SCIENCE.

FRIDAY, JUNE 11, 1886.

COMMENT AND CRITICISM.

IT WILL BE REMEMBERED that in the month of May a gentleman in Brooklyn died from hydrophobia. His medical attendants, competent physicians, had no doubt about their diagnosis, and his symptoms were characteristic of that disease. Confirmatory of this opinion, the autopsy revealed no lesion to which could be attributed the symptoms from which he suffered, — a condition which is also characteristic of hydrophobia. Portions of the brain and the spinal cord were carefully wrapped in cloth wet with a solution of bichloride of mercury and sent to Dr. Sternberg. Small portions of these were thoroughly mixed with sterilized bouillon; and this broth was then, by means of a hypodermic syringe, injected under the dura mater covering the brain of a rabbit, a small button of bone having been first removed by a trephine. The wound was then closed by sutures. Three rabbits were thus operated upon. One died at the end of twenty-four hours as the result of the operation; hydrophobia, of course, having nothing to do with it. Another is now, after eighteen days, apparently well. The third one, on the sixteenth day, commenced to show signs of being ill: he was disinclined to move, and in a few hours evidences of paralysis appeared, at first in the hind-legs, and subsequently in all the extremities. On the 5th of June, the eighteenth day after the operation, he died. The wound had healed, and there were no evidences of inflammation. The brain showed no softening at the point where the inoculation was made, no pus, nor any evidences of inflammation either of the brain substance or of its membranes. The cord also appeared normal. Portions of the medulla of this rabbit were immediately mixed with sterilized bouillon, and two rabbits were inoculated in the same manner as has been described. This case is of great interest as being, so far as we know, the first animal in this country to become affected with hydrophobia from inoculation with material taken from a person who died from that disease. If Dr. Sternberg is as successful with these rabbits as with the first, there is no reason why the series cannot be continued, and thus the protective virus of Pasteur be obtained in this country, and a trip to Paris by the victims of dog-bites made unnecessary. As we go to press, we learn that the second rabbit, mentioned above as remaining unaffected for eighteen days, shows unmistakable signs of hydrophobia.

IN THE GREAT POLITICAL changes of last December, the Department of public works of Japan was abolished, and the Engineering college hitherto conducted by that department was transferred to the Department of education. Early in the present year, the Engineering college was amalgamated with the University of Tōkyō, and the resulting whole was instituted as the *Imperial university* by the decree of March 1, as mentioned in our last issue. As at present constituted, the university consists of five colleges; viz., those of law, of medicine, of engineering, of literature, and of science. Of these, four are located in the Kaga-yashiki (the former 'yashiki' of the Daimio of Kaga), while the fifth, that of engineering, finds its quarters in the buildings of the former Engineering college. This amalgamation must be looked on as but another stage in the development of that institution which began in the days of the Tokugawa shōguns as the place for teaching, and examining into, western books, and which has been steadily growing, ever since, under various names, such as Kaisei Gakkō, Tōkyō Daigaku (University of Tōkyō), etc. In the imperial decree of March 1, referred to above, the prosecution of original investigation has received recognition hitherto not accorded to it; for Art. 1 of the decree says, "The Imperial university shall have for its objects the teaching of such arts and sciences as are required for the purposes of the state, and the *prosecution of original investigations in such arts and sciences.*" This must be considered as a decided upward step. In the new institution, different colleges have also more power to act independently according to their own wants than before. The very ponderous official machine through which the business of the university had to be transacted is somewhat simplified; and professors, in the science college, for instance, are given more freedom in the management of their own laboratories.

Many Americans who have been in Japan will learn with regret that Mr. H. Katō, who has been in the responsible position of the president of the university for the last nine years, is no longer connected with the university, having lately been transferred to the senate (Genrōin). During his presidency, the university grew up from a very insignificant institution to be one of the great seats of learning in the world. Mr. Katō's services will long be remembered in the university. The president of the new Imperial university is Mr. H. Watanabe. He has occupied with success many positions of responsibility under the government, and was latterly very popular as the mayor of Tōkyō. His appointment to the university is considered by all to be eminently fitting.

MR. GOODRIDGE has another article in a recent *Scientific American* on 'Modifying the climate by closing the Straits of Belle Isle,' in which, as before, his argument is based on the error that the great body of the Labrador current comes to us through these straits instead of around the eastern coast of Newfoundland. He gives no evidence in support of this assertion, but vaguely discusses the question of the origin of ocean-currents, which has nothing to do with his climatic problem. Referring to the objection pointed out in *Science* some months ago, that our cold weather comes from the west and north-west, he grants that this will 'sometimes occur,' as if it were exceptional. He thinks that "if we had not the cold wall between our shores and the Gulf Stream, it is fair to presume that we should have a less stormy coast." This presumption is very questionable indeed; for in winter, when most of our notable storms occur, they do not originate on the coast, but come from the far west and south-west; and, moreover, in the winter season, the contrasts in temperature along our shores would be stronger if the warm Gulf Stream flowed close along the cold land. As far as this contrast is effective, our winters would be more stormy then than now.

THE SCIENTIFIC COMMISSION REPORT.

THE long-looked-for report of Mr. Allison's commission on the surveys has at last been completed, and submitted to congress. It proves to be even more conservative than was indicated in the summary of the views of the commission, which was given in our issue of May 7. At that time the members of the commission were all of opinion that the operations of the geological survey should be restricted by law in the direction indicated by Mr. Herbert's bill. The majority, comprising Messrs. Allison and Hale of the senate, and Messrs. Lowry and Wait of the house, now frankly admit that the statements and arguments of Major Powell have led them to modify their views, so that they no longer propose any restriction upon the paleontological or other work of the survey. They therefore propose, in lieu of Mr. Herbert's bill, one which only requires that the printing of the survey shall be specifically estimated for, — a provison to which no one will object, and which ought to be extended to other bureaus of the government. The following sentences from the report embody the gist of its judgment upon the work of the survey: —

The commission is of opinion that the administrative part of the bureau is well conducted and with economy and care, and discloses excellent administrative and business ability on the part of its chief.

The commission expresses no opinion as to the plan of the survey as delineated by the director, as it does not regard itself charged with this duty, nor is it competent to express an opinion on a subject involving so difficult a scientific question. This, in the judgment of the commission, must be left to the criticism of those who are able to do so more intelligently than can the commission, with its limited means of knowledge.

The commission has no doubt of the wisdom of a geological survey of the whole country, and considers the question as to the propriety of its being done by the general government as settled by existing legislation.

In treating of the coast survey, the commission gives an outline of its history from its inception in 1807 until the present time. The report treats at length of the feasibility of transferring the survey to the navy department, and shows that only a small part of its work is of a kind with which naval officers are legitimately concerned. It also speaks with favor of the geodetic work of the survey, sees no occasion for any other legislation than can be incorporated in the appropriation bills, and concludes that the secretary of the treasury can make all necessary regulations governing it.

The report on the signal service will disappoint all who have been dissatisfied with General Hazen's management. It recommends no legisla-