

fathoms by old river-valleys, must have extended far eastward as well as westward; and may be expected to have left their effects on the submerged Mediterranean border slopes. Such, indeed, is the case, as shown by the isobathic contours, but far less distinctly than in the case of the submerged borders of the Atlantic. In the first place, the great continental shelf of the Atlantic is in the case of the Mediterranean, narrow, and not well defined; and is represented generally by a broken slope, continuous with the bordering lands down to a depth of about 1,000–1,200 fathoms, when it gives place to the gradually shelving floor of the abyssal region, which descends to depths of over 1,500 fathoms. As a consequence of this, and as we might *a priori* expect, the submerged river-valleys are also less clearly defined than those off the coasts of France, Spain, and Portugal. Where, as in these cases, there exists a gently sloping terrace, extending for 100 to 200 miles out to sea, and traversed by deep channels with steep, sometimes precipitous, sides (as in the case of the Loire, the Adour, and the Tagus), it is easy to identify their courses by means of the soundings on the Admiralty charts; but where such channels only traverse for a short distance a steeply sloping surface, the conditions are entirely altered, and they are consequently less clearly recognizable. Notwithstanding this, however, the submerged channels of the Rhône and the Ebro can be clearly recognized by the inward bend of the contours opposite the mouths of these rivers, extending from about the 50 to the 1,000-fathom contours at the margin of the abyssal floor.

I may add, in conclusion, that I have succeeded in tracing Admiral Spratt's channel, between Adventure Bank and Cape Bon, by which the waters of the Levant Basin were connected with those of the Tyrrhenian Sea during the uplift of the entire area to the extent of 250 fathoms (1,500 feet), as explained by Admiral Spratt himself.¹

EDWARD HULL.

OBITUARY.

DR. HENRY HICKS, F.R.S., F.G.S.

BORN IN 1837.

DIED NOVEMBER 18, 1899.

THE mournful news has just reached us (November 21st) of the death of our genial friend and warm-hearted colleague, Dr. Henry Hicks. The son of the late Thomas Hicks, surgeon, of St. David's, Pembrokeshire, he was born in 1837, and was educated at the Collegiate and Chapter School in that city, and at Guy's Hospital, London. He became a member of the Royal College of Surgeons and a Licentiate of the Society of Apothecaries in 1862, and M.D. of the University of St. Andrew's in 1878, practising medicine at St. David's from 1862 to 1871. During that time he commenced his geological researches amongst the older rocks of that neighbourhood. His first paper was communicated to the Liverpool Geological Society in 1863. In the following year, in conjunction with the late Mr. J. W. Salter, Palæontologist to the Geological Survey,

¹ Q.J.G.S., vol. xxiii, p. 292.

he contributed several papers to the Geological Society, British Association, etc. In 1871 he removed to Hendon, Middlesex, and since that time he carried on researches in North Wales and Scotland, the results being communicated in numerous papers to the Geological Society, Geologists Association, and the *GEOLOGICAL MAGAZINE*. Of late his investigations were confined mainly to the oldest (Pre-Cambrian) rocks of Great Britain, and he has shown that they are exposed in many areas in which their presence had been hitherto unsuspected. Dr. Hicks described many new fossils discovered by him in the Cambrian, Ordovician, and Silurian rocks, and has written several papers on their classification. He published the results of explorations carried on by him in the ossiferous caverns in North and South Wales, in which evidence is given to show that man occupied some of the caverns during a part of the Glacial Period. In 1891 he described the glacial deposits at Hendon and Finchley, and in 1892 he published an account of the discovery of Mammoth and other remains in Endsleigh Street, London, with sections of the deposits in which they were found. He also wrote several papers on the rocks of North Devon, and discovered a rich fauna in the "Morte Slates," which until then were considered to be entirely unfossiliferous. In 1896-7 he published his views on the "Morte Slates" of North Devon and West Somerset in the *GEOLOGICAL MAGAZINE*. He prepared a new Geological Map of North Wales for the International Geological Congress which met in London in 1888. Dr. Hicks was awarded the Bigsby Medal by the Geological Society in 1883, and served that Society as Hon. Secretary and afterwards as President during the years 1896 and 1897. He was President of the Geologists Association in 1883-5, and was elected a Fellow of the Royal Society in 1885. He was an Honorary and Corresponding Member of many Geological and Natural History Societies in this country and abroad. Dr. Hicks died rather unexpectedly at his residence at Hendon, after only a very short illness, on November 18th, in his sixty-second year. His loss will be keenly felt by his many friends in the Geological Society and the Geologists Association, who appreciated his great abilities and sterling worth.

SIR J. WILLIAM DAWSON, C.M.G., LL.D. (EDIN.), D.C.L.,
F.R.S., F.G.S.

BORN OCTOBER 30, 1820.

DIED NOVEMBER 19, 1899.

A TELEGRAM in the *Morning Post* of November 20th announces the death on the 19th inst., at the age of 79, of this eminent Canadian geologist, who was almost equally well-known and beloved among geologists on this side of the Atlantic.

Sir J. William Dawson was born at Pictou, Nova Scotia, on October 30th, 1820. He graduated at the University of Edinburgh, and returning home devoted himself to the study of the Natural History and Geology of Nova Scotia and New Brunswick. The results of these investigations were published in his "Acadian Geology" (3rd ed., 1878). In 1842, and again in 1852, he accompanied Sir Charles Lyell in his explorations in Nova Scotia,