

SCIENCE.

FRIDAY, MAY 14, 1886.

COMMENT AND CRITICISM.

A VERY IMPORTANT contribution to the discussions which are now in progress with respect to the scientific work of the United States government has reached us within the last week. It is a voluminous report of the testimony elicited by the joint congressional commission, of which Senator Allison is chairman, from the time when it began to act, Dec. 4, 1884, until Jan. 30, 1886. This evidence was presented in the senate on the 16th of last March, and ordered to be printed. It constitutes a book of more than eleven hundred pages, in which a very copious and well-arranged index is included. The first portion of this volume, including the evidence which was collected during the first winter of the commission's service, has long been in type, and has been the basis of some of our previous comments. The latter half, including the testimony taken last December and January, is new to us, and to that alone we now call attention. In the *personnel* two changes were made at the beginning of last winter: Senator Morgan took the place of Senator Pendleton; and Mr. John T. Wait, a representative for Connecticut, the place of Mr. Theodore Lyman, a representative for Massachusetts. Fourteen sessions were held during the two months just named, and the principal officers of the coast survey, the geological survey, the hydrographic survey, and the signal service, were examined. In addition to their testimony, communications are also printed from Simon Newcomb and Alexander Agassiz.

In a somewhat rapid examination of this volume, we discover a vast amount of detailed information in respect to the conduct of scientific work by the government, but we do not perceive any fresh contribution to the discussion of the principles which should govern the organizations. There is nothing to indicate the conclusions of the commission, though the bias of individual members may be surmised from their interrogations. It would appear as if the commission had pursued their inquiry with fairness and thoroughness, and

with a sincere desire to set before congress the exact condition of affairs. It is a pity that some competent person had not been employed to digest the information thus laboriously collected, and to present in a colorless summary the suggestions which are made, *pro* and *con*, as to possible changes. Professor Newcomb (Jan. 15, 1886) succinctly describes the situation from his point of view, pointing to "the want of adequate administrative supervision of the work of those bureaus," and declaring that he sees but one remedy, — "to place all the scientific work of the government properly so called under a single administrative head, to be selected by the President." The remarks of Professor Agassiz discriminate between the work which legitimately belongs to the government and that which does not; and he refers (Dec. 2, 1885) to a note which he has written to the *Nation*, embodying his ideas in regard to all this government business.

Major Powell, in a letter to the commission, has presented some criticisms of the changes proposed. He says "that the bill [brought before congress by Mr. Herbert], in prohibiting the expenditure of any money for paleontological work or publication, except for the collection, classification, and proper care of fossils and other material," practically provides for exactly the paleontological work now being prosecuted by the survey, but prohibits its publication. He also calls attention to the popular misunderstanding of the scientific conception of a theory. The bill prohibits "the general discussion of the geological theories." If this is used in the scientific sense, it prohibits any classification, or suggestion of the possible co-ordination, of the recorded facts. In view of the absolute necessity of the geological survey prosecuting all branches of research which can in any way bear upon the knowledge sought, it would be more reasonable for congress to provide for curtailing the expenses of the bureau, causing the depletion to fall upon the entire organization, rather than to commit the error of lopping off some branch or branches of the work.

THE QUESTION OF THE PLACE and character of the moral and religious instruction at Harvard

was officially settled by the board of overseers last week. The subject has excited great interest, because Harvard is generally looked to as the leader in the matter of higher education in this country; and it was pretty generally felt that whatever course Harvard should take in this regard would be quite generally followed, in the course of time, by other institutions of learning. Pending the settlement of the question, — and it was one which a conscientious president or overseer could not settle in a day, — the Harvard authorities and one or two of the professors have been subjected in some quarters to a criticism which was as unnecessary as ill-timed. A deliberative body of any force of character is not to be deterred from doing its duty as it sees it, by the noisy clamor and abuse of *ex-parte* advocates. The subject is now settled, and it will give general satisfaction when it is known that the guiding principle of the solution found is unsectarian Christianity. Whether this will be found possible of attainment in practice is a question, but the overseers have provided for it as best they could. Rev. Francis S. Peabody becomes Plummer professor of Christian morals, and head of the department of religious instruction in the college. He will also be the university pastor. As coadjutors, Professor Peabody is to have five college preachers, who are to be clergymen of reputation and large experience. These college preachers will, with the professor, have charge of the chapel services and of the religious instruction. As we understand the scheme, each college preacher is appointed for a year, but fulfils the duties of his position only one-fifth of the time. In this way a constant succession of able clergymen of various denominations will be in co-operation with Professor Peabody. In theory this plan seems excellent, but we shall await its practical application with interest and not a little incredulity.

THAT SCIENTIFIC MEN believe that the claim of Pasteur has merit enough to entitle it to investigation, if not to credence, is evidenced by the fact that commissions are being sent to Paris to examine into the methods now practised for the prevention of rabies. The English government has appointed such a commission, having selected some of the most eminent men in the kingdom. Sir James Paget, T. Lauder Brunton, Sir Henry Roscoe, and Burdon Sanderson are names which will satisfy every one that justice and caution

will be exercised in the inquiry. Germany, by the selection of Virchow and Koch, has shown her interest in the matter. The Academy of medicine of Rome has sent delegates for the same purpose; while the Archduke Charles Theodore of Bavaria, a physician, has started for Paris to make an investigation on his own account. It would seem reasonable to expect some decided results from an investigation made by such talented men as most of them are known to be, and that the truth or falsity of Pasteur's claim was in a fair way to be established beyond a peradventure.

IT IS TO BE HOPED that congress will not fail to pass the bill authorizing the appointment of a commission to inquire into the merits of inoculation for the prevention of yellow-fever. This bill was introduced at the instance of Dr. Joseph Holt of New Orleans, and has received the indorsement of the American public health association. From the daily press we learn that the physicians of the military garrison at Vera Cruz have already commenced inoculations for the prevention of yellow-fever. The material employed is injected hypodermically at intervals of eight days. Such a commission as could be selected from this country could establish the value of this method of prevention of yellow-fever, so strongly advocated by Freire and Carmona.

A TASK FOR ANATOMISTS.

"WALLACE," writes Oscar Schmidt, "might well say that we live in a world which is zoologically very impoverished, and from which the hugest, wildest, and strangest forms have now disappeared." But old as the world appears, who shall say that it has passed or even reached maturity — if so be that worlds, like animals, have their day, as some have been bold enough to assert? It is true that the fishes no longer predominate, that the reptiles have dwindled into insignificance, and that of the mammals only a handful of great forms remain. But another type, the last to appear, and, of all, the most notable, — man, — is in the ascendant. His age is but begun. If we look upon the world of to-day as poorly furnished with striking animal forms, what must be the verdict of the man of the fiftieth or sixtieth century, when Europe will be a chain of cities, Africa and South America densely peopled continents, and North America the home of a population to be counted by hundreds of millions! The increase of powerful appliances for the subjection of the earth to human needs, within the memory of men now