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-

ological Survey, but is constructed on the same scale. These maps are sold at the cost of paper and printing. A somewhat similar plan, requiring five to eight sheets, might perhaps be adopted with advantage in this State. Each city, town, and village should, so far as possible, be found entire upon some one sheet; but to secure this, the original plates must be combined and re-arranged, and adjoining sheets must be made to include the same territory to some extent.

"It is desirable that a wall-map of the whole State should be published, in addition to the atlas form just mentioned. A map about 3½ feet by 5 feet in size would include the whole State, with Block Island in its true position. This could be easily arranged, provided the State authorize some arrangement for such publication."

The three States of Massachusetts, Rhode Island, and New Jersey have thus been the first to secure, by a wise co-operation with the United States Geological Survey, good topographical maps of their whole territories. It is one of the most important objects of this institution to make a good map of the United States, without the aid of which no geological work can be carried on satisfactorily. On account of the wide extent of our country, this enterprise is enormous, and requires a long time for its accomplishment. By the co-operation of States the work which is of the greatest importance can be accelerated, and it is to be hoped that other States will follow the example set by three of their number, the good results of which may be seen from the map of New Jersey, so far the only one published.

THE GREAT STORM OF MARCH, 1888.

IT is only after a long period has elapsed that it is possible to describe accurately the meteorological conditions that prevailed at a certain time over a large area, particularly over extensive parts of the ocean: therefore it has not been possible until recently to write the history of the great blizzard that visited the Atlantic States from March 11 to 14, 1888. Lieut. Everett Hayden, who is in charge of the Division of Marine Meteorology of the Bureau of Navigation, has undertaken this work, and presented the results of his interesting study in the fifth of the "Nautical Monographs." The book, which contains the original observations made by masters of vessels in full, is bound in leather to enable it to stand the rough handling incident to use aboard ship, where books in ordinary cloth bindings are quickly ruined. The list of observations shows how valuable is the aid that voluntary observers aboard ships give to the work of the Hydrographic Office. The history of this memorable storm is based almost exclusively on their reports: therefore the endeavors of the Hydrographic Office to enlist as great a number of masters as possible as voluntary observers, and to increase the general interest in marine meteorology among mariners, deserve the greatest possible success. It is well known how much more readily a man will undertake such observations if he knows that they are actually used, than if he believes that they are buried among a vast amount of material: therefore the plan of publishing a monograph of a remarkable gale, with a complete list of observations appended, will, aside from its scientific value, instigate many a mariner to continue or to take up meteorological observations at sea.

Lieut. Hayden represents the meteorological conditions over the Atlantic coast and the adjoining parts of the ocean in four charts, showing lines of equal pressure and of equal temperature. In order to make the maps clearer, temperatures above freezing are represented in pink; those below freezing, in blue; the depth of shade increasing with the departure from this point. In this way the advance of the cold wave from the interior towards the seacoast is shown with admirable clearness, and the meteorological events are easily understood. In the text, the history of the storm is traced from March 11, 7 A.M., when a long trough of low barometer, extending from the west coast of Florida up past the eastern shore of Lake Huron, and far northward, was advancing eastward, causing strong north-westerly winds on its western side. At 10 P.M. this line had advanced eastward as far as the 74th meridian. The cold north-westerly gale, as it is now sweeping over the great warm ocean-current, carrying air at a temperature below the freezing-point over water above 75°F., is rapidly gaining strength, and becomes a fierce hurricane. An area of high barometer, which was at Newfoundland the previous day, is slowing down, blocking the advance of the rapidly increasing storm, and about to hold the centre of the line in check to the westward of Nantucket for days, while a terrific north-west gale plays havoc along the coast from Montauk Point to Hatteras, and until the right flank of the line has swung around to the eastward far enough to cut off the supply of warm, moist air pouring in from the north-east. The special value of Lieut. Hayden's description lies in his clear treatment of the influence of the warm, moist Atlantic air upon the development of the storm. He sums up the observations on this argument as follows: "The storm has called attention anew to the sudden deepening of depressions upon reaching the coast, and the corresponding increase of energy to be expected, — a lesson that should be borne in mind by every navigator leaving port with a falling barometer, and other signs of a storm. It has reminded us of the vitally important influence of the Gulf Stream in causing such increase of energy, and to the necessity of closely watching this great warm ocean-current, and noting any abnormal conditions of volume, velocity, temperature, and position; especially so during the spring and autumn months, — the periods of most rapid change in the conditions of oceanic and atmospheric circulation. The storm has established in most unmistakable terms the importance, not only to our extensive shipping interests, but to the people of all our great seaboard cities, of the establishment of telegraphic signal stations at outlying points off the coast, — at St. Johns and Sable Island, to watch the movement of areas of high barometer, upon which that of the succeeding 'low' so largely depends; and at Bermuda, Nassau, and various points in the West Indies and Windward Islands, that we may be forewarned of the approach and progress of the terrific hurricanes which, summer after summer, bring devastation and destruction along our Gulf and Atlantic coasts." Discussions like the present will contribute largely to arousing and keeping alive an interest in these researches, the practical and scientific value of which cannot be overestimated.

BOOK-REVIEWS.

Allen and Greenough's Latin Grammar. Revised by J. B. GREENOUGH and G. L. KITTREDGE. Boston, Ginn & Co. 12°. $1.35.

ADVANTAGE has been taken of the opportunity offered by the necessary recasting of the plates of this book to have such improvements made in it as the advance of grammatical knowledge and the experience of the schoolroom have shown to be advisable. The revisers have simplified the statement of principles, so far as a preservation of strict correctness would admit, but without any approach to a mechanical method of treating the science of language. Many explanations and suggestions, in text and footnotes, have been added to those given in previous editions, for the benefit of teachers and advanced scholars.

In the revision of this work, the needs of the classroom have evidently been kept constantly in view, resulting in great accuracy, combined with clearness and simplicity of statement. Although the matter of the book has been simplified, the size of the book has been increased, for simplification sometimes necessitates expansion. Many things taken for granted or merely suggested in the old edition have been expressly stated in this revision. Much new matter will be found, marking, in many particulars, a substantial advance. Thus, the chapter on word-formation has been entirely rewritten, many new points being presented; the treatment of the temporal particles has been recast; the section on reflexive pronouns has been rewritten; and the chapter on words consists in great part of new matter.

Some other subjects, in the treatment of which the new edition will be found more satisfactory than the old, and to which the especial attention of both student and teacher may be called, are included in that part of the book between Sections 248 and 332. There is also much new philological matter, which is nearly all printed in small-type notes, being intended more for the advanced student than the beginner.

Very numerous cross-references have been furnished in this edition, by means of which the ramifications of a construction,