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SHIP CANAL COMMUNICATION ACROSS THE ISTHMUS
OF SUEZ.

Inquiry into the means of establishing Steam Navigation. By JAMES VETCH, CAPT. R.E., F.R.S. Pelham Richardson, Cornhill.

The Suez Navigable Canal for accelerated communication with India. By MR. CLARKSON. British and Foreign Agency Office, 57, Lincoln's Inn Fields.

Observations on the Red Sea and Mediterranean. By ARTHUR ANDERSON. Smith, Elder & Co., Cornhill.

THE attention of the scientific world has, for many years past, been directed to the design first sketched out by Napoleon Buonaparte, of connecting the Red Sea with the Mediterranean, by means of a navigable canal, and many endeavours have been used to influence the Pasha of Egypt to undertake the task single-handed: but engaged in protracted and expensive wars, which had the effect of desolating many of the most fertile provinces of his dominions, and the crippled state of his finances, have precluded the possibility of his engaging in this magnificent undertaking, however really desirous he may have been to compass this ambitious project. Since the cessation of war, with the loss of Syria, his sources of revenue have suffered a still further diminution, being now barely £4,000,000 sterling per annum; and we are therefore not surprised to hear, that within this few weeks past, he has wholly abandoned all ideas of carrying it out in person: but, at the same time, expresses his wish that the project should be taken up by European capitalists, who, provided his interests are duly considered, will receive from him all the necessary assistance and protection. Urged on by this consideration, the desire to shorten the distance between Great Britain and her immense territorial possessions in the East, and to facilitate commerce, several projects have from time to time been put forward with a view of engaging the attention of the British Government and of the monied classes, emulous to employ their capital in all important undertakings of acknowledged utility and likely to prove profitable. A very excellent article in the *Foreign and Quarterly Review*, has been followed by two able pamphlets just published, one of them by Mr. Anderson, the other by Captain James Vetch. It is not our intention, however, to follow either of these writers through their several statements, but merely to remove some erroneous impressions entertained by all of them, and to give a general idea of the question under consideration, with our own opinions thereon.

Pelusium, from whence it is proposed to conduct the canal, lays a little to the east of the Pelusiac branch, and, according to Strabo, about two and a half miles from the sea; its circumference measured the same distance, and it was guarded not only by massive walls, but also by extensive morasses on every side; being situated in the midst of a naked level, between the sand desert passing into Syria, the sea, and the morasses, which now form a part of the lake Mansaleh. Its ruins may now be seen about two miles from

the sea, the land having gained seven miles and a half upon the Mediterranean since that period. The Pelusiac branch, which was of considerable magnitude in those days, is little more than a wide stream of mud as it crosses the arid plain from the lake Mansaleh to the sea. On its banks stands the fortress of Tineh, built by the Turks, and said to be a place of considerable strength. This branch of the Nile is now known as the Canal of Abu Manejji; it is the second branch issuing from the Damietta arm, which it leaves at about six miles below Cairo: it then passes by Bibers and Tell Bastah (Bubastes) and at length enters the sea, much contracted in width, and almost choked up with mud.

The lake El Mansaleh is formed in the low lands near the sea, which extend from the Pelusiac branch nearly to the Rosetta branch. It receives the Canal of Ashmin-erromman, which formerly passed through the territory of El Mansaleh, and then branched out into two divisions, one of which ran northward, and the other, making a bend, flowed into the lake of Tennis: this canal, from its uniform depth, is thought to be the Mendesian arm of the Nile; and the lake Boheireto el-zar has been considered the Tanitic branch. "This lake," says Sicard, "begins half-league to the eastward of Damietta, and ends at the castle of Tineh, anciently Pelusium. It is twenty-two leagues in length from east to west, and five or broad from north to south. Its bottom is muddy and full of weeds. It is seldom more than five feet deep, and is separated from the sea by a strip of sand, at most a league in width; it communicates with the sea by three mouths, that of Tineh the easternmost, Omm-ne-ferrej, and Dibeh. In summer, during the inundation, its waters are sweet, during the rest of the year they are salt. This lake contains many islands, most of them uncultivated, those of Matareyyeh near El Mansaleh are the most populous: two others are covered with the ruins of ancient cities. The bed of this lake is several feet below the level of both seas, the depth of mud and sand being very considerable; the original bed on which they rest being compact gravel, and calcareous matter, similar to the general formations of Egypt. The Pelusiac branch was considered the most important one, being denominated the *key* and *strength* of Egypt.

Nechos, the son of Psammetichus, and the Pharaoh Necho of Scripture, was the first who attempted to open a communication between the Nile and the Red Sea, which Darius, King of Persia, afterwards continued to the bitter lakes, from thence it is said to have been carried to the Red Sea by Ptolemy Philadelphus; it commenced from the Pelusiac branch, and extended as far as Arsinoe, now called Aggeroud, or Ajeroud: the length of this canal, says Herodotus, is equal to four days' voyage, and it is wide enough to admit four tiremes abreast: the water enters it from the Nile, a little above the city Bubastes; it terminated in the Red Sea, not far from Patamos, an Arabian town. In the prosecution of this work under Nechos, it is said that one hundred thousand Egyptians perished, nor is this to be wondered at, when we consider the baneful and pestilential marshes through which it had to be carried, and the inevitable long exposure to the nightly dews, and burning heat by day, to which the workmen were alternately subjected: this writer says, "Darius carried on the