to dismiss a Professor, with or without cause. We are dealing with the righteousness of the act.

In the second place, the students, we find, have already learnt the lesson that the freedom of investigation, which is not only allowed but demanded in connection with every other subject, is forbidden in connection with Biblical criticism, under the severest pains and penalties. His successor is publicly warned that if he does go to Germany to study, he must have his conclusions formed before he goes or run the risk-under penalty of losing his positionof committing spiritual as well as intellectual suicide. The people who glory in an open Bible are told that the teachers of their teachers are not allowed to study it freely. And the public are advised that a university, in the last decade of the nineteenth century, is bound hand and foot to the traditional interpretations of the eighteenth century as regards the Old Testament at any rate.

It may be asked here, where then are we to draw the line?" May Professors teach any conclusions at which they may have arrived? We are not dealing with this large question at present, but are simply occupying the position taken by THE WEEK, that each case is to be decided by itself on its merits. Professor Workman claims that he is not heterodox, that he does not deny the prophetic element in Old Testament Scripture, and that he is in accord as regards the point in dispute with the overwhelming mass of modern criticism and scholarship. His claim has certainly not been disproved. It has simply been voted down by a majority. PRESBYTER.

## THE GEOLOGICAL SURVEY: ITS EARTHLY TABERNACLE.

SOCIETY that is doing a great deal of scientific work A quietly is the Ottawa Field Naturalists' Club, which has members all over the Dominion. The proceedings of the club are published monthly in the Ottawa Naturalist. The January number of this year contains the inaugural address of the President, R. W. Ells, LL.D., of the Geological Survey, delivered on December 17th last. His subject was, "The Work of the Geological Survey of Canada." As an old and successful member of the Survey, Dr. Ells was well fitted to do justice to the subject, and he has done so, we think, in an impartial spirit.

The Geological Survey was subjected to a good deal of criticism several years ago, but Dr. Ells certainly proves that taking into consideration the immense field to be explored and the comparatively small amount of money annually at its disposal, the Canadian Survey compares favourably with any other in the world. The comparison with the admirable United States Survey is decidedly interesting. Owing to their more southerly position, the field parties there are enabled to spend a very much longer period in exploration than in Canada. Again, "in many of the American States local or state geological surveys are, or have been, carried on, by which the structure and mineral resources of each have been investigated by the state authorities and at the state's expense, and thus the work of the general survey has been greatly facilitated." In the third place, the U.S. Survey has a great deal more money at its back than the Canadian. On this point Dr. Ells says: "If now we compare the personnel and the financial outlay of the world's two greatest surveys in point of extent of area to be surveyed, we can see more clearly under what additional disadvantages the Canadian brethren of the hammer labour. Thus the expenditure for the year 1887-88 of the American Geological Survey, exclusive of publication, was about half a million dollars; that of the Canadian Survey for the same year about onefifth of that amount, including publication and all expenses of management. A portion of this sum, amounting to about \$20,000 only, was divided among sixteen parties, whose operations extended from eastern Nova Scotia to Alaska, and included surveys in all the provinces, with special examination of the country east of Alaska and the Mackenzie River Basin, Hudson and James Bays and Lake Winnipeg and vicinity. In numbers the staff of exploration comprised in all, including assistants, thirty-five persons. In addition, work was carried on in the branches of Palseontology, Botany, Chemistry and Natural History, the results of that year being comprised in twelve scientific reports, besides that of the Director, which were published in two volumes of 1,364 pages, in addition to the bulletins on Palæontology and Botany. The American Survey during the same year employed in the Geographical branch alone ighty-five assistants, in addition to the chiefs of the several divisions, of whom there were fifteen in connection with the outside or geological work proper, and twelve for the associated branches, among whom are many of the leading professors in the different universities, men most distinguished in their special lines of work. With such a command of men and money magnificent results may be confidently looked for, yet in the published volume for the year mentioned there are only four scientific reports, besides that of the Director, with twenty-four administrative reports, corresponding with the summary reports of the Canadian Survey, and describing only the season's operations as carried on by the different parties, but not giving the scientific results, the whole being comprised in a magnificently printed and illustrated volume of 710 pages. In addition to this, as in the Canadian Survey, bulletins containing special reports on the work of the various associated subjects were also published. Comparing results, then, in so far as these can be ascertained,

it is evident that the Canadian Survey has continued to maintain the high standard of work which it has ever enjoyed from its commencement and is giving at least full value for the amount of money expended thereon."

That, of course, is only a comparison for one year, but there is no reason to think that Dr. Ells would willingly select a year particularly favourable to Canada. And there is no reason to think that Dr. Ells, although he is a member of the Survey, is exaggerating when he says : "That the Geological Survey has ever borne an excellent reputation both at home and abroad is due, probably, first of all, to the excellent reputation of its founder, the late Sir William Logan, and secondly to the fact that the great majority of its staff have laboured to their utmost with hearts filled with a love for the profession and with the desire to achieve great results."

But we have not yet touched upon the subject of our article, namely, the Museum of the Survey at Ottawa, or, in other words, its earthly tabernacle, which falls far short of what it should be. Its chief and completely fatal point is that it is not fire-proof. The magnificent collections of fossils, minerals and natural history specimens which have been gathered yearly since 1844 are at the mercy of the commonest kind of accident. There is much in the museum, of course, that mere money and time (of no account in a young country) can replace, but there is much, again, that neither time nor money can replace. A new, permanent and fire-proof building is needed. No visitor to the Capital, in any way acquainted with the value of the Survey, can fail to see the inadequacy of the present building. At a moment when retrenchment is filling the political air, it may be inadvisable to speak of expenditure, but it might not be impossible to prove that a suitable home for the Geological Survey is as important to the country at large as the building of a railway out to Mr. Come-Down-Handsomely's timber limits.

J. C. SUTHERLAND.

Richmond, Que., Jan. 15, 1892.

## THE COMING SHELLEY CENTENARY.

"A UGUST 4, 1792, is one of the most memorable dates in the history of English literature," says Mr. Addington Symonds. "On this day Percy Bysshe Shelley was born." And on the corresponding day of the present year England intends to celebrate the centenary of this her first lyrical poet.

Shelley has of late years been growing more and more popular. Where once miso Shelleyists abounded, Shelleyolaters do now much more abound. Mr. Edmund Gosse includes him in his list of great English poets, and devoted a series of lectures to him recently at Cambridge; Professor Dowden thought him worthy of an elaborate twovolumed "Life," a work which elicited a magazine article from Matthew Arnold; Browning wrote an essay upon him; and latterly by the very University from which he was expelled eighty years before there has been published an excellent edition of the "Adonais," annotated by Mr. William Michael Rossetti. In his own day he was regarded as an anarchist, a subverter of morals and society. To-day we differently interpret his politics and call his religion by quite another name. What has brought about the change?

First, perhaps the greater tolerance of the age. And we are especially tolerant with regard to great men. Carlyle exercised a wide influence in this respect. His estimate of Cromwell, of Mirabeau, of Mohammed, of Johnson opened the eyes of critics and brought about a more liberal method of judging of the lives and works of leaders of thought. True, it has sometimes, in the opinion of many, been carried to excess. The puritanical element, still strong in English feeling, hesitates before M. Taine's laudation of Byron. Not many follow Mr. Froude in tracing to conscientious religious scruples Henry VIII.'s sextuple matrimonial experiments. Rousseau's admirers have still to combat the antipathy aroused in the majority of the readers of the Confessions. But perhaps these very excesses are the best proof of the existence of a more tolerant spirit. We have learnt not to expect too much of the genius. We have learnt that aesthetical faculties of a high order are, in an imperfect world, not synonymous with moral faculties of a high order; that though, as Goethe insisted, "all art must and will have a moral influence," yet, at all events to a certain extent, in the words of Schopenhauer, "it is as little necessary that the saint should be a philosopher as that the philosopher should be a saint." This being granted, much of the opprobrium under which Shelley lay has been removed, thus admitting a less biased appreciation of his poems. That Shelley's conduct now and then requires extenuation his most ardent disciples are constrained to admit. But to paint "the real Shelley" is a task, in the words of *Punch's* Belgravian mater familias, "worse than wicked, it is vulgar." Second, this interest is evinced regarding a man peculiarly interesting to our present age. What are to us the questions of prime importance, the problems most fre-quently discussed, the lines of thought chiefly occupying the public mind? Surely they are largely of a sociological nature. The rights and duties of the individual considered as an integral portion of the community are now the subjects of books, of magazine articles, of public deliberations. Society in all its complex aspects is the study begun by this last decade of the nineteenth century. The Renaissance was the period of intellectual and artistic activity; the Reformation of religious activity; the French revolution of political activity; the nineteenth century of scientific activity; the twentieth century will be the period of sociological activity, and we to day are witnesses of its birth. But what has this to do with our interest in Shelley? Everything. It is just because Shelley, poet though he was, was so intensely interested in sociological problems, and was so intensely modern in the solutions he proposed for them, that to-day he is able to speak to us, not as with an alien voice, unintelligible and far distant, but as if he were amongst us and one of us. Indeed in this he is more than a modern. "He is emphatically," says Mr. Rossetti, writing in 1886, "the poet of the future." His earlier productions, omitting his youthful romances, certainly are more occupied with theological than with political subjects. But this was natural to youth. That latterly the bent of his mind was towards the contemplation of man in his relationships with his fellow man needs no proof. "I consider poetry," he himself said, "very subordinate to moral and political science." And again, "Should I live to accomplish what I purpose, that is to produce a systematical history of what appears to me to be the genuine elements of human society." Look too at his poems, at the "Masque of Anarchy," "Hellas," "Charles I.," "The Revolt of Islam," and above all "Prometheus Unbound "-what is this last but a utopia, a moral and sociological utopia, loftier in its imaginative flights than has entered into the heart of Plato or Bacon or Sir Thomas More or Mr. Bellamy or Mr. William Morris to conceive? His Irish episode is another proof. And perhaps the most convincing of all is his posthumous "Philosophical View of Reform, "a piece of writing," says Professor Dowden, "which may be viewed . . . as a prose comment on those poems that anticipate, as does the 'Prometheus Unbound,' a better and a happier life of man than the life attained in our century of sorrow, and toil, and hope."

The third factor in the present fascination which he wields I take to be the character of his poetry. - " As a poet," says Mr. Symonds, "Shelley contributed a new quality to English literature." All the critics are agreed as to the novelty of this "quality," though naturally they variously characterize and interpret it. Professor Masson, in a very Scotchy-Scotchy, of course, in a purely Charles-Lambian sense-article in Macmillan's Magazine declares that "Shelley's poetry (has) something very peculiar in quality . . . . It is very peculiar." This does not throw much light on the peculiarity, unless we regard that extraordinary sentence, "Shelley is pre-eminently the poet of what may be called meteorological circumstance," as enlightening. It would be as much to the purpose to call Wordsworth pre-eminently the poet of what may be called the vegetable circumstance, and to think that by so saying we understood "the cloudy, hidden, inner meaning" use Mr. Ruskin's phrase) of his subjectively descriptive poems. Matthew Arnold, too, made no attempt to explain Shelley's uniqueness. In fact he is equally unsatisfactory as an expositor. He applies to him those magnificent words: "A beautiful and ineffectual angel beating in the void his luminous wings in vain." Certainly "the void " is a little better than Masson's "meteorological circumstance"-a phrase which might lead the ignorant to imagine that Shelley's poetry had to do with hygrography or degrees Fahrenheit. It was Matthew Arnold, too, who declared that "the man Shelley . . . was not entirely sane, and Shelley's poetry was not altogether sane either.' Well, one of "those who know" spoke of poetry as a divine madness, and another spoke of the poet's eye "in a fine phrensy rolling." Mr. Symonds is perhaps the most lucid and at the same time appreciative in his explanation of this "new quality"—"a quality," he says, "of ideality, freedom, and spiritual audacity." Is it not exactly these three things that most powerfully appeal to us to-day? To us, who for the last fifty years have been the thralls of "science"; who have been taught to believe in the nonexistence of everything invisible at the other side of a  $\frac{1}{1/6}$ objective or in a 6 ft. reflector ; upon whom materialism has laid its cold hand, explaining thought as a glandular secretion and emotion a thing to be measured by the correlation of forces; whose teachers scout the idea of an immaterial universe and scoff at spirit; to whom the highest ideal is a multiplication of the discovery of natural laws, meaning by "natural," laws relating to ponderable and tangible objects of sense ; to whom biology is all in all, and sarcode and stimuli the explanation of the sum of existence-to us, I say, thus schooled for half a century, Shelley's poetry with its ideality, its freedom, and its spiritual audacity brings with it airs from Heaven.

Many not insignificant evidences there are of an approaching release from the four clay walls of science, falsely so called. True science, I grant, has worked wonders. It has revolutionized the modern world, and through it the memory of the nineteenth century will live for all time. It is when science usurps the spheres of philosophy and religion and takes upon itself to explain the content of mind and soul that it fails. Science has to do with external objects of sense; and to attempt to expound all ontology by means of matter and force is as if algebra were to attempt the formulation of a system of ethics by means of a, b, and c—for matter and force are as purely symbols, as much unknown quantities, as x, y, and z, and natural science is as limited in its scope as the six books of Euclid. But there are, I say, significant evidences of a change. The growing interest in oriental phases of philosophy, even if this is shown by such movements as theosophy and so-called Buddhism, are straws