which cannot be assigned, but more generally by the formation of secondary spheroids in the heart of the compact jaspideous substance. These spheroids differ essentially from those first described; the centres of their formation are more remote from each other, and their magnitude is proportionably greater, sometimes extending to a diameter of two inches, and seeming only to be limited by contact with the peripheries of other spheroids. They are radiated, with distinct fibres: sometimes the fibres resemble those of brown hæmatites, and sometimes they are fasciculated irregularly, so as to be very similar in appearance to the argillaceous iron ores rendered prismatic by torrefaction. They are generally well defined, and easily separable from the mass they are engaged in; and often the fibres divide at equal distances from the centre, so as to detach portions of the spheroid in concentric coats. The transverse fracture of the fibres is compact and fine-grained; the colour black; and the hardness somewhat inferior to that of the basaltic glass. When two of the spheroids come into contact by mutual enlargement, no intermixture of their fibres seems to take place: they appear equally impenetrable, and in consequence both are compressed; their limits are defined by a plane, at which a separation readily takes place, and each of the sides is invested with a rusty colour. When several spheroids come in contact on the same level, they are formed by mutual pressure into pretty regular prisms, whose division is perfectly defined; and when a spheroid is surrounded on all sides by others, it is compressed into an irregular polyhedron.

4. The transition from this fibrous state to a different arrangement seems to be very rapid; for the centre of most of the spheroids becomes compact before they attain the diameter of half an inch. As the fibrous structure propagates itself by radiating into the unarranged mass, the compact nucleus which supplies its place gradually extends till it finally attains the limits of the spheroids; and the same arrangement pervades the matter compre-