

called by astronomers)\* can be ascertained. The first consists in determining the exact situation which its direction in space holds at all times of the year in relation to some plane, and to some line in that plane which we have reason to consider as fixed ; or at all events of whose movements (exceedingly small in amount) we can render an exact account. Such a plane is that in which the earth revolves round the sun, or the *ecliptic*, and such a line that of the *equinoxes*, and the astronomical process employed is that by which the two elements technically called the *longitude* and *latitude* of the star are determined. This is in effect the process by which all celestial charts are constructed and catalogues of stars made. Only for this purpose the observations require to be made with the very best instruments ; with the minutest attention to everything which can affect their precision ; and with the most rigorous application of an innumerable host of "*corrections*," some large, some small, but of which the smallest, neglected or erroneously applied, would be quite sufficient to overlay and conceal from view the minute quantity we are in search of. To give some idea of the delicacies which have to be attended to in this inquiry, it will suffice to mention that the stability not only of the instruments used and the masonry which supports them, but of the very rock itself on which it is founded, is found to be subject to annual fluctuations capable of seriously affecting the result. So that it is only when after a series of observations continued for several years

\* What is technically called *parallax*, is only the *half* of the total annual apparent displacement.