

(No Model.)

F. & L. S. DEPUY.
BAG LOCK.

No. 486,159.

Patented Nov. 15, 1892.

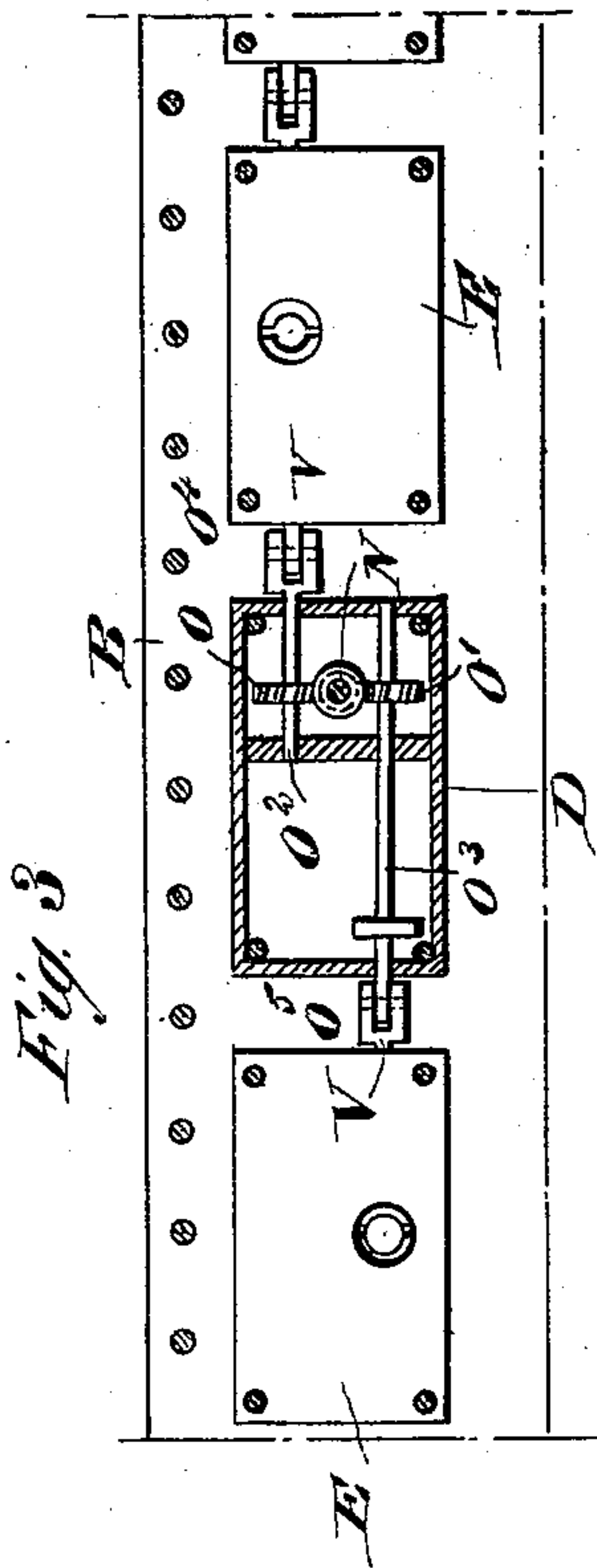
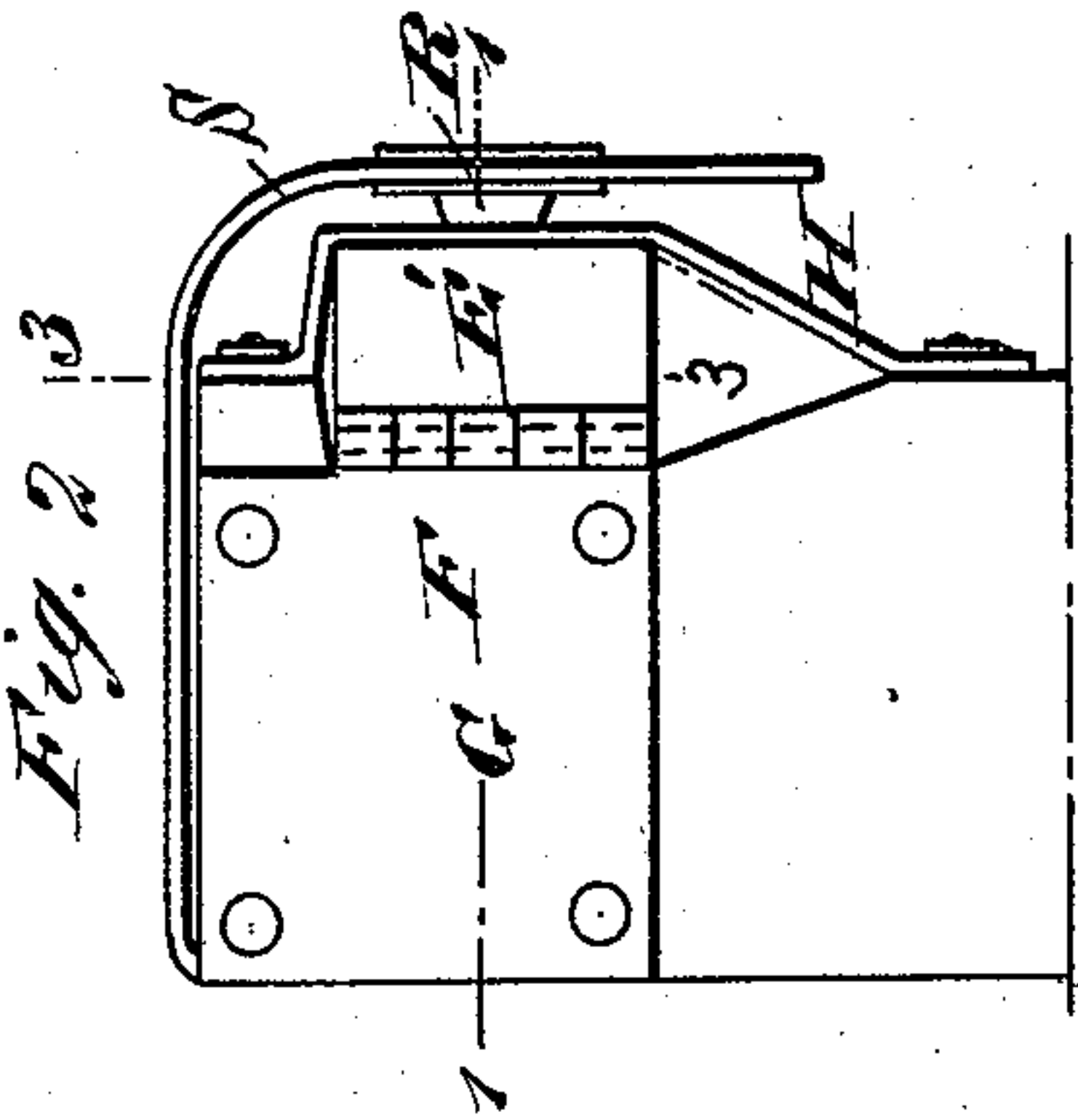


Fig. 1.

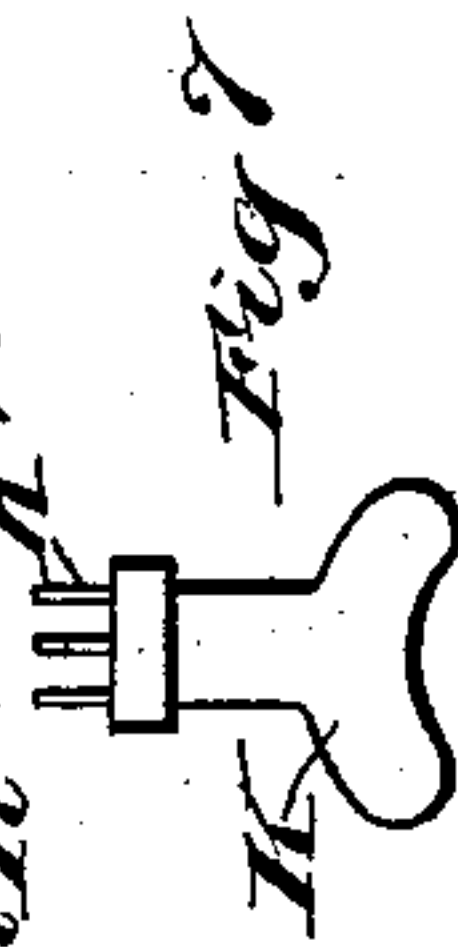
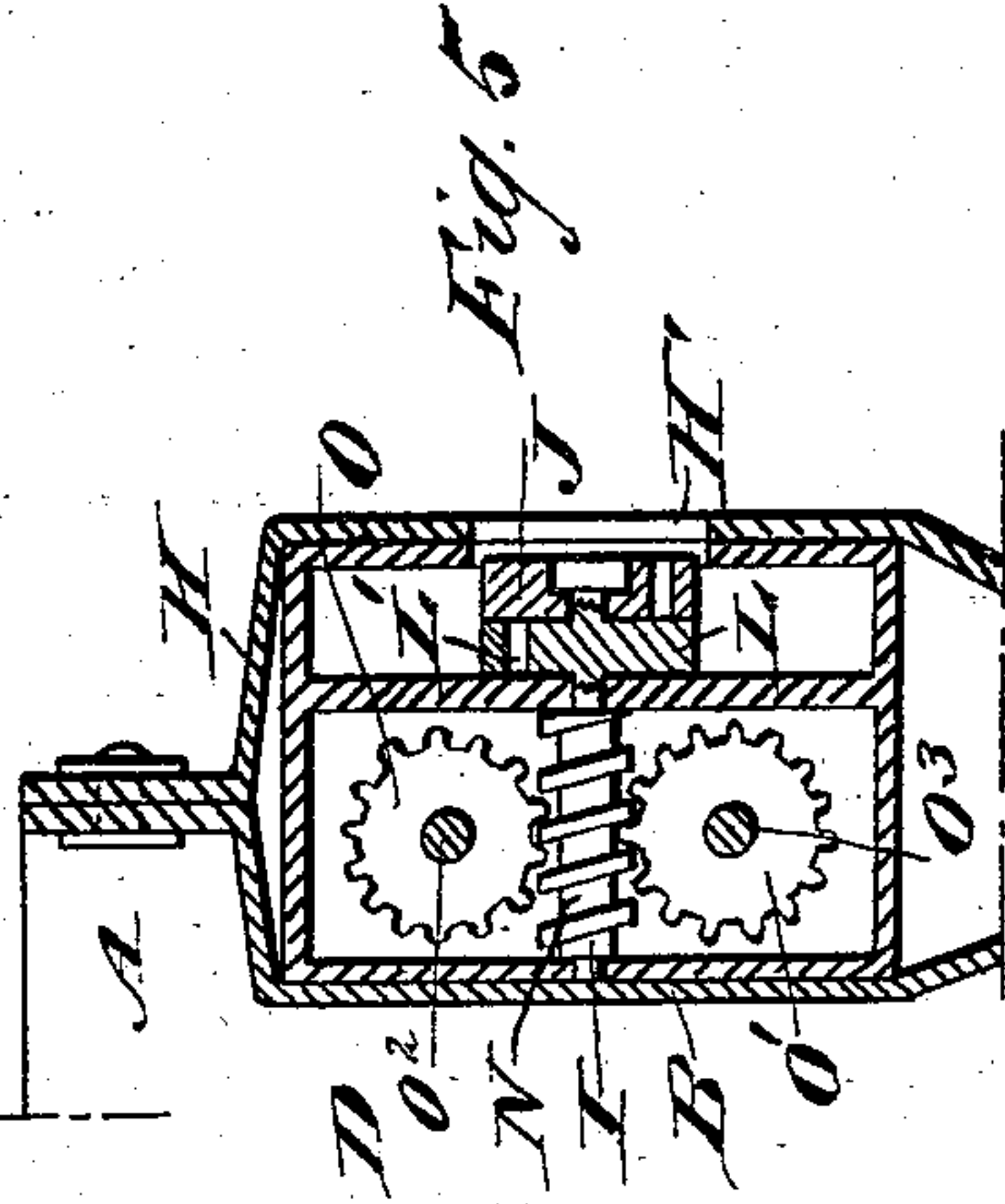
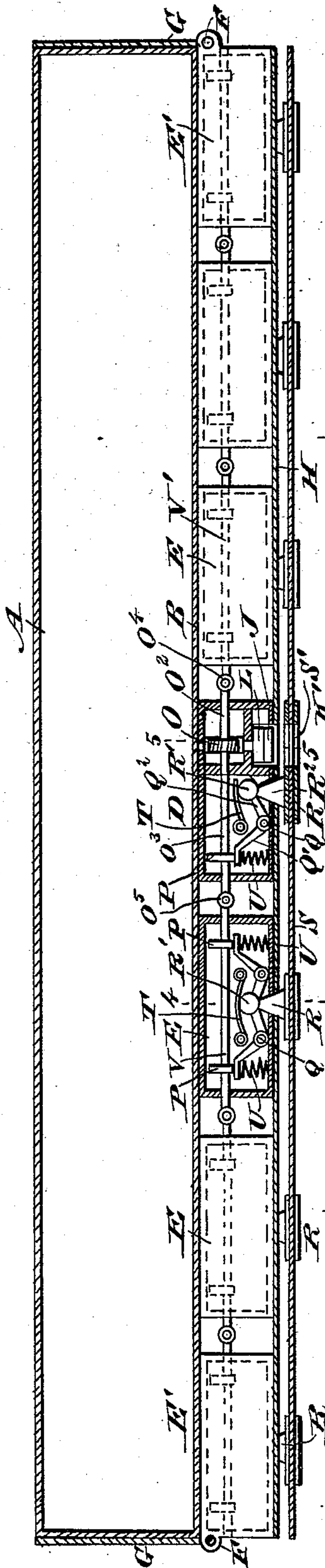
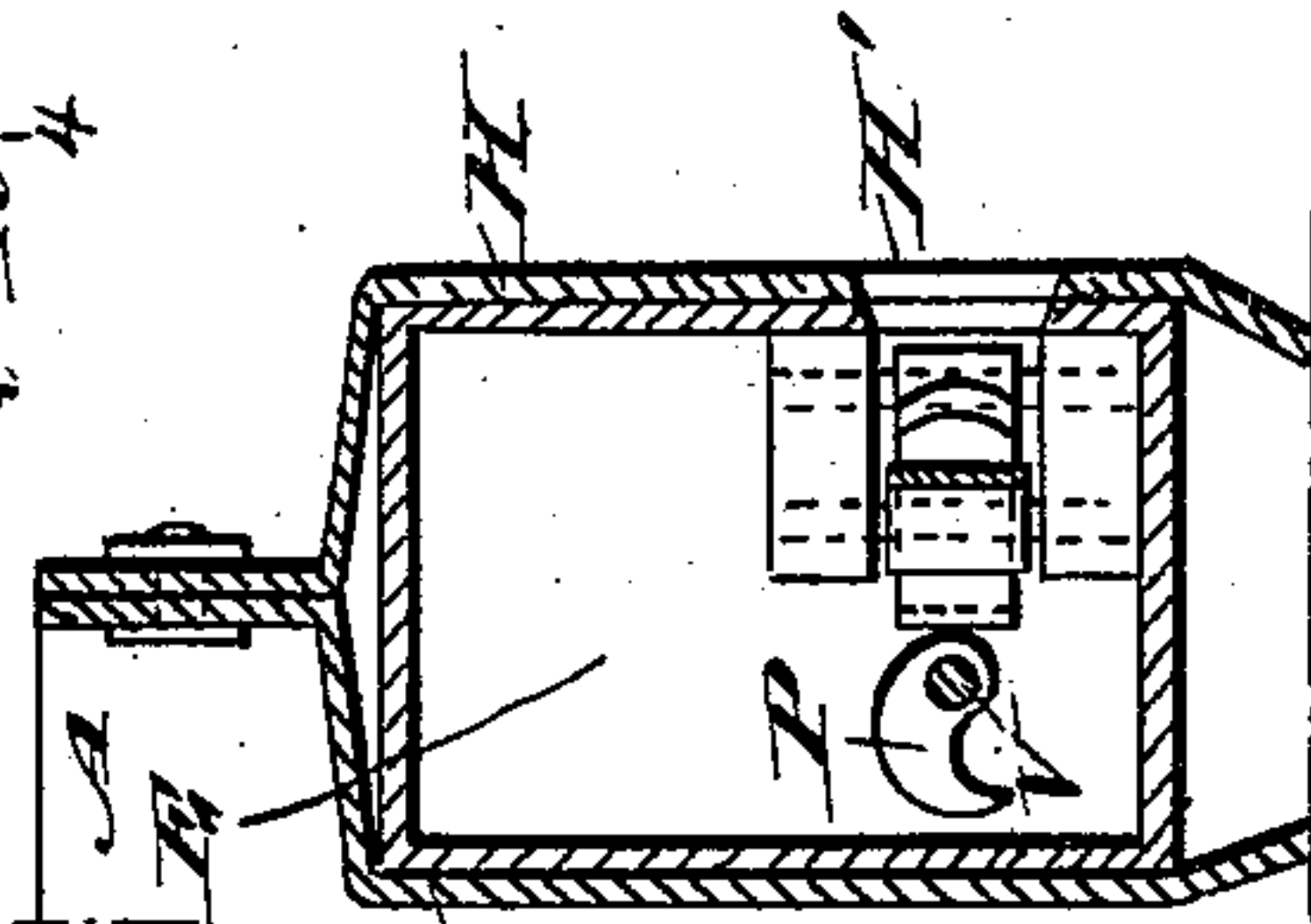
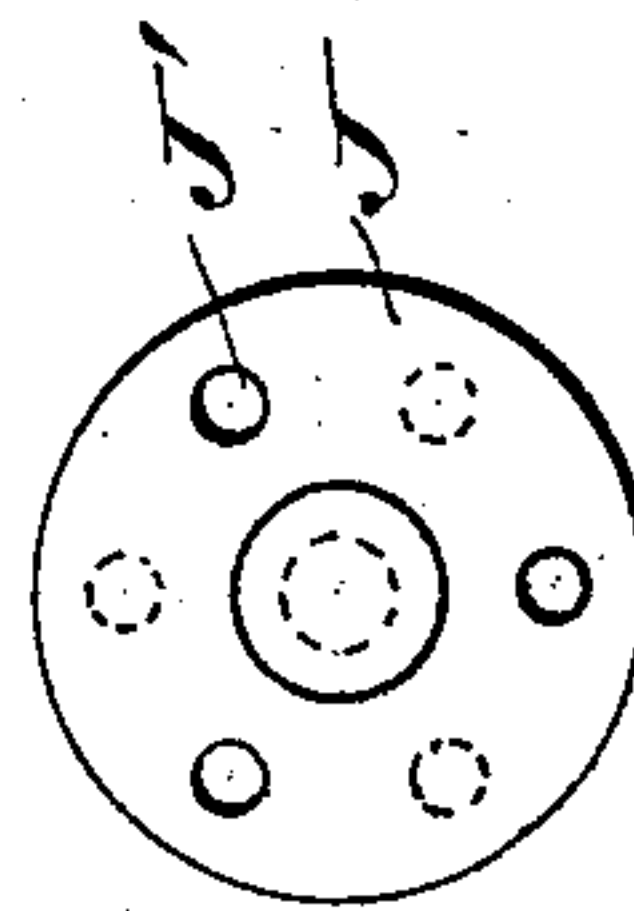


Fig. 6.



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UNITED STATES PATENT OFFICE.

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BAG-LOCK.

SPECIFICATION forming part of Letters Patent No. 486,159, dated November 15, 1892.

Application filed February 26, 1892. Serial No. 422,900. (No model.)

To all whom it may concern:

Be it known that we, FRANK DEPUY and LEWIS S. DEPUY, of Portland, in the county of Northampton and State of Pennsylvania, have invented a new and Improved Mail-Pouch Lock, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved mail-pouch lock which is simple and durable in construction and arranged to securely close and lock the mouth of the pouch throughout its length.

The invention consists principally of a series of connected locks operated simultaneously from a central locking mechanism.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional plan view of the improvement as applied, taken on the line 1 1 in Fig. 2. Fig. 2 is an end elevation of the same. Fig. 3 is a sectional front view of part of the same on the line 3 3 in Fig. 2 and with parts in elevation. Fig. 4 is an enlarged transverse section of the same on the line 4 4 of Fig. 1. Fig. 5 is a similar view of the same on the line 5 5 of Fig. 1. Fig. 6 is an enlarged face view of the key-plate, and Fig. 7 is a plan view of the key.

The mail-pouch A, of any approved construction, supports at the upper end of its front B a central locking mechanism D and a series of locks E, arranged at the sides of the central locking mechanism and extending near to the end of the pouch, the end locks E' being connected by a hinge F with a metallic plate G, riveted or otherwise secured to the end of the pouch, as will be readily understood by reference to Figs. 1 and 2. The several locks E and the end locks E' are actuated simultaneously from the central locking mechanism D. The several locks are alike in construction, with the exception of the central locking mechanism. The several locks E E' and the locking mechanism D have the back plates of their casings riveted to the front B of the pouch, while the fronts of the

casings are covered by a strip H, riveted at the top and bottom of the front B, as will be readily understood by reference to Figs. 2, 4, and 5. The casings of the several locks are thus securely held in place on the pouch and at the same time are covered up, so as not to be ready of access by unauthorized persons.

In the casing of the central locking mechanism D is mounted to turn a transversely-extending shaft I, on the front end of which is mounted to turn loosely a false key-plate J, formed with transversely-extending openings J', adapted to be engaged by the wards K' of the key K. The said wards K' are adapted to pass through the openings J' and into correspondingly-arranged openings L', formed in a disk L, secured to the shaft I directly in the rear of the false plate J. The apertures or openings J' in the false plate J are adapted to register with the apertures L' when the said false plate is turned by the key to the proper position.

On the shaft I in the rear of the disk L is secured or formed a worm-wheel N in mesh at the top and bottom with worm-wheels O and O', secured on shafts O² and O³, respectively, extending longitudinally and mounted to turn in suitable bearings in the ends of the casing of the locking mechanism D.

In order to insert the key K in the plate J and the disk L, an opening H' is formed in the strip H in front of the plate J and a like registering opening is formed in the front of the casing of the locking mechanism D. Thus when the key is inserted in the plate J and disk L, so that the wards K' engage the registering openings J' and L', then by turning the key the shaft I is turned and the worm-wheel N imparts a rotary motion to the worm-wheels O and O', so as to revolve the shafts O² and O³ simultaneously. On the shaft O³ is secured a cam P, (shown in detail in Fig. 4,) said cam being engaged at its periphery by the free end of the arm Q' of a bell-crank lever Q, pivoted in the casing and engaging with its other arm Q² the under side of the ball R', forming the head for a bolt R, having a conical shank R², fastened to a flap S, attached to the back of the mail-pouch A, as will be readily understood by reference to Fig. 2. The bolt R is adapted to pass with its head R' and part of its shank R² through

correspondingly-shaped openings in the strip H and the front wall of the casing of the locking mechanism D.

A spring T, held in the casing, presses on the head R', and a spring U, also held in the casing, presses on the arm Q' of the bell-crank lever Q, so as to hold the said arm in contact with the periphery of the cam P. Now when the bolt R is pressed into the casing it engages with its head R' the arm Q² of the bell-crank lever Q, so that on further rearward pressing of the bolt the said arm Q² snaps under the said head at the small end of the shank R², as can be plainly seen by reference to Fig. 1. When the bolt R is in this position, it is locked by the bell-crank lever Q, the cam P then being in a rearward position and the arm Q' resting on the small end of the said cam, thus preventing an outward pull on the bolt R. When the shaft O³ is turned so that the large end of the cam P imparts a swinging motion to the bell-crank lever Q, then the arm Q² glides off the head, and the bolt thus becomes unlocked and can be withdrawn from the casing by pulling on the flap S.

The shafts O² and O³ extend through the ends of the casing for the locking mechanism D and are pivotally connected at their outer ends by pivots O⁴ and O⁵, respectively, with shafts V and V', respectively, extending longitudinally through the casings of the locks E E', arranged at the sides of the central locking mechanism D. The shafts V and V' are again connected at their outer ends by pivots with similar shafts of the next-following locks E, and the several locks on both sides of the central locking mechanism are all connected in this manner, so that when the shafts O² and O³ are turned simultaneously by turning the key, as above described, the several shafts of all the locks are simultaneously rotated.

On each of the shafts V and V' within the casing of the respective lock E are arranged two cams P, acting on two bell-crank levers Q, adapted to engage with their arms Q' opposite sides of the head R' of the bolt R, also secured to the flap S. A spring T also presses on the head of each bolt R and springs U press on the several bell-crank levers. Thus when all the several cams P are in a rearward position, as shown in Fig. 4, and the several bolts are within their respective casings, then the bell-crank levers lock the said bolts in position, as previously described with reference to the lock in the locking mechanism D.

When it is desired to unlock all the locks, the operator inserts the key K, as before described, in the central locking mechanism D, and then turns the key so as to rotate the several shafts O², O³, V, and V', whereby the cams P are simultaneously moved forward to press the bell-crank levers Q, in order to disengage their arms Q² from the heads R' of the bolts R. By then pulling on the flap S

the several bolts are disengaged from the respective locks and the mouth of the pouch will be opened. The bell-crank levers Q when in this position permit of ready entrance of the several bolts R; but in case the cams P are swung rearward, as shown in Fig. 4, then the bolts R can also be engaged with their respective bell-crank levers by pressing on the bolts, so as to exert a pressure on the arms Q² of the bell-crank levers Q, which latter thus swing, compressing with their arms Q' the springs U. As soon as the arms Q² have snapped under the heads R' of the several bolts, then the latter are locked, as above described.

The spring T for each bolt R serves to hold the head R' of each bolt in engagement with the arm Q² to prevent accidental moving of the said bell-crank levers in case the pouch is shaken.

It is understood that in the flap S is also an opening S', adapted to register with the opening H' in the strip H to permit of inserting the key K in the central locking mechanism D.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination, with the casing having a hasp or bolt opening and a dog or lever mounted in said casing and extending across said opening into the path of the hasp or bolt to lock the same, of a shaft journaled in the case and provided with a cam to engage said dog or lever and retract it, a worm-wheel on the shaft, and a transverse key-operated worm-shaft engaging said worm-wheel, substantially as set forth.

2. In a mail-pouch lock, the combination, with a mail-pouch provided with a flap carrying a series of bolts, of a central locking mechanism adapted to be operated by a key and adapted to receive one of the bolts of the said flap and a series of locks pivotally connected with each other and also connected with the said central locking mechanism and operated therefrom, said series of locks being adapted to be engaged by the said bolts on the flap, substantially as shown and described.

3. In a mail-pouch, the combination, with a flap attached to the pouch and carrying bolts having shanks and ball-heads, of a lock comprising a casing having openings for the entrance of the said bolt, bell-crank levers held in the said casing and adapted to engage the heads of the said bolts, and a shaft carrying cams engaging the said bell-crank levers, substantially as shown and described.

4. In a mail-pouch, the combination, with a flap attached to the pouch and carrying bolts having shanks and ball-heads, of a lock comprising a casing having openings for the entrance of the said bolt, bell-crank levers held in the said casing and adapted to engage the heads of the said bolts, a shaft carrying cams engaging the said bell-crank levers, and springs pressing against the said bell-crank

levers to hold the latter in contact with the said cams, and a key-operated worm-gear for actuating said shafts, substantially as shown and described.

5 5. In a mail-pouch, the combination, with a flap attached to the pouch and carrying bolts having shanks and ball-heads, of a lock comprising a casing having openings for the entrance of the said bolt, bell-crank levers held
10 in the said casing and adapted to engage the heads of the said bolts, a shaft carrying cams engaging the said bell-crank levers, and a spring held in the said casing and pressing on the head of the said bolt, substantially as
15 shown and described.

6. In a mail-pouch lock, the combination, with a central locking mechanism provided with shafts mounted to turn, of a series of locks, each provided with a shaft pivotally connected at its ends with the shafts of the 20 adjacent locks, the shafts of the innermost locks being pivotally connected with the two shafts of the central locking mechanism, substantially as shown and described.

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