

(No Model.)

W. W. HOPKINS.

PLATFORM SCALES.

No. 256,692.

Patented Apr. 18, 1882.

Fig. 1.

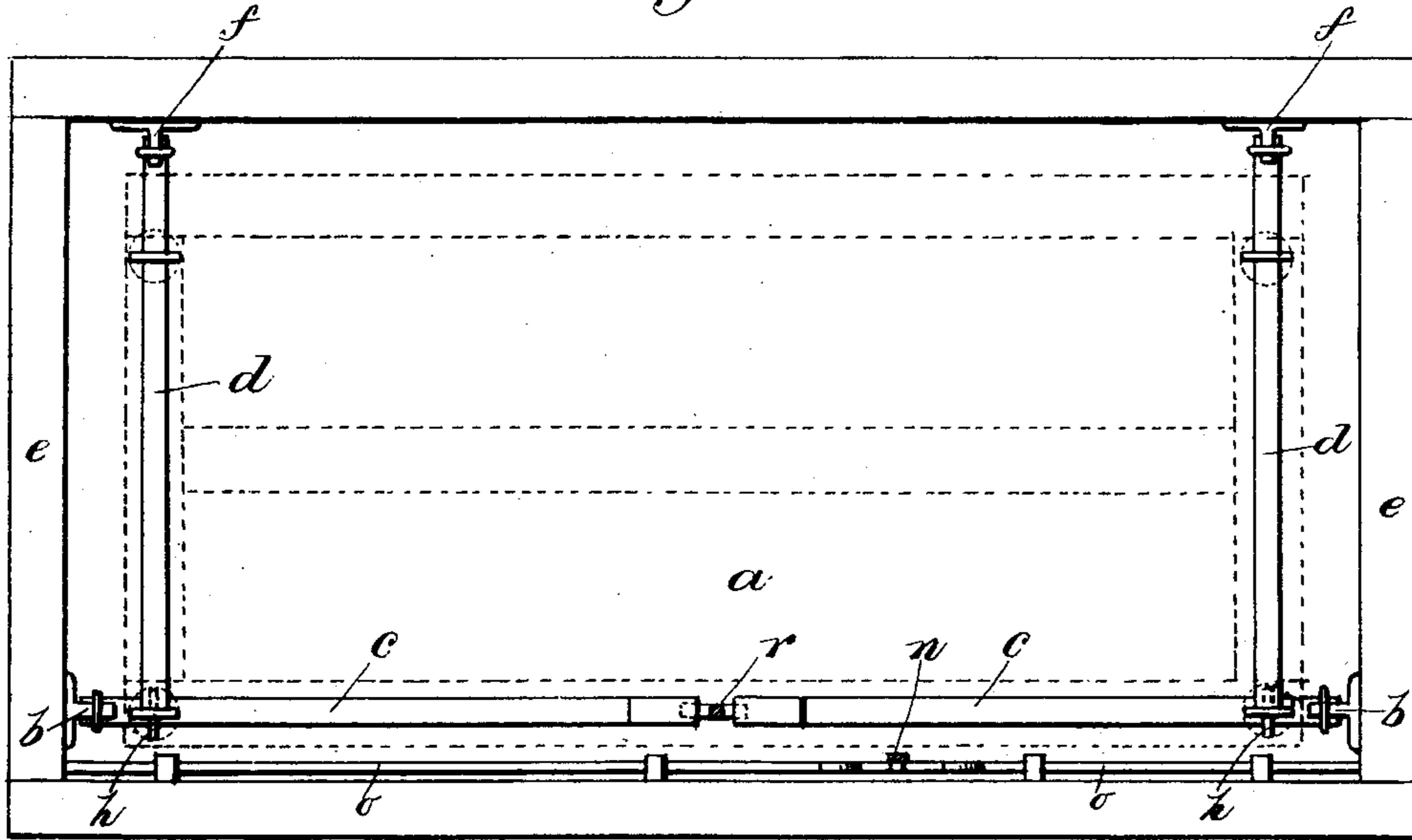
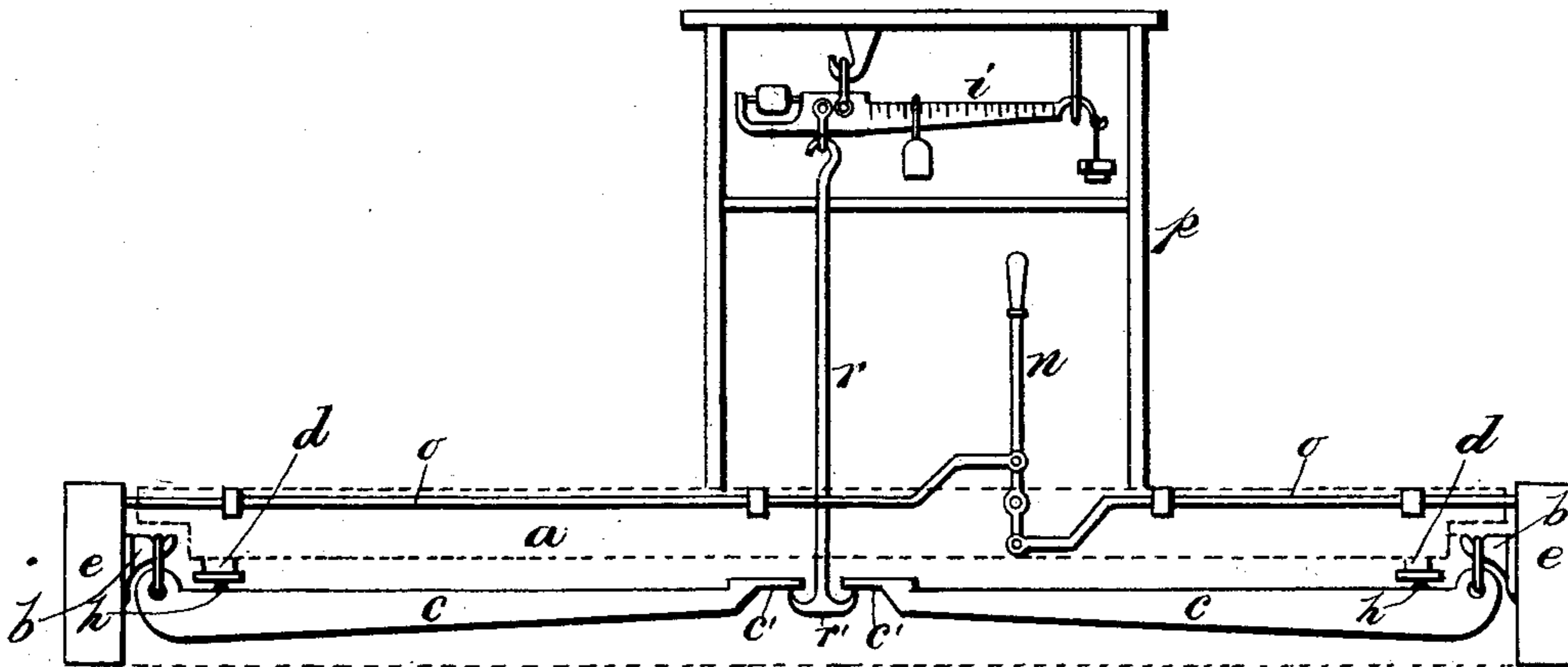


Fig. 2.



Witnesses.

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PLATFORM-SCALES.

SPECIFICATION forming part of Letters Patent No. 256,692, dated April 18, 1882.

Application filed October 20, 1880. (No model.)

To all whom it may concern :

Be it known that I, WILLIAM W. HOPKINS, a citizen of the United States, residing at Thorntown, in the county of Boone and State of Indiana, have invented a certain new and useful Improvement in Platform-Scales; and I do hereby declare that the following is a full, clear, and exact description of the invention, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to scales which have a platform supported on a system of levers; and it consists in the construction and combination of parts hereinafter set forth.

In the accompanying drawings, Figure 1 represents a plan view of my improved platform-scale embodying said invention, and Fig. 2 represents a vertical longitudinal section of the same, taken through the middle line thereof.

The platform (designated by *a*) rests upon two transversely-arranged levers, *d d*, which are pivoted at one end to brackets *f*, secured to fixed frame *e*, the free end of each lever *d* resting upon one of a pair of levers, *c*, which are similarly pivoted or hung to lugs *b b*, fastened to the end pieces of said fixed frame. Hardened steel plates *h* are attached to the under side of the free ends of levers *d* at the points where they bear against the top of levers *c*. The latter levers extend inwardly toward one another and taper from their pivoted or hung ends to their free ends, which are in proximity to one another. These free ends are provided with flat lips *c' c'*, which extend over and rest upon a **W**-shaped hook, *r'*, which is rigidly attached to or formed upon the lower end of an upright rod, *r*, that is hung from the short end of a scale-beam, *i*. This scale-beam is pivoted in the upper part of a hollow pillar or casing, *p*, erected on the top of the platform. Any weight put upon said platform is therefore supported by said levers *d* and *c*, the strain being distributed through all parts of the square system of levers formed thereby, and the depression of the inner ends of levers *c c* necessarily draws down rod *r* and the short arm of scale-beam *i*. The hollow pillar or casing *p* descends with the platform; but as the weight is applied to levers *c* near their fulcrum the vertical motion of the inner ends of said levers will be considerably greater than

that of the said pillar, and this difference insures the tilting motion of said scale-beam, essential to weighing. Any article may of course lean against the pillar or casing *p* without affecting the indications of said scale-beam. Said scale-beam and the rod *r*, being entirely inclosed within the said pillar or casing, are effectually protected thereby.

When it is desired to lock the weighing-platform in the fixed frame I force two bars or rods, *o*, Fig. 2, into engagement with said frame. These bars are attached to said platform, and have motion in opposite directions endwise of their length, this motion being derived from an upright lever, *n*, pivoted to said platform, said lever being attached at its lower end to one of said rods and at a point above its fulcrum to the other rod, so that one motion of said lever gives simultaneously to said rods their motion in reverse directions. The inner ends of said rods are bent, one up, the other down, so that the bodies of said rods are in the same horizontal plane, though their points of attachment of said rods to said levers are at different heights, as stated. The reverse motion of said lever unlocks the platform on both sides.

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

1. A platform-scale having a fixed frame, a movable platform, a hollow pillar or case attached to and moving with said platform, the two levers *d d*, hung pivotally at one end to one of the sides of said fixed frame, the two levers *c c*, hung pivotally to the ends of said fixed frame and sustaining near their fulcrum the free ends of levers *d d*, the rod *r*, supporting the free ends of levers *c c*, and the scale-beam *i*, from which the said rod *r* is suspended, substantially as set forth.

2. A platform-scale having a hollow pillar or casing supported by the platform and moving therewith, in combination with a scale-beam and the actuating-rod of said beam, said rod and beam being inclosed in said pillar, whatever the position of the latter.

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Witnesses:

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