

SCIENCE.

FRIDAY, AUGUST 14, 1885.

OFFICIAL SCRUTINY OF THE U. S. COAST-SURVEY.

SERIOUS charges have been brought by the authorities in Washington against the administration of the U. S. coast-survey. During many days past, the newspapers, under more or less sensational headings, have given currency to statements and insinuations of a damaging character. Some of the articles which have come under our eye are obviously wrong, some contain half-truths, and some are inspired with animosity toward particular men, or toward the prosecution of purely scientific work. Up to the time when these lines are written, we have seen nothing in the journals which bears the stamp of official accuracy; but there appeared on Friday last what purports to be a summary of the results attained by a committee of investigation appointed by the treasury department. If so much is to be said in public, as is contained in this statement, we regret that the charges are not authenticated by a signature, and that the circumstances under which the inquiry has been conducted are not clearly made known. The credit of an important branch of the public service, as well as the personal standing of its leading officers, is involved in these criminations. A decent regard for justice, and a fair consideration for those who have long maintained a good report, require something more than anonymous and semi-official communications, sent out by telegraph, in which it is not possible to discriminate the pen of the reporter from that of the authorized investigator, and in which it is still harder to determine what are the charges of the complainants, and what are the conclusions of the tribunal. Either reticence should govern an investigation until some conclusion is reached which can be openly made known, or else there should be sufficient publicity in the conduct of

the inquiry to acquaint the public with the extenuating circumstances of the defence, and the answers which are made to the preferred complaints. Unless we are misled by these unofficial statements, it appears that the superintendent of the survey has been deposed from his office for alleged mismanagement, that the assistant in charge at Washington has been first removed and then restored, and that several persons employed by the survey (chiefly in subordinate relations to the service) have been brought under censure.

We have no disposition to apologize for, or to screen, continued neglect of duty, or abuse of the high responsibilities which are attached to the conduct of an important post; but certain facts of an explanatory character should certainly accompany expressions of blame. The friends of the superintendent are aware that he has been for a long while a sufferer from a painful disease. He has been advised, as we are informed, to seek relief from acute and distressing attacks by the use of agents which are extra hazardous. There is no doubt that his efficiency as an administrative officer has thus been seriously impaired. It would have been well, under circumstances of so much responsibility, if he could have been quietly retired in view of the long-continued, efficient, and able services which he has rendered to the country. Failure resulting from physical infirmity, and from the employment, however injudicious, of the prescribed means of relief, is failure still, so far as the conduct of a public office is concerned; but it is not the failure of a dissipated man indulging in vice. The accused is not to be condemned like one who has surrounded himself with bad associates, or who has appropriated to his personal gratification the public money. His previous record of fidelity, application, and uprightness should be remembered. A sharp distinction should be drawn between erroneous methods of control which

he has initiated, and those bad traditional forms which are likely to grow up in any public office unless the most vigilant watch is kept. If the record of the superintendent is good, — and we believe that it is, up to the time of a great domestic sorrow, and the subsequent incursions of disease, — the judgment of the government and of the public should be very different from that which would be due to a dishonest, incapable, or dissipated man. We sincerely believe, that, when all the facts are brought out, our judgment will prove to be correct, and that the bad administration attributed to the superintendent will not be without extenuating considerations. The honors which have been won by the coast-survey abroad and at home, for thoroughness, under arduous and complicated circumstances, are honors which have been won by those who have administered its affairs.

While awaiting further information, there are some known facts, and some known principles, which it is worth while to bear in mind, particularly as there is always a multitude ready to raise a hue and cry if any determined opponent leads off in throwing out suspicions.

Without the slightest disposition to screen official mismanagement, if it has been discovered, we must caution our readers against giving credence to insinuations and rumors. All who are under implied censure have a right to be fully heard, and to bring all the facts which are explanatory of their conduct to the eye of a qualified tribunal. They have a right to protest against the arbitrary exercise of personal authority, or against the judicial methods of a star-chamber or a drum-head court-martial. No political purpose, no personal dislike, no disbelief in science, should be allowed, unquestioned, to throw discredit upon a branch of the public service, or dishonor upon a corps hitherto regarded as exemplary in all its official work.

The work of the coast-survey, during its long history, has been of the highest character. For nearly seventy years it has been approved by successive congresses and administrations, and by navigators, merchants, and men of

exact science. It has received the highest encomiums of foreigners who were qualified to judge of its merits, and were interested in pointing out its defects. The five superintendents — Hassler, Bache, Benjamin Pierce, Patterson, and Hilgard — have each, in different ways, improved its methods, and upheld its efficiency. The officers just displaced have grown up in the service, and have won promotion by the ability and fidelity with which they have discharged their great responsibilities. The presumptions of official rectitude are in their favor until positive faults are pointed out. They are entitled by the principles of good government, as well as by their individual services, to all the opportunities they may desire for explanation or defence; and any premature opinion is unfair, especially if it is affected by personal prejudices, or is based upon a lack of appreciation for scientific researches.

In the conduct of such a bureau as the coast-survey, a large amount of discretion must be left to the chief. He, and he only, can determine a vast number of questions which pertain to the selection of assistants for different kinds of work, the choice of fields of labor, the discrimination between services which have an obvious relation to some immediate want of the public, and those which may be just as serviceable, but are recondite, and unintelligible to the uninformed. It is impossible to mark out the duties of the highest assistants by such rules as may be applied to the clerical services of an ordinary counting-room. In order that the results of the survey may be accurate and trustworthy, — the only results which are worth having, — costly instruments must be bought and used, and must afterwards be thrown aside, because other instruments are better, or because their work is done. Still larger outlays are requisite, in order that elaborate and important fundamental inquiries may be prosecuted by men who are trained to exact scientific methods. A staff of learned and experienced investigators is absolutely essential to the conduct of such a national undertaking as the coast-survey.

Nevertheless, all this scientific research is appreciated by a very small number of persons. Indeed, the more valuable it is, the less obvious may be its merits. Every seaman knows the value of a good chart: not every seaman, not every scholar, not every statesman, knows the conditions by which a good chart is produced. It is only the expert who appreciates the subtle sources of error which must be eliminated: he only knows the infinitude of mathematical, physical, astronomical, and geodetic problems, which are involved in an endeavor to portray faithfully such a coast line as that of the United States, and to keep the portrayal in accurate correspondence with the changing sands.

The judge of what to do, and how to do it, must be the superintendent. Congress must say how much money may be spent, and the secretary of the treasury must exercise an authority over the methods of expenditure: but the master of the works must be the head of the survey; and, although he is liable to error, like the general in the field, or the seaman on the deep, the ultimate results, attained under his guidance, are the criterion of his scientific efficiency.

In the zeal for civil-service reform, which has characterized the new administration, it will not be surprising if outlays for scientific observation, experiment, and research should be regarded as questionable if not extravagant. It is not to be wondered at, that an auditor of accounts should consider as needless, expenditures which experience has shown to be absolutely necessary for the efficient management of a scientific bureau. It will not be strange if a commission of government officials pronounces many of the investigations of the coast-survey to be incomplete, useless, or unduly costly. It will be easy to gain a reputation for economy, and for discovering the faults of preceding administrations, by striking at work, the methods of which, from their very nature, are incomprehensible to the public. It is easy to furnish witticisms to innumerable writers by a judicious repetition of scientific technicalities. But, happily, Congress is not likely to be misled by such combined misapprehensions

and misrepresentations. The president, unless we mis-read his official and personal character, will insist upon wise economy. Beyond the administration and Congress, there lies an appeal to the intelligence of the people, who certainly do not want parsimony in the study of the sea-coast. Honesty and accountability will be demanded by the public in all branches of the government service: they will rejoice in every check which may be devised to prevent the misappropriation of funds, but they will not want the efficiency of the coast-survey impaired. An administration will indeed appear awry, which proposes in one breath to restore the navy to efficiency, and in another to interfere with the accurate study of the coast, and with the perfection of our knowledge of harbors and reefs. Let there be fair play in considering the affairs of the coast-survey, and we shall have no fears of the result.

LETTERS TO THE EDITOR.

A mad stone.

THE Sedalia and other papers lately contained accounts of the application of a 'mad stone' to a Mr. Girard of this city, who had been bitten by a supposed mad dog.

The stone was owned by Mr. J. M. Dickson of Kansas City, who advertises the use of the stone, and states that it has been in possession of his family for more than a hundred years, and was brought by one of the family from Scotland. From the large number of references given in Mr. Dickson's advertisement to the mayor and other officials, and physicians of Kansas City, we may take it as true that Mr. Dickson is honest in his belief as to the virtues and history of the stone.

To a reporter Mr. Dickson made a statement that he had applied the stone to more than five hundred cases of bites by various kinds of mad animals and wild skunks; his opinion evidently being, that the bite of this animal, whether rabid or not, will produce hydrophobia. He gave the method of application, which was to place the stone upon the wound, or upon an abrasion of the skin made on any part of the body, first soaking the stone in sweet milk. He stated, that, if the person contained any virus, the stone would adhere to the wound or abrasion until it was saturated with the poison, when it would fall off; and that it was then cleaned by again soaking it in sweet milk, and this was repeated until the stone would no longer adhere.

We may presume, that, of the five hundred treated by him, a large number had been bitten by animals which were not mad; and statistics show, that, of those bitten by dogs which are mad, not more than one-third to one-half will have hydrophobia; and yet we can hardly suppose, that, of five hundred persons who believed themselves to be in danger of hydrophobia, not one would have taken it even if no preventive measures had been taken. Mr. Dickson