but as showing a certain geographical weakness in the writer, who did not know that the Ladrone and the Marian Islands are the same. E. B. T.

OUR BOOK SHELF

Typhoid Fever: its Nature, Mode of Spreading, and Prevention. By William Budd, M.D., F.R.S. Pp. 193. Three plain and one coloured lithograph. (Longmans, 1873.)

THIS handsome volume is a thesis on the question of how typhoid or enteric fever is propagated. Dr. Budd adopts what is known as the contagion theory, and believes that every case of the disease is the result of direct poison, conveyed either by the air or more frequently in water, from the intestine of one patient to that of another. This theory is generally disbelieved by the best medical authorities in London and Paris; but, as Dr. Budd points out, it is not in large towns that the transmission of disease can best be traced. He describes with minute exactness as to time, place, and other important conditions, outbreaks of this terrible disease in secluded country villages, in schools, and other isolated institutions, where he was able to trace the steps of the epidemic from house to house or from room to room. We believe that a candid perusal of these cases will bring the conviction that the theory of contagion is fairly proved. Many of them are at all events almost decisive against the theory that this enteric fever is "pythogenic," *i.e.* is the result of a poison which may be produced by any decomposing sewage under favourable circumstances, without previous contamination from a diseased person. The practical importance of the question is, that if enteric fever only spreads as Dr. Budd and other contagionists maintain, it is possible, and therefore of the utmost importance, to check its propagation. A great part of the book is devoted to this point, and the mode of destroying diseased products is carefully detailed.

One obvious objection to the contagion theory is that it only accounts for the spread, and not for the origin, of the fever. But, as Dr. Budd argues, the same applies to small-pox and every other undoubtedly contagious disease. However the first case came about, no one supposes that fresh ones now arise spontaneously, any more than naturalists who believe that worms and buttercups once came into being for the first time, expect to find a worm appear in a drop of water without an egg, or a buttercup in a meadow without a seed.

The comparison of typhoid disease to the eruption of small-pox, which is revived by Dr. Budd, has been long and deservedly abandoned: indeed the strictly pathological part of this book is the least satisfactory. Notwithstanding a somewhat "drawing-room" appearance, it is no doubt intended for pathologists and physicians to study; and for them we cannot see the advantage of the four illustrations, one of which forms an elaborately coloured frontispiece; they show nothing but what has often been figured before, and is now universally familiar. The style also is now and then too ambitious, suggesting rivalry with the wretched newspaper writing quoted on p. 110 as "lively and facile." On the whole, however, the book is as solid as it is earnest, and may be compared without detriment with Dr. Macnamara's well-known work defending an almost identical theory and practice with regard to the propagation and prevention of Asiatic cholera.

The facts and arguments contained in it will no doubt be duly weighed by the medical profession, and the public will benefit by the result. P. S.

Inorganic Chemistry, Elementary. By Raphael Meldola. F.C.S. (London: Thomas Murby, 1873.)

THE present little volume constitutes one of a series produced by the same publishers as "Science and Art Department Text-books." We must congratulate Mr. Meldola on having produced in a small compass a thoroughly good and sound introduction to the science of chemistry, and it is all the more welcome in these days of "Science Series," when so many badly done "Text-books" are being produced. The information is well and clearly stated, and is sufficiently free from technicalities to be easily understood by the beginner. The book is plainly and well printed, but we cannot congratulate the publishers on the execution of the few and simple woodcuts, every one of which has been spoiled in the cutting. We hope that in a future edition the work will receive better treatment, as a well-done woodcut is a great aid to the beginner in understanding his author's descriptions of various experiments.

LETTERS TO THE EDITOR

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. No notice is taken of anonymous communications.*]

The Photographic Society

THE sweeping condemnation of the Photographic Society conveyed in an article in NATURE, vol. ix. p. 263, can only have been written under a want of knowledge or misrepresentation of facts. I will not say one word about any dissension which may exist in the Society, but as the statements you have published are calculated to injure the Society very materially, I will ask you, in common justice, to make public the transactions of the Society for the past year, so that the readers of NATURE may judge for themselves whether in a body which does not profess to be a purely scientific one, science is altogether ignored, whether "no man of eminent scientific capacity takes part," and whether the society is altogether beneath contempt as at present conducted. This I ask you to do not only in justice to the society, but to the gentlemen whose names are mentioned below.

1873. January meeting. "The Photographic Operations at the Royal Observatory in connection with Magnetical and other records," by James Glaisher, F.R.S.; "Instantaneous Microphotography," by E. J. Gayer, M.D.

February.—"On the Principles of the Chemical Correction of Object-Glasses," by Prof. G. G. Stokes, D.C.L., Sec. R.S.

March.—"A Contribution to the Early History of Photography," by H. Baden Pritchard, F.C.S.

April.—"Uranium Printing," by John Spiller, F.C.S.; "The Chemical Theory of the Latent Image," by Capt. Abney, R.E., F.C.S., F.R.A.S.

May.—"Improvements in Carbon Printing," by Mons. A. Marion.

June.—"Remarks on three Wet Processes," by Jabez Hughes; "Photo-collotype Printing," by Capt. Waterhouse, B.S.C.

December.—"Photography in the Arctic Regions," by Lieut. Chermside, R.E.

So far as investigations are concerned, I can mention two, at least, now being undertaken by members of the society, touching the process and nature of film best suited for the Transit of Venus observations.

BADEN PRITCHARD, Hon. Sec.

9, Conduit Street, W., Feb. 7

Animal Locomotion

THERE are two or three points in Dr. Pettigrew's new book as to which, perhaps, many of your readers in common with myself would be glad of a little light. First, in speaking of the gannet, he says: "Each wing, when carefully measured and squared, gave an area of 19½ square inches." But how is such an area obtained from the dimensions given? They are: "girth of trunk, 18 inches," *i.e.*, about 5 inches for its width; "expanse of wing from tip to tip across the body, 5 feet," so that each wing would stretch about 33½ inches from root to tip; "across secondaries, 7 inches," and this we may take as about the average width of the wing. Multiplying length of wing by width ($33\frac{1}{2} \times 7$), we get therefore an area of 234½ square inches. Similarly Dr. Pettigrew assigns the heron's wing an area of 26 square inches, although the dimensions he gives yield an area of about 311 square inches. A friend of mine has the temerity to suggest that for some reason or unreason Dr. Pettigrew has