To offset in some measure the foregoing criticisms of the terminology of Mr. Chandler's paper let me commend his use of pial, dorsal, caudad and cephalad.

BURT G. WILDER

A FISTULA IN THE DOGFISH

IN a shipment of dogfish pups (*Mustelis canis*) sent from Woods Hole to the Biological Laboratory of New York University during the summer of 1910, there was a specimen about 20 inches long with a cœlomic fistula which had been closed in a curious manner. The opening was on the ventral surface, just posterior to the left pectoral fin. Externally it was not conspicuous, the tissue of the oval scar being much the same color as the surrounding skin, although evidently of a somewhat different texture.

On laying open the body cavity it was found that the fistula had been plugged by a growth from the left lobe of the liver, which had filled the wound completely without adhering to the structure of the body wall. The edge of the cicatrice, after the liver had been drawn away intact, was smooth and thoroughly healed.

ROBERT CUSHMAN MURPHY

MUSEUM OF THE BROOKLYN INSTITUTE

NOTE ON "SOME EARLY PHYSIOGRAPHIC INFERENCES"

AMONG the interesting physiographic comments quoted from early writers by Dr. Emerson on page 374 of SCIENCE for March 4, the one by James Hall is evidently misinterpreted. The quotation is as follows:

> About midway between St. Louis and the mouth of the Ohio, masses of limestone rock are seen on either side, which, though now unconnected, have the appearance of once having formed a continuous ridge crossing the river in an oblique direction.

This is supposed by Emerson to refer to the bluffs bordering the new trough of the Mississippi River near Thebes, Ill., where it leaves its old valley and crosses into another formerly occupied by the Ohio River. It seems practically certain, however, that Hall had in mind a conspicuous ridge of limestone beds dipping steeply northeastward, which appears on the west bank of the Mississippi in Perry county, Mo. Just below Wittenberg, this ridge has evidently been obliquely intersected by the river, the obvious southeastward continuation in a direct line appearing on the east bank in the picturesque series of isolated rock masses known locally as the Devil's Bake-oven and Devil's Backbone; the latter ending abruptly at the town of Grand Tower, Ill. This is about three fifths of the distance from St. Louis to the Ohio, while the Thebes cut is only a short distance above the mouth of the Ohio; and at the cut neither the rock masses nor the oblique direction are especially evident.

CHARLES A. HART

ILLINOIS STATE LABORATORY OF NATURAL HISTORY

SCIENTIFIC BOOKS

The Mechanical Factors of Digestion. By WALTER B. CANNON, A.M., M.D., George Higginson Professor of Physiology, Harvard University. Illustrated. London, Edward Arnold; New York, Longmans, Green and Co. 1911. Pp. 227.

The motor activities of the muscle tube which forms the digestive system has long been a favorite subject of investigation, and a considerable mass of valuable information is at our disposal. But this evidence often shows a marked lack of harmony, even though the observations were made upon the same organ in the same animal. The fault, however, lay not so much with the experimenters, as with the methods employed; there was no single procedure which was applicable for the study of the entire gastro-intestinal canal without grave operative interferences, and these interferences often altered or even abolished the very function which was to be investigated. It was therefore natural that varying interpretations and consequent confusion should arise. In 1896, a method was developed by means of which the motor functions of the entire digestive tube, from pharynx to rectum, could be observed without