built it in 331 B.C., and Mohamed Ali, also called the Great, who rebuilt it

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in the 19th century—were the two most remarkable men who ever ruled this country.) It was a stroke of genius to give Egypt a deep, well-situated port, facing the European countries and the West, connected with the interior by a navigable waterway, just at the moment when the country was on the threshold of a great development of agricultural production and of foreign trade. It is quite certain that, without the Mahmoudia Canal and the port of Alexandria, the commercial development of Egypt would have been cramped and stifled.

The plans for the Mahmoudia Canal were drawn up in 1817. It is said to have been suggested to Mohamed Ali by Mr. Briggs, an English merchant of Alexandria, and one of the chief commercial agents of the Pasha. The canal was built in 1819, 300,000 workmen being employed. The work was controlled by Osman Bey Nour el Dine, and the Canal was opened to navigation by Ibrahim Pasha, eldest son of Mohamed Ali, who had recently returned from his successful campaign in Arabia. It joined the Nile at Atf, where there was a sluice which separated it from the river, and passengers to Cairo had to change boats there.

Increase in river traffic. The development of commerce after 1820, the great extension of cotton cultivation, the increase in foreign trade, and the development of the overland route through Egypt to India were all helped by the existence of the Mahmoudia Canal. The combined result of all these developments was a great increase in traffic on the Nile and its navigable canals, and a great increase in the number of sailing boats on the Nile. The government itself owned hundreds of Nile boats.

The coming of steamships.—The next important development was the growth of steamships. The development of steamship lines connecting Egypt with Europe on the one hand, and India and the Far

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East on the other hand, was to have far-reaching economic and political consequences. The application of steam to methods of transport was perhaps the most important economic event of the nineteenth century. The economic development of modern Egypt can be practically summed up in the two words, irrigation and transport.

Egypt was one of the first countries in the world to be served by regular lines of ocean-going steamships. Whereas the big development of passenger steamship lines on the Atlantic did not take place until 1840, the proposal to use steamships between Suez and Bombay went back to 1830, and a regular service had been in operation since 1834. This service formed part of the development of the so-called "Overland Route" to India.

The overland route to India.—From the beginning of the century, the ancient trade route from Europe to the East through Egypt was being re-opened. The rapid extension of the power of the East India Company at the end of the 18th and beginning of the 19th century was the most important factor in this development. As a result of this extension, a constantly increasing number of officials, mails and goods were travelling between India and Great Britain. The long sea journey round the Cape of Good Hope took from four to six months. Already in the 18th century there had been attempts to re-open the way through Egypt. With the pacification of the country by Mohamed Ali, and particularly after the opening of the Mahmoudia Canal, a gradually increasing number of officials and travellers passed through Egypt on their way to India.

The usual way at that time, was for passengers to sail up the Nile to Keneh and go by caravan across to Kosseir. The shorter road via Cairo and Suez was not usually practicable because the prevailing wind in the Red Sea blew from the North for nine

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months of the year, and sailing ships were thus unable to come up to Suez.

East India Co.'s steamers, Bombay-Suez.—The introduction of steam navigation, however, made it possible for ships to advance even against the wind, and in 1830 the East India Company proposed to run a service of steamships from Bombay to Suez, to connect with other steamships coming to Alexandria from England. There were many difficulties. Ships were small ; freights were high ; the cost of coal, which had to be brought to Suez by sailing ships all round the Cape of Good Hope, was very great (£10 a ton) ; but by 1834 the double service was running, largely owing to the efforts of an energetic officer of the East India Co., named Waghorn.

Projected railway, 1834.—The result was an increased stream of passengers and goods through Egypt. The commercial possibilities of this development did not escape the Pasha, who did everything in his power to facilitate this overland traffic. Among other things he helped to organise a service of camel transport of coal across the desert from Cairo to Suez that brought down the price of coal in Suez to £3 a ton. In 1834, ^{he} proposed to build a railway from Cairo to Suez to avoid the discomfort of the journey by camel across the desert. His engineer, Galloway, surveyed the route, and reported that a line for carriages, to be drawn either by animals or steam engines, could easily be constructed. The Pasha's reply was both interesting and characteristic. " It is my wish," he said, " that steam engines be employed because of the greater speed," and sent Galloway off to England to buy the rails and make the necessary arrangements. It was understood that the Cairo-Suez railway would be followed by another one from Cairo to Alexandria.

This railway, if built, would have been the first out of Europe and one of the first in the world. (The first passenger railway in England—the Stockton and

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Darlington railway—had opened not ten years before, in 1825, but the big " railway boom " did not come until the forties.) As it happened, however, these ambitious projects were not carried through until twenty years later. The Pasha found it impossible to pay at the same time for all the schemes he had on hand. His army, his navy, his factories, schools, irrigation works, etc., etc., were absorbing all his revenues, and on top of this the two huge projects of the Delta Barrage and the Cairo-Suez railway competed for attention. At one moment it looked as if the railway would be made. In 1836 Galloway returned from London with five ship loads of rails. Before the work could be commenced, however, Galloway died. With his death the project was abandoned and for fifteen years the rails lay rusting on the coast near Alexandria.

Steamship lines on the Mediterranean.—In the meantime, steam transport on the Mediterranean was developing rapidly. An English steamship company, the Oriental Steamship Co., started a regular service to Egypt and Syria in 1836, the French " Messageries Maritimes " started in 1837 with a regular service of mail steamers between Marseilles and Alexandria, the Austrian Lloyd followed in 1838, and the P. & O. Steam Navigation Co. in 1840. In ten years the voyage from England to Egypt had been reduced from forty to fourteen days. By 1847 the Austrian Lloyd were running a weekly service to Egypt, the French three times a month, and the P. & O. twice a month. There was even an Egyptian company. In 1845, Mohamed Ali founded a steamship company for navigation between Egypt and Constantinople, and a regular service was maintained by the steamers *Boulac* and *Reshid*.

The overland route, 1834-1840.—In the meantime important developments had taken place in the means of transport in Egypt. After the abandonment of the railway

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project, attention was concentrated on the development of the overland route by water and land. Steam tugs were employed on the Mahmoudia Canal to draw the passenger barges. Hotels were built at Alexandria, Cairo and Suez, and the East India Company maintained regular agencies and an organised service for the transport of mails across Egypt. In 1840, the journey from Alexandria to Atf took 12-14 hours ; from Atf to Cairo from two to fifteen days according to the weather, and from Cairo to Suez, across the desert, in about two and a half days.

The P. & O. S.S. Navigation Co.—In 1840 the Peninsular and Oriental Steamship Company was formed. It took over from the East India Company the steamship service from Suez to India and the Far East, and proposed to run connecting services to Alexandria. Mohamed Ali gave the company every assistance ; he put in order the road from Cairo to Suez, making it fit for the passage of wheeled vehicles, and gave the company permission to establish all necessary rest-houses and stations on the trade routes across Egypt. A line of sixteen signal stations was built along the Suez road and rest-houses were established at intervals of every ten miles. Passengers were carried along the Cairo-Suez road in big wheeled carts. In 1841 and 1842 the company was authorised to run steamships on the Nile, to connect up with the boats on the Mahmoudia Canal. The time of the journey from Alexandria to Suez was thus reduced to three days. The first-class fare from London to Alexandria was £45, and it cost about £15 to get across Egypt from Alexandria to Suez.

The number of passengers increased rapidly. From 275 in 1840 it rose to 2,300 in 1845, and to more than 3,000 in 1846. The journey from London to Bombay, which took four months in sailing ships round the Cape, had been reduced to forty days by the new overland route.

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The Egyptian transit administration.—In 1844, the operation of the transit traffic across Egypt was taken over by the Viceroy and a separate government department—the Egyptian Transit Administration—was set up to control and operate the traffic in passengers and goods across Egypt. The Transit Administration continued to control the ever-growing overland traffic for some fifteen years, and the first development of railways took place under its control. The railway, however, belongs to the period after Mohamed Ali.

Economic effects.—The importance of the transport developments in the reign of Mohamed Ali can hardly be exaggerated. The development of agriculture and commerce, so marked a feature of that period, could not have been possible without the improved transport facilities for exporting cotton and other products; the greater speed and regularity of communication with foreign countries opened up the country to foreign influences and new progressive ideas; the lower cost of transport gave outlets for Egyptian agricultural products, and brought up the prices to correspond with prices abroad. At the beginning of the century wheat in Egypt cost only one-third of its price in France. This could never have happened under the new conditions of transport, as the surplus wheat would have been exported to France to get the benefit of the higher prices. The general rise in real prices that occurred during the period of Mohamed Ali is to be attributed in large part to the development of communications. This explains that the rise in prices of many products was greater than could be explained by depreciation of currency during that period. On the other hand, imported goods cost less. The imports of manufactured goods pressed with increasing severity upon the local industries after 1830, and even before 1840 a number of factories had been shut down because they could no longer be run at a profit.

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The turn of the tide.—Finally, the development of transit traffic marked the turn of the tide of international trade. For centuries this trade from East to West had been directed away from Egypt. The tide had now turned and was running strongly in this direction. Year by year the transit traffic and receipts increased. In 1840, the manager of the P. & O. Company, in a letter to Mohamed Ali, estimated at £10,000,000 per annum the value of goods that could be expected to pass through Egypt and stated that with the money paid for transport across Egypt, the amount spent in the country by travellers and the direct revenue in taxes from the overland traffic, Egypt could expect to gain 50,000 purses (£200,000) per annum. Even he could not foresee, however, the vast development of world trade that took place later in the century. At the death of Mohamed Ali, the overland traffic through Egypt had grown to a constant stream of passengers and goods in both directions between Cairo and Suez, with hotels, steam tugs, landing-stages, stage coaches and semaphore signals along the route. Egypt was once more a centre of international commerce, and found in this overland transit traffic an important and growing source of profit and power.

8. COMMERCE

The monopoly system.—Throughout the greater part of his reign the whole of the export trade and a large part of the import trade were concentrated in the hands of Mohamed Ali. The better to control the economic development of the country, the Pasha gathered into his own hands, by successive steps, the land, the agricultural products and the industries. From 1816 he monopolised, one after the other, the principal commercial crops of the country. Already, by 1821, cotton, sugar, indigo, flax, linseed, silk, rice, beeswax and honey, sesame, lettuce seed, etc., had to be

delivered to the stores of the Pasha who reserved to himself the sole right of re-sale to merchants for export. As he only allowed very low prices to the farmers and re-sold at the highest price he could get, he made very considerable profits from these monopolies, which indeed became the foundation of his financial system and the principal source of revenue, and by which alone he was enabled to pay for the upkeep of his army and navy. "The Pasha has so many soldiers," wrote the French consul in 1824, "that I do not see how he pays for them all. The new administration (the monopoly system) is the principal cause of his immense resources."

After 1821, the system was rapidly extended until the Pasha controlled the sale of practically the whole of the produce of the country. At first he had aimed only at controlling the sale of produce for sale abroad, but after 1829 he imposed restrictions on sales in the interior also, compelling the farmers to deliver to him the greater part of their cereals, and imposing an octroi duty on foodstuffs brought into the town for sale.

Prices and Profits.—From time to time, firmans were issued fixing the prices at which produce taken from the farmers would be credited to their account. The prices given in these firmans are sometimes mistakenly quoted as being the price of products at that time. In reality, they were considerably below current market prices. Mengin tells us that in 1821 the imposed price for wheat was 30 piastres per ardeb, beans and maize 20 piastres per ardeb. In selling these products, the government obtained 50 piastres per ardeb for wheat, 30 piastres for beans and 32 piastres for maize. The profit from various monopolies in the budget of 1821 amounted to L.E.340,000 out of a total budgetary revenue of L.E.1,200,000. The price of cotton to the farmers was for many years maintained at 100 piastres (5 rials) per kantar,

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while the selling price ranged from 200 to 350 piastres. In 1835, the price of cotton rose to over 600 piastres per kantar, and the price paid to the farmers was doubled. In 1836, the total profits from monopolies amounted to L.E.750,000 out of a total revenue of just over L.E.3,000,000.

Sales policies.—The accumulation of products led the Pasha to search for the most profitable methods of sale. At first he sold direct to the few foreign merchants in the country. His early cotton crops, from 1822, were sold for his account, chiefly in England, by Mr. Briggs, an English merchant established in Alexandria. The success of this cotton led to a rapid increase in the number of English merchants in Alexandria. "In 1821 there was only one" (English merchant), wrote the French consul in 1824; "already there are five, and many others are expected."

In 1826, the sales had increased to such an extent that a special department, the "Direction Generale de Commerce," was established at Alexandria under the control of Boghos Pasha, for the sale of the products of the country. All sales to foreign merchants were made from the Pasha's central warehouses in Alexandria, Cairo and Rosetta. Alexandria, by far the most important, was the place where cotton, rice, barley, maize, beans, peas and lentils were delivered to commerce; from Rosetta rice was exported; and in Cairo the other exportable products of Egypt, as linseed, indigo, senna, opium, saltpetre and natron were sold, as well as the products of Central Africa: gums, ostrich feathers and ivory and the coffee of Arabia. There were fewer products from Central Africa than before. To escape the monopolies, the Darfur caravan no longer came to Egypt but passed to the west into French territory.

The crops were collected by the Pasha's agents all over the country and directed into the main stores

in Alexandria ready for sale to the foreign merchants. The merchants were not allowed to purchase goods in the interior. The whole of the transport arrangements in the interior were in the hands of the government, which owned many hundreds of Nile boats, and frequently requisitioned all private boats on the Nile as well, when occasion required.

The system of sale adopted varied according to the Pasha's needs for money. In times of stress, as in 1827 and again in 1833 and in 1839, he obtained advances from merchants against products to be delivered from the coming crops. About 1828 he tried to establish agencies abroad for the sale of his crops direct to foreign consumers, but his agents did not prove trustworthy. From 1835, crops were offered for sale by auction in Alexandria, and by this time there were so many merchants in Alexandria and such competition that this method proved the most satisfactory of all.

Control over foreign trade.—As long as the monopoly system lasted, Mohamed Ali was, practically speaking, the sole exporter of the country, and nineteen-twentieths of the export trade passed through his hands. In 1836, for example, the report of the Russian consul stated that practically 95 per cent, of the goods exported had been delivered to commerce from the storehouses of the government.

The Pasha had not the same control over imports as over exports. When he was embarking on his industrial experiment he tried to keep out foreign competition by elevated customs dues, but an Imperial Decree of 1820 came to remind him that by international convention with the Porte, foreign merchants had the right to introduce their goods for sale in all parts of the Ottoman Dominions on payment of an import duty of 3 per cent., and the consuls saw to it that this convention was strictly observed. The application of this rule put foreign merchants in an

advantageous position, as Ottoman subjects and Rayahs had to pay higher duties.

But if the Pasha could not impose any monopoly on imports, his position as owner of all the factories in the country, as well as his requirements of materials for his irrigation works, shipbuilding and other projects, and the equipment of his army and navy made him by far the biggest importer in the country. In 1836, for example, 40 per cent, of the imports were for the account of the government.

This feature, the concentration of nineteen-twentieths of the exports and two-fifths of the imports into the hands of a single man is one of the most remarkable features of that period of Egypt's commercial history. It was bitterly attacked by the opponents of the Pasha, who accused him of ruining the country, but it proved so profitable to the government that the system was not relaxed until the pressure of the consuls forced the application of the Commercial Convention made in 1838 between England and Turkey.

By this treaty complete liberty was given to English merchants to import and sell goods in all parts of the Ottoman Empire on payment of an import duty of 5 per cent., and to buy from the producers the products of the soil or industry and export them on payment of a duty of 12 per cent. Complete liberty of trade was assured to these merchants and freedom from all taxes on the sale, purchase, or transport of the goods, except those mentioned. The Austrians, and later the other nations trading with the Turkish Empire, hastened to make similar treaties with Turkey.

Its application in Egypt.—Under the terms of this treaty, it would clearly be impossible for Mohamed Ali to prohibit the sale of the agricultural and industrial products of Egypt, and it was seen at once that its application meant the end of his monopoly system and a serious blow to his power. Until 1840, however, he felt himself strong enough to defy the Porte, and

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his monopolies were maintained. But in the Treaty of London, in 1840, it was expressly stipulated that all commercial treaties made by foreign powers with the Porte were to be respected, and, reluctantly enough, the Pasha, under the pressure of the consuls, gradually abolished his monopolies, and finally, in 1842, gave full application to the Treaty. A new era of trade was opened. Foreign merchants penetrated into the interior, buying from the farmers, and forwarding their goods to the ports for export. The farmers, with more liberty to choose the crops they would cultivate, and assured of getting something like a fair market price for their products, found that cotton, in spite of a series of years of exceptionally low prices, had a ready sale and a cash value and was, on the whole, more profitable than other crops. Sure of a reward corresponding to his efforts the farmer turned with more diligence to cultivation, and there was a general increase in production and a continued expansion in the value and quantity of the exports.

Cotton.—The astonishingly rapid rise of cotton and the way in which it became and remained the most important export product of the country is another important phase of the commercial development of that period. In 1821, the exports of cotton were negligible. Mergin gives the principal exports for 1821 as being : wheat, beans, maize, rice, indigo and silk. Cotton is not even mentioned as having been exported. Apparently Mergin considered that the trial consignment of 944 kantars in that year was not worthy of mention.

The following year, 1823, 35,108 kantars were exported ; in 1824, 159,426 kantars ; and in 1825, 228,078 kantars. This extraordinary increase claimed widespread attention. Among others, the French minister wrote to his consul in Egypt for details about the new crop. It was stated that one-ninth of the cultivable area of Egypt (60,000 feddans) was to be

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placed at once under cotton. A possible increase in production to 1,000,000 or even 2,000,000 kantars was envisaged. (As it turned out, the biggest crop of cotton grown under Mohamed Ali did not exceed 350,000 kantars.)

This sudden increase in cotton cultivation had inevitable repercussions on other crops and particularly on wheat. In 1824 and 1825, under the joint efforts of a low Nile and the increase in cotton, there was a shortage of cereals and the export of wheat was prohibited.

However, in the following years, there was a fall in the price of cotton and a rise in that of cereals. With better floods and rising prices of cereals, the cultivation of wheat revived. In 1828, an exceptionally productive year, after an excellent flood, 150,000 ardebs of wheat were available for export, as well as 200,000 ardebs of rice, 160,000 ardebs of beans, 80,000 ardebs of barley, 40,000 ardebs of lentils, 30,000 ardebs of maize and 20,000 ardebs of other grains. The cultivation of cotton declined. At the same time, the cotton factories which the Pasha had established were taking considerable quantities of cotton, as much as one-quarter of the crop being consumed in the factories after 1828. The export of cotton was consequently reduced, falling to 59,255 kantars in 1828, then rising again to 213,585 kantars in 1830 and falling again to 56,067 kantars in 1833.

A rapid rise in the price of cotton after 1833 was followed by a rapid increase in production. The decline in production had been largely owing to the opposition of the farmers, who had to deliver their cotton to the government at 5 rials (100 P.T.) a kantar, at which price they considered it did not repay the expense and trouble of cultivation. In 1834, to overcome their repugnance to its cultivation, the price of cotton to the cultivator was doubled. Production then rose rapidly. In 1836, out of total

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exports to Europe of L.E. 1,336,831, cotton represented L.E. 1,114,903 or 86 per cent, of the total. The exports of wheat in that year amounted to only L.E. 79,897 or 6 per cent. In 1837 and 1838 there was such a shortage of cereals that wheat had to be imported in order to satisfy the needs of the inhabitants.

After 1840, there was a long spell of low prices for cotton, but, its production being now free, the farmers continued to cultivate it on a fair scale, while the closing down of the factories of the Pasha left the whole crop available for export.

In 1849, the values of cotton exported from Alexandria amounted to L.E. 515,000, which represented 31 per cent, of the total exports. Wheat was L.E. 245,000 or 15 per cent, of the total, beans L.E. 188,000 or 11 per cent., rice 6 per cent., and the balance was made up by a variety of other products and crops.

Cotton exports and prices. The exports of cotton, showing the quantity and the average price each year, from 1822 to 1849, are given in the following table :

COTTON EXPORTS AND PRICES, 1822-1849

Year	Exports	Average Price per Kantar
	Kantars	Rials
1821	944	16
1822	35,108	15½
1823	159,426	15½
1824	228,078	17
1825	212,318	
1826	216,181	13
1827	159,642	13
1828	59,255	13
1829	104,920	12
1830	213,585	12
1831	186,675	10½

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Year	Exports	
	Kantars	Average Price per Kantar
1832	136,127	15
1833	56,067	25
1834	143,892	30 $\frac{1}{4}$
1835	213,604	25 $\frac{1}{4}$
1836	243,230	18 $\frac{1}{2}$
1837	315,470	13
1838	238,833	15
1839	134,097	18 $\frac{1}{2}$
1840	159,301	13
1841	193,507	13 $\frac{1}{4}$
1842	211,030	10
1843	261,064	7 $\frac{3}{4}$
1844	153,363	18
1845	344,955	6
1846	202,040	10 $\frac{1}{2}$
1847	257,492	10
1848	119,965	7
1849	257,510	10

Imports.—Throughout this period, the imports appear to have been fairly well balanced with the exports. Naturally they varied from year to year, but, on the figures available, one year's deficit was balanced by another year's excess. There was no public debt, and no great movement of capital into, or out of, the country, with the exception of Tribute to Constantinople and presents to the Sultan and his agents. This item, though important, never reached the dimensions that it took later in the reign of Ismail. Nevertheless it might have been reflected if the figures of balance of trade were sufficiently detailed and complete statistics available. Most of the statistics of that period, however, do not include goods to and from Turkey, as no duties were levied on the import or export of these goods.

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At the beginning of the century, the principal imports were cloth, metalware and glassware. The industrial development of Mohamed Ali was intended, in part, to reduce these imports and make the country more self-supporting. Actually, however, his big purchases of ships, of machinery and of supplies for his army and navy more than counterbalanced any reduction owing to the industries. On many occasions, when building up his fleet and his army, big consignments of crops were used to pay for ships, or cannons. Thus, in 1827, the rice crop, valued at 45,000 purses was used for the purchase of ships, and again in 1828, 40,000 ardebs of beans were sent to Livourne to pay for ships. On two other occasions at least, big consignments of cotton were sent to England to pay for cannons.

After 1840, following the breakdown of his industrial system, and the reduction of his army, manufactured products became the principal imports, followed by tobacco, timber, raw silk and iron. The principal imports in 1849 were manufactures (L.E.475,714), Tobacco (L.E.122,505), Timber (L.E.58,986), Raw Silk (L.E.74,383), Cloth (L.E.55,614), and Iron and Steel goods (L.E.62,780). Other imports of lesser value were caps, coats, cochineal, copper, carpets, indigo, paper, soap, shoes, wood and wines.

Increased trade with England.—An important feature of this period was the rapid development of trade with England. At the end of the 19th century English trade in the Eastern Mediterranean was practically in-existent. The French, on the other hand, had a flourishing commerce, particularly in cloth, and French merchants formed the most important foreign colony in Egypt. Other countries having important commercial relations with Egypt were Austria, Tuscany and, of course, Turkey.

In the first half of the nineteenth century France lost her commercial supremacy to England. This

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was due partly to the disorders of the French revolution, partly- to the Continental system imposed by Napoleon, but above all, to the improvements introduced in the English cotton industry. Factory-made English cotton cloth displaced the more expensive hand-woven French fabrics and put into English hands a wide and profitable market.

At the same time, England, more than any other country, was able to make use of the growing production of Egyptian cotton. The French, in 1824, perturbed by the increasing English purchases of Egyptian cotton, proposed to establish a commercial company for trade with Egypt and the Levant but the declining volume of French trade caused the project to be abandoned. English merchants increased in number and in importance ; English shipping every year carried more goods and passengers. While the French consul exerted all his efforts to introduce as many French officials as possible into the employment of the Pasha, the English steadily increased their commercial interests. " Since the establishment of the Arsenal," wrote the Russian Consul in 1832, " French interests in Egypt are reduced to the freights on cotton to Marseilles, about 450,000 roubles a year, and some objects for the Arsenal bought from France, while England sends annually to Alexandria more than 6,000,000 (roubles) of munitions of every sort and its navigators profit by over 1,000,000 (roubles) on freights."

Austrian commerce, too, which formerly had been the principal branch of foreign trade, also declined steadily, so that, soon after 1830, England had already come to occupy the first place among both importing and exporting countries.

This preponderance of English trade continued and has indeed become a permanent feature of Egyptian foreign commerce. Trade with Austria and Tuscany, a relic of the trade of the middle ages,

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a large part of which was transit trade in goods destined for Central Africa or Arabia, gradually declined. In 1849, the figures of foreign trade were as follows :

FOREIGN TRADE OF EGYPT

IMPORTS AND EXPORTS FROM ALEXANDRIA, 1849
(by countries)

Country	Exports	Imports
	L.E.	L.E.
England	808,616	607,448
Austria	255,812	171,820
Turkey	266,103	236,261
France	195,599	110,956
Tuscany	98,979	67,027
Syria	27,419	170,884
Greece	13,560	28,943
Barbary States ..	15,683	75,092
Various	18,969	6,629
Total	1,660,740	1,474,060

9. CURRENCY

We must now turn to the system of currency in use at that time. The principal features were : the different types of coins in use ; the continued depreciation of the Turkish currency, which dragged with it the currency of Egypt ; and the currency reform of 1834.

Coins in use.—At the beginning of the 19th century, the coins in use in Egypt consisted of three main classes : Egyptian coins, minted at the Citadel ; Turkish coins and various foreign coins.

The basis of the Egyptian and Turkish currency was a very small piece of silver alloy called the *medin* or *bara*, and accounts were commonly kept in *barat*.

The next higher coin was the kersh, containing 46 barat, but these coins had not been minted in any quantity in Egypt. In the middle of the 18th century, the Mameluke, Aly Bey, had struck a number of these kersh of 40 barat, but on his overthrow the machines were destroyed and no more were made. There were thus no Egyptian coins to bridge the gap between the very small bara, and the Egyptian gold coin, the zer-mahboub. To cover this deficiency, use was made of Turkish and foreign coins. The Turks had silver coins of various denominations (20, 40, 80 paras, etc.) and gold coins. The principal foreign coins in use were the Austrian thaler and the Spanish piastre, both of them silver coins of approximately equal value, worth in 1798, 150 barat.

Debasement of currency.—The coinage of money was regarded as an important source of revenue by the Turkish government, which sought to increase its revenues by debasing the metal used in the coins but attempted to maintain the value at which they were issued to the public. Naturally they were unsuccessful. Already in the latter part of the 18th century there had been considerable depreciation in the value of the bara. From 1773 to 1798, the bara lost nearly half its value. One Austrian thaler was worth 90 barat in 1773, 150 barat in 1798. This decline continued progressively in the first half of the 19th century. From 1798 to 1835, in less than forty years, the bara fell to less than one-fifth of its value. The Austrian thaler, worth 150 barat in 1798, was worth 800 barat in 1835. The fall is reflected in the price of other coins. The Spanish doubloon, for example, was worth 2,352 barat in 1798 ; 4,160 barat in 1820 ; 7,680 barat in 1826, and 12,539 barat in 1835. The doubloon remained the same ; it was the bara which was constantly falling in value.

This depreciation in the value of the bara had two important results. In the first place, the foreign

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merchants refused to accept Turkish coinage in payment for exports to Egypt, and foreign currency came more and more into use in Egypt. In addition to the Austrian thaler and Spanish piastre, French francs were used and, with the extension of English commerce from the beginning of the century, the pound sterling came increasingly into use, especially after 1820.

In the second place, it affected the collection of taxes and the payment of tribute. In the eighteenth century, the employment of the Austrian thaler and the Spanish piastre, had led to their adoption as money of account. By the people of the country these coins had been denominated "rial." Accounts were commonly kept in rial and barat, or in patak and medins. This latter nomenclature was the one usually adopted by foreigners, patak being the same as rial, and medin the same as bara. In 1773, the "rial" was worth 90 barat, and this was fixed as the rate of exchange for the collection of taxes and payment of tribute to Constantinople. The subsequent depreciation of the bara led to the separation of the rial of account, still worth 90 depreciated barat, and the rial of commerce—the Austrian thaler or Spanish piastre—whose intrinsic value did not change. As the miri, or land tax was calculated in rial of 90 barat, and the tribute to Constantinople also, there was an effective reduction in the miri or land tax and in the tribute to Constantinople. The Mamelukes made up for the reduction of the miri, by imposing a whole host of additional taxes on the farmers, but they continued to send the tribute to Constantinople at the old rate of 90 barat to the rial.

Mohamed Ali, in the reform of land and taxation, in 1813, swept away all these additional taxes, but imposed a miri, or land tax, three times as great as the original one. Later, as the currency continued to depreciate, the land tax or miri was still further increased.

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The kersh.—The continued depreciation of the bara made it too small in value to be suitable for use as money of account. The French re-introduced the unit of 40 barat or kersh and from the beginning of the century prices began to be calculated in kersh and barat. These, as explained, suffered successive depreciations which were shared by all the coins, gold and silver, of the Ottoman Empire. These coins were used for dealings inside the country, for the collection of taxes, and the payment of tribute. Big amounts were calculated in " purses " (kees), one purse being equal to 500 kersh, and the usual headings of the money columns of state accounts were : kees, kersh, barat.

Foreign trade, prices calculated in rial.—For foreign trade, however, the continued depreciation of the kersh and bara caused difficulty in the calculation of prices, and the prices of crops for sale abroad were calculated in Austrian thalers, or Spanish piastres, commonly called rial. The talari (thaler) and the rial passed into the commercial language and are employed to this day as fictitious money of account.

At that time, most of the countries with an organised system of metallic currency were on bi-metallic standard using both gold and silver coins. This was made practicable by the fact that for over eighty years, from 1780 to 1860, the ratio of value between gold and silver remained practically constant at approximately 15 J to 1.

About the beginning of the nineteenth century, many countries reformed and stabilised their currency systems: the United States in 1792, France in 1803, England in 1816. England adopted the gold pound sterling as the basis of its currency, but practically all other countries made use of gold and silver full-bodied coins with a ratio of content of precious metal of about 15 J to 1.

With the development of trade and the growing

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desire of the Pasha to make Egypt completely independent, Mohamed Ali undertook, in 1834, the reform of the currency. In his reform he aimed at giving Egypt a sound system of currency, free from fluctuations in value, and based, as far as possible on the metric system. Following the general custom of the day he adopted both gold and silver at a ratio of 15 $\frac{1}{2}$ to 1. A new coin, the 20 piastre piece of silver, was adopted as the basis of the currency. The value of this coin was the same as the Austrian thaler, upon which it was based. This was the origin of the Egyptian talari, at its present value of 20 piastres. The names "talari" and "rial" are used to-day as money of account and still stand for a value of 20 piastres. The price of cotton in Alexandria, for example, is officially quoted in talaris.

Other silver coins of the value of 10 piastres, 5 piastres and 1 piastre were also provided. At the same time, a gold piece of 20 piastres was introduced, whose gold content (8.544 grammes, .875 fine) was in the ratio 1 : 15 $\frac{1}{2}$ to the silver content of the silver 20 piastre piece. There were other gold coins of 100, 10 and 5 piastres. The piastre was sub-divided into 40 barat. This represented its actual value at that time, the bara being approximately 800 to the thaler in 1835. Further depreciation of Turkish currency, however, soon broke the link between the old bara and the new.

At the same time as he thus endowed Egypt with a complete system of national currency, Mohamed Ali tariffed the foreign coins in use in the country in terms of his new money. The principal were the English sovereign, which had been circulating at 100 piastres, but which was now fixed at the value of 97 $\frac{1}{2}$ piastres ; the French louis d'or, fixed at 77 piastres 4 barat ; the Spanish doubloon, fixed at 313 piastres 19 barat ; and the Turkish Ighirmilak at 19 $\frac{1}{4}$ piastres. Under the tariff, the pound sterling

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was undervalued 0-466 per cent. ; the 20 franc piécè 0-666 per cent., and the Turkish pound 0-835 per cent. The reform was promulgated in December, 1835, and came into force in May, 1836.

REVENUE

From time immemorial, the principal item of the revenue of Egypt has been the land tax. At the beginning of the 19th century, the land tax was paid very largely in kind, particularly in cereals, and throughout the reign of Mohamed Ali, the practice of payment in crops continued, though there was a general increase in the use of money, paving the way to the abolition of payment in kind by his successors.

Towards the end of the 18th century, the total revenue amounted to L.E. 1,203,500, the miri or land tax bringing in L.E. 1,052,950.

One of the first tasks of Mohamed Ali was to re-organise the system of tax-collecting. The system of farming out the taxes was abolished, and government agents were appointed to collect taxes, warehouses being established at various places to receive crops delivered in payment of taxes. The prices at which such crops were to be accepted were laid down by firmans, issued from time to time and strict control was maintained over the collection of taxes.

In 1813, a cadastral survey was instituted and the area of land occupied by each farmer, together with the amount to be paid in land tax, was entered in the official registers.

Many of the abuses of the Mameluke régime were thus removed, though other serious defects remained for a considerable time. The system of allocating specific revenues to specific items of expenditure continued till near the end of the reign of Mohamed Ali. The central accounts were confused and obscure, though important reforms were attempted, based on

the advice of European experts. Finally, no distinction was made between the private purse of the ruler and the revenue of the State.

The depreciation of the currency led to a diminution in the real amount collected by the land tax. To meet this development, Mohamed Ali had before him two alternatives : either to increase the land tax or to find some other form of taxation. It was under these circumstances that the monopoly system came into force. The monopoly system was, in fact, a disguised form of indirect taxation. Its effect was to take from the farmers part of the value of the crops which they grew, and to place this in the hands of the government. At first, this represented approximately the loss under the heading of direct taxation. The land tax receipts fell from L.E.1,052,951 in 1798 to L.E.661,540 in 1821, but the revenue from monopolies in 1821 amounted to L.E.340,000. The total revenue in 1821 (L.E.1,199,700) was approximately the same as in 1798 (L.E.1,203,507).

After 1820, however, there appears to have been an increase in both land tax and monopoly revenue. Contemporary observers state that the rate of land tax was tripled. This is supported by the fact that receipts of land tax rose from L.E.661,540 in 1821 to L.E.2,034,500 in 1836. At the same time, the monopoly profits increased from L.E.340,000 in 1821 to L.E.750,000 in 1836, and the total revenue from L.E.1,199,700 to L.E.3,064,300.

About this time, it was repeatedly stated and generally believed that the monopoly system was the cause of the "immense" resources of Mohamed Ali. Such a view however is clearly a misapprehension. The actual source of the increased revenue was the considerable increase that had taken place in the meantime in agricultural production, due in part to the extension of the cultivated area and in part to the development of summer crops. The monopoly

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system but formed a channel by which the benefit of this increased production passed into the hands of the government. It did not help to produce this new wealth. In fact, it must have acted as a positive check, because the low prices which were paid to the farmers for their crops took away their incentive to work. Proof of this—if proof be required—is to be found in the difficulty experienced by Mohamed Ali in getting the farmers to work. They had to be literally driven to the fields, and obliged to work by threats and punishments. Thousands of them deserted their farms. From time to time the fugitives were rounded up, in the towns and marshes in which they had taken refuge, and were sent back to their villages. Such were the effects of the monopoly system at its worst. These were intensified for some years after 1829 ^{^ tne} imposition of what was termed a system of "solidarity" in the collection of taxes. The basis of this system was that if one farmer could not pay his taxes, the amount due was to be taken from his neighbours ; the arrears of any one village were to be made up by other villages ; of one district, by another district and so on to the whole country. By this system, a man who made any profit after paying his own taxes was liable to see the tax collectors descend upon him and take all he had in order to make up the debt of some lazier or less capable farmer. The effects of this system were disastrous. Farmers who had produced a good crop only to find the whole of the fruit of their labour seized in order to make good the debt of others, left their land and refused to cultivate it again. Despite threats and punishments, agriculture declined and the countryside was in disorder. After a few years, the system was withdrawn.

The monopoly system then, did not help in the production of new wealth. Its only effect was to keep down the standard of living of the farmers, and to direct into the hands of the government the additional wealth

created by higher prices and increased production. To the people of the time, however, the evident increases in revenue, together with the equally evident profits obtained from the sale of monopolised products, gave the illusion that Mohamed Ali's wealth and power rested upon his monopoly system.

It was expected that the application of the treaty of 1838, by striking at the root of the monopoly system, would cripple Mohamed Ali's financial power. Actually, however, the Viceroy found the means to keep up his revenues by increasing the taxes to be paid by the farmers who now received more for their crops from the merchants, but had to pay the surplus into the treasury in payment of the increased taxes. Thus in 1842, the revenue was L.E.2 926,625, only slightly below that of 1836, in the full period of monopolies and at a moment when cotton had been over thirty dollars the kantar. Four years later, in 1846, it had mounted to L.E.4,200,800. The commercial treaty, far from breaking the financial power of the Pasha, had led him to a more rational method of agricultural economy and tax collection, and to an increase in revenue. The farmer, now able to sell his products to the merchant at the market price of the day, was stimulated to increase his production and to turn to the cultivation of those crops which would give him more profit. The extra profit thus accruing to the farmer was then drained, by a carefully regulated system of taxation, into the treasury. In the end, it was the treasury that gained, as is shown by the increased revenue. The farmers remained in the state of indigence that had characterised them for centuries.

Not the least of the achievements of Mohamed AH was the fact that he left his country free from debt. Generally speaking, throughout his reign, he managed to pay for current expenditure out of current revenue. In times of war, particularly about 1822, 1828, 1833

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and 1839, when he had particularly heavy expenses to meet, he was driven to use various expedients to get money. Generally speaking he bridged the difficult period by leaving in arrears all payments which were not absolutely essential and by obtaining advances from merchants. In 1828, M. Lobin, a French merchant of Alexandria, negotiated a loan in France. In 1833, at the time of the first Syrian campaign, Mohamed Ali was in great need of money and many offers of loans were received. It appears, however, that the lenders wanted the revenue of certain of the provinces of Egypt to be definitely affected as security for the loan, a condition which Mohamed Ali could not, and would not accept, and again the matter was dropped.

Mohamed Ali turned as usual to the merchants and obtained advances against contracts for future delivery of crops. This was his usual method of getting funds when in need. The merchants who engaged in this work had to have considerable funds at their disposal—to be in fact real merchant bankers—but they made big profits from thus combining money-lending and trading. The English firm of Briggs & Co. and the Greek Tossidga, as well as the Swiss house of Ghebard & Co. were the principal Alexandrian houses concerned. All of them were in touch with bankers abroad.

When funds were not available for payment of the government employees, the officials received "teskires" or treasury bonds for the salary due. If in need of money they could discount these bonds with the merchants or money-lenders at a discount of 15 per cent, to 20 per cent. The first bank in Egypt, founded in 1837, used all its funds in discounting such bonds with the result that it was unable to carry on its banking operations.

From time to time, therefore, in moments of stress the Viceroy came to be owing considerable sums to

the merchants for advances made and to the government employees for salaries in arrear. But as soon as peace came and prosperity returned, he quickly wiped off the accumulated debt and within a year or two the government was prosperous again. In the meantime, though he dwelt with pleasure upon vast projects for development and improvement of the country, he avoided getting entangled in any schemes whose magnitude should prove to be beyond the financial resources of the country. As already stated, at his death, in 1849, he left the country free from debt.

CHAPTER III

ABBAS, SAID, AND ISMAIL (1850-1880)

MOHAMED ALI died, rich in years and honour, in 1849. Already, two years before his death, his son Ibrahim had been appointed regent. Ibrahim, however, died in 1848, six months before his father. At his death the succession passed to Abbas. The law of succession was regulated by the firman of 1841, and, following the Turkish custom, passed to the oldest surviving member of the late ruler's family.

Abbas Pasha was a reactionary. He was opposed to the whole policy of development and westernisation inaugurated by his illustrious predecessor. One of his first acts was to close down most of the schools opened by Mohamed Ali. He dismissed many of the most able collaborators, both Egyptian and foreigners, who had served under the former régime. He not only stopped work on the barrage, but ordered the demolition of the construction already begun. He instituted a reign of terror and oppression destined to increase his own private fortune. To the same end he re-introduced a number of government monopolies.

The only classes to benefit during his reign were the poorest and lowest sections of society. Taxation, which had been keyed up to a high pitch under Mohamed Ali, was allowed to decline so that the revenue fell from L.E.4,000,000 to little more than L.E.2,000,000 per annum. The army was reduced and fewer men were called upon to serve on the *corvée*. These were undoubtedly advantages to the

lower classes in town and country on whom fell most heavily the burden of taxation and military and *corvée* service. But the policy thus followed was short-sighted in the extreme. The *corvée* was reduced because irrigation was neglected ; the annual clearance of the canals was not efficiently carried out and many of them became partly silted up. Agriculture declined. The elements of disorder grew stronger.

Another few years of such a régime and the country would have fallen back into the condition of poverty and anarchy which had prevailed at the beginning of the century. In the reign of Mohamed AH, the surplus revenue, when he was not engaged in his wars, was used to develop the capital equipment of the country in the form of public works, irrigation canals, schools, industries, the barrage, etc. Under Abbas, what was left of the reduced revenue, after paying the barest and most necessary administrative expenses of the country and the tribute to Turkey, was frittered away in wasteful expenditure—as the construction of sumptuous palaces in the middle of the desert—or went to swell the private fortune of the Pasha. It is true that under Mohamed Ali, no distinction had been made between the private income of the Pasha and the public funds at the disposal of the government, but the Viceroy had used the finances at his disposal in ways that tended ultimately to benefit the country he governed. Under Abbas, however, the treasury was ransacked for the private enrichment of the ruler. Abbas knew that, by the law of succession, it was unlikely that his son would become ruler after him. When he died, in 1854, after a short reign of only five years (it is said that he was murdered by two Mameluke slaves), his son inherited an enormous private fortune, but the public treasury was absolutely empty and his successor, Said, had to borrow a large sum at the very beginning of his reign to meet government indebtedness left by Abbas.

The beginning of the railway.—In one respect only did Abbas carry forward the work of economic development of Mohamed Ali. It was during his reign that the first railway in Egypt was built.

At the death of Mohamed Ali, the railway, though it had been constantly discussed for over fifteen years, had not yet been definitely decided upon. By this time, however, the continued development of the overland traffic in passengers, mail and goods, going across Egypt to India and the Far East, had reached the point where the construction of a railway, or a canal, across Egypt was almost inevitable. These two rival projects, long discussed, had become matters of international rivalry. The French supported the scheme for the construction of a canal; the English, the railway.

In 1851, George Stephenson, the son of the famous inventor of the "Rocket," and himself a well-known railway engineer, was given a contract by Abbas to construct a railway from Alexandria to Cairo, and was appointed chief engineer. In 1853, the line was opened from Alexandria to Kafr el Zayat; in 1855 it was extended from Kafr el Zayat to Tanta, and in 1856 from Tanta to Cairo. This railway was the first in Africa and the East, and one of the first to be built outside Europe.

In 1856-57, the line from Cairo-Suez was built. The volume of traffic in passengers, goods and mail increased steadily, and the receipts of the railway rose accordingly. Once again, after a lapse of centuries, Egypt's geographical position was bringing in wealth and prosperity from the transit traffic between Europe and Asia.

Two features, in the second half of the 19th century, stand out as the distinguishing marks of economic development throughout the world. These were the construction of railways, and foreign investment on a large scale by western European countries. The

two were inter-related. Lending took place largely to governments ostensibly for the construction of railways and ports. In Egypt, as elsewhere, these two features—the development of communications and the rise of the public debt—were to be the dominant features of the period.

Abbas Pasha.—Abbas Pasha was followed by Said Pasha, the fourth son of Mohamed Ali. The new ruler of Egypt was of a vastly different temperament from his predecessor. Generous, cultivated, with an excellent knowledge of English and French, he had the broad views and desire for progress that had characterised his father, untempered, however, by the innate shrewdness and prudence of Mohamed Ali. A great admirer of western civilisation and culture and genuinely desirous of improving the condition of his people he was firmly decided to take up again and to carry forward the reforms started by Mohamed Ali and so brusquely interrupted by Abbas. The authority of the central government was re-asserted and important administrative reforms were introduced designed to do away with injustices committed by the various local officials, and to meet the changes that were taking place in the economic condition of the country. The power of the village sheikhs and district governors was circumscribed and they were brought more directly under the authority of the central government. At the same time there was a reform in the system of tax collection from the villages. Hitherto the tax on each village had been imposed on the village as a whole, and the sum imposed had been divided between the various inhabitants, according to their means, by the local authorities, the sheikh-el-beled being responsible for the collection of the taxes. This system had worked well enough under a system of communal ownership and cultivation, but with the rapid development of a condition approximating in fact to private ownership of the land

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it was out-of-date and led to opportunities for abuse on the part of the sheikh. Under Said Pasha it was laid down that taxes were to be imposed on individuals, not on villages, and that the collection of taxes was to be effected by government tax-collectors instead of by the village sheikhs. The principle of individual ownership of individual wealth and individual taxation thus received additional sanction. The primitive system of collective land ownership and communal responsibility for taxes which we have seen in operation at the beginning of the century was rapidly giving way to the modern system of individual ownership and responsibility.

At the same time, the rapid development of individual land ownership led to a number of important land acts, in which the government, step by step, gave legal sanction to private ownership and allowed the purchase, sale, mortgage and succession of land, subject only to the right of the government to expropriate land without indemnity. At the same time, provision was made for more satisfactory methods of registration of ownership in land, and the authority of the village sheikhs in connection with land transfer was reduced by the establishment of registration facilities in the provincial courts.

The extension of commerce and the right of foreign merchants, after 1840, to go into the country and buy direct from the farmers led to a more general use of money throughout the country. This made it possible for a law to be passed in the time of Said that henceforth taxes must be paid in money and not in kind.

At the same time, in accordance with the *laissez faire* and "free trade" doctrines of the period, internal customs barriers were removed, octroi duties in the towns were abolished and the monopolies imposed by Abbas were swept away. Agriculture and commerce were left free to develop.

At the same time, commerce was still further

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stimulated by the development of the means of communication. During the reign of Saïd, the Mahmoudia Canal, which had been allowed to silt up during the reign of Abbas, was dredged ; the railway from Alexandria to Cairo was completed ; another railway was built from Cairo to Suez, thus allowing passengers to go all the way from Alexandria to Suez by rail and to connect up with the regular steamship sailings that were by this time taking place to and from the two ports. The port of Suez was equipped with a large graving dock for the repair of ships. The improved methods of communication led to rapidly developing traffic in goods and passengers, both in Egypt itself and across Egypt by the Overland Route to India and the Far East. It was expected that the railway would be principally used by travellers passing through Egypt, but from the first year it was opened one of the principal sources of revenue was from third-class travellers between Alexandria and Cairo.

The most outstanding development of the period, however, and the feature by which Saïd will always be remembered, was the beginning of the Suez Canal. After the success of English diplomacy in the construction of the railway, the French redoubled their efforts towards the building of the canal.

The proposal to join the Mediterranean and the Red Sea by a canal is almost as old as history. In the days of ancient Egypt, the Nile is said to have been connected to the Red Sea by a canal, so that ships could sail direct from the Mediterranean to the Red Sea. In succeeding ages, this canal was closed, re-opened and closed again. After the discovery of the long-sea route to India by Vasco da Gama in 1498, the Venetians planned to get back their lost trade by opening a canal across the isthmus of Suez. Napoleon surveyed the route. His engineer, Lepere, found a difference of ten metres between the level of the two seas and the construction of the canal was probably

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retarded for many years in consequence of the error. Mohamed Ali more than once considered the possibility of building a canal and agreed, in principle, to the idea, subject to two wise provisions, first that all the nations concerned must agree to the project, and secondly that the work should be carried out by Egypt, and the canal, when completed, should belong to the Egyptian government. In view of the international interests involved, the consent of all the powers was impossible to obtain, and Mohamed Ali died without any further progress having been made. Abbas, as already stated, was favourable to England, and therefore opposed to the canal. The accession of Said Pasha, however, offered a favourable opportunity. The prince was known for his generosity and his breadth of vision. Ferdinand de Lesseps, who had formerly been French consul in Egypt and had been the tutor and friend of Said in his youth, came to Egypt on behalf of the Société d'Etudes and obtained from Said the first concession for the construction of the Suez Canal.

The first firman, granted by Said Pasha on Nov. 30th, 1854, was confirmed and amplified, after the project had been studied by an international commission, by a second firman dated Jan. 5th, 1856. The principal conditions of these firmans were as follows :

A company, to be denominated the " Compagnie Universelle du Canal Maritime de Suez " was to be formed to open a ship canal across the isthmus of Suez.

The concession granted to the company was for a period of 99 years from the date of the opening of the canal to navigation.

The work of building the canal was to be undertaken entirely at the expense of the company. All the necessary land would be given free to the company. The government was to receive 15 per cent, of the net

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profit earned by the company, in addition to the interest on any shares taken up by the government.

The government agreed to grant to the company the land on both sides of a navigable waterway to be constructed from the Nile to the canal, this land to become the property of the company, who would irrigate and cultivate it. For the first ten years such land would be tax free and afterwards would be subject only to payment of tithes. The company had the right to extract stone and materials free from government quarries and to bring in from abroad, free of tax, all necessary machines and materials. On the expiration of the concession the canal would become the property of the Egyptian government, who would allow an indemnity to the company for the materials and equipment taken over.

The firmans were definitely stated to be subject to the authorisation of the Sultan. In view of the difficulty, not to say impossibility, of obtaining this, de Lesseps decided upon the bold plan of forming his company and starting work without waiting for the consent of the Porte.

The subscription was opened on the 5th November, 1858. The capital was fixed at 200,000,000 francs in 400,000 shares of 500 francs. More than half of the shares were taken up in France. A few were taken up in other countries ; 64,000 were subscribed by Said Pasha. But 113,642 shares were not taken up. De Lesseps inscribed them all in the name of the Viceroy, making a total of 177,642 shares to be taken up by Said. In this way alone de Lesseps was able to make it appear that the share capital had duly been subscribed, and on Dec. 15th, 1858, the company was declared duly constituted.

When the Viceroy was informed of what had happened he at first refused to accept the additional shares. Had he persisted in his refusal, the whole project might have failed, and possibly the whole

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course of Egyptian history might have been changed. Two days later, however, Said accepted, not wishing, as he said, to see the failure of such an important enterprise. The government's subscription thus amounted to 177,642 out of a total of 400,000 shares.

The company thus duly formed, de Lesseps, without waiting for the permission of the Sultan, at once set to work on the construction of the canal. There was an immediate protest on the part of the Sultan, but de Lesseps was able to enlist the sympathy and support of the Emperor, Napoleon III, who brought diplomatic pressure to bear, and the work was allowed to proceed. In the meantime, in 1863, Said Pasha died. He left behind him a heavy load of debts and obligations as a legacy to his successor. The many reforms undertaken during his reign had proved a heavy expense for a country whose revenue had fallen to little more than L.E.2,000,000 per annum. From the very beginning of his reign he was in debt, and as time went on his indebtedness rapidly increased.

By the firman of 1841, the government could not issue a public loan without first getting permission from the Sultan. In 1858, to get over this difficulty, Said resorted to the issue of treasury bonds. The next two years saw a very long increase in the issue of these bonds. Soon, however, he had to turn to other forms of borrowing. In 1860, to fulfil his obligations to the Suez Canal, he borrowed 28,000,000 francs from a French banking house. In 1862, he was obliged to negotiate a state loan—the first in the history of modern Egypt, the amount being L.E.3,293,000. He also owed money on contracts for work of various kinds, on personal loans and on the interest due on the very large floating debt. In addition he had taken up shares in the Suez Canal Co., and had entered into engagements towards the company that were to cost his successor millions of pounds. At his death, he left indebtedness and obligations,

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which, including the amount Ismail was later condemned to pay to the Suez Canal Company, amounted to over L.E. 16,000,000, as follows :

FINANCIAL POSITION OF EGYPT AT DEATH OF SAID PASHA		L.E.
Treasury Bonds, Current Accounts and		
Medjidia Co. . . . .	.. ..	4,023,065
Loan from Bank of Lane Meinigen ..	.. ..	2,340,000
Commissions and Interest		2,208,250
Suez Canal Co. (Shares)		3J^39J3^°
Indemnity .. . . . .	.. ..	3,246,500
Fresh-Water Canal, Wadi, etc.		650,880
Total L.E.		16,308,075

As usual, at the death of a ruler, the treasury was empty.

Ismail.—Ismail thus entered upon his reign with a load of debt amounting to over L.E. 12,000,000, to which was shortly added the indemnity and other payments to the Suez Canal of L.E.4,000,000. Ismail had two alternative courses open before him. A more prudent ruler, faced by such a load of debt, might have wisely restrained expenditure, however useful or desirable, in an attempt to reduce the debt to smaller proportions. Mohamed Ali would certainly have done so, in his day. But conditions had changed. Foreign investment had become a mode, a world-wide fashion. And Ismail, endowed with all the love of gigantic plans that characterised his grandfather, planned to develop to the full the potentialities of the country and to endow it, in the shortest possible space of time, with all the moral and material advantages of a new age. Instead of reducing expenditure he increased it enormously, and attempted to find the funds by borrowing.

Heavy expenditure.—During his reign, 8,400 miles of

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canals were constructed, thousands of miles of canals were dredged, 430 bridges were made, including the very fine Isma'ilia bridge across the Nile at Cairo ; Alexandria harbour was made the finest in the Eastern Mediterranean ; fifteen lighthouses were built in the Red Sea and Mediterranean ; 910 miles of railway were constructed ; 5,200 miles of telegraphs were established, plus 2,000 miles in the Sudan ; no less than 64 sugar factories were built, in addition to the millions paid out to the Suez Canal. On public works and the Suez Canal, a total of over L.E. 50,000,000 was expended during his reign.

EXPENDITURE ON PUBLIC WORKS DURING THE REIGN OF ISMAIL

<i>Work</i>	<i>Cost</i> L.E.	<i>Remarks</i>
Suez Canal ..	12,000,000	After deduction of L.E.4,000,000 for shares sold.
Canals ..	12,600,000	8,400 miles at L.E.1,500 per mile.
Bridges	2,150,000	430 Bridges.
Sugar Mills ..	6,100,000	64 Mills, with machinery.
Alexandria Har- bour	2,542,000	Contract : Greenfield & Elliot.
Port of Suez ..	1,400,000	Dussald Bros.
Alex. Water Works	200,000	Taken over by Paris Syndicate (became Alex. Water Company).
Railways ..	13,361,000	910 miles.
Telegraphs ..	853,000	5,200 miles.
Lighthouses ..	188,000	15 in the Mediterranean and Red Sea.
Total L.E.	<u>51,394,000</u>	

In addition to this enormous expenditure, many millions were paid in other directions—to Constantinople ; in interest on loans and other debts ; in the

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embellishment of Cairo and Alexandria ; in sumptuous receptions and entertainments and the hundred and one expenses of a rapidly growing country under an impatient and lavish government.

The Suez Canal.—From the beginning of his reign, Ismail took exception to some of the conditions of the Suez Canal Company. In particular, he was opposed to two clauses of the succession, one of which granted to the company all the land that would be irrigated by the fresh-water canal, and the other of which promised to provide by *corvée* all the Egyptian labourers required for work on the canal. When this latter condition was made, it was expected that not more than 6,000 workers would be required at a time. The workers were paid $2\frac{1}{2}$ piastres a day (6jd.-7d.). At this price it was found cheaper to use workmen than machines, and as many as 25,000 to 30,000 workmen were constantly employed. These, together with the workers coming to and going from their homes to the canal, made a total of some 60,000 men taken away from the fields—a heavy drain upon agriculture.

By conventions with the Canal Co. in 1863, Ismaïl undertook to construct the fresh-water canal from the Nile to Ismailia at his own expense. It cost him L.E. 1,250,000. Then came up the question of payment for the shares. Said Pasha had subscribed for 177,642 shares. By this time (1863) all the other shareholders had paid up three-fifths (300 frs. per share), but the Egyptian Government had paid only one-fifth (100 frs. per share). Ismail, by convention with the Canal Company, agreed to pay the amount due—35,528,400 frs.—in monthly instalments over a period of two years.

There were other questions in dispute—*corvée* labour, land cessions to the Canal Co., etc. These were submitted to the Emperor, Napoleon III, for arbitration. His sentence, given on July 6th, 1864, has frequently been the subject of severe criticism. It

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ordered the Egyptian government to pay 84,000,000 francs to the company—38,000,000 frs. for the higher cost of European workmen and machines in place of corvéed Egyptian labour; 30,000,000 frs. for land, and 24,000,000 frs. for various indemnities. Payment was to be made in sixteen annual instalments.

Loan of 1864.—This sentence, coming on top of the already embarrassed financial situation which Ismail had inherited from Said Pasha, the expenses of the visit of the Sultan, the conventions of 1863 and the public works in progress, made it impossible for Ismail to continue without borrowing. French bankers offered loans, but were refused. On 23rd October, 1864, Ismail contracted a loan of L.E.5,704,200, guaranteed on the revenues of Dakalieh, Sharkia and Behera, from the English banking house "Goschen," the bankers who had made the first loan to Said in 1862.

Of the L.E.4,864,063 received, L.E.3,393,012 had to be paid at once to meet obligations due to merchants and others, leaving only L.E. 1,471,051 at the disposal of the government.

Loan of 1866.—In 1863-1865 there was an epidemic of cattle plague which decimated the cattle of the country. At the same time, Ismail wanted to improve and extend the railway. In 1866, he contracted another loan with Goschen for £3,000,000, guaranteed by the railway.

Loan of 1867.—In 1866 (April), Ismail went on his voyage to Constantinople, with a big sum of money, and was successful in getting the firman of succession by primogeniture.

In 1866, the Egyptian government made two more conventions with the Suez Canal Co., the one agreeing to re-purchase the Wadi for £400,000, and the other agreeing to reduce the annuities from sixteen to six. The government agreed to pay the company 26,500,000 frs. in 1866 and 36,700,000 francs in 1867.

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In addition, the government had to meet, in 1867, 28,000,000 frs. charges and interest on loans ; big military expenditure owing to the increase of the Egyptian army and an expedition of 6,000 troops to Crete ; and heavy expenditure on public works—railways, telegraphs, canals, etc.—a total estimated at 100 million francs in addition to the ordinary expenses of administration.

This led to the loan of £11,890,000 contracted in 1867 with the English bank of Oppenheim, Nephew & Co. The amount actually received was L.E.7,193,000.

Private Loans, 1865.—In the meantime, Ismaïl had made two private loans, guaranteed by his own private property. The Daira loan, of 1865, negotiated by the Anglo-Egyptian Bank, for a nominal amount of £3,387,000 produced £2,750,000, of which £1,000,000 was used to purchase the property of Prince Abd el Halim Pasha, and the remainder was used for the construction of sugar factories.

1867.—The second was the Mustafa Pasha Loan of 1867, for £2,080,000, negotiated by the Imperial Ottoman Bank. The sum of £1,700,000 received was used to purchase the domains of Mustafa Pasha.

1870.—In 1870 the Khedive negotiated his third private loan. The Daira Sanieh, nominal amount £7,143,000, was negotiated by Bishoffsheim. The amount received was about £5,000,000. The end of the American Civil War had been followed by a slump in cotton, and Ismaïl turned his attention to the development of sugar plantations and industry on a large scale. This loan was intended to pay for the development of sugar and the construction of sugar factories on the Daira Sanieh estates which formed the security for the loan.

Moukabala.—In 1871 was passed the law of Moukabala—by which any taxpayer who paid to the treasury a sum equal to six years' tax would have his tax reduced to one-half in perpetuity, and in addition

would receive a certificate recognising his full rights of ownership in the property on which he had paid the tax. The sum received in this way eventually reached a total of L.E.9,500,000.

Rouznameh.—In 1874, an internal loan of £5,000,000, bearing interest at 9 per cent., the Rouznameh, was subscribed by Egyptians. Only L.E. 1,878,000 of this was effectively received by the treasury, a large part of the subscriptions having been made in depreciated bonds.

Increased taxation.—In the meantime, increasingly heavy taxation had been imposed. The revenue of the country rose from L.E.2,154,000 in 1861 to L.E. 10,542,468 in 1875. Possibly even more was collected. Ismail's Minister of Finance boasted that in one year he collected L.E. 15,000,000.

Loan of 1873.—In spite of these measures, the expenditure, swollen by interest on loans, presents to the Porte, tribute, public works, the army, the Suez Canal, the railway and other expenses, far exceeded the revenue and a vast amount of floating debt rapidly accumulated while the credit of the state fell lower and lower. In 1873, the floating debt amounted to over L.E.23,000,000. Many of the loans bore interest as high as 14 per cent. In an attempt to wipe off this great load of floating debt, Ismail arranged, in 1873, for a loan far exceeding any of those hitherto made. A loan of L.E.32,000,000 was contracted with the banker Oppenheim. The issue was disastrous for the Khedive. The first half was issued at 75 per cent., the second half at 65 per cent. The total received, after deduction of interest and commission was less than L.E.20,000,000.

Thus, in eleven years, from 1862 to 1873, the government had contracted debts with foreign bankers amounting to L.E.68,497,000. The actual sum received was L.E.46,760,000, as is shown in the following table :

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LOANS CONTRACTED, 1862-1873

Year	Lender	Nominal Value	Net Amount Received
		£	£
1862	Fruhling & Goschen ..	3,293,000	2,640,000
1864	Fruhling & Goschen ..	5,704,000	4,864,000
1865	Anglo-Egyptian ..	3,387,000	2,750,000
1866	Fruhling & Goschen ..	3,000,000	2,640,000
1867	Banque Imp. Ottomane ..	2,080,000	1,700,000
1868	Oppenheim ..	11,890,000	7,193,000
1870	Bischoffsheim ..	7,143,000	5,000,000
1873	Oppenheim ..	32,000,000	19,973,000
Total		£ 68,497,000	46,760,000

Sale of Suez Canal shares.—In the meantime, Egypt had not been alone in her policy of borrowing from abroad. From the middle of the century there was a wave of foreign investment that spread to all parts of the world. From 1850 to 1876, Great Britain invested £1,000,000,000 abroad, chiefly in loans to governments. France also was lending capital on a large scale. The abundance of capital and the facility of borrowing had tempted more than one borrowing country into engagements beyond its means. In 1874, just as the finances of Egypt were tottering, Turkey became bankrupt. This had an immediate repercussion upon Egyptian credit. It was impossible to borrow further, and Egyptian 7 per cent, stock fell to 54. Harassed for money on every side, Ismail sold to the British government, in 1875, the 176,602 Suez Canal shares which he held, for £3,976,580, and gained a brief breathing space. (As we have seen, Said Pasha subscribed for 177,642 shares. When the shares were sold to England they were counted and came to 176,602. What happened to the other 1,040 shares is apparently a mystery.)

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Suspension of payments, 1876.—In 1875, an English financier, Mr. Stephen Cave, came to Egypt to study the financial situation. His "Report on the Financial Situation of Egypt" showed Egypt to be heavily, but not hopelessly, indebted. The publication of the report was delayed, however, and this caused a feeling of uneasiness. In 1876, a wave of panic swept the exchanges, and the credit of Egypt, already seriously shaken, was entirely cut off. It was impossible for Ismail to renew the treasury bonds except on absolutely ruinous conditions. The 6th April, 1876, the payment of treasury bonds was suspended. The state was insolvent.

The Caisse de la Dette.—This failure led to the decree of May 2nd, 1876, by which an institution denominated the "Caisse de la Dette Publique" was established, under the direction of foreign commissioners nominated by their respective governments with the mandate of receiving direct from the local authorities the revenues affected to the service of the debt, and maintaining the payments due to the creditors. In short, the creditors had put in the bailiffs.

Later in the same week, an attempt was made to consolidate and unify the various debts. The first plan proposed however was not accepted by some groups of creditors, and after further negotiations another decree was passed on November 18th, 1876, by which the Daira Sanieh debts were separated from the public debt, the latter was established at £st. 76,000,000, divided into two loans: Preference loan of £st. 17,000,000 and Unified Debt, £59,000,000. The Caisse de la Dette was declared permanent until the complete redemption of the debt.

The following year, in July, 1877, the floating debt of the Daira Sanieh was consolidated into a Daira Sanieh Loan of £st. 9,512,900.

In 1878, Ismail was obliged to hand over his private

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estates, and on them a loan of £8,500,000 was negotiated with the house of Rothschild. So low was the credit of Egypt that only £5,992,000 was received.

The flood of 1878 was below normal, and the crops were a failure. There was general misery and suffering, greatly intensified by the attempt to maintain the payments due on the various debts under the arrangement of 1876. The financial condition of the government became more and more embarrassed. A commission appointed in 1878 to enquire into the financial situation of the country concluded, in its report in 1879 that* the government was insolvent and it was necessary to appoint a commission of liquidation.

Ismail rejected this report and announced his intention of carrying on on his own. The end however, could not be long delayed. A decision of the Mixed Courts ordering the payment of coupons to be made in cash, instead part in cash and part in treasury notes precipitated the final collapse, the deposition of Ismail and the Law of Liquidation of 1880. Under this law the total consolidated debt amounted to £98,376,660. The Moukabala, which implied an undertaking on the part of the government to reduce the land tax to one-half, was abolished, and an annual sum of L.E. 150,000 per annum was allocated for repayment of the L.E. 9,500,000 subscribed, the repayments finally ending in 1930.

The debt thus incurred proved, during the next two generations, the dominant feature of this country's political and economic development. Before going on to these later developments, however, it is necessary to pass in review the other features of economic development in the period between the death of Mohamed Ali and the deposition of Ismail.

The spectacular growth of the Public Debt and its political consequences have tended to overshadow the other developments of this period. It is not

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generally realised that this was a period of most rapid development and progress. Apart from the profound changes taking place in the rural economy of the country, there was a prodigious amount of activity in all kinds of public works. The reign of Mohamed Ali had arrested the long decline of Egypt, had reorganised the country, had introduced the foundation of a new economic order. In the reigns of Said and Ismail those reforms were consolidated and extended, a network of railways was built, together with ports, lighthouses, etc., without which the further economic development of the country would not have been possible.

Population.—The population increased from 4,476,440 in 1846 to 5,250,000 in 1873 and to 6,804,021 in 1882.

Most remarkable during this period was the increase in the number of foreigners. Negligible at the beginning of the century, their number had risen to 79,696 in 1871 and to 90,886 in 1882.

Shortage of labour.—In spite of this big increase in population, there was a constant shortage of agricultural labour. The reasons were: the continual increase in the area of cultivated land, the extension of summer crops which require more labour, and the low level of the water in the irrigation canals in summer which made it necessary for a large part of the agricultural labour to be engaged in lifting water to the fields.

This shortage was aggravated between 1856 and 1863 by the *corvée* of labourers for work on the Suez Canal. 25,000 to 30,000 workmen were employed, and as many others were on their way to or from their villages to the canal, so that 60,000 men were constantly taken away from agriculture.

The shortage of labour was so acute that several attempts were made to establish colonies of foreigners—Germans, Italians, Chinese—on the land, to develop

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uncultivated areas, but these attempts **did not prove** successful.

LAND

Land.—As we have seen, there had developed during the period of Mohamed Ali, the beginnings of a system of *de facto* land ownership. In 1846, these developments were legalised by a decree which gave the holder of a piece of land the right to mortgage his land or to transfer it to another person by a certificate (*hodga*) of the sheikh el beled (the head-man of the village) or by oral transfer in front of witnesses. A tenant could be dispossessed for non-payment of taxes, but could regain possession of his land on payment of arrears.

Eight years later, in 1854, a move was made in the direction of more effective legal machinery for the registration of ownership in land. The village sheikhs had abused the wide powers in their hands. There were hundreds of cases where they had given *hodgas* for land by fraud. The new decree stated that all transfers of land must be made by contract registered in the *Mehkemet* (native court). At the same time, the principle of heredity was legally recognised. The right was given to the male issue to inherit land left by the parent. Women of the family might be granted the land "if they needed it." Finally, this decree limited to fifteen years the period in which action may be taken regarding the ownership of land. Previous to this, a former tenant had always the right to come back and demand his land to be restored to him.

In 1858, four years later, the principle of heredity was affirmed in full. The transfer of *Kharadj* land was authorised to the heirs of the tenant without distinction of sex, in conformity with the Mohammedan law of succession. A further provision laid down that

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any tenant who **had** occupied his land for five consecutive years, and regularly paid the taxes, should become **the** indisputable owner. The tenant was given the right to mortgage his land or to let it for three years renewable. The tenant had thus the right to let, mortgage or sell his land, and to leave it by inheritance to his heirs. He had thus all the rights of full ownership except in one important particular. The state still reserved to itself the right to expropriate land without giving any indemnity. This right, however, did not extend to land on which buildings or sakias were erected or trees planted.

This decree gave landed property a stability hitherto unknown, and gave legal sanction to the private ownership of property in Egypt. The next few years saw the development of an organised legal system—without which the concessions granted would have been greatly hampered in operation—for the registration of land ownership, transfers, mortgages, etc., and the establishment of proper legal machinery to deal with these matters.

In 1865 ^a decree was enacted, stipulating that each tenant should procure a certificate (*hodga*) from the provincial (*moudirieh*) court. This certificate stated that the person in question was the life tenant (*usufructury*) of the land he occupied. It should be noted that this certificate stated that the tenant had the right to the *produce* of his land (the usufruit). The final ownership of the land itself was still reserved to the state.

The legal machinery for registration was completed by the establishment of the Mixed Courts in 1875. In the meantime, the final step of giving the tenants full rights of ownership in the land they occupied had been taken by the Law of Moukabala, which in 1871 granted perpetual reduction of the land tax to one-half and absolute rights of property in land on which the owner paid in advance six years' taxes. This law

was a desperate attempt on the part of Ismaïl to raise money. It was repealed and re-enacted in 1876 and finally abrogated in 1880 (when arrangements were concluded to pay back the money collected under this law by annuities finishing in 1930). Immediately afterwards, however, another decree was passed granting full rights of ownership in land on which the Moukabala had been paid, in whole or in part. This was confirmed by the Law of Liquidation, 17th July, 1880, and on 27th Sept. the Council of Ministers announced that certificates would be delivered, against payment, in which the payment of the Moukabala was confirmed and the right of full ownership affirmed.

The rule of heredity of 1859 had been changed in 1869 by a decree stating that on the death of a tenant his property would be registered in the name of his eldest son, but the usufruit divided between the members of the family. This was, at the same time, a concession to popular sentiment and an attempt to avoid the breaking up of estates into small parts. In 1881, however, this decree was abrogated. Succession was decreed to be according to the rules of Mohammedan law. All holdings were to be registered in the cadastral register (*moukallafa*). Each member of the family, male or female, could have a certificate of ownership establishing his right to his particular property.

Thus by 1881, all the Kharadj land, with the exception of a few thousand feddans on which the Moukabala had not been paid, had passed in full ownership into the hands of the holders and, on their death, to their successors according to the Mohammedan law of inheritance. At the same time, various other categories of land which at the beginning of the century had been under various special conditions of ownership had been assimilated to Kharadj land.

Rizka land,—This was land which had been granted

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by various rulers of Egypt from the time of Selim I. The grants were made in the name of the Sultan and did not pay the miri or land tax. Mohamed Ali allowed the holders to continue in possession of their land, but imposed land tax. He granted the holders an annual payment (called Faiz) until their death, in compensation for the imposition of the tax. Later holders had to pay land tax at the usual rates. Under the law of 1858, the Rizka land was assimilated to Kharadj land.

Wissiya land.—This was the private property of the Moultezims. When Mohamed Ali abolished the Iltizams he allowed the ex-Moultezims in Lower Egypt to retain their Wissiya land, but in Upper Egypt the beys revolted against the suppression of the Iltizams, and as punishment their land was seized and given to the fellahin. Later, Mohamed Ali imposed the land tax on Wissiya estates. The holders of these estates were afraid that on their death their land would go to the government, and many of them constituted their estates into "Wakf" (inalienable religious trusts) for the benefit of their descendants. In 1855, however, and again in 1859, the right of succession to Wissiya estates was allowed by decree, and the Wissiya estates were specifically included in the Law of Moukabala. As the Kharadj tax had already been imposed they thus came to be on the same footing as Kharadj estates.

Abadieh land.—With the object of bringing more land under cultivation, Mohamed Ali distributed areas of uncultivated land outside the cadastral survey, to rich Egyptians and foreigners free of tax on condition that they brought the land under cultivation. His first gifts in this way began in 1829. In 1836 he tried to limit this land to the family of the original owner, but this raised difficulties and in 1842 he allowed the owners the permission to dispose of the

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land in full property. In 1871 the owners of this land paid the Moukabala and thus obtained another title to ownership and full rights.

Foreigners.—Under the Capitulations, foreigners had been given the right to come into the country and engage in trade, but had been forbidden to own land. From 1829, however, Mohamed Ali made grants of Abadieh land to foreigners, thus affirming their right to hold land in Egypt. In 1858 Said Pasha allowed foreigners to participate in sales of land that had been seized for non-payment of taxes or abandoned by tenants. The land thus sold, like the Abadieh land, carried with it a "taxit" or certificate of ownership from the treasury. From 1858, therefore, foreigners were allowed to acquire Kharadj land. This right of foreigners to hold land was confirmed by Imperial Decree from Constantinople in 1867, which authorised foreigners to possess land in all dominions of the Ottoman Empire.

Thus, by 1880, practically the whole of the land of the country, except the Crown lands, had come to be held by the landowners in full private ownership. The few hundred thousand feddans which were excluded because the owners had not subscribed to the Moukabala were admitted within the next few years, and before the end of the century the last restraints to private ownership had all disappeared, and a single standard of taxation had been imposed for the whole country.

The importance of this development is immediately obvious. It gave to Egyptian agricultural society a stability hitherto unknown, and it provided the strongest of all inducements—the incentive of private profit and the pride of possession—to stimulate the farmers to exert their best efforts, and undoubtedly led to increased production and the introduction of improved methods of cultivation.

The new régime of land ownership brought with it

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many other important developments. The vastly increased demand for land, enhanced the value of the limited area available for cultivation. At the same time there arose a demand for mortgage loans to enable purchasers to buy more land. Simultaneously the establishment of property rights and the institution of the Mixed Courts, which provided a satisfactory means of registration to title in land, offered suitable guarantees for organised mortgage operations and led to the establishment in 1880 of the first two mortgage banks—the Credit Foncier Egyptian and the Mortgage Company of Egypt—the one on French and the other on English capital. From the middle of the century there had already been a considerable development of mortgage loans by individuals in the villages. As the Mohammedans are forbidden by their religion to lend money on usury, the moneylenders were chiefly the Copts, whose religion placed no ban on moneylending, and the Greeks, who very rapidly penetrated throughout the country, so that in practically every village the Greek "bakkal" (general grocer—provision dealer—moneylender) was established. The intense "land-thirst" and the supply of mortgage credit have undoubtedly been important factors in the rise in the price of land, which has been such an important feature of the economic development of Egypt since 1880.

Irrigation.—Under Said and Ismail, the system of irrigation which had been introduced by Mohamed Ali was developed and extended. In the Delta and in Middle Egypt many canals were dug to provide water in summer. In the reign of Said Pasha, the Mahmoudia Canal, which had become partly silted up, was dredged, and other canals were deepened. In the reign of Ismail a vast programme of canal construction was undertaken and 8,400 miles of canals

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were built, the principal ones being the Ibrahimia Canal, in Upper Egypt, 268 kms. long, which made possible the great extension of sugar cultivation in Upper Egypt under Ismail, the Ismailia Canal and the Behera Canal.

These canals undoubtedly increased the prosperity of the country, and in particular enabled the cultivation of cotton to increase from 360,000 kantars in 1850 to over 3,000,000 kantars in 1880. In addition there was a big increase in the cultivation of sugar cane in the same period.

In spite of their undoubted advantage, however, the system of irrigation remained defective and wasteful. The level of the water in summer was many metres below the ground, and the canals tended to silt up every year at the end of the flood. A great part of the agricultural labour had to be employed in clearing out the mud from the canals in spring and in lifting the water to the land in summer. There were over 30,000 sakias, 70,000 shadoofs, 7,000 tabouts and 500 steam pumps in use in the reign of Ismail.

Increase in area under cultivation.—During the reigns of Said and Ismail, the cultivated area was considerably increased. From 4,160,169 feddans in 1852 it increased to 4,742,610 feddans in 1877. A large part of this increase was due, however, to concessions of big areas to wealthy landowners at reduced rates of taxation on condition that the land was reclaimed and brought under cultivation. Between 1863 and 1877, 689,263 feddans of land were added to the area under cultivation as shown by tax returns, but of this only 67,407 feddans were classified as Kharadj land, and paid full taxation. The remainder represented in the main partially reclaimed or entirely unreclaimed land. In 1877, there were 3,460,685 feddans of Kharadj land and 1,281,925 of Ouchouri land, the latter paying reduced rates of land tax.

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American Civil War.—In agriculture, the principal interest centres round the development of cotton and of sugar. Both these crops were greatly affected by the American Civil War (1861-64). This war had important economic results upon Egypt. In the first place it caused a scarcity of American cotton, so that English spinners were obliged to turn to Egyptian cotton. At the same time the price rose rapidly from 12 talaris in 1860 to 45 talaris in 1865. As a result the production of Egyptian cotton rose from 501,415 kantars in 1860 to 2,139,716 kantars in 1865.

The increased value of cotton led to a corresponding increase in exports. In 1861, the value of exports was L.E.3,433,000. Three years later, in 1864, it had risen to L.E. 14,417,000.

The great increase in the volume and value of foreign trade, and in particular, the increase in cotton exports led to the establishment in 1872 of an organised produce market in Alexandria. This was the origin of the present Exchange at Minet el Bassal, where dealings in spot cotton are still centred. Finally, the increased value of the agricultural products during the war led to an increase in the revenue of the government, which rose from L.E.2,154,000 in 1861 to L.E.6,972,000 in 1864.

The American Civil War, then, brought a short burst of prosperity to Egypt. But, as always, in a period of sudden and easily won prosperity, it led to extravagance and inconsidered expenditure, so that when the end of the war brought the inevitable fall in prices, there was considerable suffering. This was heightened by a very severe outbreak of epizotic or cattle plague between 1863 and 1865, and farmers had to appeal to the government for help. Still more important, perhaps, was the fact that this burst of prosperity coming upon the country just as Ismail came to the throne must have given him quite ex-

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aggerated ideas about its resources and wealth, and many of his most expensive items of expenditure such as the Suez Canal, the sugar industry, canals and railways may be traced to the influence of that temporary burst of prosperity.

Cotton and Sugar.—After the war there was a sudden heavy fall in the price of cotton. As a result, the 1866 crop was less than half that of the preceding year. At this juncture, Ismail turned to the cultivation of sugar, from which he hoped to make up the profits thus lost on cotton. The sugar industry, however, never became as important as he had planned. In the meantime the prices of cotton recovered so that once again the farmers found that it was their most profitable crop. At the same time, the opening up of the new grain-producing areas in Canada, Australia, and the Argentine and the extension of cheap ocean communication was flooding the markets of the old world with cheap wheat and the cultivation of wheat became less profitable than before. Under these circumstances the farmers again found that cotton was the most profitable crop that they could grow and its cultivation increased steadily until, in 1880, 3,000,002 kantars were exported. In thirty years, from 1850-1880, the exports of cotton increased nearly tenfold, from 364,816 kantars to 3,000,002 kantars.

COTTON EXPORTS AND PRICES, 1850-1884

Year	Kantars	Rials	Year	Kantars	Rials
1850	364,816	11 $\frac{3}{4}$	1857	490,960	10 $\frac{3}{4}$
1851	384,439	8 $\frac{3}{4}$	1858	519,537	16 $\frac{1}{4}$
1852	670,129	10 $\frac{1}{4}$	1859	502,645	12 $\frac{3}{4}$
1853	477,390	10	1860	501,415	12
1854	477,905	8 $\frac{1}{2}$	1861	596,200	12
1855	520,886	8 $\frac{1}{2}$	1862	721,052	13
1856	539,885	9 $\frac{1}{4}$	1863	1,181,888	23

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Year	Kantars	Rials	Year	Kantars	Rials
1864	1,718,791	36½	1875	2,206,443	23
1865	2,001,169	45	1876	3,007,719	15½
1866	1,288,762	21½	1877	2,439,157	15½
1867	1,260,946	35½	1878	2,583,610	13½
1868	1,253,455	22½	1879	1,680,595	14½
1869	1,289,714	19	1880	3,000,002	14½
1870	1,351,797	22½	1881	2,509,949	14½
1871	1,966,215	19½	1882	2,811,071	14
1872	2,108,500	15½	1883	2,140,106	15½
1873	2,013,433	21	1884	2,564,844	13½
1874	2,575,648	18½			

The sugar industry.—In the meantime a great impetus had been given to the sugar industry. Since the days of Mohamed Ali this industry had been in decline, and exports had sunk gradually from 29,276 kantars in 1853 to 13,226 kantars in 1862. During the cotton boom, 1862-65, the exports of sugar sank almost to zero. The sudden fall in the price of cotton in 1866 led Ismail to undertake the extension of the sugar industry on a large scale. In six years, seventeen factories were erected, capable of producing 2,350,000 kantars of sugar per annum, and others were under construction. Production and exports rose rapidly. In 1872, the total production exceeded 1,500,000 kantars and 456,851 kantars were exported. By the end of the reign of Ismail, sixty-four factories had been built at a total cost of over L.E.6,000,000. This was far beyond the capacity of the country, and some of the later factories were never put to use. In 1880, 661,000 kantars of sugar were exported.

Industries.—Apart from the sugar industry, there was little industrial development during this period. Abbas I closed down most of the remaining factories of Mohamed Ali. In the time of Ismail, the government had several state bakeries in Alexandria and

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Cairo, consuming more than 100,000 ardebs of flour per annum ; two cloth factories, one at Boulac and the other at Shoubra; and a tarbouch factory at Tura. The products of these factories were used for the arsenal and government services. The Imprimerie Nationale at Boulac and a small paper mill near it completed the list of industries under government control.

This restriction of government industries was followed by a certain development of industries on private capital, this time largely from abroad. From the middle of the century there were bakeries and flour mills on French capital ; the Alexandria Water Company was established in 1852, and the Alexandria-Ramleh Railway in 1862, both on English capital. A French company introduced gas into Alexandria in 1865 and another one was given a concession in the same year to establish a supply of pure water in the houses in Cairo.

FOREIGN TRADE

No better index to the development of the country during this period can be found than that reflected in the figures of foreign trade.

From 1849 to 1860 there was a gradual but slow development of exports, from L.E.2,043,579 in 1849 to L.E.3,422,959 in 1860. The figures from year to year fluctuated considerably, following largely the fluctuations in the price of cotton, and the increase is accounted for by the increased cotton exports from 300,000 to 500,000 kantars during the period.

In the period of the American Civil War there was a sudden and very great increase. In three years the value of the exports jumped from L.E.3,422,959 in 1860 to L.E.14,416,661 in 1863. After the war there was a considerable fall—to L.E.8,000,000 for a few years—but even so the value of the exports

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was more than twice as much as it had been in the pre-war years. The cultivation of cotton had taken a wide extension and after the initial set-back after the war it steadily increased again as prices rose to remunerative levels. In 1873, the exports had risen to 2,013,433 kantars sold at an average price of 21 dollars, and the total exports to L.E. 14,208,882. In the decade 1870-1880, goods to an average value of over L.E. 13,000,000 per annum were exported.

FOREIGN TRADE OF EGYPT, 1849-1880

Year	Exports L.E.	Imports L.E.
1850	2,043,579	1,621,369
1851	2,155,420	1,681,630
1852	2,270,333	1,575,374
1853	1,848,779	2,001,913
1854	2,087,938	2,141,964
1855	3,286,436	2,527,133
1856	4,029,543	2,568,692
1857	3,104,948	3,149,230
1858	2,533,907	2,715,215
1859	2,565,625	2,494,143
1860	2,535,651	2,604,933
1861	3,422,959	2,568,539
1862	4,454,425	1,991,020
1863	9,014,277	5,063,487
1864	14,416,661	5,291,297
1865	13,045,661	5,753,184
1866	9,723,564	4,662,210
1867	8,623,497	4,399,097
1868	8,094,974	3,582,969
1869	9,089,866	4,021,601
1870	8,680,702	4,502,969
1871	10,192,021	4,512,143
1872	13,317,825	5,005,995
1873	14,208,882	6,127,564
1874	13,423,000	5,070,000
1875	13,333,334	5,619,467

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Year	Exports L.E.	Imports L.E.
1876	13,561,286	^ S ^ 1
1877	12,750,232	4,493,44!
1878	8,097>277	4,844,342
1879	13*439,059	5,002,163
1880	12,983,204	6,549,933

Development of Alexandria.—As the years passed, Alexandria more and more asserted her position as the principal port of importance in Egypt. It was the only port on the Mediterranean seaboard to which the bigger and heavier steamships of the new age could obtain access. Its usefulness was greatly increased by the construction of an up-to-date dock in Alexandria with proper loading facilities and direct connection with the main railway to Cairo. From 1853 to 1862, 72 per cent, of the total exports passed through Alexandria ; from 1863 to 1872 the proportion rose to 94 per cent. After 1872 there was an organised produce exchange, an important and rapidly growing community of merchants—chiefly foreigners—was established there, and a number of foreign banks had agencies in the town.

Trade with England.—England continued to extend her commercial relations with Egypt. Her foreign trade, both imports and exports, far exceeded that of any other nation. She took four-fifths of the cotton, and the greater part of the cereals exported, and provided Egypt with nearly all her requirements of cotton goods as well as many other manufactured goods. Eighty per cent, of all the goods exported from Egypt went to England, and 44 per cent, of the imports were bought from England. France came next, but far behind, with 10 per cent, of the exports and 11 per cent, of the imports, and after France came Austria, Turkey, Italy and Syria.

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Cereals and Cotton.—The great increase in the export of cotton and the temporary increase in sugar exports after 1865 did not altogether cut off the exports of cereals. It is true that during the American Civil War the exports of wheat sank almost to zero, but after the war there was again a rapid increase—which coincided with the diminution of cotton—followed by another reduction as cotton cultivation again took up. This unequal see-saw movement, however, turned more and more to the favour of cotton, and the fall in the price of cereals in the later part of the century, following the development of the cheap grain-growing areas of the world, tipped the scales definitely in favour of cotton.

Communications.—During the reign of Ismai'l there was a very rapid extension of the railway system. At his accession, in 1863, 245 miles of railway had been constructed. The only lines were from Alexandria to Cairo ; Cairo to Suez and Benha to Zagazig.

From 1863 to 1880, 910 miles of railway were constructed, at a cost of over L.E. 13,000,000. The railways in the Delta were extended by lines from Zagazig to Suez via Ismailia, from Kalioub to Mansourah, from Tanta to Mansourah, from Zifta to Dessouk, Tanta to Chebin and Cairo, Dessouk to Chebin, Dessouk to Damanhour, etc., etc., as well as by branch lines to the barrage and to Abbassia. The principal towns in the Delta were thus connected by a network of railways. Much of the economic and social progress of the period was undoubtedly due to this development of railways. Among other benefits, it made possible the wide extension of cotton cultivation by providing the means of transport of the cotton produced to the market in Alexandria. In Alexandria, the terminus was connected direct to the new docks by a branch line to the quay side.

In addition to this great development of the railway system in the Delta, an entirely new line was built

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from Cairo to Upper Egypt. This line ran up the west bank of the Nile, from Boulac Dacrou station. Until 1891, there was no railway bridge across the Nile at Cairo to connect it with the terminus of the Delta lines, and the two systems were practically independent. The construction of the line in Upper Egypt coincided with the desire of Ismail to extend the sugar industry. Starting in 1867, the railway was already terminated as far as Assiut in 1874. A branch line went out to the Fayoum.

The opening of the Suez Canal diverted from the Egyptian railways the rapidly growing and profitable transit traffic in goods and passengers from East to West. Before the opening of the canal, the profits from the overland railway route had already risen to L.E.750,000 per annum. With the opening of the canal, this traffic was carried by the ships traversing the canal. The railway from Cairo to Suez went entirely out of use and was dismantled. The receipts of the railway from Cairo to Alexandria were greatly reduced. The railway, which had originally been built expressly for the overland traffic, now had to rely entirely upon the movement of passengers and goods inside the country. With the railway, Egypt had begun to have a foretaste of the profits that the swing in international trade would bring to her on account of her position ; with the canal, these profits were diverted from her, at least for a considerable period of time.

Telegraphs.—The electric telegraph was introduced into Egypt at the same time as the railway, and the first telegraph line was opened in 1854, in the same year as the Cairo-Alexandria railway line.

Before that, however, there had been in use a system of signalling for transmitting messages rapidly from place to place. In 1820, following the construction of the Mahmoudia Canal and of the palace at Ras el Tin, Mohamed Ali had built a line of nineteen towers

from Ras el Tin (Alexandria) to the Citadel (Cairo). Each tower was fitted with a tall mast and two long semaphore arms, and messages were signalled from one tower to the other, so that a message could be transmitted to Cairo from Alexandria in forty-five minutes. This *telegraph*, as it was called, was for the private use of the palace.

In 1840, on the opening of the Suez Road, a line of sixteen towers was built from Cairo to Suez, similarly equipped with semaphore arms, to signal the movement of ships and passengers between Cairo and Suez. Many of these towers, in a more or less ruined condition, still exist.

In 1863, there were 582 kms. of telegraph lines in Egypt. During the reign of Ismail the telegraph service was very widely developed. Over 5,200 kms. of telegraphs were built in Egypt in addition to over 2,000 kms. in the Sudan. All the principal towns of Egypt were connected by telegraph lines.

The telephone was introduced in 1881, and, like the telegraph, was rapidly extended, especially in the large towns.

The Post Office.—Under Mohamed Ali, there was an organised postal service for the correspondence of the government. At the same time, private agencies such as the Sheikh Hassan el Badili in Cairo and an Italian, Carlo Merati, in Alexandria, arranged for delivery of private letters. The latter established an office in Alexandria. He took letters from ships that arrived and distributed or forwarded them to the addressees.

In 1835, the British Government organised a mail service once a month from England to Egypt for letters *en route* to India. Postage had to be prepaid to Alexandria. Merati forwarded the letters across Egypt to Suez, where they were received by vessels of the East India Company to be carried to their destination.

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Arising from this transport of the overland mail, Merati organised in 1843 a private service for the delivery and collection of mail between Cairo and Alexandria, and later extended it to the other principal towns in the Delta. At the death of Merati, the service, known as the "European Post," was continued by his nephews Chini. In 1865, under Ismaïl, the postal services were taken over by the state. The service was rapidly improved and developed so that in 1874 Egypt was represented in the first International Postal Congress at Rome.

Nile transport.—The development of the railway emphasized the slowness of transport by the Nile, and a considerable volume of traffic was diverted from the Nile to the railway. At the same time, however, steam transport was adopted on the Nile and in the reign of Ismail there was a regular service of steamboats carrying goods and passengers up and down the Nile.

Steamship lines.—From the middle of the century, steamship communication in the Mediterranean and in the Indian Ocean developed very rapidly. In 1870 there were three Egyptian, three English, five French, four Austrian, one Russian, one Turkish, and two Italian lines of steamships maintaining regular services across the Mediterranean to Egypt, as well as a great number of merchant vessels, chiefly English, coming at irregular intervals.

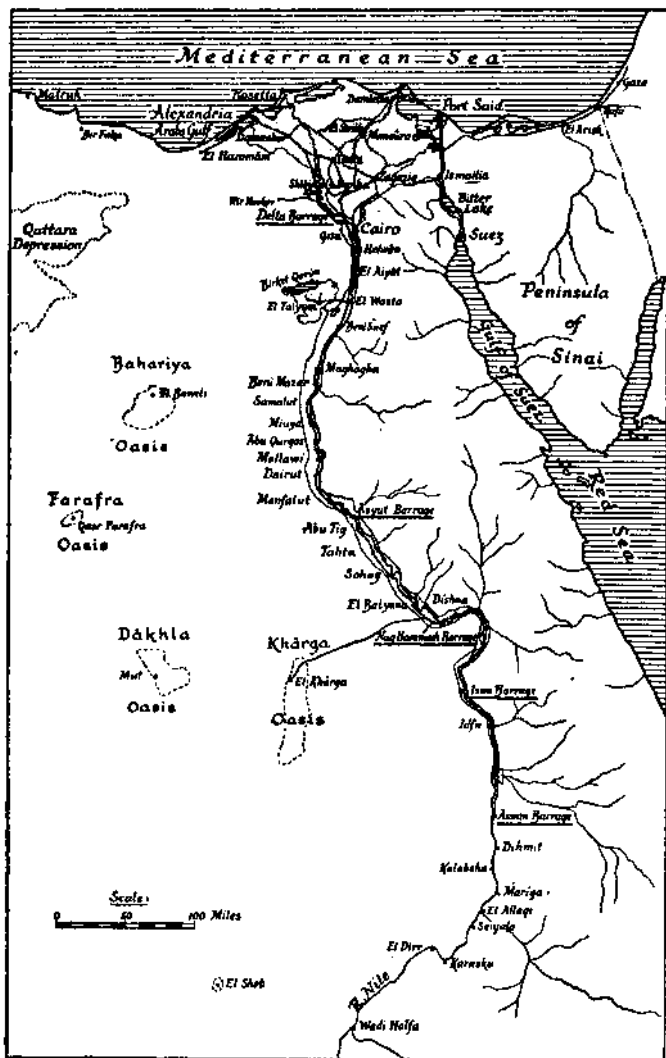
Alexandria had become the most important port of the Near East. In the reign of Ismail, important improvements in the harbour were carried out by an English firm. A protected anchorage in the outer port with a minimum depth of 10 metres and an inner harbour with a minimum depth of 8½ metres, gave harbourage to the largest vessels. The inner harbour was provided with spacious quays provided with the most up-to-date machinery for loading and unloading ships and with a double railway running all the length

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of the quays and connected with the railway system of Lower Egypt.

Important harbour works were also carried out at Suez, from where there was a regular service of steamships to India and the Far East. Begun under Said, the work was completed under Ismail. A dry dock was constructed, and a protected mooring ground was prepared, protected by a breakwater.

Thus, by the end of the reign of Ismail, Egypt had been endowed with means of communication adequate for, possibly even surpassing, her immediate needs. The great development in production, commerce and foreign trade in this period would not have been possible without this extension of the means of communication. It is also true that the expenditure on railways, on ports, on steamships and on the Suez Canal was responsible for a large part of the indebtedness of the government during the period. On both sides, both by their influence on the development of the country, and their part in the increased indebtedness, communications played a dominating part in the economic development of Egypt during this period.



THE NILE, SHOWING CULTIVATED LAND AND BARRAGES

CHAPTER IV

DAMS AND BARRAGES

1880-1914

THE year 1880 marks off another period in the economic development of modern Egypt. The passing of the Law of Liquidation in that year and the change in the government of the country marked the end of the period of large-scale borrowing on government account; the land law which followed in the same year definitely and finally accorded to the farmers full ownership in the land they cultivated. The period of rather wasteful, hurried, progress-at-all-costs policy was followed by a period of calm, purposeful, economical development which brought to full fruition the seeds of progress planted earlier in the century.

The chief concern, in the next ten years, lay in the efforts made to stave off a second bankruptcy. The position, as soon as the country had settled down after the troubled events of 1882, was as follows. The public debt had risen to nearly £100,000,000, and the annual payment of tribute and interest on the debt was nearly £5,000,000. The total revenue of the government was about £10,000,000 per annum. Exports represented about an equal sum. The fixed payment of interest and tribute therefore absorbed half of the revenue and nearly half the exports of the country.

It was impossible to think of increasing the revenue by further taxation. On the contrary it was desirable, if possible, to allow some relief to the taxpayers. Between 1850 and 1880 the revenue collected had increased from L.E.2,000,000 to over L.E.10,000,000

Per annum. In one year it is said that over £.E. 15,000,000 had been obtained. This was excessive and was only obtained at the price of the most severe oppression. Any further savings that might have remained in the hands of the people were drained away by two forced loans, the Rouznameh and the Moukabala. As a result, in 1880, the country, as one observer of the day said, was bled dry.

The payment of tribute and interest had to be maintained at all costs. A second default would have led to the Powers stepping in, and the most serious consequences to the political status of Egypt must necessarily have ensued. Faced with the impossibility of increasing taxation on the one hand, and the imperious necessity of maintaining heavy fixed payments on the other, the government was obliged to adopt a policy of retrenchment in all other directions, and administrative expenditure was reduced to a minimum.

At the same time, such a state of affairs could not be allowed to continue indefinitely. It was necessary to work towards a way of escape from an almost intolerable position by effecting an increase in production and revenue. To this end, when, in 1885, a loan was contracted to enable Egypt to pay off the indemnities arising out of the Alexandria riots and other expenses, a sum of £2,000,000 was added, to be spent on improving the irrigation system of the country. Expert irrigation engineers were brought from India to supervise the irrigation works and to see that the money was spent to the best advantage. By 1891, £1,800,000 had been spent upon improvements in irrigation. Slowly the work of the engineers began to show its fruits in increased production.

In the meantime there was a real "race against bankruptcy," the object being to maintain the payments due until relief came from increased agricultural production. The position was rendered acutely diffr-

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cult by a **severe** depression and **fall** in prices from 1886 to 1888.

The work of the irrigation engineers, however, was being rapidly pushed ahead. It was recognised that the most useful operation would be to put into working order the Delta barrage. At a single stroke **this** would obviate the waste of the annual corvée **for** deepening the canals ; save the time and money lost in raising the water to the fields in summer; extend the cultivated area, and increase agricultural production. At that time only one part of the Barrage, the one over the Damietta arm of the Nile, had been completed, and even this was in danger of collapse and could not be used. About 1880, it was seriously considered to use steam pumps at the barrage to raise the water into the three great feeder canals of the Delta. All the details were worked out for the scheme which, when in operation, would cost £250,000 per annum. In the period of financial stringency that followed, however, this expensive scheme was postponed. It was then decided to try to repair and complete the barrage itself. In 1886, one side was repaired and put into use. The higher level of water in the canals allowed many of the land-owners to dispense with their steam pumps. Two years later, in 1888, the repair of the other side was undertaken, and the floor was raised and strengthened. At the same time, the regulation of water passing from one basin to another in Upper Egypt was improved. Finally, in 1890, the second half of the barrage, its floor reinforced by an apron of masonry 238 feet upstream, was successfully repaired, and in the summer of 1891 the barrage was put into full use. The results were immediate, and far reaching. Districts which had never seen summer water, now found themselves blessed with an abundant supply. Many farmers found water running level with or even above the level of their

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fields and had only to open a sluice instead of the laborious lifting or expensive pumping previously employed. The annual *corvée* for deepening the canals was no longer necessary and the following year it was abolished. There was an immediate extension in the area of cultivated land and an enormous increase in the production of summer crops. The Cotton crop increased from 2,723,000 kantars in 1888 to 5,221,000 kantars in 1892.

This sudden increase came just in time. From 1890 to 1896, agricultural prices fell to levels which appeared to have no bottom. A few years previously, such a fall would have led inevitably to bankruptcy. As it was, the fall in prices was more than compensated for by an increase in crops. The race against bankruptcy was won.

The successful completion of the Delta barrage in 1890 marks one of the most important stages in the economic development of modern Egypt. It finally established the success of perennial irrigation in the Delta and brought to final success the reform inaugurated by Mohamed Ali seventy years earlier. The two principal defects which had hitherto detracted from the value of this reform had been the -necessity to clean out the mud and silt from the canals every spring so that they would be deep enough to take the summer water even at its lowest level, and the necessity to raise the water from its low summer level to the fields. Both of these defects were remedied by the barrage which raised the water in the feeder canals, so that in many places it was as high as or even above the level of the land and the free flow system of water supply could be used.

The annual *corvée* for cleaning out the canals was no longer required. Already, in 1886, a reform had been made by paying a daily wage to men called out for *corvée* service, this payment was covered by a *corvée* tax. In 1892 owing to the reduction in *corvée*,

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it was possible to abolish this tax. Since this date, the only corvée connected with irrigation, has been the employment of men to survey the Nile banks in time of flood. The higher the Nile, the greater is the danger and the more the number of men required. The extension of perennial irrigation has at the same time increased the possibility of floods and the loss that would result. Formerly, when the Nile rose, the water was spread out in the basins and its rise was thus attenuated. With the new system, all the water of the flood is compressed between the banks of the river and its canals, and is thus more liable to overflow than formerly. Formerly, the land in the basins was lying fallow and dry and sudden flooding did comparatively little damage, and even the loss caused was usually more than compensated by the increased yield of crops from the basin land in the following season. But floods now would be a disaster. The summer crops are still on the land as the flood rises and a breach in the banks would cause immense destruction.

The success of the Delta barrage soon led to other big irrigation projects. In the first place it was necessary to provide an increased store of summer water. The barrage did not increase the supply of water, it only raised its level in summer. The comparatively small supply of water passing Cairo in summer is not sufficient to water all the land in the Delta. And if, as was anticipated, it was decided to convert the other parts of the country to perennial irrigation on the same system, a still bigger supply of summer water would be required. The amount of water used in cultivation varies according to the crop that is being grown. Cotton requires 20 to 30 tons of water per day per feddan ; rice may take as much as 60 to 80 tons per day per feddan. On the average, it may be said that, taking into account the system of rotation (system by which the canals are filled

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for about 16 days out of every 24), an average of 20 tons per day per feddan are required for cultivation. To cultivate five million feddans in summer, would require, therefore, 100 million tons of water per day. But the Nile discharge in summer, for a period of about one hundred days, is only 30 or 40 million tons per day. To extend summer cultivation it was necessary to supply more summer water. To obtain this, it was decided to build a big dam across the river at Aswan to hold back part of the tail end of the flood for use in the following summer.

The contract for the Aswan Dam was signed in 1898 and construction was finished in 1902. By measure of precaution it was not made as high as originally intended. When completed, in 1902, it held back 1,000 million tons of water, thus adding an average of 10 million tons a day for a period of 100 days.

In the meantime, the results of the Delta barrage were attracting universal attention. The cotton crop continued to increase. From 5,221,000 kantars in 1892 it rose to 6,544,000 kantars in 1897. At this period over 90 per cent, of the cotton was being grown in the Delta. (In 1899, 1,065,000' feddans in Lower Egypt, were planted with cotton as against only 88,000 feddans in Upper Egypt.)

A rise in the price of cotton after 1898 made the higher production still more striking in terms of increased wealth. For some time after 1890, the increase in the crop had been offset by a heavy fall in prices, from 13I talaris in 1890 to 7¼ talaris in 1898. Although, in the meantime, cotton exports had more than doubled in quantity, the actual value remained approximately the same. After 1898, however, a rise in the price, to 10J talaris in 1899 and 13¾ talaris two years later, translated the increased production into a very tangible increase in financial receipts and general prosperity. In 1889-90, 2,780,000

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kantars of cotton were exported and realised the sum of L.E.9,799,000. Ten years later, in 1899-1900, the exports were 6,512,000 kantars and receipts L.E. 15,565,000.

Following these results, it was decided to proceed immediately with the conversion of Middle Egypt to perennial irrigation on the same system as that employed in the Delta. It was necessary to provide a barrage at Assiut to raise the level of the water in the Ibrahimiya Canal, and a network of canals in each province taking their source from the Ibrahimiya Canal.

The Assiut barrage was completed in 1902. In that year there was an exceptionally low flood which threatened to leave many of the basins in Middle Egypt without water (the process of canalisation had not yet gone very far) and thus involve the farmers and the government in heavy loss. The engineer at the Assiut barrage took the bold step of closing the gates *during* the flood. This raised the level of the water and filled the basins. The crops thus saved from loss in this year alone were estimated to have nearly equalled the cost of the barrage.

This showed that barrages could be useful to fill basins as well as canals, and it was decided to build another barrage at Esneh, to help to fill the basins in years of low flood. At the same time, this barrage was designed to be suitable for use if ever it was decided to convert this part of Upper Egypt to perennial irrigation. Started in 1904, the Esneh barrage was completed in 1909.

In the meantime, steady progress was being made with the scheme of the conversion of Middle Egypt to perennial irrigation. One province after another was equipped with the necessary system of feeder canals until by 1909 the whole area had been converted from basin to perennial irrigation.

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In Lower Egypt, the greater supply of water available after the completion of the Aswan Dam in 1902, made it possible to extend the area of summer cultivation still further to the north. In order to raise the water level in the lower reaches of the Menufia and Taufiki canals another barrage was built at Zifta.

Finally, with the extension of perennial irrigation in Lower and Middle Egypt, the supply of summer water again proved deficient and it was decided to increase the storage capacity of the Aswan reservoir by raising the dam by five metres. This was carried out between 1910 and 1912. As a result, the storage capacity of the reservoir was raised to 2,300,000,000 tons.

This completed the immediate irrigation projects of the government. Lower and Middle Egypt had been successfully converted to perennial irrigation ; a barrage had been provided to regulate the filling of the basins in Upper Egypt and a large storage reservoir at Aswan had been constructed to supply the summer water required in the area under perennial irrigation. We can now turn to a consideration of the more immediate results of these unprecedented irrigation developments.

Increase in cultivated area.—The first, and most obvious result of the irrigation works in this period was a notable increase in the cultivated area.

The area of taxable cultivated land rose gradually from 4,764,406 feddans in 1881, to 4,913,678 feddans in 1889. When the Delta barrage came into operation, in 1890, there was a rapid increase in the area of agricultural land, to 5,495,800 feddans in 1899 and to a maximum of 5,658,000 feddans in 1911. In the next two years, however, the area was reduced by 155,000 feddans to 5,503,000 feddans in 1913.

The above figures represent all the tax-paying agricultural land in the country. Details of the

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actual area under cultivation are available **only** from 1893-4. In that year, the cultivated area was 4,805,160 feddans, as against a taxable area of 5,297,395 feddans. The cultivated area increased steadily to 1904-05 when a maximum of 5,403,891 feddans was reached. After this, there was, on the whole, a tendency towards regression and the area was reduced to 5,282,626 feddans in 1913. In short, there was a rapid increase to 1904 in the area of land actually cultivated, followed by a slow decline to 1913.

Crop areas.—More significant, however, than the cultivated area, is the crop area. In the genial climate of Egypt, cultivation is possible all the year round, always provided that the necessary water is available. The new system of irrigation provided an all-the-year-round supply of water, to an increasingly large area. Perennially irrigated land will bear two, three or even more crops during the year. With the extension of perennial irrigation the crop area developed very much more rapidly than did the cultivated area. The importance of this, can be seen from the following table showing the increase in the actual area under crops in the different seasons.

AREA UNDER CROPS
(By Seasons)
1879, 1899, 1913

Year	CROP AREA			
	Winter (Chitwi)	Summer (Scifi)	Flood (Nili)	Total
	feddans	feddans	feddans	feddans
1879 ..	3,139,228	813,012	809,938	4,762,178
1899 ..	3,906,299	1,712,276	1,414,136	7,032,711
1913 ..	3,728,761	2,205,959	1,777,692	7,712,412

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The area of taxable cultivated land increased from 4,742,610 feddans in 1877 to 5,503,000 feddans in 1913, an increase of 760,390 feddans. It should be noted, however, that in 1877, 1,281,925 feddans were classified as " Ouchouri " and a large part of these lands were non-productive whereas, in 1913, only 220,374 feddans were not cultivated. The real increase therefore is about 1,750,000 feddans.

In the same period, the crop area increased from 4,762,178 feddans in 1877 to 7,712,412 feddans in 1913, an increase of 2,950,234 feddans.

The chief features of this increase can be seen from the above table. The area of winter crops, which approximately represents the extension in the cultivated area, increased by some 600,000 feddans; the area of summer crops increased by nearly 1,400,000 feddans and that of flood crops by nearly 970,000 feddans. The increase in these two classes was due almost entirely to irrigation developments.

The size of the crop, however, depends upon two factors : the area cultivated and the average yield. In the period under review there were important changes in the productivity of the land, particularly in the case of cotton.

Exact cotton yield statistics for the whole country only go back to 1895 when the average yield was 5.29 kantars. It appears, however, that earlier yields were not so high. According to the returns of the State Domains Administration, the yield on the land of the State Domains was only three kantars per feddan in 1880 and rose, after 1890, to over five kantars per feddan in the last few years of the century. A well-documented report by the American Consul in 1873 gave the average yield at that time as 2f kantars. It appears, therefore, that, between 1880 and 1895 there was a general, and considerable, increase in average yield. From the beginning of the present century, however, a steady and progressive decline

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set in. The average yield for the whole country fell from 547 kantars per feddan in the period 1895-99 to 4-67 in 1900-1904. After 1903 there were widespread complaints of declining returns. In 1905, the average yield for the whole country was only 3-80 kantars per feddan. In the next few years the crop was a little better. The comparatively low yields of 1907 and 1908 were ascribed at the time to a shortage of summer water, but in 1909 when **there** was abundant summer water, the crop in many places was an absolute failure and the total yield for the whole country was only 3-13 kantars per feddan.

The causes of this decline in yield were not clearly understood for some time, but eventually it appeared that in one way or another most of the factors involved were directly or indirectly connected with the reformed system of irrigation and the increase water supply in the Delta.

In the first place, the continual supply of water all the year round had led to general overcropping and consequent impoverishment of the soil. One crop after another was taken from the soil in quick succession, without suitable provision being made for the soil to be reposed by lying fallow. Under the older system of basin irrigation, the fertility of the land had been perpetually renewed by its long period of enforced rest in summer, and the annual coating of mud. Under the new system, the land benefited by neither, and in addition it had to support the cultivation of cotton which is much more exhausting than most of the winter crops. As a result, the soil became impoverished. Enlightened farmers tried with some success, to remedy this by the use of artificial manure, and from the beginning of the century there was a rapid increase in the importation of artificial manure, particularly nitrates, into Egypt.

In the second place, the most direct and obvious **factor** affecting the yield was **the** attack of insect

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ests, and after 1903, one of these, the cotton worm, became particularly destructive and virulent. The cotton worm is an insect which attacks many kinds of plants, but its ravages are particularly destructive in the case of cotton. The moth lays eggs on the lower leaves of the cotton plant about the beginning of June. After three or four days the eggs hatch and the worms quickly spread over the entire plant, devouring the young buds, flowers and leaves. After about three weeks they burrow into the soil where they remain in the pupa stage for about 10 days after which the moths again emerge. The life cycle is thus from a month to 40 days according to the climatic conditions. The presence of water on the cultivated area among the crops is a favourable factor to the development of the worm, and it is noticeable that widespread complaints of its destruction arose, almost for the first time, in 1904, the year after the increased supply of summer water from the Aswan reservoir became available.

The cotton worm is most prolific and, if left unchecked, may practically ruin the cotton crop over wide areas. The only remedy was to pick the leaves affected by the cotton worm, and the government organised the agricultural labourers in June to pick and destroy the leaves of the affected plants. Labour of Sisyphus, which had to be recommenced each year. However, after 1909, the efforts of the government were successful, at the cost of considerable expenditure and loss of agricultural labour, in keeping the cotton worm to a certain extent in check. As a result, during the years 1910-13, the average yield was slightly higher, from 4 to 4½ kantars per feddan.

In the meantime, the ravages of another insect pest, the pink boll worm, were steadily spreading, and attracting increasing attention; but for some years its ravages were allowed to go on almost unchecked.

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The third cause of the fall in yield, a cause whose importance was not fully appreciated for some time, was the failure of drainage to keep pace with the increased water supply, and the resulting water-logging of the subsoil. At the beginning of the 19th century, the subsoil water in the middle of the Delta during the summer was 6 or 8 metres below the level of the land ; in 1886-87 it had risen to 3 or 4 metres below the surface ; in 1908, it was only 1 metre below the surface of the land.

Experiments have shown conclusively that when the subsoil water level rises to within 1 metre of the surface, the yield of cotton is very appreciably reduced. It was in the general rise in the subsoil water in the lower part of the Delta and the consequent stifling of the cotton roots that the third and main reason for the failure of cotton crops in that area was to be found. It was some time, however, before this fact was generally understood. Its treatment necessitated the revision of the whole question of drainage.

Drainage.—Under the former basin system, the drainage of the land was to a certain extent, automatic. In the autumn, the waters of the flood poured over the land, dissolved the salts that constantly tend to form in the land of Egypt and carried them off to the sea, leaving the land washed and sweet. During the summer, the water in the river was many metres below the surface of the land, the basin areas were dry and uncultivated, deep cracks appeared in the land and ventilated and aired the soil. The deep water-channels acted as drains and the level of the subsoil water in summer was several metres below the surface in all but the northern fringes of the Delta.

The successful operation of the Delta barrage meant that, in the Delta, the water in the canals in summer, instead of running several metres below the level of the land, was as high as, or even above

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the surface. It was clearly impossible for these canals to act as suitable drains. Owing to the limited supply of water, however, only the southern part of the Delta was at first irrigated by this method. This land is sufficiently high for free-flow drainage to act, the water draining away towards the north of the Delta, the great lakes and the sea. For some years therefore, until the end of the century, the land benefited by the additional supply of summer water, without being adversely affected by insufficient drainage, and the average yield per feddan, as we have seen, rose considerably.

The completion of the Aswan Dam, and the increased supply of summer water caused a change in the situation. An extension of summer cultivation took place in the low-lying lands towards the centre and north of the Delta. The construction, in this area, of canals filled with water in summer destroyed the natural drainage of this area, and at the same time choked back the flow of drainage from the south and centre of the Delta and caused a general rise in the level of the subsoil water.

The drainage water contains salts in solution which, if allowed to accumulate, can quickly turn the most fertile land into an arid waste. Under the old basin system, these salts were purged from the land by the annual washing of the flood water. Under the new system, the flood was kept within its banks and the salts in the subsoil accumulated year by year. When the level of the drainage water rose near the surface, evaporation took place and the surface soil became impregnated with Sodium salts. (Sodium carbonate, bi-carbonate, chloride and sulphate.)

Sodium carbonate is the most dangerous. It destroys the roots, corrodes the tissues of the plant, and renders the land hard and difficult to work.

After 1903 therefore, while on the one hand the

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area of cultivation was spreading rapidly, on the other hand, in the low-lying parts of the Delta, where drainage had become inadequate, the land was rapidly losing its fertility. Eventually, some of this land, from being some of the richest agricultural land in the country, became a barren, salt-ridden waste, while over large areas, the productivity of the land was greatly reduced.

It was some time before it came to be generally realised that too much water could do as much harm as too little. For thousands of years, the Egyptian farmer had made it his object to get as much water as possible. It was difficult for him to realise that excess water might be harmful. The first step in dealing with the problem, however, was to reduce the amount of water put on the land, to the strict minimum necessary for cultivation. This was done by propaganda work among the farmers and by imposing a system of rotation by which the canals are run alternately at high and low levels, so that the amount of water used, is reduced, and, the canals, during their low period, act as drains and carry off some of the surplus water.

The other step, which rapidly became inevitable, was the undertaking of large-scale drainage operations by the government. Over a large part of the Delta, the land is so low that free-flow drainage into the sea is not practicable. Drains should be at least 1\ to 2 metres below the level of the land, and require a fall of at least 5 cms. per km. But many parts of the Delta are but a metre or two above sea level. In Gharbieh, 80 kms. from the sea, the land is only 4 metres above sea level. The only remedy was to make arrangements for the water to be drained off into deep drains running towards the northern end of the Delta below the level of the land, and to empty the water from these canals **into** the northern lakes or the sea by great pumps.

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For some time the government hesitated before undertaking this big operation, but at last in 1911, a start was made. The Delta was divided into natural drainage zones, each zone being limited by the higher land which is always found along the side of the former or present water-courses of the Nile. Two of these zones were chosen for immediate treatment. The first was Western Behera in which it was decided to deepen the government drains until the water was not less than one-and-a-half metres below the surface, and to provide pumping installation at Mex to raise the drainage water a height of six metres and pump it into the sea.

To do this, it was necessary to provide a system of main drains throughout the area, running to a head at Mex on Lake Mareotis, where since the beginning of the century a pumping station had been in operation raising the water three metres and pumping it into the sea. The new scheme necessitated new pumping installation to deal with a greatly increased quantity of drainage water and to lift the water through six metres to the sea, thus lowering the effective drainage level at that point by three metres. In this way, it was expected that the whole of Lake Mareotis, which at that time covered 55,000 feddans, would be drained and reclaimed. In all, it was estimated that the scheme would improve an area of 480,000 feddans.

The second zone selected for immediate treatment in 1911 was Central Gharbieh. Here again, it was proposed to deepen the drains and to erect a pumping station near Baltim, where the drainage water from 470,000 feddans would be lifted 2\ metres and discharged into Lake Borollos, whence it would have free access to the sea.

Work on these two projects started in 1913. The outbreak of war in 1914, however, made it necessary to suspend operations for the time being. In the

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meantime, the necessity of such drainage schemes became more and more evident, so that when, after the war, the plans were taken up again, it was on a much bigger scale than before.

POPULATION

The rapid development of the country during the period is reflected in the figures of population which rose from 6,804,021 in 1882 to 12,292,000 in 1914. The population in 1914 was five times as big as it had been in 1800.

At the beginning of the period, the average rate of increase was very rapid—nearly 30 per mille per annum. In each succeeding period, however, it slowed down, until in the period 1907-1917 it was only a little over 12 per mille per annum. The figures are given below.

POPULATION OF EGYPT, 1873-1914

Year	Population	Average Annual Increase per 1000
1873	5,250,000	—
1882	6,804,021	29·23
1897	9,714,525	24·03
1907	11,287,359	15·12
1914	12,292,000	12·27 ¹

This big increase in population, coupled with the easier methods of irrigation meant that by the end of the century Egypt may be considered to have passed the stage of a national shortage of population which had made itself so acutely felt earlier in the century. The problem of population now takes other directions: on the one hand, in certain areas, the increased population begins to press rather heavily;

¹Average annual increase, 1907-1917.

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on the other hand, there are still areas, especially in the north of the Delta, where there is need of more labour.

In the census of 1907, 2,258,005 men were engaged in agriculture, 356,425 in industry, 153,645 in commerce, 101,026 in transport and 135,733 i*¹ the professions. The big majority of the population continued to be engaged in agriculture. In 1913, there were over 1,550,000 landowners, and of these, over 1,410,000 had holdings of 5 feddans or less. This big class of small landowners, together with their families, forms by far the biggest homogeneous section of the population and is probably the most stable and productive element of the country.

Increased number of landowners.—Full ownership in land can only be considered to have existed since the land law of 1880. Two other laws, in 1892 and 1897, removed the last restraints and left ownership free to unrestricted development. The most remarkable feature of the following period was the rapid increase in the number of small landowners.

In 1895, there was 738,835 owners of agricultural land. In 1913, the number had risen to 1,556,310. This increase was due almost entirely to an increase in the number of small holders owning five feddans or less. Their number increased from 761,337 in 1900 to 1,411,158 in 1913. During the same period the number of landowners owing areas between 5 and 50 feddans tended on the whole to decline slightly. For the big landowners, with holdings of 50 feddans or over, there was a gradual increase from 11,939 in 1900 to 12,558 in 1913.

The area of land owned by small holders of 5 feddans or less, increased gradually from 1,113,411 feddans in 1900 to 1,418,959 feddans in 1913. In the same period, the land owned by middle class landowners between 5 and 50 feddans remained approximately unchanged. There was an increase in the holdings of

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big landowners of 50 feddans or over, from 2,243,573 feddans in 1900 to 2,420,558 feddans in 1913.

The greatest increase therefore, was in the category of small landowners of five feddans or less. The increase in the land held by this class was, however, proportionately less rapid than the increase in the number of landowners, and the average holding fell from one-and-a-half to one feddan.

There were many reasons for this rapid increase in the number of small landowners. One cause was the operation of the Mohammedan rule of Succession, which by the law of 1881 had been adopted as the basis upon which land was to pass by inheritance, meant that upon the death of a landowner, his land was divided between his widow and all his children.

This increase in the class of small landowners was regarded favourably by the government, in fact, the official policy of the period was designed, particularly to benefit more especially the small landowners. The relief from taxation, equal distribution of water, abolition of the *corvée* were all in their favour. The government made it a matter of policy to offer State land for sale in small lots, and even devised a system by which the small farmers could have credit facilities to enable them to acquire more land.

The law of 1880 left all the land of Egypt on the same legal footing. All the old distinctions and privileges had been swept away and all land was assimilated to Kharadj land, liable that is, to pay to the government a land tax assessed on an equal basis all over the country. In actual practice, however, the assessment in force was based upon the work of the committee appointed by Ismail in 1867. It was decided to carry out a complete cadastral survey of the country and at the same time, to re-assess all the land so as to bring the whole country on to a general standard of taxation. This big task was carried through from 1892 to 1907, and the last

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of the re-assessed rates of taxation came into operation in 1912. In many cases this re-assessment brought very considerable relief to areas which had formerly been overtaxed, and in general, its operation was favourable to the small farmer, who always suffers most when inequalities of taxation are allowed to exist.

AGRICULTURE

Distribution of crops.—It is interesting to observe the changes that took place from 1880 to 1914 in the distribution of the different crops. The principal crops and the areas occupied by each are shown in the following table. The figures of the different crops of 1879 however, though official, appear to be incomplete. They are certainly below other estimates of the same period. For that reason, the percentage share of each crop is also given as being probably a better basis of comparison.

AREA OCCUPIED BY DIFFERENT CROPS

Crop	1879		1899		1913	
	feddans	%	feddans	%	feddans	%
Cotton ..	495,707	11.5	1,153,307	16.4	1,723,094	22.4
Maize ..	601,217	14.0	1,559,659	22.2	1,852,760	24.0
Rice ..	40,891	0.9	217,426	3.1	242,367	3.1
Wheat ..	890,699	20.6	1,241,052	17.6	1,305,577	16.9
Beans ..	616,377	14.1	637,752	9.1	478,187	6.2
Barley ..	490,565	11.5	536,416	7.6	369,159	4.8
Sugar-Cane ..	45,999	1.1	86,529	1.2	48,468	0.6
Bersim						
Vegetables & } Various	1,133,400	26.3	1,600,570	22.8	1,692,800	23.0
Total ..	4,314,855	100	7,032,711	100	7,712,412	100

The greatest increases took place in the case of cotton, the principal summer crop, and maize, the principal "nili" (late summer) crop.

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Cotton increased from about 500,000 feddans in 1879 to over 1,700,000 feddans in 1913. In 1879 cotton occupied $11\frac{1}{2}$ per cent, of the total area of crops ; in 1913, the proportion had risen to $22\frac{1}{2}$ per cent. Cotton thus increased very considerably, both absolutely and relatively during this period.¹

Some of the causes of this increase have already been indicated. The development of perennial irrigation made possible a great extension of summer cultivation, practically all of which was taken by cotton. In 1913, 80 per cent, of the area of summer cultivation was occupied by cotton.

Its popularity with the farmers is due to several causes. In the first place of course, is the fact that, except in the occasional periods of depressed prices, cotton is one of the most profitable crops grown in Egypt. In the second place it is a crop which lends itself readily to transport and export. It can be stored for considerable periods, can be packed and transported without loss of value, and is sufficiently valuable in comparison to its weight and bulk, to make transport and sale abroad worth while. As a result, cotton, more than any other crop in Egypt has a ready cash value, and there is hardly a farmer in the country who does not devote part of his land to the cultivation of cotton. With the money received, he pays his tax, his rent or his mortgage annuity, and the surplus usually pays for new clothes, expendi-

¹ The figures for 1879 are taken from the "Essai de Statistique Generale de l'Egypte," 1879. The area under cotton, 495,707 feddans, appears very small. In 1873, according to the report of American Consul Beardsley, 7,997 feddans were cultivated with cotton, and the average yield was 2½ kantars. This agrees with the known figure of the crop, 2,013,000 kantars. In the next few years, the crop increased to 3,000,000 kantars *except* in 1878-79, when it was only 1,681,000 kantars. The area given (495,707 feddans) presumably was that of this abnormally small crop. This would give an average yield of a little over 3 kantars which agrees with other indications for the period. The following year, however, 1880, must have seen almost double this area under cotton.

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ture on celebrations or festivals and his few small luxuries. Cotton in Egypt has become part of the life of the people. With cotton, the farmer pays his bills. His other crops: maize, wheat, vegetables, and his gamoose (water-buffalo) and fowls keep him and his family in food.

As cotton is the chief crop grown for export, so maize is the principal crop grown for food for local consumption. The area under maize increased from 600,000 feddans in 1879, to 1,850,000 feddans in 1913. This is a very big increase. It is true that the population of Egypt nearly doubled during this period, but on these figures the production of maize had trebled. The explanation may be found, in part, in the diminution in barley in the same period. In 1879, there was great poverty among the agricultural population, and this may have driven them to make more use of barley for their food at that time.

Wheat, which for thousands of years had been the staple crop of Egypt and its principal export, was finally displaced from its supremacy by cotton. The proportion of the crop area occupied by wheat fell from 20.6 per cent, in 1879, to 1.69 per cent in 1913. It is true that there was an increase in the actual area under wheat during this period from 890,000 to 1,305,000 feddans, but this was not sufficient for the increased requirements of Egypt.

The population nearly doubled, and in addition, there was an improvement in the general standard of living in Egypt which could be expected to lead to the use of more wheat rather than coarser cereals for food. In any case, after 1900 the wheat grown in Egypt became insufficient for the needs of the country, and imports of wheat and wheaten flour became increasingly important. The supplies of cheap wheat from the new grain-producing areas in Canada, Australia, and South America were partly responsible for this decline. It no longer paid the

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farmer to grow wheat for sale. He still grew it for his own consumption, but the increased needs of the town dwellers and the finer qualities of flour required were met by importation from abroad.

Bersim (Egyptian clover), is the fourth crop in Egypt. It provides fodder for the animals, and the number of animals in the country is governed by the area devoted to bersim. The proportion occupied by bersim remained fairly constant at about one-fifth of the total crop area. In 1913, it was 194 per cent, of the whole.

These four : Cotton, maize, wheat and bersim, have come to be the four principal crops of the country.

In 1913, they occupied over four-fifths of the total crop area. The principal other products were rice, beans, barley, sugar-cane and onions.

Rice is a summer crop and is distinguished by its heavy requirements of water—as much as 60 to 80 tons per day, per feddan. As a result, its cultivation is dependent upon the water available, and in the past was apt to fluctuate violently from year to year. The increased provision of summer water led to a steady increase in its cultivation, which passed from 40,000 feddans in 1879 to over 240,000 feddans in 1913.

Beans, in the time of Mohamed Ali, represented one of the most important winter crops and a big item in the export trade of Egypt. In 1879, 616,000 feddans were cultivated with beans. The area did not increase with the extension of the cultivated area, but remained about constant until 1900, after which there was a gradual fall, so that in 1913, the total area under beans was slightly below 480,000 feddans. This commodity is an important article of food of the lower classes.

The development of sugar-cane cultivation during this period was closely bound up with the fortunes of the sugar industry founded by Ismail. After his

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departure, in 1880, many of the factories were dismantled. Others passed into the hands of a group of French creditors and came under the control of the big French sugar company, Léon Say. In 1892, these factories in Egypt amalgamated with other producers here and formed the "Société Générale des Sucreries" with a virtual monopoly of sugar production in Egypt. This was followed by an increase in cultivation and output until 1905, when the company failed, following a heavy fall in prices and excessive speculation by the manager. This led to a big reduction in the area devoted to sugarcane. In 1906, the company was reconstructed and there was a gradual increase in production until the outbreak of war in 1914.

During this period, some of the crops which had formerly been important declined or disappeared. Thus, plants grown for colouring matter, such as indigo and saffron, declined owing to the introduction of much cheaper aniline dyes in the early years of this century. Indigo is a case in point. From 1820 to 1840 it was one of the important articles of the monopolies of Mohamed Ah, and was exported on a considerable scale. The development of cheaper means of transport led to the introduction of cheaper supplies from the plantations of India, and instead of being an export product, indigo was imported, though local production still continued on a reduced scale. Finally, imported natural indigo was displaced by the artificial dye, early this century.

Similarly, vegetable oils, formerly used all over the country for lamps, were replaced by mineral oil (kerosene), and the cultivation of plants with oleaginous seeds was correspondingly reduced.

Finally, the cultivation of tobacco was prohibited in 1890. The reason for this step was fiscal. It was desired to impose a higher duty on tobacco. This meant that it was necessary either to impose

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a high tax on land cultivated with tobacco, an operation which would have required constant supervision of all the cultivated land in the country—or to prohibit entirely its cultivation. Egyptian tobacco has never been of good quality. Its cultivation was prohibited. The receipts from the tax on imported tobacco have since become one of the most important items on the revenue side of the budget.

FOREIGN TRADE

Exports.—The first and most obvious feature of foreign trade in the period 1880-1914 was the great increase that took place. Exports of goods rose from L.E. 12,983,000 in 1880, to L.E. 31,662,000 in 1914.

This increase was due almost entirely to the development of the cotton exports. During the period, cotton and cotton seed accounted for from 80 per cent, to 93 per cent, of the total value of exports, as is shown in the following table.

COTTON EXPORTS AS A PROPORTION OF TOTAL EXPORTS
(Annual averages : Five-yearly periods), 1885-1914

Period	Cotton Exports (lint and seed)	Total Exports (goods)	Proportion of Cotton Exports
	L.E. '000	L.E. '000	%
1885-89 ..	8,900	11,043	81
1890-94 ..	10,190	12,913	80
1895-99 ..	11,104	13,308	83
1900-04 ..	15,994	18,335	87
1905-09 ..	21,971	24,129	91
1910-14 ..	29,498	31,662	93

The foreign trade of a country depends in the last resort, upon its exports. In the case of Egypt, the exports had been reduced almost to one article.

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The whole of the commercial prosperity of the country had been concentrated upon this one product.

The period 1880-1889 saw comparatively little change in either the quantity of cotton produced or the average price. The crop averaged about three million kantars and the price averaged about 12\ dollars (Egyptian dollar, or talari = 20 piastres) so that the average exports of cotton were about L.E.7,500,000.

The next decade, 1890-1899 saw a very rapid increase in the crop. The exports of cotton more than doubled, passing from 3,203,000 kantars in 1890 to 6,512,000 kantars in 1899. During this period, however, there was a heavy fall in price, which fell from 13 dollars in 1890 to 7 dollars in 1897. In 1890, 3,328,000 kantars were exported, and produced L.E.8,272,000. In 1898, 5,990,000 kantars were exported and produced, L.E.8,449,000. The crop had nearly doubled—the total value had remained the same. For some time, this fall in price concealed the progress that was being made, but as soon as prices rose again, the full value of the increased crop became apparent. In 1899, the price rose to over 12 dollars, and in the next few years it increased to over 19 dollars in 1906—nearly three times the price it had been ten years before.

This considerable and sustained rise in price, coming on top of the rapid increase in the production of cotton sent the value of exports leaping upwards. From L.E.12,318,000 in 1898, the exports of goods rose to L.E.25,301,000 in 1906. In ten years, the average value of exports more than doubled.

This increase was due much more to the rise in prices than to the greater quantity exported. From 1898 to 1906, the crop increased it is true, but only by about 12\ per cent, whereas the value increased 100 per cent.

The sharp crisis of 1907 was followed by a temporary

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fall in prices. Two years later, in 1909, the cotton crop was a failure. Insect pests and insufficient drainage in the Delta brought down the crop from 7,235,000 kantars in 1907, to 5,000,000 kantars in 1909. This was compensated for, however, by a rise in price from 14J to 21£ dollars, and the total value of exports was maintained.

From 1909 to the war, prices ruled high—about 18 to 20 dollars—and under the stimulus of high prices the production increased to over seven and a half million kantars. In 1912, the Aswan dam was raised, just in time to provide the additional supply of water required because of a very low Nile, and thus save the cotton crop.

From 1885-89 to 1910-13, the average value of exports of goods increased by L.E.20,620,000 (from L.E.11,043,000 to L.E.31,662,000). The whole of this increase can be accounted for by cotton, the exports of which, including cotton seed, increased from L.E.8,900,000 to L.E.29,498,000, an increase of L.E.20,598,000.

Among the other items of export, during that period, sugar exports fell from L.E.706,000 in 1885 to L.E.12,000 in 1913 ; on the other hand, exports of eggs, rice, onions and wool were all increased.

Imports.—With the proceeds of the exports, Egypt paid the interest due on foreign investments. The balance, together with new capital entering the country, was used for purchase of imports. In pre-war years, there was no appreciable investment abroad on Egyptian account. On the other hand, the amount available for purchases was greatly swollen from 1890 to the war, by the inflow of very large sums of foreign capital coming to find investment in Egypt. As a result, the imports rose even more than the exports, and passed from L.E.7,426,000 in 1880 to L.E.27,865,000 in 1913. The most important imports were the various kinds of manu-

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factured goods. Textiles increased from L.E.2,586,000 (1885-89), to L.£.6,969,000 in 1913 ; iron and steel goods from L.E.670,000 to L.E.3,145,000 in the same period. The next most important class was raw materials. Wood and coal increased from L.E.911,000 (£1885-89), to L.E.3,839,000 in 1913, and petroleum from L.E.150,000 to L.E.572,000. Thirdly, food-stuffs were greatly increased. Flour and cereals increased from an average of L.E.771,000 in 1885-89, to L.E.4,242,000 in 1913 ; sugar imports rose from L.E.75,000 to L.E.380,000 and coffee from L.E.234,000 to L.E.377,000 in the same period. Tobacco imports increased from L.E.274,000 in 1885, to L.E.1,082,000 in 1913, due partly to the prohibition of tobacco cultivation in Egypt.

It thus appears that during this period Egypt devoted herself to an increasing extent to the cultivation and export of cotton, for which she has great natural advantages. Out of the increased proceeds of the cotton exports, she bought from abroad the manufactured goods, raw materials and fuel she required as well as part of her needs of flour, sugar and other products which formerly she had produced herself, and even exported. There can be no doubt that in doing this, she was substituting more profitable for less profitable cultivation and to that extent benefiting from this particular form of national specialisation.

Importance of Alexandria.—Practically the whole of this vastly increased trade passed through Alexandria. Damietta and Rosetta were dead, killed by the era of big ships. Port Said, at the end of a long railway line from Cairo and the Delta, was important as a coaling station on the Suez Canal rather than an Egyptian port. Less than two per cent, of the exports and about eight per cent, of the imports, chiefly coal, passed through Port Said. Suez had much less than this, about four per cent, of the exports and one per

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cent, of the imports. Ninety-six per cent, of the export trade and nearly ninety per cent, of the imports passed through Alexandria at this period. The value of imports and exports of merchandise passing through Alexandria increased from L.E. 17,000,000 in 1885-89 to L.E. 54,650,000 in 1913.

The rapid extension in trade called for improved harbour facilities. The improvements in the port carried out under Ismail—new quays, coal jetties, breakwater and railway—proved a real boon, but within a few years further improvements became necessary. In 1890, a new pass was prepared, giving entrance to the harbour to ships drawing 9 metres, and in 1907 a much wider and deeper pass, 2,000 metres long, 183 metres wide and 11 metres deep was opened up. The imports of coal, wood and other goods increased to such an extent that special measures had to be taken to deal with them. From 1898-1901, the coal jetties were widened to hold large storehouses and six new transporters were installed ; from 1903-10, seven new mooring stations were prepared for coaling vessels, bringing up the total to twelve. From 1905-1908, three moles were prepared for unloading wood, and an area of 75 acres behind was prepared as a storage area. A dry dock, constructed by the Khedivial Mail S.S. Co., in 1901-2 was taken over by the government in 1903 ; a special quarantine port was prepared, opposite Wardian, for unloading cattle ; in 1913, owing to the increase in the imports of artificial manure special accommodation was made for unloading and storing nitrates. Yet even with these improvements, the port was barely adequate to cope with its increased traffic.

Trade and Shipping by Countries.—British shipping carried about 40 per cent, of the total tonnage. The proportion of British, French and Italian shipping tended slowly to decline and that of Greek, German Belgian, Austrian and Danish shipping to increase.

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Throughout the period 1880-1914, England remained Egypt's biggest customer and supplier. In particular, the bulk of Egypt's cotton went to Liverpool, though as time went on, other countries, notably Germany, America, Japan and Switzerland took increasing quantities. As a result, the proportion of the total exports going to England fell from 63 per cent, in 1885-89, to 43 per cent, in 1913. Owing to the increased quantity and value of exports, however, there was an actual increase in the value of the exports to England, from L.E.6,935,000 in 1885-89, to L.E.13,648,000 in 1913.

Germany's part in the exports rose from 0·1 per cent, in 1885-89, to 12·8 per cent, in 1913; America's share 0·2 per cent, to 7·9 per cent, in the same period; France remained at a little over 8 per cent., other countries in 1913 were Austria 5·0 per cent.; Russia, 7·1 per cent.; Switzerland, 3·2 per cent.; Italy, 3·2 per cent.; Japan, 2·4 per cent.; and Turkey, 2·1 per cent.

In the import trade also, England held first place. Her share of the imports was 37·5 per cent, in 1885-89. In face of the keen competition of other countries, it fell gradually to 30·5 per cent, in 1913. English exports to Egypt were L.E.2,986,000 in 1885-89; L.E.8,496,000 in 1913.

France was the next biggest supplier, with 10·6 per cent, of the import trade in 1885-89; 9 per cent, in 1913. After France came Turkey, Austria, Germany, America, Belgium, the Far East, Roumania and Russia.

CURRENCY

In 1885, there was an important currency reform. The reform of Mohamed Ali, in 1834, had established a bi-metallic standard based on gold and silver in the ratio of 15J to 1. About 1860, however,

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the price of silver began to fall rapidly. In consequence, it became impossible for a system of bi-metallism based upon a fixed ratio between gold and silver to continue in unrestricted operation, and one nation after another was driven to modify its system. In Egypt, in the time of Ismail, the government attempted to profit from the fall of silver by issuing great quantities of silver coinage. The effects course were catastrophic. The price of silver coins fell. There was great confusion and reform became inevitable.

By the financial reform of 1885, the unit of currency was declared to be the pound Egyptian, a gold coin, containing 8.5 grammes of gold, .875 per cent, fine, divided into 100 piastres, the piastre being subdivided into 10 "ochr el gersh." The following coins were provided by the new decree: Gold coins of 100, 50, 20, 10 and 5 piastres; silver coins of 20, 10, 5, 2, 1, $\frac{1}{2}$ and $\frac{1}{4}$ piastres; nickel coins of 5, 2, and 1 ochr el gersh and bronze coins of $\frac{1}{2}$ and $\frac{1}{4}$ ochr el gersh. The silver 20-piastre piece was to weigh 28 grammes, and to contain 833 $\frac{1}{2}$ per cent, silver, with a tolerance of 3 per cent.

Silver, nickel and bronze coins, were token coins, and their issue was limited. The total issue of silver coins was limited to 40 piastres per head of population and nickel and bronze coins to 8 piastres per head. Legal tender was limited to 200 piastres in the case of silver coins, and 10 piastres in nickel and bronze.

The Ministry of Finance was empowered to determine the foreign currencies to be admitted into circulation and the rate at which they should be admitted. It was decided to admit the English sovereign, the French 20-franc piece (Napoleon), and the Turkish pound at the rates of 97 $\frac{1}{2}$ piastres, 77 $\frac{1}{2}$ piastres and 87.75 piastres, respectively. These were the rates that had been fixed, somewhat arbitrarily,

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by Mohamed Ali in the reform of 1834. At these rates the three coins were undervalued, the pound sterling by 0·959 per cent., the 20-franc piece by 1·117 Per cent., and the Turkish pound by 1·340 per cent.

By the operation of Gresham's law, Egyptian gold currency, having intrinsically a lower value than that imposed on the other gold coins, would have driven out the other coins, had Egyptian gold coins been available in sufficient quantities. In actual practice however, very few Egyptian gold coins were struck and those issued were later retired from circulation, so that the pound sterling, the least undervalued of the other three, came into general use, and until the war, English sovereigns formed practically the whole of the gold monetary stock of the country. Every year, in the autumn, a strong demand arose for gold from England to move the cotton crop. From 1900 to 1913 Egypt imported every year, in the autumn, chiefly from London, an average of £7,000,000 per annum in gold.

The extent of the demand for gold depended principally upon the size of the crop, the prices ruling and the speed upon which the crop was put upon the market. The actual amount imported ranged from £4,000,000 to £13,000,000.

The effect of the strong demand for gold in Egypt in the autumn was to raise the rate of exchange to the upper gold point.

In the Spring, conditions were reversed. The wave of gold which in the autumn had flowed into the country and had penetrated into the remotest villages in the country, came flowing back to the principal towns in the form of tax payments and purchases of goods until the Caisse de la Dette and the principal banks regorged with golden sovereigns for which there was no possibility of employment until the following autumn. It was necessary to export

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the gold, and the rate of exchange fell to the lower gold point. Thus, in 1913, the rate of exchange on London (parity 97-5), fell to 971 in October, and rose gradually to 97-9 from March to July of the following year.

This annual movement of gold, to and from Egypt every year, formed an important feature of foreign trade statistics. One remarkable feature is that from 1884 to 1914 the outgoing wave was almost invariably smaller than the wave which had come in the previous autumn. It appeared that stocks of gold were accumulating in Egypt. This was to be expected, in view of the known propensity of the population here to keep their wealth in the form of gold or land (investment and interest were considered to be forbidden by religious law, and only during this century has a change in this direction become noticeable). Hoarding was known to exist on a wide scale. In addition, the population, wealth and commerce of the country were increasing, and with them, the need for gold as a means of exchange. At the same time, the visible figures as given in the customs returns, of nearly fifty million pounds excess imports of gold during this period cannot be taken to mean that over fifty million pounds' worth of gold were held in Egypt in 1913. There were many unrecorded channels by which gold left the country. It is impossible to give more than a very wide estimate of the stocks of gold in Egypt before the Great War. Most of the estimates that have been made tend to fix it at between twenty and thirty million pounds.

FOREIGN INVESTMENT AND BALANCE OF TRADE

We have already seen that in the period 1860-1880, about one hundred million pounds of foreign capital was invested in Egypt chiefly in the form of loans to the government.

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The interest on this load of debt, plus the payment of the annual tribute to Turkey made up a total of over L.E.5,000,000 per annum to be paid abroad. In the period 1880 to 1895, the exports exceeded the imports by four to five million pounds per annum which went far to covering the annual payment abroad. Roughly speaking, in this period, one-third of the total exports was used to make the payments due by Egypt on account of public debt and tribute.

In the period 1880-1914, a still greater amount of additional capital came into the country, this time in the form of private investments—companies, banks, businesses, insurance, etc., etc. The political effects of this new wave of foreign capital were not so striking as in the former case, but the economic effects were even more important and profound.

In the middle of the nineteenth century, a number of banks were established in Egypt, chiefly for negotiating loans to the government. In the big towns, concessions were granted to foreign firms for the installation of gas and water supplies in Cairo and Alexandria. In 1880, following the land law, the financial settlement and the establishment of the Mixed Courts, two mortgage banks on foreign capital, one French and one English were established in Egypt.' In this period, too, a number of foreign industrialists and merchants established themselves in this country.

For some time after 1880, there was a pause. The troubled events of 1882, followed by a severe depression and frozen credits, held back further investment. From the time of the repair of the Delta barrage, however, in 1890, foreign capital began to manifest increasing interest in Egyptian affairs. In 1892, the various units of the sugar industry in Egypt united into a single company, the Société Générale des Sucreries, under the control of French capital ; between 1895 and 1898, a number of concessions were given to transport companies, and Egypt was en-

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dowed, by foreign capital, with light railways in the Delta and trams in Cairo and Alexandria. In 1898, the National Bank of Egypt was formed, with the intention of making it the centre of the banking system of Egypt, and the financial adviser resigned his post to become the first manager of the bank. About the same time several industrial companies were formed to condition or prepare for marketing the products of the country, such as cotton ginneries, salt and soda manufacturers, and two cotton spinning mills. In the same period a number of land companies were formed, notably the Daira Sanieh land company, which took over the estates of the Daira Sanieh to be divided into lots and sold in order to liquidate the Daira Sanieh loan of 1877. The mortgage companies increased their loans and had to obtain more capital from abroad.

The burst of prosperity at the beginning of the 20th century was followed by a rush of capital to Egypt, chiefly in the form of investment in companies. The paid-up capital of companies operating only in Egypt (not including that is, branches of foreign banks and other foreign companies), increased from L.E.7,326,000 in 1892, to L.E.26,280,000 in 1902; and to L.E.87,176,000 in 1907. The figures do not include the Suez Canal, with its L.E.19,000,000 of capital and debentures. In five years, from 1902 to 1907, there was thus an increase in the capital of Egyptian companies, of over sixty million pounds, nearly all of which had come from abroad. In addition, other investments in the same period amounted to many millions of pounds.

This great avalanche of capital entirely upset the balance of trade. The imports, swollen by the influx of capital, increased until in some of the years they actually exceeded the exports.

The greater part of the new capital was loan capital, in the form of mortgage companies lending

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money on land ; land companies selling land on credit, or financial companies, lending money on shares, land or other security. The presence of this large sum of capital, the rapidly rising value of land owing to the rising prices of agricultural products and mortgage loans and the effect of the irrigation works, led to a burst of speculation that culminated in the disastrous slump of 1907.

In the period preceding 1907 many individuals and firms had been led into engagements beyond their means. During and after the crisis there were many who were unable to carry on and there were many failures. Others, slightly more fortunate, were able to carry on, but only by borrowing further sums to help them to support the previous burden. During all the period, 1907 to 1914, there was a steady stream of capital coming into Egypt from abroad, nearly all of it in the form of capital of mortgage companies.

This borrowing continued until the war, and caused considerable concern. Egypt's load of debt was getting heavier and heavier, and there seemed little chance of immediate repayment. By 1914, the total paid-up capital of companies in Egypt had risen to L.E. 100,152,000 (excluding the Suez Canal Co.). Nearly three-quarters of this was loan capital of mortgage or land companies. It was estimated that in 1914, the mortgage debts amounted to over L.E. 60,000,000, and they were still growing.

In 1914, the foreign holdings of shares and debentures in companies operating in Egypt amounted to L.E. 71,250,000. In addition L.E. 85,680,000 Egyptian Public Debt was held abroad. Under these two headings alone, foreign investments in Egypt amounted to L.E. 156,930,000. If we take into account the various other foreign interests in Egypt, such as branches of foreign companies, private firms and individuals owning land or engaged in trade or industry,

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private investments, etc., etc., the total foreign commercial investments must have been considerably in excess of L.E.200,000,000.

The annual payments to be made abroad on these various forms of investment amounted to L.E.9,000,000 per annum. Never once, however, from 1900 to the war, had Egypt's exports exceeded her imports by such an amount. Throughout that period her indebtedness was steadily increasing. Fortunately for her, a period of unexpected good fortune was at hand. The war profoundly modified the whole situation in Egypt's favour.

CHAPTER V

THE WAR AND ITS AFTERMATH (1914-1922)

THE first few months of the war marked an extremely difficult period for the Egyptian cultivator. A few months after the outbreak of war, the new cotton crop came on a market in which operations had practically ceased. Trade was at a standstill. Cotton prices had fallen by one-third and even at the lower prices ruling buyers were scarce. Spinners had stocks of old season's cotton which they preferred to use up before venturing to enter into further commitments in such an uncertain situation. Credit facilities were temporarily suspended and bankers were unable, or unwilling to finance speculative purchases.

In view of the low prices and lack of offer, the farmers held their cotton off the market and the crop remained largely up-country. In the difficult situation that ensued the government came to the assistance of the farmers, first by requesting the National Bank of Egypt to provide advances on cotton at 6½ per cent, (guaranteeing the bank to the extent of nine-tenths of any possible loss) ; later, by ordering the principal cotton merchants to become purchasers of the cotton of small farmers for the account of the government. These measures were merely palliatives and the farmers made comparatively little use of the facilities offered. As a further measure to ease the pressure on the market in the coming year and thus make it easier to dispose of the accumulated stocks, the government passed a law restricting the

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acreage to be planted in cotton to one-third of the holding of any cultivator. The precedent thus given of restriction of cotton acreage has been followed, on one excuse or another, on many other occasions during and since the war.

Cotton arrivals in Alexandria continued on a much reduced scale. To the end of February, only five and a quarter million kantars had been received in Alexandria against seven million in the same period in the previous year.

The farmers were unable to meet the payments due on account of tax and mortgage annuities. The government was obliged to defer payment of half the instalment of land tax due in November to December and January. Arrears of payments due to mortgage companies mounted rapidly.

The revenue of the government was reduced, and in view of the uncertainty of the situation, a policy of rigid economy and retrenchment was instituted. Expenditure on administration was cut down to a minimum and new works, such as the big drainage schemes in Behera and Gharbieh were practically stopped, only such expenditure being allowed as would enable the work already done to be turned to practical account.

The farmers and others cut down their purchases. At the same time, owing to war conditions it became difficult, in some cases impossible, to obtain supplies of certain categories of goods. There was a cessation of borrowing from abroad. The result was that there was a big drop in imports which fell even more than the exports.

A feature of the period was the export of £400,000 in bullion in place of the usual import of several millions. The crisis forced out a small part of the gold hoarded in the country.

Deposits in savings banks diminished considerably.

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The deposits in the Post Office Savings Bank fell from L.E.626,787 in 1913 to L.E.457,347 in 1914.

The situation, had it continued, might have proved disastrous. Fortunately it was not prolonged for many months. The first shock of the depression over, other factors arose which rapidly changed the whole position. The world's demand for cotton, stimulated by war conditions, re-asserted itself and the smaller supply both in Egypt and America, in 1915, led to steadily rising prices. Those who had held their crop were able to dispose of it later at favourable prices. The price of Sakel, which had fallen from an average of \$18* in the first half of 1914, to \$11 in the autumn, rose slowly but steadily to \$14 in May, \$16 in September, and in the last three months of 1915 was back at its pre-war price of \$18 and still rising. Before the end of the cotton season 1915-16, it had risen to \$23.

In the meantime, the presence of large bodies of allied troops in Egypt was proving a source of considerable financial benefit. The innumerable demands of the army authorities for labour, fodder, provisions, transport and material of all kinds and the money spent by the troops themselves brought into the country many millions of pounds, the expenditure of which brought prosperity to both town and country districts. British army drafts paid in Egypt in 1915, amounted to nearly ten million pounds.

The combination of these two factors—rising cotton prices and expenditure by military authorities—led to a marked recovery of economic activity in 1915. The farmers were enabled to pay off their arrears of taxation and mortgage annuities; outstanding commercial debts were largely liquidated, while the restriction of credit brought to a temporary cessation the long credits which had been the practice in the import trade and placed that trade on a sounder

¹ Egyptian " dollars " or talaris = 20 piastres.

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basis than for many years past. There was a steady increase in postal and railway traffic ; the circulation of currency expanded rapidly ; the banks received large additions to their deposits. The exports of gold ceased. On the contrary, there was a steady demand for gold to be melted down to form jewellery, indicating that a part of the profits was being hoarded in this characteristic manner.

The exports increased in value in 1915. The imports, on the other hand, continued to decline. This was due, in part, to re-adjustment and retrenchment, in part also to the fact that, owing to war conditions, there were many classes of goods which were unobtainable. There was thus a balance of trade in Egypt's favour of over seven and a half million pounds. In addition, the army authorities disbursed ten millions in Egypt. The visible benefit accruing to Egypt thus amounted to nearly eighteen million pounds. This was sufficient to pay off the charges due on foreign investments, estimated at about eight million pounds, and to leave a surplus of at least ten million pounds in the hands of the people.

The area under cotton in 1915 was nearly 600,000 feddans less than in the previous year. This diminution may be accounted for in part by the operation of the law passed in 1914 restricting the acreage to be planted in cotton, but it appears that even apart from this law, many farmers voluntarily restricted the area devoted to cotton in view of the low prices in the autumn of 1914 and early months of 1915. The decreased area under cotton led to a corresponding increase in other crops, and big crops of wheat, barley, rice, maize, sugar and millet were produced. This was fortunate, as the import of wheat and wheaten flour, which had been an important feature of pre-war years, had practically ceased while there was heavy consumption by the military forces. The danger of a possible shortage

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of food was not recognised, however, until the following year, and in the meantime, the farmers were given permission to sell for export surplus stocks of food-stuffs.

The decreased area under cotton in 1915, was partly compensated for by the fact that the average yield per feddan was above the average. It is interesting to note that in 1915, when for the third time in succession the flood levels were below normal, the average yield of nearly all crops was considerably above the standard of the previous few years.

In 1915, the restrictions on the area to be planted with cotton were removed. They had been imposed to prevent a glut of cotton on the market, and with the revived demand and rising prices, this particular cause no longer existed. As a result, the area under cotton increased by nearly 500,000 feddans, from 1,186,000 feddans in 1915 to 1,656,000 feddans in 1916. The yield per feddan, however, in 1916 was very low, falling to 3.06 kantars per feddan as against 4.02 kantars the previous year. (In this case again, it is noticeable that a high Nile coincided with a reduction in the average yield.) In the autumn of 1916, however, just when the crop was on the market, prices suddenly rose steeply, and the 1916 crop was sold at an average price of nearly \$38 as compared with \$19.1 for the previous crop.

There was a big increase in general prosperity. The value of exports of goods rose by a further ten million pounds. The general wealth was still further increased by very heavy expenditure by the military authorities in Egypt. British army drafts paid in Egypt in 1916, totalled seventeen and a half million pounds. There was a big jump in the value of imports, but in spite of this, the visible balance of trade including army drafts rose to more than L.E.23 millions in Egypt's favour. The farmers profited by their sudden accession of wealth to make large

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payments in anticipation on account of mortgage debts, the currency issue increased rapidly, bank deposits were considerably higher.

Similar conditions continued to exist throughout the following year, 1917. The price of Sakel, which at that time represented over four-fifths of the cotton produced, remained in the neighbourhood of \$38, the area under cotton was approximately the same as in the preceding year, but the average yield was considerably better (3.75 kantars as against 3.05 in 1916), and the total crop was thus increased by 1,200,000 kantars. Exports, as recorded in official returns, rose to over L.E.41 millions. It is well-known, however, that owing to the methods of valuation of exports and to unrecorded exports, the actual value of exports was, until reforms introduced in recent years, considerably higher than the recorded figures. Comparison of returns of international trade indicates that, particularly during the war years, the value of Egyptian exports of goods was very considerably underestimated.

Imports were still restricted. It was virtually impossible to obtain supplies of many classes of goods. British army drafts again totalled over sixteen million pounds. Under these circumstances there was again a big balance in Egypt's favour. The visible figures of balance of trade and army drafts indicate a favourable balance of twenty-three and a half million pounds. The total balance, taking into account the deficiencies in the export returns must have been considerably greater. There was further repayment of mortgage debts ; another big increase in bank deposits (an enquiry in 1917 showed that the deposits of all banks had risen from L.E.9,762,000 in July, 1914, to L.E.24,854,000 in July, 1917) ; a keen demand for land which sent up the price of land rapidly, and a further expansion in the bank notes in the hands of the people.

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In the meantime, the increased area under cotton, the reduced imports of wheat and flour (which had been over L.E.2,000,000 per annum in pre-war days, but were reduced to L.E.500,000 in 1916-17), and the purchase of foodstuffs for military requirements had led to a danger of a shortage of foodstuffs. Even before the war Egypt was not supplying her own needs, and the situation was now intensified by the reduction in imported cereals and the increased demand for the army. To increase the cultivation of food crops, a decree of September, 1917, forbade farmers to plant more than one-third of their land with cotton in the next season (1918). As a result, there was a considerable reduction in the area under cotton in 1918, though it did not fall as low as 1915, when the legislative restriction had been powerfully enforced by the unprofitability of cotton growing at the low prices current. In 1918, cotton was at remunerative prices and there was probably widespread evasion of the law restricting the area to be planted.

Cotton had become an article of prime necessity for military purposes. In the spring of 1918, the British government, to safeguard its supplies during the coming year, bought up the entire Egyptian crop at a price fixed in advance of \$42. At the time when the contract was made, the market price was about \$38 and the price of \$42 appeared more than reasonable. Before the end of the 1918-19 cotton season, however, the price of cotton had risen enormously and a profit of L.E.3,875,000 was realised, all of which eventually was paid over to the Egyptian government.

The following year, the restrictions were removed. The war had come to an end. There was an immediate demand for the goods that had not been available during the war, as well as for the reconstruction of the shattered areas of the war. The pent-up purchasing

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power accumulated during the war years and the urgency of the demand sent prices rocketing sky-high for a brief period of feverish, but fictitious prosperity. The price of Sakel, stimulated by an urgent demand for the manufacture of motor-car tyres, rose rapidly until, in the spring of 1920, it touched a peak of \$200. The 1919 crop was sold at an average price of nearly \$90 and realised the enormous sum of over L.E. 107,000,000.

The year 1918 closed with a favourable balance of probably L.E. 25,000,000. The following year, 1919, there was a further balance in Egypt's favour of nearly L.E. 50,000,000. It is estimated that in the years 1916-1919, Egypt's wealth thus accrued from outside sources was in the neighbourhood of L.E. 150,000,000. The accumulation of big profits in the hands of certain classes of the community—chiefly of course, the merchants and the landowners—brought with it the problem of the employment of these funds and it is interesting and significant to trace the developments in this connection. The first movement of the farmers was to pay off their arrears of taxation and mortgage debts. Then there was a call for precious metals for hoarding. The visible stock of gold soon disappeared. From August, 1914, bank notes of the National Bank of Egypt took the place of English gold sovereigns that had been in general use in pre-war days. In the absence of other means of exchange, the farmers were obliged to accept the use of bank notes, and this in turn, helped them to become familiar with banks and banking operations. For purposes of hoarding bank notes afford less satisfaction and much more danger of loss than does gold, and though, as the war continued, an increasing number of bank notes remained in the hands of the people as a convenient form of ready purchasing power, there was undoubtedly a move to make more use of the facilities

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and safety offered by banks. Bank deposits increased rapidly and the banking habit, which in pre-war days had hardly spread outside the big towns, was given a very considerable extension. The exigences of war conditions were responsible for an advance in the economic education of the country people in Egypt equal to many decades of normal progress.

As was to be expected, many of the landowners and others made use of their profits, after repayment of their outstanding debts, to acquire more land. Under the influence of a sustained demand, backed in many cases by suddenly acquired fortune to which the buyer was quite unaccustomed, the price of land was pushed up, in many cases to quite uneconomic heights. From 1918-20 there was a boom in land, and prices, both of urban and rural land, rose in a manner that was unpleasantly reminiscent of the boom which preceded the crash of 1907. There was this essential difference, however: the boom of 1905-06 had been based upon borrowed capital and credit operations. The boom of 1918-20 was based upon profits, and transactions for the most part were for cash. The slump, if and when it came, might cause heavy losses to purchasers, but would not leave them with heavy credit undertakings.

There was an increasing shortage of housing accommodation in the big towns, due largely to the demand for better housing accommodation and the drift of prosperous country-men to the towns. This led to intense building activity in the towns at the end of the war.

Apart from the sums expended in the purchase of land, or hoarded in the form of precious metals and subsidiary coinage, the accumulated wealth towards the end of the war came to be almost entirely invested in British government securities. The cover of the greatly expanded bank note issue was almost entirely in British Treasury Bills; the Government

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had invested the greater part of the Reserve Fund in British War Loans ; Banks and mortgage companies invested their increased deposits and unused loan funds in British War Loan and Treasury Bills ; and, finally, companies and private individuals invested a part of their reserves in British War Loan. In this way, in May, 1919, over £90,000,000 was known to be invested in British government securities. Before the end of the year, the total had been increased by many millions of pounds. The year closed with a balance in Egypt's favour of some fifty million pounds. The bank notes in the hands of the people increased from 40 to 75 million pounds, their counterpart of course, being represented by British Government Treasury Bills, and there were heavy investments from other quarters. At the end of the year, investments on Egyptian account probably totalled L.E. 150,000,000, practically the whole of which was in foreign securities.

During 1919, however, a new trend of investment began to make its appearance. There was a small, but definite increase in the holdings of Egyptian government securities. The following year, 1920, there was very heavy purchase of Egyptian securities for the account of residents in Egypt. Heavy selling on the part of England, France and Germany, in a period when interest rates were very high and the market price of fixed interest bearing securities correspondingly low, brought down the price of Unified 4 per cent, stock from 77 in January, 1919, to 73\ the following year and 59 in 1921. At these low prices, millions of pounds' worth of Egyptian government securities were purchased for Egyptian account. By 1923, half of the Egyptian public debt was held in Egypt.

There was a corresponding, in fact greater, reduction in Egyptian holdings of foreign securities during this same period. In 1920, there came the expected realisa-

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tion of savings in purchases and in travelling abroad. Imports of merchandise shot up to L.E. 101,800,000, four times the average of pre-war years and over L.E. 40 millions more than has ever been recorded before or since. They were swollen by large purchases of coal and wheat on government account and by the high prices of goods. Fortunately for Egypt, this enormous bill for imports coincided with a demand for Egyptian cotton which drove up the price to unprecedented heights. At one moment, in the spring of 1920, the price of Sakel touched \$200. This was followed by an abrupt reaction and a heavy fall in prices as the tyre boom in America broke, but the total value of exports, was L.E. 88 million. To the visible loss of L.E. 14 millions must be added several millions spent abroad by tourists and heavy losses on speculation in international exchanges.

From a high point of nearly 200 dollars in 1920, the price of cotton fell to 24 dollars in 1921. This meant a heavy loss of anticipated profits, and hardship to those who had entered into commitments on the strength of the prices ruling. The greatest loss fell on the farmers and cotton merchants, the very classes, however, that in the previous few years had been accumulating heavy profits practically untouched by additional taxation. The fall in general prices, particularly in the prices of foodstuffs, which came at the same time, was a measure of relief to the poorer sections of population in the towns who had been suffering acutely from the excessive prices of the past few years.

At the low level of cotton prices, farmers in 1921 were in no hurry to put their cotton on the market, and a considerable part of the crop remained up-country. Nor was there an excessive demand for loans from mortgage companies and banks. In most cases, the farmers were in a position to hold

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their crop on their own resources. This did not prevent a great clamour arising for assistance and for government intervention in the market. In sympathy with this demand the government at first took much the same course as had been followed in 1914. A law was passed restricting the cotton acreage to one-third of any holding, and cotton merchants were empowered to purchase cotton up-country for the account of the government. This was followed, in April, 1921, by open intervention by the government in the spot market of Minet el Bassal.

There appears no doubt that, from a purely economic standpoint—ignoring, that is, any political aspects that might have been involved in the situation—neither restriction nor intervention could give satisfactory results. The whole policy was an attempt to bolster up the price of cotton by creating an artificial scarcity. It failed in that object, as in view of the fact that Egyptian cotton represented only 6 per cent, of the total world crop it was bound to fail. Any effect it had in that direction went to the advantage, not of Egypt with its reduced crops, but of Egypt's competitors, the new areas throughout the world where cotton cultivation was rapidly being introduced and extended. The artificial scarcity towards which the policy of Egypt tended was merely opening the door to these new competitors in the Sudan, Nigeria, Peru, Uganda, Rhodesia and Brazil.

The intervention of the government on the market as a buyer of cotton was hailed with great applause by interested parties, but in view of the fact that government purchases at Minet el Bassal amounted to only 86,000 kantars, in addition to 88,000 kantars bought up-country for their account by cotton merchants, or a total of 174,000 kantars out of a total Egyptian crop of 6,000,000 kantars, it is obvious

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that such intervention could have no deciding effect upon the price of the crop as a whole.

The low cotton prices in 1921 led to a very heavy fall in the value of exports, and to another unfavourable balance of trade. It was estimated that in the two years 1920 and 1921, the loss to Egypt under all headings—excess imports, expenditure by tourists abroad, and losses in speculation on foreign exchanges amounted to L.E.50 millions. This was met by a reduction of bank notes in the hands of the people, and by sale of British Government securities on account of the Egyptian government and banks, mortgage companies and others in this country. In fact, the total realisation of foreign securities under these headings was considerably above the total of fifty millions mentioned above. In addition to realisation of holdings to cover actual expenditure, there was a process of transfer to holdings of Egyptian securities on a considerable scale. The reduction of L.E.50 millions, was far from exhausting the accumulated resources which, as we have seen, had piled up before the spring of 1920. The end of the crisis in 1921 saw Egypt with a net balance of profit of L.E.100,000,000 arising out of the war.

It should not, however, be assumed that the country as a whole, was prosperous. The big profits of the war years had been directed into the hands of certain classes, chiefly the merchants and landowners. Other sections of the community had suffered, some of them severely, owing to the high prices and shortage of foodstuffs and other necessaries in the later years of the war and the immediate post-war period. There were great extremes of wealth and poverty at this time, greater perhaps, than in any period of Egypt's modern history. The resulting stresses manifested themselves in a series of labour disputes and other disturbances. To go back to the origin of these, it is necessary to

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turn to the study of food supplies and prices during and after the war.

The first alarm of war led the governments in nearly all countries to take steps to safeguard essential supplies. In Egypt, the Council of Ministers, on August 2nd, 1914, immediately upon the outbreak of war, prohibited the export of foodstuffs. This was a wise measure, especially in view of the fact that Egypt had come to rely upon big imports of wheat and flour to supplement home production. To avoid an unjustified rise in prices of foodstuffs, tariff commissions were set up in August, 1914 and a Supplies Commission was appointed to collect information and recommend the policy to be followed with regard to food supplies.

It soon appeared, however, that there was no need for immediate apprehension. There was an abundant crop of maize, and supplies of food in the country were adequate for all immediate requirements. Owing to the depression and prohibition on exports, prices were low. The farmers, who were suffering from the low price of cotton, clamoured for the embargo on exports of cereals to be removed so as to raise prices inside the country. The restriction of the cotton area in 1915 promised heavier cereal crops and in April, 1915, most of the restrictions on export were removed.

During the next two years, the situation rapidly changed. Large bodies of troops were stationed in and near Egypt and constituted an additional heavy drain upon the food supplies of the country. The removal of the restrictions on the cultivation of cotton, and the rapid rise that took place in the price of that commodity, led to a big increase in the area under cotton and a corresponding decrease in the area under cereals. The export of cereals in 1915 and 1916 still further reduced the stocks in the country. In the meantime, it was impossible to obtain from

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abroad even the annual supplies which had been necessary in pre-war years. Local production was still further restricted by the drafting of large bodies of fellahin into the Egyptian labour corps.

In the summer of 1916, it was realised that there was danger of an impending shortage of food supplies. In September, a special body, the Supplies Department, was set up to study the whole situation. In October, 1917, the export of wheat and maize was prohibited, in order, as it was said, to safeguard the essential food supplies of the country. In December, the embargo on exports of foodstuffs was extended to lentils, beans and rice. These measures were too late, however, to avoid a shortage. In the December of 1917, a definite shortage of wheat began to make itself felt and prices, both of wheat and other cereals, began to rise in an alarming manner.

In March, 1918, a new body, the Supplies Control Board, representing both civil and military authorities, was set up and empowered with the widest powers to institute and carry out a policy of control of all food supplies, taking into consideration, both civil and military requirements. The board attempted to impose detailed regulation of all food supplies. Maximum prices were fixed for wheat and other cereals at every stage from the cultivator to the consumer. Co-ordination was effected between different means of transport. The production and distribution of the whole country was organised on a war-time basis.

The policy of fixing prices proved a failure. In spite of all efforts to check them, prices rose rapidly. The attempt to enforce maximum prices led to supplies being withheld from the open market and surreptitious dealings at higher prices. The withholding of supplies drove prices still higher. There was a real shortage of cereals in 1918 and 1919. The position was most critical in the big towns,

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and the poorer classes, including the lower grades of salaried officials suffered acutely, being unable to afford to pay the high prices of food and other necessities.

The Supplies Board arranged for the purchase of large quantities of wheat and flour from Australia, and in 1918 and 1919, the population of the big towns was fed on Australian wheat flour mixed with 25 per cent, of maize flour.

The area under cotton in 1918 was restricted to a maximum of one-third of any holding, the step on this occasion being taken to increase the area under foodstuffs.

In September, 1919, the import duty on cereals and flour was suspended and remained suspended till June, 1921.

Throughout 1919 prices continued to rise. The principal factors in this rise appear to have been the depreciation in the £ sterling to which the Egyptian pound was closely linked, the general rise in world prices of certain categories of goods owing to decreased production and increased consumption as a result of the war, intensified in the case of Egypt by the definite shortage of supplies of many classes of goods, the difficulty of obtaining shipping accommodation for imported goods, the high rates of freights and the wealth available in the hands of certain sections of the community by which they were able to pay almost any price demanded for commodities they desired. In February, 1920, the price of wheat was nearly four times its pre-war level, beans were nearly five times and coal was over ten times the price of 1913-14.

The changes in the prices of some of the principal commodities during this period are illustrated by the following table of index numbers of prices of commodities, prepared by the Statistical Department.

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INDEX NUMBERS FOR PRICES OF COMMODITIES, 1913-1922
(Annual Averages)

Based on Average Prices—Jan., 1913 to July, 1914 = 100

Year	f.g.f. Sakel	Wheat (baladi)	Beans	Maize	Sugar	Rice	Petrol	Coal
Jan., 1913- June, 1914	100	100	100	100	100	100	100	100
1914 ¹ ..	62	98	93	79	111	93	110	135
1915 ..	84	112	82	77	132	89	118	202
1916 ..	158	123	111	91	144	98	169	446
1917 ..	236	199	162	138	179	153	186	868
1918 ..	198	242	165	164	271	168	203	1107
1919 ..	249	232	214	181	294	172	211	882
1920 ..	556	282	377	254	357	317	262	880
1921 ..	151	161	120	106	362	170	270	316
1922 ..	162	130	124	94	262	157	170	156

As prices rose higher, after 1916, the struggle of the poorer classes to make ends meet became excessively severe. In 1918 and 1919 the government was obliged to grant big increases of pay and additional allowances for high cost of living to all government officials, bringing up the salaries of lower paid officials by nearly 100 per cent. Even these increases were barely adequate. The cost of living index number in 1920 was officially estimated at 237, taking the pre-war level as 100.

In September, 1919, the policy was definitely adopted of selling bread below cost price at a loss to be borne by the Government. Retail stores for the distribution of Government flour were opened, and co-operative societies in many centres were encouraged to buy direct from the government.

From the beginning of 1919, collection of supplies for the Military Authorities ceased, and in January, 1920, the maximum prices on articles of food which had hitherto been applicable under Martial Law were abolished. The military members on the Supplies

¹ July-December, 1914.

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Control Board were withdrawn and in March, 1920, the Supplies Control Board was replaced by a Department Of Supplies. From April, 1919, to May, 1920, a total of 103,800 tons of wheat was purchased at the cost of L.E.3,500,000 and sold to the public at a loss of approximately half a million pounds.

In 1920, the situation was still acute. Owing to the great demands on shipping it was almost impossible to guarantee delivery of imports. There was still a shortage of cereals in Egypt. The restrictions on cotton planting had been removed, and in view of the high prices ruling, it was believed that the area under cotton had been greatly increased, and much reduced crops of cereals were anticipated in consequence. There were fears of a world shortage of cereals and dreadful famines occurred in parts of Russia and China. In Egypt, the government had to deal with a tense political situation and dared not risk any possibility of a shortage arising. In the autumn of 1920, therefore, big contracts were made for the delivery of wheat and maize in the following year.

In the meantime, however, the high prices of cereals had led to heavy sowing throughout the world. In Egypt, also, the fall in the price of cotton in 1920, was responsible for a bigger area of cereals than had been anticipated. In the autumn of 1920, it was realised that bumper crops of wheat were being harvested in different parts of the world and that supplies were adequate. Prices came tumbling down with a rush and the Egyptian government was involved in a loss of many millions of pounds on its wheat purchases. However, the fall in prices that took place in 1921 and 1922, proved a great blessing to the poorer classes of consumers in the towns.

Fuel supplies.—The war revealed other cracks in Egypt's economic armour. If it was possible for Egypt to provide food for all its inhabitants, it was virtually impossible for her to produce at home

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the supplies of fuel required. Normally speaking, Egypt's supply of fuel in pre-war days was limited to dried dung, cakes of which are prepared by the women in the villages and dried in the sun, dried cotton stalks, a small quantity of locally-grown wood and locally-made charcoal. Various other possibilities had been explored. Prospecting for petroleum along the Red Sea Litteral had gone on for fifty years, but it was only just before the war, in 1912, that oil was struck at Hurghada. But the oil was deficient in Paraffin content and the supply was limited. Shortly before the war, too, experiments were made with a sun machine at Helwan, but the sun's rays melted some of the pipes and the machine broke down. In the main, Egypt depended upon imported coal for its railways, irrigation, public services and industries, and upon imported paraffin for domestic heating and cooking. Imports of coal increased from L.E.400,000 per annum in 1880 to L.E.2,012,000 in 1913, and imports of petroleum passed from L.E.157,000 to L.E.572,000 in the same period.

This fuel was of vital importance to Egypt, and one of the serious dangers caused by the war was the threat to further supplies. Fortunately for Egypt, the financial adviser, Sir Edward Cecil, early realised the danger on this side, and arranged for supplies from England. Throughout the war, Egypt was supplied by the British Government at cost price with a sufficient quantity of coal for the needs of the railways, which were of vital importance for military purposes, and for certain other essential services. Apart from these supplies, however, the restriction of shipping made it almost impossible to get coal from abroad. The price of coal in Alexandria rose from L.E.2 per ton in 1914, to L.E.18 or more in the later war years. At these prices, its use for most commercial purposes was practically impossible. In 1915, a large number of trees were cut down and used for fuel. The

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situation was helped by the invention of a gas-producer plant producing combustible gas from vegetable refuse, and by the use of cotton-seed cake for burning (the cotton-seed oil being exported for war purposes.) The existence of a productive petroleum well at Hurghada on the Red Sea, discovered shortly before the war, proved a great boon by providing a steady supply of heavy oil. The petroleum was deficient in paraffin content and paraffin was imported and sold by arrangement between the government and the big oil companies.

The essential railway, municipal and irrigation services, however, depended upon the supplies of coal obtained from Great Britain. After the end of the war, in 1919, the arrangement between Egypt and England for the supply of coal came to an end. Faced with the danger of a shortage and the enforced cessation of the vital services of the country, the Egyptian Government in 1920, entered into contracts for heavy deliveries of coal spread over the next two years. As in the case of wheat, there was a heavy fall in the price of coal in 1921, which involved the government in a heavy loss. The price of coal fell from L.E.10J per ton in 1920, to L.E.2 \ in 1922. In the meantime, shipping became available and supplies were assured.

Currency.—The exigences of the situation on various occasions during the Great War led to changes in the currency system of Egypt which have continued to the present day and which represent very important modifications in the system that prevailed before the war.

The principal feature of the pre-war currency system was the annual movement of gold to and from Egypt. In the absence of Egyptian gold coins, English sovereigns came into general use. Owing to its dependence upon one crop, Egypt's need for currency is much greater in the autumn, when the

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cotton crop ripens and comes on the market, than in other periods of the year. In prevision of the demand, the banks in pre-war years imported gold to the value of from five to ten million pounds at the end of each summer.

When the Great War broke out, at the beginning of August, 1914, some of the banks in Egypt had already ordered gold from London. The outbreak of war meant, that temporarily at least, supplies of gold were unobtainable. It was urgently necessary to provide an emergency currency, as with the first alarm of war there was a rush on the banks which threatened rapidly to exhaust the available supplies of gold in the country. The most convenient and practical method was to employ the bank notes of the National Bank of Egypt the use of which had hitherto been practically limited to values of L.E.5 and upwards and which had not the force of legal currency. By decree of August 2nd, 1914, the bank notes of the National Bank were declared legal tender and inconvertible. The new system was adopted without difficulty. As the cotton crop came on the market and the need for currency developed, the issue of bank notes was gradually increased until from L.E.2,400,000 on June 30th, 1914, the issue passed to L.E.8,250,000 on December 31st, 1914.

In making the notes legal tender and inconvertible, the regulation regarding the cover for the bank notes issue was not modified, and the statutory cover continued to be a minimum of 50 per cent, in gold. For some time it was possible to maintain the statutory gold cover from gold that flowed in from circulation in the stress of the difficult conditions at the beginning of the war. As soon as prosperity began to improve, however, the inflow of gold ceased. At the same time, it was highly dangerous to bring out shipments of gold. To meet its steadily expanding issue, the National Bank of Egypt was authorised to keep part of its

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gold reserve in London, and from 1915, the additional gold reserve required was maintained at the Bank of England in London, ear-marked for the account of the National Bank of Egypt.

In the summer of 1916, however, the Bank of England was unable to allocate any further supplies of gold to the National Bank. Nor was it possible to obtain supplies elsewhere, and on September 26th, 1916, the National Bank of Egypt informed the Minister of Finance that owing to the exigences of the war, further supplies of gold were unobtainable and it was therefore impossible to continue to expand the note on the statutory basis of one-half gold reserve. The matter was urgent owing to the fact that the cotton crop was just coming on to the market and the demand for currency was increasing daily. Under these circumstances the Egyptian government requested the bank to continue to issue notes according to requirements and provide British Treasury Bills as cover for the increased issue in lieu of gold (Decree of 30th September, 1916). The interest from the increased holdings of securities was reserved to the government, but the National Bank of Egypt was allowed a commission in payment for its services in connection with the issue.

At this moment, the gold cover was about L.E.6| millions, of which L.E.3,200,000 was held in the Bank of England in London, and the balance was in Egypt. The note issue expanded rapidly. In August, 1916, the issue stood at about L.E. 11,000,000. At the end of 1916, it had risen to L.E.21,200,000 ; in 1917, L.E.30,800,000 ; in 1918, L.E.46,000,000 ; and in 1919, L.E.67,300,000. As the note issue increased, the cover was increased to a similar extent by the purchase of British Treasury Bills. The gold held in Cairo was gradually requisitioned for war needs (part of it is said to have passed through the hands of Colonel Lawrence to finance his guerilla

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warfare in Arabia), so that at the end of the war it was practically exhausted. Early in 1920, the note issue stood at L.E.75,000,000, of which only L.E.3,400,000 was covered by gold, practically the whole of the remainder being covered by British Treasury Bills.

This change over from gold to British Treasury Bills meant that Egypt was no longer on a gold standard, but on a sterling exchange standard. Depreciation of sterling would involve equal depreciation of the pound Egyptian, because, in the event of realisation, the value of the bank notes was equal to the value of the securities which constituted the cover, and these, as we have seen were, and still are, represented in great part by British government securities payable in sterling.

It has sometimes been stated that the great expansion in the bank note issue and the increase in prices which followed the reform of 1916, were the result of a policy of inflation in Egypt. Such a view is clearly erroneous. There was no inflation in Egypt in the sense that bank notes were issued without cover, or used by the government in any but the normal manner, or issued in excess of demand. Every bank note issued had its counterpart in securities and throughout the whole period the Egyptian pound was maintained at parity at the rate of 97\ piastres to the £ sterling within much narrower limits than in pre-war days. This fact alone proves that there was no individual depreciation of the Egyptian pound due to over-issue in Egypt. On the other hand, the very fact that it was linked to the pound sterling involved it in any depreciation suffered by the latter, and after making due allowance for freight, etc., it is found that throughout this period prices in the two countries moved very much in unison. When, in 1919, Great Britain officially left the gold standard, the pound Egyptian was depreciated to the same extent as the pound sterling, about 30 per cent.

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To this extent only—the extent of the depreciation of sterling due to inflation in England—can the rise in prices be said to have been due to the new currency policy. Individual cases of special rises also occurred for a time in the case of certain articles which were in particular demand in this country in the period when supplies were difficult to obtain, but these differences were soon smoothed out when supplies and shipping became available.

The new currency system proved itself remarkably smooth in operation. Increased requirements of currency were met by an expansion of the note issue, backed by corresponding purchases of British Treasury Bills ; decreased requirements were met just as easily by taking the unwanted notes from circulation and selling a corresponding quantity of Treasury Bills. The cost of printing bank notes was far less than the cost of the movements of gold in pre-war days. The interest on the Treasury Bills provided a very important additional item of profit which had been entirely absent when gold was kept as cover. From 1916 to 1924 the revenue accruing to the government from its share of profits on the notes was over L.E.13,000,000. The purchase and sale of Treasury Bills was effected without causing any perturbations on the market in London, where the volume of affairs was such that operations on Egyptian account sank into comparative insignificance. The rate of exchange on London was thus held remarkably steady. The note issue rose from L.E.2,400,000 in August, 1914, to L.E.67,300,000 at the end of 1919, and fell back to L.E.40,400,000 at the end of 1920, and L.E.33,200,000 in 1922. In spite of these changes, which would certainly have caused violent perturbations in the rate of exchange under the old system, the exchange was never more than one point above or below par. In 1913, and previous years, the value of the pound sterling in Egypt fluctuated between

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97-g piastres and 97-1 piastres (par 97*5). In 1915 and succeeding years, the exchange never exceeded 97-6 piastres nor fell below 97-4 piastres.

Another feature of pre-war years connected with the currency system was the prevalence of hoarding. In years of normal prosperity, part of the gold imported was retained in the country and went to swell the stocks already hoarded. How much gold was thus held in Egypt in 1914, we can only conjecture, but it certainly amounted to many millions of pounds. With the outbreak of war, imports of gold ceased. There were, however, considerable exports until prohibited in 1916. The farmers, and others, finding it impossible to obtain gold for hoarding, were obliged to find other ways of keeping their profits. In the absence of gold, considerable stocks of bank notes were retained in the hands of the public, and hoarding of bank notes was probably responsible for a considerable part of the greatly increased issue from 1916 to 1920. There is, however, considerable danger in hoarding bank notes and in the absence of gold two other trends appeared. On the one hand, the more enlightened sections of the community began to make use of the deposit facilities afforded by banks and the post office, and deposit and saving accounts rapidly increased. On the other hand, the most backward and conservative sections turned, in the absence of gold, to other metallic currency, and began to hoard silver coins. The silver currency in circulation rose from L.E.2,000,000 in 1914, to over L.E.7,000,000 in 1918. The price of silver rose, supplies became increasingly difficult to obtain. For a time, Indian rupees and English shillings were admitted to circulation in Egypt and the Sudan in order to meet the increasing demand. Finally, in 1918, the government was obliged to supplement the subsidiary currency by the issue of currency notes of 10 and 5 piastres. The fact that silver

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was being hoarded immediately became evident. Silver coins disappeared from circulation. The issue of currency notes, however, never exceeded L.E.2,000,000, proving that this sum was sufficient for the needs of the country.

The disappearance of silver coins led to an increased demand for nickel and copper, again for hoarding. As in the case of silver, considerable difficulty was experienced in obtaining supplies of metal and minting the coins required. On several occasions there was a shortage of subsidiary coins which caused considerable inconvenience and the public was driven to adopt various expedients such as the use of postage stamps.

The fall in prices in 1920-21 and the reduction of purchasing power in the hands of the people, due to heavy expenditure on imports and travelling abroad, led to the re-appearance of these hoarded silver and other subsidiary coins. The government was able to retire from circulation the currency notes that had been issued. As silver flowed back into circulation in increasing quantities the surplus had to be withdrawn and eventually big quantities of silver and nickel coins had to be sent abroad to be melted down and sold at the market price of metal.

When, in August 1914, paper money was declared inconvertible and gold went out of use, it was expected that this would be merely a temporary phase and that, with the end of the war, the country would revert to the use of gold. This view continued to be held throughout the war, but as the benefits of the increased use of notes became clear, the hope was frequently expressed that when gold again became free the people would voluntarily continue to make use of the bank notes to which they had become accustomed. Fears were also expressed that the resumption of gold payments would lead to large quantities being withdrawn for hoarding and that

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a part of the country's capital would thus again become unproductive.

As it happened, however, Egypt was destined long to remain upon the system which accident had forced her to adopt. When the war came to an end, supplies of gold were not immediately obtainable. Before any change could be effected England left the gold standard. To convert into gold the British Treasury Bills held as security for the note issue would have entailed a very heavy loss. In the meantime, the great advantages of the existing system, its economy, avoiding as it does the expenses of movement of gold, the profits earned by the securities held as cover for notes, the stability of exchange between Egypt and her most important group of customers, and the ease with which large fluctuations in the money in circulation can be provided for, were solid advantages, not lightly to be given up. The system which came into force to meet the exigencies of the war situation has, therefore, been retained and remains in operation to-day.

The war thus left a profound mark upon the economic development of Egypt. On the one hand, the big profits which accrued to Egypt during the war helped her considerably to reduce her burden of indebtedness *vis-à-vis* her foreign creditors. It also initiated the population into the use of bank notes and banking operations, and helped to overcome to a certain extent, the conservatism of the Egyptian investor and thus paved the way to the establishment soon after the war of an important bank and group of allied companies working entirely on Egyptian capital and deposits (the Misr group). It served to demonstrate the weak points of Egyptian economic organisation and to develop a national economic consciousness which later revealed itself in rather spasmodic attempts towards a more planned economic development.

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On the other hand, the high profits gained during the war were not spread equally through the different sections of the population, but in the last resort were concentrated in the hands of comparatively small groups. The presence of this easily-won prosperity led to a higher standard of living which persisted long after the war, and the attempt to maintain this higher standard has been at the base of many of Egypt's post-war economic difficulties. To the difficulties of farmers and wage earners, in a long period of gradual deflation, has been added the burden of extremely high rents, both of agricultural land and of houses and flats in the towns. The high price of land is one of the most important features of post-war economic conditions in Egypt.

CHAPTER VI

THE POST-WAR YEARS

THE decade which followed the war saw a long period of deflation, not as a steady process, but in three great waves of depression, in 1921, 1926 and 1931*

The slump of 1920-22 was followed by a period of relative prosperity. The price of cotton fluctuated considerably, and there were loud complaints from interested parties each time the price fell, so that on a number of occasions the government intervened as buyer in the market. In actual fact, however, the price of cotton during all this period was at double the price ruling in 1913, and the profitability of cotton growing is proved by the rapid increase in the crop, after the initial slump of 1921. Production jumped from 4,350,000 kantars in that year, to 6,713,000 kantars in 1922, and to 7,274,000. kantars in 1924. Sales during this period were even greater than production so that a carry-over of 1,835,000 kantars in 1921 was reduced to 260,000 kantars in 1925. This big carry-over in 1921 and the fall in price had led to a law restricting the area in cotton. This law was maintained in force in 1922 and 1923, but with the reduction in stocks it was then abrogated and the 1924-25 crop was unrestricted. In 1925 there was the highest crop hitherto recorded—of 7,965,000 kantars.

During the same period, the balance of trade, adverse to Egypt in 1920 and 1921, swung again rapidly, and heavily, in Egypt's favour. In 1922, there was a favourable balance of nearly L.E.8 millions,

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in 1923, of L.E.12½ millions, and in 1924 of over L.E.15 millions. After making allowance for foreign payments we may conclude that a further 20 to 25 millions was added to Egypt's patrimony during these three years.

The prosperity of the country was evidenced by a series of budget surpluses. At the end of the war, the Reserve Fund of the government had risen to L.E.17,000,000. In 1920-21, the deferred expenditure from the war period and the heavy losses on wheat and coal brought down the Reserve Fund to L.E.1,500,000. In the next few years it was again rapidly built up by heavy budget surpluses so that in 1924, it had already risen to over L.E.20,000,000.

The profits made during this period led to another big block of securities being transferred from foreign to Egyptian hands. (It is necessary here to specify, however, that the term Egyptian in this connection is used in its wide meaning of resident in Egypt, and not in the narrower sense of Egyptian subjects or nationals. The holdings of securities referred to here and elsewhere as Egyptian holdings are so denominated to distinguish them from securities held in other countries. As a matter of fact, though statistics on the subject are lacking, it is probable that a very considerable part of the securities held in Egypt are the property of individuals and establishments who are not of Egyptian nationality though many of them have long been established in this country.)

The full benefits of the comparatively high prices of this period were reduced, however, by the continuance of the high standard of living engendered by the abnormal profits of the later war years. One sign of this was the intense building activity in Cairo and Alexandria to meet an apparently insatiable demand for new and better housing accommodation. Another, was the recurrent demand of the cultivators for

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government intervention every time that a fall took place in the price of cotton. Still another, and the most serious of all, was the high level of rents and the high price of both urban and rural land. Rents during this period were commonly from 60 per cent, to 100 per cent, above the 1914 levels. The increased profits were going, not to the farmers but to the landlords.

In 1926 there was another big fall in the price of cotton. The 1925 crop was the biggest Egyptian crop which had yet been grown and it coincided with a particularly big American crop. When it began to come on the market the price of Sakel was in the neighbourhood of \$50. Suddenly the boom broke, and prices fell rapidly. The government, as in previous years, yielded to the clamour of the cultivators and intervened on the market in an avowed intention to keep up the price to \$36. At the end of the season they had purchased 480,000 kantars and had locked up in these purchases over L.E.3,000,000 of the Reserve Fund. In spite of this intervention, the price had fallen to \$30 and the carry over was 1,100,000 kantars.

In the autumn of 1926, there was a further fall. After its ill-success in the spot market earlier in the year, the government was unwilling to intervene again there. In the belief that prices were being driven down by speculation, the government declared itself a purchaser of futures and stated that it would ask for actual deliveries of cotton against contracts. The end of the slump, and a rise in prices during the following months, however, made it unnecessary for the government to take up any cotton on this occasion.

The government went back to its policy of restriction and in January, 1927, edicted that the area devoted to the cultivation of cotton in 1927, 1928 and 1929, was not to exceed one-third of the land of any cultivator.

The year 1926 closed with an unfavourable balance of

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trade of L.E.9J millions. This was met in part at least, by realisation of foreign securities. The maximum of bank notes in circulation was L.E.6-8 millions less than the previous year. Any reduction in holdings of bank notes implies of course a reduction in the British Treasury Bills held in cover.

Considerable hardship was caused to those who had undertaken mortgage or other fixed payment obligations in the former period of inflated prices and now had to meet fixed charges out of a reduced income. The position was aggravated by the pegging of the pound sterling to gold in 1925, at a level which unduly raised the value of the pound and reduced prices in England and Egypt accordingly. The legacy of high rents and prices and the attempt to maintain a higher standard of living also tended to make the situation more difficult.

In the next two years, however, there was a partial recovery. The price of cotton rose so that the 1927 and 1928 crops were sold at an average of nearly \$30 as against \$20 in 1926. In spite of this, however, there was an undertone of uncertainty and a relatively high number of failures. The enforced deflation, due to the return to the gold standard, was having its effect. At the same time, however, the budgetary position remained prosperous and the Reserve Fund, swollen by yearly surpluses, mounted until in 1929-30 it reached a peak of L.E.40J millions. A considerable part of this fund, however, was ear-marked for various purposes, or locked up in cotton.

The development of banking since the war and the increased use of cheques led to the establishment, in 1928, of a Clearing House in Cairo under the aegis of the National Bank of Egypt. This proved itself so useful that a few months later, in 1929, another was established in Alexandria. In 1937, 470,082 cheques of a total value of L.E.72,351,000 were cleared in Cairo, and 255,569 cheques of a total value

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of L.E.60,482,000 passed through the Clearing House of Alexandria.

In the autumn of 1929 there was a crisis in New York following a collapse of prices on the Stock Exchange. This led to a heavy fall in stock exchange quotations in Egypt. The price of cotton began to fall rapidly, there was a diminution of exports, a reduction in bank advances on goods and in foreign drafts. For some years, there had been a boom in American industry, based upon the economies of large-scale production and an expansion of the supply of credit by the banks. Big profits were made in industry, but in agriculture there was a gradual fall in the prices of agricultural products so that the consuming power of the agricultural population was reduced. Stocks of raw materials and manufactured goods increased even while a violent boom was taking place in industry and on the stock exchanges. When the true position was realised, in 1929, there was an abrupt, and very severe reaction.

Throughout the post-war period, Egypt's economic development has been intimately connected with developments in England and America. The linking of Egyptian currency and sterling has tied Egypt through the alternate periods of inflation and deflation followed by England, while conditions in America and England have largely been responsible for the price of American cotton upon which depends, in the last resort, the price of Egyptian cotton.

The crash in America was the prelude to a world-wide depression of unprecedented depth and duration. Prices fell lower and lower ; industrial production ceased ; stocks of raw materials accumulated ; the farmers and others, with fixed engagements undertaken in more prosperous days, found themselves unable to meet their obligations and a wave of forced selling ensued. Credits were frozen ; there was no capital available to take up the land ; produce was thrown

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on the market, and prices were driven still lower. This still further reduced the consumer's purchasing power and so the vicious circle continued.

In Egypt, there was a catastrophic fall in the price of cotton. The 1928 crop was sold at an average price of \$26, the 1929 crop at \$20, the 1930 crop at \$12 and the 1931 crop at \$10. From 1927 to 1931 the price of cotton dropped to one-third. In 1931, it was considerably below its pre-war value.

Even at these low prices, it was not possible to find buyers for the cotton. Stocks accumulated, year by year until the carry-over in 1931 amounted to over 4,000,000 kantars. The total stocks of cotton in the world increased from 10,000,000 bales in 1929 to 17,000,000 bales in 1931.

The combination of low prices and reduced sales brought down the value of exports of goods from L.E.56,165,000 in 1928 to L.E.27,273,000 in 1931. The value of the cotton crop in the meantime declined from L.E.47,718,000 in 1928 to L.E.15,753,000 in 1931. In view of this unprecedented fall in the value of cotton, farmers turned to other crops, and the area under cotton fell from 2,082,000 feddans in 1930 to 1,094,000 feddans in 1932. Cotton and cotton seed which represented 84 per cent, of the value of exports in 1929 had fallen to 68 per cent, in 1932. Wheat, barley, onions, bersim, rice and sugar, all showed increases. In this respect, cotton undoubtedly has the advantage over certain other agricultural products such as vines, fruit trees, forests, dairy products, in that from one year to another, without loss of capital equipment, cotton cultivation can be replaced by other crops if desired. At the same time, it appears that the farmers did not find the change-over profitable, for the following year cotton was back to 1,804,000 feddans.

The fall in the price of cotton put the farmers into a most difficult situation. Faced with the

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necessity of maintaining fixed payments of taxes and in many cases of mortgage annuities or other debts, out of an income which had shrunk to one-half or even less, many of them were in an impossible position. Arrears mounded alarmingly. There was danger of wide-spread expropriation and forced sales. The government made its usual ineffective attempt to stop the avalanche of falling prices by intervening on the market, a process which led to its being saddled with a further 3,000,000 kantars at a cost of L.E. 14,000,000.

In 1929-30, the cost of cotton purchased amounted to L.E. 7,203,000. In 1930-31, a further L.E. 6,998,000 was expended by the government on purchases of cotton. At the same time, to enable the farmers to hold their stocks, the government advanced loans on cotton which later led to having to take over another two million pounds' worth of cotton. In 1930-31, therefore, the government had on its hands, some 3,500,000 kantars of cotton for which it had paid nearly L.E. 16,000,000.

In spite of this, the price of cotton fell rapidly throughout 1930 and 1931. In September, 1931, it had reached a point of \$10. At this point, England left the gold standard and the pound sterling rapidly depreciated by 30 per cent. The Egyptian pound remained linked with sterling and underwent the same devaluation. It may be that this fortuitous event saved Egypt. Its immediate effect was to raise the price of cotton and other exported commodities by 40 per cent, in terms of Egyptian currency over what they would have been had England and Egypt remained upon the gold standard. The farmer was thus enabled to pay his mortgage annuities and taxes in depreciated currency. The average price for the cotton crop in 1932 was \$10. It would have been less than \$7 had Egypt remained upon the gold standard and at such a price there would have

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been widespread ruin. Even as it was, mortgage payments fell heavily into arrear, so that the government was obliged to come to the help of the debtors. In 1933, and again in 1935, the government made arrangements with the big mortgage companies regarding outstanding arrears and debts. In 1933, the arrears owing to the four principal mortgage banks amounted to over L.E.6,000,000. The government arranged with the banks for the interest to be consolidated into a fresh loan, one-third of which was to be paid off by the debtors in a space of 30 years and two-thirds were taken over by the government. This eased, to some extent, the immediate burden on the farmers. The continuance of low prices, however, made it necessary for a fresh effort to be made in 1935, to reduce the burden of interest, which in many cases, was proving intolerable owing to the continued low level of prices. In 1937, still further agreements were made, reducing mortgage debts of second and third degree.

Mortgage Debts,—These successive arrangements reducing mortgage debts and the widespread attention which they have attracted, have given the somewhat erroneous impression that the country is overburdened with mortgage debts. In actual fact, the mortgage debts of Egypt, to-day, are probably less by L.E.20,000,000 than they were in 1914. The effect of the long period of deflation, however, culminating in the disastrous fall of prices in 1931, made the position of those who had contracted mortgage debts in the war and post-war years very difficult, and measures have had to be taken to help these classes of debtors.

The question of agricultural credit in a country such as Egypt with a big class of small peasant proprietors is full of difficulties. To withhold organised credit drives the farmer, for whom credit is frequently an essential condition of production, into the hands of the usurer. The supply of credit on too easy terms, in a country where the farmer is characterised

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by such an extreme thirst for land is to tempt him into undertakings beyond his means, which will only have to be given up at the first difficult period, and at the same time to drive up the price of land—already far too high. Again, the supply of credit to the small cultivator, the man with one or two feddans, or even a part of a feddan only, who may need a few pounds for a few months, cannot possibly be profitable to an ordinary commercial credit institution unless ruinous rates of interest are charged. At the end of the nineteenth century, the National Bank of Egypt, at the request of the government, and with the help of the government "sarrafs" (tax-collectors), provided loans to small farmers. The move proved very popular and the demand for loans grew so rapidly that in 1902, a separate bank, the Agricultural Bank of Egypt, was established to take over the work. In a few years, the mortgage loans of the Agricultural Bank had risen to L.E.8,000,000. The period of difficulty after 1907, however, led to widespread expropriations for arrears. This led, in 1912, to a change of policy on the part of the government and the "Five Feddans Law" a kind of Homestead Act was passed, designed to protect the small farmer from the usurer and from his own improvidence by declaring holdings of five feddans or less to be unseizable for debt. This effectively cut off the supply of organised credit to the small farmers, though it did not reduce their need for credit and one of its effects was to drive them to other and more onerous means of obtaining their credit requirements. Attempts were later made to meet this need through co-operative societies, but the development of such societies in Egypt has met with many obstacles. Finally, in 1933, the government created the Credit Agricole expressly for this purpose of supplying credit to the smaller farmers. The government guarantees the interest on the capital and thus avoids the necessity for the bank

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to restrict itself to bigger loans in order to keep down working costs. The bank has before it a sphere of enormous utility not only in providing cash loans, but in distributing seeds, manure, etc. on credit to smaller farmers throughout the country.

Drainage.—Perhaps the most important problem before Egypt to-day, in connection with agriculture, is the development of suitable drainage. As the war drew to a close big irrigation plans were made. The intense demand for cotton and the high prices made an extension of the summer area all the more desirable. This implied: (i) an examination of the whole course of the Nile and further irrigation projects on the upper reaches of the Nile, (2) the extension of perennial irrigation to the whole country, and (3) the introduction of an adequate system of drainage for the whole country.

Just before the Great War, a start had been made with two drainage schemes in the Gharbia and Western Behera. On the outbreak of war, further progress was stopped, but during the war, the necessity for further drainage became so apparent that plans were drawn up for a whole series of drainage schemes. The Delta was divided into a number of zones, corresponding with its natural drainage areas between the lines of higher land which mark the ancient watercourses. After the war, work was undertaken on the drainage of these areas by the construction of big drainage canals in which the water was to be maintained at a suitably low level by pumps designed to lift the water from the terminal ends of the canals and pump it into the sea or the northern lakes. In this way, in 1930, no less than ten big pumps were in operation along the northern fringe of cultivation in the Delta. Since that date the electrification of these pumping stations has been undertaken. There are now seventeen drainage stations operated by electricity generated from

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three power stations, providing drainage to over 1,000,000 feddans in the north of the Delta. Eventually, it should be possible not only to provide suitable drainage for the land in the Delta and thus bring back its fertility, but also to reclaim the big areas of lakes and swamps along the northern edge of the Delta.

Irrigation.—At the same time, the search for summer water, the basis of all the modern system of irrigation, was carried much further.

Just after the war, a dam was built across the Blue Nile at Sennaar, some distance south of Khartoum to supplement the Aswan Dam and to provide storage water for the Gezira cotton plantations in the Sudan. In 1936, the Aswan Dam was heightened for a second time, and its storage capacity was raised from 2,500,000,000 to 5,700,000,000 cubic tons. In 1937 a further storage reservoir was provided by the construction of a dam at Gebel Aulia, on the White Nile, to the south of Khartoum. This provides a storage capacity of a further 2,000,000,000 tons. Even this cannot be regarded as anything like finality, but for the moment, it appears that Egypt is assured of an adequate supply of water for its immediate needs.

At the same time, as an increased water supply was thus being assured, the area of summer cultivation has been rapidly extended since the war by the conversion to perennial irrigation of big areas of basin land in Middle and Upper Egypt. A dam was built at Nag Hamadi in 1928, to raise the water level in the canals in Middle Egypt and thus make possible the conversion of those provinces to perennial irrigation. Province after province is being equipped with irrigation and drainage canals. Akhmim has just been completed and orders have been given to start work on the province of Asyut. Eventually, the whole country will be supplied with summer water. In Aswan province, some 50,000 feddans of higher

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land are now irrigated by water raised by twelve pumping stations driven by electricity from a special power station at Edfu, some distance south of Esna.

The effect of these irrigation developments is seen in the extension of the crop area.

Increase in Crop Area.—The crop area, with the extension of summer irrigation, increased from 7,712,412 feddans in 1913 to 8,634,324 feddans in 1930. It has since fallen slightly and in 1936-37 amounted to 8,101,069 feddans. The reduction is probably due to the fact that in this period of low prices, land of marginal utility is left uncultivated.

This increase in the area of crops is no longer, as in the earlier period, taken up almost entirely by cotton. The maximum area under cotton, in 1930, was only 360,000 feddans more than in 1913, and in the slump of the next two years, the area under cotton fell, temporarily by 1,000,000 feddans, from 2,082,000 feddans in 1930 to 1,093,000 feddans in 1932. It rose again in the following year to 1,804,000 feddans, and last year's crop (1937) occupied an area of 1,978,000 feddans.

A notable feature of this period has been the rise and fall of Sakellaridis. Developed in 1907 from a plant found in a field of cotton in the Delta by M. Jean Sakellaridis, this variety began to extend rapidly from 1910. During the war, the fine, white, long-staple cotton was in great demand so that by 1917 over 90 per cent, of the cotton producing area was under Sakel. In 1915, f.g.f. Sakel became the basis of official quotations on the exchange. After the war, the demand was maintained owing to the use of long-staple cotton in the manufacture of tyres and aeroplane wings, and Sakel enjoyed a very big premium over American. Later, however, the manufacturers found the way to substitute other and cheaper varieties of cotton for Sakel in many industries. At the same time there was a tendency for the quality

of Sakel to become lower owing to mixture with other inferior varieties. The premium over Uppers and American declined. At these lower prices, cultivators turned from Sakel, which has a comparatively low average yield per feddan, to other types of cotton, such as Ashmouni-Zagora, a product of the old indigenous cotton of Egypt, which gives a considerably heavier average yield, and at the same time attempts were made to produce other long-staple varieties. By 1933, the area under Sakel had fallen to less than 22 per cent, of the total area under cotton, while the area under Ashmouni and Zagora had risen to 56 per cent. While Sakellaridis thus declined, many efforts were made to develop a new variety to combine the heavy yield of Ashmouni with the better quality of Sakellaridis, and many new varieties were evolved. One of these, Guizih 7, started about 1930, has since increased so rapidly that in 1936 it was adopted as a basis of quotations on the exchange.

Other crops to show increases during the period 1914-1936 were rice, which has extended from 240,000 to 450,000 feddans ; wheat, which shows an increase of over 100,000 feddans ; and sugar-cane.

Generally speaking, however, the main lines of agricultural distribution have not changed much. Cotton, maize, wheat and bersim still occupy between them three-quarters of the crop area, and the other quarter is taken up with rice, sugar, sorgho, beans, barley, onions and vegetables.

The area under these different crops is given in the following table which shows, first, the area in 1913, for comparison with post-war years, and then the areas before, during and after the great slump of 1931. These latter figures are particularly interesting as showing what might be expected to take place in Egypt if ever the price of cotton should fall to unremunerative levels. In one year, 1932, the area under cotton fell by one-half, while the areas under

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maize, wheat, rice, beans, sugar-cane, bersim and onions, vegetables and fruit were increased.

Almost immediately, however, there was a return to the earlier distribution. Cotton rose from 1,093,000 feddans in 1932 to 1,804,000 feddans in the following year.

AREA OCCUPIED BY DIFFERENT CROPS
(in thousands of feddans)

Crop	YEAR			
	1912-13	1929-30	1931-32	1936-37
Cotton ..	1,723	2,082	1,093	1,716
Maize ..	1,852	1,826	1,968	1,562
Rice ..	242	346	472	452
Wheat ..	1,306	1,466	1,697	1,410
Beans ..	478	424	592	395
Barley ..	369	332	352	272
Sugar-Cane ..	48	54	70	64
Bersim ..	1,409	1,464	1,640	1,510
Various ..	285	640	851	720
Total ..	7,712	8,634	8,735	8,101

Increased number of landowners.—The increase in the number of landowners, particularly in the class of smallholders which we have seen in operation in the period 1880-1914, was continued, even intensified in the war and post-war years. The number of landowners passed from 1,556,310 in 1913, to 2,299,979 in 1933 ; the land held increased from 5,472,930 feddans to 5,818,390 feddans, in the meantime.

It is obvious, at once, that there was a reduction in the size of the average holding. This diminution was almost entirely in the classes of smaller landowners. In the case of holders of 50 feddans or over, there was little change either in the number of landowners or the average estate held. In the case of what

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might be called middle-class landowners, those holding from 5 to 50 feddans of land, there was a small increase in the number of landowners—from 132,600 in 1913, to 146,000 in 1933, and a slight decrease in the average holding of each. But it was in the case of smallholders, those with less than five feddans, that there was the greatest increase in the number of landowners: from 1,411,158 in 1913, to 2,141,334 in 1933. At the same time the land held by this class of landowners increased from 1,418,959 feddans in 1913, to 1,874,304 feddans in 1933.

It is in this class, therefore, that the greatest change has taken place. And if we look further, we find that the greatest change of all is in the class of very small landowners, those with less than one feddan. The number of smallholders, owning one feddan or less has risen from 942,530 in 1913 to 1,586,609 in 1933, and the land held, from 405,595 feddans in 1913, to 620,812 feddans in 1933. The average holding of this large class of peasant proprietors was 0.43 feddans in 1913 ; in 1933 it was 0.39 feddans. Two-thirds of the landowners in Egypt, to-day, have an average holding of less than one-fifth of a feddan (1 feddan = 5,024 square yards, about 1¹/₂ acre).

Even in a country such as Egypt, with intensive cultivation and a low standard of living, it is obvious that such a small holding cannot constitute an economic unit. The holders of these very small areas of land eke out a living by working on the bigger estates, either as labourers or as tenant farmers, in the first case taking a daily wage, in the latter case paying rent to the overlord, frequently in the form of a considerable part of the crop grown.

This extreme subdivision is largely the result of the operation of the law of succession and the extreme reluctance of the farmer to part with his land, no matter how small his holding. In actual fact, although each person's holding is registered in his

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own name, there is frequently a certain amount of cultivation in common. The land is usually divided on the strip system ; in Upper Egypt there are strips a kilometre in length, but only a few inches in width. In such a case, adjoining strips frequently belong to other members of the same family ; the land has been subdivided by succession but the field is cultivated as a whole by the various members of the family and the produce divided in accordance with their holdings.

At the present time, about 30 per cent, of the land is in the hands of 2,150,000 holders of less than five feddans ; 32 per cent, is held by 146,000 middle-class landowners of 5 to 50 feddans and the remainder, nearly 40 per cent., is held by rich landowners, and land companies. In this last class is included some of the best, and some of the worst land in the country. A certain part is still unreclaimed land held by land companies for reclamation and sale in smaller lots. The present tendency appears to be towards still further subdivision on the one hand, while, on the other hand, there is a tendency for the big landowners to consolidate their estates by buying up the surrounding land.

REPARTITION OF AGRICULTURAL LAND, 1913-1933

Size of Holding	1913		1933	
	No. of Landowners	Area held	No. of Landowners	Area held
feddans		feddans		feddans
0-1	942,530	405,595	1,586,609	620,812
1-5	468,628	1,013,364	554,725	1,253,492
5-50	132,594	1,633,413	146,046	1,758,781
Over 50 ..	12,558	2,420,558	12,599	2,285,305
Total ..	1,556,310	5,472,930	2,299,979	5,818,390

Land registration.—An attempt was made during

this period to effect a much needed reform in the system of land registration. Previous to the institution of the Mixed Courts in 1875, land transfers were registered in the Mekhemets. After the institution of the Mixed Tribunals, most land transfers were registered there, but the Mekhemets still retained their competence. The opening of the Native Courts in 1883 meant that land transfers might be registered in any one of three different institutions. In the early years of this century a project of unification of registration was prepared at the same time as a project to institute a land register. The plan fell through, however. During the war, it was taken up again and a committee was formed to report upon it. Their report urged the need for unified land registration and the advantages which would accrue from having a land register based upon an accurate and detailed survey in which each person's holding could be accurately and indisputably recorded. This project again fell through, but in 1923 a first step was taken in the direction desired by a reform in the system of registration at the Mixed Courts, where 97 per cent, of sales of land are registered. The new law stated that from January 1st, 1924, sales of land must be effected by transcription registered in the Mixed Courts. The deeds must be on special paper. The original is kept in the courts, and photostat copies are delivered when required. This avoids much of the deception that was rife when copies of certificates were made out by hand. This reform did not constitute a land register, but it was an important step in that direction as the details contained in the transcriptions registered in the court are employed as the basis of an unofficial land register.

The prescriptive period for undisputability of land ownership still remains at 15 years as originally fixed in the law of 1854.

Population.—The population of Egypt is still

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increasing at a fairly rapid rate : it passed from 12,292,000 in 1914, to 12,750,918 at the census of 1917, 14,217,864 at the census of 1927, and 15,904,525 provisional figure of the census of 1937. The population has thus increased by 3,612,000 since 1914. This represents an increase of about 30 per cent, in the population since 1914. Neither the cultivated area, nor the crop area has increased to anything like this extent. In the circumstances there has been a trend towards more intensive cultivation on the one hand, and towards industrial development on the other.

Industry.—The war brought home to Egypt in a disagreeably clear manner the extent to which she depended upon manufactured goods from abroad. Under the stress of war conditions an attempt was made to develop industry in Egypt. A government commission was set up, and issued a report which eventually led to the establishment, after the war, of a Department of Industry and Commerce. During the later war years, a number of local industries grew up and thrived. After the war, however, the renewed competition of foreign products soon put out of action the greater part of these new ventures. There was a call for protection, but this was not possible as Egypt's hands were tied by existing commercial treaties. In 1930, however, the last of these terminated and a policy of moderate protection was adopted, designed to encourage the development of local industry. As a result, since 1930, there has been very considerable industrial development. Egypt possesses raw materials, a plentiful supply of labour and a considerable internal market for many kinds of goods. For power there is available heavy oil from her own oil wells and refinery and coal which is imported cheaply from abroad.

The most important industries in Egypt are connected with its cotton crop. The whole crop is

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ginned in 130 ginning factories in different parts of the country. Pressing for export is concentrated in four large presses in Alexandria. About five per cent, of the crop is now spun in Egypt, and the remainder exported. The import of raw cotton is prohibited. There is a large spinning and weaving mill at Mehalla el Kubra and another at Alexandria. The total output of yarn is now about 36,000,000 lbs. per annum. The total output of cotton cloth is about 83 million yards a year, about one half of which is woven in the factories and the other half on handlooms all over the country. This represents about 30 per cent, of the total annual consumption. Production is increasing rapidly and there is still ample room for expansion. Before 1930, less than 1 per cent, of the cotton crop was retained in Egypt, all the rest being exported. In 1936, 450,000 kantars were retained for manufacture in Egypt, and in 1937 the estimated local requirements amount to 500,000 kantars. It appears quite within the bounds of possibility that within a few years 10 per cent, or more of the crop may be retained for manufacture in this country.

The cotton seed is used for the production of cotton-seed oil which is either consumed as food or used in the manufacture of soap. The cotton-seed cake is exported.

Another highly organised industry is that of sugar. There are five pressing factories in the sugar-growing areas and a large refinery near Cairo. Since the application of the new customs tariff, Egypt has produced sufficient sugar for all local requirements.

A further consequence of the protective tariff and the low cotton prices of the last few years has been to render Egypt again practically self-supporting in food grains. The former big imports of wheat and flour have shrunk to a mere 3,000 tons of high-grade flour, equal to about 2 per cent, of the total requirements of the country. The other 98 per cent.

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is now grown in Egypt and milled partly in big factories in Cairo and Alexandria and partly in small stone mills scattered all over the country.

The other principal cereal food of Egypt is maize, which is grown and eaten all over the country. The usual method, however, is to grind it either at home or in small stone mills in the villages, and there is, as yet, no large modern mill for maize.

The increased area under rice has led to a considerable extension of the rice cleaning industry. There are large modern rice mills at Alexandria, Mansura and Damietta. After cotton and cotton seeds, rice is the third export of Egypt, with a value in good years approaching L.E.900,000. With further supplies of water, the area under rice is likely to increase still further in the future.

There has also been a notable increase in industries such as furniture, clothing, beds, articles for domestic use, matches, shoes and other leather goods. The engineering industry is progressing. A recent departure is the assembling of motor cars and other machines from parts imported from abroad.

The cigarette industry also has developed and practically all the cigarettes now consumed in Egypt are manufactured in this country. The tobacco used is all imported, large quantities of Japanese leaf being now used for the manufacture of cheaper qualities.

The manufacture of Portland cement and other building materials has increased very considerably since the war and three-quarters of Egypt's requirements in this direction are now locally produced.

The mineral resources of the country are as yet comparatively little exploited. Oil is produced at Hurgada. The crude oil obtained, about 200,000 tons a year, is refined in a large refinery at Suez, which also deals with a further 100,000-150,000 tons imported from Irak. This refinery now supplies

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the bulk of Egypt's requirements of benzine and heavy oil, but kerosene has to be imported in large quantities from Rumania and Russia.

There are phosphate mines at Kosseir and Safaga. Most of the output is exported, but there are now plans in hand to use the falling water at Aswan Dam for the production of super-phosphates on a large scale. The extension of the perennially irrigated area in the present century has been accompanied by a rapid increase in the use and importation of artificial manures.

Manganese ore in Sinai, gold at El Sökkari, salt from the brine lakes in the north and carbonate of soda from Wadi Natrun complete the list of minerals which are at present commercially exploited. The discovery, early in 1938, of what are said to be extensive deposits of high-grade iron ore near Aswan, and arrangements said to be in hand for their exploitation may be destined to have very important effects on future industrial developments.

Around the coast and in the northern lakes and the Nile there is a considerable fishing industry producing about 40,000 tons offish of a value of L.E. 1,000,000 per annum, all of which is consumed in the country.

Communications.—The principal means of communication in Egypt are : the railways, the Nile, the roads and aviation.

The railways, including the state railways and three subsidiary services of agricultural railways run by limited companies, appear adequate for the present needs of the country. The services have gradually been extended to all important parts of the cultivated area and as far south as Shellal, and a branch line runs out to Kharga Oasis.

There has been a considerable increase in navigation on the Nile, but the impression still persists that far more use could be made of the Nile and the principal irrigation and drainage canals. It is

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frequently stated that the state ownership of the railways is a factor adversely affecting Nile transport developments. To this should be added the attitude of the irrigation authorities who have staked first claims on the Nile and canals for irrigation purposes and merely admit traffic as a secondary consideration.

The system of roads too, has not moved in pace with modern transport developments. For the most part, the roads outside the principal towns are beaten earthen tracks, good enough for light traffic in dry weather, but absolutely impassable after heavy rain, and in any case unable to stand up to really heavy modern road traffic. This fact, and the fear of competition on the part of the railways, have seriously retarded the development of motor transport in Egypt since the war. The recent Anglo-Egyptian Treaty, however, stipulates the construction of a number of first-class roads and these will help to remedy a marked deficiency in the economic organisation of Egypt to-day.

The development of aviation bids fair to bring back to Egypt its long-lost importance as a centre of international communications—this time by air. Lines from north, south, east and west meet and cross in Egypt. Cairo and Alexandria are the centres of air lines connecting Europe and the Near East with West and South Africa, Arabia, India, the Far East and Australia, and the passengers, letters and goods which come to or pass through Egypt by air are rapidly increasing year by year. This development, together with the importance of the Suez Canal, which is due to become again the property of Egypt after another thirty years, brings Egypt again into prominence athwart one of the main lines of world communications and its privileged position will certainly be an important source of profit to the country in future years.

In Egypt itself, with its genial climate and easy

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landing places, there has been considerable development of air transport between the principal towns of the Delta and Upper Egypt, which are now linked by regular air services.

Commerce.—The main features of commerce have already been indicated. The long spell of deflation since the war has reduced the value of exports and imports by a series of heavy falls at recurring periods of slump. The exports fell from L.E.88,030,000 in 1920, to L.E.27,709,000 in 1932. They have since risen to L.E.32,979,000 in 1936.

Throughout this period, cotton has remained the predominating article of export, averaging, with cotton seed and cotton-seed cake, from 85 per cent, to 90 per cent, of the exports. Only in years when cotton prices slumped heavily has this proportion been reduced, the most important of these occasions having been in 1932, when cotton, together with seed and cake, fell to 68 per cent, of the total exports, but on each occasion as soon as there has been any improvement in cotton prices, cotton has reasserted its pre-eminence. In 1936, raw cotton, cotton seed and cake make up about 85 per cent, of the total exports.

This development has been followed by a marked increase in the average yield. The average, yield per feddan for the whole country has risen from 3.78 kantars in 1931 to 5.52 kantars in 1937. This factor, more than an actual increase in the area under cotton has sent up the crop to well over eleven million kantars—by far the biggest crop ever produced in Egypt.

On the imports side, there has been a reduction in imports more or less corresponding to the fall in exports. The marked exception to this was the year 1929 when, in anticipation of an expected increase in the customs duties on imports, goods were imported to a value of millions of pounds, in excess of immediate needs. It is necessary here, briefly to recapitulate the

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customs régime previous to the reform of 1930. During the 19th century, Egypt, as part of the Ottoman Empire, came under the commercial conventions made by the Porte. In 1861, the Franco-Ottoman Treaty established very broad free-trade principles in the Turkish empire, unrestricted import and export being allowed in all Ottoman dominions, subject to an export duty of 1 per cent, and an import duty of 8 per cent, with a rebate of 7 per cent, on goods re-exported within six months. The only articles on which restrictions were laid were arms and munitions, tobacco and salt. In its broad outlines, this régime continued in Egypt until 1930. Before the 1861 treaty expired, the Khedive of Egypt had been given the right to conclude commercial conventions and most of the countries trading with Egypt made independent commercial conventions, the terms of which differed slightly from country to country, but all of which contained the "most favoured nations" clause.

For some time after 1884, there was a general rate of 10 per cent, on imports, but in 1902 France made a commercial convention by which the general rate of duty on imported articles was fixed at 8 per cent, *ad valorem*, and by the operation of the "most favoured nations" clause this rate was automatically applied to all other nations which had made treaties. After 1925, the treaties in force expired one after the other. The scale of duties, however, could not be changed until the last of these treaties, that between England and Italy, came to expiration in 1930. As soon as it was free to do so, Egypt, in 1930, brought into force a revised customs tariff with higher, though not excessive duties, designed with the avowed double object of increasing the revenue and affording a moderate amount of protection to nascent industries. The development of these industries will naturally reduce imports in certain directions, and

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as we have seen the effects are already noticeable in flour, sugar, cotton, cloth and yarn and a number of smaller products. It may well be that the year 1930 may prove to have been another landmark in the economic developments of modern Egypt.

The imports of 1936 amounted to L.E.31,497,000. The exports during the same year amounted to L.E.32,979,000. There was thus a trade balance in Egypt's favour of nearly L.E. 1,500,000.

As we have seen, such a balance in pre-war days would not nearly have met the interest due by Egypt on foreign investments in this country. In 1913, the annual payments due in interest charges on foreign investments was estimated at from L.E. 8,000,000 to L.E. 9,000,000. At the present time, this amount has been reduced by at least one-half. Sixty per cent, of the Egyptian Public Debt is now held in this country, as against 10 per cent, before the war. The capital of foreign companies operating in Egypt has been reduced by many millions of pounds by repayment of mortgage loans, redemption of debentures, liquidation and deduction of capital. New companies established since the war have contained, in nearly all cases, a considerable part of local capital ; one important group of companies has been constituted almost entirely on native capital. It is estimated that foreign holdings of shares and debentures of companies operating in Egypt fell from L.E. 80,000,000 in 1914, to less than L.E. 40,000,000 in 1934. (These figures do not include branches of foreign companies or the Suez Canal.) At the same time, foreign securities held on Egyptian account, including the cover for the bank note issue have risen to between L.E. 40,000,000 and L.E. 50,000,000.

As a result, the net balance of interest on account of investments has been reduced to about two and a half to three million pounds per annum.

Balance of trade and Balance of Payments.—Movements

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of capital on account of investments and interest thereon form one of the most important elements of the balance of payments of a country. In the case of Egypt, they represented, for a long period, the dominant feature of the economic development of the country; over a long period, the interest due swallowed up one-third to one-half of the total value of exports. At the present time, these payments, though still important, no longer occupy such a preponderating place in the national economy.

There are, however, many other elements which enter into the problem of Egypt's balance of payments. Sufficient accurate information with regard to many of these elements is still not available to establish with any degree of certainty the balance of payments from year to year. The amount spent by tourists coming to Egypt and, on the other hand, by Egyptian residents travelling abroad ; freights ; insurance and banking operations through foreign firms ; profits earned by branches in Egypt of foreign companies ; expenditure in Egyptian ports by ships passing through ; commissions to shipping agents, coaling agents, etc. ; receipts at air ports from foreign planes and passengers ; receipts from the Suez Canal Company ; expenditure by H.M. troops in Egypt ; these are but some of the many items that must enter into the account.

Information on many of these headings is gradually being accumulated and tabulated ; the removal of the restrictions of capitulations will probably make it possible to obtain many other details which have hitherto be unobtainable. In the meantime, all that can be said is that many of these items tend to offset each other and that the deciding factor in the question of balance of payments still appears to be foreign investment and interest payments.

Egypt to-day, is in the position of having borrowed heavily to develop her estate, and then, by an unexpected windfall to have been able to repay

a considerable part of the sums borrowed. In this, as in other respects, Egypt's situation is favourable. One of the most favourable features of economic development since 1900 has been that the very important irrigation works during this period have been paid for, not by further borrowing, but out of the surplus of taxation receipts over expenditure. This is very satisfactory and it is to be hoped that in the future Egypt may be able to continue on equally sound lines.

Public Finance.—On the other hand, it must be recognised that Egypt must look forward to increased expenditure in many directions in the future. Expenditure on national defence—which weighs so heavily upon the budgets of most modern states—has hitherto been a comparatively modest item in the Egyptian budget. (In 1932-33, army and navy expenditure amounted to L.E.1,730,754 out of a total budgetary expenditure of L.E.35,946,856.) The next few years will probably see a considerable increase in expenditure in this direction. At the same time, a network of national roads is to be constructed, and with the continued development of the country there is call for increasing expenditure on education, public works and many forms of social service. How far these expenses can be met, and the ambitious programme of irrigation and drainage be carried out, from the normal revenue of the country, is a question that only the future can decide. Some increase in taxation will, in any case, be necessary and is generally accepted as inevitable.

In this connection, it is interesting to see how the Egyptian budget has developed in the last fifty years. In the decade 1880-90, the revenue of the State averaged about L.E.10,000,000 per annum. At the present time it is about L.E.36,000,000. The public debt in 1880 was over £98,000,000; to-day it is L.E.88,000,000 out of which the government itself

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holds over L.E. 15,000,000 as part of its reserve fund. Fifty years ago, the land tax brought in L.E. 5,000,000, or one-half of the total revenue : to-day, the land tax produces L.E. 5,250,000 or only one-seventh of the revenue. (This does not take into account an important reduction in tax, said to be L.E. 1,000,000 per annum, which has recently (February, 1938) been accorded to the smaller cultivators.) The greatest increase has taken place in customs duties which, fifty years ago, produced L.E. 750,000, but to-day yield over L.E. 18,000,000. The house tax and ghaffir tax account for a further L.E. 2,000,000 ; excise duties on alcohol, sugar, etc., and an export duty on cotton bring in L.E. 2,000,000 ; receipts from railways, telegraphs and investments, L.E. 2,000,000 ; government stamp tax on salaries and contracts produce L.E. 1,000,000 ; and miscellaneous receipts and taxes account for the rest.

The outstanding feature of the present position, as compared with the past, is the small proportion of direct taxation. With the exception of the land tax, the total of which has not changed in the last fifty years, the property tax and the so-called " stamp " tax on the salaries of government officials, there is no direct tax on incomes, and the professional and commercial classes have hitherto escaped direct taxation. One reason for this has been the operation of the Capitulations, which stood in the way of the application of direct taxation to foreign residents in Egypt. It would obviously have been unfair, for example, to impose taxation on Egyptian merchants and leave untaxed their foreign competitors in the same street. It is true that the professional and merchant classes probably consume a considerable proportion of imported merchandise and thus contribute their share of the custom's revenue. At the same time, now that the Capitulations have been abolished (Convention of Montreux, 1937) it is

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expected that a certain revision of taxation may follow. It is impossible, at this stage to say what direction this revision will take, but it is probable that the taxable capacity of these classes will prove to be very limited, and in view of the absence of statistics the authorities will probably introduce reforms gradually and progressively.

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YESTERDAY—AND TO-MORROW

HISTORY is continuous. To-day is the child of yesterday, the father of to-morrow. And though the historian's work, strictly speaking, is with the past, we may, perhaps, be forgiven if we round off this study with a brief consideration of some of the more essential points that must inevitably come up for consideration during the more or less immediate future, and examine them in the light of Egypt's recent economic development.

First, there is the question of population. The population has risen from two and a half millions to nearly sixteen millions in a century and a third, and is still rapidly increasing. Fears are frequently expressed that the country is now, or will soon be over-crowded, and that the pressure of population on the available resources of the country tends to depress the standard of living.

It must be remembered, however, that with a population of two and a half millions, Egypt was suffering from an acute shortage of population, and that not until the present century can that shortage said to have been overcome. Nor can Egypt as a whole be said to be overpopulated to-day. There are big areas of newly reclaimed land in the north of the Delta in which development is actually held back because of lack of agricultural labour. In the districts of Sherbin, Kafr el Sheikh, Kafr el Dawar, the population is 95, 113 and 130 to the square kilometre. On the other hand, in Chebu el Kom, Menouf and Mit Ghamr,

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the population is as much as 811, 768 and 706 to the square kilometre. In these districts there would appear to be a surplus of population. The problem, however, is not so much a problem of total overcrowding, as of mal-distribution. But the fellah is conservative and, except for the " Saidis " of Upper Egypt, can only with difficulty be persuaded to change his place of settlement.

Nor can there be any immediate prospect of general overcrowding in the near future. The cultivable area in Egypt can be increased another 50 per cent, with the expenditure of a few millions on irrigation and drainage and the cultivated area is constantly being extended in this way.

Ultimately, of course, the point will be reached at which further extension of the cultivated area will become difficult, if not impossible, and with the increasing pressure the law of decreasing returns will come into operation over wide areas. If, during this period, the population still continues to grow, there may be a danger of population pressing heavily on the resources of the country. But before that point is attained, there is reason to hope that the provision of universal education, the spread of hygienic measures, the psychological influence of model villages and the many other influences at work to-day—the motor car, the wireless, co-operative societies, etc.—all tending to inculcate in the farmer the desire to ameliorate his physical and social condition, will have had the effect of raising the general standard of living in the countryside and a new generation may arise, with wider views and more restraint than their ancestors, in which, as in so many other countries to-day, the size of the family is reduced, owing to the desire of the parents to improve the standard of living of their children.

In this connection, the development of industry is of paramount importance. It is not suggested that Egypt is likely to become an industrial country

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to the exclusion of agriculture. And there is a certain amount of fallacy in the suggestion that industries will find employment for an unlimited increase in population. At the most, as far as can be seen at present, industry may absorb a few hundred thousand additional workers out of a population that soon may approach 20 millions. But in the meantime, the higher wages to be obtained in industry will tend to raise the wages, and the standard of living in the country, either directly, by affording a visible standard of comparison, or indirectly by causing a movement to the towns. In turn, the prosperity of industry will be increased by an improvement in the standard of living in the country districts as this will lead to an effective demand for a wider range of articles.

No real improvement, however, can be looked for unless agricultural prosperity is maintained, nay, enhanced. All observers and statistics agree that perennially irrigated land, though it produces more than one crop in the year, tends rapidly to decrease in fertility. It requires increasing doses of artificial manure, and even then the average crop is considerably less than the yield from basin lands. Perhaps in the future, some means will be discovered of combining the effortless fertility of the basin system with the increased number of crops possible under the canal system. Adequate drainage is a first essential. Sufficient rest for the soil is another. The time may arrive when fallow periods are imposed by legislation. It would be still more beneficial if it could be arranged for the fallow land to be inundated with flood water so that periodically, every two or three years, the land might be given a renewal of youth.

The more immediate lines of development appear to be as follows. In the first place, work is rapidly proceeding upon the conversion of basin land in Upper Egypt to perennial irrigation. This will add, in round figures, a further 1,000,000 feddans of

summer cultivation, and a correspondingly increased area of potential cotton production.

In the second place, it is necessary to consider other big storage reservoirs on the Upper Nile. Nile control, far from being completed may be said to have hardly begun. So long as there is an enormous quantity of water running to waste every autumn in the flood, Nile control must be considered to be incomplete. Plans have already been sketched out for a whole series of works going right back to the sources of the Nile and designed eventually to bring the whole of that mighty river under the control of the irrigation engineer.

Increased supplies of water will be required for the conversion and reclamation of over 1,000,000 feddans in Upper Egypt, the reclamation of over 2,000,000 feddans of waste land in Lower Egypt, the extension of the area under rice, the improvement of the irrigation facilities in Lower Egypt and the provision of water for the early sowing of a large Nili maize crop. It is estimated that the water at present available in the Aswan and Gebel Awlia reservoirs is not more than one-half of the quantity that will ultimately be required for these different schemes of development.

The direction in which these reclamation schemes will be tackled has already been indicated. Conversion and reclamation in Upper Egypt is proceeding rapidly. In the Delta, the extension of drainage facilities on the one hand, and increased supplies of summer water on the other, offer the two prime essentials for reclamation work to be undertaken. Further progress, however, is held up in many cases owing to a shortage of labour—apparently a paradox in a country so densely populated, but, especially in Lower Egypt, it is very difficult to persuade the fellah to migrate—and by the heavy capital expenditure that will in many cases be necessary.

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Progress may, therefore, be slow for some time until the population in these districts increases and the necessary capital is forthcoming.

It should be noted that the unqualified conversion of basin areas to perennial irrigation is far from meeting universal support. Qualified irrigation and agricultural experts point out that invariably, when land is converted in this way the fertility declines and the average yield is reduced. Drainage problems appear; expensive artificial manure has to be employed in increasing quantities. The present system is, in fact, extremely wasteful. The fertilising Nile mud, instead of being used to renew the annual fertility of the soil, is poured away into the sea and the loss has to be made good by artificial manure. A much more logical system would be a combination of annual flooding and summer watering. This could be done, in many of the remaining basins, by means of artesian well pumps instead of conversion to perennial irrigation. Even in areas which are already converted, it may eventually prove to be an advantage to arrange for periodical flooding.

In any case, the present system of pouring away into the sea the silt-laden water of the flood is a visible and unnecessary waste of good material. Two-thirds of the total discharge of the river runs into the Mediterranean Sea each year. This loss occurs during the flood, from August to December, when 90 per cent, of the water in the river comes from the Atbara and the Blue Nile, bringing down a rich load of silt from the Abyssinian mountains. Formerly, under the basin system, a large part of this water was diverted into the basins, where it deposited its mud before the clear water was released to go on to the sea. To-day, at the moment of the flood, the gates of all dams and barrages are opened wide for fear the mud should choke up the system or silt up the reservoirs, and the whole flood pours straight into the sea, taking with it a

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potentially rich cargo of virgin soil that stains the blue Mediterranean for miles around and then is lost for ever. It is estimated that the mud lost each year is equal to a layer of soil i metre thick over an area of 8,000 feddans.

If this sediment, instead of being poured away into the sea, were deposited in the shallow lakes along the northern fringe of the Delta, it would rapidly, and at practically no expense, help to bring into being big new areas of potentially rich agricultural land. All that is necessary, in this case, is to divert the water of the flood, by means of canals, into the lakes, and let the water find its way to the sea through the northern outlets. The impediment to the flow would cause the mud in suspension to be deposited on the floor of the lake where it would rapidly build up a thick layer. As the level of the land rises, the flood can be directed elsewhere ; after the lakes, there is still ample scope for reclamation along the shallow areas of the Mediterranean Sea, adjoining the coast. But it is important that these schemes should be taken in hand as soon as possible. It is estimated that mud worth L.E.i,000,000 per annum, is being wasted at present. The loss has now come to a maximum, owing to the conversion of the basin lands. In the future, as further irrigation schemes are undertaken in the Sudan, Abyssinia and Central Africa, the Nile will progressively be brought under control. The ultimate object of the irrigation engineer is to ensure that not one drop of Nile water shall be wasted. Eventually, the time may come when nothing but salt-laden drainage water may be poured into the sea. Before that time arrives, Egypt should turn to account this potential source of wealth which to-day is running to waste.

Even more acute, perhaps, is the problem of drainage. The government has realised that it has a duty in this respect and is providing deep main drains

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with powerful pumps to maintain the water at a low level. But there main drains, to be effective, need to be connected up with an infinity of secondary and tertiary drains covering the entire area to be served. The provision of these drains is too big an operation for the government; local authorities have neither the organisation nor the means to deal with it ; there is no way of compelling the landowners themselves to provide drains on their own land. Nor will it be easy to do so ; the drainage system, to be effective, must be organised over the whole area on a single, co-ordinated plan in which each farmer has his place. Yet many of them have not the capital for such expensive operations. Furthermore, the provision of open drains is very wasteful, in the sense that as much as 10 per cent, of the cultivated area may be taken for the open drains. In the case of many of the smaller cultivators, an open drain, even a small one, running along their strip of land, would take up the whole of their land. The solution may eventually be found by the provision of covered drains—lines of covered pipes laid under the ground at a suitable depth and arranged on a suitably graded slope so that they will catch the subsoil water and run it into the drainage canals. Such a system would have many advantages ; once installed, the pipes would have no further upkeep cost ; drainage would be assured ; and there will be no waste of land as in the case of open drains. At the present time the government does not appear disposed to tackle such an ambitious scheme. Yet clearly, it can only be satisfactorily dealt with if centrally organised. The ultimate solution may be that the government will provide the necessary organisation and the cost may be shared between government and cultivator, possibly in the form of increased tax contributions.

Cotton.—There appears little doubt that cotton is destined to remain for some time to come, the pivot

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of Egyptian economy. No other crop capable of being cultivated on so wide a scale and sold in such big quantities can give an equal return to the Egyptian farmer. If it has developed, it is because it proved itself profitable, first to Mohamed Ali who imposed its cultivation and later to the farmers themselves. A heavy slump in cotton may, and does, temporarily cause some of the farmers to forsake cotton and turn for a time to the cultivation of other crops, but as soon as there is an uptake in price they turn again to cotton.

It is probable too, that the bulk of the crop will continue to be exported. The rapid increase in spinning and weaving in this country has led to bigger quantities of cotton being retained in this country. At the present time, some 5 per cent, of the crop is now kept for local manufacture. The local production of cotton cloth at present is said to equal about one-third of the total requirements of the country. So, even if the point were reached at which the whole requirements of Egypt were manufactured in this country, it would only absorb 15 per cent, of the present crop. If, as is to be expected, the crop is considerably increased in the future, the proportion would be still less.

Actually, however, a large part of the local demand is for cotton goods of cheaper quality than Egyptians and could be met by goods made from cheaper fibre, for example from Indian cotton. At the present time, the importation of foreign cotton is prohibited. The result is that the local factories are spinning coarse counts with Egyptian cotton—using superior cotton for inferior goods. In the interests of Egyptian economy as a whole, it would appear to be more economic to allow the importation of cheap cotton fibre for the use of the factories, and thus to reduce the price of cotton goods to the poorer classes, and to sell abroad at higher prices the better quality Egyptian cotton.

It is necessary too, for Egypt to see clearly in

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which direction her best interest lies in the future development of cotton. Since the war, a policy of expedients has been followed, chopping and changing with each turn of the market. At one time, just after the war, there was an extraordinary demand for cotton of exceptionally long staple, such as Sakel, and the premium of such cotton above American or Uppers was very high. In the circumstances it was profitable for the farmers to cultivate Sakel on a large scale, though the yield per feddan was not very high. Since that time, however, there has been a process of substitution of cheaper varieties of cotton for the various purposes for which Sakel was formerly used, and the premium of such cotton has been reduced while the market is comparatively restricted. Should another demand arise for these high-grade types of cotton there is no doubt that Egypt would quickly be able to meet it. In the meantime the position is that the market for such qualities is definitely limited. On the other hand, there is an almost unlimited market for " Uppers "—at a price. The quality of Egyptian " Uppers " is definitely better than standard American, so that at equal prices spinners would take Egyptian in preference to American. The market for American being many times as big as any Egyptian crop that could possibly be produced, there is thus a possible market for even the biggest cotton crop that Egypt can produce. The only question can be the price. To sell at the price of American is to sell a superior article at the price of a lower grade product. On the other hand, it will not be possible to sell a vastly increased crop at a higher price unless the demand exists. Egypt's future policy should aim at increasing the demand for Egyptian cotton in preference to other varieties.

The position with regard to the price at which Egyptian cotton can be sold is that in the long run, the price of Egyptian is governe4 by the world price

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for cotton, which in turn is governed very largely by American. Fluctuations in price in America lead to similar fluctuations in Egypt. There may be, and are, slight variations, but generally speaking, Egypt is unable to exercise any decisive effect upon the world price of cotton. The only point which is, to some extent, under the control of Egypt, is the premium of Egyptian cotton over American. By creating among spinners and consumers a more widespread recognition of the superiority of Egyptian cotton, and an increased demand in consequence, it should be possible considerably to increase the total price received for the crop by raising the premium which such cotton enjoys over American. This can only be done by advertisement. Regular and judicious expenditure on advertisement and Egyptian cotton displays would pay for itself over and over again.

This is still more important owing to the present unsatisfactory position with regard to the world supply of cotton. Since 1932, the price of cotton has been bolstered up by drastic curtailment of production in America. Profiting by this, other countries are increasing their production of cotton at a very rapid rate. Since 1932, the production of cotton outside America has nearly doubled. It is not to be expected that such a state of affairs can continue indefinitely. An obvious proceeding would be a world conference of cotton producing countries. But, with the wide extension of cotton cultivation, and the different interests of the countries involved, it is hardly probable that general agreement would be reached. The relaxation of all control in America would be followed by a period in which production could exceed consumption and there would be a fall in the general price. If left strictly alone, the position would regulate itself, not, however, without suffering. Marginal cotton producing areas would be driven out of production, owing to the lower prices. Some would doubtless

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be able to turn to the cultivation of other crops. In the case of Egypt, the country would of course be affected by the fall in the price of its staple product, and there might even be a move towards the cultivation of other products in its place. But owing to the great natural advantages of Egypt for the production of cotton, it is probable that as soon as the world price had settled down to its economic level, it would be found that cotton was still Egypt's most profitable crop, and owing to its high yield and low production costs (except for rent, and rents would probably be brought down under these new circumstances) Egypt would still be favourably situated as a cotton-producing country.

Egypt's advantage in cotton growing springs from two sources, first, as already indicated, its superior quality and secondly, its high yield. In spite of the deterioration which has taken place since the beginning of the century, the average yield of cotton per acre in Egypt is still nearly three times as high as in America.

The aim of the farmer, and the government, should be to increase still further the advantages which Egypt enjoys by raising the yield per acre and improving the quality of the cotton. If this is done, there seems no reason why the production of cotton should not eventually rise to 15,000,000 kantars or even higher.

This is not to say that Egypt should grow cotton to the exclusion of all other crops. On the contrary, it is extremely desirable that the country should constantly endeavour to widen the basis of its economic prosperity by the introduction of new crops and the widest possible extension of the cultivation of those that prove profitable. Not only will these provide valuable auxiliary sources of wealth, but they will help to smooth out to some extent the brusque fluctuations that must inevitably occur so long as Egypt's

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fortune remains dependent upon the price of a single product.

Industry.—The main obstacle to the development of Egyptian industry in the past has been the competition of foreign products and the lack of government support in the form of protective tariffs. This support is now available, and a considerable development of industry is actually taking place. This is undoubtedly beneficial to the country. It is important, however, that the policy should not be carried too far. Protected products mean higher prices, which in effect represent a tax upon the consumers for the benefit of the industrialists. The industries which should be favoured with protection are those using or conditioning the products of the country, or supplying local needs. Industries should not be supported unless there are reasonable grounds to believe that after an initial period of development they may eventually be able to meet competition without support.

In other countries, notably in Germany, the development of industry took place under the combined effect of a protective tariff and financial aid to nascent industries. This financial aid largely took the form of government advances through specialised banks. In Egypt, there have been some spasmodic efforts along those lines, and the government has recently advanced the sum of L.E. 1,000,000 in the form of loans for the development of industry, through the Bank Misr, an Egyptian bank under whose aegis a number of flourishing industrial companies have developed since the war. The bank, however, is held responsible for the capital advanced, and therefore can only grant loans when collateral security, e.g. land, is "forthcoming." The greater part of this loan money has gone to established companies and larger industrialists. Such limitations are inevitable when advances are to be made by a profit-making commercial institution. An industrial bank, of the type

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required to assist in the development of our industries, should be a specialised institution, willing and able to undertake a certain amount of risk in supporting industries which appear ultimately to hold out good hopes of success, and hampered as little as possible by immediate profit-making considerations. The only method of achieving this object appears to be the establishment of a specialised institution, along the lines of the recently formed Credit Agricole with government support and guaranteed interest on subscribers' capital. An industrial bank of this nature, in conjunction with tariff protection could be of great assistance in the establishment and development of national industries.

Fuel.—Connected with the question of industries is the problem of fuel. For industries, for railways and municipal services, for irrigation and drainage pumps, for domestic lighting and heating and many other purposes, Egypt depends upon imported coal and kerosene. Heavy oil is obtained from local supplies at Hurghada and refined in government refineries at Suez, but kerosene has to be imported. In the country districts, as in other Eastern countries, dried animal dung is used extensively as a combustible. This is a great waste, in view of the growing impoverishment of the land and the widespread use of artificial manure. Afforestation schemes, such as planting trees all along the roads and canals would undoubtedly be beneficial to the country, but could hardly be expected to make up the deficiency in fuel, in case, for example, the outbreak of war cut off Egypt from foreign supplies of coal and kerosene. Sun machines have been the object of tentative experiments and might even yet be adopted with success where power is only required for a few hours a day, for example, for pumping irrigation water on to the land.

The greatest hope, however, appears to be in the development of hydro-electrical stations. Several big

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schemes already have been mooted—the Aswan Dam scheme, the Assiut Barrage scheme, and the Kattara depression project. The Kattara depression project is, briefly, to construct a canal from the Mediterranean to the deep depression in the Western desert called the Kattara depression and to use the fall of water to generate electricity on a big scale to supply the towns in the Delta. The Aswan Dam scheme, which proposes to make use of the falling water at the dam to produce electrical power, has now entered the realm of practical politics and is being developed in conjunction with a further scheme for the establishment of a factory for the production of artificial manure. Similarly, the head of water at the Assiut Barrage could be employed for the generation of electricity which could be used for public services in the towns in Upper Egypt or turned to account in industry or used for pumping in connection with irrigation work in the basins of Upper Egypt. In addition to these schemes, however, there would appear to be no reason why additional use should not be made of the Nile itself, especially in Middle and Upper Egypt, where canals taken from higher up the river and falling with a gentle slope—possibly also making use of the difference in level between the centre and the edge of the valley—could provide a head of water, sufficient to generate electricity for towns on the way.

Hitherto, these schemes have only been studied spasmodically, and individually. For the future, if progress is to be made on planned, progressive lines, there is urgent need for a comprehensive investigation into the hydro-electrical possibilities of the whole Nile valley. A hundred years ago, Mohamed Ali proposed to construct canals serving the whole country, carrying water at a high level from the Aswan Dam and thus provide a cheap supply of motive power in every town. To-day, with the possibility of utilising that power for the generation of electricity,

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it should be possible to provide a chain of generating stations throughout the length of the Nile valley and provide a cheap and constant supply of power and light that would go far to make Egypt independent of foreign supplies of fuel. The importance of this in time of peace is sufficiently obvious ; in case of war, the existence of such a domestic supply of power might well prove to be the salvation of the country.

Thus, our study ends, as it began, with the Nile. The future economic development of Egypt will ultimately depend upon the use made of the Nile in its triple capacity of irrigation, transport and electrification. With care and foresight, enjoying as it does the blessings of bounteous nature and a place in the sun, under the enlightened rule of her young and popular king, rejoicing in her full national status and free from many of the trammels of the past, the country can look forward with confidence to an era of prosperity and development in the years to come.

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EGYPTIAN CURRENCY, WEIGHTS AND MEASURES

Currency.—The unit of currency is the pound Egyptian, which is divided into 100 piastres. At par, 97\ piastres equal £1 sterling. The Egyptian pound therefore, is equal to a shade over £1 os. 6d., and the piastre is approximately 2jd. The piastre is divided into 10 millicmes.

Fictitious money of account is the tallari or rial, which equals 20 piastres. Egyptian cotton prices are always quoted in tallaris.

Area.—Land is measured in feddans. One feddan = 4,200·83 sq. metres (≈ 5,024·17 sq. yards or 1·038 acres). The feddan is divided into 333[^] square kassabas. The more usual division, however, is into 24 kirat, each of which is sub-divided into 24 sahm.

Weight.—The commonest units of weight are the rotl, the okc and the kantar. The rotl is very nearly equal to 1 lb. avoirdupois (1 rotl ≈ '9905 lb.). The okc is approximately 2f- lbs. (1 okc ≈ 2·751 lbs.). The kantar is usually 100 rotls. Thus ginned cotton, or coal, is sold at so much per kantar of 100 rotls. Unginned cotton, however, is sold by the kantar of 315 rotls, this being found to give approximately 100 rotls of ginned cotton. The kilo (1 kilogramme = 2·205 lbs.) is also used.

Capacity.—Cotton seed and other grains are measured by the ardeb. One ardeb = 5·444 bushels (= 43·56 gallons). One ardeb of cotton-seed weighs approximately 270 rotls, one ardeb of wheat, approximately, 150 kilos, of maize 140 kilos, and of beans 155 kilos.

STATISTICAL APPENDIX

TABLE I

POPULATION OF EGYPT
1800-1937

Year	Total Population	Foreigners	Cairo	Alexandria
1800 ¹	2,488,950	—	263,700	15,000
1821 ¹	2,536,000	—	260,000	15,000
1836	3,000,000 ²	14,500 ⁴	240,000 ⁵	60,000 ⁵
1848 ³	4,542,620	—	253,541	143,134
1871 ⁷	5,250,000	79,696	349,883	—
1882 ⁸	6,804,021	90,886	374,838	231,396
1897 ⁹	9,714,525	112,574	570,062	319,766
1907	11,287,359	286,328	654,476	370,009
1917	12,750,918	205,949	790,939	444,617
1927	14,217,864	225,600	1,064,567	573,063
1937 ¹⁰	15,904,525	—	1,307,422	682,101

¹ Jomard, *Memoire sur la population comparee de l'Egypte ancienne et moderne*. Description de l'Egypte. Ancienne. Vol. 2, pp. 96, 100. (Note.—Other authors estimate the population of Alexandria at this period at from 4,000 to 8,000.)

² Mengin, *l'Egypte sous Mohamed Ali* (1823).

³ Clot Bey, *Apercu Giniral sur l'Egypte* (1840). (Note.—About this time a number of widely varying estimates were made of the population of Egypt. Mohamed Ali himself, as reported in the *Archives Russes en Egypte*, estimated it at 3,500,000; M. Cadalvène, *l'Egypte et Nubie*, estimated it at 2,213,000; Col. Duhamel, Russian Ambassador in Egypt, at 2,500,000.)

⁴ Duhamel, *Tableau d'Egypte* (1837), gives, from Cadalvène, *op. cit.*, Europeans 5,000, Greeks and Syrians 8,000, Armenians 1,500.

⁵ Madden, *Egypt and Mohamed Ali* (1841). But Jomard, *Coup a'veil impartial sur l'Egypte* (1836), estimates the population of Alexandria in 1835 at 52,000 and states that, in that year, 14,000 died of plague.

⁶ Census of Egypt, 1847-8. Figures taken from editor's note to Lane, *Manners anà Customs of Modern Egyptians*, 2nd edit. (1849).

⁷ Regny Bey, *Statistique de l'Egypte*, 1871.

⁸ Census of Egypt, 1882. This was the first, real census. Previous census figures had been based on number of houses. But the conditions in 1882 were very disturbed, so that, to a certain extent, the detailed results are not so reliable as the later census returns.

⁹ 1897-1937. Diennial census returns.

¹⁰ 1937- Preliminary figures, subject to final correction.

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Note on Occupations.—In the census of 1927, the following were the returns of declared occupations :—

Profession	Men	Women	Total
Agriculture	3,001,274	523,932	3,525,206
Industry	507,148	48,821	555,969
Transport	194,358	1,631	195,989
Commerce	414,990	44,373	459,363
Public services	184,920	4,929	189,849
Liberal professions	98,389	12,262	110,651
Domestic servants	131,931	80,906	212,837
Unproductive and unknown professions	473,577	122,224	595,801
Married women, children below 5, and persons with no declared profession	2,051,486	6,280,713	8,372,199
Total	7,058,073	7,119,791	14,217,864

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TABLE 2

 DEVELOPMENT OF LAND OWNERSHIP¹

1900-1934

 Showing number of landowners, area held and average holding in the different classes.²

Size of Holding	Particulars	1900	1910	1920	1930	1934
Less than 1 feddan.	No. of owners ..	— ³	782,639	1,207,694	1,505,908	1,618,499
	Total area held (feds.)		364,290	485,045	577,036	630,666
	Average holding (feds.)		0.47	0.40	0.38	0.39
1-5 feddans.	No. of owners ..	761,337 ⁴	464,442	506,025	547,262	559,518
	Total area held (feds.)	1,113,411	1,005,322	1,064,137	1,151,132	1,151,347
	Average holding (feds.)	1.45	2.17	2.10	2.10	2.06
5-10 feddans.	No. of owners ..	80,171	76,139	79,767	83,220	85,349
	Total area held (feds.)	560,195	530,231	551,276	565,903	570,890
	Average holding (feds.)	6.98	6.96	6.91	6.80	6.69
10-20 feddans.	No. of owners ..	39,710	36,707	38,707	39,690	39,690
	Total area held (feds.)	550,774	507,050	533,563	538,216	537,783
	Average holding (feds.)	13.12	13.81	13.78	13.56	13.55
20-30 feddans.	No. of owners ..	12,267	11,233	11,866	12,035	12,131
	Total area held (feds.)	301,334	274,439	287,021	290,052	292,093
	Average holding (feds.)	24.44	24.42	24.19	24.10	24.08
30-50 feddans.	No. of owners ..	8,990	8,390	9,100	9,411	9,379
	Total area held (feds.)	344,765	323,883	352,783	360,772	364,346
	Average holding (feds.)	38.44	38.61	38.39	38.34	38.85
Over 50 feddans.	No. of owners ..	11,939	12,414	13,512	12,815	12,633
	Total area held (feds.)	2,243,573	2,458,574	2,261,527	2,306,939	2,289,905
	Average holding (feds.)	188.38	195.05	167.37	180.02	181.27
Totals.	No. of owners ..	914,414	1,391,964	1,866,761	2,210,341	2,337,199
	Total area held (feds.)	5,114,052	5,463,789	5,535,352	5,790,050	5,837,110
	Average holding (feds.)	5.57	3.90	2.96	2.62	2.50

¹ Private ownership in land was not given full legal recognition until 1880. No detailed figures are available previous to 1900. The above table shows development since 1900. The main features are: the very rapid development of a class of very small landowners; the large amount of land held by a few big landowners and the comparative absence of middle-class landowners (5-50 feddans).

² The figures are taken from the *Annuaire Statistique*. They include all privately owned land, including Wakfs, but not the State Domains.

³ Separate figures for holders of 1 feddan and less are not available for 1900. They are included with the holders of less than 5 feddans.

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TABLE 3
DEVELOPMENT OF CULTIVATED AREA AND CROP AREA¹
1813-1937

Year	Cultivated Area ^a	Crop Area	Year	Cultivated Area	Crop Area
	Feddans ^b	Feddans		Feddans	Feddans
1813	3,054,710 ^d	—	1904-05	5,403,891	7,563,119
1821	2,031,905 ^b	—	1905-06	5,339,638	7,480,546
1835	3,500,000 ^b	1,856,000	1906-07	5,402,716	7,662,317
1840	3,856,226 ^c	—	1907-08	5,326,513	7,597,859
1852	4,160,169 ^b	—	1908-09	5,373,982	7,670,544
1862	4,053,347 ^b	—	1909-10	5,345,352	7,711,844
1873	4,624,221 ¹⁰	—	1910-11	5,263,358	7,545,591
1875	4,703,456 ¹²	—	1911-12	5,285,454	7,681,288
1877	4,742,610 ¹²	4,762,178	1912-13	5,282,626	7,712,412
1880	4,719,890 ¹³	—	1913-14	5,022,230	7,571,039
1881	4,714,406	—	1914-15	5,308,890	7,825,922
1882	4,758,474	—	1915-16	5,332,271	7,619,321
1883	4,785,465	—	1916-17	5,319,148	7,686,189
1884	4,803,964	—	1917-18	5,283,316	7,820,804
1885	4,839,673	—	1918-19	5,297,701	7,691,793
1886	4,880,343	—	1919-20	5,305,236	7,806,793
1887	4,878,326	—	1920-21	5,352,306	8,058,376
1888	4,885,968	—	1921-22	5,341,204	8,205,262
1889	4,913,678	—	1922-23	5,367,385	8,103,845
1890	4,941,488	—	1923-24	5,192,318	8,070,186
1891	4,966,516	—	1924-25	5,420,193	8,213,416
1892	4,943,682	—	1925-26	5,385,261	8,457,138
1893-94	4,805,160 ¹⁴	6,349,885	1926-27	5,544,361	8,661,250
1894-95	4,874,456	6,431,808	1927-28	5,554,126	8,645,750
1895-96	4,942,641	6,552,172	1928-29	5,616,370	8,693,229
1896-97	5,047,698	6,764,401	1929-30	5,548,662	8,634,324
1897-98	5,087,887	6,848,396	1930-31	5,485,145	8,546,534
1898-99	5,185,835	7,032,710	1931-32	5,263,667	8,738,349
1899-1900	5,231,298	7,160,804	1932-33	5,363,683	8,282,762
1900-01	5,267,391	7,291,267	1933-34	5,240,666	8,073,899
1901-02	5,334,565	7,429,294	1934-35	5,229,320	8,053,540
1902-03	5,224,469	7,338,685	1935-36	5,361,381	8,101,069
1903-04	5,376,779	7,583,633	1936-37	5,288,622 ¹⁶	8,358,498

¹ The climate of Egypt allows cultivation to proceed all the year round. The same land may bear two, or even three crops in the year. The area of crops therefore exceeds the area under cultivation. The chief limiting factor is the supply of summer water. Previously only land near the river or canals could be irrigated in summer. Owing to the development of perennial irrigation in the last fifty years, the crop area has developed much more rapidly than the cultivated area.

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² It appears that the figures given from 1813 to 1892, with the possible exception of 1821, refer rather to the cultivatable than to the actual cultivated area. In the absence of direct agricultural statistics, the tax figures showing the area subject to taxation are usually quoted as "cultivated" areas. It appears, however, that, especially in the earlier part of the century, the actual cultivated area was considerably below the figures given. See note 6.

³ The size of the feddan has undergone various modifications. In 1800, the agricultural feddan was 5,929 sq. metres, but for fiscal purposes the feddan was counted at 5,353 sq. metres. Under Mohammed Ali the size of the feddan was reduced. In 1821 it was 4,441 sq. metres; in 1840, it was 4,083 sq. metres. Finally, in 1861, the feddan was established at its present size of 4,200 sq. metres. The figures given here, are all believed to be in feddans of 4,200 sq. metres.

⁴ Artin Pasha, *La Propriété foncière en Egypte* (1883). The figure given (3,054,710 feddans) is said to be the result of the cadastral survey of Mohamed Ali in 1813. In *Memoires de la Société Royale de Géographie à l'Egypte: La Basse Egypte, 3me Partie*, Prince Omar Toussoun recapitulates the results of the survey for Lower Egypt. The survey gives a total area of 2,372,566 feddans taxed and 1,849,082 untaxed (uncultivated) in Lower Egypt.

⁵ Mengin, *Histoire de l'Egypte sous le gouvernement de Mohammed Ali*, Quoted by Prince Omar Toussoun in *Memoire sur les Finances de l'Egypte* (1924), Institut d'Egypte.

⁶ Bowring, *Report on Egypt and Candia*, 1840. "The cultivatable area of Egypt is estimated at 3,500,000 feddans. When the Nile rises 23-24 coudees, 2,000,000 feddans are cultivated." Mengin estimates that in 1833, 1,856,000 feddans were cultivated. In *Les Archives Russes en Egypte*, however, Col. Duhamel reports that Mohamed Ali claimed in 1835 that 3,500,000 feddans were cultivated.

⁷ Clot Bey, *Aperçu Général sur l'Egypte* (1840).

⁸ Artin Pasha, *La Propriété Foncière en Egypte* (1883).

⁹ Amici Bey, *Essai de Statistique Générale de l'Egypte* (1879).

¹⁰ American Consul Beardley's Report (1873) (copy in Royal Palace Archives, Abdin).

¹¹ Artin Pasha, *ibid*,

¹² Amici Bey, *ibid*.

¹³ The figures of cultivatable area 1880-1892 are taken from the *Annuaire Statistique*, 1914. In the absence of separate figures for cultivation, the figures quoted are those of the tax-paying agricultural land. This is slightly in excess of the actual cultivated area.

¹⁴ From 1893-4 onwards, the figures of actual cultivated area (as apart from taxable land)—crop area—are given in detail in various numbers of the *Annuaire Statistique*. The figures given are for the agricultural year (Sept. 1st to Aug. 31st) in each case.

¹⁵ Provisional figures supplied by the kindness of the Economic Statistics Bureau. May be slightly modified in final return.

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TABLE 4

LAND OCCUPIED BY PRINCIPAL CROPS¹
 (Expressed as a percentage of total crop area²)
 1898-1936

Year ³	Cotton	Maize	Wheat	Bersim ⁴	Beans	Barley	Rice	Sugar Cane
	%	%	%	%	%	%	%	%
1898-99	16.40	22.18	17.65	22.49	9.07	7.62	3.09	1.23
1903-04	18.94	23.43	16.47	21.87	8.88	6.25	2.98	0.88
1908-09	20.83	23.42	16.28	22.05	7.39	5.52	3.54	0.57
1913-14	23.19	24.15	16.55	20.17	5.66	5.06	0.56	0.64
1914-15	15.16	22.83	19.60	20.26	1.97	5.69	4.08	0.67
1915-16	21.73	22.08	18.30	19.55	6.60	5.55	1.94	0.78
1916-17	21.82	21.12	14.00	22.66	6.14	6.23	3.42	0.81
1917-18	16.82	22.32	15.84	24.98	6.08	4.15	4.75	0.81
1918-19	20.45	22.45	16.58	23.15	6.56	4.47	1.88	0.74
1919-20	23.41	23.91	14.69	22.18	5.36	4.20	2.04	0.66
1920-21	16.03	24.93	17.43	22.52	6.12	4.71	3.87	0.79
1921-22	21.94	23.88	17.82	21.52	5.81	4.40	0.60	0.76
1922-23	21.17	22.17	18.27	21.75	5.81	4.75	2.21	0.68
1923-24	22.15	22.42	16.91	21.77	5.40	4.44	3.04	0.64
1924-25	23.43	24.35	16.18	21.02	5.43	4.30	1.67	0.63
1925-26	21.11	24.66	17.45	21.15	4.90	3.79	2.70	0.62
1926-27	17.50	24.62	18.41	21.38	5.18	4.18	4.85	0.55
1927-28	20.11	23.82	17.72	21.67	5.91	4.08	2.94	0.66
1928-29	21.35	21.41	18.04	17.11	5.82	4.48	3.66	0.63
1929-30	24.12	21.16	16.98	16.95	4.91	3.85	4.00	0.62
1930-31	19.69	24.73	18.59	17.77	4.95	3.45	0.76	0.76
1931-32	12.52	22.53	19.43	18.77	6.78	4.03	5.40	0.80
1932-33	21.78	19.05	16.59	19.07	5.66	3.40	5.10	0.86
1933-34	21.45	19.47	17.20	18.63	5.35	3.39	4.85	0.75
1934-35	20.73	19.55	17.50	17.85	5.16	3.47	5.85	0.75
1935-36	21.45	19.53	17.62	18.88	4.93	3.40	5.65	0.80

¹ Sources : *Annuaire Statistique*, 1910, 1915, 1920, 1924-25, 1928-29, 1934-35. Figures for 1935-36 supplied by courtesy of the Economic Statistics Bureau, Cairo.

² For total crop areas in feddans see table 3.

³ Agricultural year : Sept. 1st to Aug. 31st.

⁴ (a) In years previous to 1928-29, the area given under bersim included other forage crops, (b) In the figures here, no account is taken of the fact that frequently two or even three cuttings of bersim are obtained in one season.

STATISTICAL APPENDIX

TABLE 5A
COTTON EXPORTS AND PRICES¹
1821-1836

Year	Exports	Aver. Price ²	Year	Exports	Aver. Price ²
	Kantars	Rial ³		Kantars	Rial ³
1821	944	16	1829	104,920	12
1822	35,108	15½	1830	213,585	12
1823	159,426	15½	1831	186,675	10½
1824	228,078	17	1832	136,127	15
1825	212,318	16	1833	56,067	25
1826	216,181	13	1834	143,892	30½
1827	159,642	13	1835	213,604	25½
1828	59,255	13	1836	243,230	18½

¹ The figures of exports for the period 1822 to 1880 are given by the following authorities: Amin Sami Pasha, *Almanac of the Nile* (in Arabic), Vols. 2 and 3; Artin Pasha Yacoub, *Essai sur les Causes du Rencherissement de la Vie au xix^e sihle*. (*Memoires de VInstitut Egyptien*, 1908), and Dr. Mamoun Abdel Salam, *The Cotton Plant in history* (Brochure prepared for the International Cotton Congress, 1938).

In all three, the figures to 1864 are identical, except that Dr. Mamoun applies the previous years in each case. This is probably due to the fact that the figures of Dr. Mamoun purport to be figures of crops. Artin Pasha, on the other hand, correctly states his figures to be "export" figures, and in fact, in this period, no accurate record of acreage or crop was kept, the only records being those of exports as recorded in the customs.

From 1863-64, the figures diverge, and the figures of Sami Bey and Dr. Mamoun, which are identical, no longer agree with those given by Artin Pasha. The figures of the first two eventually join up with later official figures of crops, while the figures of Artin Pasha eventually lead up to the official figures of exports. (Official crop and export figures only begin in the last quarter of the 19th century.) Other indications during this period, however, and particularly the report of American Consul Beardsley in 1873, show that the figures of Dr. Mamoun are still export figures, and these figures are given until 1880.

² The average prices are taken from Amin Sami Pasha from 1821 to 1874. From 1874 onwards they are taken from *Average Monthly Export Prices of Cotton, as fixed by the Government and Cotton Exporters*. These figures are given in the *Annuaire Statistique*, 1914, page 398.

³ The term rial — 20 piastres. It is still employed, but the more common term now used in the cotton industry is "talari," also worth 20 piastres.

STATISTICAL APPENDIX

COTTON EXPORTS AND PRICES (continued)

1837-1879

Year	Exports		Aver. Price*		Year	Exports		Aver. Price*	
	Kantars	Rials	Rials	Kantars		Kantars	Rials	Rials	Kantars
1837	315,470	13	1859	502,645	12½				
1838	238,833	15	1860	501,415	12				
1839	134,097	18½	1861	596,200	12				
1840	159,301	13	1862	721,052	13				
1841	193,507	13½	1863	1,181,888	23				
1842	211,030	10	1864	1,718,791	30½				
1843	261,064	7½	1865	2,001,169	45				
1844	153,353	18	1866	1,288,762	21½				
1845	344,955	6	1867	1,260,946	35½				
1846	202,040	10½	1868	1,253,455	22½				
1847	257,492	10	1869	1,289,714	19				
1848	119,995	7	1870	1,351,797	22½				
1849	257,510	10	1871	1,966,215	19½				
1850	364,816	11½	1872	2,108,500	15½				
1851	384,439	8½	1873	2,013,433	21				
1852	670,129	10½	1874	2,575,648	19				
1853	477,390	10	1875	2,206,443	19½				
1854	477,995	8½	1876	3,007,719	15½				
1855	520,886	8½	1877	2,439,157	19½				
1856	539,885	9½	1878	2,583,610	13				
1857	490,960	10½	1879	1,680,595	16½				
1858	519,537	16½							

TABLE 5B
COTTON STATISTICS
1880-1886

Year	Area under Cotton		Average yield per feddan		Crop	Exports		Value of Cotton Exports (including Seed)		Total Exports (merchandise)
	'000 feddans	'000 kantars	kantars	feddan		'000 kantars	'000 kantars	Average price per kantar	£E.000*		£E.000*
1879-80	950	3,29	3,124	3,000	14,52	10,202	14,234			
1880-81	901	3,01	2,792	2,510	13,83	8,664	13,891			
1881-82	1,062	2,68	2,846	2,811	14,24	9,186	13,178			
1882-83	1,092	2,10	2,293	2,140	14,71	7,529	10,994			
1883-84	969	2,77	2,686	2,565	15,52	8,395	12,310			
1884-85	1,147	3,13	3,591	3,540	12,37	11,043	12,553			
1885-86	1,326	2,19	2,792	2,788	11,71	7,854	11,454			

STATISTICAL APPENDIX

COTTON STATISTICS—1887-1928 (continued)

Year	Area under Cotton	Average yield per feddan	Crop	Exports	Average price per kantar	Value of Cotton Exports (including Seed)	Total Exports (merchandise)
	'000 feddans ¹	kantars ²	'000 kantars ³	'000 kantars ⁴	talaris ⁵	£F.000 ⁶	£E.000 ⁷
1886-87	1,051	2.88	2,872	2,864	12.37	8,526	10,199
1887-88	1,005	2.98	2,996	2,964	12.30	8,659	10,964
1888-89	1,094	2.49	2,723	2,780	13.27	8,722	10,530
1889-90	1,058	3.06	3,238	3,203	13.40	9,799	12,066
1890-91	1,004	3.97	4,159	4,054	11.52	10,767	12,004
1891-92	1,137	4.19	4,765	4,662	9.06	10,422	14,020
1892-93	985	5.30	5,221	5,117	9.30	11,408	13,506
1893-94	1,089	4.62	5,033	5,073	8.49	10,463	12,954
1894-95	1,024	4.51	4,619	4,840	8.46	8,484	12,078
1895-96	998	5.29	5,276	5,220	10.03	11,555	12,817
1896-97	1,051	5.60	5,879	5,756	8.68	11,483	13,442
1897-98	1,128	5.80	6,544	6,399	7.18	10,582	12,553
1898-99	1,121	4.98	5,588	5,604	7.90	10,278	12,070
1899-1900	1,153	5.64	6,510	6,512	10.84	15,565	15,659
1900-01	1,230	4.42	5,435	5,391	10.87	14,021	17,124
1901-02	1,250	5.10	6,370	5,526	9.81	14,107	16,154
1902-03	1,276	4.58	5,839	5,860	13.65	16,458	18,047
1903-04	1,333	4.88	6,509	6,147	14.41	19,347	19,540
1904-05	1,437	4.39	6,313	6,376	12.18	17,127	20,811
1905-06	1,567	3.80	5,960	6,033	15.11	18,872	20,343
1906-07	1,506	4.61	6,949	6,977	16.87	25,564	24,862
1907-08	1,603	4.51	7,235	6,913	14.42	23,277	28,013
1908-09	1,640	4.12	6,751	6,813	13.44	20,563	21,313
1909-10	1,597	3.13	5,001	5,046	21.49	22,825	25,991
1910-11	1,643	4.57	7,505	7,477	17.60	29,617	28,895
1911-12	1,711	4.32	7,386	7,367	17.25	27,992	28,531
1912-13	1,722	4.35	7,499	7,375	18.28	29,517	34,486
1913-14	1,723	4.44	7,664	7,369	19.02	29,692	31,513
1914-15	1,755	3.67	6,451	6,319	12.01	17,657	23,757
1915-16	1,186	4.02	4,775	5,532	19.28	23,997	26,356
1916-17	1,656	3.06	5,060	4,816	37.81	39,304	37,347
1917-18	1,677	3.75	6,293	5,455	38.52	43,181	40,989
1918-19	1,316	3.66	4,821	4,497	37.20	38,494	45,312
1919-20	1,574	3.54	5,572	6,338	87.81	105,433	75,858
1920-21	1,828	3.30	6,096	3,401	34.50	26,184	85,458
1921-22	1,290	3.37	4,353	5,807	34.29	40,844	36,345
1922-23	1,801	3.73	6,713	7,173	30.71	46,611	48,705
1923-24	1,715	3.81	6,531	7,020	39.80	57,281	58,366
1924-25	1,788	4.07	7,274	7,084	39.49	61,169	65,700
1925-26	1,924	4.14	7,965	7,203	30.46	46,650	59,196
1926-27	1,786	4.29	7,652	7,706	21.53	38,666	41,323
1927-28	1,516	4.01	6,087	6,677	29.68	44,738	47,794

STATISTICAL APPENDIX

COTTON STATISTICS—1929-1938 (continued)

Year	Area under Cotton		Average yield per feddan		Crop	Exports	Average price per kantar	Value of Cotton Exports (including Seed)	Total Exports (merchandise)
	'000 feddans ¹	kantars ²	'000 kantars ²	'000 kantars ²					
1928-29	1,738	4.64	8,086	7,939	25.88	47,711	55,107		
1929-30	1,841	4.63	8,531	6,140	20.36	32,264	50,830		
1930-31	2,082	3.97	8,276	7,284	12.04	22,714	31,131		
1931-32	1,683	3.78	6,357	7,247	10.08	19,565	25,663		
1932-33	1,094	4.53	4,956	6,370	12.28	19,511	25,288		
1933-34	1,804	4.75	8,575	8,967	11.39	25,919	28,109		
1934-35	1,732	4.96	7,556	7,856	13.25	25,595	31,050		
1935-36	1,669	5.10	8,535	8,100	13.63	27,378	34,423		
1936-37	1,716	5.30	9,107 ³	8,900	16.29	30,852	38,016		
1937-38	1,978	5.52	11,141	—	—	—	—		

¹ The area under cotton is published officially (*vide Annuaire Statistique*) since 1895. Cotton is sown in March, picked in August-September. Thus the crop falls inside one calendar year. The bulk of the crop is sold during the following winter and spring. *Ex.*, in the year 1879-80, the crop was grown in the earlier of the two years (1879) and sold in 1879-1880. The areas since 1895 are official (*Annuaire Statistique*). From 1879-1895 they are based on known crop and yield figures, which see.

² Average yield. The average yield for the whole country is available only since 1895. The figures for the years 1879-1895 are those of the State Domains Administration, which usually follow the general figures for the whole country.

The crop figures, 1879-1894, are taken from the brochure of Dr. Mamoun Abdel Salam, *The Cotton Plant in History*, and are supplied by the Ministry of Agriculture. After 1895, figures are taken from official statistics published in the *Annuaire Statistique*, 1914 *et seq.*

⁴ Export figures are taken direct from the returns of *Foreign Trade of Egypt*, annually since 1880.

⁶ Average price per kantar. From 1879 to 1917 the price given is the "Average monthly price of cotton exports (yearly average) as fixed between the government and cotton merchants" (*Annuaire Statistique*, 1914, 1920). From 1917 onwards the average price is taken from various numbers of the *Annuaire Statistique*.

• Value of Cotton Exports (including seed). Taken from the returns of the Customs Administration. These figures refer to the exports from the period September 1st to August 31st of the next year.

⁷ Total Exports of Merchandise. This column is added for comparison with the previous column, that the importance of cotton as an article of export may be appreciated. At the same time, the comparison is not exact, as the figures in this column refer to the calendar year, January 1st to December 31st. The figures do not include re-exports.

⁸ First estimate, October 4th, 1937.

STATISTICAL APPENDIX

TABLE 6
FOREIGN TRADE OF EGYPT
1800-1870
(in thousands of pounds Egyptian)

Year	Merchandise		Specie		Balances*	
	Imports	Exports ^{1a}	Imports	Exports	Merchandise	Specie ^{1a}
1800 ¹	269	288	..	..	+ 19	..
1823 ²	656	1,455	..	..	+ 799	..
1824 ²	1,009	2,127	..	..	+ 1,108	..
1826 ²	656	1,455	..	..	+ 799	..
1831 ²	1,529	1,609	..	..	+ 70	..
1836 ²	2,612	2,142	..	..	- 470	..
1845 ²	1,007	1,747	..	..	+ 740	..
1848 ²	1,480	1,574	..	..	+ 94	..
1849	1,474	1,661	..	..	+ 187	..
1850 ¹	1,621	2,043	..	..	+ 423	..
1851	1,682	2,155	..	..	+ 472	..
1852	1,575	2,270	..	..	+ 695	..
1853	2,002	1,849	..	..	- 153	..
1854	2,142	2,068	..	..	- 54	..
1855	2,527	3,286	..	..	+ 759	..
1856	2,569	4,090	..	..	+ 1,461	..
1857	3,149	3,105	..	..	- 44	..
1858	2,715	2,534	..	..	- 181	..
1859	2,494	2,566	..	..	- 72	..
1860	2,605	2,536	..	..	- 69	..
1861	2,569	3,433	..	..	+ 864	..
1862	1,991	4,454	..	..	+ 2,463	..
1863	5,063	9,014	7,911 ²	1,362	+ 3,951	6,549
1864	5,291	14,417	7,711	1,856	+ 9,126	5,855
1865	5,753	13,046	5,025	2,793	+ 7,293	2,232
1866	4,662	9,724	3,500	4,596	+ 5,062	1,096
1867	4,399	8,023	2,187	1,890	+ 4,224	297
1868	3,583	8,095	4,697	1,628	+ 4,512	3,009
1869	4,022	9,090	2,001	2,274	+ 5,068	273
1870	4,503	8,661	3,005	3,255	+ 4,178	250

* Balances : + indicates excess exports.

-- indicates excess imports.

STATISTICAL APPENDIX

FOREIGN TRADE OF EGYPT (*continued*)

1871-1904

(in thousands of pounds Egyptian)

Year	Merchandise		Specie		Balances*	
	Imports	Exports	Imports	Exports	Merchandise	Specie ¹
	£E.000	£E.000	£E.000	£E.000	£E.000	£E.000
1871 ..	4,512	10,192	4,633	1,592	+ 5,680	- 3,041
1872 ..	5,006	13,318	4,629	1,495	+ 8,312	- 3,134
1873 ..	6,128	14,209	2,931	5,192	+ 8,081	+ 2,261
1874 ⁹ ..	5,070	13,423	5,868	2,014	+ 8,353	- 3,854
1875 ..	5,619	13,333	..	..	+ 7,714	..
1876 ..	4,253	13,561	..	..	+ 9,308	..
1877 ..	4,493	12,750	..	..	+ 8,257	..
1878 ..	4,844	8,097	..	..	+ 3,253	..
1879 ¹⁰ ..	6,113	14,234	5,476	781	+ 8,121	- 4,695
1880 ..	7,926	13,891	4,672	395	+ 5,965	- 4,277
1881 ..	8,201	13,178	1,609	1,263	+ 4,977	- 346
1882 ..	6,424	10,994	2,131	860	+ 4,570	- 1,271
1883 ..	8,021	12,310	1,712	392	+ 4,289	- 1,320
1884 ..	8,183	12,684	2,173	390	+ 4,501	- 1,783
1885 ¹¹ ..	8,989	11,743	3,915	1,294	+ 2,754	- 2,621
1886 ..	7,848	10,494	1,839	2,973	+ 2,646	+ 1,134
1887 ..	8,137	11,325	3,067	1,898	+ 3,188	- 1,169
1888 ..	7,738	10,758	2,039	2,643	+ 3,020	+ 604
1889 ..	7,021	12,270	1,900	1,964	+ 5,249	+ 64
1890 ..	8,081	12,209	2,971	2,085	+ 4,128	- 886
1891 ..	9,201	14,180	2,825	1,524	+ 4,979	- 1,301
1892 ..	9,091	13,683	3,826	2,048	+ 4,592	- 1,778
1893 ..	8,719	13,112	2,947	3,517	+ 4,393	+ 570
1894 ..	9,266	12,220	1,096	1,816	+ 2,954	- 180
1895 ..	8,390	12,049	4,319	2,322	+ 4,559	- 1,997
1896 ..	9,829	13,637	3,720	1,826	+ 3,808	- 1,894
1897 ..	10,604	12,762	2,921	2,369	+ 2,158	- 552
1898 ..	11,033	12,318	2,730	1,892	+ 1,285	- 838
1899 ..	11,442	15,891	4,516	1,502	+ 4,459	- 3,014
1900 ..	14,112	17,353	4,115	2,603	+ 3,241	- 1,512
1901 ..	15,245	16,401	3,086	2,432	+ 1,156	- 654
1902 ..	14,815	18,314	4,779	1,834	+ 3,499	- 2,945
1903 ..	16,730	19,812	6,455	1,786	+ 3,082	- 4,669
1904 ..	20,507	21,087	7,660	2,731	+ 580	- 4,929

* Balances : 4- indicates excess exports.
— indicates excess imports.

STATISTICAL APPENDIX

 FOREIGN TRADE OF EGYPT (*continued*)

1905-1937

(in thousands of pounds Egyptian)

Year	Merchandise		Specie		Balances*	
	Imports	Exports	Imports	Exports	Merchandise	Specie ¹²
	£E.000	£E.000	£E.000	£E.000	£E.000	£E.000
1905 ..	21,549	20,660	4,797	3,887	- 889	- 910
1906 ..	23,980	25,301	9,108	2,083	+ 1,321	- 7,025
1907 ..	26,067	28,457	7,822	4,736	+ 2,390	- 3,086
1908 ..	25,093	21,691	4,212	4,674	- 3,402	+ 462
1909 ..	22,226	26,407	7,014	6,453	+ 4,181	- 471
1910 ..	23,509	29,342	13,008	7,096	+ 5,833	- 5,912
1911 ..	27,115	28,913 ¹²	7,355	7,201	+ 1,798	- 154
1912 ..	25,863	34,934	11,591	7,565	+ 9,071	- 4,026
1913 ..	27,857	32,092	9,800	11,287	+ 4,235	+ 1,487
1914 ..	21,718	24,204	1,787	6,703	+ 2,406	+ 4,916
1915 ¹² ..	19,365	26,884	722	823	+ 7,519	+ 101
1916 ..	31,136	37,911	1,371	248	+ 6,775	- 1,123
1917 ..	33,175	41,519	1,240	115	+ 8,344	- 1,125
1918 ..	51,155	46,690	611	64	- 4,465	- 547
1919 ..	47,407	80,166	187	33	+ 32,759	- 154
1920 ..	101,150	88,010	1,130	21	- 13,140	- 1,109
1921 ..	55,501	42,473	222	69	- 13,028	- 153
1922 ..	43,272	51,366	132	22	+ 8,094	- 110
1923 ..	45,244	59,832	2,293	252	+ 14,588	- 2,041
1924 ..	50,633	67,170	1,595	213	+ 16,537	- 1,382
1925 ..	57,621	60,466	1,221	96	+ 2,845	- 1,125
1926 ..	51,917	42,693	838	562	- 9,224	- 276
1927 ..	48,277	49,164	754	548	+ 887	- 206
1928 ¹⁴ ..	51,087	56,504	1,372	1,073	+ 5,417	- 299
1929 ..	55,261	52,430	1,014	1,357	- 2,831	+ 343
1930 ..	46,985	32,093	503	813	- 14,892	+ 310
1931 ..	31,274	26,381	254	2,416	- 4,893	+ 2,162
1932 ..	27,262	26,001	163	1,708	- 1,261	+ 1,545
1933 ..	26,762	28,780	5	739	+ 2,018	+ 734
1934 ..	29,248	31,618	56	7	+ 2,370	- 49
1935 ¹² ..	32,220	35,410	20	1,269	+ 3,197	+ 1,249
1936 ..	31,497	32,979	19	7	+ 1,482	- 12
1937 ..	38,016	38,665	23	1,094	+ 649	+ 1,071

* Balances : + indicates excess exports.
 — indicates excess imports.

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¹ These figures are attributed to Brehier, *l'Égypte de 1798 à 1900*. Vide Jean Schatz, *Le développement du Commerce de l'Égypte. Égypte Contemporaine*, No. 145, Dec., 1933. Brehier states in a footnote that according to Volney, the total foreign trade of Egypt (at the close of the 18th century) was 15,000,000 francs. The *Memoires* of the French Expedition, notably Estève and Girard, give many details of the customs regime, but do not give the total foreign trade. This is explained in part by a statement that the registers in Alexandria had been destroyed by fire. It appears clear, however, that there was a considerable diminution in foreign trade at the time of the French expedition. The customs revenue fell from £E.127,168 in the early 1790*8 (Estève) to ££.65,034 in 1799 (Jomard) and ££.38,575 in 1800 (Reynier).

² Bowring, *Report on Egypt and Candia* (1840).

³ Jomard, *Coup d'œil impartial sur l'Égypte* (1836).

⁴ Glot Bey, *Aperçu sur l'Égypte* (1840).

⁵ Sabry, *VEmpire Egyptien sous Mohamed Ali*. Taken from British Consular reports.

⁶ 1848, 1849. Foreign trade of Alexandria only. Taken from detailed list, photostat copy of American Consular Returns, in Royal Palace Archives, Abdin.

⁷ 1850-1873, merchandise. Royal Palace Archives, Abdin. Dossier 38/5. Said to have been prepared for Cave Commission, 1876.

⁸ 1863-1874, declared specie. Royal Palace Archives, Abdin. Also said to have been prepared for Cave Commission, 1876.

⁹ Merchandise, 1874-1879. *Foreign trade of Egypt* (Official), Amici Bey, 1880. Annual returns of foreign trade have been published since 1874. For the first five years, however, specie is not given in these returns.

¹⁰ From 1879 onwards, the exports include re-exports.

¹¹ 1885-1934. From table given in *Foreign Trade of Egypt*. Annual Statement, 1935.

¹² Until August, 1911, exports are officially stated to have been undervalued by one-tenth. (See ex. Annual statement of foreign trade, 1912.)

Apart from this element of undervaluation, there appear to have been other important elements of undervaluation in exports, and to a less extent in imports, until recent times. See *The Visible Balance of Trade*, by A. E. Crouchley. *Égypte Contemporaine*, Vol. 26, 1935.

¹³ During the war years, very large sums were received by Egypt in the form of expenditure by British military authorities and allied soldiers in Egypt. From 1915 to 1919, British army drafts paid in Egypt totalled £E83£ million. See A. E. Crouchley, *op. cit.*

¹⁴ A revised method of declaration of exports introduced in 1928 has made figures of exports much more accurate than in previous years (see note 12).

¹⁵ The specie balances must be treated with caution. In pre-war days, there were many sources of un-recorded exports. See A. E. Crouchley, *op. cit.*

¹⁶ 1935, 1936, 1937. Figures taken from *Monthly Summary of Foreign Trade*. December, 1936, 1937.

STATISTICAL APPENDIX

TABLE 7
BANK NOTES AND COINS¹
1901-1937

Year	Issued Bank Notes		Notes and Coins in Circulation in December			
	June 30th	Dec. 31st	Bank Notes	Subsidiary Coins (silver, nickel and bronze)	Treasury Notes	Total*
	£E.000	£E.000	£E.000	£E.000	£E.000	£E.000
1901 ..	110	140	109	1,865	—	1,974
1902 ..	170	190	186	1,954	—	2,140
1903 ..	270	450	352	2,095	—	2,447
1904 ..	580	830	588	2,499	—	3,087
1905 ..	1,300	1,700	1,225	2,503	—	3,728
1906 ..	2,425	2,750	2,142	3,007	—	5,149
1907 ..	2,650	2,600	2,068	3,182	—	5,250
1908 ..	2,550	2,320	1,703	2,935	—	4,638
1909 ..	2,500	2,600	2,173	2,988	—	5,161
1910 ..	2,500	2,700	2,342	3,231	—	5,573
1911 ..	2,350	2,700	2,254	3,329	—	5,583
1912 ..	2,350	2,900	2,448	3,581	—	6,029
1913 ..	2,400	2,700	2,260	3,385	—	5,645
1914 ..	2,400 ^a	8,250	7,020	3,952	—	10,972
1915 ..	7,350	11,550	10,120	4,618	—	14,738
1916 ..	11,200	21,200	19,871	5,712	—	25,583
1917 ..	17,500	30,800	28,831	7,070	—	35,901
1918 ..	30,200	46,100	43,573	9,047	1,201 ⁴	53,821
1919 ..	41,600	67,300	63,951	9,049	1,622	74,622
1920 ..	48,100	40,400	37,889	9,254	1,577	48,720
1921 ..	32,700	37,000	34,304	7,645	253	42,202
1922 ..	29,600	33,200	31,708	6,426	97	38,231
1923 ..	26,900	36,400	35,111	6,782	68	41,961
1924 ..	29,200	42,000	39,931	7,035	59	47,025
1925 ..	32,300	35,500	33,576	6,994	56	40,626
1926 ..	29,100	29,500	27,521	6,369	52	33,942
1927 ..	26,500	29,000	27,433	6,468	51	33,952
1928 ..	25,100	31,800	30,392	6,560	51	37,003
1929 ..	24,600	28,300	26,490	6,267	51	32,808
1930 ..	23,300	22,100	20,944	6,567	51	27,562
1931 ..	19,300	21,100	18,915	6,065	51	25,041
1932 ..	19,100	20,200	18,490	4,987	51	23,528
1933 ..	19,800	21,600	20,071	5,232	51	25,354
1934 ..	19,500	21,300	19,607	5,428	51	25,186
1935 ..	19,000	25,100	23,253	5,510	51	28,814
1936 ..	20,600	24,900	23,138	5,435	50	28,623
1937 ..	21,200	22,400	20,674	5,367	50	26,091

STATISTICAL APPENDIX

Source.—All the above figures are taken from official returns of the Ministry of Finance and the National Bank of Egypt.

¹ The National Bank of Egypt has the monopoly of issue of bank-notes. It was founded in 1898, and began to issue notes in 1899. These notes were admitted to circulation, but did not acquire the force of legal tender until the outbreak of war, August 2nd, 1914. As the result, the issue expanded but slowly.

¹ On June 30th, 1914, the issue comprised ££.5,400 in notes of 50 P.T., £E. 12,300 in notes of £E.i, ££.309,500 in notes of £E-5, ££.424,450 in notes of £E.io, ££.659,050 in notes of £E-50 and ££.989,300 in notes of £E.ioo.

³ Before the War, British sovereigns formed the normal basis of commercial exchange. Every year, considerable quantities of gold were imported in the autumn and exported in the spring. Customs returns (see table 6) of specie movements, especially exports, are incomplete, and it is impossible to know the exact amount hoarded and in circulation in pre-War days. In 1914, however, bank-notes of the N.B.E. were declared legal tender and inconvertible and gold disappeared from circulation. From 1914 therefore, the total of notes and coins (final column) represents the total money in circulation, but prior to 1914 we should need to make allowance for gold coins in use.

* In 1918, owing to a sudden need for additional currency, which the government was unable to meet owing to war conditions, treasury notes of 10 P.T. and 5 P.T. were issued. After 1921, these notes were gradually retired and annulled, and circulation ceased officially from 16th October, 1927.

STATISTICAL APPENDIX

TABLE 8
CLEARING HOUSE RETURNS¹
1928-1937

Year	Cairo		Alexandria	
	Number of Cheques	Value	Number of Cheques	Value
1928	40,120 ²	£E. 8,662,252	—	—
1929	343,416	75,369,000	187,201 ³	46,756,000
1930	353,146	61,818,000	112,328	36,583,000
1931	337,967	54,275,000	187,075	43,478,000
1932	344,666	55,388,000	186,206	46,994,000
1933	362,452	57,554,000	189,420	44,792,000
1934	394,262	57,067,000	205,588	48,137,000
1935	423,855	66,045,000	222,648	53,855,000
1936	445,151	66,016,000	247,386	57,524,000
1937	470,082	72,351,000	255,569	60,482,000

¹ A clearing house was established in Cairo, 19th November, 1928, and another in Alexandria, 23rd May, 1929. They were formed under the auspices of the National Bank of Egypt. The members include all the principal banks in Cairo and Alexandria.

² Period from 19th Nov., 1928, to 31st Dec, 1928.

³ Period from 23rd May, 1929, to 31st Dec, 1929.

STATISTICAL APPENDIX

TABLE 9

 FOREIGN HOLDINGS OF EGYPTIAN SECURITIES AND
 ESTIMATED INTEREST PAYMENTS THEREON¹

(in thousands of Egyptian pounds)

1884-1934

Year	Total Securities			Held Abroad			Estimated Annual Interest Payments on Securities held Abroad ²	
	Public Debt	Joint Stock Cos. ³		Public Debt	Joint Stock Cos.		Annual Ave'ge	Period
		Shares ³	Debentures		Shares	Debentures		
	£E.000	£E.000	£E.000	£E.000	£E.000	£E.000	£E.000	
1884	94,732	3,552	3,028	90,943	2,947	3,028	—	—
1892	106,373	3,489	3,837	101,054	2,349	3,735	4,841	1884-92
1897	103,864	5,775	8,110	98,441	3,784	7,625	5,430	1892-97
1902	103,246	13,165	13,115	92,921	10,221	11,909	5,373	1897-1902
1907	95,833	47,323	39,853	86,250	24,360	32,550	8,918	1902-07
1914	94,029	47,231	52,921	85,683	26,114	45,129	7,183	1907-14
1934	88,955	54,882	36,340	39,003	29,901	15,282	4,812	1930-34

¹ *The Investment of Foreign Capital in Egyptian Companies and Public Debt.* A. E. Crouchley. Cairo (Ministry of Finance), 1935.

² The companies which figure in this table include all companies, whether registered in Egypt or abroad, whose sole or principal object was work in Egypt. Branches of foreign companies and banks are not included. The Suez Canal, too, though registered in Egypt, is excluded, as its revenue comes from ships (mostly non-Egyptian) using the canal, and the greater part of its shares and debentures are held abroad.

³ Shares and debentures—the figures given represent paid-up value.

⁴ Annual interest payments abroad: the figures given are the estimated annual payments made in the periods given. They represent only interest paid on the securities given in the preceding columns.

STATISTICAL APPENDIX

TABLE 10
STATE FINANCES
1798-1833

Year	BUDGETS			PUBLIC DEBT			
	Revenue	Expenditure	General and Special Reserve Fund	Public Debt	Coupons paid in Egypt		Amt. held by Govmt. and Caisse
	£E.	£E.	£E.	£St.	Unified %	Pref. %	£St.
1798 ¹	1,203,507	—	—	—	—	—	—
1799 ²	1,382,870	—	—	—	—	—	—
1800 ³	810,075	—	—	—	—	—	—
1818	1,504,135	—	—	—	—	—	—
1821 ⁴	1,199,700	1,022,000	—	—	—	—	—
1833 ⁵	2,525,725	2,102,525	—	—	—	—	—

¹ Count Estève, *Memoire sur les Finances de l'Egypte. Description de l'Egypte*. Tome I.

² Jomard, *Coup d'œil impartial sur l'Egypte* (1836).

³ Reynier, *De l'Egypte après la bataille d'Héliopolis*. See also A/emotr* sur les Finances de l'Egypte, by S. A. le Prince Omar Toussoun. *Memoires de l'Institut d'Egypte* (1924).

Note.—(a) In 1799, the revenue was increased by a number of new taxes, particularly on property of all kinds, levied by the French. In 1800, on the other hand, Upper Egypt was in revolt, and did not pay taxes, and the blockade of the country, owing to the war, reduced the customs revenue.

(b) Some recent authors have stated that the revenue of Egypt at this time was ££.158,724. This sum represents the amount sent to Constantinople, the *khazneh* (tribute). From the point of view of Turkey, it represents the revenue received from Egypt, but from the point of view of Egypt it but represents the excedent left over from the revenue after paying all internal expenses. *Vide Estève, op. cit.*

⁴ Mengin, *Histoire de l'Egypte sous le gouvernement de Mohamed Ali* (18Q3).

Amin Bey Sami, *Almanac of the Nile* (in Arabic), Vol. 2, gives for 1818 : Revenue, 300,827 purses; Expenditure, 71,020 purses (1 purse = 500 piastres). The expenditure, however, is clearly incomplete.

⁵ Bowring, *Retort on Egypt and Candia* (1840). Amin Bey Sami, *Almanac of tkemle*, Vol. 2, gives for this same year (1833) : Revenue, ;£E.2,421,672; Expenditure, ££.1,927,079. Jomard, *Coup a'œil impartial sur l'Egypte*, states that the revenue for 1833 was 63,000,000 francs (££.2,554,500). Clot Bey, *Aperçu Giniral sur l'Egypte*, t. 11, p. 208, gives For 1833 a revenue of ££.2,421,690.

STATISTICAL APPENDIX

 STATE FINANCES (*continued*)—1836-1875

BUDGETS				PUBLIC DEBT			
Year	Revenue	Expenditure	General and Special Reserve Fund	Public Debt	Coupons paid in Egypt		Amt. held by Govmt. and Caisse
	£E.	£E.	£E.	£St.	Unified %	Pref. %	£St.
1836 ⁶	3,064,300	2,878,755	—	—	—	—	—
1842 ⁷	2,926,635	2,176,860	—	—	—	—	—
1846 ⁸	4,200,800	2,045,000	—	—	—	—	—
1847 ⁹	3,950,000	—	—	—	—	—	—
1852 ¹⁰	2,143,000	1,563,000	—	—	—	—	—
1853	2,192,000	1,915,000	—	—	—	—	—
1854	2,200,000	2,817,000	—	—	—	—	—
1855	2,078,000	2,383,000	—	—	—	—	—
1856	2,474,000	2,637,000	—	—	—	—	—
1857	2,214,000	2,127,000	—	—	—	—	—
1858	2,025,000	2,205,000	—	—	—	—	—
1859	2,121,000	2,171,000	—	—	—	—	—
1860	2,154,000	2,084,000	—	—	—	—	—
1861	2,154,000	5,184,000	—	—	—	—	—
1862	3,707,000	8,068,000	—	—	—	—	—
1863	6,094,000	14,395,000	—	—	—	—	—
1864	6,972,000	13,551,000	—	—	—	—	—
1865	5,356,000	10,785,000	—	—	—	—	—
1866	5,058,000	10,278,000	—	—	—	—	—
1867	4,129,000	10,854,000	—	—	—	—	—
1868	5,011,000	16,637,000	—	—	—	—	—
1869	5,255,000	10,530,000	—	—	—	—	—
1870	5,389,000	12,309,000	—	—	—	—	—
1871	5,711,000	15,084,000	—	—	—	—	—
1872	7,293,745	6,419,143	—	—	—	—	—
1873	9,911,968	8,815,639	—	—	—	—	—
1874	9,911,968	8,815,639	—	—	—	—	—
1875	10,542,468	10,026,476	—	—	—	—	—

⁶ Duhamel, *Tableau de l'Egypte* (1837) *Les Archives Russes en Egypte*. The revenue includes "profits from monopolies," £E.753,680.

⁷ Amin Sami Pasha, *Almanac of the Nile*, *op. cit.*

⁸ Sabry, *L'Empire Egyptien sous Mohamed Ali*, p. 283. The author makes a note that the revenue of this year was particularly high.

⁹ Prince Omar Toussoun, *Memoire sur les Finances de l'Egypte*. *Institut de l'Egypte* (1924).

¹⁰ Revenue and expenditure, 1852 to 1879, are taken from the table given by Girgis Henein Bey, *Les term et les impdts* (1906) (in Arabic).

STATISTICAL APPENDIX

STATE FINANCES (*continued*)—1876-1883

BUDGETS				PUBLIC DEBT			
Year	Revenue	Expenditure	General and Special Reserve Fund	Public Debt	Coupons paid in Egypt		Amt. held by Govt. and Caisse
	£E.	£E.	£E.		£St.	Unifed %		Pref. %
1876	7,648,778	7,840,957	—	76,000,000 ¹¹	—	—	—
1877	9,526,242	8,552,530	—	83,322,400	—	—	—
1878	7,518,478	7,778,503	—	91,073,900	—	—	—
1879	8,467,838	8,299,964	—	90,983,900	—	—	—
1880 ¹¹	9,584,430	7,691,424	—	98,376,660	—	—	—
1881	9,620,634	8,678,126	—	97,172,940	—	—	—
1882	9,431,134	8,977,131	—	96,457,320	—	—	—
1883	10,507,436	10,133,509	—	94,960,660	—	—	—

¹¹ At the death of Mohamed AH there was no public debt. Under his successors, indebtedness began to rise. Abbas left liabilities amounting to £E. 1,000,000 and an empty treasury. Said Pasha contracted, in 1862, the first Egyptian state loan, for jSt. 3,293,000. At his death a further £E. 10,000,000 was owing on various accounts. Ismail Pasha contracted a series of loans as follows:—

							£ Sterling.	
1864	..	..	..	..	..	..	5,704,000
1865	..	..	..	..	..	..	3,387,000
1866	..	..	..	..	..	..	3,000,000
1867	..	..	..	..	..	..	2,080,000
1868	..	..	..	..	..	..	11,890,000
1870	..	..	..	..	..	..	7,143,000
1879	..	..	..	..	..	..	32,000,000
Total (including loan of 1862)							<u>£68,497,000</u>

In addition big amounts were owing on Treasury Bonds and in floating indebtedness. In 1876, following a commission of enquiry and a first attempt at settlement, the decree of 18th Nov., 1876, established the consolidated public debt at £76,000,000 in addition to the Dai'ra Sanieh loans amounting to £15,000,000. Figures of public debt from this year (1876) are taken from the *Annuaire Statistique*.

¹¹ In 1880, a state budget was established, separate from the private budget of the ruler. Revenue and expenditure since 1880 are taken from various numbers of the *Annuaire Statistiques*. The figures given include both "ordinary" and "extraordinary" revenue and expenditure.

STATISTICAL APPENDIX

STATE FINANCES (continued)—1884-1912

BUDGETS				PUBLIC DEBT			
Year	Revenue	Expenditure	General and Special Reserve Fund	Public Debt	Coupons paid in Egypt		Amt. held by Govmt. and Caisse
	£E.	£E.	£E.		£St.	Unified %		Pref. %
1884	10,139,611	10,001,465	—	94,731,800	22 ¹⁸	26	—
1885	14,329,242	13,928,586	—	103,858,320	18	27	—
1886	10,334,293	10,340,972	22,848	103,602,680	10	10	—
1887	10,522,663	10,194,913	477,100	103,028,000	5	9	—
1888	11,894,039	11,714,510	732,547	101,605,640	4	6	—
1889	10,358,853	9,969,776	1,000,474	101,157,740	4	6	—
1890	11,892,810	11,251,483	1,626,973	106,802,360	6	5	—
1891	11,218,578	10,078,492	2,732,267	106,544,340	5	4	2,287,000 ¹⁴
1892	10,628,935	9,882,557	3,391,817	106,372,860	5	4	2,802,000
1893	10,601,642	10,556,017	3,346,802	105,475,000	5	3	3,081,000
1894	10,531,341	9,904,186	3,887,087	104,774,520	5	3	3,625,000
1895	10,720,819	9,729,201	4,813,551	104,636,840	5	3	4,493,000
1896	11,054,917	10,601,183	5,195,357	104,413,740	5	3	5,361,000
1897	11,482,668	10,704,637	5,904,710	103,863,940	5	3	6,376,000
1898	12,482,080	11,115,361	7,200,853	103,372,180	6	4	7,235,000
1899	11,667,087	11,406,969	7,387,910	103,049,040	6	4	7,708,000
1900	11,867,309	10,839,583	8,339,609	102,714,180	6	4	7,273,440
1901	13,510,190	12,201,824	9,572,637	103,264,540	6	4	8,264,840
1902	12,784,492	12,668,597	9,600,121	103,245,500	7	7	8,773,840
1903	13,382,283	12,501,800	10,395,637	102,186,920	6	7	8,803,700
1904	14,482,162	12,950,272	11,834,141	101,275,340	6	9	8,917,280
1905	17,103,376	14,999,037	12,087,707	96,483,880	17	14	8,769,820
1906	16,813,561	17,841,955	11,055,413	96,180,660	6	10	8,764,920
1907	16,832,959	18,926,911	8,961,461	95,833,280	8	13	8,365,540
1908	16,423,382	18,009,139	7,374,891	95,513,460	6	10	6,098,820
1909	15,887,313	16,900,015	6,360,884	95,240,740	8	12	6,008,320
1910	16,337,667	16,948,082	5,749,119	94,972,200	30	32	5,771,140
1911	17,177,107	17,077,207	5,847,612	94,621,660	30	26	5,504,120
1912	17,848,352	17,569,629	6,124,826	94,349,680	26	47	5,439,220

¹⁸ The distribution of coupons as between Egypt, Paris and London (and Berlin before the Great War) is published in the *Compte Rendu des travaux de la Commission de la Dette Publique d'Egypte* (annual since 1884). The coupons are paid in two half-yearly instalments, one in spring the other in autumn. The spring payments are considered to reflect to a certain extent actual holdings in Egypt. See *The Investment of Foreign Capital in Egyptian Companies and Public Debt*, by A. E. Crouchley (1936).

¹⁴ These figures represent *Egyptian* securities held by the government and the Caisse de la Dette.

STATISTICAL APPENDIX

STATE FINANCES (continued)--1913-1937

Year	BUDGETS			PUBLIC DEBT			
	Revenue	Expenditure	General and Special Reserve Fund	Public Debt	Coupons paid in Egypt		Amt. held by Govt. and Casse
	£F.	£F.	£F.	£St.	Unified %	Pref. %	£St.
1913	17,705,543	17,659,961	5,848,763	94,202,540	32	40	5,459,920
1914-15 ¹⁵	19,119,612	21,330,944	5,103,549	94,028,840	40	44	5,609,820
1915-16	17,761,255	16,594,666	4,799,642	93,903,240	13	7	5,599,820
1916-17	19,929,648	17,240,606	7,486,310	93,740,940	6	4	5,400,820
1917-18	23,168,626	22,496,948	8,155,436	93,565,740	6	4	5,370,520
1918-19	27,633,860	23,364,326	12,432,399	93,388,640	10	4	5,282,260
1919-20	33,680,187	28,991,934	17,177,867	93,198,140	13	8	6,466,860
1920-21	46,451,259	62,951,182	1,513,605	92,971,740	30	29	6,826,860
1921-22	41,806,321	37,747,112	5,569,659	92,761,540	40	38	6,532,860
1922-23	35,766,238	28,247,171	13,046,232	92,565,040	48	44	8,728,360
1923-24	36,257,786	31,466,480	17,834,669	92,370,940	55	42	8,526,420
1924-25	37,701,570	29,976,185	25,557,175	92,172,040	57	47	9,398,500
1925-26	39,585,386	34,204,977	30,934,723	91,976,440	58	49	10,169,900
1926-27	41,936,586	38,973,340	33,787,370	91,271,040	60	51	12,349,620
1927-28	38,569,964	35,389,036	36,965,139	90,735,640	66	54	13,103,100
1928-29	40,370,210	37,229,559	39,852,369	90,288,200	73	66	14,566,508
1929-30	41,889,843	41,128,413	40,599,193	89,878,840	74	68	15,618,342
1930-31	38,587,828	41,222,580	37,950,791	89,644,840	75	68	15,594,968
1931-32	37,774,173	36,991,858	33,391,257	89,401,640	77	69	15,049,431
1932-33	37,141,659	35,946,856	31,440,929	89,173,440	74	69	15,139,252
1933-34	32,630,223	30,548,711	30,126,982	88,955,440	74 ¹⁶	70	15,139,252
1934-35	33,715,907	31,600,252	32,276,831	88,730,940	73	71	15,139,252
1935-36	34,959,626	33,649,817	33,200,687	88,499,640	74	71	15,507,712
1936-37	35,175,260	35,150,042	34,046,316	88,261,240	74	72	15,480,000

¹⁵n 1914, the end of the financial year was changed from December 31st to April 30th. The revenue and expenditure during the interim period of three months, Jan. 1st to April 30th, 1914, have been added to the year 1914-15.

¹⁶ An enquiry carried out by the Ministry of Finance in 1933 showed that at that time 59 per cent, of the Unified and 61 per cent, of the Preference debt were held in Egypt for the account of residents. *Vidit* Crouchley, *Investment of Foreign Capital, op. cit.*

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