

workings opened among them, than the deposits of any other system ; and ere the publication of the map of Smith, Cuvier and Brogniart had rendered famous all over the world the older Tertiary formations of the age of the London Clay. But both ends of the geological scale, comprising those ancient systems older than the Coal, and representative of periods in which, so far as is yet known, life, animal and vegetable, first began upon our planet, and those systems of comparatively modern date, representative of the periods which immediately preceded the human epoch, were equally unknown. The light fell strongly on only that middle portion of the series on which the labours of Smith had been mainly concentrated. The vast geologic bridge, which, like that in the exquisite allegory of Addison, strode across a "part of the great tide of eternity," "had a black cloud hanging at each end of it." And such was the state of geologic science when, in 1814, Dr Chalmers framed his scheme of reconciliation.

Since that time, however, a light not less strong than the one thrown by William Smith on the formations of the Lias and the Oolite has been cast on both the older and the newer fossiliferous systems. Two great gaps still remain to be filled up,—that which separates the Palæozoic from the Secondary division, and that which separates the Secondary from the Tertiary one : but they occur at neither end of the geological scale. Mainly through the labours of two distinguished geologists, who, finding the geologic school of their own country distracted by a fierce and fruitless controversy, attached themselves to the geologic school of England, and have since received the honour of knighthood in acknowledgment of their labours, both ends of the geologic scale have been completed. Sir Roderick Murchison addressed himself to the formations older than the Coal, more especially to the Upper and Lower Silurian systems, from the Ludlow rocks to the Llandeilo flags. The Old Red Sandstone too, a sys-