

C. Tucker

Alarm Locks for Tills.

No 64,598.

Patented May 7. 1867.

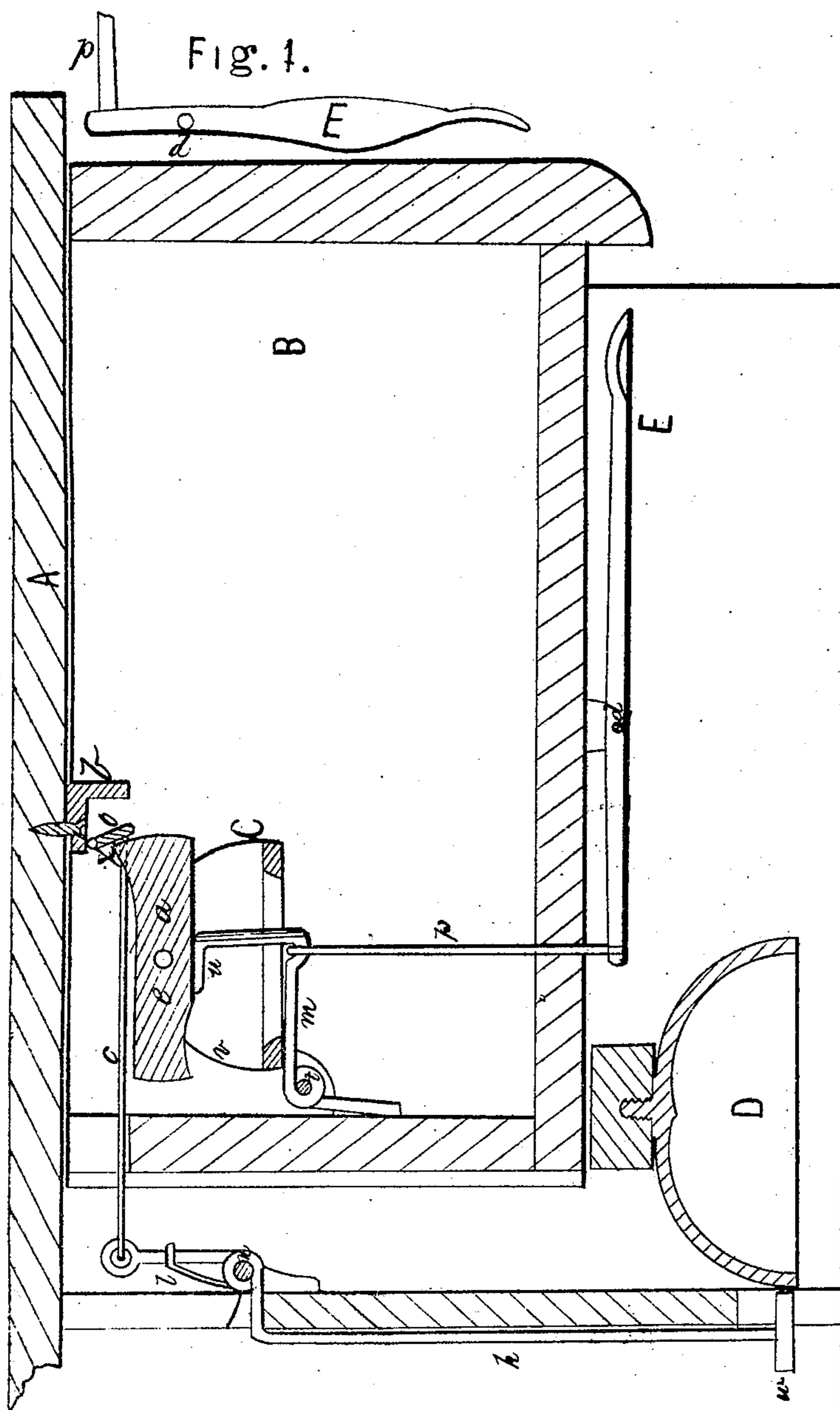


Fig. 1.

Witnesses:
R. L. Boyd
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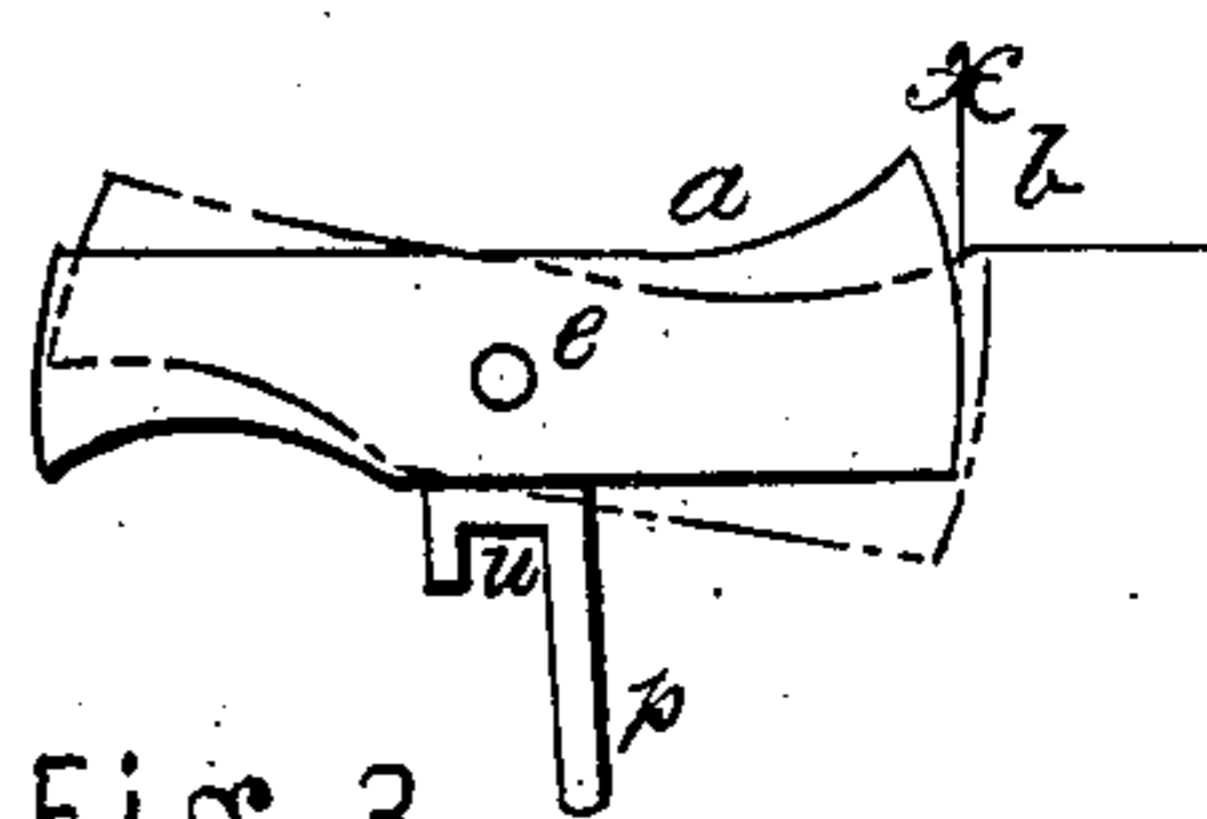


Fig. 3.

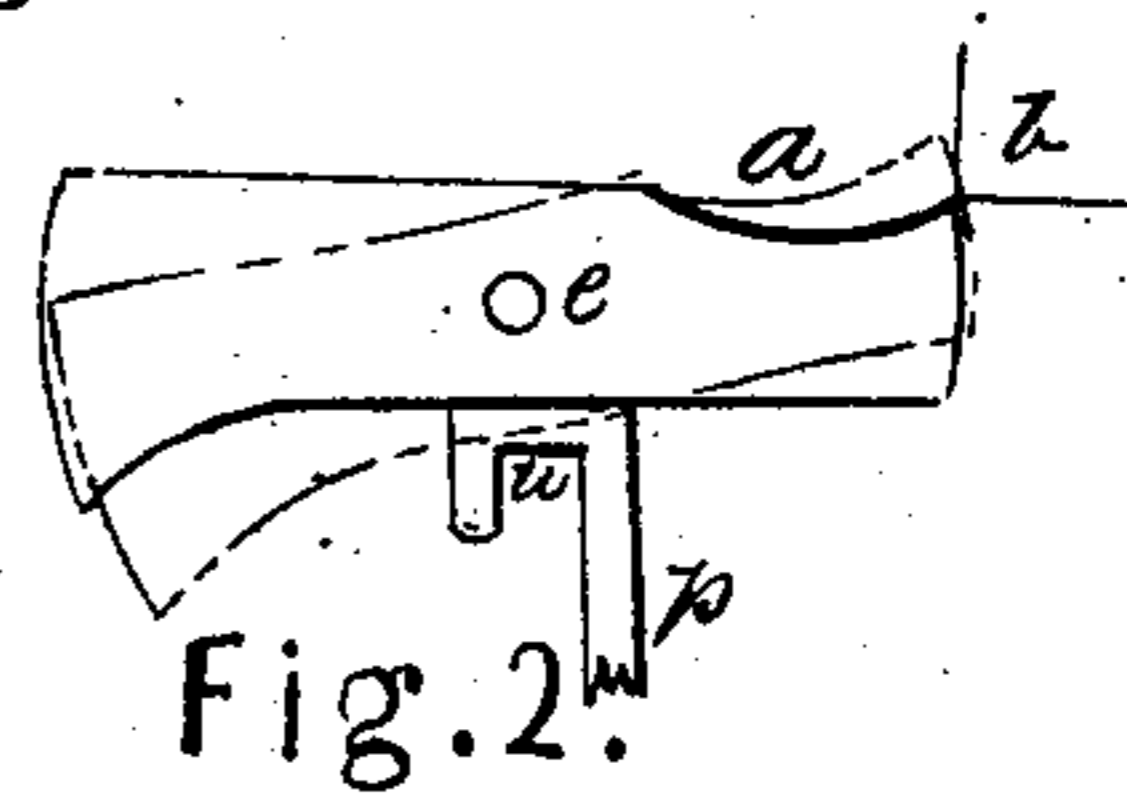
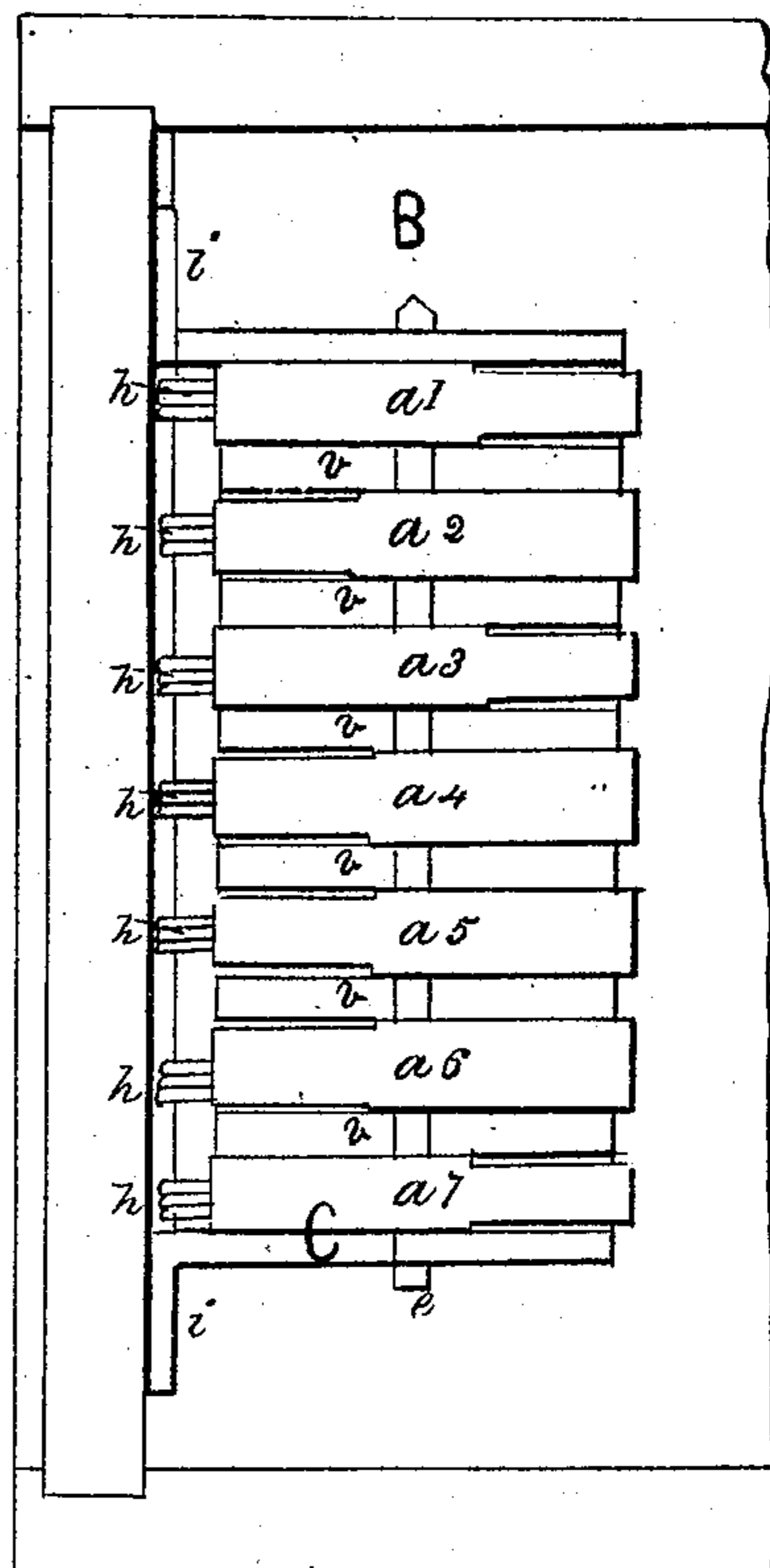


Fig. 2.



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United States Patent Office.

CYRUS TUCKER, OF BLOOMINGTON, ILLINOIS.

Letters Patent No. 64,598, dated May 7, 1867.

IMPROVEMENT IN ALARM-LOCKS FOR TILLS.

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, CYRUS TUCKER, of Bloomington, in the county of McLean, and State of Illinois, have invented certain new and useful Improvements in Till-Locks for Money-Drawers, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

My invention consists in a novel construction and arrangement of devices for locking sliding drawers, as hereinafter explained.

Figure 1 is a longitudinal vertical section.

Figure 2 is a plan view.

Figures 3 and 4, side elevations of portions detached.

In the drawings, A represents the counter or stationary cover over the drawer, which is represented by B, these parts being constructed in the usual manner. The lock consists of a metal frame, C, made of cast iron, and having a series of vertical divisions or plates, *v*, projecting upward, as shown in fig. 1, and dividing it into a series of spaces of equal width. The frame C has a flange, *i*, at each end, as represented in fig. 2, by which it is secured by screws to the inner face of the back wall of the drawer. I then construct a series of tumblers, *a*, of proper width to fit easily and loosely into the spaces in the upper side of frame C, where they are pivoted on a rod, *e*, which extends through the whole series, its ends resting in the end plates of the frame C, as shown in fig. 2, and in notches in the upper faces of the division plates *v*. It will be observed that one end of the tumblers *a* is made heavier than the other, so that when pivoted at their centre on the rod *e*, the heavy end will drop or trip down, as represented in red in fig. 3, whenever the support underneath is removed. To hold these tumblers in a horizontal position, I place against their under surface a rod having a flat head, *u*, which is so arranged as to bear equally on each side of the pivot *e*, as shown in figs. 1 and 3. In fig. 1 this is represented as consisting of a wire, *m*, bent around a rod, *t*, and having its lower end resting against the side of the drawer, and operating as a spring to press the head *u* up against the tumbler *a*. To this wire *m* is attached a wire, *p*, which connects it to the end of a lever, E, pivoted at *d* to the under side of the drawer B, as shown in fig. 1. By pressing on the end of the lever E, the wire *m*, with its head *u*, will be drawn down, and thus permit the tumbler *a* to turn on the rod *e*, its heavy end dropping down. Instead, however, of using the spring wire *m*, the rod *p* may extend directly up to the tumbler, and have the head *u* formed on its upper end, as shown in fig. 3, the long arm of the lever E in that case being made sufficiently heavy to overbalance the heavy end of the tumbler, as shown in fig. 4. These parts being thus constructed and arranged within the drawer, the latter is shoved to its place under the counter, and a metal plate, *b*, is secured rigidly to the under side of the counter, directly in front of the ends of the tumblers *a*, as shown in fig. 1, the plate *b* being located a short distance from the end of the tumblers, as there shown. A plate, *o*, is placed directly at the front end of the tumblers *a*, and is pivoted at each end on points at its upper corners, so as to hang vertically, as shown in fig. 1. This pivoted plate *o* is connected by a wire, *c*, to the upper end of a rod, *h*, which is pivoted at *n*, and has a hammer, *w*, secured to its lower end, in proper position to strike a bell, D, located at any desired point under the counter, a spring, *l*, serving to hold the plate *o* against the tumblers *a*, and cause the hammer to strike the bell with force. It will be seen that any attempt to draw out the drawer B will cause the ends of tumblers *a* to strike the pivoted plate *o*, and thereby ring the bell; and after having passed the plate *o*, the ends of the tumblers *a* will strike against the rigid plate *b*, and prevent it from being moved any further. By pressing on the keys or levers E the tumblers *a* will be permitted to tip, letting their points, *x*, drop down, so as to pass under the plate *b*, and permit the drawer to be drawn out. As the tumblers are so made as to be turned either end foremost, they being pivoted at the centre, it will be seen that they can be so arranged that the heavy ends of a portion of them will be at the front, while the heavy ends of the others shall be at the rear; and that when thus arranged, if the keys of all are touched, the light ends at the front will tip up, and, striking against the plate *b*, will thereby prevent the drawer from being opened. It will be seen that in fig. 2, the tumblers *a*², *a*⁴, and *a*⁶ have their heavy end to the front, and that to open the drawer, when thus arranged, the keys to those tumblers

only must be pressed, and that if the keys to either of the other tumblers be touched, their rear ends will drop down, thereby causing their light ends to rise so as to come in contact with the plate *b*, and prevent the drawer from being opened.

It will thus be seen that a knowledge of the arrangement of the tumblers is necessary to enable a person to open the drawer; and as a great variety of changes can be made in the combination or arrangement of the tumblers, the lock can be set at any time by the person in charge, so that no one else can open it. By using the weighted levers or keys as described, the use of springs may be entirely avoided, and the whole apparatus rendered extremely cheap and simple, and at the same time very durable, and not liable to get out of order. The series of tumblers may be increased or decreased in number to any desired extent, the operation being always the same in principle. It is obvious that this form of lock may be applied to bureau drawers, or to any sliding drawer, and that the parts may be located at the front side of the drawer instead of the rear, though the location here shown is considered preferable. If preferred, the bell may be omitted, in which case the pivoted plate *o* will not be required.

Having thus described my invention, what I claim, is—

1. The series of tumblers *a*, having one end heavier than the other, and so pivoted as to cause them to tip, in combination with a supporting head, *u*, arranged to hold them in a horizontal position, substantially as shown and described.
2. The combination of the pivoted tumblers *a*, constructed as described, with the supports *u* and levers *E*, arranged for joint operation as herein described.

CYRUS TUCKER.

Witnesses:

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