"History of Somersetshire," the work from which many of the facts above stated were derived.

Note.—A curious circumstance in connexion with these caves, though not exactly relevant to the subject of the present paper, is the existence of a pipe or chimney, passing from the lower to the higher one. The opening of this passage above was filled up by blocks of Limestone wedged together in such a manner as to form the floor of the den above, so that it was upon them that the remains of the extinct animals were found. These loose blocks were removed by the first explorers of these caves, and it was by way of this "chimney" that the lower chamber was first entered, the outer

entry beneath the head being discovered subsequently.

Had an earthquake shock in modern times dislodged the floor of the hyæna den, its contents would have been scattered over the human and recent remains and the Roman coins below. Such a simple case of "false" super-position might not have misled an acute observer; but had the convulsion been accompanied by a temporary irruption of the sea, or by a permanent depression of the coast line, (either combination of events being by no means improbable) then the entire contents of the cave, ancient and modern, would have been disturbed, washed about and intermingled in such a manner as altogether to conceal the true history of the confused mass. Such a case may not be expected to occur in the British Isles, but caveexplorers in less favoured countries, where earthquakes and changes of level are of frequent occurrence, would do well to bear the suggestions of this instance in mind. Neither, it must be remembered, will the state of preservation of the bones, under such circumstances, always give certain evidence as to their age; for in this same cave I met with recent bones, some in the sand and some in the clay, of which the former had lost the greater part of their animal matter, whilst the latter were almost as fresh as if yesterday thrown out of the kitchen.

NOTICES OF MEMOIRS

QUARTERLY JOURNAL OF THE GEOLOGICAL SOCIETY OF LONDON.
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THIS Number of the Journal does not contain such a long list of original articles as did the last, which contained more than twenty original papers on various interesting topics, while this number contains but five, one on Foreign Geology, the rest on the Tertiary and Post-tertiary Geology of Great Britain. Mr. Godwin-Austen gives a description of the submerged forest-beds of Porlock Bay, showing what light they throw upon the minor oscillations to which our island has been subject in the more recent periods. The Rev. R. Boog Watson discusses the origin of the "parallel roads" of Glen Roy, advocating the Marine Theory, in opposition to the

Ice-dam Theory supported by Professor Agassiz and Mr. T. F. Jamieson. Dr. Duncan describes some spaces formerly occupied by selenite in the Lower Eocene Clays of the London Basin, giving some valuable remarks on the origin and disappearance of the mineral; he comes to the conclusion that the occurrence of selenite in a deposit proves the former existence of organisms in it. Rev. O. Fisher endeavours to prove the superposition of the Norwich Crag to the Chillesford Clay, as exhibited in the section at Thorpe, near Aldborough. Captain Godwin-Austen's paper on the Carboniferous Rocks of Kashmere, with notes on the Brachiopoda, by Mr. Davidson, of which an abstract appeared in the former number of the Journal, is here printed in full, with two plates of the fossils executed by Mr. Davidson.

An abstract of Part iii. of M. Barrande's "Défense des Colonies," a notice of the second volume of Dr. Bischof's "Elements of Chemical and Physical Geology," and a communication on Dr. Laube's "Brachiopods, etc., of the St. Cassian Beds," conclude the number.

REVIEWS.

- I.—Petroleum and Oilfields and Oil-Discoveries in their GEOLOGICAL ASPECT.
- 1. DERRICK AND DRILL; OR AN INSIGHT INTO THE DISCOVERY, DEVELOPMENT, AND PRESENT CONDITION AND FUTURE PROSPECTS OF PETROLEUM, IN NEW YORK. ETC., ETC.1
- 2. GEOLOGY, OIL FIELDS, AND MINERALS OF CANADA WEST, ETC. By HENRY WHITE, P. L. Surveyor, Toronto.2

MINERAL pitch and pitchy fluids issuing from the earth, have been known from the earliest times of history. From the date of the bituminous bricks of Babel to our own oily era, bitumen and its derivatives, or its allies, have been used, here and there, and now and then, for one purpose or another: a building material in the ancient East, an embalming agent amongst the Egyptians, a medicine amongst the civilized and the uncivilized; its more general utility has shone forth at all epochs as an illuminator. In almost every quarter of the globe this mineral has been found to occur; it still flashes over the surface of the ground from

"those fountains of blue flame That burn into the Caspian,"-

where it was formerly deemed sacred by the fire-worshippers of Western Asia; whilst for ages it has been largely obtained in the Birman Empire. The horrors of the Dead Sea included Asphalt in their list, and France and Italy, Germany and England, Russia and the Island of Trinidad, all swell the roll of localities in which free bitumen, under one form or other, has been found. But it remained

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