N° 20,689 A.D. 1906

Date of Application, 18th Sept., 1906
Complete Specification Left, 16th Mar., 1907—Accepted, 27th June, 1907

PROVISIONAL SPECIFICATION.

Improvements in Balances for Weighing Letters, Parcels, and other Articles.

We, S. Mordan and Company, Limited, Manufacturers, and Richard Langhorn, Locksmith, all of 41, City Road, in the County of London, do hereby declare the nature of this invention to be as follows:—

This invention relates to balances, more particularly designed for weighing letters and parcels, although suitable for weighing other articles, and it has for its object to so construct these apparatus that, on imparting a simple turning or angular movement to the scale-beam, they can be used, as occasion may require, for weighing either in "ounces," "grammes;" or "tolas," and this with a single poise or weight.

To this end, and according to a convenient arrangement, the scale-beam is pivoted at one end in a suitably supported block working on a knife edge, and is made triangular in cross section (preferably an equilateral triangle), and one of its sides or faces is graduated or marked off in, say "ounces" and parts thereof, another of its sides in "grammes," and the third side in "tolas." Thus, by turning the beam (by means of a knob or button at its outer end) to the system of weights required, and manipulating the poise, in the manner well known, the weight of the article, according to the system chosen, can at once be ascertained.

To the aforesaid block are affixed arms on which is suitably mounted the usual weigh-pan or plate; and along the scale-beam the hanging poise or weight is free to be slidden.

Suitable means are provided whereby the beam, when turned to indicate any one of the particular system of weights, shall, during the weighing operation, be prevented from shifting. For instance, there may be secured to the inner end of the said triangular beam, a disc having three equidistant peripheral notches corresponding to the sides or faces of the triangle, and into which notches a suitably located spring-controlled plunger or pin is adapted to engage each time the beam is turned to present the side or face bearing the system of weights called for.

Or said beam may be so arranged as to be drawn slightly outwards and, after being turned, for the purpose just above mentioned, be left to itself, when it will, under the action of a suitably arranged spring, return to position and be then maintained between three triangularly disposed pins or studs fixed to a convenient part of the balance.

Dated this 18th day of September 1906.

ERNEST de PASS,
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78, Fleet Street, London,
Agent for the Applicants.

[Price 8d.]

COMPLETE SPECIFICATION.

Improvements in Balances for Weighing Letters, Parcels, and other Articles.

We, S. Mordan and Company, Limited, Manufacturers, and Richard Langhorn, Locksmith, all of 41, City Road, in the County of London, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement, reference being had to the accompanying drawings and to the letters and figures marked thereon, that is to say:

This invention relates to that class of balance in which a triangular or polygonal scale beam bearing different systems of weights on its sides, or faces, is employed, and is kept in the selected position by a spring-catch, and our invention consists more particularly in improved means whereby the scale beam, when turned to effect a change in the system of weights to be employed, can be more readily maintained in its adjusted position. The said balance is more particularly designed for weighing letters, or the like, either in "ounces," "grammes," or "tolas."

And in order that the invention may be readily understood, we will now describe it fully with reference to the accompanying drawings, in which:

Fig 1 is a side elevation of the improved balance, and

Fig 2 a vertical section thereof on the line x, x, of Fig 1.

Figs 3 and 4 illustrate a modification hereinafter more particularly referred to, and

Fig 5 illustrates a still further modification.

In carrying out the invention, the scale beam a, is made preferably triangular in cross section and each of its sides or faces is graduated or marked off to the required denomination or system of weights to be employed. For example, one side or face may be marked off to weigh in "ounces," another face to weigh in "grammes," and the third face to weigh in "tolas." This beam is rotatably mounted in the fulcrum block b (working on a knife edge in supports b^x) in such a manner that it may be adjusted to the required denomination or system of weights, improved means being provided for holding the said beam in its adjusted position.

The article to be weighed is supported on the weigh-pan c, and the counterpoise d is then moved along the beam a, in the well known manner, to balance the said article. The weigh-pan is mounted upon arms c^1, c^1, which project laterally from the block b on the opposite side to that of the beam a, and is combined with any suitable system of levers.

The beam a is formed or provided at its inner end with a pin a^1, which traverses the block b, and is secured to this latter by means of a nut a^2. Where the beam abuts against the said block, a disc a^3 is provided, and is formed with peripheral notches a^4 arranged opposite each side or face of the beam; and said disc is adapted to be engaged by a spring-controlled pin or plunger b^1 mounted in a casing b^2 secured to, or formed on, the block b, so that the beam, when adjusted, is held in position by the plunger b^1 taking into one of the notches a^4. The outer end of the beam a is furnished with a knob or button a^5, whereby said beam may be rotated to adjust it to the required denomination or system of weights.

e is a support for the free end of the scale beam.

According to the arrangement shewn in Figs 3 and 4, the triangular scale beam a is maintained in position, when adjusted, by means of 3 pins or studs b^3 secured to the fulcrum block b, one opposite each face or side of the said beam, and the pin a^1 is furnished with a coiled spring a^6, which abuts against the said block. When it is desired to adjust the beam, it is pulled outwards, by means of the knob or button a^5, (shewn in Fig 1) until its triangular portion is clear of the pins and free to be rotated. The beam is then turned or adjusted, according to the system of weights to be used, and is left to itself, whereupon the spring a^6 returns it to position in engagement with the pins.

Instead of three pins, a single pin a^7 may be employed, and be arranged on the block b, as shewn in Fig 5. In this arrangement the pin would enter holes formed in the triangular beam a near its apices.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim, is:

1. In a letter or like balance of the kind herein referred to, the arrangement on the fulcrum block of the spring plunger, and which plunger is adapted to engage peripheral notches in a disc formed at the inner end of the graduated triangular scale beam when this latter is adjusted, and so prevent it from shifting, substantially as described and as shewn in Figs 1 and 2 of the annexed drawings.

2. In a letter or like balance of the kind herein referred to, the modified arrangement of the means for preventing shifting of the triangular beam when adjusted, substantially as described with reference to Figs 3 and 4 of the annexed drawings.

3. In a letter or like balance of the kind herein referred to, the further modified arrangement of the means for preventing shifting of the triangular beam when adjusted, substantially as described with reference to Fig 5 of the annexed drawings.

Dated this 16th day of March 1907.

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S. MORDAN & CO. & *another's* COMPLETE SPECIFICATION. *(1 SHEET)*

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig.1

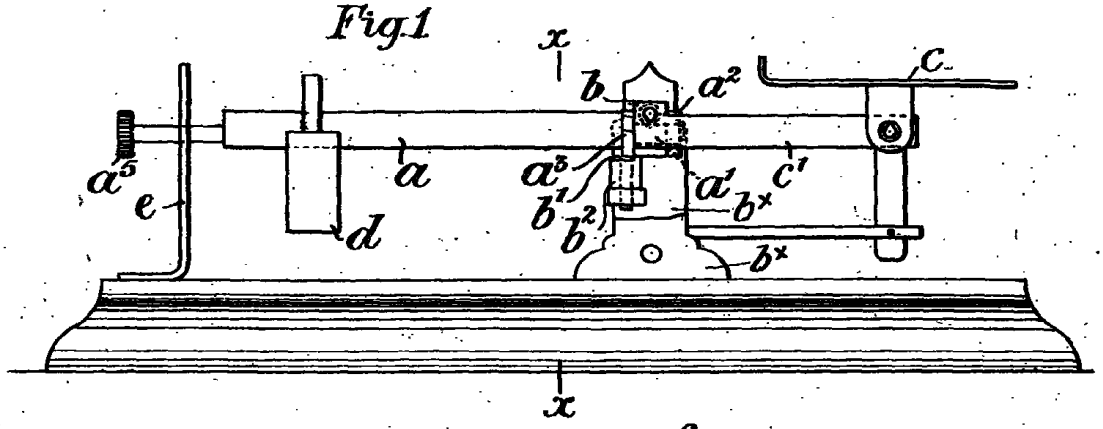


Fig.2

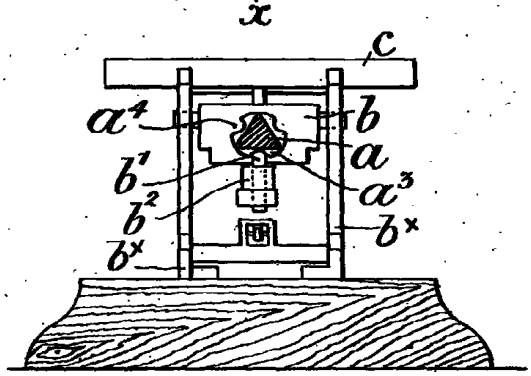


Fig.3.

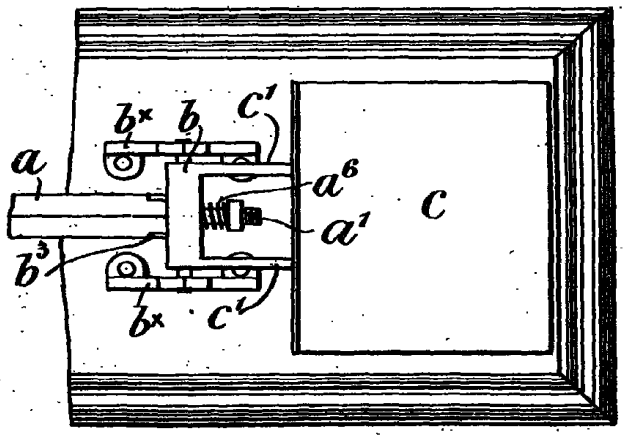


Fig.4

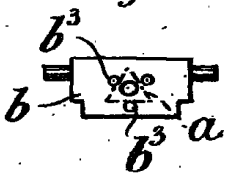
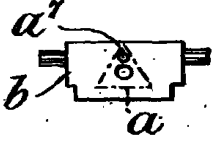


Fig.5.



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