that with far more delicate arrangements than a hen provides, the results obtained by the use of the incubator do not always equal those given by the sitting hen. He concludes that an incubator which will do all that the best hen does and do it regularly and with certainty, is a perfectly realisable instrument. He gives very full details of the physical and biological factors involved in incubation, drawn largely from the results of his own experimentation, and the conditions underneath the sitting hen are compared in detail with those that exist within the various types of standard incubators. The outstanding conclusions at which he arrives are that practically every type of incubator has the air too dry; that the average temperature of the eggs in an incubator is much more regular than in a hen's nest; and that, whereas in modern incubators the whole of the egg is nearly of the same temperature, the temperature of the top being only slightly different from that of the bottom, in the hen's nest the difference between the temperature of the hen's body in contact with the egg and the temperature of the lower surface of the egg is between 14° and 20° F.

From these observations the author concludes that the secret of successful incubation lies in keeping the upper surface of the egg hot and the lower surface relatively cool. This object is attained by covering the upper surface of the eggs with a very thin sheet of india-rubber. The use of this in a hot water incubator, in which the heat reaches the eggs by radiation, is rendered extremely difficult by the fact that the temperature of the tank has to be raised to a most inconvenient degree. In the case of the hot air type of incubator, however, it is quite simple to get a difference of 14° F. between the top and the bottom of the egg by the use of this rubber sheet. It was found also that with this method rapid evaporation of moisture was prevented and that, in fact, the amounts of moisture and carbonic acid around the eggs were nearly those present in a hen's nest. Using this method, an incubator which previously had rarely given more than 55 per cent. hatched more than 95 per cent. of the fertile eggs. It is to be noted that the application of heat to the eggs is by direct contact and conduction instead of by radiation or convection. Every egg becomes its own regulator, controlling the passage of the heat from the upper surface of the egg to the cooler under surface. Mr. Atkinson states also that the chicks emerging from an incubator provided with this rubber sheet are far more viable.

The Blue Whale.

MR. GERRIT S. MILLER'S paper, "Some hitherto unpublished photographs and measurements of the Blue Whale" (Proc. U.S. Nat. Mus., Vol. 66, pp. 1-4, Pls. i.-ix.) is a welcome contribution to the literature of Cetacea. In spite of its predominating importance to modern whalers, the blue whale (*Balænoptera musculus*) is still imperfectly known, particularly with regard to cranial characters. Mr. Miller publishes specially good figures of the skull, the rostrum of which has not suffered from the warping which commonly occurs on drying. He informs us that the specimen (Washington Museum) was an adult male, 75 feet long, captured off Newfoundland in 1903; but it may be remarked that the free condition of the distal epiphyses of the radius and ulna figured in Pl. viii. is evidence that the animal had not completely passed the adolescent stage of Flower, and that in any case 75 feet is a small measurement for a really adult blue whale. The digits shown in the same figure appear to be too straight, and the hand is probably a reconstruction of a disarticulated flipper, as indicated by the fact that the numbers of the phalanges are low as compared with other records.

Mr. Miller makes no comparisons, and his facts must speak for themselves. With regard to the skull, the rostrum deserves special notice, its sides being parallel in its posterior half, then converging in a gentle curve to the tip;—in striking contrast with the triangular, straight-sided rostrum of the fin whale (*B. physalus*). The premaxillæ are noticeably parallel behind, instead of being arched outwards. The postero-internal processes of the maxillæ are long, the orbital plates of the frontals diminish greatly in diameter in passing outwards, and the nasals are stout and broad. The palatines have parallel sides, and in the side view the straight outer edge of the maxilla and the outline of the vertex are other features in which this skull differs from that of a fin whale. Excellent figures are given of the atlas, axis, sternum, pelvic bones and scapula, the last showing the restored cartilaginous parts. As bearing on the great variability of the bones in the larger Cetacea it may be noticed that the sternum differs conspicuously from those figured by True in 1904, as well as from that of the Longniddry whale described by Turner. The long series of measurements of bones will be valuable as material for comparison with southern blue whales, the identity or otherwise of which with the northern species it will be the special object of the *Discovery* expedition to investigate. S. F. H.

University and Educational Intelligence.

BRISTOL.—A research assistantship is open at the Merchant Venturers' Technical College to candidates with an honours degree in engineering. Applications should be made to Prof. A. Robertson at the College.

CAMBRIDGE.—Mr. Arthur Berry has been elected vice-provost of King's College. A new post of assistant director of magnetic research at the Cavendish Laboratory, without stipend from the University, has been established for Dr. P. Kapitza, Trinity College.

By a recent vote of the Senate, the University is to ask the Commissioners to remove from the statutes the paragraph under which certain holders of official positions, such as bishops, heads of house, and privy councillors, can at present be granted degrees *honoris causa* in virtue of the positions that they occupy. University and college teachers and officers are still to be eligible for the degree of Master of Arts, and the University retains its powers to grant honorary degrees to members of the Royal Family, to British subjects who are of conspicuous merit or have done good service to the State or to the University, and to foreigners of distinction.

Dr. Haddon is resigning from the readership in ethnology.

The vice-chancellor, Dr. Fitzpatrick, president of Queen's College; Dr. Giles, master of Emmanuel College; Mr. F. J. M. Stratton, Gonville and Caius College; and Mr. R. E. Priestly, Clare College, have been appointed delegates at the coming conference of the universities of Great Britain and Ireland.

Sir R. H. Biffen, St. Catharine's College; Mr. R. Adie, Trinity College; Mr. F. L. Engledow and Mr. C. W. B. Wright, St. John's College, have been appointed to represent the scientific workers on the Station Committee of the Horticultural Research Station, while Messrs. W. P. Seabrook, A. G. Daniels, and A. T. Paskett represent the fruit and vegetable growers.