

of water is marked by a double line of buoys, forming an avenue 130 feet wide, and lighthouses at each end of the larger lake further assist navigation. (4) This short section of two miles runs through the lower ground between the last and the heights of the Serapeum—so named from some supposed remains of a temple of Serapis found about the centre of the plateau. The water-line of the Canal is here full width, and the soil cut through is similar to that south of the Bitter Lakes. (5) This includes the Serapeum and Toussoum cuttings, six miles long, and in which the water-line is of the reduced width throughout. The soil here again is sandy on the surface and mixed clay and rock at the bottom. It was at the southern end of the Serapeum cutting that the dredges at the last moment encountered the ledge of hard rock which nearly compelled postponement of the opening of the Canal in November, 1869. (6) About half a mile north of the Toussoum cutting Lake Timsah is reached, through which the channel next runs for five miles. This, though supposed to have been originally an extension of the Heröopolite Gulf, has in all historic times been a fresh-water lake fed from the Nile; but owing to the abandonment of the easternmost branches of the river, it had long ago dried up into a mere morass, the bottom of which was some twenty-two feet below the sea-level. In December, 1866, a weir similar to that afterwards employed for the Bitter Lakes was used to fill it with water from the Mediterranean, and the operation—involving the in-flow of nearly 100,000,000 cubic metres of water—was completed in little more than four months. Dredging then deepened the channel required for the Canal, as also a large area in the centre, to serve as a harbour. The flourishing town of Ismaïlieh, forming the half-way station on the Canal, has since grown up on its

western bank. (7) The heights of El-Guisr, through which this section is carried for six miles, from the highest point of the Isthmus, being about sixty feet above the sea-level, but as the soil throughout was for the most part sandy, the work was comparatively light. (8) This first runs a short way through an offshoot of Lake Ballah—one of a series of shallow lagoons—and then enters the cutting of Ferdaneh, beyond which it passes through Lake Ballah itself, and next traverses the low sand-hills of Kantarah, over which and a ferry at this point runs the route into Palestine. (9) About a mile beyond Kantarah the Canal enters the great swamp into which Lake Menzaleh shallows eastwards, and runs through it in a straight line of twenty-three miles to Port Saïd. The soil throughout this final section is mostly light clay, and the work was mainly done by dredging. The water-line is here full width, and the banks are but slightly above the level of the lake and the Canal. Shortly before reaching Port Saïd the channel opens out to a width of nearly 100 feet, and passing the port and town on its western bank, debouches into the Mediterranean between two enormous moles of concrete masonry respectively 2,726 and 1,962 yards long—a fitting terminus for this colossal work.*

After more than ten years' labour, the expenditure of a capital which then considerably exceeded twice the whole annual revenue of Egypt, and the display of an energy and perseverance on the part of its chief promoter

* The huge blocks of which these breakwaters were formed measured twelve cubic yards, and weighed twenty-two tons each. They were made on the spot, of two-thirds sand, dredged from the harbour, and one-third hydraulic lime from Theil, in France, mixed with salt water. Since the opening of the Canal it has been found necessary to lengthen the eastern mole by 600 metres, at which further distance hard ground is reached at a depth of five or six fathoms.

that formed not the least heroic feature of the undertaking, this new Bosphorus between Asia and Africa was opened for traffic on November 17, 1869,* amid a series of splendid *fêtes* given by the Khedive, at which all nations may be said to have assisted. The presence of the Empress of the French and the Emperor of Austria, of half a dozen royal princes, statesmen, ambassadors, *savants*, and other celebrities beyond count, besides thousands of less distinguished visitors, and representative squadrons from every navy in Europe, rendered the occasion a veritable "triumph" to the great Frenchman whose name history will indissolubly connect with the work, and to the sovereign whose generous co-operation contributed so largely to its success. In all, forty-eight ships took part in the procession, which halted on the first evening at Ismailieh, and completed the voyage to Suez on the following day. The channel still required deepening at a few points, but was immediately available for vessels drawing 18 feet; and, as another illustration of the irony of history, the first ship that passed through and paid dues after the formal opening flew the English flag.

As the central depth of the Canal is too narrow to allow large vessels to pass abreast, a series of *gares* or sidings, at intervals of five or six miles, temporarily meets the difficulty, and affords a clear fair-way to the first comer. Later, as the traffic develops, it will probably be necessary to increase these, if not to widen the whole channel of the Canal.

The value of this great work to the commerce of the world will be sufficiently indicated by the saving of time

* Water transit between the two seas had, however, been opened for small craft in 1865, by means of the channel then dug from Port Saïd to Lake Timsah, and from the latter by the fresh-water canal to Suez.

and distance effected by it as compared with the route round the Cape. Thus, by the latter, the distance between England and Bombay is 10,860 nautical miles, while by the Canal it is only 6,020 miles, representing a saving of 4,840 miles; from Marseilles to Bombay the distance by the Cape is 10,460 miles, by the Canal 4,620 miles, or a saving of 5,940 miles; from St. Petersburg to Bombay is by the Cape 11,610 miles, by the Canal 6,770 miles, a saving of 4,840 miles; and from New York to Bombay, *viâ* the Cape, 11,520 miles, by the Canal 7,920 miles, a saving of 3,600 miles. How rapidly the traffic attracted by the economy of distance thus effected has developed is shown by the following tabular return of the shipping which has passed through the Canal, and of the Company's receipts, during the seven working years since its opening:—

Years.	Vessels.	Tonnage.	Receipts in Francs.
1870	491	436,618	5,159,327
1871	761	761,875	8,993,732
1872	1,082	1,439,169	16,407,591
1873	1,171	2,085,270	22,897,319
1874	1,264	2,423,672	24,859,383
1875	1,496	2,294,708	28,879,734
1876	1,457	3,072,107	30,728,925*

The comparatively small ratio of increase in the figures of last year over those of 1875 in no way indicates that the limit of development has been nearly reached, but is explained by the general depression of trade during 1876, and especially by the fall in the price of silver, which disturbed the European exchanges and severely affected commercial intercourse with India during the year. Of the whole 7,522 vessels which have passed through the Canal since its opening, 74·16 per cent. have been British,

* These sums represent only the amount of tonnage dues collected, exclusive of other miscellaneous revenue from the sale of land, rents, etc.

9·21 French, 4·35 Dutch, 3·47 Austrian, 2·63 Italian, 2·9 Spanish, and 1·64 German, the remainder being divided among eleven other nationalities. Thus, roundly, three-fourths of the whole tonnage passing through the Canal sails under the British flag.

While the growth of traffic evidenced by these figures has not as yet quite realised the hopes of the promoters of this great work, there is no reason to doubt that it will still further greatly develop; and that, over and above all debenture charges, the net earnings of the Company will henceforth not merely pay the full statutory interest of 5 per cent. on its shares, but leave an annually increasing margin of profit to be divided under the terms of its concession.* Already, therefore, this once discredited property may be pronounced nearly as great a financial as it is an industrial success.

By the terms of the original concession the transit charge was fixed at a maximum of 10 francs "*par tonneau de capacité*," and 10 francs per passenger, in addition to pilotage, anchorage, and some other minor dues, and from the opening of the Canal, in November, 1869, till the summer of 1872, this tariff was levied on the net registered tonnage of all vessels, as settled by their respective national systems of measurement. As, however, the revenue thus realised was insufficient to pay a dividend, in the spring of 1872 the Company gave notice that, from and after July 1st of that year, all dues should be charged on gross, and not registered tonnage. The change, which involved an increase of nearly 55 per cent. on the old rate, was at once challenged by the Messageries Impéri-

* Of this surplus the Egyptian Government takes as a royalty 15 per cent., 10 per cent. goes to the founders, 3 per cent. to the share sinking-fund, 2 per cent. to a pension fund for the employés, and the remaining 70 per cent. to the shareholders.

ales, but, after considerable litigation in the French courts, the action of the Company was upheld, and the new tariff continued to be enforced. At the instance of the British shipowners engaged in the trade, the matter was then taken up by our Foreign Office, and after some diplomatic negotiation an International Commission, composed of delegates from twelve maritime Governments, was appointed and met in Constantinople in October, 1874, to consider the question, the increased dues being in the meantime paid under protest. Three months later the Commission reported—negating the right of the Company to substitute gross for net tonnage; but in consideration of the sacrifices incurred by its shareholders, it recommended a temporary surtax of four francs per net ton register on vessels measured otherwise than on the English system, and of three francs per ton on those whose net tonnage was settled by this method. The basis thus agreed on was formally approved by the Porte as suzerain of the Canal, and the Company was notified to apply the new scale from and after April 28, 1874. M. de Lesseps protested, and threatened to close the Canal, but on warning from the Khedive that in the event of any such attempt the works would be forcibly occupied and administered by the Egyptian Government, he yielded; and thence, until February, 1876, the dues were levied according to the scale fixed by the Commission, except in the case of men-of-war and troop-ships of all nations, which pay only the original rate of ten francs per net ton register. In the latter month, however, it was further arranged that this reduction should, instead, be effected as follows:—Half a franc during the present year, a second half franc in 1879, and a similar amount yearly till 1884, when the surtax will wholly cease. The Company at the same time undertook to spend

40,000*l.* a year in the maintenance and improvement of the Canal.

The next and most important incident in the history of this great work was the purchase by the British Government, in November, 1875, of the Khedive's 176,602 shares for 4,000,000*l.* This stroke of policy at once recouped to Egypt a considerable instalment of her outlay in the enterprise, and added political advantages worth to the Khedive and his dynasty at least the balance of its cost. The operation represented, in effect, a loan to his Highness at the low rate of 5 per cent. for nineteen years, on the security of an asset of no immediate money value, and committed our Government to an interest in Egypt from which only the most profitable results can accrue to the country and its ruler, while for the Canal the transfer implies a future grand and assured beyond the hopes even of M. de Lesseps.

It remains to note the present financial position of this great scheme, and what has been its money cost to Egypt. The chief items of its capital and bonded debts have been already mentioned, but they may be re-stated as follows :

Original shares, 400,000 of 20 <i>l.</i> each	£8,000,000
Debenture loan of 1868, "obligations" issued at 12 <i>l.</i> , but redeemable at 20 <i>l.</i> in 50 years, by lottery drawings, with prizes worth 40,000 <i>l.</i> a year ...	6,666,660
Loan of 1871, bonds issued at 4 <i>l.</i> each, and redeemable at 5 <i>l.</i> in thirty years	600,000
Coupon certificates issued in 1874, to fund 3½ years' unpaid interest, and redeemable in 40 years from 1882	1,400,000
	£16,666,660*

* As this account debits the Company with the whole of the share capital, we exclude from it the *délégation* loan of 1,200,000*l.* issued in 1869 on the security of the Khedive's coupons, and to the redemption of which in 1894 the proceeds of these are till then being applied.

This large total, however, represents only about 12,000,000*l.* of net money received by the Company, while the actual cost of the Canal was about 17,518,729*l.*; but the balance of nearly 6,000,000*l.* having been derived chiefly from indemnities paid by the Egyptian Government, forms no charge upon revenue. The actual interest and sinking-fund annuities amount, therefore, to only 818,400*l.*, which will be reduced as the loans are redeemed.

The cost of the scheme to Egypt admits of equally precise statement:—

To 177,642 shares originally subscribed for by Saïd Pasha, but mostly paid for by the present Government	£3,552,840
Paid under award of the Emperor Napoleon, to compromise original grant of forced labour, to re-purchase land along the Canal, &c., &c.	3,360,000
Paid for the re-purchase of the Wady domain, which had been bought by the Company from Saïd Pasha for 74,000 <i>l.</i>	400,000
Paid for the Company's relinquishment of exemptions from customs dues and its right of free navigation on the fresh-water canal; of its right of fishery in the ship-canal and lakes; for the purchase of its various establishments along the Isthmus; its quarries at Mex, workshops at Boulak and Damietta; and of all special privileges whatever beyond property in and the right of working the maritime Canal	1,200,000
Paid for the work done by the Company on the fresh-water canal between Cairo and the Wady, and for its relinquishment of certain claims in respect thereof	424,927
Cost of further works to complete this canal from the Wady to Suez	815,800
Cost of various missions to Europe in connection with the ship Canal, litigation with the Company, and of fêtes at the opening of the Canal	1,011,153
Carried forward... ..	£10,764,720

	Brought forward	£10,764,720
To interest on the above sums from their respective	dates to September, 1873	6,663,105
		£17,427,825

Of this large total nearly 5,500,000*l.*, it will be seen, was disbursed in various payments beyond the share capital; or, if we add the interest—averaging 10 per cent.—on the whole, it may be roundly said that while the Government paid in cash to the Company nearly two-thirds of all the money spent on the Canal, its gross outlay in connection with it amounted to within a trifle of the entire cost of the work. Nor is even this the full measure of its heavy cost to the country. As already remarked, it has diverted from the native harbours and railroads a large and profitable transit traffic from which, for years to come, the Treasury will derive little beyond some trifling Custom dues. Still, heavy as have been the financial sacrifices it has entailed, the political gains from it have been great, and material compensation is only deferred. Its importance to the trade of the world has given Egypt a definite place in the European concert, and—unless otherwise disposed of in the meantime—seventy-six years hence the whole property will lapse to the Government, a splendid reversion which, it may safely be predicted, will then be worth many times its present market value. Even already, too, the elasticity of Egyptian trade and industry has recouped to the Treasury most of the loss occasioned by the diversion of the overland traffic; and although this latter can for the future be of little direct revenue benefit, its effect will in time be to create a vigorous commercial activity throughout the Isthmus, which, with the aid of the existing railway and fresh-water communications, cannot fail to spread

inwards and contribute to the general wealth of the country.*

* The recently-issued report of the directors for 1876 announces a gross total of revenue for last year of 31,143,762 frs., and an expenditure of 17,244,658 frs., against, respectively, 30,827,762 frs., and 17,798,408 frs. for 1875, leaving 13,902,655 frs. as gross profits for the year. Of this amount, after payment of the various loan charges and the statutory interest and reserve, there remained available a net sum of 2,002,913 frs. for distribution as royalty, in the proportions mentioned *ante* in the foot-note to p. 268. The report further states that during the first five months of the present year 766 vessels passed through the Canal, as against 692 during the corresponding period of last year.