

59. P. Caland, The Hague, Netherlands.

DESIGNS AND RELIEF MODEL OF THE NEW WATERWAY FROM ROTTERDAM TO THE NORTH SEA.

Report.—Commended for its grand conception and thorough execution. This work comprised: 1. The regulation of the Maas for a certain distance. 2. The cutting of a more direct course for its outlet, partly through the high sand dunes. 3. The protection of the outlet and the creation of a harbor. The two large breakwater jetties in the North Sea are the largest works of this kind that ever were made on the continent of Europe. They are made by sinking, one over another, cribs of osier wicker work, loading these with large blocks of granite. These successive cribs serve the purpose of bonding the structure. They are most interesting from the simplicity and cheapness of their construction. They are faced from base to base with large stones very carefully laid without mortar. The jetties so made stand the heaviest storms of the North Sea remarkably well. Along the top runs a wooden pathway, for convenience in handling ropes and to give access to the light-house on one of the piers.

60. C. A. Eckstien, The Hague, Netherlands.

TOPOGRAPHICAL MAPS.

Report.—These topographical maps of the Dutch colonies show great beauty of execution, and are in colors. They show more care in surveying than is usually exercised by a mother country towards its colonies, and are printed by a special ingenious process, using only three stones, by which all colors are produced. Mr. Eckstien executed this work.

61. H. F. Fijnje van Salverda, Tiel, Netherlands.

SYSTEM OF ENGINE DRAINING.

Report.—This is an extremely simple double-acting force-pump, immersed in the water which it is charged with lifting. It is especially applicable to the conditions of the "polder" draining of Holland and of all similar works. Ample experiments attest the efficiency of this pump, and prove it to be most economical for the lifting of large volumes of water, consuming about one and eight-tenths kilogrammes of coal per horse-power, per hour.

62. Navy Department, The Hague, Netherlands.

HYDROGRAPHIC CHARTS AND MAPS OF HOLLAND.

Report.—Commended for the accuracy and beauty of the execution.

63. Commission for the Improvement of the Danube, Vienna, Austria.

THE REGULATION AND THE RECTIFICATION OF THE DANUBE.

Report.—This work, which has for its chief purpose the prevention of severe periodical inundations in the lower parts of the city, is especially worthy of remark as being the first example in Europe where, in straightening the course of a large river, the new cutting was made immediately to the full size of the river bed, no material being left to be removed by the scouring action of the current and to be deposited below. The works are made under the general direction of Mr. Gustave Wex, K. K. Ministerialrath.

64. Andre Reboucas, Rio de Janeiro, Brazil.

WOODEN DOCKS AT RIO DE JANEIRO.

Report.—This exhibit is well entitled to recognition as affording a good example of wooden docks or landing stages with warehouses, introduced only by the great energy of their engineer, and now demonstrated to be very practical and of substantial utility.