destitute of wood, and it is Mr. Hornaday's opinion that an attempt to find these few would be hopeless. Skins of buffalo-heads are now valued by taxidermists in Dakota at fifty dollars each, from which it may be assumed that they have given up all hope of procuring any more.

Should this endeavor be fruitless, the suggestion has been made that buffaloes may still be obtained in the British possessions.

PARIS LETTER.

THE town of Montdidier (department of Somme), in the north of France, has recently held a series of festivals in honor of Parmentier, who, as is well known, was the first who brought that humble but useful vegetable, the potato, into France. It was in 1786, or thereabout, that Parmentier obtained from Louis XVI. permission to cultivate potatoes in the Plaine des Sablons, near Paris, to show what service could be expected from the new food. The festival of Montdidier consisted of an agricultural exhibition, an exhibition of horses and dogs, and of farming implements, and also of a meeting at which were discussed the names by which the different varieties of potatoes are to be designated hereafter. M. Chevreul was to preside, but could not attend. He wrote a letter, in which he said that Montdidier was for him a second birthplace, "because there was born Mlle. Sophie Davalette, whom I married in 1818, and who made the happiness of my life during nearly half a century." This is certainly a very interesting fact, but has not much to do with Parmentier.

Some days ago there was held in the palace of the Trocadero a festival for the benefit of the Pasteur institute. The very first artists, dramatic and musical, offered their time and talents: and the meeting was a success. The house, which is enormous, was crowded, although prices were high; and after the recital by Coquelin, of some verses of E. Manuel, a very fine ovation was given to Pasteur. He was very pale and much overcome. The whole audience rose, and cheered with all their might. This festival was got up under the direction of Scientia, a young scientific society founded by Charles Richet, G. Tissandier, and Max de Nansouty.

Dr. Lagneau has recently presented his report on the principal epidemics of Paris during 1884. (This is an annual report sent to the Conseil d'hygiene.) Some interesting facts are to be noticed in it. It has long been thought and said that typhoid-fever is the most prevalent and most fatal of Parisian epidemics. This, however, is quite untrue: diphtheria is entitled to the first place in the scale. Typhoid-fever, small-pox, and whooping-cough are becoming more rare than formerly. In 1884 there were 2,592 deaths from diphtheria. Dr. Lagneau's report is a very interesting and useful one, and indicates great progress in the hygienic and sanitary conditions of Paris.

A few days ago I was present at the inauguration of the Exposition d'hygiene urbaine, a very interesting display indeed. I specially noticed a hot-air room for the disinfection of mattresses and clothing (for military and colonial purposes), Redard's method for disinfecting wagons and railway-cars by over-heated steam, etc. The number of implements exhibited is very great, and one might spend many hours in the exhibition without feeling a decrease in interest. It is impossible to enumerate the useful and ingenious apparatus to be seen, and I shall not attempt it.

There has been a very sharp discussion in the Academy of medicine between Pasteur and Béchamp. It is pretty well known that Béchamp has got up a theory on microzymas, which nobody save himself well understands. Microzymas, according to his idea, are molecular granulations which have existed since the beginning of the world, — he does not say which day of creation, — and are possessed of eternal life. But what is the *rôle* of these microzymas, what is their influence on health and disease, what is their use and their *modus vivendi*, nobody knows. In short, M. Béchamp having attacked Pasteur's experiments with unusual fury, Pasteur arose and said that such discussions were entirely useless, and that the only thing to do was to begin experimenting again, and that M. Béchamp would surely recognize his errors if he only took care to experiment seriously. Pasteur contested every result of Béchamp's experiments, and asked for the appointment of a commission to examine the facts and arguments on both sides: he wants to have done with the microzymas, and to show where the errors lie. We shall certainly have some very interesting discussions soon. The commission has been appointed on Professor Trélat's proposal; and it is believed that M. Béchamp's last idea, viz., that microzymas transform themselves into bacteria, bacilli, and other pathogenetic organisms, will not live much longer.

The statistics concerning rabies in animals during 1885 have just been published. They show that in Paris, or rather in the department of the Seine, the number of rabid animals was 518. Of these animals, 503 were dogs; 13, cats; and 2, horses. Nineteen persons have died of rabies. It should be remarked that the number of cases of rabies in animals was much larger in 1885 than in 1884, — 518 instead of 301, an increase that is not easily accounted for.

I have recently attended three very interesting *séances* given by Professor Luys concerning hypnotism. The meetings were held at his private residence, and were attended only by some personal friends and acquaintances of Dr. Luys. The results of the experiments were very singular indeed, especially during a somnambulistic trance. M. Luys has studied, and showed to us, the effects of different drugs and poisons when put in a glass vial, firmly sealed with the lamp, and kept near the patient (*action des médicaments à distance*). Each different drug produces a special and characteristic effect. Valerian does not act like ether or brandy. Wine, brandy, and champagne do not produce exactly the same effects; that is, the drunkenness brought on by the presence of these different alcoholic beverages is not precisely the same, and the differences closely correspond with those observed in persons really intoxicated with wine, brandy, or champagne. For instance, ether acts on Esther N. in the following manner. After a few minutes' application of the ether-vial behind the neck, she grows less drowsy, opens her eyes, and begins laughing and grinning without any reason whatever. Her mirth is soon very great, and even noisy. A very singular fact is that in her normal condition many colors are not seen by her; but under the influence of ether she sees them quite distinctly, and is astonished at the vividness of her color-impressions. Valerian acts upon her very differently. She begins scratching the floor, as cats do, and believes she is disinterring the remains of her mother; and she is in a very sad train of thought. Wine, similarly put behind her back, intoxicates her in a most pronounced and realistic manner: she is certainly in a state of beastly intoxication, and could not possibly be more so if she had really swallowed several bottles of wine. It is quite a sight to witness the experiment. She goes through the whole ordeal from beginning to end, and finally rolls on the floor as drunk as drunkard ever was. Water brings on symptoms of hydrophobia. These experiments fully confirm those of Drs. Burot and Bourru, of Rochefort, on the same subject.

Near the end of last month, during the Easter holidays, the Congrès de sociétés savantes began its meeting in the Sorbonne for the twenty-fourth time. After having been made up entirely of provincial scientists, this society has recently enlarged its membership, and now comprises members from all parts of France. The number of persons who attend this meeting is always very great; but the Parisian members are rather scarce, especially when the weather is as fine as it has been this year, and tempts them to go and seek in some nook of Compiègne or Fontainebleau forests a week of leisure and rest after a winter of hard work. However, the meeting was very interesting. In the section devoted to economical and social science, presided over by M. Levasseur of the institute, many questions were discussed concerning property, the share that can be given in benefits to workmen, the Torrens act, and similar plans for the *mobilisation* of property, etc. In the historical and archeological section many papers were presented, as usual. These literary scientific studies are the ones that interest the greatest number of members; since these sections are the original society itself, which has only of late added sections for the study of natural history, mathematics, chemistry, and physics.

Apropos of societies, the Association française pour l'avancement des sciences has just published the first part of its report on the Grenoble meeting of 1885. This report is now published in two parts, separately bound as usual: it is published with great care, and is very large.

Professor Duclaux published last week a new edition of his book, 'Ferments et maladies,' under the title of 'Le microbe et la maladie.' It is an entirely new work, and gives a very good account of the facts at present positively known concerning the pathogenetic properties of different bacteria and bacilli. We recommend this book, which is very interesting and well written, although with too many attempts at literary effect.

The Institute of France has been recently called to elect a member in the place of Professor Bouley, deceased some time ago. There was only one candidate of sufficient notoriety and fitness for the place, and this was Professor Chauveau of Lyons, the well-known veterinarian and physiologist. He was elected by a great majority, and is to fill the place of M. Bouley in many ways, being already inspector-general of veterinary schools, and member of the institute, and soon to be elected a professor in the Museum d'histoire naturelle, in M. Bouley's place. His duties will be different from those of his predecessor. He will be professor of general physiology and pathology, instead of professor of comparative pathology, at least it is rumored so; and this is not surprising, Professor Chauveau being by training more of a physiologist than of a pathologist. He is a very able man, has worked a good deal, and thoroughly understands comparative anatomy and physiology. His election in Bouley's place is very favorably commented on here.

M. Laurent has communicated to the Academy of Belgium the results of some experiments on the influence of different bacteria on the growth of

Fagopyrum. He has grown the plant in different sorts of earth, and has found that the bacteria are very useful; since the plants grown in earth filled with bacteria are much bigger and finer than those grown in sterilized *humus*.

The last two numbers of the *Revue scientifique* contain articles on the zoölogical stations of Cette and Concarneau. The laboratory of Cette is well known, and presents the great advantage of a rich fauna to be found in the brackish waters of pools in the salt-marshes, and in fresh water. No place in France offers such a happy combination of different fields for biological students. Professor Sabatier of Montpellier, well known by his numerous and interesting researches on the origin of sexual elements in the vertebrates, founded this laboratory, and he now wishes to develop it. He is trying to raise the money for the purchase of a strip of land, and especially for a new building. It is to be hoped that he will succeed. As to Concarneau, the oldest of all our marine laboratories, it seems to be in good order. It was founded by Costi in 1859. It is a small laboratory, and cannot compete with its younger companions of Roscoff, Banyuls, Cette, Villefranche, and Wincereux; but yet it may render good service. Interesting researches concerning the temperature of the ocean at different depths have been conducted by M. Goïz; and it is intended to study the habits and biology of sardines, a fish very abundant on the coast at certain times of the year, and concerning which very little is yet known. V.

Paris, May 19.

NOTES AND NEWS.

THE provincial assembly of San Paulo has voted an appropriation of fifty contos of reis (equivalent to about twenty-five thousand dollars) to begin a geographical and geological survey of that province on the plan followed by the surveys of the territories of the United States; and work has already been commenced with the following corps: Prof. Orville A. Derby, director; Dr. Theodoro Sampaio, chief topographer; Dr. Luis Felippe Gonzaga de Campos, and Dr. Francises de Paula Oliveira, geologists. The first work of the commission will be the exploration of the river Paranapanema from near its source to its junction with the Parana, which promises to become an important link in the system of internal communications of the empire, and to afford a complete geological section across the various belts of sedimentary formations of the province. The province of San Paulo joins that of Rio de Janeiro on the south, is one of the most interesting and important of the empire, and has as yet received but little attention from geologists. It is very extensive, is known to possess great natural resources, and embraces the principal coffee-growing sections of Brazil. Operations have probably been begun by this time. With respect to his recent studies in Brazil, Mr. Derby writes, "I have been giving a great deal of attention to petrographical work, with very encouraging results, as I find that the geology of the vicinity of Rio de Janeiro is not so monotonous as I had supposed, as there are within easy reach of the city three ancient volcanic centres, with a great and perplexing variety of eruptive rocks, both in large masses and in small dikes."

— The belief in the occurrence of 'sea-serpents' in the ocean of to-day, though hardly openly averred, is not discountenanced by not a few scientific men whose opinions are entitled to the highest consideration. Dr. J. B. Holder, after giving (in the Annals of the N. Y. academy of sciences) an historical account of a 'sea-serpent' observed near Boston, corroborates the adduced testimony by the description of a carcass of a large and unknown animal found off the coast of Florida, as related by highly creditable witnesses. The creature described was over forty feet in length, and nowhere of more than two feet in diameter. Unfortunately the specimen was in an advanced state of decomposition, and no portion was saved. The discovery of the giant squids off the Atlantic coast within recent years demonstrates the possibility of other large animals yet inhabiting the ocean, of whose existence science is yet wholly unaware. May not some descendant of the cretaceous mosasaurs or plesiosaurs yet be among them?

— At a meeting of the Royal colonial institute, held on May 11, in London, a paper on 'Tasmania as it is,' was read by Mr. W. L. Dobson, chief justice of Tasmania. As to the chief industrial pursuits of Tasmania, Mr. Dobson remarked that the largest return was received from sheep's wool, and great attention was devoted to breeding merino sheep, with fleeces of the finest and densest quality. An inexhaustible supply of timber of different kinds was obtained from the dense forests of the island; and hops, oats, and potatoes were among the vegetable produce. There could be little, if any, doubt that the mining wealth of Tasmania was yet in its infancy. As to means of locomotion, 257 miles of railway had been laid down, and 117 nearly completed, and there was a network of telegraphic wires all over the inhabited portions of the colony. No aid was afforded by the state to religion; and of the population, about one-half belonged to the Church of Eng-