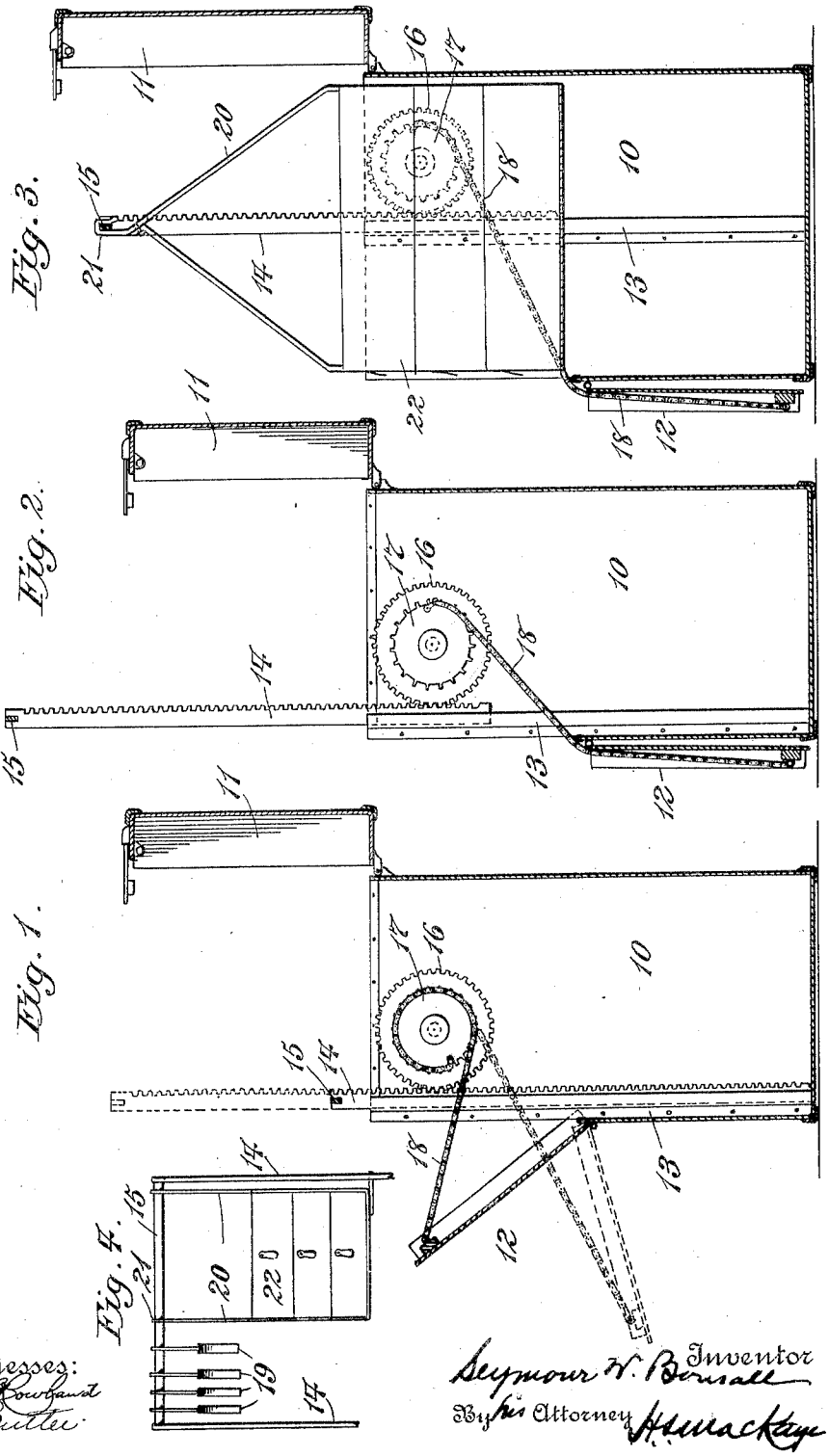
S. W. BONSALL.

TRUNK.

APPLICATION FILED NOV. 13, 1908.

**1,009,825.** **Patented Nov. 28, 1911.**




Witnesses:
Edward Bowfaust
M. A. Butler

Seymour W. Bonsall Inventor
By his Attorney H. Mackaye

# UNITED STATES PATENT OFFICE.

SEYMOUR W. BONSALL, OF NEW YORK, N. Y.

## TRUNK.

1,009,825. Specification of Letters Patent. **Patented Nov. 28, 1911.**

Application filed November 13, 1908. Serial No. 462,360.

*To all whom it may concern:*

Be it known that I, SEYMOUR W. BONSALL, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented a certain new and useful Improvement in Trunks, of which the following is a specification.

My present invention relates to an improvement in trunks containing special interior devices for suspending or otherwise supporting the goods to be transported, which devices are intended to facilitate access to any single article or group of articles desired.

The object of the invention is the provision of means whereby the mere act of opening the trunk will serve to bring the special devices aforesaid into more convenient position for complete access to the goods to be unpacked.

The present invention is illustrated in certain preferred embodiments in the accompanying drawings, wherein—

Figure 1 is a vertical section of one form of packing case provided with my invention, and showing the suspension bar depressed for packing the same, Fig. 2 is a similar view of the same showing the bar raised, Fig. 3 is a similar view of a modification, and Fig. 4 is a front elevation of a detail.

Various shapes and sizes of trunks may be used within the scope of my invention, and in Figs. 1 and 2 I have shown as an example a trunk in which garments are intended to be hung upon hangers adapted to fold together with the garments on them. This form of hanger is shown and claimed in my pending application for patent, Number 435,384, filed May 28th 1908.

The outer casing of my trunk is shown at 10, and the cover at 11. The upper portion of the front of the main casing forms a flap 12, hinged so as to be capable of dropping down into the position shown in Figs. 2 and 3.

At the front edge of each side of the trunk is a vertical guide piece 13, upon which vertical sliding legs 14 are adapted to move up and down. A horizontal suspension bar 15 extends between the tops of the two legs 14 (see Fig. 4) and the interior supporting devices, such as drawers, hangers and the like are carried upon the bar 15.

The lifting frame consisting of the side legs 14 and bar 15 is so connected to the hinged flap 12 as to rise automatically when said flap is drawn outward. While any suitable mechanical connection for this purpose is within the scope of my invention, I have shown, as an illustrative example, the many-toothed pinions 16, which, being pivoted within the trunk on the two sides thereof, mesh with the racks on the two legs 14 on each side of the bar 15, as shown. The pinions 16 are actuated each by a drum and cord connection with the flap 12, and, I prefer to use a sprocket wheel 17, fixed to each pinion 16 and having a chain 18 which coils over the sprocket wheel, having one end attached to said wheel and the other end attached to the hinged flap, substantially as shown in the drawing.

I prefer to make the chains 18 so long that no tension is exerted until the flap 12 has been drawn forward a certain distance—say as far as shown in Fig. 1. This is because a better purchase is secured for exerting effective force upon the flap 12 when it reaches a position where a downward thrust is available. By making the chain long enough, as shown, no resistance is offered to open the flap until a downward push may be used upon it. After this, as the flap is drawn farther outward and downward, the effective force of a given thrust increases, while, of course, the speed of rotation of the drum 17 with relation to that of the flap decreases in proportion.

When the flap 12 is finally lowered all the way, as shown in Fig. 2, the pinion 16 has been rotated so far as to have raised the lifting frame 14, 15 to its full height, and the turning moment exerted upon the flap through the chain 18 is almost *nil*, however heavy the interior accessories carried on said lifting frame. Thus, once raised, the lifting frame and all devices carried upon it, are held automatically in their raised position.

In Figs. 1 and 2, the bar 15 carries only the hangers 19, which, when the bar 15 is lowered, are folded, as shown. When the bar has been lifted, by lowering the flap 12, one or more of these hangers may be unfolded, as shown, inasmuch as the lower edges of the garments they support have been raised above the fixed portion of the front of the trunk.

My invention is not limited to the use of hangers only on the lifting frame 14, 15, but any suitable accessories may be used.

For instance in Figs. 3 and 4 I have shown means whereby drawers and hangers can both be mounted upon the same bar 15.

A suitable skeleton frame, 20, is supported by hooks 21 upon the bar 15, and this frame carries drawers 22. The frame is preferably steadied with relation to the bar or bars 14, by a lug 23 (see Fig. 4). By lowering the flap 12, in Fig. 3, the drawers are raised to a convenient height above the floor, and thus stooping is avoided.

It will be seen that, whether hangers, drawers or other accessories are used, my invention make it possible to bring the contents of a trunk into a position for convenient use by merely opening the same, and particularly for invalids and the aged, the avoidance of all necessity for stooping when an article is wanted will be found a great benefit.

What I claim is—

A trunk comprising an outer casing having the upper portion of its front face hinged to form an outwardly turning flap, a lifting frame within said casing, a rack on said frame, a pinion engaging therewith and pivoted within the casing, a sprocket wheel on said pinion and a chain engaging said sprocket wheel and attached to said flap, substantially as described.

SEYMOUR W. BONSALL.

Witnesses:
H. S. MacKaye,
M. A. Butler.