every part of the globe in 1830, was led to conclude for the value of the minor or polar axis of the terrestrial spheroid, 41,707,620 feet; *while the late Professor Bessel, pursuing a course similar in its general principle—that is to say, using all the measured arcs, great and small, in combination one with another, and taking the most probable mean among the (necessarily) discordant results, obtained by combining them two and two—arrived at a value very slightly different, viz.,* 41,707,314 feet. The mean of these gives, as the result of this mode of procedure, 41,707,467.

(24.) Quite recently, M. Schubert in a very elaborate memoir which appears as part of the 1st vol., 7th series, of the Memoirs of the Petersburg Academy, has pointed out the inconvenience, and necessarily discordant results which the combination by pairs of a multitude of small arcs, each of itself insufficient to afford any precise measure of the ellipticity, affords; and assigned his reasons *for restricting the inquiry in the first instance into* the length of the polar axis, as an element unique in itself, and common to all the meridians: deducing it separately from each of the most extensive arcs, the Russian, the Indian, and the French, each taken independently;—comparing the three values so obtained, and thence concluding the final result. In this manner he obtains the following three values of the axis, viz. :—

From the Russian arc (of 25° 20' in extent) 41,711,019·2 feet.
   ,,   Indian ,, (of 21° 21'   ,,   ) 41,712,534·2 feet.
  ·,,   French ,, (of 12° 22'   ,,   ) 41,697,496·4 feet.

In concluding for these a mean, or final value, M.