

be considered the standard yard of the British empire, it provided for its recovery and reproduction in case of the total destruction or loss of it and all its authentic copies and facsimiles, by a declaration that its length is 36 inches, *such* that 39·13929 of them are equal to the length of a pendulum vibrating seconds *in vacuo* and at the sea-level, in the latitude of London. The report of the French commissioners also in 1798 which led to the enactment of the metrical system, is careful to state that in the event of the total loss or destruction of all material representatives of the metre its value would be easily recoverable from a numerically specified relation between its length and that of the pendulum vibrating seconds at Paris, which had been determined with great accuracy by Borda, one of the commissioners. So that, practically speaking, in the event of the total destruction, by political convulsions, of every authentic yard and metre (supposing any written record of our existing knowledge to survive them) the metre would have been recovered, not by the laborious and costly process of remeasuring the French meridian arc, but by the infinitely more summary one of a precise repetition of Borda's experiments and the exact re-application of all his corrections and reductions.

(11.) For the reproduction of the English yard, a similar repetition of those experiments *in* London which led to the adoption of the number 39·13929 in. as the measure of the pendulum would, in such an event, no doubt have been, at that epoch, resorted to; though in departure from the wording of the act, which speaks of a