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A WEEKLY NEWSPAPER OF ALL THE ARTS AND SCIENCES.

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THE CHARTER of the Maritime Canal Company of Nicaragua has at last been granted by Congress. The plans for this great enterprise have been laid out so carefully, and the difficulties and advantages of the various routes have been considered so conscientiously, that the attempts at obstructing the passage of the bill were in no way justified. The feeling of the House on this subject was well expressed by the applause with which the passage of this important bill was greeted. The resistance offered on the alleged ground that the United States might be obliged to take up the work of the company was the more absurd, as the concession by the State of Nicaragua expressly states that no government except those of Central American States is allowed to hold shares in the company, and that the concession cannot be ceded to the government of any nation. The work will certainly be pushed with as much vigor as the surveys have been carried on, and we do not doubt that the canal will be completed in a very few years. The company has fulfilled the requirements of its concession by the State of Nicaragua, referring to the commencement and completion of the final surveys, and for the organization of an executive company; and the work of construction will also be begun in due time. While the prospects of the construction of the Nicaragua Canal are hopeful in every respect, the formation of the new Panama Canal Company has proved a failure. It will largely depend upon political

events in France, whether the work can be carried on or not; but recent events have proved that the confidence of private capital in M. de Lesseps' enterprise is not sufficient to enable him to carry on the enormous work that has to be accomplished towards the completion of his lock canal. It remains to be seen whether the government of France will be able to withstand the pressure exerted upon it in taking up the work. The long delays and evident difficulty of the route cannot but be of advantage to the Nicaragua Company, which will be able to absorb a large proportion of the working force kept idle at Panama.

THE CAUSE OF PROGRESS AND REFORM in New York City schools received a great impetus last Wednesday, when the Public Education Society submitted, through its committee, a memorial to the Board of Education on the state of the schools. This memorial was received and referred without comment to the committee on reform, to whose own report we have recently made reference in these columns. The memorial opens with the statement that the Public Education Society believes the New York City schools, as at present organized and conducted, to be deficient in respect to accommodations provided, in respect to courses and methods of instruction, and in respect to administration. In support of its belief, the society submits a number of facts. From the perusal of these, we learn that during the past year there were 150,312 pupils registered in all the schools. Of this number, 55,018 were registered in the grammar schools, and 95,294 in the primary schools. For the grammar schools there were provided 1,575 teachers, and for the primary schools 1,741 teachers. From this the society goes on to show, that, although the conditions in the grammar departments are bad enough, those in the primary schools and departments are infinitely worse. The primary schools or departments are invariably placed on the lowest floor of the school-building, where there is the least light, the greatest amount of dampness, and the greatest amount of exposure to foul and unpleasant or unhealthy surroundings. It seems that in the lowest primary grade the classes average in size 87 pupils to every teacher. This fact is in itself astounding, and a sufficient indictment of the entire system. It must be borne in mind that these children are the youngest and most impressionable in the schools, and that many of them are not six years of age. In the next lowest primary grade the classes average 58 pupils to the teacher; and in the grade above that, 56 pupils to the teacher.

It is then shown, that although the regulations of the Board of Education call for very meagre allowances of floor space and cubic air space per pupil, yet the law is violated in hundreds of instances. A list of 185 school-rooms is given in which members of the society, by actual inspection, have found the law to be violated to an alarming extent. For instance: school-rooms meant to hold 52 pupils are found to have 75 in average attendance, and one room which was meant to hold only 44 had 73 little children crowded into it daily. In spite of this overcrowding, 3,873 pupils were denied admission to the schools during the first week in September, 1888. The lack of play-grounds is adverted to, and an admirable suggestion made that the authorities should follow the example of London, and place the play-grounds on the roofs of the school-buildings in cases where the value of real estate does not permit the purchase of ground adjoining the school-houses. In illustrating the deficiency of the courses and methods of instruction, the memorial is very forcible. It shows, that, while the school-children in New York City are hard-worked and the curriculum overcrowded, the progress is not nearly so great as it is in the elementary schools of a number of European countries. It is chargeable, too, against the New York City system, that the course of study is arranged for the sole benefit of those who pursue it throughout, whereas not less than 60,000 children annually leave the public schools before they reach the age of twelve years. These children have had no

thorough or complete training in any one subject, they have merely made a certain amount of progress in a variety of branches; and in a large majority of cases this incomplete and disjointed instruction is all the education that these children will ever receive. The memorial protests against thus subordinating the primary-school course to the grammar-school course and that which succeeds it. The methods of examination and marking are unhesitatingly condemned, and ample evidence is quoted to sustain the charges.

The awkward and incongruous nature of school-administration seems to be very apparent. The Board of Education, the school inspectors, the school trustees, and the assistant superintendents have various and conflicting duties. It seems impossible to reach any sound basis for progress until these methods of administration are simplified and their efficiency increased. Then the improvements necessary in the course of study may naturally follow. The Public Education Society recognizes this fact, and therefore closes the memorial with the suggestion that a special commission, which shall include some members of recognized reputation and authority in matters of education, be appointed to investigate the conditions as they now exist in New York City, and to codify and simplify the school law. We earnestly hope that this proposition of the society will meet the approval of the Board of Education, and that the necessary steps will be taken to carry it into effect. The committee on reform, to which the memorial was referred, is certainly in sympathy with the Public Education Society. It now remains to so press this subject upon the attention of the majority of the Board of Education that the recommendations of the memorial will be adopted.

THE STANLEY EXPEDITION.

THE *Mouvement géographique* prints the various letters which have reached Brussels from Stanley Falls, and it is only now possible to understand somewhat clearly the course of Stanley's expedition. It will be remembered that Stanley sent a letter to Tippo-Tip. About the end of last year Lieut. Alfred Baert, secretary of Tippo-Tip at Stanley Falls Station, was obliged, on account of severe illness, to leave his post. His reports supplement Stanley's letter.

Stanley says that the route from Yambuya on the Aruvimi to Emin's province is excellent, and that provisions can be readily obtained. He does not say how long it took to accomplish the distance from Yambuya to Lake Albert Nyanza, but he states that the way back was accomplished in less than three months.

On the Albert Nyanza he met Emin, who, according to his last letters, was expecting to meet him there. The telegram of Dec. 23 stated that Stanley had left Emin near the Victoria. This fact appeared surprising, as it implied that Emin had left his province. This report appears to be due to a misunderstanding. Stanley saying in his letter that he had left Emin on the Nyanza, referring evidently to the Albert Nyanza, not to the Victoria Nyanza. After having organized a caravan of one hundred and thirty Wangnana, sixty-six men lent by Emin, and three soldiers, Stanley and his four white companions — Nelson, Stairs, Parke, and Monterey Jephson — left Emin on May 27, and returned to Yambuya by the way they had come, in order to look after the rear guard left there in charge of Major Barttelot, who was accompanied by Jamieson, Bonny, Rose Troup, and Ward. On Aug. 17, Stanley, who commanded the vanguard, arrived at Banalya. This place, which has so much puzzled geographers, is situated in Urenia, and is the same place at which Bonny, the commander of the vanguard of Barttelot, encamped on the bank of the Aruvimi. It is situated about fourteen days above Yambuya, and seven or eight days north-east of Stanley Falls. At Banalya, Barttelot was murdered by one of his men about a month before Stanley's arrival. When Stanley arrived, Bonny was still encamped there with part of the men furnished to Barttelot by Tippo-Tip.

On the following day Stanley wrote to the commissioner at Stanley Falls that he intended to stay there for ten days, and asked him to accompany him to Wadelai. Tippo-Tip declined this offer;

and Stanley, after having sent another letter to Stanley Falls, started on his way back to the Albert Nyanza.

Mr. A. J. Wauters, the editor of the *Mouvement géographique*, adds, "It will undoubtedly be found remarkable that Stanley, after an absence of more than a year in the fastnesses of Central Africa, without any news from Europe since May, 1887, did not push on to the Falls Station, where he was sure to meet Europeans and to find news. But he undoubtedly wished to avoid being asked questions regarding his discoveries, and regarding Emin and his projects, and therefore he left Banalya as rapidly as possible."

He re-enforced his caravan by one hundred carriers of Barttelot, his caravan now numbering two hundred and ninety-six men. Mr. Bonny, the only white man of Barttelot's rear guard, still on the Aruvimi, joined the expedition, which started eastward in the beginning of September. If he returned as rapidly as he came from the Albert Nyanza, he must have arrived there about the end of November.

These reports show that Osman Digma's letter, pretending that the Mahdi had captured a European at Lado on Oct. 10, cannot refer to Stanley or to Dr. Parke. They also dispose of the theory that the "white pacha" who was reported from the Bahr-el-Gazal region was Stanley; and Lieut. van Gèle's hypothesis that these rumors referred to his expedition up the Obangi gains some probability.

Stanley's correspondence addressed to Europe reached Stanley Falls on Sept. 14. As Lieut. Baert left the station by canoe, he did not take these important documents along, which were kept back by Lieut. Haneuse. Lieut. Baert arrived at Bangala early in November, where he met the steamer "Stanley," which conveyed a number of men to the Aruvimi, where a station of the Belgian Company was founded at that time. He reached Leopoldville on board this steamer on Nov. 30. Stanley's letters are expected in Europe about a month or two hence.

THE TOPOGRAPHICAL SURVEY OF RHODE ISLAND.

THE endeavors of the Providence Franklin Society to arouse interest in a topographical survey of the State of Rhode Island have found a ready response in the Legislature of that State, and we learn with great satisfaction that the field-work for a map of Rhode Island has been completed. The work has been carried out by the United States Geological Survey on a plan similar to that of Massachusetts, the State and the United States Geological Survey sharing the expense equally. The State of Rhode Island falls upon fifteen different sheets of the great "Atlas of the United States," only five of which are wholly within the State. The total cost of the work to the State of Rhode Island will be five thousand dollars. The commissioners, David W. Hoyt, John W. Ellis, and Winslow Upton, to whose endeavors we owe the taking-up of this important work, conclude their report with some important considerations and suggestions. "The State," so they say, "will obtain a map similar to that which was contemplated in the plan of 1876, on a somewhat smaller scale, at one-quarter the estimated expense to the State. While this topographical survey is complete in itself, for all that it professes to do, it does not undertake to determine the boundary-lines of towns. This has been done in Massachusetts, as supplemental to the topographical survey, under an additional appropriation. Neither does this survey undertake to erect exact and permanent bench-marks from which levels may be reckoned.

"The commissioners desire to call the attention of the General Assembly to the fact that no provision has been made, either by the United States or by this State, for the publication and distribution of this map. To be of service, some arrangement should be made whereby it can be supplied, at a moderate expense, to the citizens of the State, as soon as practicable after all the plates have been received.

"In the atlas published by New Jersey, whose survey has been completed in co-operation with the United States Geological Survey, seventeen sheets are made to cover the entire State. The sheets overlap each other to some extent, and are so arranged as to be of the greatest value for local purposes. Each sheet includes more than three times the surface of a sheet of the United States Ge-