

known that the best-made chronometers of the usual construction can be made to keep the same rate at any two given temperatures, but that the rate changes at an intermediate temperature, and at temperatures beyond the given temperatures, higher or lower. Messrs. Eiffe, Molyneux, Dent, &c., have attacked this difficulty (which is, indeed, a very serious one in long voyages, when the timekeepers are exposed to great varieties of climate), and by various methods. Mr. Hartnup has proposed a different construction, and some chronometers, furnished with the new balance, have performed very satisfactorily. He intends, with the permission of the Astronomer Royal, to send some to Greenwich for examination.

The contributions received from unprofessional astronomers during the past year have been numerous, and of great value. The merits of Mr. Bishop and Mr. Hind are the theme for another portion of this Notice in the President's speech.

The instruments of the Observatory of Markree are of the highest class. The equatoreal refractor is, we believe, the largest refractor in use after those of Poulkova and Cambridge, U.S.; and the meridian circle is probably not inferior to any instrument of its kind. The proprietor, Mr. Cooper, has found a most able and zealous assistant in Mr. Graham.

At Makerstoun, Sir Thomas Brisbane has an observatory in full activity, but it is principally directed to magnetism and meteorology. The equatoreal, however, which is a first-rate instrument, has been usefully employed by Mr. Welsh in comparing the newly-discovered faint planets with neighbouring stars, under Mr. Broun's immediate superintendence.

The Durham Observatory is directed by Professor Chevallier, but as his university engagements are too engrossing to leave much time for the practice of astronomy, Mr. Thompson has been engaged as an assistant. This observatory has a transit circle (which is a better instrument, perhaps, for determining right ascensions than north polar distances), and an admirable equatoreal, an original Fraunhofer, of six inches' aperture.

Mr. Dawes is pursuing his observations of double stars at Cranbrook; he has sent some occasional observations and remarks.

The American Observatories of Washington and Cambridge, U.S., have contributed several valuable sets of observations: the Continental observers, whose communications have been received and published, are too well known to require particular notice.

The *Notices* of the past year contain so many and such interesting communications from Mr. Lassell, that it is scarcely necessary to do more than allude to them here. The discovery of the satellite of *Neptune*, the final observations of Colla's Comet, those of the satellites of *Uranus*, and of the interior satellite of *Saturn*, shew that the personal skill and instrumental means of Mr. Lassell