

capped with a spreading crown. The leaves are in fives, as in many of the Mexican pines, and the cones have thick scales, each terminated by a short strong prickle. "In many respects this species of pine stands alone among Californian Conifers. No other species is found within fifty miles of it; none other survives such buffetings by the sea winds, and no other bears such large flowers, hard nuts, and such strong leaves. . . . In the few localities young trees of all ages are found, but always less in number than the older trees, from which it is inferred that the species is slowly succumbing to its environment, and must if not protected soon become extinct." Such a tree, apart from its interesting structure and history, would be a valuable introduction as a sea-coast pine, wherever the climatal conditions are otherwise favourable.

The Report from which we have taken these particulars is illustrated by photographs, which, if not in all cases very clear, at least show fairly well the general habit of the trees. For details of structure they are not so well suited, and we trust that in future Reports some other means may be taken to give adequate representation of such details. We look forward with eagerness to the continuation of the history of the Californian trees, the silver firs, the Douglas firs, and others that yield in no respect to the pines.

#### THE EXTINCT STARLING OF RÉUNION (FREGILUPUS VARIUS).

TIME alone can prove whether we are right in calling the *Fregilupus* an extinct species, for many people have imagined that the bird still exists in the interior forests of the Island of Réunion; but as year after year passes by and no specimens are discovered, we fear that we must class the starling of Réunion, along with the Dodo and other birds of the Mascarene Islands, as having been exterminated by the hand of man.

The earliest mention of the *Fregilupus* is believed to be that of Flacourt, who, in an account of a voyage to Madagascar, speaks of a bird called the "Tivouch," found in Madagascar, Bourbon, and the Cape, and described as being "black and grey, with a fine crest." The species was for a long time supposed to inhabit the Cape, and Montbeillard calls it the "Huppe noire et blanche du Cap de Bonne Espérance." Its crested head and curved bill were evidently the cause of the bird being called a Hoopoe, as was done by most of the older writers, until Levaillant in 1806 put it down as a *Merops* or Bee-eater. The latter author knew of eight specimens at least, two in the Paris Museum, one in the possession of each of the following persons; MM. Gigot Dorey, Mauduit, l'Abbé Aubry, M. Poissonier, one in the collection of M. Raye, at Amsterdam, and one in Levaillant's own collection. The fate of most of these specimens is unknown at the present day; they have doubtless decayed or been destroyed, as the mode of preservation of animals at the beginning of the century was by no means perfect.

In 1833 a very fine specimen was sent by Mr. Nivoy to the Paris Museum, where we saw it a few days ago, along with a more ancient individual, doubtless one of the two known to Levaillant. The same Museum also possesses two specimens in spirit. The only representative of the genus *Fregilupus* in this country has hitherto been a skeleton in Prof. Newton's possession. This individual was shot in 1833 by the late Jules Verreaux, who gave it to Prof. Newton. We are happy to announce, however, that the Trustees of the British Museum have recently acquired a very fine example of this extinct starling, one too which, curiously enough, was not known to Dr. Hartlaub when he gave in 1877 the list of specimens supposed to exist in Museums. The bird now in the Natural History Museum has been acquired from

the well-known Riocour collection at Vitry-la-Ville. This famous collection, the work of three generations of the Counts De Riocour, consisted of a series of excellently mounted specimens, forming a choice little Museum which it would be hard to excel. The grandfather of the present Count was the founder of the collection, and was an intimate friend of Vieillot and the old French naturalists at the beginning of the century. Nearly all the specimens of that age are named by Vieillot, several of whose types are in the Riocour collection; and Dr. Günther has been successful in securing these also for the cabinets of the British Museum. A more interesting link with the past than this collection of the Counts De Riocour can scarcely be imagined, and we are glad to know that in the hands of Mr. Boucard, who is now the owner of the collection, it will receive the kindly consideration which such a famous Museum deserves.

Writing in 1877, Dr. Hartlaub, in his "Vögel von Madagascar's," gives a list of the specimens of *Fregilupus* known to him, as follows:—Four in the Paris Museum (two stuffed and two in spirits); one in the Caen Museum; one at Leyden (old and bad); one in the Stockholm Museum; one in the Museum at Florence; one in the Pisa Museum; one in the Genoa Museum; one in the Turin Museum; and one in the collection of Baron de Selys-Longchamps.

Sir Edward Newton likewise knew of two specimens in the Museum at Port Louis in Mauritius, and there is also the skeleton in Prof. Newton's possession; so that, with the one recently added to the British Museum, there are probably sixteen specimens in existence. The Italian Museums received their specimens from the same source, viz. from Prof. Savi at Pisa; and some of those in other Museums are from the same source. Count Salvadori has published a very interesting article on the *Fregilupus*, in which he informs us that Savi received several specimens from a Corsican priest named Lombardi, and that these specimens were given away by Savi in the most generous spirit, as he appears to have retained only a single specimen for the Pisa Museum.

Like other insular forms, the *Fregilupus* seems to have courted extermination by its very tameness and ignorance of danger. The late Mr. Pollen stated in 1868 that the species had become so rare in Réunion that when he visited the island not one had been heard of for ten years, though it was still believed to survive in the forests of the interior. The old people who remembered when the birds were still common told him that they were so stupid and fearless that they could easily be knocked down with sticks.

The extinct *Necropsar rodericanus*, Slater, was the representative of *Fregilupus* in Rodriguez (cf. Günther and E. Newton, Phil. Trans., vol. clxviii. p. 427), and its nearest living ally of the *Fregilupus* is probably *Falculia* of Madagascar, but there is also considerable affinity to *Basileornis* of Celebes and Ceram. An excellent account of the osteology of the genus was given by Dr. Murie in the Proceedings of the Zoological Society for 1873.

R. BOWDLER SHARPE.

#### A MANSION HOUSE MEETING IN AID OF THE PASTEUR INSTITUTE.

THE Lord Mayor has fixed July 1, at 3 p.m., at the Mansion House, for a public meeting to hear the statements of scientific and medical men with regard to the prevention and cure of hydrophobia. Sir James Paget has promised to address the meeting, and it is expected that Sir Henry Roscoe, Dr. Lauder Brunton, Sir Joseph Lister, Prof. Ray Lankester, Sir Joseph Fayer, Mr. Victor Horsley, Mr. Everett Millais, and others will take part in the proceedings. All scientific men interested in M. Pasteur's discoveries are earnestly requested to

attend and support the Lord Mayor. The following resolutions will be moved:—

1. "That this meeting desires to express the gratitude of the people of Great Britain and Ireland to M. Pasteur and the staff of the Institut Pasteur for the generous aid afforded by them to over 200 of our fellow-countrymen suffering from the bite of rabid dogs."

2. "That this meeting, having heard the statement of Sir James Paget and others, records its conviction that the efficacy of the anti-rabic treatment discovered by M. Pasteur is demonstrated, and requests the Lord Mayor to establish a fund for the double purpose of making a suitable donation to the Institut Pasteur, and of providing for the expenses of British subjects unable to pay the cost of a journey to Paris when bitten by rabid animals."

3. "That this meeting, whilst recognizing the value of M. Pasteur's treatment, and taking steps to provide for its accessibility to Englishmen who may hereafter be bitten by rabid animals, is of opinion that rabies can easily be stamped out in these islands, and calls upon the Government to introduce at once a Bill for the simultaneous muzzling of all dogs throughout the British Islands, as provided in the measure drafted by the Society for the Prevention of Hydrophobia."

#### NOTES.

THE King of Sweden has invited Prof. Max Müller, the representative of Oxford, to be his guest at the Royal palace in Stockholm during the forthcoming Congress of Orientalists. Some 500 foreign members will attend the Congress. During the visit to Christiania, King Oscar will give a banquet to the members of the Congress at his villa at Bygdø, and the city has voted the necessary funds for a civic entertainment.

PROF. A. C. HADDON, whose movements in the Torres Straits we have from time to time recorded, is now on his way home. Contrary to the expectations of his friends and well-wishers, illness has overtaken him; but, as he writes from Brisbane, hope for the best would appear justifiable. He has worked indefatigably during his sojourn in the tropics, and has accumulated a vast collection, the greater part of which is now safely delivered.

MR. HENRY WILLIAM BRISTOW, F.R.S., died on Friday last at the age of seventy-two. In 1842 he was appointed a member of the staff of the Geological Survey of the United Kingdom. Mr. Bristow published various works on mineralogy and geology, and was the author of the mineralogical articles in Brande's "Dictionary of Science, Literature, and Art," and of articles on minerals and rocks in Ure's "Dictionary of Arts, Manufactures, and Mines." He became a Fellow of the Geological Society in 1843, and of the Royal Society in 1862, and an honorary Fellow of King's College, London, in 1863. He received the diploma of the Imperial Geological Institute of Vienna, and from the King of Italy the diploma and insignia of an officer of the Order of SS. Maurice and Lazarus.

SIR JOHN LAWES entertained the members of the Lawes Agricultural Trust Committee at Rothamsted on Friday last. In the afternoon the Committee inspected the experimental farm and the laboratories connected with it.

THE Geologists' Association propose to organize a geological excursion to the volcanic regions of Italy—Naples, Sicily, and the Lipari Islands, or to some of these places if not to all of them—during the month of October next. This excursion, in which ladies may take part, is not confined to members of the Association, and at the meeting of the Geological Society on June 5, Prof. Judd announced that the authorities of the Geologists' Association particularly invite the attendance of Fellows of the Geological Society.

A ROSE CONFERENCE will be held in connection with the Royal Horticultural Society at Chiswick on July 2 and 3. According to the official programme, the objects of the Conference are "to get together as large and as representative a collection of roses of all descriptions as possible; to form an Exhibition of all subjects pertaining to the rose, whether in its botanical, its horticultural, its literary, or its artistic aspects; and to bring together for the purposes of reciprocal information and fellowship all those interested in the rose and its culture." The Royal Horticultural Society appeal to lovers of the rose to help them to attain these ends.

ON Wednesday, July 10, the annual meeting of the Society of Chemical Industry will take place in the theatre of the Royal Institution at 11 a.m. In the evening the President will hold a reception and *conversazione* in the Grosvenor Gallery. On the two following days there will be various visits and excursions, and on the evening of July 11 the annual dinner of the Society will be held.

IN connection with the bequest of the late Dr. Swiney, Prof. W. R. McNab, of the Dublin College of Science, will begin a course of twelve lectures on fossil plants at the Natural History Museum, Cromwell Road, on Monday, the 24th inst. The subject will be continued from the course of last year, and will include the Ferns and Gymnosperms of the Palæozoic and Mesozoic epochs, and the dawn of the Angiospermous flora. The lectures will be given on Mondays, Wednesdays, and Fridays at half-past four o'clock, and will be free to all visitors to the Museum.

THE Indian Government has purchased the coins collected by the Afghan Boundary Commission. They are over 4600 in number, and are to be catalogued by Mr. C. J. Rogers, of Amritsar.

THE Russian Academy of Sciences offers a prize of 5000 roubles (£500) for the best inquiry into the nature and effects of the poison which develops in cured fish. The objects of competitors must be: "(1) To determine, by means of exact experiments, the physical and chemical nature of the poison which develops in fish; (2) to study, by experiments on animals, its action upon the heart, the circulation of the blood, the organs of digestion, and the nervous system; (3) to determine the rapidity of its absorption by the digestive organs; and (4) to study and describe the characteristics which may serve to distinguish contaminated fish from such as are not contaminated." The fifth and sixth questions, with which it may be impossible for any one to deal satisfactorily, relate to the means of preserving fish from the development of the poison, and to the question of counter-poisons and the medical treatment of poisoned persons. The competition is open to all. The memoirs must be sent in, either in manuscript or printed, before January 1, 1893, and may be written in any one of the following languages: Russian, Latin, French, English, German. If none of the papers is deemed worthy of the full prize, the accumulated interest upon the above-named sum may be handed over to the author who presents the best solution of some part of the problem.

A RECENT issue of the French *Journal Officiel* contains the Report of the Consultative Committee for Sea Fisheries in France on the subject of poisoning through the eating of mussels. The Committee, in the first place, recognize that the oysters which cause poisoning are those which have become stale, or have been kept in water rendered foul by decomposed organic matter, and question whether the same may not be the case with regard to mussels. Various explanations of mussel poisoning were made to the Committee. By some it was attributed to a parasite crab (*Pinnotheres pisum*). This explanation, however, was unsatisfactory, for in the United States this *Pinnotheres* is sought after as food. By others, the presence of the poison was attributed