

No. 848,021.

PATENTED MAR. 26, 1907.

W. FICKETT.  
STORE LADDER.

APPLICATION FILED JUNE 12, 1906.

Fig. 1.

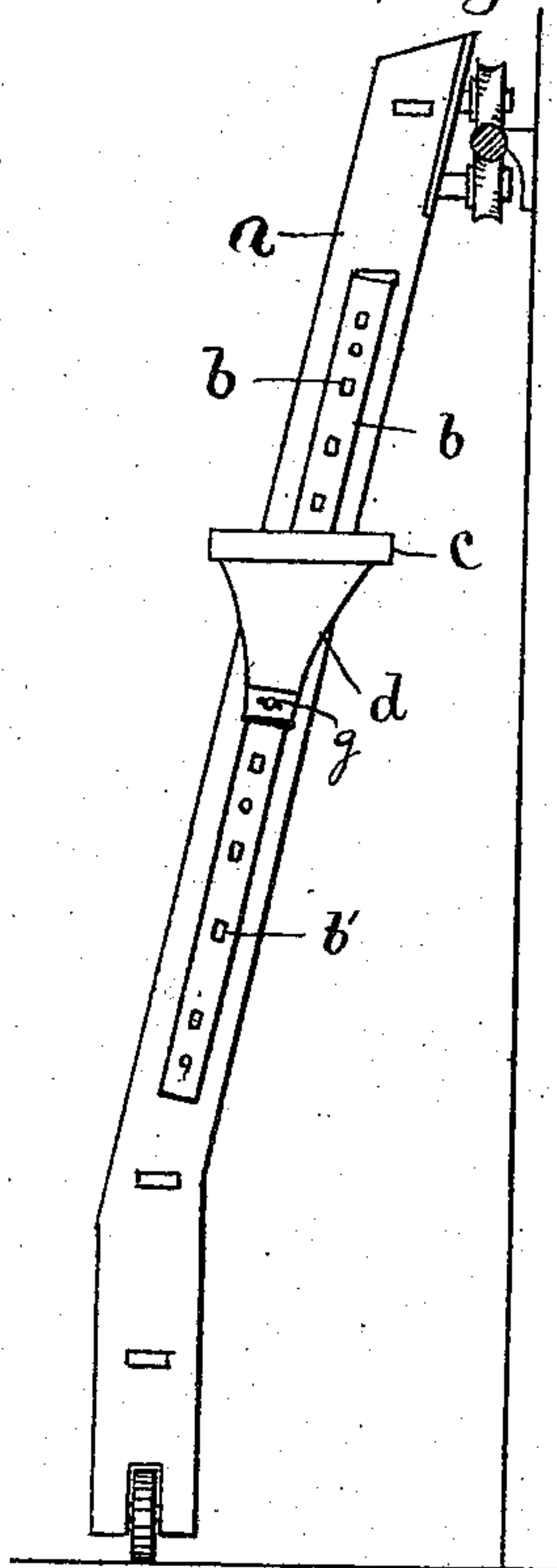


Fig. 3.

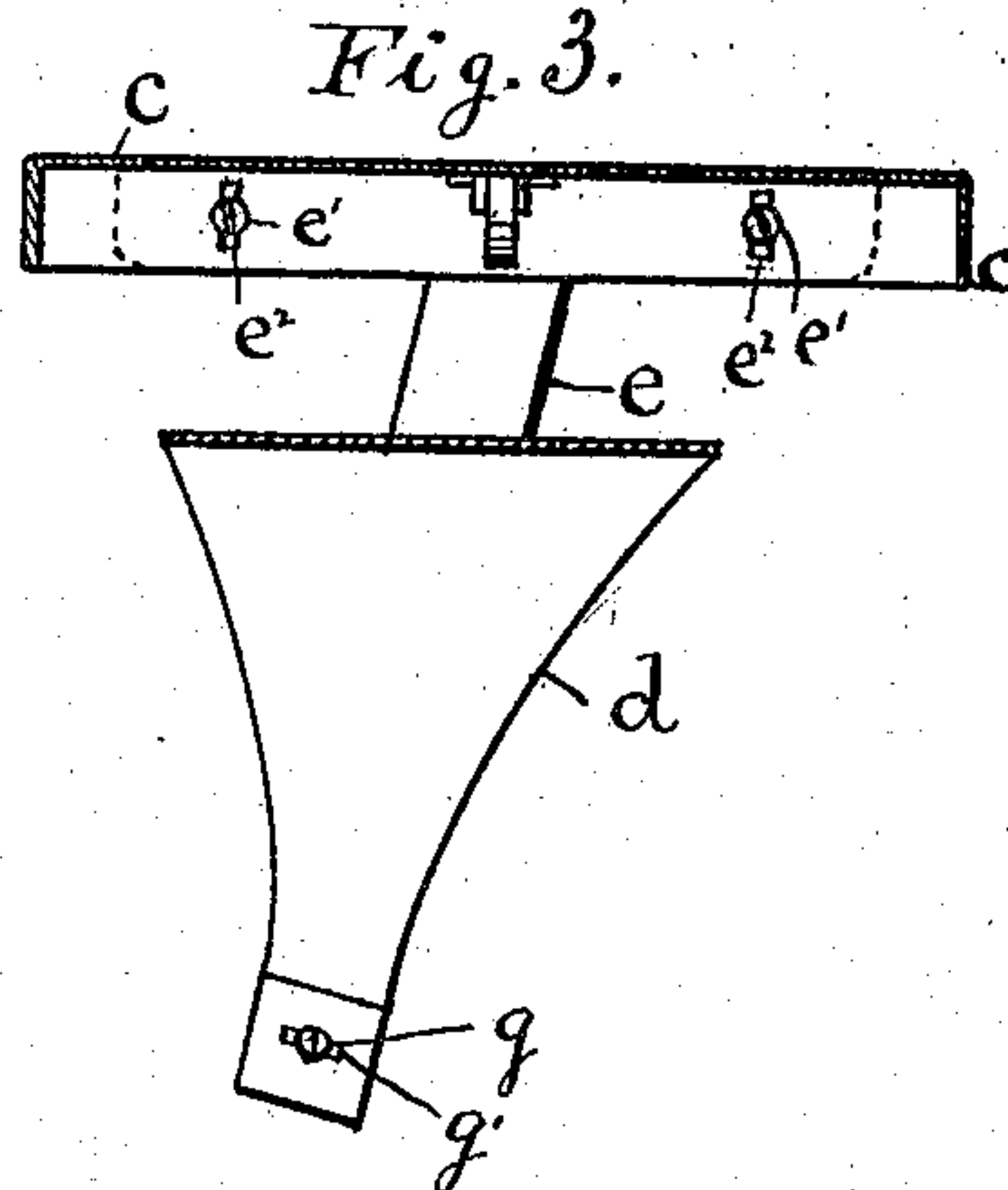


Fig. 2.

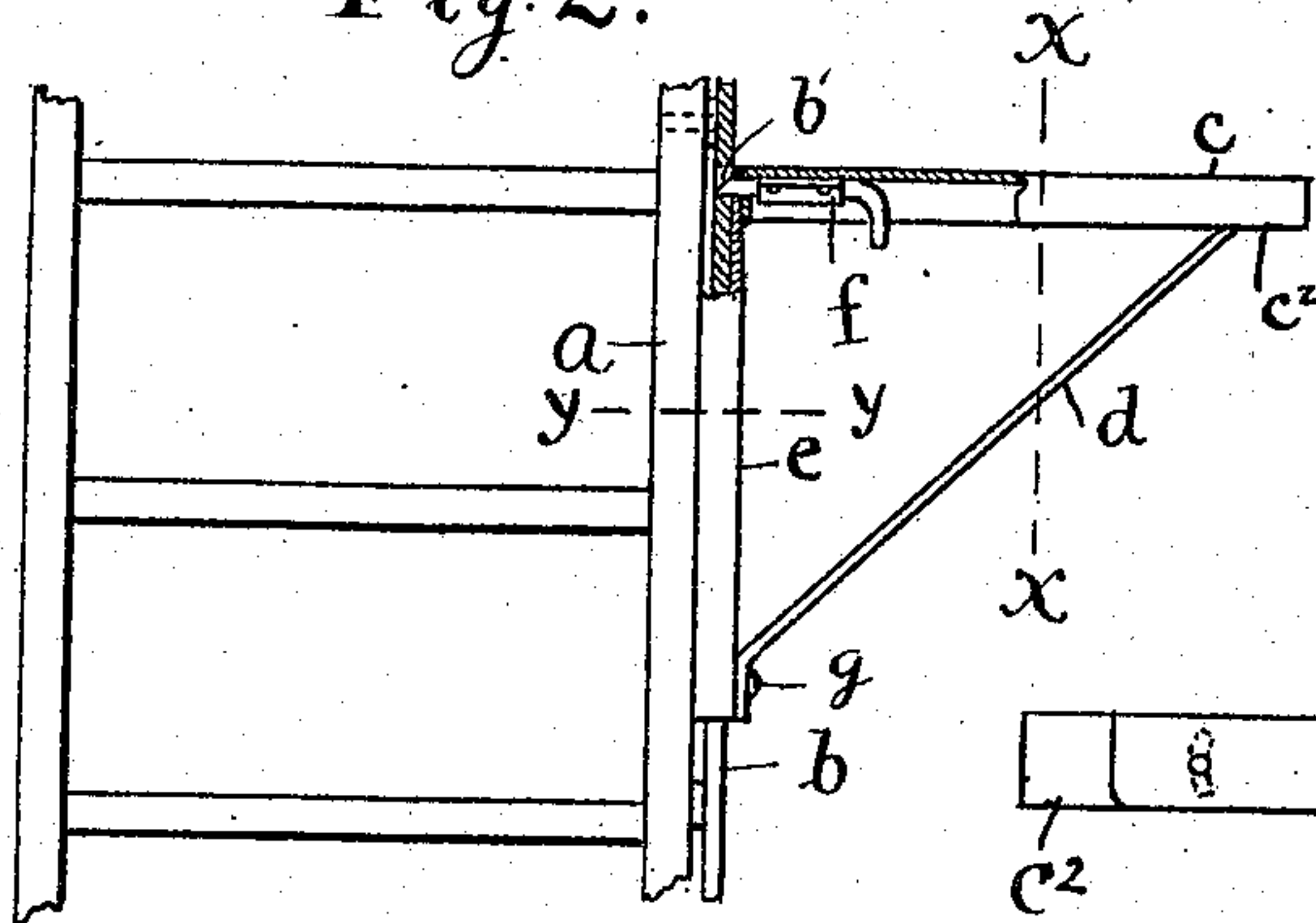


Fig. 4.

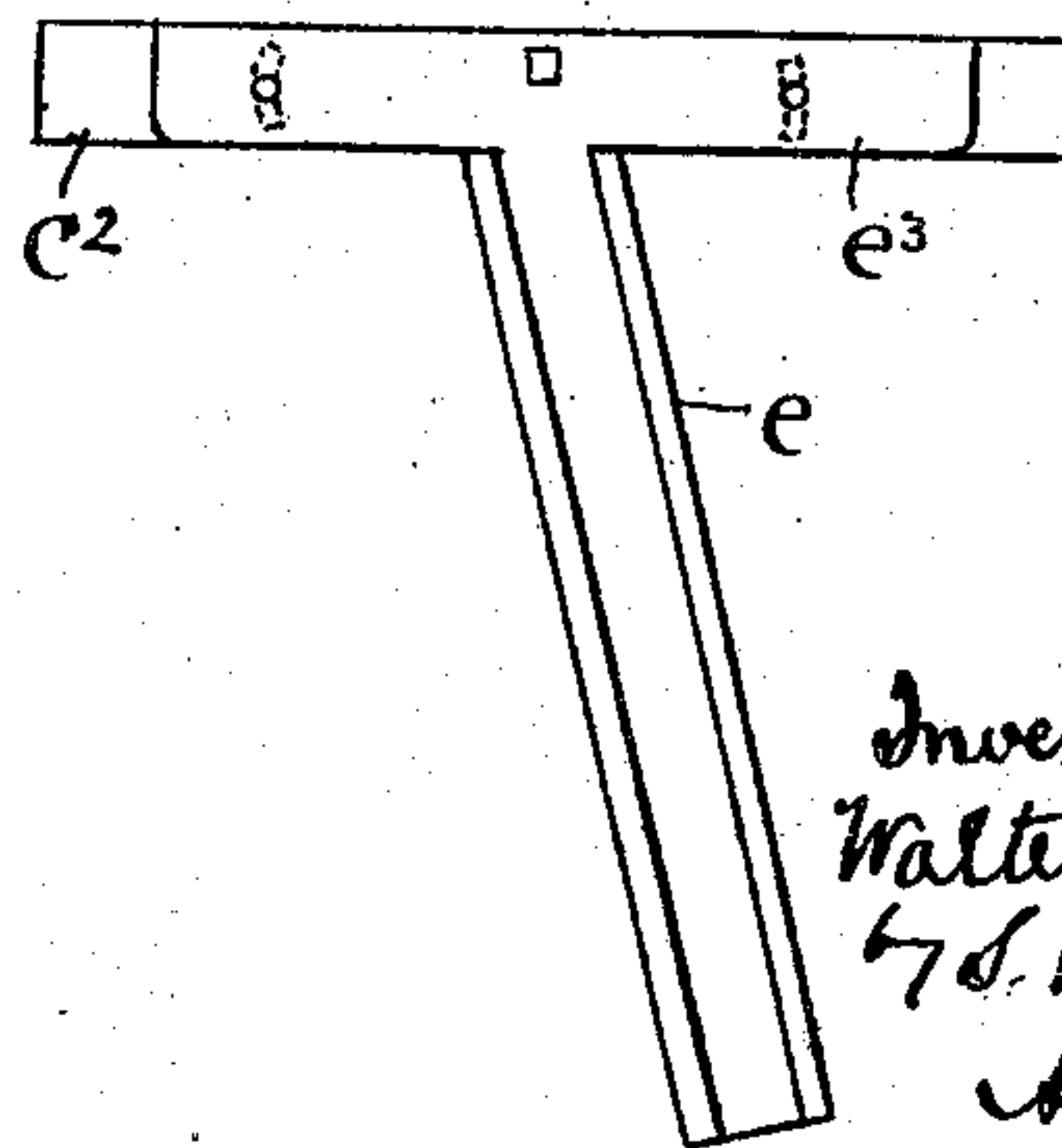
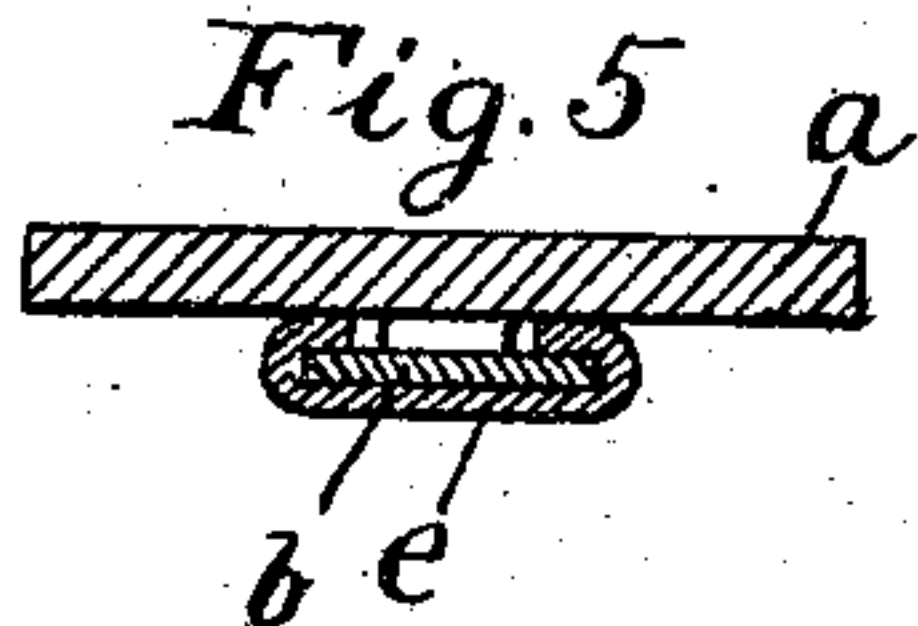


Fig. 5.



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# UNITED STATES PATENT OFFICE.

WALTER FICKETT, OF PORTLAND, MAINE.

## STORE-LADDER.

No. 848,021.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed June 12, 1906. Serial No. 321,377.

*To all whom it may concern:*

Be it known that I, WALTER FICKETT, a citizen of the United States of America, and a resident of Portland, Maine, have invented certain new and useful Improvements in Store-Ladders, of which the following is a specification.

My invention relates to what are known as "store-ladders," such as are used in stores of various kinds for putting up and removing goods from the shelves. These ladders are made in the form of a step-ladder with steps and flat side pieces, and they are supported in a slightly-inclined position in front of the shelves, the lower end being provided with trucks, which run on the floor parallel with the shelves, while the upper end is provided with trucks which embrace a horizontal guide-rail supported in front of the shelves. By means of this construction the ladders are capable of being rolled laterally along in front of the shelves and easily located at any desired spot. One of the principal uses to which these store-ladders are put is in placing goods on the shelves for exposure and sale after they have been removed from the packing-boxes in which they are received. Thus in a grocery-store the clerk commonly removes the goods (which may be, for instance, canned goods of any kind) from the packing-boxes and taking as many as he can carry in his arms he climbs the ladder and deposits them on the shelves. On the other hand, when there are a large number of cans to be taken down in one order he fills his arms full and backs down the ladder. Both these operations are necessarily slow, and the goods held in the arms in this way are quite liable to be dropped.

The object of the invention is to provide means for raising and lowering comparatively large quantities of goods at one time in such a manner that the handling may be easy and safe. This I accomplish by means of my present invention, which consists, essentially, of a store-ladder of the class described having attached to one of the side pieces a guide-rail, which is adjacent to and parallel with the side pieces of the ladder, on this guide-rail being mounted a sliding bracket carrying a horizontal shelf. A spring-catch is secured to the bracket, which allows the same to be lifted freely by catches and supports the shelf when moved downward.

I illustrate my invention by means of the accompanying drawing, in which—

Figure 1 is a side elevation of a store-ladder constructed according to my invention. Fig. 2 is an enlarged front elevation of a portion of the ladder, showing the bracket and shelf partially in section. Fig. 3 is a section on  $x x$  of Fig. 2. Fig. 4 is a back elevation of the slide which constitutes part of the bracket, and Fig. 5 is a section on  $y y$  of Fig. 2.

In the drawing,  $a$  represents one of the side pieces of the store-ladder, which is somewhat inclined to the faces of the shelves. I attach to this side piece a longitudinal guide, which is, as here shown, a flat guide-rail  $b$ , which is slightly offset from the ladder, being secured with screws and blocks in the usual manner. Sliding on this rail is a bracket, which is made up of the slide  $e$ , formed to embrace the edges of the rail  $b$  with a brace  $d$  for supporting the shelf  $c$ . The shelf is so secured that it may be tilted from and toward the shelves to bring it into a horizontal position to conform to the inclination of the ladder. In order to secure this adjustability of the shelf, I form on the upper end of the slide a cross-piece  $e^3$ , which is set at an angle which represents the average inclination of such ladders. The shelf is formed, as here shown, of a flat metal plate with a flange  $c^2$ , turned down on all four sides to secure stiffness. The side next to the cross-piece  $e^3$ , is provided with vertical slots  $e^2$ , and through these slots pass bolts  $e'$ , by which the shelf is secured to the cross-piece. By loosening the bolts  $e'$  the shelf can be tilted from and toward the store-shelves to bring it to a horizontal position and to compensate for the difference in inclination in the different ladders.

The brace  $d$  is secured rigidly to the outer end of the shelf  $c$ , and the lower end is secured by a bolt  $g$  passing through a horizontal slot  $g'$  to the lower end of the slide. The lower end of the brace may be adjusted laterally to conform to the position of the shelf. For the purpose of holding the shelf at any desired elevation and permitting it to slide upward freely I provide a spring-bolt  $f$  under the shelf, the bolt being adapted to engage openings  $b'$ , formed in the guide-rail  $b$ . It is evident that any equivalent pawl-and-ratchet construction will answer this



same purpose as the spring-bolt and holes shown here.

It will be seen that a store-ladder made according to this design may be used in a variety of ways to avoid labor. A box may be set on the shelf and the latter then slid upward to the desired point; or the shelf may be first located and the box carried on the shoulder and deposited on the shelf. In taking down goods they may be piled on the shelf and the latter lowered down by withdrawing the spring-bolt, or the goods may be loaded on the shelf when the latter is in its lower position and then the shelf may be lifted bodily. It will be seen that the guide-rail and shelf being close to the side of the ladder are entirely out of the way and do not interfere with the work of the clerks. It is evident that the guide-rail, the bracket, and the shelf may be constructed in a variety of ways other than as here shown.

I claim—

1. An attachment for store-ladders, comprising a guide-rail adapted to be secured to the side of the ladder, a slide comprising an elongated substantially horizontal head and an elongated member depending therefrom

and lying along and having extended interlocking and slidable engagement with said rail, a substantially horizontal shelf, means connecting said shelf adjustably to said head to permit forward and backward tilting of the shelf, and means for securing the slide at different elevations.

2. An attachment for store-ladders, consisting of a guide-rail adapted to be secured to the side of the ladder, a slide having interlocking and slidable engagement with said rail, an expanded substantially horizontal shelf having a vertical flange along its inner edge provided with a pair of remote substantially vertical slots, an inclined brace secured at its upper end to the shelf and having its lower end abutting against the slide and provided with a substantially horizontal slot, threaded clamping members passing through said slots and secured to the slide, and means for securing the slide at different elevations.

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