≠234×

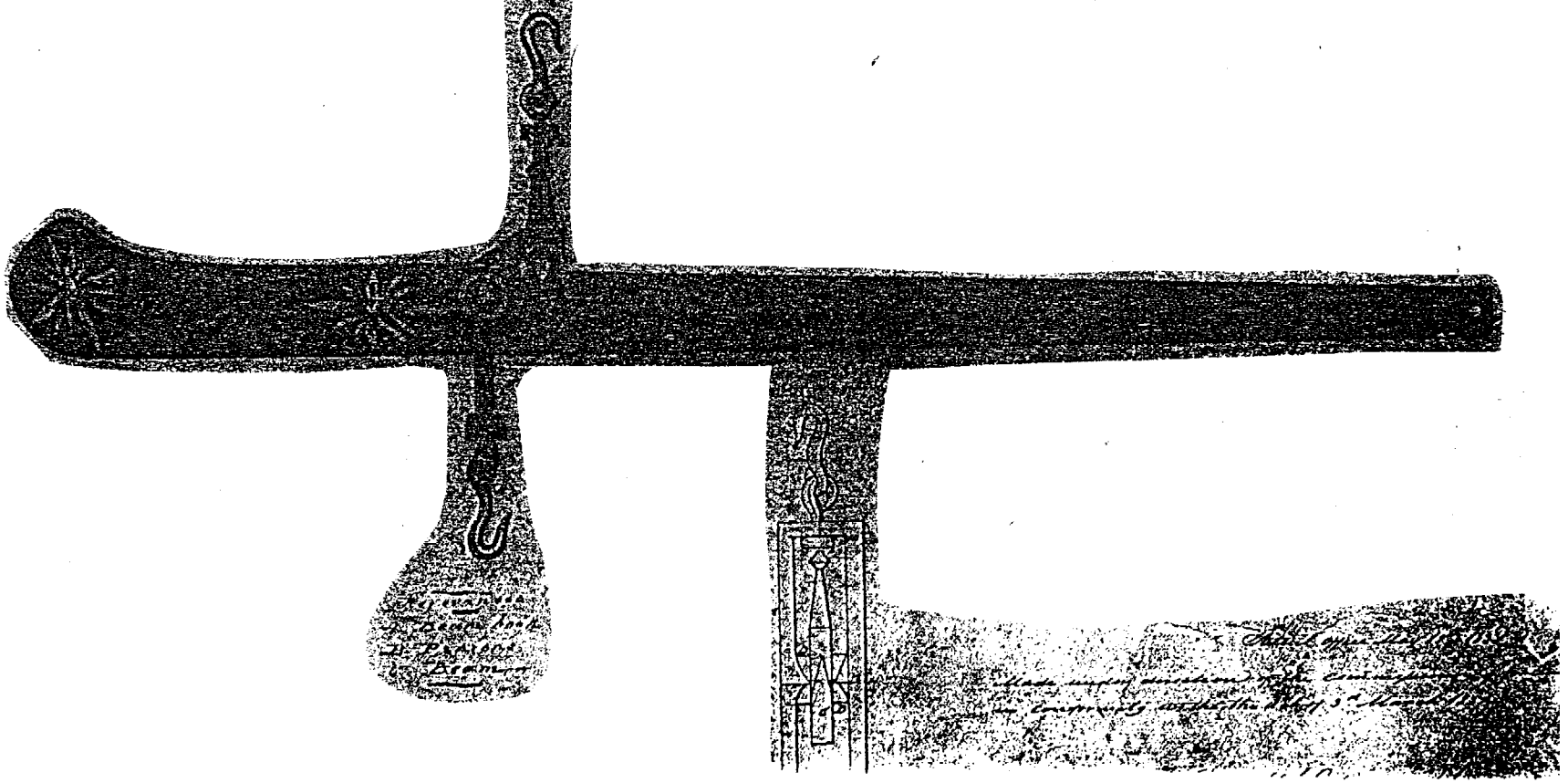
234X

B. Dearborn's.

Vibrating Steelyard.

Patented 14th Feby 1799.

234X
2-14-1799



234X. 2-14-1799

Benjamin Dearborn of Massachusetts

Letters Patent dated Feb. 4. 1799.

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Benjamin Dearborn himself of his improvement for which he prays Letters Patent, viz.

The steelyard or just Balance is made chiefly of iron usually of steel of any dimensions requisite for weighing the smallest or largest articles from Gold coin to hogsheads of sugar &c. The beam should be cast of iron. The pinions or gudgeons and the circles in which they turn are of steel well hardened. The Beam is graduated on one edge with notches on which the scales are hung or occasionally as occasion may require. The scales (or pans as they are usually termed) may be made of leather, Brass or any other suitable metal, or even of stone. If made of Cloth they should be gummed by a hard or other suitable wash to prevent reduction of weight by wearing & by those who use the instrument all its parts should be preserved from corrosion. The steelyard when constructed of the most convenient size for family use, will weigh from one pound to one hundred and fifty pounds and the pans must weigh two pounds and the construction, pounds every notch on the beam producing a variation of five ounces with the small pans and one pound with the large, or thereabouts according to weight. The pans might be made of other sizes but these are the most convenient. The long arm of the Beam is made sloping upward towards its edge on which the notches are cut. On the two sloping sides are figures denoting the weight on each being marked for the small pans and the other for the large which must be added together when both pans are on.

A steelyard of this construction to weigh five hundred weight, made with proper parts made strong & the large pans to weigh thirty lbs. avdupois of Eighteen pounds, including all the notches on the large side of the beam. The notches with the thirty two pounds

2-14-1799

234 X

Neil Pearson a resident of Hoghounds and [illegible] to obtain weights
as money. The counterfeit piece must be cracked and the sum of silver weighed
before as before. Other counterfeits might be practiced by the adulteration
of inner metals. and the above is the simplest contrivance.

2d. This invention consists in applying a beam with unequal arms to the use of
the coiners of counterfeit money. Heretofore the beam used for this purpose
has been a true balance. by this means the beam
is brought into a state of [illegible] during the process of weighing and
the exact weight of the fraction being as much as possible
ascertained by examining the fraction part of the guilt pieces with sharp
edges and cutting them in circles sufficiently large to proceed their blackening
or other tricks in coining. A proof of the accuracy of this Balance
is obtained by an experiment which can be made on no other beam with
the same. It is as follows. The weighing apparatus sufficiently
large to balance both pieces, say 100 lbs.) the pieces may be put on
one two numbers, which added together will produce 100; for example
put on piece may be put at 4. and the other at 10. or one at 93 and
the other at 5. one at 80 and the other at 20. one at 78 and
the other at 22. and so on throughout the whole of the beam.
and at the same time such accurate the numbers will possibly be
inserted. [illegible]

[illegible]

(Drawing not to be made a part 730 words
but to be referred to)

(Granted Oct. 14. 1799)