SCIENCE

FRIDAY, AUGUST 5, 1887.

IT IS GREATLY to be regretted that the National Educational Association, at its recent meeting, gave its indorsement to the so-called Blair bill, making provision for national aid to schools in the various States and Territories. This measure has been before the public long enough to obtain thorough discussion; and the opinion of the large majority of intelligent citizens is, that its effect, were it ever enacted into a statute, would be pernicious. The measure has been not unjustly styled a 'bill to promote mendicancy.' It is a bill to impair the self-reliance, and discourage the earnest efforts, of large portions of the community. We have lately taken occasion to call the attention of the readers of *Science* to the alarming increase of paternalism in legislation in the various States. The bill in question is in a direct line with the tendency toward paternalism. We are not among those who assert that the measure is advocated in a demagogic spirit. On the contrary, we believe it to be the outcome of a generous but mistaken intention to do good. We believe the premises on which its supporters base their arguments to be false, as well as that the effects they predict will follow its enactment to be very different from what will actually happen. A resolution indorsing this bill was brought before the teachers at their recent annual meeting, and referred to the appropriate committee. In course of time this resolution appeared, with a number of others, in the committee's report, and was adopted. We are informed that this was done as a mere form, and that the committee's report was adopted without any consideration, merely as a matter of courtesy. If this is so, it is no proper defence. If any teacher objected to that resolution, he should have made himself heard. But the record shows that no objection was made, and that the resolution passed. We repeat that it is very unfortunate that the association took such action. It will greatly lessen public confidence in its representative character.

DURING THE MONTHS in which the tropical tornadoes are most frequent, the pilot chart issued by the Hydrographic Office of the Navy Department will contain reports of experiments in the use of oil to lessen the force of waves during storms at sea. For several years it has been the custom of the office to print monthly on this chart a synopsis of the experience of vessel captains in the use of oil; and the results have in a great many instances been very successful. It has had another effect also. It has stimulated inventors to prepare devices for carrying the oil over the bows of vessels, and has induced a number of dealers in oleaginous fluids to prepare a special brand of oil for this purpose. The receptacle for the oil which seems to be the most useful yet offered to navigators is the design of a Swede. It is said that the British Channel fleet, while cruising in the vicinity of Copenhagen, were supplied with these funnel-shaped bags for distributing oil in storms. The authorities at the American Navy Department have not yet admitted the value of the experiments. A Chicago concern has succeeded in perfecting a combination of mineral and vegetable oils, which is said to be very effective for the purpose, and the Hydrographic Office is advised that it is being extensively carried by steamers on the Lakes during the present season. Thus far there have been very few reports of the effect of experiments on the inland lakes. A new apparatus has been described in the *Yacht*. It consists of a vertical cylinder with numerous small openings, which, by an automatic process, lets the oil flow out as soon as the bow of the ship to which the apparatus is fastened plunges into the water.

THE MONTANA INDUSTRIAL SCHOOL FOR INDIANS.

IN connection with the present movement to introduce manual training as a factor in the common-school education, it is valuable to make note of the testimony to its educational effectiveness derived from experiments in other fields. Its introduction into the colored schools of the South has been followed by most beneficial results, and we now learn of its success among the Indian tribes.

The American Unitarian Association is one of the religious bodies of the country which, since 1874, has had charge of the education of the Indians. This association has nominally been in charge of the Utes. The attempt to establish an industrial school for the Utes failed, however, because of the frequent removal of the tribe, its opposition to all forms of civilization, and the lack of sufficient government support. Mr. Henry F. Bond, the representative of the association, then turned his attention to the Crow reservation in Montana.

The Crow tribe, which numbers about thirty-five hundred, of whom about eight hundred are children of school age, have never had any settled missionary or educational work done among them, except a small government school at the agency. The tribe had been originally assigned to the Methodists; but no work has been done by them, though they, as well as the Catholics, have recently secured mission-sites on the reservation, which will soon be occupied.

The Crows have always been the firm friends and allies of the whites. They have resisted all overtures from other tribes to join them in hostilities, and have always been ready to take up arms against any tribe, even their own friends, who made war on the whites. It is perhaps for this very reason that they have been for so long neglected by missionary bodies, whose efforts have been directed to the Christianization and civilization of those tribes from whom most danger was to be apprehended. As a natural result of this neglect, the Crows are among the least civilized of all the tribes. They cling to their wild ways of life, and are reluctant to settle down to habits of industry. They are sensual and immoral in their practices. But the universal testimony of the twelve agents who have been appointed to the Crows, in the last eighteen years, is that they are docile, good-tempered, and not inclined to intemperance, as are most other tribes, and that they are faithfully endeavoring to adapt themselves to their changed condition. They have agreed to take up allotments, and to build houses on their homesteads, and cultivate the ground. The government has sent out farmers with their families to settle among them, and to instruct them in agriculture and the ways of civilized life; and the agents invariably speak well of their readiness to avail themselves of the facilities thus afforded. Nowhere would there seem to be greater need of missionary and educational work, and Mr. Bond decided that here was the best field of labor. His decision was approved, as were also the location selected and his plans for the erection of an industrial boarding-school building to accommodate from thirty to fifty pupils. The site chosen was on the Big Horn River, on the mail-stage route from Custer Station on the Northern Pacific Railroad, distant seven miles, to Fort Custer thirty, and the Crow agency, on the Custer battle-ground, forty, miles distant.

The commissioner of Indian affairs also approved the location, and promised a contract for Indian pupils. The government will pay $108 annually for each Indian pupil taught and supported at the school. The annual cost of maintaining the school, with the full complement of fifty pupils, will be from $8,000 to $10,000, of which sum the government's payments will constitute one-half.

The building is substantial and commodious, made of hewn cottonwood logs, on a stone foundation, having eighty-six feet frontage, with wings running seventy feet to the rear, forming three sides of a hollow square. The gambrel roof gives a second story

for the dormitories, thus saving present expense for schoolrooms, which are placed in the lower story.

At the time of the last report to the association, April 30 of the present year, the school was in operation with eighteen pupils, with a prospect of having the full quota of fifty as soon as its equipment is complete.

Mr. Bond reports the Crow children at the school as docile, affectionate, intelligent, and happy under their new surroundings. They are quick to learn, and interested in their studies and in their occupations. They are to be taught, under the contract with the Indian Bureau, the various industries which will fit them for the duties of civilized life. One of three boys who had run away, and who, as the ringleader, was refused permission to return, offered to submit to punishment if only allowed to come back.

An interesting feature of the work at this school is, that, of the six teachers and officers in charge, three are Indians who have been students at Carlisle and Hampton.

It is intended to add a kitchen, blacksmith-shop, carpenter-shop, and slaughter-house. The slaughter-house is a necessary adjunct of an Indian school, in order that the Indian boys may be taught how to kill animals for food mercifully, and also how to cut them up scientifically instead of hewing and hacking them as they now do.

The curriculum is not yet completely systematized, but probably half the time will be given to industries, and half to the schoolroom exercises. The industrial training will include blacksmithing, carpentry, farming, and butchering for the boys, and house-work, sewing, and cooking for the girls. The outlook for the school seems excellent, and, if the hands of the teachers are upheld by sufficient funds, an excellent work will be accomplished.

THE NEW JERSEY TEACHERS' READING-CIRCLE.

THE results of the first year's work of the New Jersey teachers in the reading-circles call for the highest commendation, and indicate a thorough organization and faithfulness on the part of the members.

The plan of organization, and methods of work, should be known in every State: in fact, the Board of Control in New Jersey is glad to inform other reading-circles of its successes and methods in reciprocation for information kindly sent when their organization was in its incipiency.

The committee on constitution sent to all the States in the Union having reading-circles, then numbering thirteen, and received much information which greatly aided them in formulating their report. The result was an organization differing materially in some essential points, and yet containing good ideas from many States. The features that have contributed to its success are the following:—

I. *The Board of Control.* — The election of this board was peculiarly fortunate. It consists of four officers, the State superintendent being president, and one director from each congressional district, thus affording complete representation. The work of the board is intrusted to the following committees: 1. Finance, 2. Course of Reading and Books, 3. Circulars and Printing, 4. Certificates and Diplomas, 5. Local Management. A great part of the success of the circle is due to the last-named committee. Its duties are to supervise the work throughout the State, appoint local managers, instruct them in the work, encourage the formation of local circles and the enrolment of members, hold meetings of managers and members, send speakers to county associations and institutes, and keep up the interest and enthusiasm in the State. Another very important part of the work of this committee, which has contributed very much to the success, is the intimate communication with the local managers in cities and counties, which is carried on by the secretary, Mr. B. C. Gregory of Newark, who has done more work than all the other members of the Board of Control put together. He is an indefatigable worker, an accurate statistician, a skilful organizer and administrator, and an enthusiast on reading-circles, being a Chautauquan, and the secretary also of the Chautauqua Teachers' Reading-Union. This tribute is due to Mr. Gregory, because the New Jersey circle could not have attained such success without him.

The committee on local management divided the State into districts, to be supervised by the members of the board. By this means the work was easily pushed and encouraged. Where the best results have been attained, much credit is due to the county superintendents who have co-operated with the committee in spreading information and encouraging the local circles. Where work has been done, it was well done. Unfortunately there are a very few counties where the county superintendents are dead educationally, and the committee have not had time yet to push their work.

Another very important work of this committee has been the district meetings. Soon after the circle was organized, meetings of city and county managers were held in four central places for the purpose of giving instruction and for conference. During the last spring another series of meetings was held in six central places, when all members and friends of education were invited. At each meeting an address was given by some distinguished educator, in addition to the addresses of the chairman and secretary and the reports of local managers. These meetings resulted in much good in unifying the work and cementing the bond of common interest.

The duties of the other committees are essential, but do not come into relation with the organization.

II. *The County and City Boards of Managers.* — The duties and responsibilities of the local managers, city and county, are very important, and the success of the work depends very much upon them; in fact, no success can be looked for except through them. They must enrol members, encourage meetings, and keep the work moving. They must arrange programmes, direct the method of reading, and keep up the enthusiasm.

III. *The Local Circles.* — Experience shows that the work cannot be successfully carried on without meetings and local circles. It is impossible for the majority of teachers to pursue a course of reading alone. They need the inspiration of numbers, a proper comprehension of the matter; and the fullest appreciation of it depends upon discussion, analysis, and amplification. The cities and counties that show the best results have maintained regular meetings.

IV. *The Course of Reading.* — In making the courses of reading, the Board of Control, appreciating the needs of the teachers, provided professional works, embracing the history, principles, and methods of teaching, and reading of a general character, including history and literature. The books are arranged in groups, which enables members to select a purely professional course or one partly professional; but no selection can be made by the omission of a single educational work.

The object of the reading-circle is to induce teachers to continue systematic study in these lines, and it has put into their hands some of the best educational literature available. The course is attractive, entertaining, and inspiring.

The second year's course is now being read, and the third year's course has been arranged. Both provide for professional and general reading. The popularity of the course, and the success of the work, may be seen by the fact, that, out of about 3,250 teachers in the public schools of the State, the secretary reports 1,980 members of the reading-circle. The State superintendent says that its influence is being felt in the remotest districts, and that it has created a greater interest in education than has ever before been known in the State.

C. E. MELENEY.

EXPLORATION AND TRAVEL.

Prejevalsky's Journeys in Central Asia.

UP to the last few years, our knowledge of Central Asia was extremely deficient. Though in the middle ages many travellers crossed the arid highlands of Mongolia and Tibet, among them the famous Marco Polo, though numerous reports on the routes followed by the Chinese silk-caravans exist, the geography of that region was actually unknown. It is only of late years that scientific travellers succeeded in entering Central Asia; and among them Prejevalsky, the Russian general, is most prominent from the extent of his journeys and the valuable results of his expeditions. His most important discovery is that of the mountain-range connecting the Nan Shan system with the western Kwen Luen, which feeds the Khotan and Yarkand Rivers. He proved that the Kwen Luen