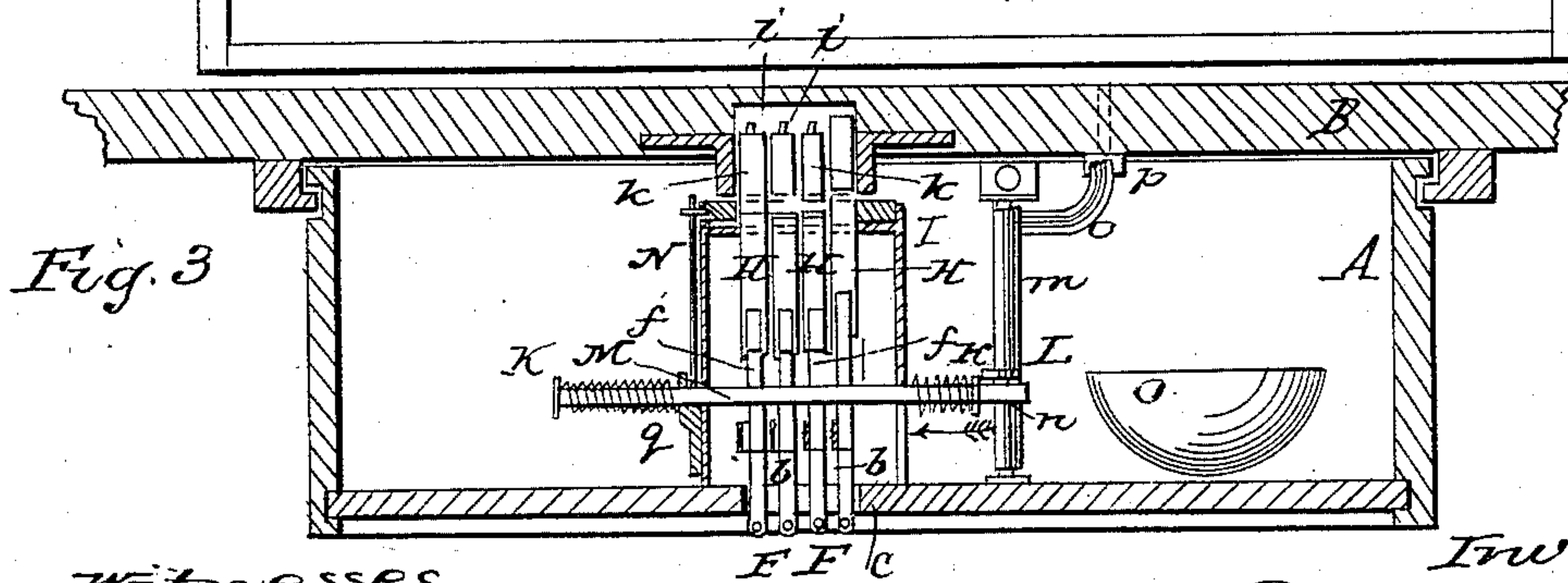
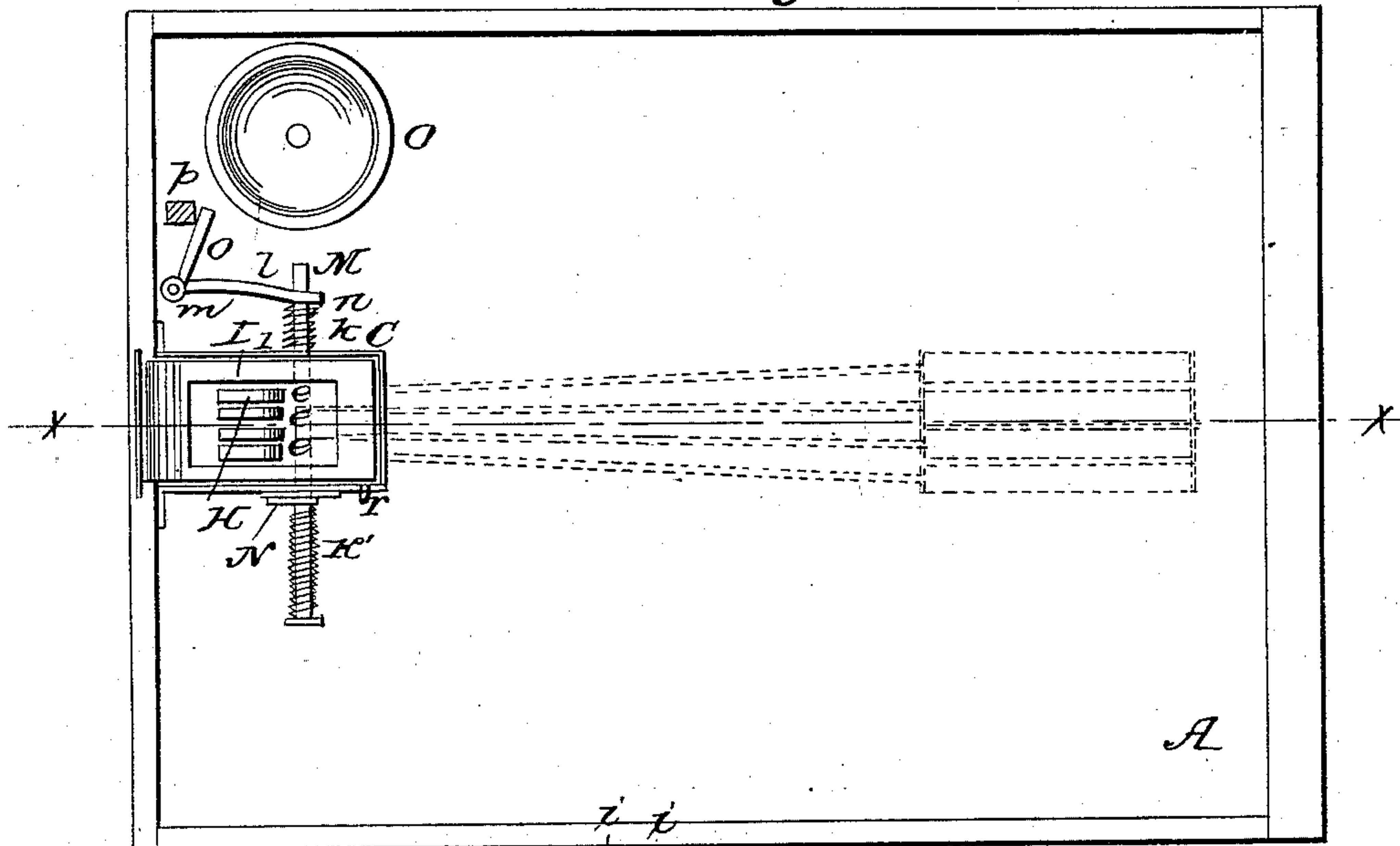
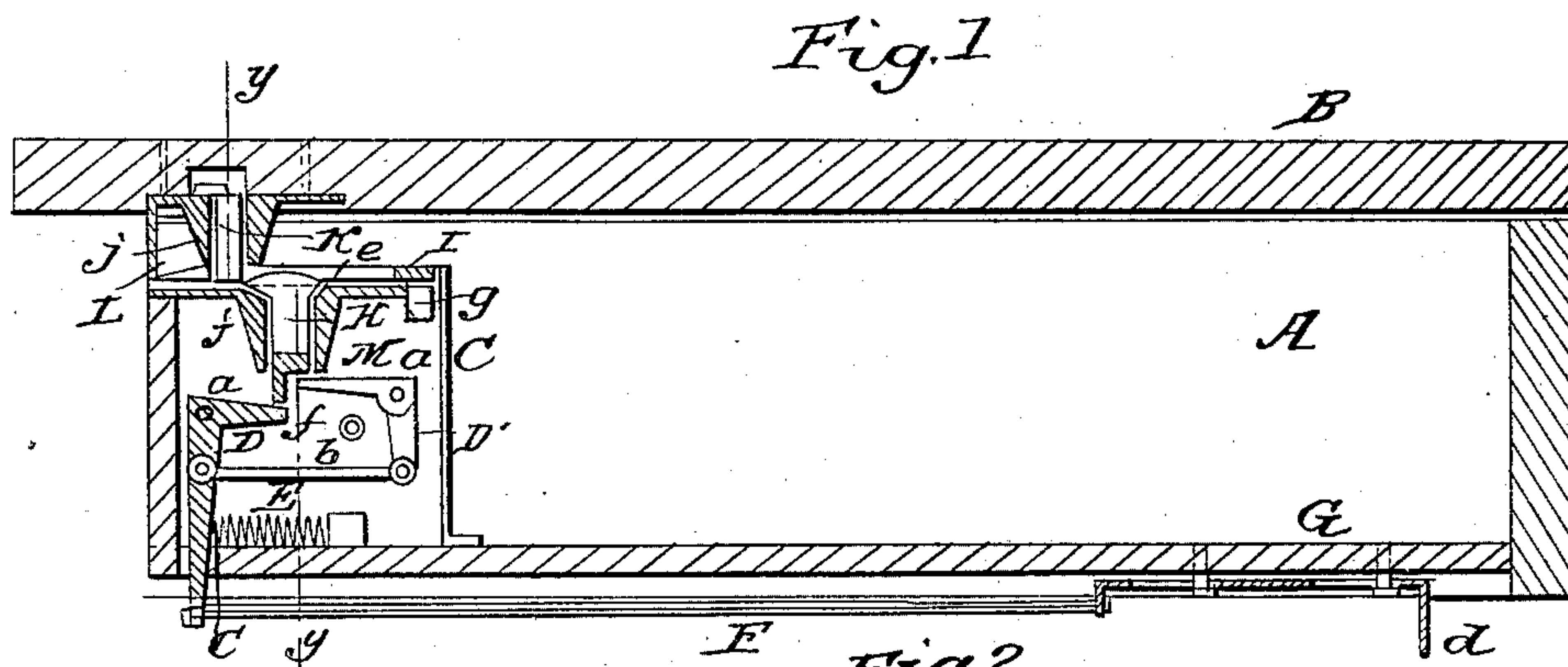


D. K. MILLER.
Alarm Lock for Tills.

No. 63,922.

Patented April 16, 1867.



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Letters Patent No. 63,922, dated April 16, 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, D. K. MILLER, of Bernville, in the county of Berks, and State of Pennsylvania, have invented a new and improved Alarm Lock for Tills, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The object of this invention is to obtain a simple and efficient alarm lock for tills, one which may be economically manufactured and applied, and be capable of having a number of changes, or different combinations, effected in the arrangement of certain working parts, so as to require different manipulations thereof in order to admit of the till being opened. In the accompanying sheet of drawings—

Figure 1 is a side sectional view of my invention, applied to a till, taken in the line *x x*, fig. 2.

Figure 2, a plan or top view of the working parts of the same which are within the till; and

Figure 3 a transverse vertical section of the same, taken in the line *y y*, fig. 1.

Similar letters of reference indicate corresponding parts.

A represents a till fitted in a desk or counter, B, in the usual way, and C is a metal box or case secured in the rear part of the till, and having within it two sets or series of bent levers D D', which are fitted loosely on horizontal rods *a a*, said levers D D' below the rods *a a* being connected by rods *b*. The levers D extend down through a slot, *c*, in the rear part of the bottom of the till, as shown in figs. 1 and 3, each lever D having a spiral spring, E, bearing against it, which springs have a tendency to keep the outer ends of the upper arms of D depressed to their fullest extent, and the outer ends of the upper arms of the levers D' forced upward to their fullest extent, as will be fully understood by referring to fig. 1. To the lower end of each lever D a rod, F, is attached, and these rods extend along underneath the bottom of the till, and are connected to slides G near the front side of the same, the front ends of said slides being bent or curved downward, as shown at *d*, fig. 1, to admit of the fingers of the operator drawing forward the rods F. Any suitable or desired number of levers, D D', may be used; but four of each are represented in the drawings. In the top of the box C there is made an oblong opening, in which four bolts, H, are fitted loosely. These bolts have T-shaped heads, *e*, as shown clearly in fig. 1, and the lower ends of said bolts are notched, as shown at *f*, in figs. 1 and 3, said notches extending into one side of the bolts, about half their thickness, so that when the bolts are placed in the box C, with their notched sides facing the outer ends of the upper arms of the levers D'; the lower ends of the bolts will rest upon the outer ends of the upper arms of the levers D, and the other levers D' not allowed to be in contact with, or act upon, the bolts. See fig. 1. By placing the bolts H in the box *c*, with their notched sides facing the outer ends of the upper arms of the levers D', the lower ends of the bolts will rest upon the levers D, and the levers D' be free from them. On the top of the box *c* there is placed a sliding frame, I, the movement of which, or rather the movement of the box C with the till independently of the frame I, is determined by a pendent pin or lug, *g*, extending through a recess, *h*, in the top of the box C, the pin or lug *g*, when the rear end of the recess *h*, as the till is drawn out, comes in contact with it, causing the frame to move with the box C and till. The front side of the drawer extends up even with the top surface of the frame I, and serves as a stop to prevent the box C and till being shoved forward or inward beyond a certain distance, independently of the frame I. To the under side of the counter or desk in which the till A is fitted, there is secured a metal box, J, in which a series of bolts, K, are placed vertically, and allowed to rise and fall freely. These bolts are prevented from dropping over a shoulder, *j*, in the box, as shown in fig. 1. The lower ends of the bolts K are provided with a hook-projection, *j'*, as shown in fig. 1, and to the under side of the desk or counter, at the rear of the box J, there is a pendent plate, L, which serves as a stop for the inward movement of the till. M represents a sliding rod, which serves as a bell-hammer. This rod passes through the box C, and has spiral springs, *k k'*, upon it, one of which, *k*, forces the rod against the bell, and the other, *k'*, drawing it instantly away from the bell, so as to produce a clear, sonorous sound. The rod M is moved in the direction indicated by arrow 1, in order to compress the spring *k*, by means of an arm or lever, *l*, which projects from a vertical shaft, *m*, at the rear part

of the till, said arm or lever bearing against a collar, *n*, on the rod. The upper end of the shaft *m* has an arm, *o*, projecting from it, which comes in contact with a projection, *p*, at the under side of the desk or counter each time the till is shoved inward, and causes the rod *M* to be moved in the direction specified. The rod *M* is held, when set, that is to say, when the spring *k* is compressed, by means of an arm, *N*, at one side of the box *C*, which, when the rod reaches the extent of the movement specified, drops either by its own gravity only, or by the aid of a spring, into a recess, *q*, in the rod, and holds it. (See fig. 3.) The bell *O* is of usual construction, and secured in the rear part of the till in a proper relative position with the rod *M*.

The operation is as follows:

When the till is shoved inward to its fullest extent it is locked by the bolts *k*, the lower ends of which rest on the bolts *H* and within the frame *I*, as shown clearly in fig. 1. The bolts *k*, it will be seen, lock the till as the rear part of the frame *I* is in contact with the bolts, and the latter must be raised out of the frame before the till can be drawn outward. A person, therefore, ignorant of the lock-alarm attachment, in attempting to pull the till outward, can only do so to the extent the box *C* is allowed to slide underneath the frame *I*, and by this movement of the till a pin, *r*, which projects laterally from the frame *I*, will cause the arm *N* at the side of box *C* to be thrown out from the recess *q* in rod *M*, and the latter, in consequence of being thus liberated, will, under the influence of the spring *k*, strike the bell *O* and sound the alarm. In shoving back the till the arm *o* of shaft *m* will strike the projection *p*, and the rod *M* will be again set. Thus, in attempting to open or draw out the till illegitimately, the alarm will be sounded. In order to open or draw out the till all the slides *G* must be drawn forward, so that the levers *D* will raise the bolts *H*, and the latter raise the bolts *K* above the frame *I*, so that the latter may pass underneath the former. This simple manipulation, however, would be liable to be soon discovered, and, in order to insure safety, different changes are made at intervals. These changes are effected by reversing or turning the bolts *H*, so that, instead of having them all rest on the upper arms of the levers *D*, one or more may rest on the upper arms of the levers *D'*, and those which rest on the levers *D'* will be more elevated than those which rest on levers *D*, as the levers *D'* are more elevated than *D*. Hence, in opening the till, when a portion of the bolts *H* rest on the levers *D'*, the levers *D*, on which the bolts rest, and which are lower than those which rest on *D'*, only require to be elevated. By referring to fig. 3 it will be seen that the right-hand bolt *H*, in consequence of being the most elevated, rests on a lever, *D'*, while the other three bolts *H* rest on levers *D*. Hence, the three left-hand slides *G* must be drawn forward. If a person ignorant of this combination or arrangement of the bolts *H* should draw all the slides *G* forward, the bolt which rests on one of the levers *D'* would be lowered, and the till consequently could not be opened, as the bolt *K* above it would not be raised. These elevated bolts *H*, when the unlocked till is drawn out the limited distance admitted, always causes the bolts *K* above them to fall and lock behind them, and this necessitates the pulling of the slides *G*, connected with those levers *D'* on which the bolts *H* rest, before the till is shoved back, in order that said bolts *H* may be lowered to admit of them catching under the lower ends of the bolts *K*. Without this manipulation the till cannot be opened. It will be seen, therefore, that the device may be considered burglar-proof, and a number of changes or combinations made. In case it should not be desired to have the alarm lock operate in any way, the bolts *H* may all be adjusted so as to rest on the levers *D'*, and all the bolts *K* will thereby be kept elevated, and consequently rendered inoperative.

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

1. The two series of bolts *H K* fitted in boxes *C J*, attached respectively to the till and to the under side of the counter or desk, and arranged in connection with a frame, *I*, to operate substantially in the manner as and for the purpose set forth.
2. The two series of levers *D D'*, connected by rods *b*, and arranged with springs *E*, rods *F*, and slides *G*, or equivalent means, to operate in connection with the bolts *H K*, substantially as and for the purpose specified.
3. The bell-hammer, or rod *M*, provided with the springs *k k'*, and operated through the medium of the shaft *m*, provided with the arms *l o*, the projection *p* at the under side of the counter or desk, the arm *N* fitting in the notch in the rod, and the pin *r* extending from the side of frame *I*, all arranged so that the bell-hammer or rod will be set each time the till is shoved inward, and the hammer or rod liberated and the alarm sounded each time the till is slightly drawn outward in an unlocked state, substantially as set forth.

The above specification of my invention signed by me this 22d day of November, 1866.

D. K. MILLER.

Witnesses:

WM. F. McNAMARA,

WM. DEAN OVERELL.