J. V. H. NOTT.

LETTER-SCALES.

No. 186,267. Patented Jan. 16, 1877.

Fig. 1.

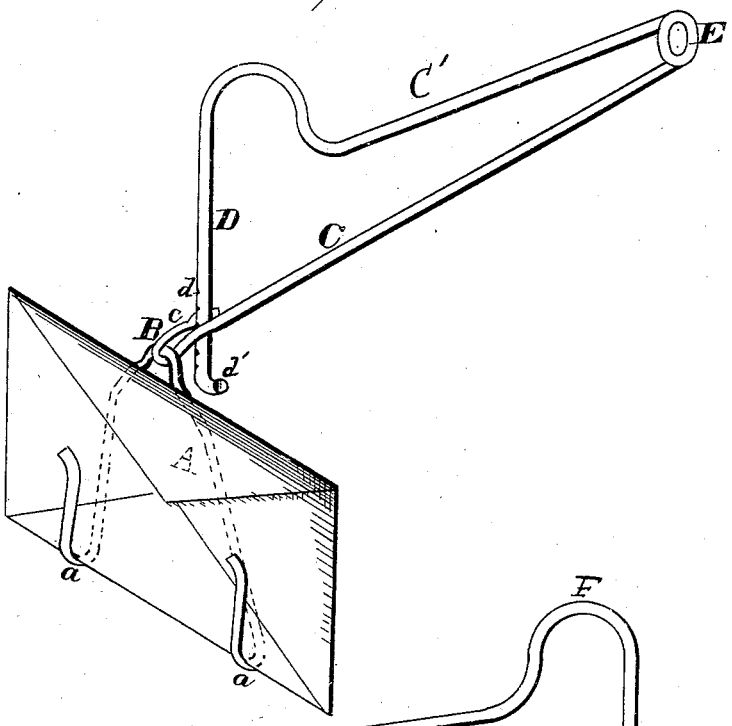
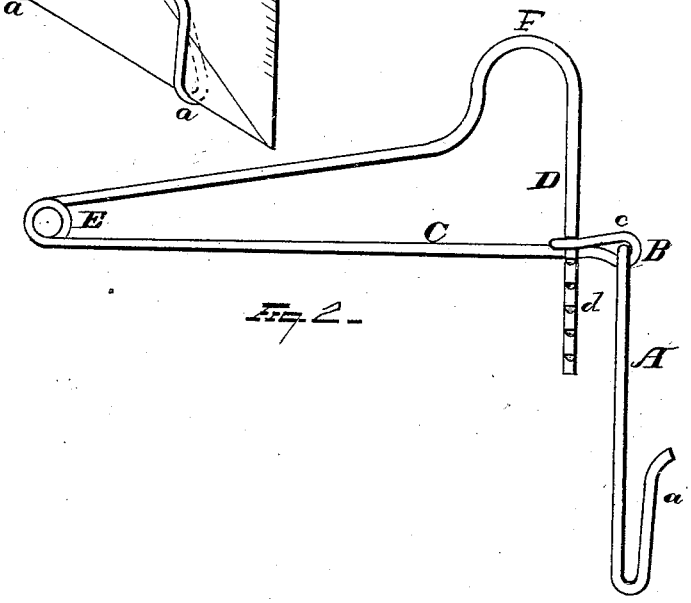


Fig. 2.



WITNESSES

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J. V. HENRY NOTT, OF NEW YORK, N. Y.

IMPROVEMENT IN LETTER-SCALES.

Specification forming part of Letters Patent No. **186,267**, dated January 16, 1877; application filed November 28, 1876.

To all whom it may concern:

Be it known that I, J. V. HENRY NOTT, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Letter-Scales; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention is in letter-scales, and is designed to afford a simple and cheap mechanism for weighing postal matter. It consists in the combination, with a hooked bifurcated wire having a central engaging bend to guard against lateral displacement, of a single spring-wire formed so that one of its extremities acts as a supporting and indicating arm, while the other serves as a register, and also as a handle to the device.

Referring to the drawing, Figure 1 is a perspective, and Fig. 2 a side elevation, view of my improved scale, in which—

A is a wire, having the two hooked extremities *a a*, of form suitable for receiving a letter, and having a central spring formation, so as to grasp and retain the letter as in a clasp. The middle of the wire is bent so as to form the looped recess B, angular in shape, so as to prevent lateral displacement of the hook, wire A, and hold the latter from sliding to either side when weighing its subject-matter. This angular loop B engages with the supporting-arm C of the scale by the latter having its end *c* turned over in a return-bend, and thus forming a loop, in which also the graduated arm D is inclosed. This end *c* constitutes the indicating-finger of the scale, as it plays vertically along the graduated arm D, which latter is provided with notches *d*, for registering therewith. The extreme end of this arm D is turned in at *d'*, so as to obviate the passage of the supporting-arm C below this point and preserve the several parts in operative relation.

The spring-balance may be formed with a spiral ring, E, at its longitudinal extremity, opposite to the supporting and registering end of the device, which forms the single wire into two parallel wires, C C', one above the other, till near the weighing end, where the upper wire is bent up and then down, so as to form the handle F.

Any suitable elastic material may be used in the construction of this scale, though preferably I have made the latter of brass wire; and the torsional formation at E may consist of any number of twists to correspond with the work required.

It is evident that the caliber of wire employed will much depend upon the weight of the material. Thus, for ordinary mail-matter a smaller diameter wire, or one less rigid, would be required than if heavy correspondence was to be weighed; but this, together with the proper notching of the graduated arm, will readily be determined in the manufacturing of the scales, the notches representing, in their registering action, a half-ounce each, and their relative distance is determined in manufacturing, according to the size and resiliency of the balance-wire and the length of the supporting-arm.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The described letter-scale, consisting in the combination, with the double suspension-hook A, of the spring-balance made from a single wire, bent at E, to form the two horizontal arms C C', the latter arm, C', forming at its free extremity the handle F and vertical index-register D, substantially as set forth.

2. The letter-weighing scale, consisting in the combination, with the bifurcated suspension-hook A, provided with the central guard-loop B, of the spring-balance having the horizontal arms C C', made from a single wire, the free extremities of said arms bent at right angles, and constituting, respectively, the registering-index and pointer of the scale, substantially as set forth.

3. The combination, with the horizontal arm C, having the return-bend *c*, of the arm C' located above the former, and bent as described, to form the handle F and registering-index D, the latter being perpendicular to the arm C, and provided at its extreme end with the guard-stop *d'*, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 8th day of November, 1876.

J. V. HENRY NOTT.

Witnesses:
JOHN BORT,
ETHEL POTTER.