not provide any board of officials competent to testify to the fitness of the medical investigator.

4. The advocates of anti-vivisection laws consider themselves more humane and merciful than the opponents of such laws. To my thinking these unthinking advocates are really cruel to their own race. How many cats or guinea pigs would you or I sacrifice to save the life of our child or to win a chance of saving the life of our child? The diphtheria-antitoxin has already saved the lives of many thousands of human beings, yet it is produced through a moderate amount of inconvenience and suffering inflicted on horses and through the sacrifice of a moderate number of guinea pigs. Who are the merciful people—the few physicians who superintend the making of the antitoxin and make sure of its quality, or the people who cry out against the infliction of any suffering on animals on behalf of mankind?

It is, of course, possible to legislate against an improper use of vivisection. For instance, it should not be allowed in secondary schools or before college classes for purposes of demonstration only; but any attempt to interfere with the necessary processes of medical investigation is, in my judgment, in the highest degree inexpedient, and is fundamentally inhuman.

Yours very truly,

C. W. ELIOT.

HON. JAMES MCMILLAN.

A NATIONAL REPOSITORY FOR SCIENCE AND ART.

A LECTURE was delivered at the Society of Arts on May 18th by Professor Flinders Petrie on 'A National Repository for Science and Art.' Professor Petrie, as reported in the London *Times*, said that the preservation of material for study had become an urgent question. Many of the sciences rested on proofs and bases which were partly or entirely vanishing. Looking at our present needs, and first of all those which he knew of personally, he asked where was the possibility of preserving all the new world of prehistoric man that had opened before us in the last 30 years. There was scarcely a single burial preserved intact in any museum, though they might see long rows of objects from such tombs, divorced from all else that belonged to them. We had nothing yet but stray examples of the prehistoric ages of other countries. In Egypt alone the prehistoric pottery extends to 900 varieties; when he made an offer to the British Museum he was asked to send as few as possible. To get ten square yards more in English museums was a problem. The bulk of the Greek and Latin inscriptions that we possessed was stored in cellars of the British Museum in the worst of lights. When the earliest Greek tools were offered to the British Museum they were declined as being too ugly; and they were lost beyond recall. The subject of casts was a national scandal. As to the last 1500 years the prospect was far worse. Of our own architecture there was no collection, except a small one belonging to the Institute of British Architects. There was no home for any remains of the innumerable buildings that were wiped away by modern changes. Every year the tribes of our Empire were dwindling, becoming extinct, or merging with their rulers. Our civilization had wiped out races at a greater rate in this century than in any other of the world's history. Yet there was no place where the remains of these peoples and of their civilizations could be preserved. The study of variations were only just beginning, and was the key to the great question of species. Yet series of hundreds or thousands of the same objects, however needful, however irreplaceable, could not be kept in existing museums. The larger geological specimens were scarcely ever preserved. Most of the remains of man were irreplaceable, and to suppose that the remains of all the past civilizations of the whole world were to be compressed into one square furlong at Bloomsbury was manifestly absurd. At the beginning of the century the British Museum was begun in an airy suburb. At the end it was in the midst of square miles of houses, with land of high value around it. It is hopeless to suppose that such a site could be fit for the expansion of historical material. To say that nothing should be preserved that was not worth many pounds for each square foot was to destroy all hopes of progress. Yet we virtually did so by saying "The price of preservation is £5 or £10 per square foot; perish all that is not worth so much." Two very

different classes of buildings and of conservation were, in the lecturer's opinion, required. For valuable objects of which no possible deterioration must be permitted, and which must be safeguarded from risks of theft, such buildings as our present museums were admirable. But for rougher objects and things of small individual value a much less costly and elaborate system was needed. A fine site in a city, a noble building, costly glass cases were quite inappropriate to the greater part of the material which was to be kept and studied. The system to which the necessities pointed was that of long galleries, far apart, against which much larger annexes could be attached at any point. This might be called the gridiron pattern, and the building must, of course, be placed outside of London rents. Some said: "Let us leave everything to local care; let local museums keep everything as found." They might as well leave things safely buried instead. The local museum had its own uses for elementary instruction, but no student could possibly race over the whole world to find the examples of any subject he needed. Professor Petrie suggested that a square mile of ground should be obtained somewhere within an hour's train from London at a comparatively cheap rate. It would, in a generation or so, be to Greater London what South Kensington was to the Lesser London 50 years ago. This village that would grow up around it might very appropriately be called, after the founder of the British Museum, the village of Sloane. The Sloane Galleries would soon outgrow any confusion with the little collection of Sir John Sloane in Lincoln's-inn-fields. The lecturer worked out in considerable detail the form of the galleries, the cost, the arrangements for the staff, and the fittings, and said that at first the Sloane would be the clearing ground for freeing the existing museums from everything of small value and attractiveness. That the British Museum should thus devolve the care of its contents of lesser value was a necessity that was to be met in the library by powers of very free-handed disposal to locate centers, or even destruction. Such powers in other departments were therefore to be expected sooner or later. As yet nothing could legally leave the museum, but useless lumber could be interred in the grounds. The normal average increase of the vote for the British Museum was £10,000 every four years of its history. If the proposed national repository enabled the British Museum to expand by weeding out, instead of by fresh building, the former would be paid for to all time. All that was absolutely required could be provided on the present system of expenditure if the British Museum were to be weeded during eight years of its more cumbrous and less valuable contents sufficiently to take in its new acquisitions.

SCIENTIFIC NOTES AND NEWS.

Dr. J. Willard Gibbs, professor of mathematical physics in Yale University, has been elected a corresponding member of the Paris Academy of Sciences.

The gold medal of the Linnean Society of London has been awarded to Professor Alfred Newton, F.R.S., in recognition of his important contributions to zoological science. The medal is awarded annually, alternately to a zoologist and to a botanist.

On May 8th the Prince of Wales, president of the Society of Arts, presented the Albert medal to William Crookes, F.R.S., "for his extensive and laborious researches in chemistry and in physics; researches which have, in many instances, developed into useful practical applications in the arts and manufactures."

The Boston Society of Natural History has awarded the first Walker prize of $100 to Dr. Rudolph Ruedemann, assistant N. Y. State paleontologist, the subject of whose essay is the 'Hudson River formation of the vicinity of Albany, N. Y., and its taxonomic equivalents.' The paper will be published as a bulletin of the N. Y. State Museum.

At the meeting of the Paris Académie de Médecine on May 1st, Professors Behring (of Marburg), Golgi (of Pavia), Tilanus (of Amsterdam), and Pawloff (of St. Petersburg), were elected Foreign Associates.

Professors W. Pfeffer of Leipzig, von Richthofen of Berlin, and S. Schwendener also of Berlin, have been elected members of the Academy of Sciences of Christiania.

The following candidates have been selected