instalments, the maximum reward of £20,000. Harrison was a Yorkshire carpenter, who would have had little chance of success in a modern competitive examination; but his ingenious application of the different expansion by heat of two different metals to the construction of chronometers, was an inestimable service to his country and to the world. He made four or five chronometers. Of these, it is said, one was of such exactness that it did not vary a whole minute in ten years. Two of the Harrison chronometers are preserved at Greenwich Observatory. Sharp's biographer says: "A part of the escapement was, a few years since, removed from one of these, when the train of wheels ran down with velocity, though they had not turned for more than a hundred years."

In 1724, five years after Flamsteed's death, an Act of Parliament offered £5,000 reward for a set of tables giving lunar distances correctly to fifteen seconds of arc. Mayer, of Gottingen, worked out such a set, and sent them in 1757 to be tested, as, by terms of the Act, they had to be compared with actual observations for eighteen years and a-half. These tables were used in the Nautical Almanac first issued in 1767. Mayer died in 1762. His wife received the sum of £3,000, and Euler, a Swiss mathematician, was awarded a like sum. Euler's service was an approximate solution of the famous problem known as that of "the three bodies," namely: given their distances, velocities, masses and direction, what will be the path of one of three bodies around another, when all move in accordance with the law of gravitation? Hansen's lunar tables have since superseded those of Mayer. The British nautical almanac devotes six of its pages each month to lunar distances. They are now given to one second of arc, and are published three years in advance.

With what accuracy the position of a ship at sea can now be determined was exemplified a few years since by picking up the broken Atlantic cable from the bottom of mid-ocean. The cable was no larger in section than a ten cent piece; the buoys left to indicate place of the break were washed away, and nothing but his nautical skill was left to guide the navigator in what looked to be so hopeless a search. Yet with such extreme precision was the place of breakage recorded, and the searching vessel guided in her forlorn quest, that in a few hours the lost cable was successfully grappled.