

tie nearly in the solstitial colure), and thence over Orion's club to the neck of Monoceros, intersecting the equinoctial (in 1800) at R. A. 6h. 54m. From this point the brightness considerably increases. At the stern of Argo one branch runs southward to γ Argûs, where it terminates abruptly. The main stream is continued to 33° S. Decl., where, after separating in a fan-like shape (20° in breadth), it again breaks off, so that there is a wide gap in the Milky Way in the line from γ to λ Argûs. It begins again in a similar fan-like expansion, but contracts at the hind feet of the Centaur and before its entrance into the Southern Cross, where it is at its narrowest part, and is only 3° or 4° in width. Soon after this the Milky Way again expands into a bright and broad mass, which incloses β Centauri as well as α and β Crucis, and in the midst of which lies the black pear-shaped coal-sack, to which I shall more specially refer in the seventh section. In this remarkable region, somewhat below the coal-sack, the Milky Way approaches nearest to the South Pole.

The above-mentioned bifurcation, which begins at α Centauri, extended, according to older views, to the constellation Cygnus. Passing from α Centauri, a narrow branch runs northward in the direction of the constellation Lupus, where it seems gradually lost; a division next shows itself at γ Normæ. The northern branch forms irregular outlines till it reaches the region of the foot of Ophiuchus, where it wholly disappears; the most southern branch then becomes the main stream, and passes through the Altar and the tail of the Scorpion, in the direction of the bow of Sagittarius, where it intersects the ecliptic in 276° long. It next runs in an irregular patchy and winding stream through Aquila, Sagitta, and Vulpecula up to Cygnus; between ϵ , α , and γ , of which constellation a broad dark vacuity appears, which, as Sir John Herschel says, is not unlike the southern coal-sack, and serves as a kind of center for the divergence of three great streams.* One of these, which is very vivid and conspicuous, may be traced running backward, as it were, through β Cygni and ζ Aquilæ, without, however, blending with the stream already noticed, which extends to the foot of Ophiuchus. A considerable offset or protuberant appendage is also thrown off by the northern stream from the head

* *Outlines*, p. 531. The strikingly dark spot between α and γ Cassiopeiæ is also ascribed to the contrast with the brightness by which it is surrounded. See Struve, *Etudes Stell.*, note 58.