

Letters to the Editor.

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The Resting-place of Robert Boyle.

SOME months ago, having become very much interested in the life and work of the famous English philosopher, the Hon. Robert Boyle, and animated to a certain extent by the spirit of the pilgrim, I thought I would go and look at his last resting-place. According to Thomas Birch, who brought out in five folio volumes the works of Boyle with a "Life" in the year 1744, the philosopher died on December 30, 1691, seven days after his sister Katherine, Lady Ranelagh, with whom he had been keeping house in Pall Mall for more than twenty years. Brother and sister were buried in the chancel of St. Martin's-in-the-Fields.

On reaching the church I learned that the old church in which they had been laid was pulled down in 1721 and replaced by the present edifice. On inquiry of the rector he referred me to his churchwarden, Mr. John MacMaster, from whom and from his interesting book on the church the following facts are derived:—

The foundation-stone of the new church was laid by the Bishop of Salisbury on March 19, 1721. James Gibbs, a pupil of Wren's, was the architect. "As the bodies buried in the church and part of the churchyard would be disturbed during the rebuilding, an advertisement was inserted in the newspapers notifying that the bodies and monuments of any of those buried could be taken away for reinterment by relatives on application to the Vicar, Wardens, and Commissioners. Several bodies and monuments were removed." It appears, however, that applications for permission to set up family monuments in the same position in the new church as in the old were not granted, and those monuments from the old church which were not taken away by relatives were stored under the tabernacle or, in some cases, set up in the vaults and crypt of the present church. It is on record that "Robert Boyle, the gifted son of the Earl of Burlington," was among those buried in the church, but no systematic account was kept of the disposal of the remains in the old church, and there is no monument bearing the name of Boyle in the crypt at the present day.

As it seemed possible that there might be some tradition in the family of action taken by them in 1721 to preserve the remains of the philosopher, I wrote to the present Earl of Cork and Orrery, but could get no information. Later, Lady Grace Baring (*née* Boyle) informed me that after looking into books of family records in her possession no clue could be found to the mystery of Robert Boyle.

It is remarkable that Birch's account of the funeral and burial should have been published without comment or correction in 1744, or more than twenty years after the destruction of the old church. No modern biographer seems to have inquired further into the matter, and it seems probable that the last resting-place of the "Father of Chemistry" will remain unknown to the end of time.

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Biological Terminology.

DR. BATHER (NATURE, August 18, p. 778) wishes me to explain my glaring truism, "Variation is the sole cause of non-inheritance: apart from variations, like exactly begets like when parent and child develop under like conditions" [of nurture]. But does it need explaining? As he says, and as I have insisted, variation is non-inheritance, and for that reason the truism is glaring. The words "the sole cause of" are really redundant, and were introduced merely to emphasise the fact that there is no other cause. My justification for framing the truism lies in the fact that that truth is more honoured in breach than in observance in biological discussions. I have already expressed myself much in the following terms, but some repetition seems necessary. Every character is a product of antecedent and exciting cause, of nature and nurture, of potentiality and stimulus, of power to develop and opportunity to develop. Since the multicellular individual is derived from a germ, he can inherit only through it. In the germ are none of the characters subsequently developed in the soma, but only powers to develop them. Therefore, strictly speaking, he inherits nothing but these powers, the sum of which is his nature, while the sum of the influences which cause change (or arrest it) is his nurture. By a colloquialism, which is pardonable since it confuses no one, we speak of a child inheriting his parent's eyes, or hair, and so on. If a child in response to similar nurture produces hair like his parent's, he has not varied in this respect; he has inherited; he is like his parent both by nature and through nurture. If he develops different hair in response to similar nurture, he has varied; to that extent he has not inherited. If owing merely to different nurture (*e.g.* injury) he produces different hair, or even none at all, he has *inherited*, but not *reproduced*.

Inheritance is altogether an affair of nature; reproduction implies the added element of nurture. Reproduction is proof of inheritance; but non-reproduction is not proof of non-inheritance. There is, indeed, massive evidence of inheritance without reproduction—*e.g.* in latent ancestral traits, male characters in the summer generation of aphides, and the recessive in the impure dominant. If for "hair" we substitute in the foregoing *any* of the characters which biologists call "acquired," and use our words with the same meanings, then all I have said remains exactly true. For example, if a parent and child receive similar injuries and develop similar scars, then the child *inherits* the scar. He would really have inherited even if he had not received the injury and developed the scar. But biologists do not give their words with the same meanings. If a child produces an "acquired character" in the same way as the parent did (if he is like the parent both by nature and through nurture), they say he has not inherited, but acquired, that trait afresh—as if every trait were not acquired afresh every time. They assume that he would "inherit" only if he reproduced the same trait in response to some different nurture, only if he did not inherit, only if he were unlike the parent both by nature and through nurture. The word "inherit" now means "varv." Now comes my point. The truism is founded on the assumption that all characters that can possibly be developed are, *necessarily*, and in exactly the same sense, equally innate, acquired, germinal, somatic, and inheritable. Nearly all biological discussions (*e.g.* the Neo-Lamarckian and Neo-Darwinian) are based on contrary assumptions, and imply, therefore, the denial of the truism. If it were accepted and borne in mind, most of the labours and disputes