

CORRESPONDENCE.

JENNER AND THE CUCKOO.

To the Editor of the "Vaccination Inquirer."

Sir,

Dr Montague R. Levenson, of Fort Hamilton, New York, having written me about the facts as to the young Cuckoo throwing the other young birds out of the nest of its foster-parents, which account he, like so many other persons, wholly disbelieves, I have recently obtained for him Mrs Blackburn's book, "Birds of Moidart," (1895) in which she describes her careful and repeated observation of the fact, and gives a drawing of the bird in the very act of performing the operation. The same description was first published in *Nature*, vol. v., p. 383, signed J.B., but referring to a versified tale, "The Pipits," illustrated by Mrs Hugh Blackburn, (1872, Maclehose, Glasgow). The same letter was printed in *The Lancet* in 1892 (July 2nd).

As the observation now made is most precise and direct, and as it curiously agrees in details with the observations of Jenner in his letter to John Hunter, printed in the *Philosophical Transactions*, (vol. lvii-viii, pp. 225, 226) it is, I think, due to themselves, and to our cause, that those writers who have adduced Jenner's statements on this point as a proof of his unreliability should acknowledge their error, in order that this accusation, unsupported by observation or by any well established facts, should not continue to be brought forward as an argument by anti-vaccinators.

This is the more important as the facts had already been several times confirmed by independent testimony, so as to satisfy some of our most careful and accurate naturalists. In the 4th edition of *Yarrell's British Birds*, edited by Prof. Alfred Newton, he says, after quoting Jenner's account,—“This remarkable habit of the young Cuckoo has been so abundantly confirmed by the testimony of unimpeachable eye-witnesses in many countries, and in England among others by Montague and Mr Blackwall, whose names are a sufficient guarantee for the accuracy of their observations, that the unbelief in Jenner's statements, hinted or openly expressed by some zoologists, is hardly to be justified by the most ardent supporter of absolute proof.” (vol. ii., p. 396.)

Prof. Newton also tells us that a French

writer, Lottinger, in 1782, “himself had personal proof of the expulsion of an egg from the nest by a young Cuckoo, (Hist. du Coucou d'Europe, p. 18.)” And in the *English Cyclopædia* (Natural History), vol. ii., p. 246, there is an account of an observation earlier than that of Jenner giving almost exactly the same facts.

And all we have against these repeated and concordant observations is—not observation to the contrary, but more or less positive denial, disbelief, or mere ridicule. Among these unbelievers Waterton has been quoted, as if his opinion should outweigh other observers' facts. But there was probably no more prejudiced or irrational writer in the English language when dealing with the observations of others. To give two examples; he denied the possibility of the Dipper walking under water, and tried to prove it by reasoning and ridicule. Yet no fact in nature is more certain or more universally admitted by ornithologists. In the same way he tried to prove that Vultures found their food by smell and not by sight, ridiculing the direct observations and experiments of Audubon and others which were opposed to his views. Yet here again the unanimous verdict of naturalists is against him, and, as regards the very same species which he observed in Guiana, I, myself, proved that it does not detect food by smell. (See my *Travels on the Amazon*, cheap edition, p. 125).

I should have written to make this correction and appeal in favour of Jenner long ago, but, till recently, I had no knowledge of Mrs Blackburn's work, and could give no reference to it. Having now read her account and examined her drawing, I need only say, in conclusion, that I am completely satisfied of the accuracy of Jenner's observation thus fully and repeatedly confirmed.

ALFRED R. WALLACE.

Parkstone, Dorset,

June 13th, 1900.

SIR,—Having been allowed, through your courtesy, to see a proof of the above letter, I am induced by the very nature of Dr Wallace's statement, to join in his suggestion that anti-vaccinists should drop the subject of Jenner and the cuckoo. It appears to be quite hopeless to expect any clear apprehension of the

points at issue. No one should "wholly disbelieve the facts as to the young cuckoo throwing the other young birds out of the nest." It has been known for centuries that the big cuckoo became at length the sole occupant of the small nest: Shakespeare calls it an "ungentle gull," which grew to "so great a bulk," and did "oppress the nest." Its dispossession of the rightful nestlings was the origin of the ancient verb, "to cuckold." Dr Jenner alleged that on a single occasion, the 19th of June, 1787, he saw the young cuckoo, within a few hours of being hatched, ejecting its fellow nestlings by a series of conscious, voluntary, and exultant acts. He says, four times "I saw," and he accounts for his vision penetrating the thick leafage of a hedge in June by the fact that the nest was "near the extremity of the hedge." He says nothing about having employed his nephew, Henry Jenner, aged seventeen, to make any observations for him. But Dr Baron, as usual, has let the cat out of the bag: "One of Henry's occupations was to pay a daily morning visit to the nests which contained the young cuckoos. This generally required a ramble of four or five miles in the neighbourhood, and although Henry had a most inquisitive mind... he often found his task somewhat tiresome, and would have been perfectly satisfied now and then to permit the hedge-sparrows and the cuckoos to adjust their affairs without any interference on his part. He had at last, however [this is clearly the classical occasion of the 19th June] the happiness to see the object of his journeys successfully accomplished. The reports which he daily brought to his uncle were duly examined, and their accuracy ascertained." But *how* was their accuracy ascertained? The whole question is a question of Dr Jenner's accuracy, and of his scrupulous regard for scientific truth. For example, could Henry Jenner be sure that the young cuckoo did all that is alleged of it when it was only a few hours hatched, or did he mix up various dates? It was the early date that made the greater part of the marvel, and it was solely upon the ground of the date (although Dr Wallace misses the point) that Waterton pronounced the facts to be incredible and physically impossible. They are not incredible of a bird which has had a few days of rapid growth. Another part of the marvel

was in describing as conscious, voluntary, and exultant, a series of movements which were just as likely, even in a bird of the second or third day, to have been its automatic restlessness against objects that were crowding the small nest, and which must have been of that nature in Mrs Blackburn's case of a young cuckoo so immature that it was still blind. Dr Jenner's paper would never have been remembered but for the element of marvel in it. The marvellous is sure to attract certain minds, and to enchain them. I suppose that Dr Wallace must be of the number; only he must not expect all of us to follow him. I observe, moreover, that he passes by in silence Dr Jenner's anatomy of the young cuckoo's back: "Different from other newly hatched birds, its back from the scapulæ downwards is very broad, with a considerable depression in the middle. This depression seems formed by nature for the design of giving a more secure lodgment to the egg of the hedge-sparrow, or its young one, when the young cuckoo is employed in removing either of them from the nest. When it is about twelve days old, the cavity is quite filled up, and then the back assumes the shape of nestling birds in general." It would take weeks of collecting, preparing, and dissecting under a dissecting microscope to arrive at such a result as that; but it is obvious from the way in which the assertion is put forward, that there was nothing like research behind it at all. It is characteristic of the man. As the late Sir Benjamin Richardson once remarked to me, Jenner's conscience in scientific matters was "as easy as an old shoe." It would not be worth anyone's trouble to be strict with him, were it not that his scientific credit and his teaching have been fastened like a yoke upon our necks. He has brought the rigour of the law upon many. So long as that goes on, his science must be treated with the rigour of the game. But those who have not examined for themselves the whole story of his paper on the cuckoo, as well as all the circumstances of Mrs Blackburn's "curious agreement with it in details" (see *V. I.* February, 1892), would be well advised to let the matter drop out of the controversy about vaccination. Dr Wallace's confidence in the lady artist's powers of scientific observation will not be shared by anyone who is aware, as I am, that she figured the

cuckoo's egg three times the size of one of the pipit's eggs in the nest beside it, and the newly hatched cuckoo big in the same proportion to the young pipits. The humour of her tale, "The Pipits," turns upon that pardonable mistake; but she ought not to be called as a scientific witness.

C. CREIGHTON, M.D.
