deprived of proteids in the imago stage it lays no eggs. Of the anatomical condition of the reproductive organs in the flies experimentally reared no evidence is vouchsafed.

Plymouth, September 15. J. T. CUNNINGHAM.

"Darwinism is not Evolution."

I WAS very much struck—having heard the admirable reply which Prof. Huxley gave to Lord Salisbury on the evening of August 8—to find a passage in "Darwin's Life and Letters" (vol. iii. p. 13) which is the exact counterpart of the chief point in Huxley's retort. Darwin writes to Lyell (March 12, 1863): "I must feel convinced that at times . . . you have as completely given up belief in immutability of specific forms as I have done. . . . The more I work the more satisfied I become with variation and natural selection, but that part of the case I look at as less important, though more interesting to me personally."

It was whispered in Oxford that Huxley had spoken of Darwinism rather lightly in comparison with evolution. The above-quoted passage shows that even in this respect Darwin himself had set the example.

I have reason to believe that these illustrious examples will not be very generally followed.

A. A. W. H.

Utrecht, September 11.

Extraordinary Phenomenon.

HAVING recently had before me your number of the 6th inst. I feel very desirous to bring under your notice, for insertion in your journal, the description of a most extraordinary and singular phenomenon as was observed by me at Llanberis, N. Wales, on Sunday, August 26 last, about 10.30 p.m.; especially as I perceive that the time of my observation coincides precisely with the time recorded in that number by John W. Earle, at Gloucester, describing his observation of a remarkable meteor which he discovered.

I was outside the hotel in Llanberis at 10.30 p.m. admiring the lustre of the stars—for it was a cloudless night—when, gazing upwards into the region of Cassiopeia, I was startled by a sudden flash from a brilliant effulgence of white light situated proximately to the two stars of greatest magnitude in that constellation, which immediately resolved itself into a clearly defined disc, about three times the diameter of Jupiter. After a brief interval I observed a body of brilliant orange colour discharged from the disc, which was projected directly towards Perseus. This body assumed a form resembling an elongated flatfish, but terminating in a point, the disc forming a nucleus to the apparition, which was marvellous to behold; but its visibility proved to be only of short duration, for the white disc, or nucleus, suddenly disappeared, leaving the orange-coloured mass quiescent for about half a minute, and then I saw it fade away gradually, and it vanished out of my sight.

The appearance of this strange body did not occupy more than five minutes of time; its dimensions in length I estimated was about fifteen degrees of arc. I likewise noticed an important fact—that it evidenced no motion in space.

During my professional career, including Arctic and Equatorial services, a great part was spent in nightly watchings, in which all sorts of meteoric phenomena came under my notice, yet I never beheld one which manifested such marked singularity and distinctiveness combined. I could only regret that no one was at hand to affirm what I saw.

With reference to the meteor observed by John W. Earle in Ursa Major, I wish to mention that a building excluded that constellation from my sight, therefore it establishes a very interesting and important fact that these two extraordinary phenomena, one in Ursa Major, the other in Cassiopeia, were so distinctly notified by two observers so remote from each other at the very same moment.

ERASMUS OMMANNEY, Admiral.

29 Connaught Square, W., September 24.

"Aurelia aurita."

AT the Plymouth Laboratory, in July last, I examined 353 adult specimens of *Aurelia aurita*, and found eight specimens (2.08 per cent.) showing a numerical variation in the generative sacs and buccal arms.

One specimen with 3 generative sacs, 3 buccal arms, and 9 tentaculocysts. Three specimens with 3 generative sacs,

3 buccal arms, and each one has traces of a fourth generative sac and a fourth arm. Two have 8 tentaculocysts, and one has 10 tentaculocysts. One specimen with 5 generative sacs, 5 buccal arms, and 8 tentaculocysts. Three specimens with 6 generative sacs, 6 buccal arms; two have 11 tentaculocysts, and one has 12 tentaculocysts. Six specimens with the normal number of buccal arms and generative sacs show a variation in the size and shape of the sacs. There appears to exist a correlation between the generative sacs and buccal arms, but the tentaculocysts vary independently of the other organs.

I found 87 specimens (22.8 per cent.) showing a variation in the number of tentaculocysts. Twenty specimens possess less than the normal number, and the remainder show an excess. The range of variation extends from 6 to 15 tentaculocysts.

EDWARD T. BROWNE.

University College, London, September 15.

Science in the Medical Schools.

IN the issue of NATURE of September 20, I notice a table of the scientific classes which are to be given in the medical schools of Great Britain during the session 1894-95. In this table I find that the subject of "biology or zoology" is indicated by a cross (x) as being taught in all the medical schools of Scotland with the exception of the University of Aberdeen. You will, doubtless, allow me to point out that in this matter Aberdeen is in precisely the same position as Edinburgh and Glasgow. A course of zoology is delivered in the University of Aberdeen in the winter session, and a second course in the summer session, and there is, in addition, a course of practical zoology.

University, Aberdeen.

H. ALLEYNE NICHOLSON.

ON THE DOCTRINE OF DISCONTINUITY OF FLUID MOTION, IN CONNECTION WITH THE RESISTANCE AGAINST A SOLID MOVING THROUGH A FLUID.

§ 1. THE doctrine that "discontinuity," that is to say finite difference of velocity on two sides of a surface in a fluid, would be produced if an inviscid incompressible fluid were caused to flow past a sharp edge of a rigid solid *with no vacant space between fluid and solid* was, I believe, first given by Stokes in 1847.¹

It is inconsistent with the now well-known dynamical theorem that an incompressible inviscid fluid initially at rest, and set in motion by pressure applied to its boundary, acquires the unique distribution of motion throughout its mass, of which the kinetic energy is less than that of any other motion of the fluid with the same motion of its boundary.

§ 2. The reason assigned for the formation of a surface of finite slip between fluid and fluid was the infinitely great velocity of the fluid at the edge, and the corresponding negative-infinite pressure, implied by the unique solution, *unless the fluid is allowed to separate itself from contact with the solid*. This an inviscid incompressible fluid certainly would do, unless the pressure of the fluid were infinitely great everywhere except at the edge. In nature the tendency to very great negative pressure arising from greatness of velocity of a fluid flowing round a corner is always obviated by each one of three defalcations from our ideal:—

(I.) Viscosity of the fluid, preventing the exceeding greatness of the velocity.

(II.) Compressibility of the fluid.

(III.) Yielding-ness of the outer boundary of the fluid.

§ 3. Defalcation (I.) is in many practical cases largely operative when air is the fluid; but (II.) is also largely operative in some very interesting cases, such as the *whistling* of a strong wind blowing round a sharp corner or through a chink; the blowing against the sharp edge in the embouchure of an organ-pipe, and in the mouth-

¹ "Collected Papers," vol. i. pp. 310, 311.