

LETTERS TO THE EDITOR

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[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to insure the appearance even of communications containing interesting and novel facts.]

The Enormous Loss from Ox-Warble

I HAVE read Mr. John Walker's remarks on "warbles." This is one of the many important subjects to which Miss Eleanor Ormerod has lately drawn attention. I can readily believe that there is a loss of two to three millions to the country through the ravages of this fly, but such statements, it must be remembered, should be qualified by the thought that it might cost two or three millions to protect all the cattle of this country against such attacks. The labour would be great, the vigilance would entail higher-classed stock-men, in almost all cases with higher wages, for you cannot get our labourers, dairy-men, and bailiffs even, to attend to such matters without great difficulty. The loss does not, I think, fall upon farmers, unless it is from the irritation to the cattle when they hear the buzz of the fly meditating her attack.

As to the damage to the hide, I never, in my experience, heard a butcher or dealer make warbles in the hide a pretext for offering one shilling less for a bullock. They take no notice of them at all; and, if the maggots injure the hide, this is a matter for fell-mongers and tanners, rather than for farmers. This is one of the cries emanating from the scientific friends of agriculture which it is well to listen to. It will probably gain the ear of only a select circle of agriculturists, because, to use a very homely phrase, "the game is scarcely worth the candle."

Animals pass through the market too rapidly, and the prices asked and given are so approximate only to the absolute value, that a few warbles in the skin do not in the least influence the selling price. Still, anything which can be shown to influence the comfort of live stock or the value of their products must be considered as worth attention.

JOHN WRIGHTSON

College of Agriculture, Downton, Salisbury, October 31

"Lung Sick"

MR. H. RIDER HAGGARD, in his excellent novel, "King Solomon's Mines," has the following passage. He is speaking of Zulu oxen, and says:—

"As for 'lung sick,' which is a dreadful form of pneumonia very prevalent in this country, they had all been inoculated against it. This is done by cutting a slit in the tail of an ox, and binding in a piece of the diseased lung of an animal which has died of the sickness. The result is that the ox sickens, takes the disease in a mild form, which causes its tail to drop off, as a rule about a foot from the root, and becomes proof against future attacks."

Presumably this account is *bonâ fide*. It will be gratifying to me, then, if any of your correspondents will kindly explain how it is that the virus, which has not been weakened by cultivation, produces the disease in a mild rather than in a virulent form.

E. J. DUNGATE

6, Marchmont Road, Edinburgh, November 1

The Beetle in Motion

WITH reference to Prof. Lloyd Morgan's letter in last week's NATURE (p. 7), the following passage, which occurs in an interesting chapter on "Motions of Insects" in Kirby and Spence's "Entomology," may be quoted:—

"In walking and running, the hexapods, like the larvæ that have perfect legs, move the anterior and posterior leg of one side and the intermediate of the other alternately."

This passage is in complete accord with the observations of your correspondent.

November 9

C. J. G.

Meteors

YESTERDAY (November 2), about 8.8 p.m., I chanced to see here a meteor that, I think, deserves record, especially if my

report of its position in the sky can be compared with that of some one who observed it at another place.

Returning from Oxford, I was about half a mile east of Combe Church, on the lofty plat that is the remnant of Combe Common. "Stepping westward," I was startled by a sudden splendour, flooding with light the moonlit heaven. This splendour was above me and before me; it was a little on my left. A large meteor was rapidly descending, at an angle of 60° or 70°. Not much east of it shone the half-orbed moon; but little west of it stretched the eastern branch of the Milky Way's western termination. When it had traversed about three-fourths of the distance between its apparent starting-point and the undulating ground beneath, it swelled out for a moment grandly, and, before it burst, displayed a globe at least as big as the sun, and of about the same hue, though not of dazzling lustre. After it had vanished, its track was marked for a second or two by a brilliant trail, which, in the light of the neighbouring moon, sparkled with all the tints of the rainbow, and resembled a gorgeous shower of precious stones.

JOHN HOSKYNs-ABRAHALL

Combe Vicarage, near Woodstock, November 3

I HAVE read Mr. Murphy's letter (NATURE, November 4, p. 8). At the same time as Mr. Murphy saw a large meteor (October 31, 8.25 p.m.) I also saw an immense one coming from the same portion of the sky, and travelling west. It disappeared behind a cloud. There was a loud rushing noise.

E. PARRY

Dinorwic Quarries, Llanberis, North Wales

INFLUENCE OF WIND ON BAROMETRIC READINGS

I AM glad to see (NATURE, vol. xxxiv. p. 461) that the Scottish Meteorological Society recognises the importance of the effect of wind upon the barometer. I assume that the gradient, the density, and all other sources of error had been fully corrected for before concluding the existence of the large effect attributed to the wind on Ben Nevis.

There certainly is a purely local and dynamic effect of the wind on the barometer due to the exposure, and for which there must be found some method of correction or elimination before we can proceed much farther in barometry: this effect has been independently reasoned out by G. K. Gilbert ("A New Method, &c.," 1883), and has been discussed by Prof. H. A. Hazen (*Annual Report*, C.S.O., 1882, p. 897), and by Mr. Clayton and others in recent numbers of *Science*, but its existence was long since demonstrated by Sir Henry James (*Transactions Roy. Soc. Edinburgh*, vol. xx., 1853), whose memoir seems to have been quite lost sight of by meteorologists.

The suction of wind on tubes, cowls, and chimneys was investigated by Ewbank (*Journal of the Franklin Institute*, 1842), Wyman (*Proceedings of the American Academy*, Boston, 1848), Fletcher (*B.A.S. Reports*, 1867 and 1869), Magius (Copenhagen, 1875?), Holten (Copenhagen, *Øversigt Vidensk.-Selskabs*, 1877), and was used by Hagemann as the basis of his anemometer; it was Hagemann's memoir (Copenhagen, 1876, translation will appear in *Van Nostrand's Magazine*, Dec. 1886) that suggested a method of determining and correcting for the amount of this important effect, whose existence had long been known to me. This method is sketched out in the *Annual Report* of the Chief Signal Officer, U.S.A., 1882, p. 99, where I state that a close determination simultaneously of both dynamic wind-pressure and static air-pressure is probably attainable by exposing above the roof, side by side, a Pitot tube facing toward the wind and a vertical tube over which the wind blows. Close the lower ends of these tubes and place within each an aneroid barometer, and the latter will record respectively the static pressure plus the effect of the wind-velocity and the static pressure minus the wind's effect. A stop-cock, cutting off at will communication between the aneroids