THE PREFECT OF THE NILE.¹

THE name of Sir Colin Scott-Moncrieff is inseparably associated with irrigation, and pre-eminently with Egyptian irrigation—not in the sense, perhaps, of an initiator or pioneer, but as one who found a great undertaking in a state of almost hopeless ruin and decay, and by dint of indefatigable exertions and unremitting toil restored it to a position of efficiency and importance far exceeding anything in its previous history. Sir Colin did not himself design or build the great barrage at the head of the Nile Delta, which, for more than a generation prior to the erection of the more renowned structure at Assuan, furnished Egypt with fertile inundations, rich in potential

the labours of his predecessor, but, urging the merit of the latter's services, he secured for him a welcome pension.

Yet, despite the absence of originality, the work actually carried out by Sir Colin was scarcely less important than the execution of the primary design. He found the barrage had been so neglected that the whole fabric was decrepit, the masonry being cracked by unequal settlement, the timber rotten, and the ironwork a mass of rust. Pressed on all sides to abandon as hopeless any idea of its restoration, he refused to be deterred, and, aided by certain engineers of the Indian Public Works Department—Major Justin Ross, Major (now Sir R.) Hanbury Brown, Mr. (now Sir) W. Willcocks, and Mr. E. P. Foster—he had the

Nile Barrage, Damietta branch. From "The Life of Sir Colin C. Scott-Moncrieff."

crops of corn and cotton and sugar: this was the achievement of an accomplished French engineer, Mougel Bey, who towards the close of his life unfortunately sank into poverty and obscurity. It is narrated in the biography before us that Sir Colin took a keen delight in hunting up the old man to acquaint him with the fact that his *magnum opus* had been successfully repaired and was holding up 10 ft. of water.

"Ten feet!" Mougel repeated several times, deeply moved, and then cried out: "I knew that my design was sound. I knew it would be justified in the end."

It is thoroughly characteristic of Sir Colin that he not only refrained from the least depreciation of

piers underpinned and the superstructure renewed until, as stated above, a serviceable degree of staunchness was obtained and the water once more began to fill the tributary canals. "My Nile is behaving itself," he wrote proudly to his sister, Mrs. Robertson, in September, 1885.

The service rendered to Egypt, and especially to Egyptian agriculture and commerce, can scarcely be overrated. From a state of acute depression and chronic lethargy, cultivation steadily increased in extent and importance, until, before he quitted his post, Sir Colin had the satisfaction of seeing his expectations realised and the country once more set on the way towards a prosperity which it had not experienced for many centuries. The qualities which enabled him to achieve such a result were "a high degree of practical wisdom,

¹ "The Life of Sir Colin C. Scott-Moncrieff." Edited by his Niece, Mary Albright Hollings. Pp. xii+374. (London: John Murray, 1917.) Price 12s. net.

energy, decision, promptitude, discernment"—this is the judgment of the Under-Secretary for Scotland, Sir James Miller Dodds.

The Nile is unique in its interest for the geographer, the man of science, and the engineer. India and other semi-arid countries have some rainfall, however scanty. In Egypt there is none: the Nile compensates for the deficiency. The floods of the great river, carrying down alluvial detritus from the mountain slopes of Abyssinia, and mud from the marshy tracts of Central Africa, sweep over the fields of Lower Egypt and saturate them with fecundity. So soaked is the soil that, as soon as sown, wheat and barley spring up to maturity without a single drop of further moisture. To a natural endowment, so profuse and plentiful, there is only one drawback—its intermission. It fell to Sir Colin's lot to regulate and control, to distribute and allocate the precious waters, and he discharged the duty thoroughly and well.

Of his operations of a similar nature in India, scarcely less important in scope, though perhaps not so notable in execution, there is not room here to speak. Both it and the other outstanding events of an eminently useful and busy life will be found recorded in the biography, edited by his niece, the perusal of which has been full of interest. In the strict sense of the word Sir Colin Scott-Moncrieff was, perhaps, not a great engineer, but he was undoubtedly a great administrator, having a wonderful capacity for organisation, rare tact, and unlimited patience. Could anyone desire a better epitaph than the simple words of Lord Milner which conclude the volume: "He leaves a fine record of work, and will be remembered as one of the best beloved of men"?

BRYSSON CUNNINGHAM.

A NEW BRITISH OIL INDUSTRY.

THE strenuous and anxious times through which this country is now passing have been fruitful in many lessons which, it is earnestly to be hoped, will have a profound and permanent influence upon its national character and habits. Now that we are in one of the most critical epochs in our history, we have become painfully conscious to what an extent our negligence and shortsightedness in the past have contributed to our present jeopardy. We see plainly enough now that if we had only paid greater heed to many things that affect our national well-being, our resources in the contest and our confidence in its outcome might have been enormously strengthened. The struggle has been prolonged in large measure by the fact that we were unprepared for it, and we are constrained to admit that the lack of preparation has not been creditable to us as a prudent, well-ordered, and right-thinking community.

We see the evidences of this at almost every turn, and nowhere is it more apparent than in the manner in which we waste our natural resources, or at least imperfectly utilise them. The present condition of our food supply is, of course, the

greatest and most outstanding instance of our neglect of an industry which is at the basis of our welfare, and even of our very existence as a nation. But there are other, even if less important, matters in which we have shown ourselves negligent of our opportunities and to which we have, at length, been awakened partly by the insidious dealings of our enemies, and partly by our recognition of their greater energy and alertness in the application of science and scientific method to industry and the practical affairs of life. Thus we have been so wrapped up in the production of iron and steel that we have paid little heed to the non-ferrous metals, although by a little more energy and enterprise we could just as readily as Germany have contributed our fair share to the world's requirements. So, too, in the manufacture and utilisation of the by-products in the coking of coal, there can be no question that the manner in which we have squandered our greatest natural asset in the past has been nothing short of a national scandal.

It has needed the pressure of our present emergency to induce us to quicken our attempts to remedy a condition of things which should never have been allowed to arise. Our immediate shortage of mineral oils as illuminants and as fuel is a further instance of our neglect of the potential sources of supply existing in our own country, and it is only the submarine menace that is, apparently, impelling us to exploit them. The attempts to utilise the Kimmeridge shales of Dorset and Norfolk have as yet led to no practical result; there are difficulties with the Treasury and the Legislature; it may be also that the technical difficulties of desulphurisation have proved to be almost as insurmountable. But there are other oil-shales than those of Kimmeridge, and also cannel and torbanites, as well as blackband ironstones and lignites, which might be turned to account as indigenous sources of mineral oils. Some of these are, of course, worked by the Scottish shale-oil companies, which, after a long struggle with adverse conditions, are now, in the special circumstances of the time, exceedingly prosperous. But there is still room for a considerable extension of the industry, as the production of these companies, not only in oil, but also in the by-products of sulphate of ammonia and paraffin-wax, falls far short of the country's needs.

In a series of papers communicated to the Institution of Petroleum Technologists on February 19 attention was directed to certain sources of supply of oil which have hitherto been entirely neglected; these are the deposits of cannel, torbanites, and blackband ironstones—many of them cheaply and easily obtained and readily worked. Mr. Cunningham Craig described the characteristics and mode of occurrence of these "kerogenous" or petroliferous materials, and explained how their petrographic analysis serves to reveal the nature of the products of their distillation. He pointed out how wasteful has been the method of treating the blackband ironstones, whereby all the valuable volatile contents of the