

No. 780,985.

PATENTED JAN. 31, 1905.

A. O. FOSSUM.

LOCK.

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Fig. 1.

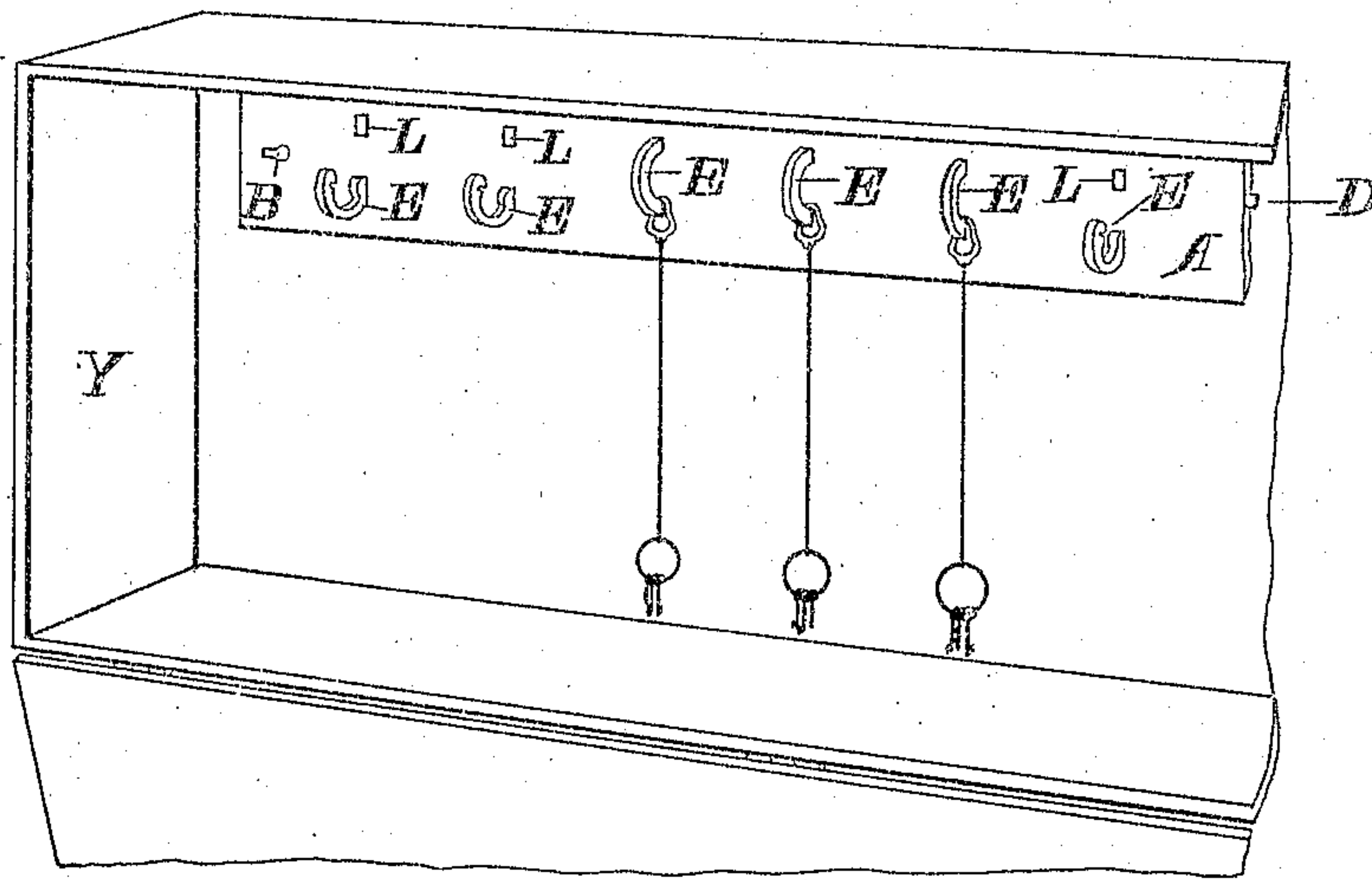


Fig. 2.

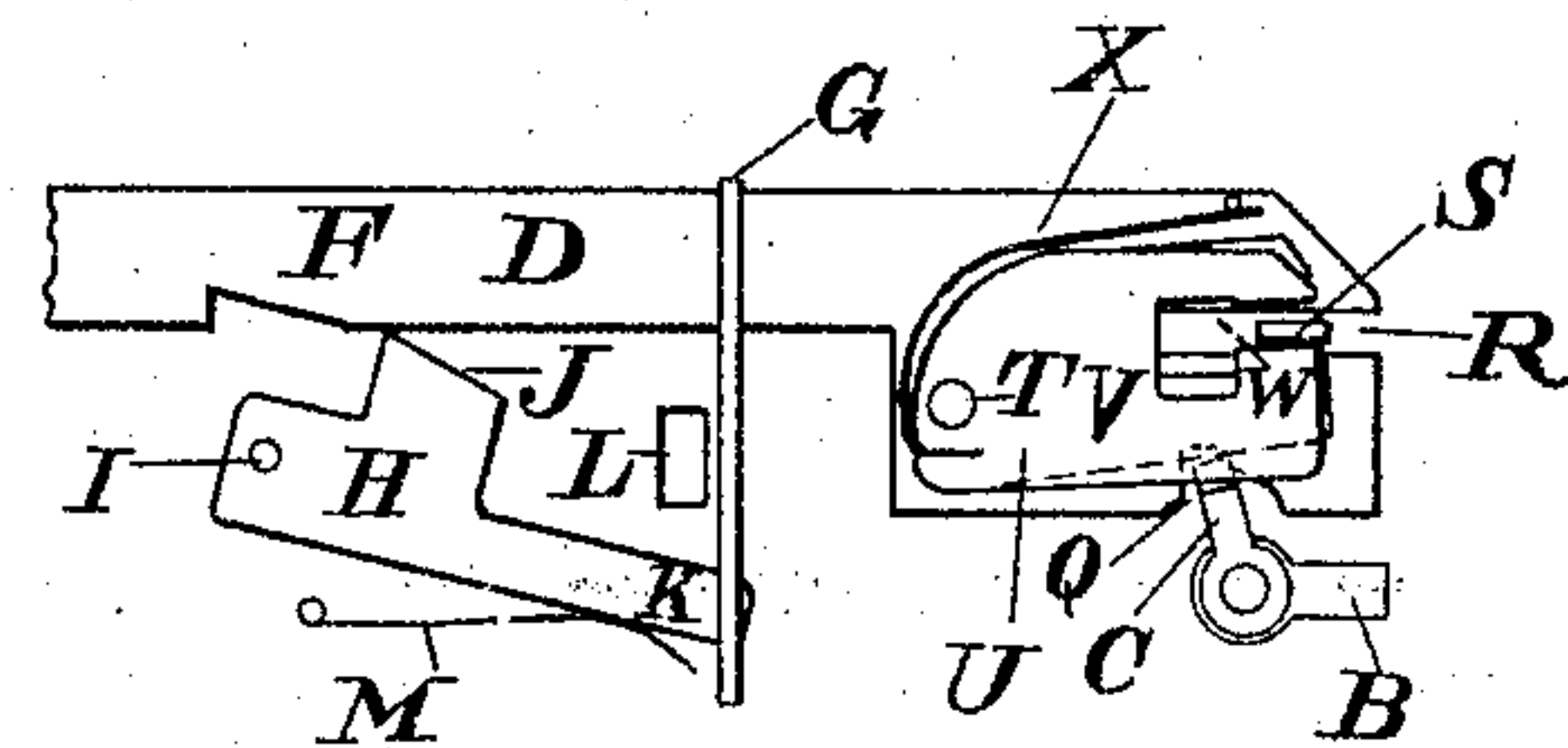
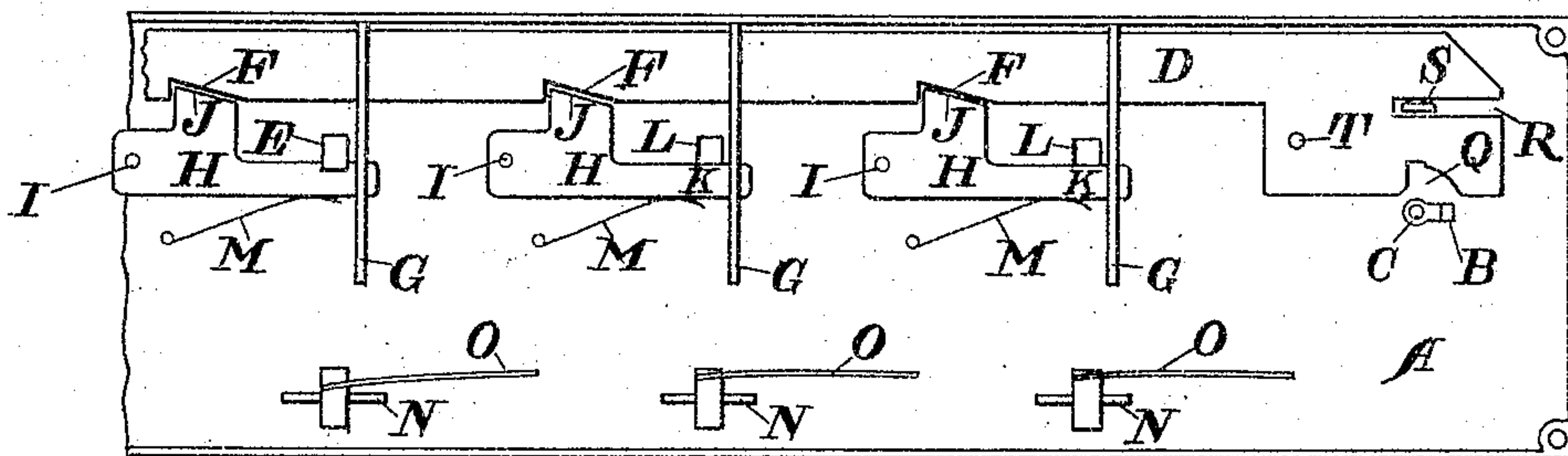


Fig. 3.

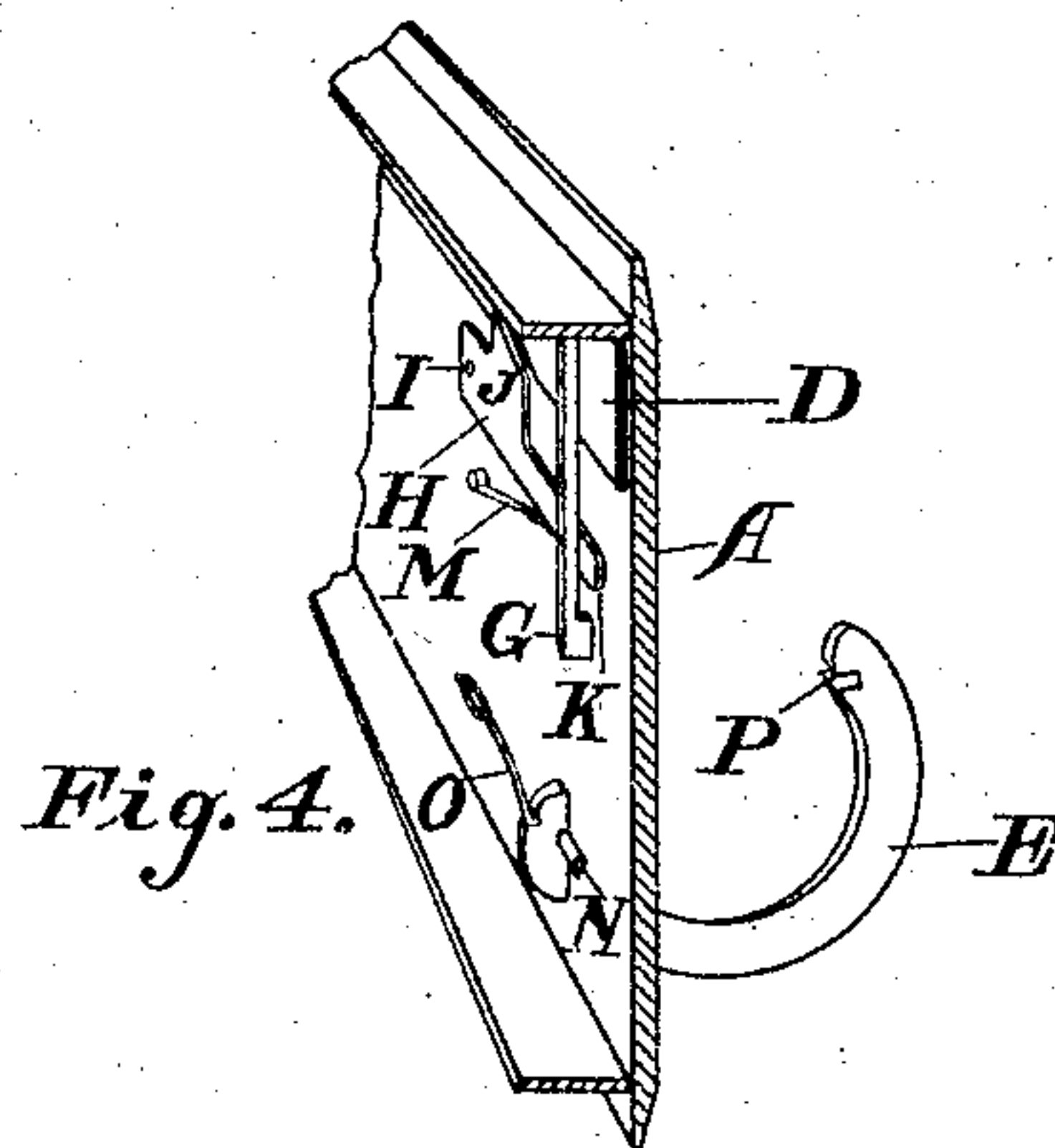


Fig. 4.

Witnesses  
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# UNITED STATES PATENT OFFICE.

ANDREW O. FOSSUM, OF TACOMA, WASHINGTON.

## LOCK.

SPECIFICATION forming part of Letters Patent No. 780,985, dated January 31, 1905.

Application filed April 24, 1903. Serial No. 154,147.

*To all whom it may concern:*

Be it known that I, ANDREW O. FOSSUM, a citizen of the United States, residing at Tacoma, in the county of Pierce and State of Washington, have invented a new and useful Post-Office Lock, of which the following is a specification.

My invention relates to locks in which a series of hasps is controlled by a single key, and has for its object the simultaneous unlocking of all these hasps and leaving them so that any one of them may be locked again independently of any of the others. I attain these objects by the devices illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my post-office lock in operation. Fig. 2 is a detail rear view of the lock. Fig. 3 is a similar view showing the mechanism for one hasp in the unlocking position. Fig. 4 is a perspective view of a portion of the mechanism.

Similar letters of reference refer to similar parts throughout the several views.

It is the practice of the post-offices of this country to require the carriers, collectors, &c., to leave their box-keys in charge of an official of the local office every night. The keys are usually hung on numbered hooks inside of a box, which during the night is locked by the official in charge. It is evident that this box must be unlocked all day, and it is further evident that an opportunity is thus presented for unscrupulous persons to appropriate to themselves any of these keys. With my device when a carrier has finished his rounds for the day he hangs his keys on the proper hook-shaped hasp and pushes the hasp upward, thereby locking the keys thereon, and when all the keys are locked in their places the box itself is locked as a further precaution to prevent the chains, rings, &c., from being tampered with during the night hours. In the morning this official unlocks the box, inspects the keys, and unlocks the hasps and removes the lock-key, thereby making ready for the carriers to remove their keys when they go on duty. The particular mechanism by which I accomplish these objects is described as follows.

The frame or casing of the lock is designed

and is provided with a keyhole B, by means of which the controlling-key C may be inserted to engage the bar D therein, and thus to release the series of hook-shaped hasps E. The bar D extends longitudinally the length of the lock and controls all the hasps. It has a head adapted to be engaged by the aforementioned key C and is provided along its main length with a series of inclined edges, as at F, so located that each hasp of the lock has one of the inclined edges F in its immediate neighborhood in such a position as to control the hasp by means of the hereinafter-described mechanism. These inclined edges F are shown as cut into the bar D; but I do not wish it to be understood that it is necessary to make bar D in just this form, all that is necessary being a series of inclined edges properly spaced and connected together so as to operate simultaneously. The bar D passes under the ribs G, which are cut out for that purpose and also to guide the hereinafter-described latch-bars H.

The bar H is pivoted to the frame A at I and has a part J engaging the inclined edge F of the bar D. This part J is shown with an incline corresponding to that of bar D; but it may be given any convenient shape, so long as it may be acted on by edge F. The bar H is also provided with a latch portion K, which extends over a portion of the hole L in the frame A, adapted to receive the free end of the hasp E. The part K is kept pressed toward the hole L by means of the spring M and is guided by the rib G, as above.

The hasp E is pivoted to the frame A at N and has a spring O acting on it to keep it open, as shown in Fig. 4, and is also provided with a notch P at its free end adapted to enter the hole L and to be engaged by the part K. When the part K releases the notch P, the spring O swings the hasp E on the pivot N and opens it, leaving it in a position substantially as shown in Figs. 1 and 4.

The head of the bar D is shown in Fig. 2 without any tumblers attached thereto. It is provided with a recess Q, adapted to be engaged by the key C, and with a slot R, engaging the lug S of the frame A. On the pivot T may be mounted one or more tumblers U,



as shown in Fig. 3, traveling with the bar D and having a recess V and a slot W, leading thereto and adapted to engage the above lug S. The recess V in each tumbler U is located so that when the bar D is in its locking or normal position with the key C withdrawn from the lock the lug S engages the recess V. The slot W leading to the recess V is so located in each tumbler that the movement caused by the particular part of the key C which engages the tumbler will just move it sufficiently to bring the slot W over the slot R, and therefore into line with the stationary lug S. The springs X act on the tumblers U against the action of the key. In Fig. 3 there are two tumblers shown. The upper one has only a small transverse movement and covers over the recess of the lower one, which has a larger recess corresponding with the larger movement due to the shape of the key. Many different combinations and sizes may be had with this arrangement.

My lock is placed inside the usual box, which I have indicated at Y and which is provided with a closure which may be locked. The hasps are numbered or otherwise marked for identification.

The operation of my device is as follows: The carriers' keys all having been placed on their proper hasps and locked, the box Y is locked for the night by the proper official. In the morning the same official unlocks the box Y, inspects the keys on the hasps, and finding everything in its proper condition inserts the key C in the keyhole B and turns it. The key lifts the tumblers U, bringing their slots W into alinement with the lug S, and then it pushes the bar D, and with it the tumblers U, so that the slots W and R engage the lug S, as shown in Fig. 3. The action of pushing the bar D makes the inclined edges F engage the parts J of the latches H and turns them on the pivots I against the action of springs M and removes the parts K from engagement with the notches P of the hasps E. The springs O then act on the hasps E, throwing them all out of the locking position. The key C is now removed, returning the bar D, the latches H, and the tumblers U to their former positions. The carriers may now remove their keys from the hasps E. When a carrier has made his rounds for the day and is ready to return his keys, he hangs them on the proper hasp E and closes it. As the end thereof enters the hole L it pushes the latch K against the action of the spring M out of the way until the notch P thereon comes into position. Then the spring M pushes the latch K into engagement with the notch P and

the hasp E is locked and cannot be unlocked without the use of the key C, which is kept by the above-mentioned official.

What I claim, and desire to secure by Letters Patent, is—

1. In a multiple-hasps lock, the combination with a frame, of a series of hasps pivoted thereto, a series of spring-operated latches each one adapted to engage and lock one of said hasps, a single sliding bar supported in said frame and adapted to engage all of said latches to operate them to unlock all said hasps simultaneously, and means for moving said bar.

2. In a multiple-hasps lock, the combination with a frame, of a series of hasps pivoted thereto, a series of spring-operated latches each one adapted to engage and lock one of said hasps and having an inclined projection thereon, a single sliding bar supported in said frame and having a series of inclined surfaces adapted to engage said inclined projections on the latches so that when said bar is moved all of said latches are operated to unlock all said hasps simultaneously, and means for moving said bar.

3. A device for locking keys and the like, consisting of a series of locking-hasps suitably supported on a frame and each provided with an independent spring-operated locking device whereby when any hasp is closed it is locked independently of all the other hasps, and an unlocking-bar adapted to engage all of said independent locking devices whereby when said bar is moved all said hasps are simultaneously unlocked.

4. In a lock the combination of a pivoted hasp, means for latching said hasp, a horizontally-sliding bar controlling said means, a recess in said bar adapted to be engaged by an operating-key, a slot in said bar, a lug on the lock-frame engaging and passing through said slot, tumblers carried by and pivoted to said bar and adapted to be turned on said pivot by the operating-key, recesses and slots in said tumblers engaging said lug on the frame said lug engaging said recesses except when the proper operating-key is actuating said tumblers when said slot is brought in line with said lug and permits said bar to be moved by said key.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ANDREW O. FOSSUM.

Witnesses:

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F. P. HASKELL, Jr.