

## CHRONOMETERS.

The increased use of Chronometers by Nautical men, and their great importance, has induced the subscribers to make arrangements to supply these valuable instruments to their friends.

In order to be enabled to ascertain and verify the rate of Chronometers, the subscribers have erected an Observatory at Brooklyn, and furnished it with a Transit Instrument, two Astronomical Clocks with Mercurial Pendulums, Circle, and other necessary instruments.

The subscribers have now on hand Chronometers made by *Arnold & Dent*, and others. None will be offered for sale except those which have been subject to a sufficient trial, and which can be warranted to perform well, from a critical examination of their previous rates, compared with the rates given by the manufacturer, and the rates while in our possession.

The above named makers have received premiums from the Board of Longitude in England, for the excellence of the performance of their instruments. We subjoin an account of the performance of two made by *Arnold & Dent*, which were placed in the Royal Observatory, with ten others of their make, for the purpose of determining some experiments on Chronometers, with a view to their improvement.

### RATES OF CHRONOMETERS.—ROYAL OBSERVATORY.

#### ARNOLD & DENT.—No. 521.

	June.	July.	Aug.	Sept.	Oct.
Mean daily variation, . . . .	5 <sup>h</sup> 01	5 <sup>h</sup> 18	5 <sup>h</sup> 13	5 <sup>h</sup> 34	5 <sup>h</sup> 34
Extreme variation, . . . . .	1 <sup>h</sup> 2	1 <sup>h</sup> 1	1 <sup>h</sup> 9	1 <sup>h</sup> 0	1 <sup>h</sup> 05

#### ARNOLD & DENT.—No. 676.

	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Mean daily variation, . . 0 <sup>h</sup> 00	0 <sup>h</sup> 37	0 <sup>h</sup> 51	0 <sup>h</sup> 53	0 <sup>h</sup> 39	0 <sup>h</sup> 35	
Extreme variation, . . . 1 <sup>h</sup> 1	1 <sup>h</sup> 1	1 <sup>h</sup> 2	1 <sup>h</sup> 2	1 <sup>h</sup> 0	1 <sup>h</sup> 0	

#### ARNOLD & DENT.—No. 114.

Actual extreme variation in 12 months, . . . . . 0<sup>h</sup> 54.

This Chronometer took the first premium in 1829, at the Royal Observatory, it having the least variation of any Chronometer yet recorded.

These instruments, though very superior, have been equalled by many others by the same manufacturers. Out of eight Chronometers on board *H. M. Surveying Ship Blossom*, *Arnold & Dent's* proved the best; and of twenty-two Chronometers embarked in *H. M. Surveying Ship Beagle*, Capt. *Fitzroy*, No. 663, made by *Arnold & Dent*, was the most accurate, and gave the longitude of Rio within one minute in space of the mean resulting from the whole number. So close an approximation is convincing proof of the accuracy of their instruments. And it need not be feared that this accuracy will not continue. It is the result of a division of labor, a profound chemical knowledge of the qualities of metals, with a series of numerous and singular experiments, fostered by the care of the British Government, and rewarded by annual premiums.

These valuable but delicate instruments, besides requiring great care in their use, are frequently in want of repairs; to make their business complete in relation to Chronometers, they sent for, and now have in their employ, a workman brought up to the business, and highly recommended by one of the first Chronometer makers in London. In many cases an old Chronometer requires but few repairs or alterations to make it perform well, and these repairs, made under the direction of the subscribers, will be as faithfully done as they could be done in London.

The subscribers will determine the rates of Chronometers, and all Chronometers let with them will be carefully attended to.

New York, June, 1837.

E. & G. W. BLUNT.