

opening in the mountains behind the Setheum, leads to two other valleys, that of the Tombs of the Kings, and the Western Valley. Both these contain royal sepulchres, but those of the former are the more important. The sepulchres in the Valley of the Tombs of the Kings are twenty-five in number. Nineteen are the mausolea of kings, of a queen with her consort, and of a prince, all of Dynasties XIX. and XX. One tomb is without sculpture, and there is likewise an unsculptured passage running for a considerable distance into the mountain, which may be regarded as an uncompleted tomb. M. Mariette has found the tombs of functionaries in this valley (*Mon.*, 234). Their plan is always the same in its main particulars, but they differ greatly in extent, in consequence of having been begun at a king's accession, or even before (for one of them is the tomb of an heir-apparent), and continued throughout his reign, like the pyramids of Memphis. Their paintings and painted sculptures likewise do not present remarkable varieties, for they are almost wholly of a religious character, and principally refer to the future state. These subjects are taken from the Book of the Lower Hemisphere, treating of the course of the sun in the twelve hours of the night, and so in the nether world. They are interesting for the manner in which they illustrate the Egyptian religion, and for the beauty of their execution; but their intricate nature forbids any detailed description of them in the present article. The plan of one of the most interesting sepulchres may, however, be described. The tomb of Setee I., commonly called Belzoni's, since that explorer first opened it since ancient times, is in the freshest state of preservation, except in its outer part, although the miserable barbarism of modern travellers is yearly lessening its beauty. We enter by a staircase, and pass along a steep passage, which ends in a deep pit, now filled up. Thus far the subjects and inscriptions which occupy the walls are unfinished, showing that the tomb was not completed. Immediately beyond the pit, the part discovered by Belzoni begins with a hall 26 feet by 27, supported by four square pillars, the walls of which are covered with very beautiful painted sculptures, including the celebrated procession of the four races. To the right of this is another chamber, supported by two columns, the decorations of which were never begun, having only been drawn in outline. From the left side of the former chamber we descend a flight of steps, which leads to a passage, another flight of steps, and then another passage, ending in a chamber 17 feet by 14, from which we pass into a hall 27 feet square, having six square pillars, and on either side a small chamber. This forms the portico of the great sepulchral hall, the most splendid part of the tomb, which is of an oblong form, 19 feet in length and 30 in breadth, with an arched roof. In the midst, in a depression, was a splendid sarcophagus of alabaster, now in the Soane Museum, and on its removal blocks of stone were found filling up the entrance of an inclined descent, which was cleared for 300 feet by Belzoni, without its termination being discovered. It is not impossible that the king was buried in a chamber at the end of this passage. The great sepulchral hall is covered with beautiful painted sculptures, and on its ceiling are astronomical or astrological representations, resembling the astronomical ceiling of the Rameseum of El-Kurneh. A door in the left side of the sepulchral hall leads to a chamber which has two square pillars, and on the same side is a cell; there is another chamber on the opposite side. A large apartment, which was left unfinished, is behind that in which was the sarcophagus, and is the last of those contained in the tomb, if the inclined descent does not lead to other unknown ones. From the entrance to the end of this chamber is a distance of about 300 feet.

The tomb of Rameses III. is among the most splendid of the royal sepulchres. Its length a little exceeds 400 feet, but from the nature of the rock its sculptures are less delicately executed than those of the tomb of Setee I. In cells on either side of its passage, a little within the entrance, are interesting paintings illustrating manners and customs, in one of which is the celebrated representation of the harpers.

The tombs which have been found in the Western Valley are only four in number, and but two of these contain paintings, those of Amenophis III. and of King AI, the sun-worshipper who succeeded Khu-n-aten. The former is decorated with paintings in a very good style, but unfortunately they have sustained much damage; the latter is historically interesting as a record of an obscure king, but its paintings are of poor execution.

Nowhere, perhaps, are we so forcibly struck by the feeling of the ancient Egyptians with respect to death and the future state as in the Valley of the Tombs of the Kings, and in the sepulchres themselves. The desolateness of the spot, apart from all signs and sounds of life, fitted it for the solemn use to which it was assigned; and those long dark passages, and lofty chambers, on whose walls we see the awful punishments of the wicked and the rewards of the good, fitly unveil the most secret mysteries of the Egyptian religion.

Not far south of Thebes, on the western bank, is the large village of Arment, the old Hermonthis, where stands a picturesque temple built by Cleopatra. It has two courts with colonnades, and three chambers around which was also a colonnade, of which but one column now stands. It is of small dimensions, having been the "Typhonium" attached to the great temple of Mentu, the divinity of the place, which has been razed. On the other bank of the river, a little higher, at Tôd, anciently Tophium, is a small Ptolemaic temple. Not far beyond, and about 20 miles above Thebes, by the course of the stream, are the "Gebel-yen," or "Two Mountains," on the western side of the river, where the sandstone begins. The town of Isnè, the ancient Sne, called by the Greeks Latopolis, is likewise situate on the western bank, about twelve miles higher, and is remarkable as containing a very fine Egyptian monument, the portico of its great temple of Kneph. This is in the heart of the modern town, and was much choked with rubbish until cleared by Mehemet Ali. It is supported by twenty-four lofty and massive columns, six in front, and four deep, having capitals of various forms, of which those alone in corresponding positions on opposite sides are of the same description, a deviation from regularity of which we do not see examples previous to the Greek rule. The columns and walls are covered with minute sculptures of the bad style of the period when the portico was erected,—that of the Cæsars. It contains the hieroglyphic names of Claudius, Vespasian, Titus, and other emperors as late as Severus. The back is, however, more ancient, for it bears the name of Ptolemy Philometer, being the front of the older temple of which nothing more is known for certain to remain. Upon the ceiling is a zodiac, from which this monument was supposed to have been of very great antiquity before the interpretation of hieroglyphics had been discovered. On the other bank of the Nile, on the site of Contra Latopolis, is a small temple of the Ptolemaic and Roman periods.

A few miles above Isnè, where both the Libyan and Arabian chains approach the river, are the curious remains of Eileithya (so written in Egyptian geography). There is a small temple of the Ptolemaic time, and two little sacred edifices of the period of the Pharaohs, but the most interesting monuments are the tombs and the fort. The former, which are excavated in a hill, are very remark-

able as illustrating history as well as everyday life, husbandry, &c.; and in one of them is the very curious inscription of its occupant Aahmes, chief of the mariners, recording his services to early kings of Dynasty XVIII. The fort is a large inclosure of crude-brick,¹ which was a place of importance as early as the Shepherd war, for it is mentioned as the "Fort of Suben," that is of Eileithya, in a part of the inscription above mentioned, relating to the time of that war. The goddess of the place was Suben or Lucina (Eileithya), who was especially regarded as the protector of Upper Egypt.

Having proceeded about twelve miles to the southward we reach the large village of Adfoo or Edfu, which represents the town called by the Greeks Apollinopolis Magna, the great temple of which yet stands in a comparatively perfect state, and is one of the most stately monuments of ancient Egypt, although of a time at which art had greatly declined. It was dedicated to Har-hut, the god of the place, whom the Greeks called Agathodæmon. Mounds of rubbish around it, as well as the huts of the village, injured its effect, until it was lately cleared by M. Mariette.

The great propylon which forms the front of the temple measures about 226 feet in width, and is, like the rest of the edifice, in a good state of preservation. The sculptures upon its face represent acts of worship by Ptolemy Auletes, who is portrayed slaying prisoners.

The portal between the wings of this propylon is the entrance to the temple, of which the first part is a great court about 161 feet long and 140 broad, with a colonnade along its front and each side, of columns with various capitals supporting covered galleries. At the end is a portico having eighteen columns, six in front and three deep, about 82 feet broad and 46 long, measured within, beyond which are a hall and passages and other chambers, the most important of which is an isolated sanctuary. The wall of the great court is continued so as to inclose the further portion of the temple, leaving a passage around it. The sculptures show that it was begun by Ptolemy Philopator and completed at the end of the Greek monarchy, though an insignificant additional subject was added by Claudius. Not far from the great temple is a smaller one of the sort called Typhonia, containing two chambers, around which runs a gallery supported by Typhonian columns.

About twenty-three miles above Adfoo the mountains on either side, which had for some distance confined the valley to a narrow space, reach the river and contract its course. They are low, but steep and picturesque, and in their western side are seen the entrances of excavations. They are called Gebel-es-Silsileh, a name derived from the earlier Silsilis. The most interesting of the excavations is a rock-temple in which is portrayed the defeat of a negro nation by King Har-em-heb, or Horus, of Dynasty XVIII; here, also, are subjects depicting acts of worship paid to Nilus and Sebek. To the southward of this, and also facing the river, are the entrances of several excavated tombs, the representations in which are not of a remarkable character. Beyond these are three chapels of the time of Dynasty XIX. On the opposite side are very important quarries, where much of the materials of the great temples was cut, especially under the Eighteenth and subsequent Dynasties.

Beyond Gebel-es-Silsileh, although the mountains recede, the tract of cultivated land is extremely narrow, and sometimes the desert touches the river: this is partly owing to the sinking of the level of the stream, which, as already mentioned, was very anciently restrained by some barrier at Silsilis. About eleven miles above that place is the

¹ For an account of the Egyptian system of fortification, see Wilkinson in *Trans. Soc. Lit.*, n. 2, iv.; and *Popular Account of Ancient Egyptians*, i. 407-409.

extremely picturesque temple of Ombos, placed on a rocky eminence called "Kôm-Umboo," "the Hill of Umboo." It stands within a great inclosure of crude-brick walls, which we see on every side, except that towards the river. There is a portal in this wall of the time of Queen Hatshepu and Thothmes III. The great temple is double, one-half having been dedicated to the worship of Sebek, and the other to that of Har-oor, or Aroëris. It consists of a portico of fifteen columns, of which two have fallen, the foremost being connected by a wall of intercolumniation having two entrances, and behind, there is a smaller portico and remains of chambers, including the two sanctuaries. The earliest name here is that of Ptolemy Philometer (*Modern Egypt and Thebes*, ii. 282), unless Champollion be right in saying that the name of Epiphane is also found in the temple (*Lettres*, 173), and it appears to have been completed by Ptolemy Auletes. There were also remains here of a smaller Ptolemaic temple which have been washed away by the river.

Nothing remarkable occurs between Ombos and Syene, a distance of about twenty miles. The valley is confined to a very narrow space by the mountains, which take bold forms on both sides near the latter place. Just before we reach it, we see the island of Elephantine, where is the famous Nilometer of the Roman time. The town of Aswân, which represents the ancient Syene, stands amid palm-trees on the eastern bank opposite to Elephantine. It is a considerable place, of greater political than commercial importance, and has succeeded to an older town of the same name, the ruins of which occupy the river's bank and a granite hill to the south. Among them may be mentioned a pier, which has a well, most probably the Nilometer constructed by Amr, the Muslim conqueror of Egypt. In the ruined town is also a small temple of Roman date. Farther to the south is its extensive Arab cemetery, which is full of curious tombstones bearing inscriptions in Cufic characters. In the granite hills to the eastward are the quarries whence were taken the obelisks and very many of the statues which adorned the Egyptian temples.

The bed of the river above Aswân is obstructed by numerous rocks and islands of granite, one of the latter of which, that of Saheyl, is interesting on account of the numerous hieroglyphic tablets and inscriptions at its southern part. This island is almost a mile and a half above Aswân, and at the distance of another mile from it begin the rapids called the First Cataract, caused by the granite rocks, which almost entirely choke the river. The cataract is so inconsiderable, that during the inundation boats favoured by a strong northerly wind can pass it without aid, though at other times it is necessary to hire natives, who drag them through, but then the principal rapid has a fall of only five or six feet (*Modern Egypt and Thebes*, ii. 294), and that is not perpendicular. Nevertheless the roaring of the troubled stream, and the red granite islands and rocks which stud its surface, through which the boat threads its way, give the scene a wild picturesqueness, until we reach the open stream, less than two miles farther, and the beautiful isle of Philæ suddenly rises before the eyes, completely realizing our highest idea of a sacred place of ancient Egypt.

Philæ is beyond the proper limits of Egypt, but as it is usual to describe it in noticing Aswân and the rapids, some account will here be given of its very beautiful and interesting monuments. The island is very small, being only a quarter of a mile long, and about 500 feet broad. On its granite rock is a little alluvial soil and some vegetation, with a few date-palms, but its verdure has been exaggerated, and to this it little owes its beauty. It was highly revered by the ancient Egyptians as a burial-

place of Osiris. On the east side is a small but very picturesque temple, now hypæthral, of the Greek and Roman time, and unfinished. It is 48 feet in width and 63 in length, and has 14 columns with capitals of various forms, connected by intercolumnal walls. The great temple of Isis stands to the westward of this. Its front is formed by a propylon, before which is a kind of court, to be afterwards described. The portal bears the name of Nectanebes II., but the wings were added by the Ptolemies, making the entire width about 122 feet. Through the portal we enter a court, on the right side of which is a gallery fronted by columns, behind which are several small chambers, and on the left side is a separate small temple of Athor, the main entrance to which is by a door and passage in the left wing of the great propylon. This small temple begins with a portico having four columns with the faces of Athor sculptured in high relief upon each of their sides above the capitals. Beyond this are three chambers behind one another, above the door of the first of which is a Greek dedication by Ptolemy Euergetes II., and the two Cleopatras. The temple was, however, begun by Epiphanes. The court of the great temple, that of Isis, is bounded by a second propylon of smaller dimensions than the first, forming the entrance to the portico, which is a very elegant structure raised on ten columns, eight of which are at the back and one on each side. It is partly hypæthral, an open space being left between the two columns last mentioned. The beautiful forms of the columns and the bright remains of colour on them and the walls, with the effect of the sunlight through the aperture of the roof, produce a charming effect. Behind this hall are several small apartments, one of which, reached by a staircase, contains very curious sculptures relating to the story of Osiris. The temple appears to have been begun by Ptolemy Philadelphus (whose name is the earliest found there), and was continued under the Roman emperors. The court before the temple remains to be noticed. It is bounded by two galleries with columns in front. One of these is about 250 feet long, and is built close to the western side of the isle, terminating at a small temple of Athor near its southern end. This edifice, which is much ruined, was supported by columns with faces of Athor above their capitals, of which six stand; it was raised by Nectanebes II. The eastern gallery, which is shorter than the other, is not parallel with it, and thus shows that this court was not part of the great temple, but rather an approach to it. The other remains are of minor importance, and the same may be said of the ruins of a temple on the neighbouring large island of Bigè.

A few words must be said respecting the eastern and western deserts. The latter is remarkable for two valleys besides those called the Oases. The first of these valleys is that of the Natron Lakes to the westward of the Delta, containing four monasteries, the remains of the famous anchorite settlement of Nitria. To the southward of this, and parallel to it, is a sterile valley called the Bahrela-Ma, or "River without Water." Yet farther to the southward is the Little Oasis (Oasis Parva), about 100 miles from the Nile in 29° E. long., nearly due west of the town of Bahnesè. It contains remains of little interest. Within 200 miles due south of this oasis is another, of which the usual appellation is Wâh ed-Dâkhileh, where, near the town of El-Kasr, is an Egyptian temple of the Roman period. This, according to Sir Gardner Wilkinson, is the most flourishing of the oases. About half-way between this oasis and the Nile at Thebes lies the Great Oasis (Oasis Magna). Here, near the town called El-Khârighè, the ancient Hibe, is a great temple of Amen built by Darius I., and in the same oasis are other ruins of the period of the Ptolemies and Cæsars. The Oasis of

Jupiter Ammon, that of Seewah, is not far from the coast at a great distance to the westward, and it is not properly included in Egypt. Various Arab tribes occupy this desert, besides the settled inhabitants of the oases.

In the eastern desert must be mentioned the town of Es-Suweys, or Suez (15,000 inhabitants), anciently Arsinoë, at the head of the gulf to which it gives its name. To the southward, a little below 29° lat., are the secluded Coptic convents of St Antony and St Paul, near the sea. Farther south are the porphyry quarries of Gebel-ed-Dukhân, extensively worked under the Romans, and the granite quarries of Gebel-el-Fateereh. Considerably more to the south, at El-Hammâmât, on the old way from Coptos to Philoterâs Portus, are the Breccia Verde quarries, which were much worked from very early times, and have interesting hieroglyphic inscriptions. At Gebel Zabârah are emerald mines, now abandoned as unproductive. At the various mines, and on the routes to them and to the Red Sea, are some small temples and stations, ranging from the Pharaonic to the Roman period. Along the shore of the sea are the sites of several ancient ports, the most important of which were Myos Hormos and Berenice, and also the modern town of El-Kuseyr. The northern part of this desert is occupied by the Ma'âzee Arabs and smaller tribes as far as the Kuseyr road, beyond which are the 'Abâbdeh, an African tribe very different from the Arabs in appearance; and to the south of these, to the east of Lower Nubia, is the Bishâree tribe, a people also of African race.

STATISTICS.¹

[In Egypt, as has been well said, *L'Etat c'est le Khedive*. So far as the country itself is concerned the khedive is its personal, absolute, and independent sovereign; but his relations with the Porte are somewhat less simple. When Selim I. of Turkey conquered Egypt at the beginning of the 16th century, the Memlook power was still too strong for complete subjection, and Selim was obliged to allow his new subjects liberal terms. Egypt still retained practical autonomy, the government being in the hands of a council of Memlook beys, presided over by a pasha, whose duty it was to look to the annual tribute paid to the Porte, but who possessed little or no actual power. This system was continued till the French occupation, and was re-established when the English army evacuated the country. The Memlooks were still the virtual governors of Egypt, until their massacre by Mehemet Ali. The ambitious designs of this pasha opened the eyes of the Porte to the dangers incurred by so lax a control of a governor unshackled by the council of beys. Menaced with the loss of Syria as well as Egypt, the cause of the sultan was espoused by four of the Great Powers; and the Treaty of 1840, confirmed by the Convention of 1841 limited Mehemet Ali's power to the vice-royalty of Egypt, hereditary by the eldest male of his family, ordered the continuation of the customary tribute, restricted the military and naval strength of the viceroy, and imposed certain other conditions, thus reducing Egypt once more to the state of a Turkish province. But in the reign of the present ruler a change has taken place in the relations between the sultan and his viceroy. A series of expensive negotiations with the Porte, ending with the raising of the tribute from £376,000 to £675,000, procured for Ismail Pasha the title of Khedive, and the right of succession from father to son. The limitation of the Egyptian army

¹ For much of the information contained in the present section, the writer is indebted to the industrious work of Mr J. C. M'Coan, *Egypt as it is*, though he has thought it necessary to check it with official reports and other authorities; but it must always be remembered that Egyptian like all Oriental statistics can be accepted only with reserve.

and other restrictions which still remained were removed in 1872 by another firmân, confirming all the rights previously granted, and giving the khedive every substantial attribute of sovereignty, except only the *jus legationis*. The khedive is therefore virtually an independent sovereign, holding his power on the easy tenure of tribute and military aid in case of war.

The real work of governing is entirely performed by the present energetic and able sovereign. The merely formal business is transacted by a Privy Council and eight ministers—the agents, not the rulers, of the khedive. The Privy Council, presided over by the Prince Héretier Mehemet Tawfik Pasha, and consisting of the ministers, the Sheykh el-Islâm, and some other functionaries, examines and reports to the khedive on the work of the several departments. The eight ministries are those of (1) Finance, (2) Foreign Affairs, (3) Interior, (4) War, (5) Marine, (6) Commerce, (7) Public Works and Agriculture, and (8) Public Instruction. Besides these there are the sub-departments of the Customs and Post-Office.

The provincial administration (exclusive of the separate governors of the eight "cities") is divided among the mudeers of the fourteen prefectures, the Feiyoom now being one, each subdivided into departments and communes, or cantons including several villages, governed by ma-moors, nâzirs, or sheykh el-beled, appointed by the Government and assisted and checked by councils of agriculture and an administrative council for each canton.

In 1867 the Assembly of Notables was revived, consisting of village sheykh, &c., elected by the communes and meeting once a year to receive from the Privy Council a report of the twelvemonth's administration. Although the Assembly has not yet attained to the full dignity of parliamentary power, it has considerable weight in the control of state measures.

By the Convention of 1841 the Egyptian army was limited to 18,000 men, but this was raised to 30,000 by the firmân of 1866, and now all restrictions have been done away. The present force may be placed at an average peace strength of 30,000 men, regulated, however, on a short service system, so that not more than half this number are generally at one time with the colours. This army consists of 18 regiments of infantry, 3 battalions each; 4 battalions of riflemen; 4 regiments of cavalry, 6 squadrons each; 4 of field artillery, 6 batteries each (2 mounted); 3 of garrison artillery; and 3 battalions of pioneers. The infantry are armed with the Remington rifle; the cavalry with revolver and lance, or sabre and carbine; the field artillery with 100 Krupp guns and 50 smooth-bore. Besides these there is a reserve of 30,000 men, and an irregular contingent of 60,000 mounted Bedawees. The army is raised by conscription, irregular levies being held every two or three years. All Egyptians of any creed are liable to conscription, except only the inhabitants of Cairo and Alexandria; but immunity may be purchased by payment of a tax. The monthly pay ranges from 20 piastres (=4s. 2d.) for a private, to £5 (Egyptian) for a captain, £40 for a full colonel, and £75 for a full general. Under the training of French and American officers, the army has been brought into an admirable state of discipline and efficiency.

The Egyptian navy hardly deserves notice. It consists at present of 2 frigates, 2 corvettes, 4 gunboats, and 2 sloops, all unarmoured.

Mehemet Ali devoted considerable attention to the establishment of colleges and military schools, besides sending young men to Europe for purposes of scientific study. In Cairo and its environs he founded several elementary schools of a higher order than the native schools of the same class; a school of languages; a printing press at Boclâk, from

which many valuable publications have issued; and a school of medicine at Kasr-el-'Eynee, between Cairo and Masr-el-'Ateekah, which has done excellent work. At El-Khankah and in its neighbourhood he placed a military hospital, a school of medicine, a veterinary college, an infantry school, and a school of music; at El-Geezeh a cavalry school; and at Turâ one of artillery. These and similar establishments were well designed and ably carried out. When Mehemet Ali's ambitious designs were defeated in 1840 by the action of the Powers, his educational reforms languished, and under 'Abbas the schools were closed and everything returned to the old system. Said Pasha endeavoured to revive Mehemet Ali's improvements; but it was reserved for the present khedive entirely to carry out his grandfather's designs. Besides the revived and newly created military schools, there are two systems of education in Egypt—by the schools established and supported by the Government, and by the old system of mosque education and Arab primary schools,—besides the numerous establishments of the non-Muslim communities. The Government schools are nine in number—the Polytechnic, Book-keeping and Surveying, Law and Languages, Industrial, Medical, Midwifery, two preparatory schools at Cairo, and one at Alexandria. Besides these the Government supports a school for the blind, a normal school, two girls' schools, three industrial schools, and 23 municipal schools. At the Polytechnic School the course extends over six years, and includes the higher mathematics, chemistry, physics, geology, mechanics, geography, history, drawing, Arabic, and English or French.

Of the mosque colleges, the greatest, not only in Egypt but in the whole Mohammadan world, is the Azhar, where over 11,000 students, coming from every quarter of the Muslim empire, are instructed by 325 sheykh in the old curriculum of Muslim acquirement. The Arab primary schools, 4000 or 5000 in number, are the regular providers of education for the fellâheen, who pay either nothing at all, or a merely nominal sum, for being taught to read and recite the Korân, and sometimes writing and very elementary arithmetic. How greatly the educational system in Egypt has been enlarged of late years may be judged from the fact that, under Said Pasha it hardly cost the Government £4000 a year, whilst the educational budget (exclusive of the military schools) now reaches the sum of £40,000, to which the khedive adds £12,500, making a total of £52,500.

Of the schools of non-Muslim communities the Copts have 16, the Greeks 4, the Armenians 1, and the Jews several academies. Besides these there are two undenominational "Universal Schools," of foreign foundation, where a moderate education without religious instruction of any kind, is given to all comers, and many schools founded by the American Board of Missions, and Miss Whately's admirable British Mission School. The proportion of girls' schools is extremely small, but their existence, and the fact that they receive the warmest support of one of the wives of the khedive, is a hopeful sign.

The public works carried out in Egypt during the present reign would fill a long catalogue, without reckoning the Suez Canal, for an account of which see CANAL, vol. iv, p. 789. Railway communication has been established between Alexandria, Cairo, Ismailia, Suez, Damietta, the Feiyoom and Asyoot, the various lines covering over 1200 miles. A Soodân railway, from Wadè Halfèh to Hannek, and from near Dunkalah to Khartoom, involving costly and difficult engineering for a length of more than 1000 miles has been begun with the view of shortening the passage to India, and bringing the produce of the rich southern soil into easier connection with Cairo; these works are, however, at present at a standstill. The canal

system has been greatly enlarged and improved, but a still better result is anticipated from the barrage of the Nile, a plan projected by M. Mougil and now about to be carried out for the khedive by Mr Fowler. In 1871 the work of building a breakwater to defend the New Harbour at Alexandria from the seas caused by the constant south-west winds was begun. The outer breakwater extends above two miles across the mouth of the harbour, inclosing an area of 1400 acres of calm water. The structure rises 7 feet above the highest sea-level, and is of a uniform width of 20 feet. Harbour works have also been constructed at Suez. At a cost of over £180,000, fourteen fine light-houses have been erected, seven on the Mediterranean and seven on the Red Sea, whereas at the beginning of the reign of the khedive there was but one. Telegraph lines (begun by the enterprise of Said), have been set throughout Egypt, covering nearly 6000 miles, and putting Alexandria into direct communication with Khartoum; and this branch of the public service is managed by English officials. Submarine telegraphs also bring Egypt into communication with Candia and thence with Constantinople and Otranto, and with Malta and thence with England, France, &c. The post-office was bought by the Government in 1865, and under the management of an English post official has been greatly improved. In about 70 towns and villages offices have been established, and several mails a day are despatched from the chief places.

The manufactures of Egypt have been in a declining state for several centuries. Mehemet Ali tried to promote them, by establishing large manufactories of cotton, silk, and woollen goods, tarbooshes, &c., and, especially in Upper Egypt, sugar-refineries. Ibrahim Pasha was much opposed to his father's policy, and in pursuance of his own views he laid out extensive plantations of olive and other trees, erected powerful steam-engines for the irrigation of his lands, and on all his estates endeavoured to encourage agriculture. It cannot be doubted that had he lived the correctness of his conviction that Egypt is an agricultural, not a manufacturing, country would under his rule have been fully verified. Mehemet Ali introduced cotton and largely cultivated it; the Turkish grandees found that from it they could extract more gain than from other field produce, and large tracts were speedily devoted to its culture. The necessity, however, of excluding the waters of the Nile has caused several destructive inundations; and so long as the cotton growth remained a monopoly of the pasha it was no means of enrichment to the producer. Now, however, that the monopoly is abolished, the trade in cotton is greatly increasing, and this produce will undoubtedly become every year a more important item in the wealth of the country. The old restrictions upon agriculturists have been more or less done away; and the Government, whilst not wholly abandoning Mehemet Ali's views on manufactures, is yet alive to the paramount importance of affording every encouragement to agriculture.

The cotton crop in 1875 extended over 871,847 feddâns (= acres, nearly) and produced 2,615,541 quintals (of 110lb) of ginned staple, 1,954,555 ardebbs (of 5 bushels) of seed, and 3,749,446 loads of cotton sticks, altogether reaching a total value of about twelve millions and a quarter. The wheat crop in the same year was estimated at 6,662,632 ardebbs, of the value of £27,995,158; maize (durrah), 10,502,715 ardebbs, = £28,193,000; beans, 4,575,273 ardebbs, = £24,575,273; barley, 8,103,085 ardebbs, = £22,394,000; rice, 93,521 ardebbs, = £2738,908. The other crops of Egypt are chiefly clover, sugar-cane, flax, hemp, tobacco, henné, and indigo.

The revenue is derived chiefly from the land-tax, the tax on date-trees, trade licences, the customs, the tobacco duty, railways, and the Mukabalah (of which an account will be given), and village annuities. Of these the land-tax is the principal item, amounting to nearly half the total revenue; but this will be considerably reduced when the Mukabalah

comes to an end (in 1885). The whole revenue may at present roughly be placed at £10,500,000. It is very difficult to estimate the exact amount of direct taxation on the population. One writer places it at 25s. per head per annum; whilst a recent report states that, including the Mukabalah, the annual payment of taxes has lately reached £4! It is certain the taxation at present exceeds the possible returns of the land, and that the fellâheen are compelled to borrow money to pay the taxes. The items of expenditure may thus be roughly summarized:—general public administration, £1,300,000; civil list, £600,000; tribute to the Porte, £700,000; army, £700,000; the rest being devoted to the payment of the debt.

The following is an abridgment of the Egyptian budget for 1876:—

Revenue		Purses.
Land tax.....		839,500
Tax on Date-trees.....		36,934
Licences.....		82,348
Mukabalah.....		914,858
Customs.....		124,737
Railways.....		193,207
Locks, ports, &c.....		52,313
Salt.....		50,000
Tobacco.....		51,483
Octroi, various duties, &c.....		345,276
Soodân revenues.....		30,000
		2,100,654
Expenditure.		Purses.
Tribute to Constantinople.....		133,635
Civil list of the Khedive.....		60,000
Allowance to the Prince Héritier.....		6,000
Allowance to Halim Pasha.....		11,700
Appointments of the Cabinet Ministers, &c.....		219,156
Various pensions and other expenditure.....		73,518
Conseil d'Etat, Court of Appeal, Court of First Instance at Cairo, and Chamber of Notables.....		3,242
Irregular troops.....		5,792
Egyptian Museum, Ismailia Canal, Archives, Provisions, Stores, &c.....		6,633
Customs.....		5,823
Foreign Agents.....		2,881
Appointments and expenses of the Provinces of Upper and Lower Egypt.....		36,546
Appointments and expenses of Cairo, Alexandria, Damietta, Rosetta, Suez, &c., with Octroi.....		79,304
Expenses of the Rooznámeh.....		38,989
Locks, barrages, Soodân Railway, &c.....		48,581
Interest on Rooznámeh Bonds.....		18,000
Interest on Suez Canal Shares.....		19,500
Annuities and loans (redemptions and interest).....		982,151
		1,751,451

During the last fifteen years Egypt has acquired the enormous national debt of about £80,393,000. The attempt to Europeanize the country has entailed a vast expenditure. Public works have been carried out at an altogether unnecessary rate of speed, and European contractors have been employed who have not scrupled to drive bargains exceedingly favourable to themselves and ruinous to the Egyptian Exchequer. To these causes of expenditure must be added the dishonesty and extravagance of the Government officials, the waste of money on works which have proved unproductive and useless, and the heavy damages given against the khedive in the extraordinary award of the late emperor Napoleon as arbitrator in the dispute with the Suez Canal Company. To meet the heavy expenses resulting from these causes, five loans have from time to time been raised.

The first was borrowed by Said Pasha in 1862, and amounted to only £3,292,800 nominal, to be repaid in thirty years, interest 7 per cent., and sinking fund 1 per cent. The present viceroy then raised the 1864 loan of £5,804,200 nominal, with interest and sinking fund at 7 and 3·87 per cent., redeemable in 15 years. The next loan, of 1868, redeemable in 1893, was for £11,890,000 nominal (of which only £7,193,334 was received), with apparent interest and sinking fund of 7 and 1 per cent., really 11·56 and 1·63 per cent. on amount received, or altogether 13½ per cent.

annual charge. The loan of 1873 was for the nominal amount of £82,000,000 at 7 and 1 per cent. interest and sinking fund; but, as only £20,062,558 was received, the interest and sinking fund became really 11 and 1·63 per cent. The actual amount received was, however, slightly increased by part being paid in Egyptian Treasury bonds. Besides these, in 1866 a railway loan had been raised, of the nominal amount of £3,000,000 at 7 per cent. This was repaid in 6 annual instalments of £500,000 each, the last being in January 1874. Two loans secured on the Daira estates of the khedive have been transferred to the state for value received; these are the Anglo-Egyptian loan of 1865 for £3,000,000 at 9 per cent. interest, with sinking fund of 3·27 per cent.; and the Mustafa-Pasha loan of 1867 for £2,080,000 at 9 and 3·4 per cent. interest and sinking fund. The khedive raised also a personal loan secured on his private estates (Daira) in 1870; £5,000,000 was received, for which £7,142,860 was to be paid back in twenty years, with interest at 7 per cent on this nominal amount. "None of the Egyptian loans," Mr Cave observes, "cost less than 12 per cent. per annum, while some cost more than 13½ per cent. per annum, and the railway loan even 28·9 per cent. per annum, including sinking funds."

These loans hardly sufficed to meet the necessities for which they were raised, and the exorbitant interest charged on the nominal sums, of which the khedive received little more than half, effectually crippled the resources of the country. In 1871 another fatal step was taken. A measure was passed by which a landowner might redeem half his land-tax in perpetuity by paying six years' tax in advance, either in one payment or in six yearly instalments. As, however, few but the wealthiest proprietors could afford this additional charge on their incomes, the six instalments were commuted into twelve, a discount of 8½ per cent. being allowed on each instalment. This composition tax is called the "Mukabalah." By this measure the Government, for the sake of the immediate possession of about £27,000,000, will sacrifice from 1885 onwards about £2,500,000 annually of certain revenue. For the over-taxed fellâheen the change is most advantageous, if only they can avail themselves of it; for the Government it nearly resembles suicide.

In 1875 the khedive procured a temporary respite from his difficulties by the sale of the Suez Canal shares to the British Government; and then, at last aware of the critical state of his finances, and of the incompetence of Easterns to mend it, His Highness requested the British Government to provide him with some experienced financier to carry out a thorough reform. In December the Right Honourable Stephen Cave, M.P., accompanied by Colonel Stokes, R.E., and clerks, was sent out, and after some months' examination wrote an elaborate report on the Egyptian finances. But after Mr Cave's departure, and the publication of his report, Egyptian credit fell still lower, till in 1876 the khedive, finding himself totally unequal to meet the demands of his creditors, and weary of renewing bonds at ruinous rates, suspended payment for a time. A French scheme was then urged upon him with so much insistence that on May 7 he adopted it in a decree which announced the consolidation of all the state and Daira loans, and the distribution of a bonus of 25 per cent. to holders of treasury bonds. These bonds had then reached a sum exceeding £20,000,000, and were held chiefly by French firms. The arrangement speaks for itself. It was immediately quashed by the firm action of the English Stock Exchange; and the Right Honourable G. J. Goschen, M.P., and M. Joubert were sent out to attempt the adjustment of the affairs of Egypt. The result was a scheme which the khedive accepted, and which may shortly be described as follows: the private Daira debt was separated from the state debt; the three small loans of 1864, 1866, and 1867 were reserved to be paid off by the Mukabalah; the bonus on the treasury bonds was cut down to 10 per cent.; and £17,000,000 was converted into a preference stock, secured on railways and harbour dues. The state debt was thus divided into three classes:—unified debt of £59,000,000, interest percent., reduced till 1885 by

a sinking fund of 1 per cent.; preference stock, £17,000,000, interest 5 per cent.; and the three short loans, interest 7 per cent., redeemable at 80 instead of 100, and to be paid off by the Mukabalah. Besides these, there is the private Daira debt of the khedive. The scheme is perhaps the best that can be devised under the present perplexing conditions; and if the Egyptian Government can maintain its revenue and will hold to its engagements there is every probability that the debts will be paid off at the appointed times. When the Mukabalah falls in in 1885 the three short loans will (presumably) have been paid off. The preference debt is to be redeemed in 65 years by the operation of a sinking fund of £35,744 a year, and the unified debt in the same time and after a similar manner. With a view to insure the carrying out of these reforms, the khedive has appointed English and French comptrollers-general, who are intrusted with the collection of the revenue and the appropriation of it to the purposes settled by the financial scheme. A European Commission of the Public Debt has also been appointed for receiving the revenue devoted to the payment of the debt charges; and another commission, composed of three Europeans and two natives, controls the railways and the port of Alexandria. So long as the present arrangement is held to, and if no unforeseen decrease takes place in the revenue, the financial position of Egypt may be considered hopeful. The khedive has been the subject of much censure at the hands of his bondholders. It must however be remembered that he received but half of the sums supposed to have reached him. Of the £45,000,000 received he has paid back over £30,000,000 in interest, &c., and £10,000,000 went in the Suez Canal indemnity, so that only £4,000,000 could have been squandered. That the khedive is no financier is obvious; but he seems honestly determined to pay his debts, and if there was any dishonesty in the matter of the loans it was not on the khedive's side.

The principal exports from Egypt are cotton, cereals, and sugar. In 1875, 163,912,336 lb of raw cotton was exported to Great Britain, at the value of £6,668,340; and the total cotton export is estimated at over two millions and a half of quintals. Of beans, 490,257 ardebbs were exported in 1875; of wheat, 836,997 ardebbs; of sugar, 986,000 quintals. Maize, barley, flax, natron, dates, henné, and other produce form less important items in the list of exports. The total value of exports is estimated at between twelve and thirteen million of pounds. The imports are estimated at about five millions and a half of pounds and consist chiefly of manufactured goods, coals, oil, wine, machinery, &c. Of the whole commerce about 70 per cent. is with Great Britain. There is also a considerable transit trade, which, however, has necessarily diminished since the opening of the Suez Canal.

The Egyptian measures are—the fitr, or space measured by the extension of the thumb and first finger; the shibr, or span; and the cubit (of three kinds, = 22½, 25, and 26½ inches). The measure of land is the feddân, very nearly equal to the English acre, subdivided into 24 keerâts, and each of these into 330 (formerly 333½) kasabehs, or rods, the kasabeh being a square measure with side of 22 kabdehs, each equalling 6½ inches. The ardebb is equal to about 5 bushels, and is divided into 6 weybehs, and each weybeh into 24 rubas.

The weights are these:—

64 kembahs (or grains of wheat), or 48 habbehs (or grains of barley) = 1 dirhem (= 48 gr. Troy).
12 dirhems = 1 wukeeyeh or ounce (= about 575 gr.)
12 wukeeyehs = 1 ratl or pound (= 15 oz. 13 dr. avoird.)
2½ ratls = 1 wukkah or oke (= 2½ lb.)
36 wukkahs = 1 kantâr or cwt. (= 99 lb.)
24 keerâts = 1 mithkâl or weight of a deenâr (= 72 gr.)

The French metrical system has been established by the khedive, but has not yet been generally adopted.

The standard unit of currency is the kirsh, or piastre (= about 2½d.), which is coined in gold pieces of 5, 10, 20, 25, 50, 100 piastres. silver of 1, 2½, 5, 10, 20 piastres.