

(Model.)

S. LANDGRAF.

LOCK FOR BOXES, TRUNKS, &c.

No. 350,371.

Patented Oct. 5, 1886.

Fig.1.

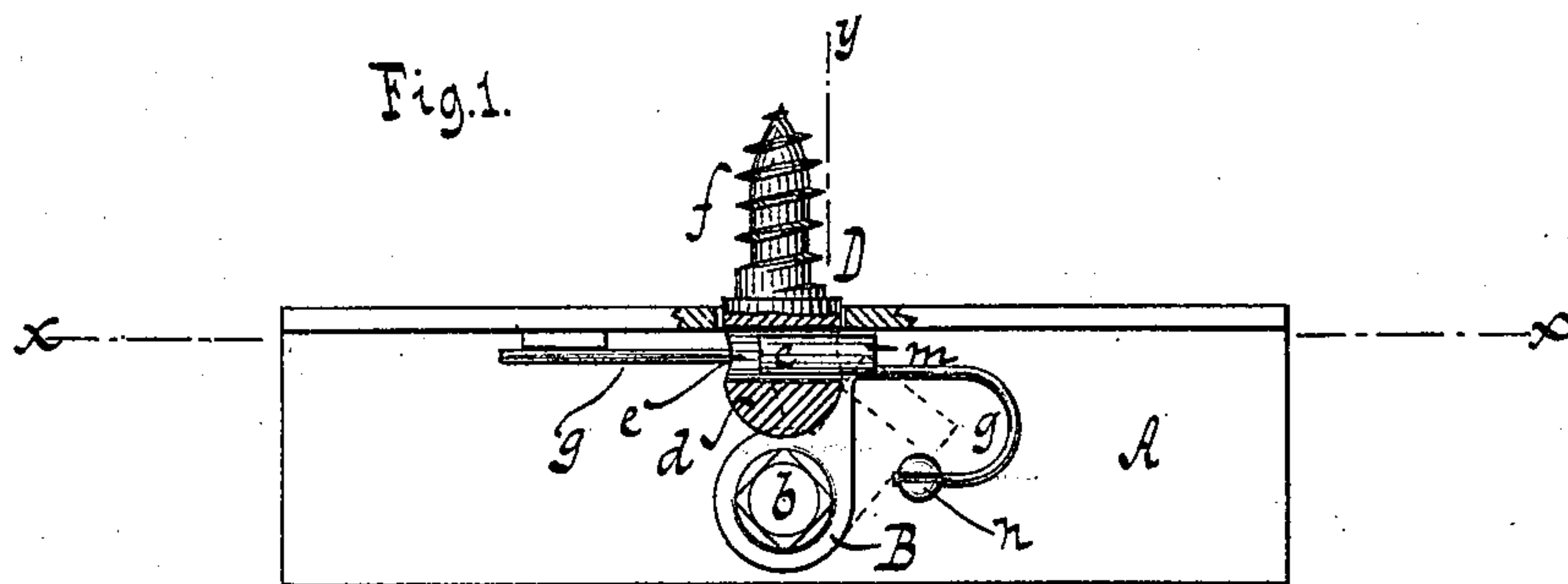


Fig.2.

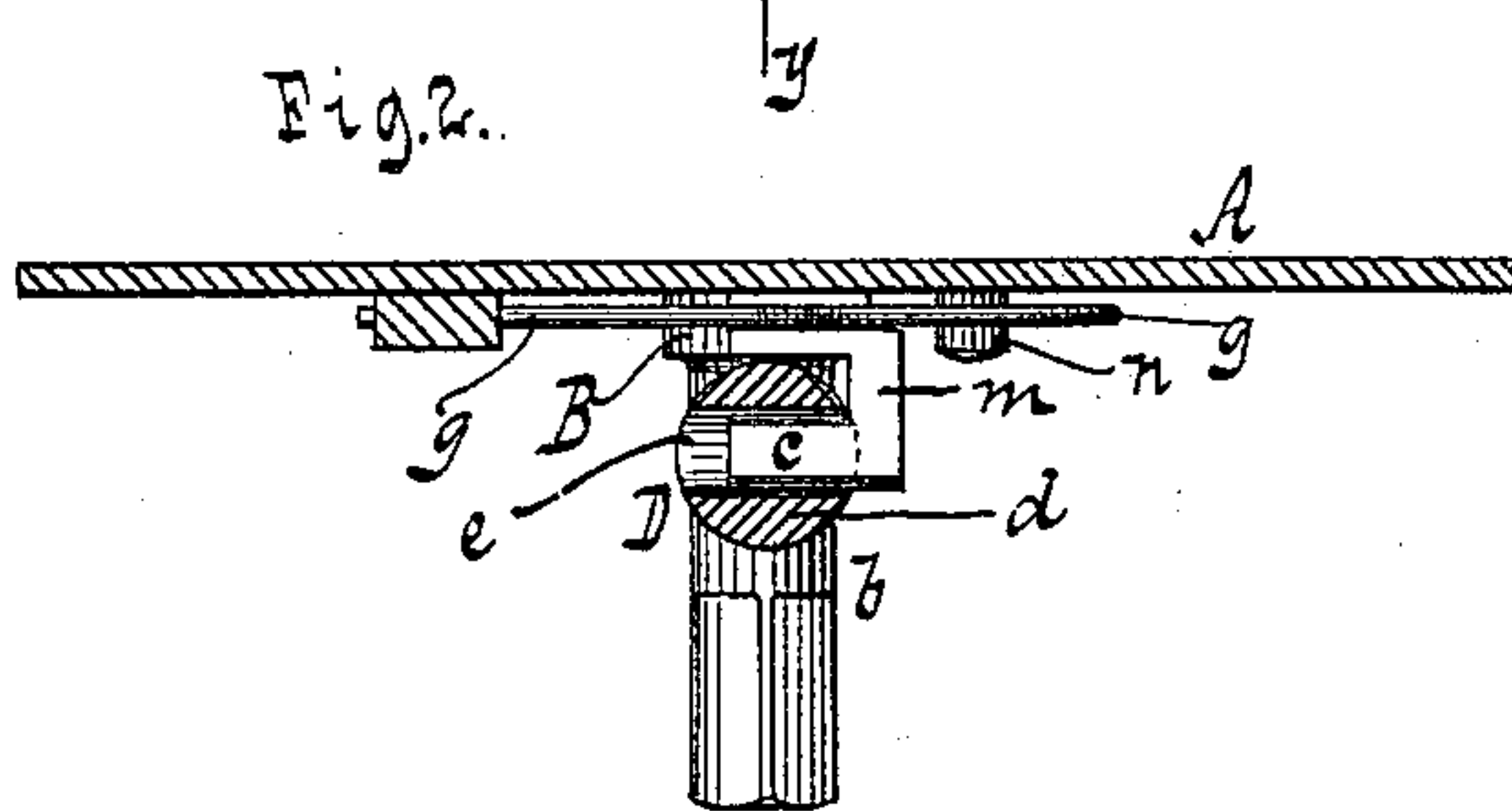


Fig.3.

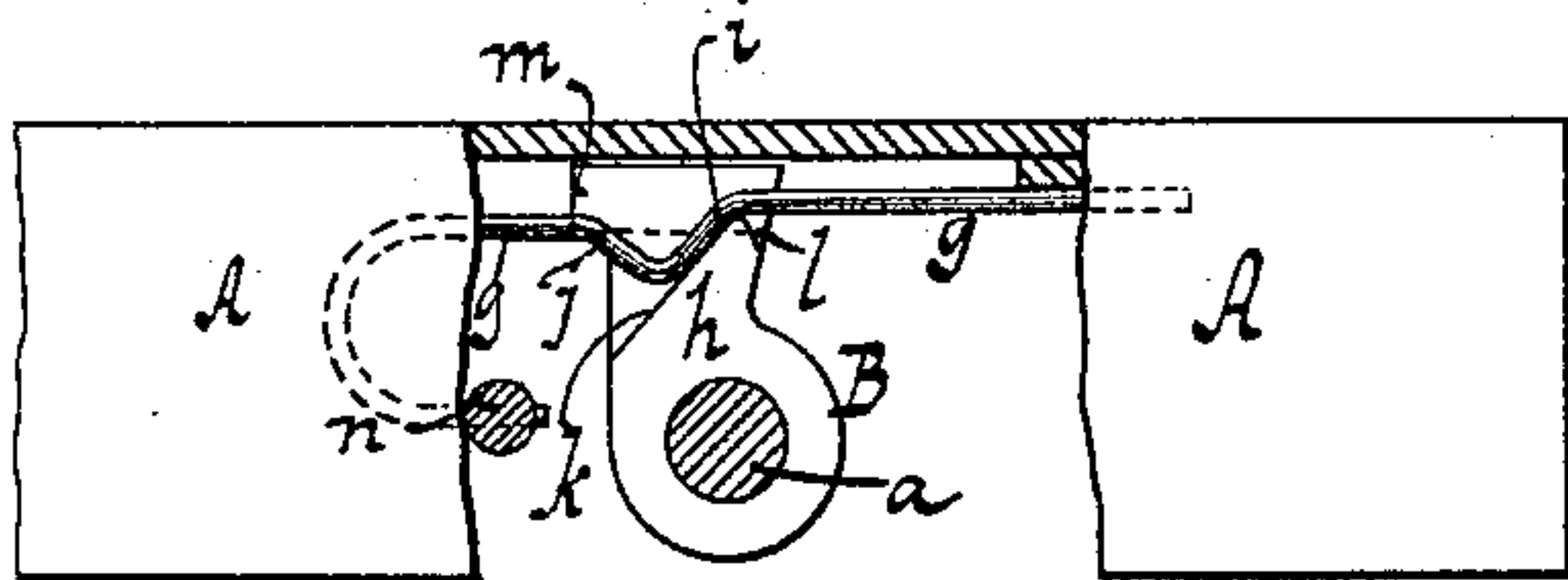


Fig.4.

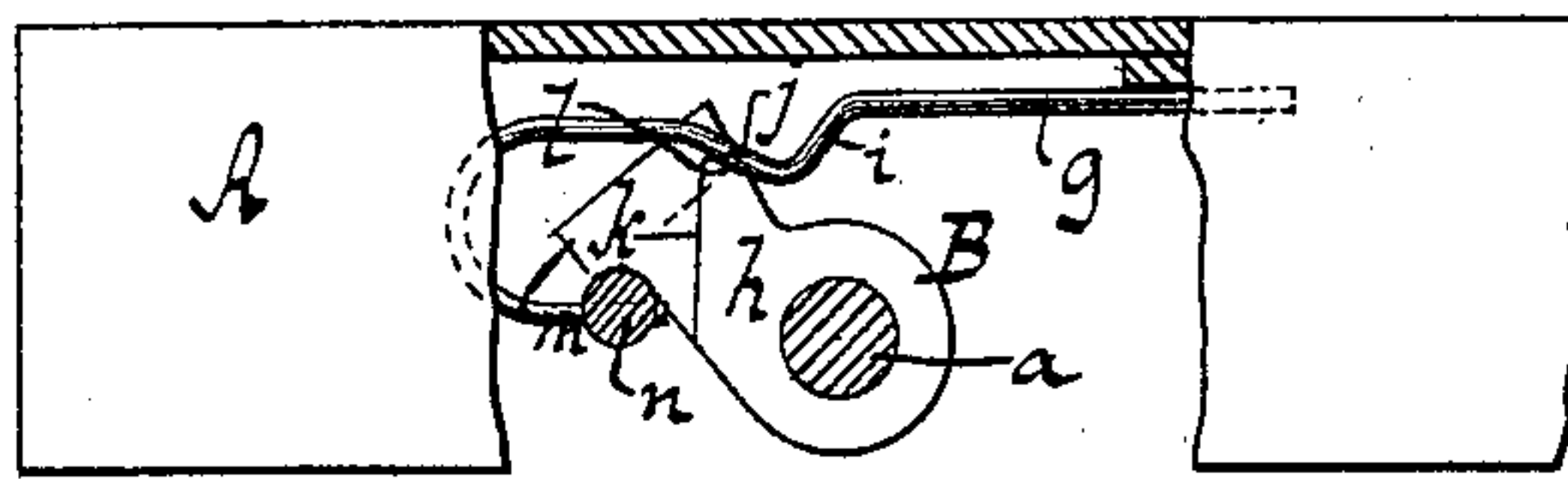
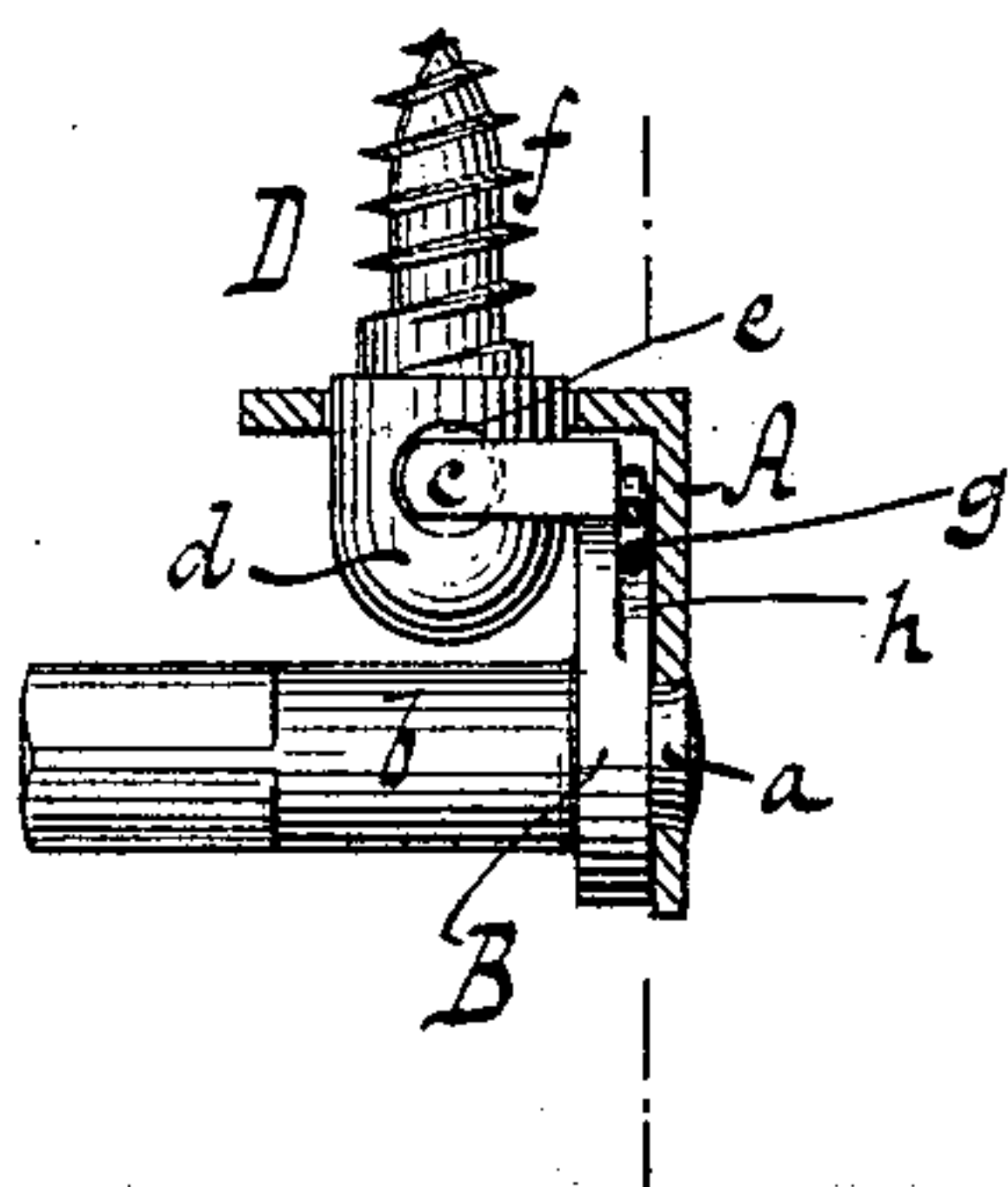


Fig.5



WITNESSES:

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LOCK FOR BOXES, TRUNKS, &c.

SPECIFICATION forming part of Letters Patent No. 350,371, dated October 5, 1886.

Application filed August 5, 1886. Serial No. 217,085. (Model.)

To all whom it may concern:

Be it known that I, SEPASTIAN LANDGRAF, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Locks for Boxes, &c., of which the following is a specification.

My invention relates to locks such as are especially adapted for use on boxes, trunks, &c.; and it consists in certain novel features of construction, fully pointed out in the following specification and claims, and illustrated in the accompanying drawings, in which—

Figure 1 represents a sectional side view. Fig. 2 is a horizontal section on the line $x x$, Fig. 1. Fig. 3 is a sectional rear view showing the position of the tumbler when locked. Fig. 4 is a similar view showing the position of the tumbler when unlocked. Fig. 5 is a cross-section of the lock on the line $y y$, Fig. 1.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the lock-plate.

B is the tumbler, from one side of which projects a pivot, a , and from the other side projects the spindle b , the outer end of which is squared to receive a key or knob. The tumbler B, which is provided at its upper end with a hook, c , turns on the pivot a , having its bearings in the lock-plate A.

D is a catch, which in the example shown in the drawings is in the form of a knob, d , through which passes a hole, e , with which the hook c on the tumbler engages when the lock is locked. A screw-threaded shank, f , on the catch D, which can be screwed into the box-cover, serves to hold the catch in position.

To retain the tumbler B in the positions necessary to insure the locking and unlocking of the lock, I employ a spring, g , one end of which is secured to a stud, n , which will be hereinafter described, while the other end rests against the upper flange of the lock-plate. Near its center is formed a V-shaped or approximately V-shaped bend formed by the two divergent branches i and j . On the rear face of the tumbler, close to the lock-plate, is formed a shoulder, h , of the form of an inverted V, having two inclined sides, k and l , on either

one of which the spring g may act. When the hook c is locked into the catch D, the branch i of the bend in the spring rests on the inclined side k of the shoulder on the tumbler, thereby holding the tumbler in the required position. When it is desired to unlock the hook c from the catch, the tumbler is turned on its pivot a either by a knob or key, thereby causing the bend in the spring g to ride over the apex of the shoulder on the tumbler and to drop behind said apex, so that the branch j of the spring will rest on the inclined side l of the shoulder on the tumbler and hold the latter in an unlocked position. The action of the spring on the inclined sides of the shoulder has a tendency to carry the tumbler past the positions required for locking and unlocking, to prevent which it is necessary to provide stops to limit its oscillations. This is accomplished when the tumbler is in the locking position by the tail m of the hook c , which abuts against the upper portion of the lock-plate, against which it is held by the spring g , thereby insuring the correct locking position. The stud n , which projects from the inner surface of the lock-plate, and to which the spring g is attached, serves to arrest the motion of the tumbler when the same has reached the position required for unlocking, in which position it is held against the stud by the spring.

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

1. The combination, with a catch, D, of the oscillating tumbler B, provided with the hook c , to engage the catch within the lock-case, and having a side shoulder, h , and a spring, g , having a bend to engage said shoulder, substantially as and for the purpose described.

2. The combination, with the catch D, of the oscillating tumbler B, the hook c , projecting from said tumbler and adapted to engage said catch, the shoulder h , formed on said tumbler, and the spring g , having a bend formed by the branches $i j$, adapted to engage said shoulder, substantially as described.

3. The combination, with the catch D, of the oscillating tumbler B, the hook c , projecting from said tumbler and adapted to engage with the catch, the shoulder h , formed on the

tumbler and having inclined sides *k* and *l*, and the spring *g*, having a bend adapted to engage said inclined sides of the shoulder *h*, substantially as described.

- 5 4. The combination, with the catch *D*, of the oscillating tumbler *B*, the hook *c*, projecting from said tumbler and constructed to abut against the lock-plate when in the locking position, the shoulder *h*, formed on the tumbler,
10 and having inclined sides *k* and *l*, the spring *g*, having a bend constructed to engage said

inclined sides of the shoulder *h*, and the spring-supporting stud *n*, forming a stop for the tumbler, substantially as described.

In testimony whereof I have hereunto set 15 my hand and seal in the presence of two subscribing witnesses.

SEPASTIAN LANDGRAF. [L. S.]

Witnesses:

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E. F. KASTENHUBER.