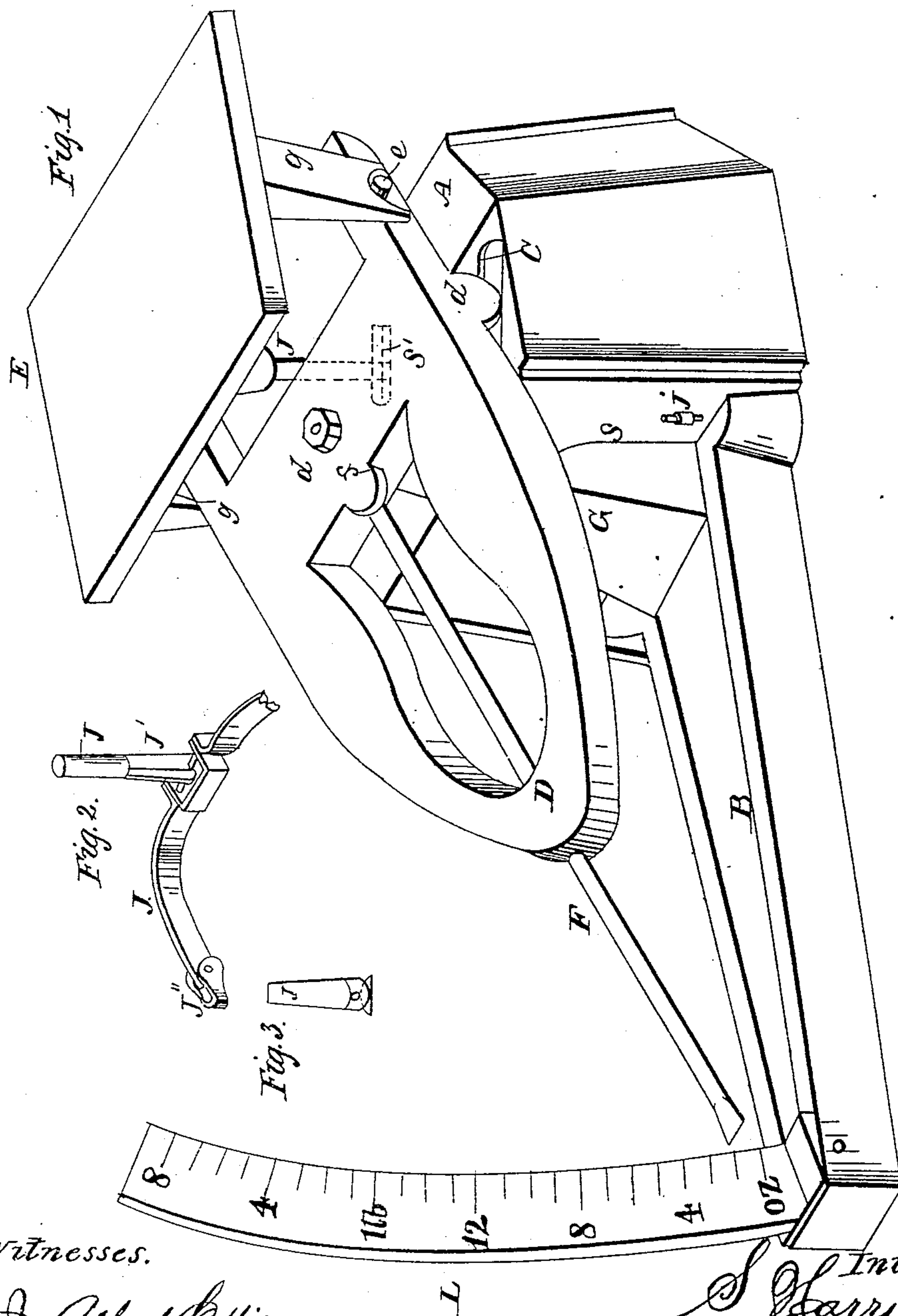


S. HARRIS.  
Weighing Scale.

No. 80,169.

Patented July 21, 1868.



Witnesses.

J. Alfred Ellis  
J. W. Myster

S. Harris Inventor.  
Per  
L. W. Alexander  
Atty

# United States Patent Office.

SANDY HARRIS, OF PHILADELPHIA, PENNSYLVANIA.

*Letters Patent No. 80,169, dated July 21, 1868.*

## IMPROVEMENT IN WEIGHING-SCALES.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, SANDY HARRIS, of Philadelphia, in the county of Philadelphia, and State of Pennsylvania, have invented a new and improved Scale or Implement for Weighing Purposes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 represents a perspective view of my scale.

Figure 2 a detached view in perspective of the hinged frame or bale, to which the connecting-bar or rod is attached, and

Figure 3 is a view of the lower end of the connecting-rod, showing its fastening-attachment.

The nature of my invention consists in the employment of a weighted beam, in combination with a base or pedestal, constructed substantially in the manner hereinafter specified.

To enable others skilled in the art to make and use my invention, I will now describe its construction and operation.

In the accompanying drawings, A represents the pedestal, made as seen in fig. 1, and cast hollow, with openings, *s s'*.

B designates the neck of pedestal A, which consists of two bars, cast at their inner ends with the pedestal A, and made to project outwards and towards each other, within a suitable distance, and there connected by an end piece.

Upon the upper end or top of pedestal A are formed two rails, C, approaching each other at about an angle of forty-five degrees, and bevelled from their centre on each side from top to bottom.

D designates the beam, formed as shown in fig. 1, and connected at or near its rear end by a bar, *d*, the under side of which is made to extend below the beam, and curved or rounded thereon, as shown in fig. 1, and cut or provided on its curved surface with grooves to correspond with and fitting over the rails C; said grooves being so cut on the bar *d* of beam D as to suit the angle of the rails, and thus allow them, when the beam is pressed down, to accommodate themselves to the rails C on pedestal A.

The bar *d* on its lower side is formed with a projection or shoulder, slanting outward towards the rear end of the beam, and provided with a hole, through which passes the shank or upper end of a weight, G, said weight being securely bolted to the upper side of bar *d*, and made to incline inwards by means of the shoulder on bar *d*, it resting against said shoulder.

Formed or cast on the sides of the projecting rear ends of beam D are projections *e e*, being bevelled on each side from top to bottom, the object of which will be apparent hereafter.

F designates an indicator, secured at its inner end to the bar *d* of beam D by a pin, *f*, and extending out through the beam a suitable distance therefrom, and being pointed or reduced at its outer end, as seen in the drawings.

E is a platform, upon which is placed a metal plate for the ordinary scoop for weighing purposes to rest on.

Secured to the sides of platform E, and at right angles therewith, are the pendants *g g*, which are recessed at their lower ends, and rounded therein to receive the projections *e e* on beam D, and on which said pendants are supported.

Fastened to the under side of the centre of platform E, and passing through it, is the connecting-rod or bar *j*, which is well weighted at its upper end, as seen in fig. 1.

To the lower end of rod *j*, and on each side thereof, are secured metal plates *j'*, which terminate in hooks, made as seen in fig. 2. It will be observed that the front parts of these hooks point in opposite directions so as to effect a secure fastening for the rod *j*.

J represents a hinged swinging frame, hinged to metal clips *j''*, pinned to the lower inside of pedestal A.

The outer portion of the semicircular frame J is bent inwards, as shown in fig. 2, so as to form a recess for the reception of the hooked end of rod *j*, a rod or catch passing through said recess, on which the hooks attached to rod *j* catch when in position.

L designates a metal plate, having the form of the segment of a circle, and having inscribed on its surface pounds and ounces, and which are pointed out or indicated by the indicator F when the scales are in operation, or anything is being weighed.

The plate L is pinned at and between the outer end of B, and formed with shoulders which rest on the upper surface thereof.

What I claim, and desire to secure by Letters Patent, is—

1. The beam D, constructed substantially as described, in combination with the platform E.
2. The platform E, provided with the connecting-rod *j*, in combination with the swinging frame or bail J, operating substantially as and for the purpose set forth.
3. The pedestal A, constructed substantially as and for the purpose described.
4. The platform E, beam D, pointer F, weight G, connecting-rod *j*, frame or bail J, pedestal A, neck B, and plate L, all combined for the purpose of forming a responding scale.

SANDY HARRIS.

Witnesses:

SAM'L P. JONES, Jr.,  
WM. M. LAUGHLIN.