the same privilege, but was forestalled by the French delegates, owing to the perseverance of MM. de Mouy and de Montholon. Whether French or American workers do the work, matters little: the essential thing is, that it be well done and profitable to archeology.

A recent paper read at a meeting of the Biological society spoke at length of the possibility of obtaining glass or crystal lenses thick enough to resist a pressure of a thousand atmospheres. In order to study *de visu* the influence exerted on animals by high pressures, it was desired to fix in an iron or steel apparatus a lens allowing a constant supervision of what was going on inside. Quartz was first used, but it could not withstand more than four or five hundred atmospheres. Then glass was used, and also a different manner of securing it. The results were very good. By means of the leather half-cylinder used in hydraulic presses, the glass lens was very well held and made fast, and the lens itself (fifteen millimetres thick and forty in diameter) supported a pressure of a thousand atmospheres without the slightest inconvenience.

The first two numbers of the *Annales de l'institut Pasteur* have been published, under Professor Duclaux's direction. They contain much good material. In the first number there is an interesting letter from Pasteur, concerning antirabic inoculations in general. The second number contains a paper by M. Roux on culture-methods for antirabic microbes, which will be of use to many. Dr. Gamaleïa has contributed a long and very interesting paper on paralytic rabies, showing that this form of the disease, considered uncommon, and believed by M. Peter to result only from experimental rabies, is in fact common, and has been frequently met with by himself and others.

The vine-growers of Algeria are now seriously troubled by the destruction caused in their vineyards by an insect, Altica ampelophaga, which threatens to become a curse, very troublesome, but less dangerous than phylloxera has been to continental vineyards. This insect is becoming very numerous, and its effects are considerable already. In some places more than a third part of the whole production is destroyed by it. It feeds on grape-vine leaves only, eating them as fast as they appear, and ultimately killing the vine. As it is a very prolific insect, giving over five generations in a single summer, much is to be feared from it. During the winter it hides in recesses under the bark of trees, under dead leaves, in the earth, etc. Many methods have been tested to destroy it, but those that are good cost too much. This plague has been long known in Spain. In mediaeval times public prayers were ordered in Andalusia when the insects became too numerous. It is unnecessary to say that no results whatever were noticed, and even Catholic Spain now deems it better policy to try and fight the plague without asking for supernatural aid.

At a recent meeting of the Biological society, M. Ch. Ozanam presented a paper on the use of carbonic acid as an anaesthetic. The carbonic acid, mixed with air, is inhaled. The anaesthesia so induced is a very complete one, without danger, and may last a long time. M. Ozanam has used this method in operations on man, and is quite satisfied with the result. These facts have been confirmed by M. Grihant. It must be noticed that the anaesthetic properties of carbonic acid have long been known. Carbonic acid was most likely the first anaesthetic used, as it has been surmised that the anaesthesia induced by the physicians of ancient Egypt and Greece was due to the carbonic acid evolved by the contact of vinegar and marble.

M. E. Bérillon has recently published an excellent little book giving an accurate account of Paul Bert's work in physiology. It is equally readable for scientists and the general public. The principal results of M. Bert's work in the various branches of physiology are analyzed and explained in a very clear and correct manner, and a list of his principal contributions is appended.

A new medical paper has just been started by Professor Grancher of the Paris medical school. It is the *Bulletin medical*, and is expected to prove a success. Medical papers are generally of little value in France, save, of course, those which contain only original matter. The papers intended to keep practitioners well posted upon the progress of medical science are very incomplete. None can compare with the *Lancet* or *British medical journal*, or with the best American papers. Many of them are worth nothing, and it is a wonder they contrive to live. The *Bulletin medical* has correspondents abroad in great number, and contains a great deal of matter in the shape of original contributions, chemical lectures, reviews of books and scientific papers, society transactions, etc. It is published twice a week. V.

Paris, March 9.

GEOGRAPHICAL NOTES.

Asia.

The Russians and the English are equally earnestly engaged in exploring central Asia. Mr. A. D. Carey of the Bombay civil service is now making a journey of considerable interest. *Nature* says, "Mr. Carey left India in May, 1885, and

marched through Ladak into northern Tibet (Chángtán) as far as the Mangtsa Lake, and then struck northward, descending on the plain of Turkestan, near Kiria. He thus traversed over three hundred miles of country which had never before been visited by a European. The altitudes on this section of the journey were always very great, the track running usually at about sixteen thousand feet above the sea, while one, at least, of the passes crossed, was calculated to reach nineteen thousand feet. After a stay at Kiria and Khotan, the Khotan River was followed to its junction with the Tarim ; the route then lay along the latter river to Sarik, and then across a stretch of desert to Sháh-Yarand Kuchár. From the latter place the Tarim was followed down to a point where it turns southward towards Lake Lob. From this point the towns of Kurla and Kárástaber were visited, and about the end of the year the Tarim was struck again and tracked down to Lob-Nor. Thus the whole length of the Tarim has been explored. The country along its banks is described as flat and reedy, and the people extremely poor and miserable. Mr. Carey pitched his camp at the village of Cháklik, some distance south of the lake, and close to the foot of the great range of mountains which forms the northern scarp of the Tibetan highlands. On April 30, 1886, Mr. Carey started from this village on a journey southward into Tibet, over a pass in the Altyn Tagh range, and onward by a track occasionally used by the Kalmucks. Since this start, nothing has been heard of Mr. Carey, but it is presumed, that, after spending the summer and autumn in travelling over the elevated region, he has returned to Turkestan to winter."

Africa.

Stanley's expedition arrived at the mouth of the Kongo on March 18. According to *Nature*, Stanley, on his arrival at Stanley Falls with the first contingent of his expedition, about 250 men, will proceed at once to Emin Pasha, without waiting for the rest of his party. No doubt he will be re-enforced by some of Tippo's men. The main body will follow as soon as the steamers are able to land them all at Stanley Falls, but first a camp will be established, at some distance from the Falls, as a base of operations.

The reports published by the Kongo association on the state of affairs on the upper Kongo are a strong contrast with letters published by the Paris geographical society. Some details on the loss of the Stanley Falls station are given, and the fear is expressed that the Arabs might attack the Bangalla station. Besides, the intercourse on both shores of Stanley Pool is said to be interrupted by the natives attacking the caravans. It is probable that Stanley's negotations with Tippo-Tip may lead to the establishment of friendly relations between the Arabs and the Kongo Free State. The latest news says that Tippo-Tip is to be appointed chief of the Stanley Falls station.

Lieutenant Baert, who explored the Mongalla, states that at the farthest point reached by him it is only thirty feet wide and four or five feet deep. This place is very near Junker's Ali-Kobo, on the Welle. Baert's statement shows plainly that the Mongalla is not the lower course of any one of the rivers the sources of which were explored by Junker, but that its drainage area is a small one.

Dr. Zintgraff, who visited West Africa a few years ago, has been commissioned by the German government to explore the river system of the Cameroon districts in the little steamer Nachtigal. He intends to visit the Cameroon Mountains. As large quantities of caoutchouc are said to be obtained there, he will be accompanied by an expert in that material.

America.

It must be regretted that congress failed to appropriate the money demanded for a survey of the boundaries between Alaska and the British possessions, and between the south-western territories and Mexico. Besides its being desirable from a scientific point of view, it is practically of great importance. The discovery of rich gold-deposits near the boundary between British Columbia and Alaska may furnish grounds for another quarrel between the United States and Canada. The boundary, as defined by the treaty with Russia, follows the summit of the mountains situated parallel to the coast as far as longitude 141° west, and is in no place more than thirty nautical miles from the coast-line. Of course, this definition is very vague, and disputes between American and Canadian miners may be expected if the survey is not soon undertaken.

Polar regions.

Mr. A. McArthur's prospects of being successful in his enterprise of reaching the north pole are not very promising. He left Winnipeg only a few weeks ago on the way to Hudson Bay. A few days ago his companion returned to Winnipeg, having left him to go on alone. Nevertheless, McArthur may do good scientific work in Hudson Bay, if he resolves to confine himself to researches in that region.

According to the *Dagblad* of Copenhagen, the population of northern Greenland, about the end of 1885, was 4,414 (2,119 males and 2,295 females);

that of southern Greenland, 5,500 (2,557 males and 2,943 females). The increase of population in 1885 was 86 in the northern and 31 in the southern part. The slow but steady increase forms a favorable contrast to the rapid decrease in the English and American parts of arctic America. The Danish government takes care of the natives, who fully repay the outlay of the government by the produce of their hunting and fisheries. The English and Americans, though they claim the country, leave them to the mercy of whalers and traders, whose disastrous influence will destroy them within a short time.

The whalers who annually visit Baffin Bay state that the enormous mass of land-ice which, in 1884, extended from the shore of Baffin Land to a distance of about sixty miles, did not give way until the summer of 1886. The ships were unable to approach the coast from Cape Bowen to Cape Searle for three years. After the ice had broken up, whales were found in great numbers in Cumberland Sound and near Cape Mercy, while in the previous years hardly any were met with on these grounds.

NOTES AND NEWS.

THE U. S. coast survey lost one of its most capable assistants recently by the death of Mr. Carlisle Terry, jun., who died at his home in Columbus, Ga. Mr. Terry was a young man of great promise, and his work on the Pacific coast during the past winter had been most successful, being highly commended by the authorities at Washington.

— A halibut weighing thirty-four pounds and measuring forty-one inches in length was captured recently in the lower Potomac, near Colonial Beach. This is the first authentic case of a halibut in fresh water. Hitherto it was supposed that the vicinity of Long Island was the extreme southern limit of the habitat of this fish. The specimen caught in the Potomac has been preserved in alcohol by the Smithsonian institution, and a cast has been made and placed on exhibition in the national museum.

— Three fine specimens of carp have been caught in a net in the lower Potomac, one weighing over seven pounds. The fish commission have preserved these fish in their large aquaria at Washington. Several white-fish and bass were also taken in the same locality. These are evidences of the good results attained by the U. S. fish commission in the propagation of food-fishes.

— The gem-collection in the national museum has just been enriched by the addition of the pearls and diamonds given to President Van Buren by the Imaum of Muscat. These valuable jewels have been lying in the vaults of the treasury for nearly forty years, and were previously on exhibition in the patent office; but some of them were abstracted, and they were placed in the treasury vaults. There are one hundred and fifty pearls and one hundred and six diamonds, the latter aggregating twenty-one carats in weight.

— Prof. C. V. Riley, the entomologist of the agricultural department, has gone to California to investigate various matters which have been demanding the attention of his bureau for some time. His special mission is to investigate the Coltony cushion scale, an insect imported from Australia, which is doing immense damage to the citrus-orchards of California.

— The new naval observatory, for which congress appropriated $400,000 several years ago, is to be built in the near future. Mr. Richard M. Hunt of New York has been appointed architect of the building. Contracts for the work on the observatory will be made, and the building operations will shortly begin.

— The second spring meeting of the Indiana academy of sciences will be held on May 19 and 20, 1887, at the 'Shades of Death,' near Waveland, Montgomery county, Ind. This place is situated on the banks of Sugar Creek, which here passes through a deep gorge cut in the subcarboniferous sandstone.

— The Marine laboratory of the Johns Hopkins university has been opened at Nassau, New Providence, West Indies, under the direction of Dr. W. K. Brooks.

— The Harvard natural history society, having for a number of years been in a particularly dormant state, has recently, by the energetic work of its president, Mr. Nolan, sprung into life again. Under its auspices there will be a series of weekly lectures, or rather talks, at the society's rooms, upon the local fauna and flora. The first of the course is announced for March 30, to be delivered by Mr. Samuel Garman, upon the reptiles of Massachusetts. Other talks will follow, on the Wednesday evening of each week, by Mr. S. H. Scudder on butterflies, Dr. J. S. Kingsley on crustacea, Mr. James Emerton on Spiders, Mr. William Brewster on birds, and others not yet announced.

— Mr. William H. Dall of the Smithsonian institution has just returned from a trip to Florida, embracing a trip up the Caloosahachee River, where he went in search of fossils. His trip was most successful. This deposit was first discovered