

now that we have all come to recognize species as nothing more than pronounced varieties, it appears to me a curiously interesting example of the "survival" of traditional modes of thought, that so many systematists still continue to regard the value of Mr. Darwin's theory to consist in what is really its least important function. The result has been clearly displayed in the present correspondence:—

There's such divinity doth hedge a species.  
That science can but peep to what it would.

London, December 8.

GEORGE J. ROMANES.

### Engineers *versus* "Professors and College Men."

PROF. TAIT in his recent letter says that the only meaning the expression  $\frac{Mv^2}{2g}$  conveys to his mind is the product of a mass

by a length. But how does he measure his mass and his length? Is the mass to be measured in pounds or kilogrammes, or to be measured in units of  $g$  pounds or  $g$  kilogrammes? And is the unit of length the foot, or the metre or centimetre? so that  $g$  is variously 32, 9.81, or 981.

These are the points which are slurred over by "Professors and College men," but are of fundamental importance to practical engineers, who dare not trust to a formula till they have verified it numerically.

Let me conclude by giving Prof. Tait a question, selected from College text-books:—

"What is the meaning of  $\frac{Mv^2}{2g}$  when the unit of area is one-tenth of an acre, the numerical value of  $g$  is 2, and the unit of weight is the weight of unit volume of the standard substance (the substance of which the specific gravity is unity)?"

I think he would be amused by the variety of answers he would receive, although the answers might individually be all correct.

December 17.

A. G. GREENHILL.

### Mr. Dodgson on Parallels.

MR. DODGSON has written to me thanking me heartily for my "interesting and helpful review" of his "New Theory of Parallels." He admits his slip in the corollary on p. 11, and supposes, as I had myself thought, he took ADC to be the triangle required instead of ABE. "But there is *one* criticism of yours which, if true, would vitiate the whole treatise. May I ask you to reconsider the point, and, should you see reason so to do, to notify to the readers of NATURE that you withdraw it? You say that, in Props. viii., xi., I tacitly assume that the 'amounts' of triangles are either *all* greater than two right angles, or else *all* less. . . . Such an assumption would indeed be monstrous." I willingly accede to Mr. Dodgson's request, as the following form of his argument, supplied in his letter to me, does away with my difficulty. "Either (a) there is a triangle whose 'amount' = two right angles, or (b) there is none. If (b) be true, then either (b1) *all* triangles have *greater* 'amounts,' or (b2) *all* have *less* amounts, or (b3) some have *greater* amounts and all others *less*. Now (b1) is proved impossible, in Prop. viii.; (b2) is proved impossible in Prop. xi.; (b3) may easily be proved impossible, by means of Prop. vii. Hence (b) is impossible. Hence (a) is true." It will be well, if, in a future edition, the missing link of (b3) be supplied. One other point puzzles Mr. Dodgson. It is my remark on Prop. vi.: "How are the figures to be constructed if  $n > 2$ ?" Mr. Dodgson says: "It surely does not need pointing out that the operation of bisecting an angle may be repeated *ad libitum*." Certainly not. But what I meant was the effect of the  $n$  bisections upon the resultant chords. The figures to the proposition are incorrectly drawn: in the one figure BD, DC, and in the other BE, ED, DF, FC are *not drawn* greater than the radius, and my point was not the bisections but the enlargement of the figure: thus if  $n = 3$ , we should have eight triangles, vertices at the centre A, with the sum of their angles greater than  $480^\circ$ . My apology for thus trespassing upon valuable space is my desire to meet Mr. Dodgson's natural wish, and by pointing out what I thought were faults in his "interesting" brochure to enable him to make it more perfect in after editions.

R. TUCKER.

University College School.

### The *Porcupine* Echinoidea.

THE researches lately published by the Drs. Sarasin upon the anatomy of the Echinothuriæ, render a careful reconsideration

of the types of *Asthenosoma* collected by the late Sir Wyville Thomson, during the voyage of H.M.S. *Porcupine*, absolutely necessary in my opinion. The species were described in the Philosophical Transactions for 1874. I shall be much obliged if information can be sent me regarding the whereabouts of the specimens which were figured by Wild, *i.e.* the type-specimens of *Calveria* (*Asthenosoma*) *hystrix*, Wy. Th.; *C. (Asthenosoma)* *fenestrata*, Wy. Th.; and *Phormosoma placenta*, Wy. Th.

P. MARTIN DUNCAN.

### Angry Birds.

IN reference to the notice of a fierce pheasant mentioned by Mr. Maw in the number of NATURE for December 13, I would refer him to my "Observations in Natural History" (p. 172), in which I have spoken of a daring cock pheasant, which I saw myself, while walking in the grounds of a friend in Cambridgeshire. This bird was in the habit of attacking any persons that approached near the spot where he was. Some woodcutters at work on the grounds had to protect their legs with strong leather gaiters.

L. BLOMEFIELD.

Bath, December 18.

Two years ago, whilst walking across a fallow field here, I heard a fluttering of wings, and received a violent blow on the back of the neck from a partridge: before I could recover myself she strack the back of my head and knocked my hat off. Although I had a heavy stick, I could not drive off the bird, who made a loud noise, and now attacked me in front. As I walked rapidly off, the bird followed and struck at me many times, attacking my head and shoulders with the greatest determination and violence.

W. G. SMITH.

Dunstable.

### PRESENTATION OF A PORTRAIT OF PROFESSOR A. W. WILLIAMSON, F.R.S., TO UNIVERSITY COLLEGE.

ON Wednesday (the 12th inst.) a portrait of Prof. A.W. Williamson, late Professor of Chemistry to University College, London, was presented to the College by Sir Henry E. Roscoe, M.P., F.R.S., on behalf of the committee of subscribers. The portrait is painted in oil by the Hon. John Collier. The presentation took place in one of the lecture-rooms; the chair being taken by the President of the College (Mr. John Erichsen, F.R.S.); and amongst those present were Sir F. A. Abel, Prof. Bonney, Prof. H. Morley, Dr. J. H. Gladstone, Prof. George Carey Foster, Dr. Atkinson, Prof. Ramsay, Prof. Thorpe, Prof. Marks, Prof. Russell Reynolds, and other Professors, and a large number of the past and present students of the College.

Dr. W. J. Russell, on behalf of the Committee, for whom he had acted as Treasurer, said that judging from the subscription list there was a large number of the former colleagues of Prof. Williamson who had subscribed to this portrait; and it would no doubt be very pleasant to him to know that members of all the Chemical Societies in England had liberally subscribed towards the portrait; and further, that many of the subscribers had not satisfied themselves by sending formal contributions, but had written to him (Dr. Russell) expressing their great esteem and regard for Dr. Williamson. The subscriptions did not come only from various parts of Great Britain, but from France, Germany, Switzerland, Italy, Russia, and even so far afield as the United States, Jamaica, India, and Japan. He thought this was all that it was necessary for him to say in order to indicate the high value which the subscribers attached to the great scientific attainments and labours of Dr. Williamson, whose intimate friends and old pupils, those who knew him best, now came forward to pay him this mark of their esteem and regard.

Sir Henry Roscoe, M.P., said:—I consider it, sir, a privilege that, as an old pupil and an attached friend of Dr. Williamson, I should have been chosen, on this occasion, to present his portrait—which I think you will