

J.D. Sinclair: Delivering Apparatus.

Fig. 1.

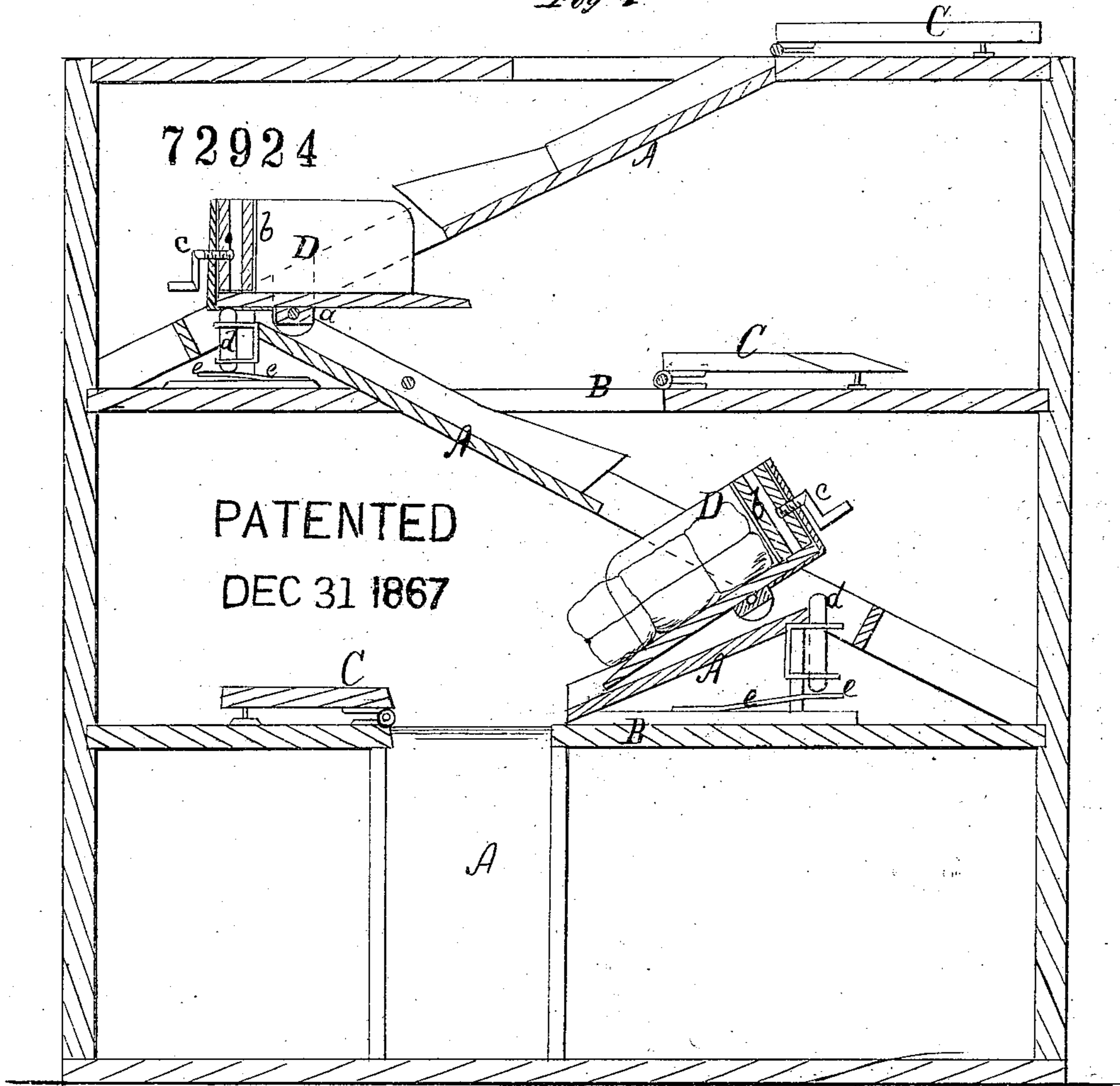


Fig. 2.

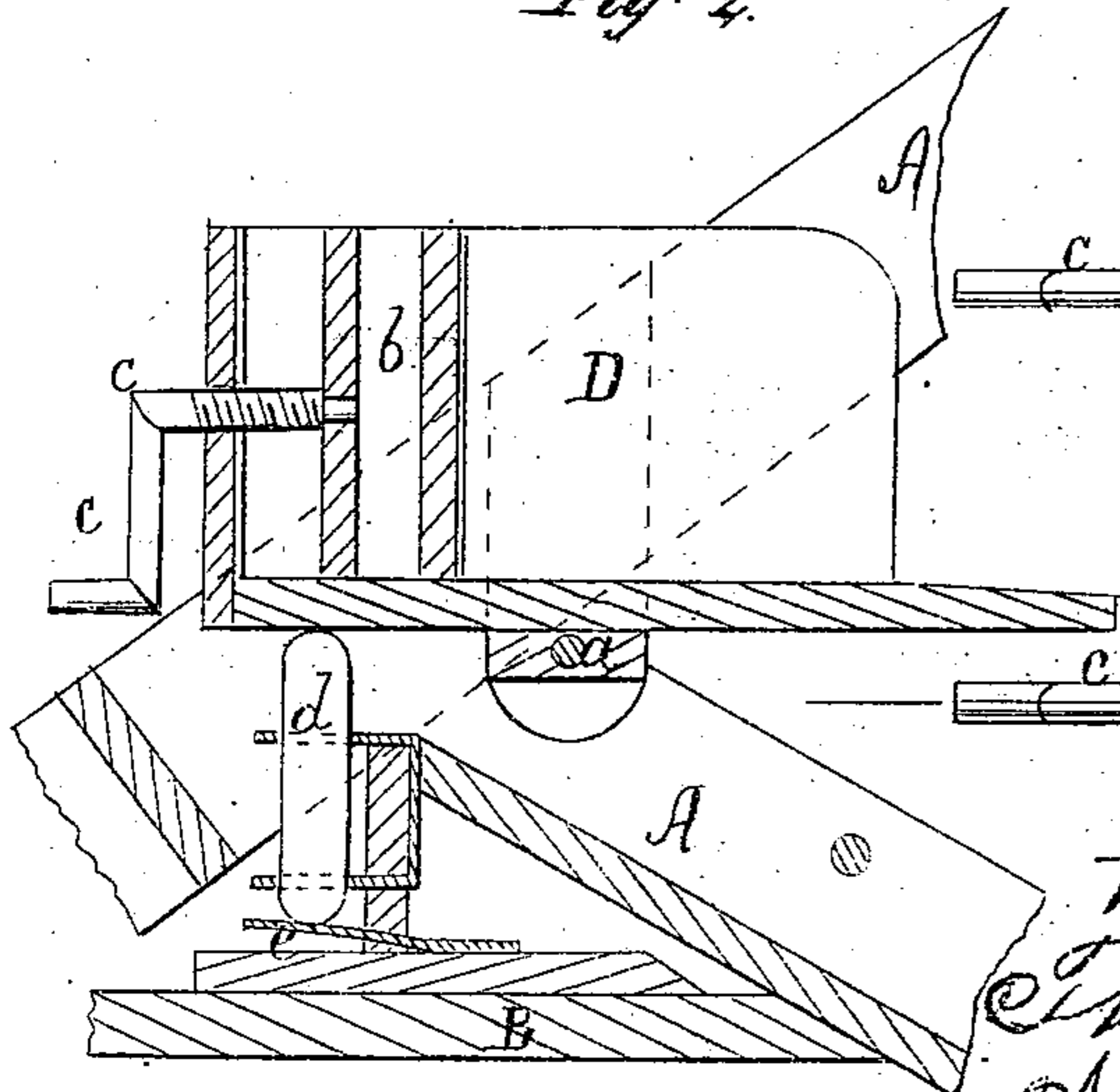
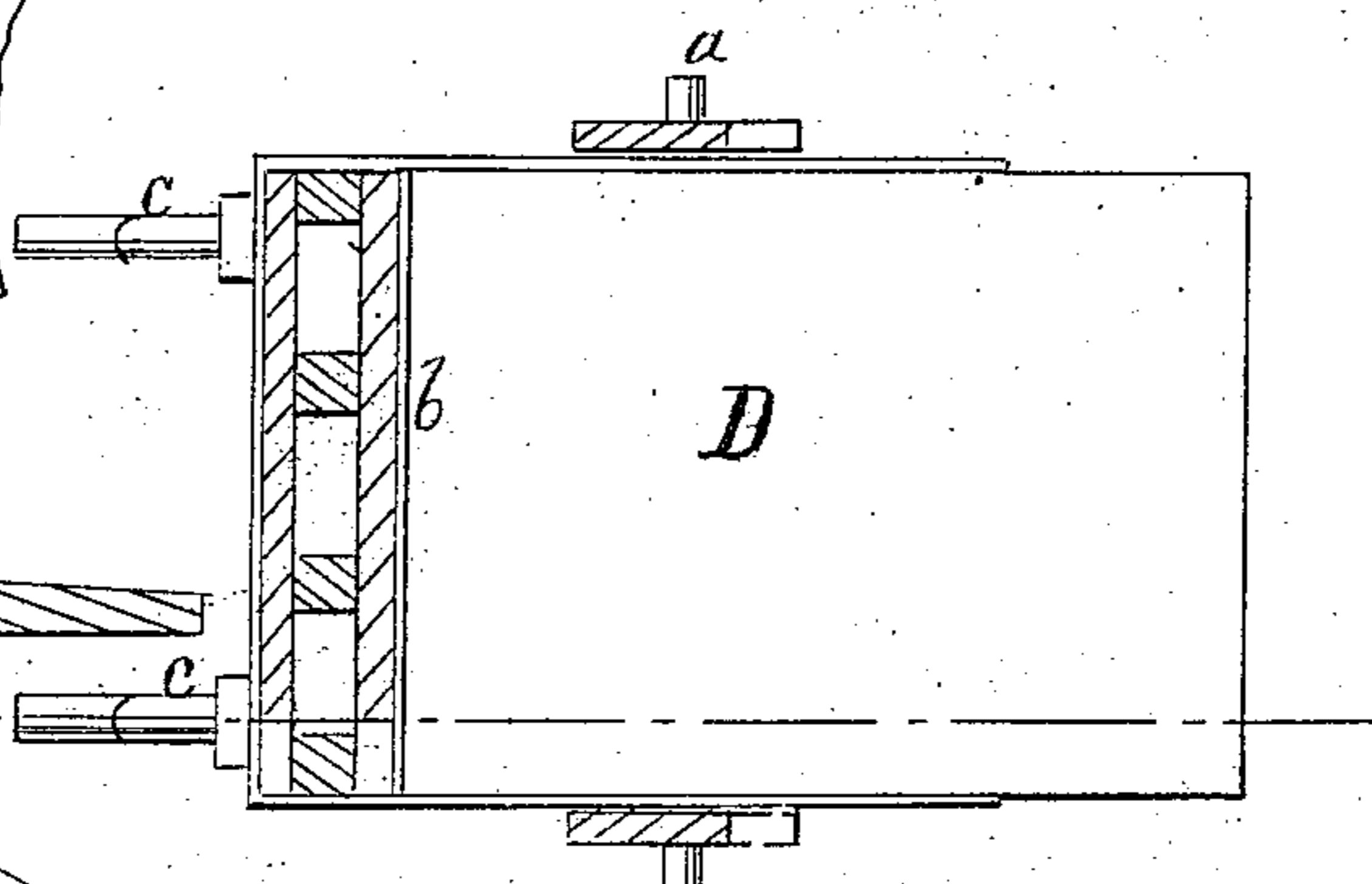


Fig. 3.



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United States Patent Office.

JAMES D. SINCLAIR, OF BROOKLYN, NEW YORK.

Letters Patent No. 72,924, dated December 31, 1867.

IMPROVEMENT IN APPARATUS FOR DELIVERING GOODS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JAMES D. SINCLAIR, of Brooklyn, in the county of Kings, and State of New York, have invented a new and improved Apparatus for Delivering Goods; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a vertical longitudinal section of my improved apparatus.

Figure 2 is a detail longitudinal section of one of my improved traps.

Figure 3 is a plan or top view, partly in section, of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new device for discharging goods from warehouses, or for lowering the same from the upper stories to the ground floor, or to any one of the intermediate floors, as may be desired; and consists more particularly in the construction and arrangement of the traps, which are arranged at the intersections of the inclined ways upon which the articles to be delivered slide down.

The traps are boxes, open on top and on the front, and are hinged to the frame of the structure at the end of each inclined way. The goods, sliding down on the way, fall upon the trap, and strike against the cushioned back of the same. A spring, arranged under the bottom of the trap, between the same and some stationary device, receives the shock, and then gently lifts the trap again into its original position. The pivot, by means of which the trap is secured to the frame, is arranged at such a distance from the cushioned back of the trap that the greater part of the article to be delivered is in front of the pivot, so that, after the shock is overcome, the article will depress the open front part of the trap, and will be discharged therefrom upon the next inclined way, at the foot of which a similar trap is or may be arranged. The cushioned backs are adjustable towards the pivot, so that they can be set to adapt the traps to articles of different size, with a view to bring the greater portion of the same in front of the pivot. The backs of the traps need not be cushioned for some kinds of goods, but had better be for most.

For delivering some kinds of goods, the traps can be removed, so that the articles will only move on the inclined ways. The latter pass through hatchways in the floors, which can be closed, so that the goods may be delivered on any desired floor.

The main object of this invention is to arrest the goods at the end of each inclined way, so that their velocity may not be increased to such an extent as to injure them.

A represents the inclined ways of the discharge-apparatus. They may be arranged within a building or on the outside of the same, and are arranged in zigzag lines, as shown, passing through hatchways in the floors or platforms B of the building. These hatchways can be closed by means of doors C C, so that the goods may be delivered on any desired one of the floors or platforms. At each angle formed by the zigzag ways is arranged a dumping-trap, D, which is a box, made of wood or other suitable material, open on top, and on that end which is over that section of the way at the upper end of which the trap is arranged. Each trap is provided with a horizontal bar, or with horizontal pivots, *a a*, at its bottom or sides, said pivots being nearer to the closed end than to the open end of the trap. The pivots rest in suitable bearings fixed in the ways, said bearings being not covered, or so arranged that the traps can be easily taken off when it is desired to lower bales or articles which will not suffer from the shock resulting from their moving at a great velocity. In the closed ends of the traps are arranged cushioned or elastic backs *b b*, which can, by means of screws *c c*, or other suitable devices, be adjusted towards the pivots, so that the goods, when they arrive upon the bottom of the trap, may lie with their larger part upon that portion of the trap which is in front of the pivots. Under the back of each trap is arranged a sliding bar, *d*, which rests upon a spring, *e*, fixed to the floor, or to some stationary article, reaching, during its downward passage, a trap, which will strike against the elastic back of the same, and will cause the bar *d* to depress the spring *e*, so that the trap is not injured by the shock.

The greater weight of the article being in front of the pivots *a*, it will depress the front part of the trap, as shown in the lower trap in fig. 1, and will be thus discharged upon the next section of the way.

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

1. The traps D D, when pivoted at the angles of the zigzag way A, substantially as herein shown and described, for the purpose of arresting goods to be lowered to prevent their descending with too great velocity.
2. Providing the traps D D with adjustable backs *b b*, substantially as described, and for the purpose of adjusting the device for goods of greater or less bulk, as set forth.
3. The traps D D, when arranged as described, in combination with the spring-boards *d e*, all made and operating substantially as and for the purpose herein shown and described.

JAMES D. SINCLAIR.

Witnesses:

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