

THE CLAY PEBBLE BED OF ANCON, ECUADOR.

SIR,—Owing to the extensive writings of Dr. George Sheppard from which it might appear that his contention that the "Clay Pebble Bed" of Ancon is a clastic, may have met with general acceptance, I think it only fair to the authors of the original paper (*Quart. Journ. Geol. Soc.*, lxxxi, 1925, 454), Messrs. Barrington Brown and Baldry, to say that it is my opinion that most observers of wide experience of Tertiary tectonics in this and other countries, could hardly fail to endorse the views of the latter joint authors.

The Santa Elena Peninsula is, in fact, a gigantic tectonic breccia. The clay pebble beds are common enough throughout, and there are many planes of movement set at all angles. One of the most striking features is crushed sandstone fragments up to 3 km. long and 1 km. wide which lie in the sheared clay matrix, and whose relative lateral shift may amount to as much as 5 km., the actual shift being probably much more. Careful mapping shows that these sandstone fragments may be correlated the one with the other, though one block may have been shifted many kilometres from its mate.

These conditions extend south along the coast at least as far as Payta in Peru, and it is not too much to say that a very large part of the west coast of South America will eventually be proved to show similar dislocation. Messrs. Barrington Brown and Baldry are to be congratulated on being the first to have recognized this general condition, and on having demonstrated the same so clearly in their paper.

H. G. BUSK.

SANTA ELENA,
ECUADOR.