The artifical grouping of the stars into constellations, which arose incidentally during the lapse of ages—the frequently inconvenient extent and indefinite outline—the complicated designations of individual stars in the different constellations—the various alphabets which have been required to distinguish them, as in Argo—together with the tasteless blending of mythical personages with the sober prose of philosophical instruments, chemical furnaces, and pendulum clocks, in the southern hemisphere, have led to many propositions for mapping the heavens in new divisions, without the aid of imaginary figures. This undertaking appears least hazardous in respect to the southern hemisphere, where Scorpio, Sagittarius, Centaurus, Argo, and Eridanus alone possess any poetic interest.*

The heavens of the fixed stars (orbis inerrans of Apuleius), and the inappropriate expression of fixed stars (astra fixa of Manilius), reminds us, as we have already observed in the introduction to the Astrognosy,† of the connection, or, rather, confusion of the ideas of insertion, and of absolute immobility or fixity. When Aristotle calls the non-wandering celestial bodies $(\dot{a}\pi\lambda av\tilde{\eta} \ \ddot{a}\sigma\tau\rho a)$ riveted $(\dot{e}v\delta e\delta e\mu \dot{e}va)$, when Ptolemy designates them as ingrafted $(\pi\rhoo\sigma\pi e\phi v\kappa \dot{o}\tau e\varsigma)$, these terms refer specially to the idea entertained by Anaximenes of the crystalline sphere of heaven. The apparent motion of all the fixed stars from east to west, while their relative distances remained unchanged, had given rise to this hypothesis. "The fixed stars $(\dot{a}\pi\lambda av\tilde{\eta} \ \ddot{a}\sigma\tau\rho a)$ belong to the higher and more distant regions, in which they are riveted, like nails,

dischen Thierkreises, 1841, s. 9, 16, 23. "The passages quoted from Amorakoscha and Ramayana," says the latter writer, "admit of undoubted interpretation, and speak of the zodiac in the clearest terms; but if these works were composed before the knowledge of the Greek signs of the zodiac could have reached India, these passages ought to be carefully examined for the purpose of ascertaining whether they may not be comparatively modern interpolations."

* Compare Buttman, in Berlin Astron. Jahrbuch für 1822, s. 93, Olbers on the more recent constellations in Schumacher's Jahrbuch für 1840, s. 283-251, and Sir John Herschel, Revision and Rearrangement of the Constellations, with special reference to those of the Southern Hemisphere, in the Memoirs of the Astr. Soc., vol. xii., p. 201-224 (with a very exact distribution of the southern stars from the first to the fourth magnitude). On the occasion of Lalande's formal discussion with Bode on the introduction of his domestic cat and of a reaper (Messier !), Olbers complains that in order "to find space in the firmament for Kirg Frederic's glory, Andromeda must lay her right arm in a different place from that which it had occupied for 3000 years!"

t Vide supra, p. 26-28, and note.