

apparent, exceptions." Of the heart, p. 296, he says, in the Pœcilopoda, Isopoda, Amphipoda and Læmodipoda, it is tubular in form, and occupies the mid-region of the dorsum, sends off arteries before, behind, and laterally, and receives the venous blood through lateral venous orifices." "*Caprella linearis*," is figured, pl. xvii. fig. 6., and portions of *Talitrus* on pl. xviii., to illustrate the circulatory system and the anatomy of the branchial organs. He remarks, p. 302, of the Amphipodan family, "the thoracic limbs are commonly said to be transformed into branchiæ at their bases. The depending edges of the dorsal plates (the epimeral of the tergal arc) are however much more suitably organized than the proximal articulations of the legs. They are penetrated by a very dense system of canals. The epidermis is reduced to an extremely thin and transparent lamina. The component hexagonal cells may be readily observed. The outer or epidermal lamina is united to the opposite parallel lamina by dots of parenchyma. The blood streams in the intermediate passages. These parts therefore correspond in ultimate structure in the most exact manner with leaves of the branchiæ of the Crab."

1855. BARTELS.

Gammarus pulex im Menschenmagen von *Bartels*. Mit einem Zusatz von Troschel. Verhandlungen des naturhistorischen Vereines der preussischen Rheinlande und Westphalens. Zwölfter Jahrgang. Neue Folge; Zweiter Jahrgang. Bonn, 1855. pp. 113-116.

Troschel points out that there are possibilities of mistake in such accounts, the more especially as Bartels was not an eye-witness of what had occurred. The specimens sent belonged to *Gammarus pulex*, Gervais.

1855. BATE, C. SPENCE.

On the Homologies of the Carapace and on the Structure and Function of the Antennæ in Crustacea. Annals and Magazine of Natural History. 2d Ser. Vol. XVI. London, 1855. pp. 36-46. (Read at the Linnæan Society, April 17, 1855.)

The subject of this paper, so far as it concerns the Amphipoda, is discussed at large in the British Association Report by Mr. Spence Bate, for 1855.

1855. BELL, THOMAS, born 1792, died 1880 (W. P. Sladen), and WESTWOOD, J. O.

The last of the Arctic Voyages; being a narrative of the expedition in H.M.S. Assistance, under the command of Captain Sir Edward Belcher, C.B., in search of Sir John Franklin, during the years 1852-53-54. With notes on the natural history, by Sir John Richardson, Professor Owen, Thomas Bell, J. W. Salter, and Lovell Reeve. Vol. II. London, 1855.

At page 404 the Amphipoda begin, and contain mention of "*Gammarus Sabini*, Leach;" "*Gammarus loricatus*, Sabine;" "*Gammarus boreus*, Sabine;" "*Gammarus Kroyeri* (n. s.). Plate XXXIV. fig. 4. Antennis superioribus inferioribus dimidio longioribus, abdominis segmentis quatuor anterioribus in medio, secundo et tertio ad angulum inferiorem posticum, in dente productis," the English description being followed by the remark that