F. S. TAYMAN.

COUNTING APPARATUS.

APPLICATION FILED JUNE 17, 1914.

1,146,975. Patented July 20, 1915.

Fig. 1.

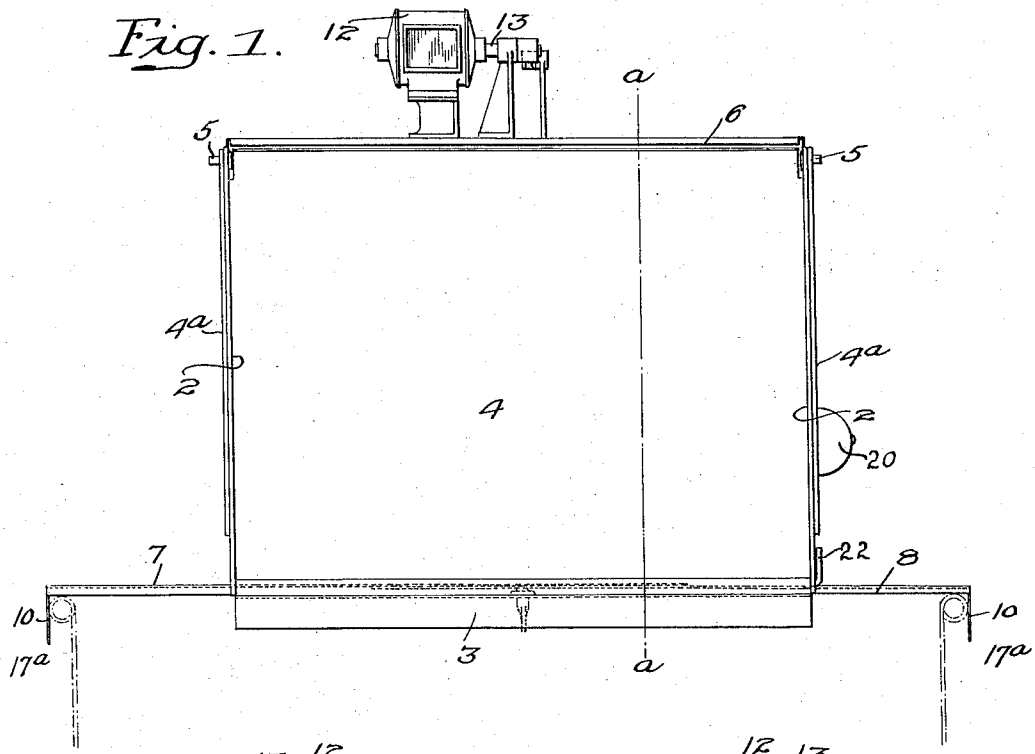


Fig. 2.

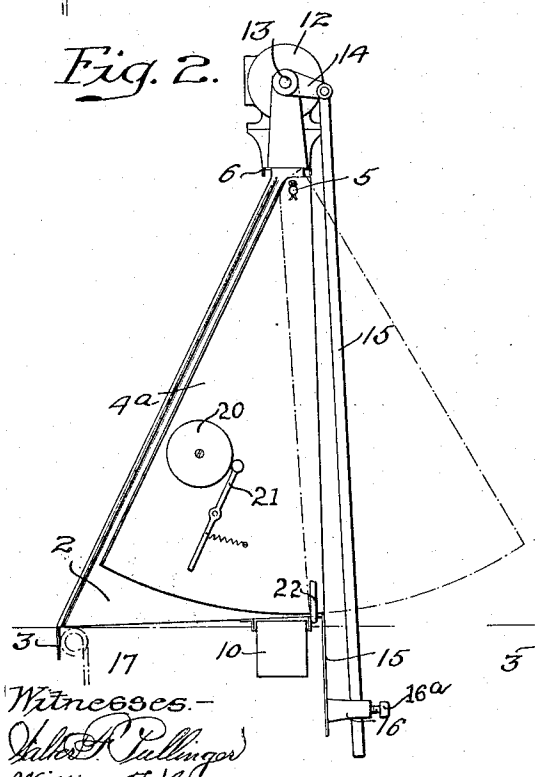
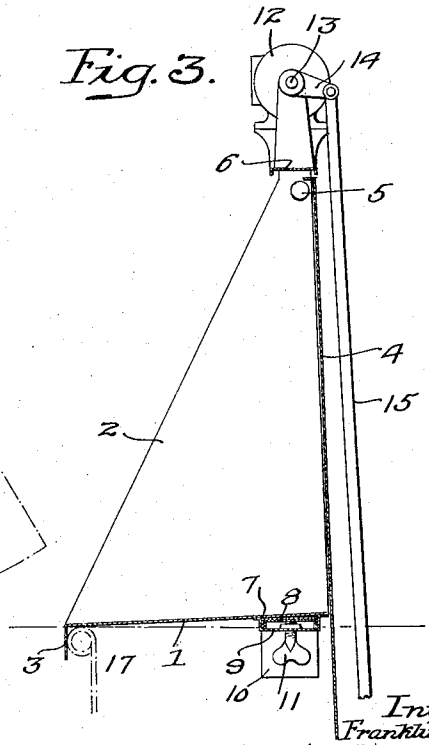


Fig. 3.



Witnesses.—
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COLUMBIA PHOTOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANKLIN S. TAYMAN, OF PHILADELPHIA, PENNSYLVANIA.

COUNTING APPARATUS.

1,146,975. Specification of Letters Patent. Patented July 20, 1915.

Application filed June 17, 1914. Serial No. 845,683.

To all whom it may concern:

Be it known that I, FRANKLIN S. TAYMAN, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Counting Apparatus, of which the following is a specification.

One object of my invention is to provide a relatively simple, inexpensive, and compact device particularly designed for use in counting pieces of material to be laundried, such as towels, napkins, etc., the arrangement of its parts being such as to permit of its convenient mounting on and attachment to a hamper or other container into which such pieces are to be delivered.

At the present time it is difficult to secure an accurate count of the number of pieces in a batch to be laundered, owing to mistakes on the part of the person making such count, and my invention is particularly designed to provide an easily operated device which shall automatically make a count of the number of articles passed through it.

These objects and other advantageous ends I attain as hereinafter set forth, reference being had to the accompanying drawings, in which,

Figure 1 is a front elevation of a counting apparatus constructed according to my invention; Fig. 2 is an end elevation, and, Fig. 3 is a vertical section on line *a*—*a*, Fig. 1, further illustrating the detail construction of the device.

In the above drawings, 1 represents a flat rectangular platform preferably made of sheet metal and having at two of its opposite edges, end pieces 2 projecting upwardly substantially at right angles to its plane. In addition, its front edge is downwardly flanged at 3, while a swinging door 4 is pivoted by pins or rivets 5 to the tops of the end pieces 2 which are rigidly connected by a cross piece 6. The vertical edges of the door are preferably bent or extended substantially parallel with said end pieces as shown at 4^a and its bottom edge is extended downwardly below the plane of the platform 1. The arrangement is such that the door 4 is free to swing and normally hangs, under the action of gravity, in a substantially vertical plane against the rear edges of the platform 1 and of the end pieces 2, it being possible for it to swing out of this plane into the dotted line position shown in Fig. 2.

On the under side of the rear portion of the platform 1 are a pair of laterally extending longitudinally adjustable supporting bars 7 and 8 slidable in a tubular guideway 9 suitably attached to said platform, their lengths being such that they preferably, though not necessarily, telescope one within the other. The outer ends of the members 7 and 8 have downwardly projecting flanges 10 and they may be maintained in any given position by means of a clamping screw 11 threaded through the guideway on the platform so as to be movable into clamping engagement with them.

Mounted on the top cross piece 6 is any suitable form of registering or counting device 12 whose actuating spindle 13 is provided with a crank 14 connected through a relatively long link 15 with a lug 16 mounted on the extreme lower portion of the swinging door 4, this link being pivoted to said crank but releasably clamped to the lug by a set screw 16^a.

In order that the operator of my device may know when the door 4 has been opened or swung back far enough to cause actuation of the instrument 12, I provide some form of audible indicator such as a bell 20 mounted on one of the edge extensions 4^a of said door. This latter has a lever 21 pivotally mounted adjacent to it in position to serve as a clapper or striker, there being a projection 22 at the rear of one side of the platform which engages and moves one end of the striker away from the bell when the door has been moved the distance necessary to operate the counter 10. Thereafter as the door is moved slightly beyond the above noted position the striker escapes from the projection 22 and is rapidly returned to its normal position under the action of a spring 23, striking the bell 20 in so doing and thus giving the desired indication.

Under conditions of use the above described apparatus is mounted on the top of a hamper or other container 17 into which are to be delivered the objects which it is desired to count, and in adjusting it, the front edge of the platform 1 is allowed to rest upon what would be the front edge of the hamper, while its rear portion is carried upon the members 7 and 9 which are extended so that their extremities rest upon the top edges of the side members 17^a of said container. Thereafter these supporting members are moved together so that their downwardly turned ends closely engage the ham-

per, after which the thumb screw 11 is set up to retain them in their given positions. The bunches of towels, napkins, or the like, each containing the same number of pieces, are now successively placed upon the platform 1 and thereafter moved rearwardly off the same so that the door 4 is swung back to permit of their passage. This rearward movement of the door actuates the counting or registering device 12 so that it makes a count of the swing, and since the number of pieces in each bunch delivered to the apparatus is known and is constant during one operation, it is an easy matter to determine exactly the number of bunches and hence the number of pieces, which have been delivered to the hamper.

While in the present case I have shown the swinging door as provided at its opposite edges with substantially triangular side or cheek members 4^a, these may obviously be omitted without departing from my invention; it being understood that the registering instrument and its associated parts are so adjusted that said instrument will be caused to make a count whenever the door 4 is swung to the rear sufficiently to permit of the passage of a bundle of pieces from the platform into the container.

Obviously the apparatus may be used to count single pieces rather than bunches composed of a number of pieces, although the device shown is particularly adapted for the latter use. After the bunch of pieces has been allowed to fall off the platform into the container, the swinging door returns under the action of gravity to its normal vertical position so that the apparatus is always ready for use.

If it is desired to prevent accidental or malicious operation of the registering instrument, the set-screw 16^a may be loosened when the device is not in use, so that any movement of the door 4 is not communicated to the link 15 nor to said instrument. When the apparatus is to be used the tightening of the set screw again operatively connects the link 15 and the lug 16, it being understood that the connection of the link to the registering instrument is such as to permit of the proper operation of the parts when the screw is set up.

I claim:—

1. The combination in a portable counting apparatus, of a supporting structure, including a receiving platform and means whereby it may be supported over the open end of a container, said platform having less area than that of the open end of the container; a door mounted on horizontal pivots and free to swing from one end of the platform, said platform having extensions between which the door is pivotally suspended; and a device for registering the number of oscillations made by the door.

2. The combination in a portable counting apparatus of a supporting structure formed to fit on and occupy a part only of the top of a container and including a receiving platform; standards respectively at opposite sides of the platform; a door connected to the tops of the standards by horizontal pivots and free to swing from a vertical position adjacent one end of the platform to permit of the passage of objects to be counted; and a device for registering the number of oscillations made by the door.

3. The combination in a portable counting apparatus of a supporting structure including a receiving platform and means whereby it may be supported over the open end of a container, said platform having less area than that of the open end of the container; a door mounted on horizontal pivots and free to swing away from one end of the platform, said platform having vertical side extensions between which the door is pivotally suspended; a registering device; and a link detachably connected to the lower part of the door and to the registering device for making a count of the number of oscillations of the door.

4. The combination in a counting apparatus of a platform having supporting members projecting laterally at its side in positions to engage opposite sides of a container; means for retaining the front edge of said platform adjacent the front of the container; a door free to swing on horizontal pivots toward and from the rear end of the platform; and a device for registering the number of oscillations of the door.

5. The combination in a counting apparatus of a receiving platform having a downwardly flanged front edge and provided at its side with upwardly extending members; longitudinally adjustable members for supporting the rear part of the platform on the container; a door pivoted to the tops of the side members and free to swing toward and from the rear end of the platform; a registering device supported at the upper part of the apparatus; and a link connecting said device with the lower part of the door.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

FRANKLIN S. TAYMAN.

Witnesses:
WILLIAM E. BRADLEY,
WM. A. BARR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."