

(No Model.)

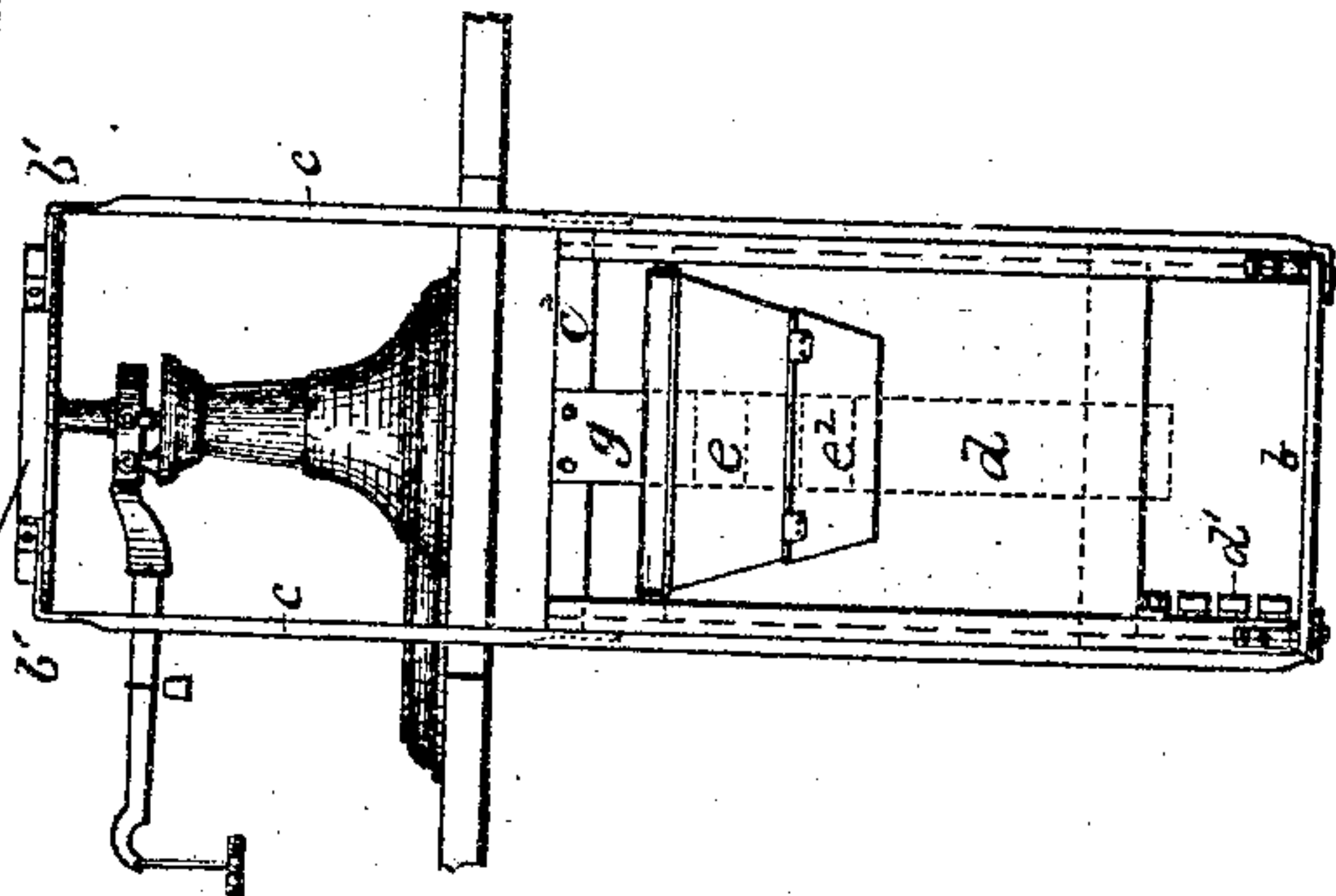
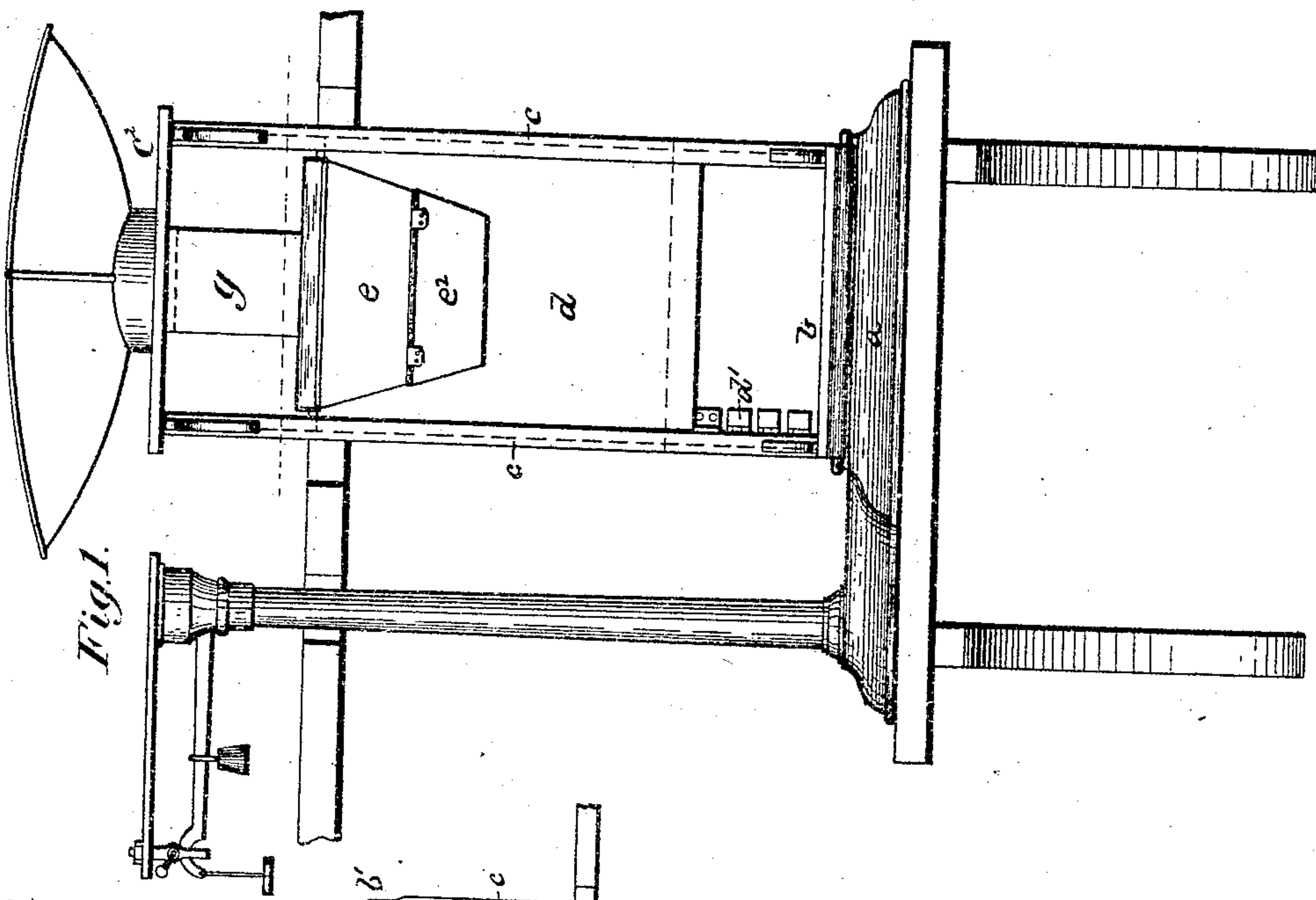
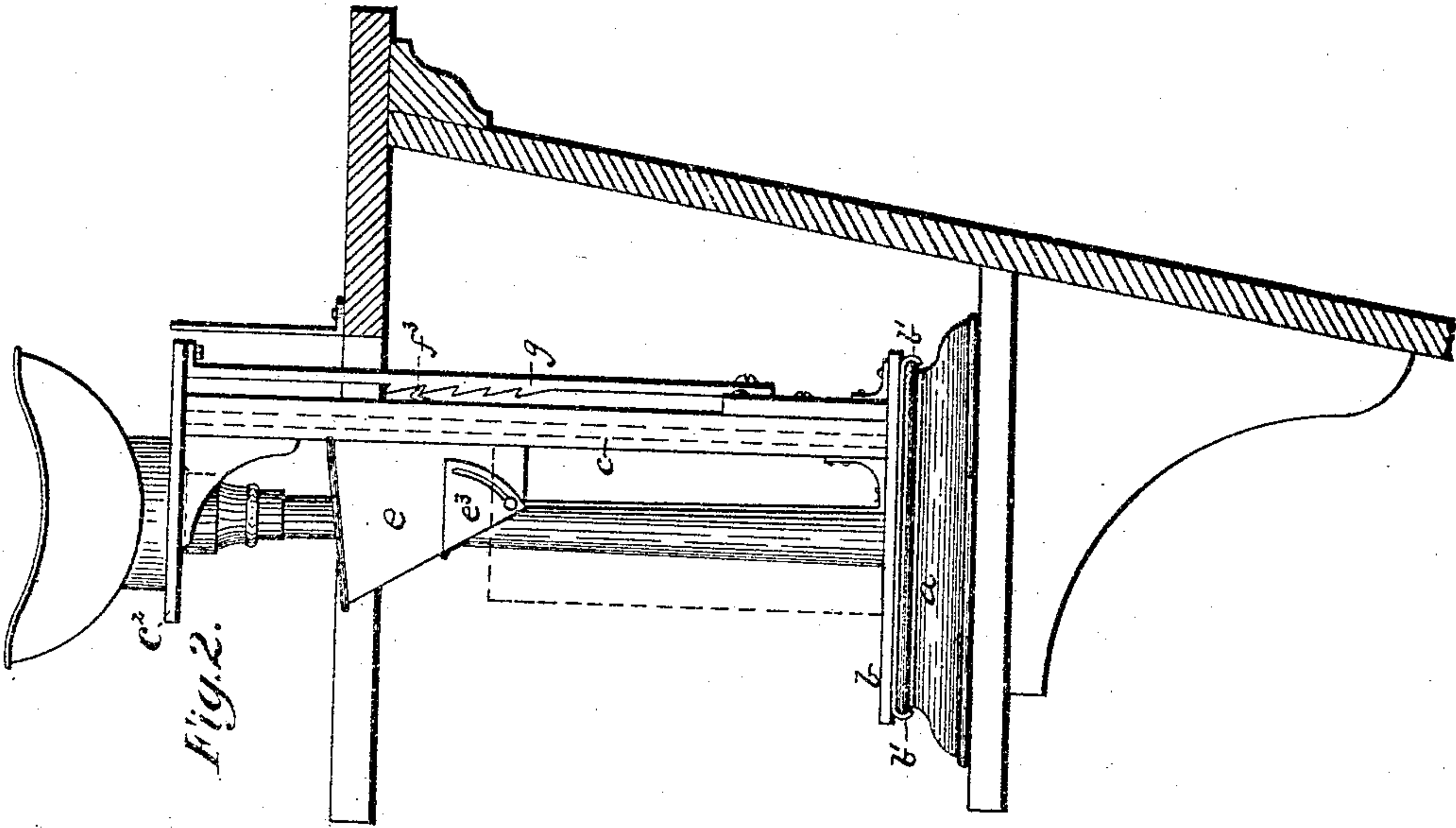
2 Sheets—Sheet 1.

H. T. WILEY.

SACK FILLER AND WEIGHER.

No. 321,468.

Patented July 7, 1885.



Witnesses.

W. F. Corwin
Harry L. Gill

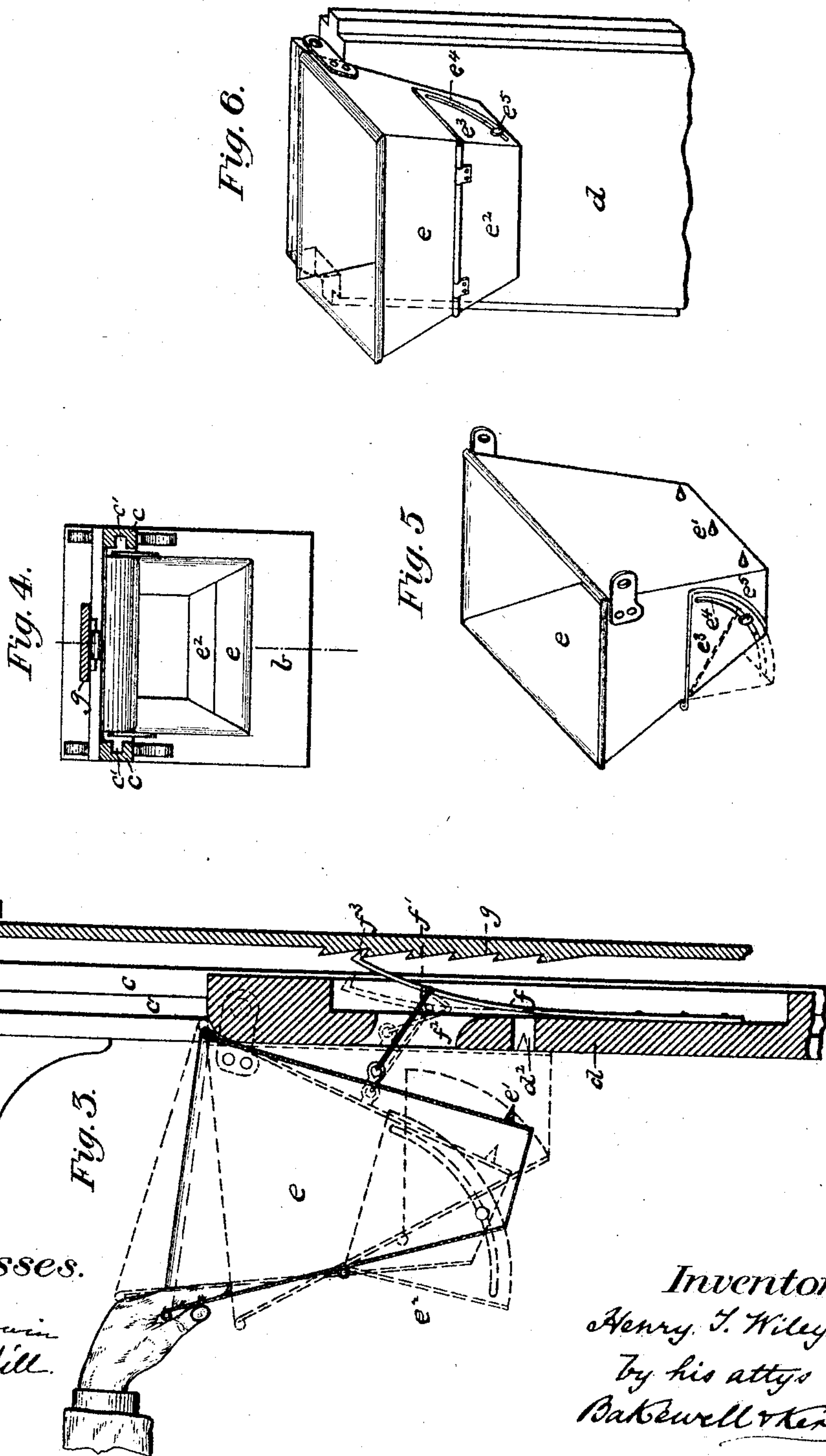
Inventor.

Henry T. Wiley
by his attys
Bakerwell & Kern

H. T. WILEY.
SACK FILLER AND WEIGHER.

No. 321,468.

Patented July 7, 1885.



Witnesses.
W. B. Corwin
Harry L. Hill.

Inventor.
Henry T. Wiley
By his attys
Bakewell & Kern

UNITED STATES PATENT OFFICE.

HENRY T. WILEY, OF BOSTON, PENNSYLVANIA.

SACK FILLER AND WEIGHER.

SPECIFICATION forming part of Letters Patent No. 321,468, dated July 7, 1885.

Application filed March 11, 1885. (No model.)

To all whom it may concern:

Be it known that I, HENRY T. WILEY, of Boston, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Bag Filling and Weighing Devices; and I do hereby declare the following to be a full, clear, and exact description thereof.

To enable others skilled in the art to make and use my improvement, I will now describe my invention by reference to the accompanying drawings, in which—

Figure 1 is a front elevation. Fig. 2 is a side elevation. Fig. 3 is a vertical section of the hopper and upper end of the standard. Fig. 4 is a plan view partly in section. Figs. 5 and 6 are views of the hopper. Fig. 7 is a modification.

Like letters of reference indicate like parts. Mounted on the platform *a* of a suitable pair of scales is a board, platform, or plate, *b*, which is provided with bent cleats or flanges *b'*, engaging the edges of the platform *a*, to secure it in place, and so that it may slide side-wise into position. Rising from the plate *b* is a pair of standards, *c*, grooved vertically on their inner sides, as at *c'*. Placed in the grooves *c'* is a vertically-moving slide, *d*, which may be secured at any desired height by hinged stops *d'*. This stop may be formed in the shape of a two-leafed hinge, the stationary leaf of which is secured to the standard *c*, while the other leaf is capable of swinging into and out of the path of the slide. Hinged to the slide *d*, at or near its upper end, is a hopper, *e*, having a series of spurs or sharp projections, *e'*, at the lower end of the rear side. The lower half, *e''*, of the front side is hinged and provided with side wings, *e'''*, in which are segmental slots *e''''*, through which guide-pins *e'''''*, attached to the side of the hopper, pass. The purpose of this construction is as follows: When it is designed to put a bag in place for filling, the hopper *e* is swung forward on its hinge, as shown in Fig. 3, and the open mouth of the bag drawn up over its lower end until it passes the pins *e'*. The hopper is then permitted to come back to its normal position, which will cause the rear side of the bag to be impaled on the pins *e'*, while the front side stands around the lower end of the hopper, the hinged part *e''* being closed for the purpose of effecting an

easy entrance into the mouth of the bag. When the material is placed in the hopper, its weight, coming on the hinged portion *e''*, causes it to move outward and spread the mouth of the bag, so as to afford a large charging-hole. The slide *d* is provided with holes *d''* for the reception of the holding-pins *e'*. On the rear side of the slide is a spring, *f*, which is connected by a suitable cord, *f'*, to the rear side of the hopper, said cord *f'* passing through opening *f''* in the slide. The purpose of this spring is to draw the hopper *e* back to its normal position after the lower end has been inserted into the mouth of the bag, as illustrated by broken lines in Fig. 3. The spring *f* may be utilized as a pawl to sustain the slide at any desired height. For this purpose I form the ratchet-rack *g* on the frame *c*, and provide the spring *f* with a suitable edge or lip, *f'''*, capable of engaging with the teeth of the ratchet-rack. Then by merely drawing the slide up to the desired place, the spring-pawl *f'''*, will engage the adjacent tooth on the ratchet-rack *g*, and retain the slide in the desired position. This device is preferable to the hinged stops *d'*, where a single package or bag is to be filled; but where there are a number of bags to be filled with the same quantity the proper stop *d'* is turned into position, and used so as to avoid the trouble of determining the position of the slide by means of the spring-pawl *f*, which is disengaged every time the hopper is raised to take off a bag. I desire, however, to employ either or both of these devices, according to the purpose to which the hopper is applied.

Thus constructed my improvement is used as follows: The weight of the frame *b c*, slide *d*, and hopper *e* being determined, the scales are adjusted so as to balance therewith. The slide is then raised by taking hold of the hopper, as indicated in Fig. 3, and the lower end of the hopper is inserted the proper distance in the mouth of the bag, which rests on the plate *b*. The hopper is then permitted to be retracted by the spring *f*, which causes the rear side of the bag to be impaled by the pins *e'*. The scales being in convenient proximity to the bin or other receptacle which contains the supply of material which is to be placed in the bag, the proper quantity of the material is transferred from said bin or receptacle into the hopper. The weight opens the hinged side

e^2 , distending the mouth of the bag, and delivering the material properly thereinto. As soon as the proper quantity is placed in the bag the scales register the fact, so that the filling and weighing is accomplished with precision at one and the same operation, and no lifting of a partially-filled bag onto or off the scales is necessary. When the proper quantity is discharged in the bag, the hopper e is raised, withdrawing the pins e' from the rear side of the bag, while the collapsing or closing of the hinged side e^2 enables the hopper to be easily withdrawn from the mouth of the bag. The slide is raised sufficiently to permit the bag to be tied while still on the scales, so that it is not removed until in complete shape for delivery.

My improvement can be applied to scales of various forms, and its great advantage consists in simplifying and facilitating the operations of filling and weighing, and in preventing waste and loss of time, which occurs in the present practice of filling a bag, and then placing it on the scales, and then bringing it to the exact weight by subsequent additions or removals. It also prevents unnecessary handling of the package.

In Fig. 7 I show my improvement applied to a counter-scale. Here the scale rests on the counter h and the filling appliance is below the counter, being suspended from the platform a . The standards c are extended upward, and at their upper ends are provided with the hooks or cleats b' , which extend over the edges of the platform a . The construction of the other parts remains the same as in the first construction. This arrangement does not interfere with the ordinary use of the scale, and enables my improvement to be utilized for holding and filling small bags at the time of weighing, an important application of the device, and thereby prevents much of the loss and waste of merchandise which results from the present manner of filling small bags in retail stores. The holding and filling devices, being below the counter, are out of the sight of the public, which conduces to neatness in a store. If the holding and filling appliance is to be used separate

from a scale, it can be placed in or in convenient proximity to the bin or bins containing the material with which it is used. I desire to use it both with and without the scale. The uprights c constitute a vertical frame, having a suitable cross piece or pieces, c^2 , when necessary. The plate or board b may be dispensed with in the first construction by securing the frame c directly to the platform a .

While I prefer the construction of hopper e shown and described, I do not limit myself thereto, but desire also to use a plain hopper secured to the vertical slide.

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

1. The combination of a weighing-scale with a vertically-adjustable bag-holder, consisting of the frame c , slide d , and a hopper secured to said slide, substantially as and for the purpose specified.

2. The combination of the platform a with the flanged plate b , vertical frame c , and hopper e , substantially as and for the purposes described.

3. The combination of the platform a with the vertical frame c , slide d , and a hopper secured to such slide, substantially as and for the purposes described.

4. The combination of the frame c , slide d , and a hopper secured to such slide, substantially as and for the purposes described.

5. The combination of the vertical frame c , slide d , and pivoted hopper provided with bag-impaling pins, substantially as and for the purposes described.

6. The combination of the frame c , slide d , hopper e , pawl f , and ratchet g , substantially as and for the purposes described.

7. The hopper e , provided with impaling-pins e' and hinged side e^2 , substantially as and for the purposes described.

In testimony whereof I have hereunto set my hand this 5th day of March, A. D. 1885.

HENRY T. WILEY.

Witnesses:

W. B. CORWIN,
THOMAS B. KERR.