

No. 803,169.

PATENTED OCT. 31, 1905.

J. KIRBY, JR.
SASH LOCK.

APPLICATION FILED DEC. 28, 1904.

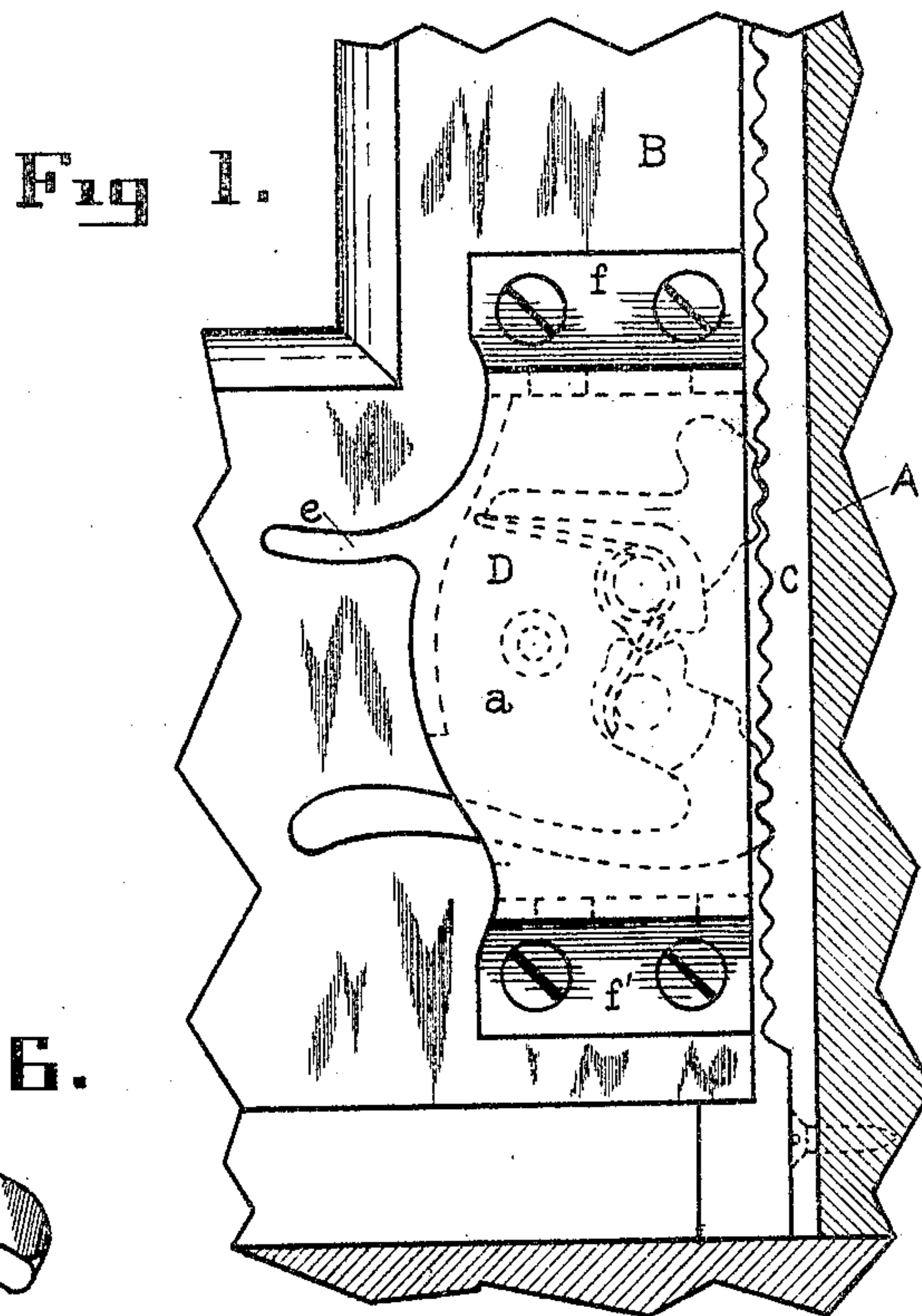


Fig 5.

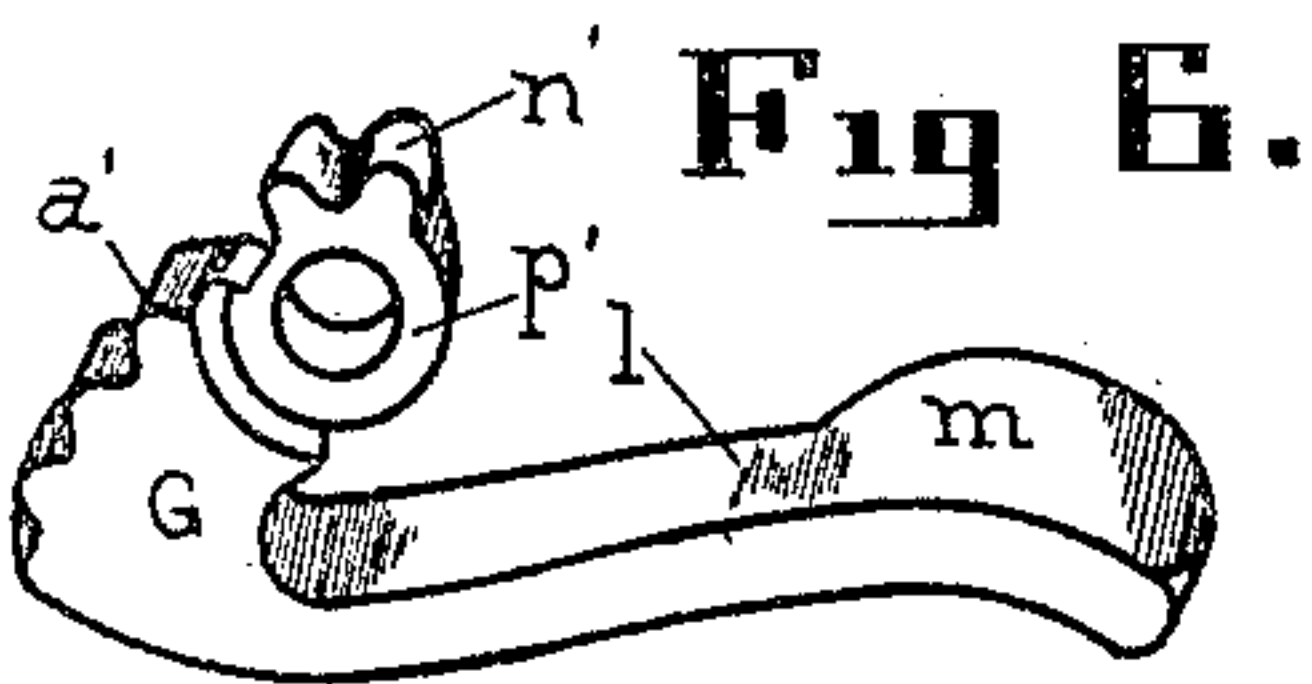
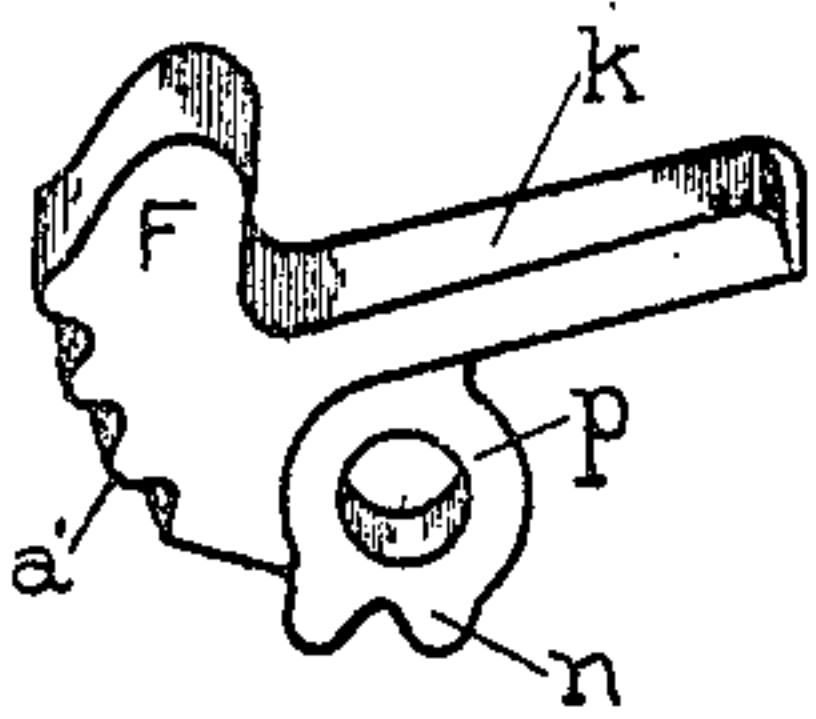


Fig 4.

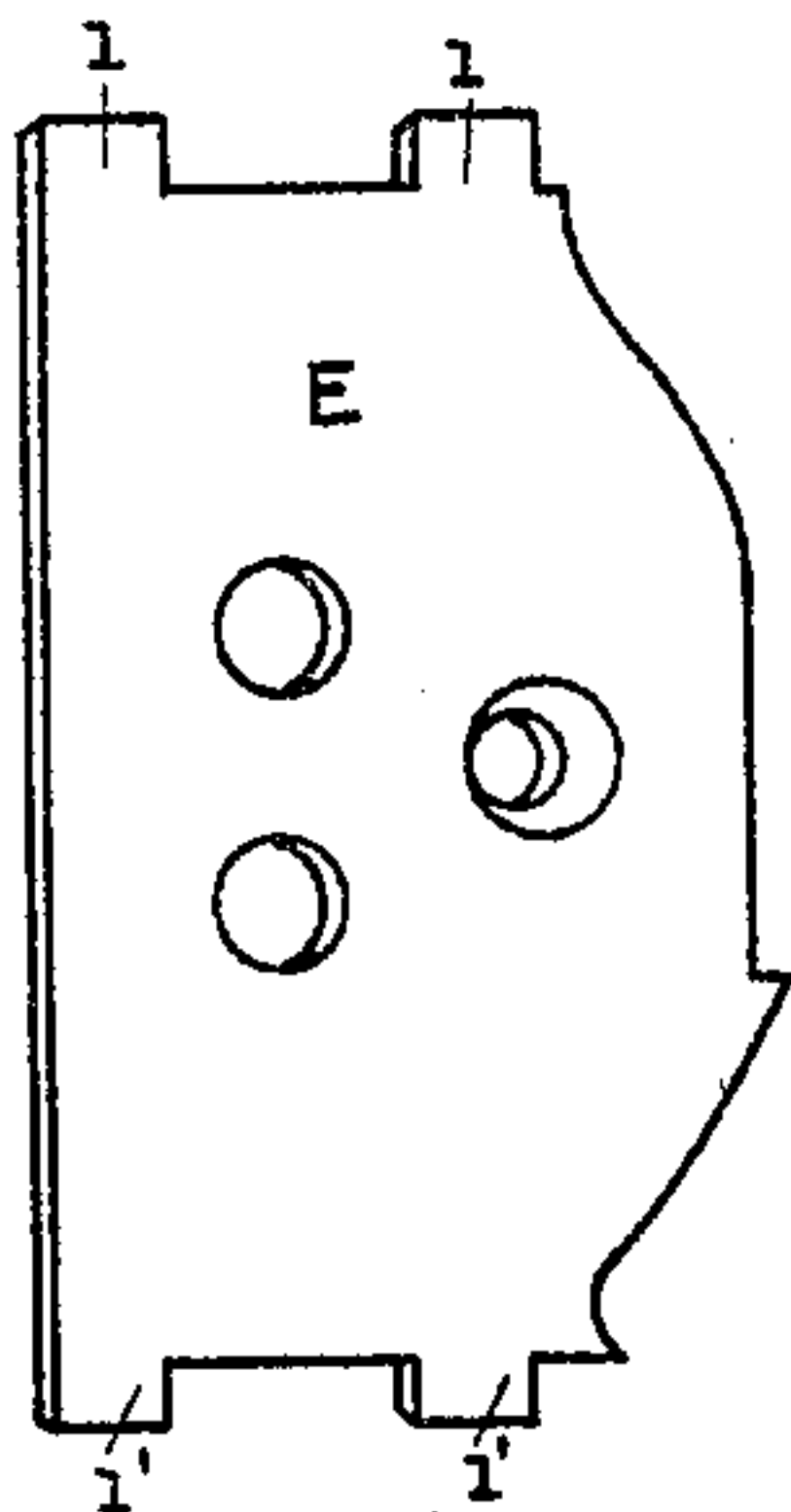


Fig 3.

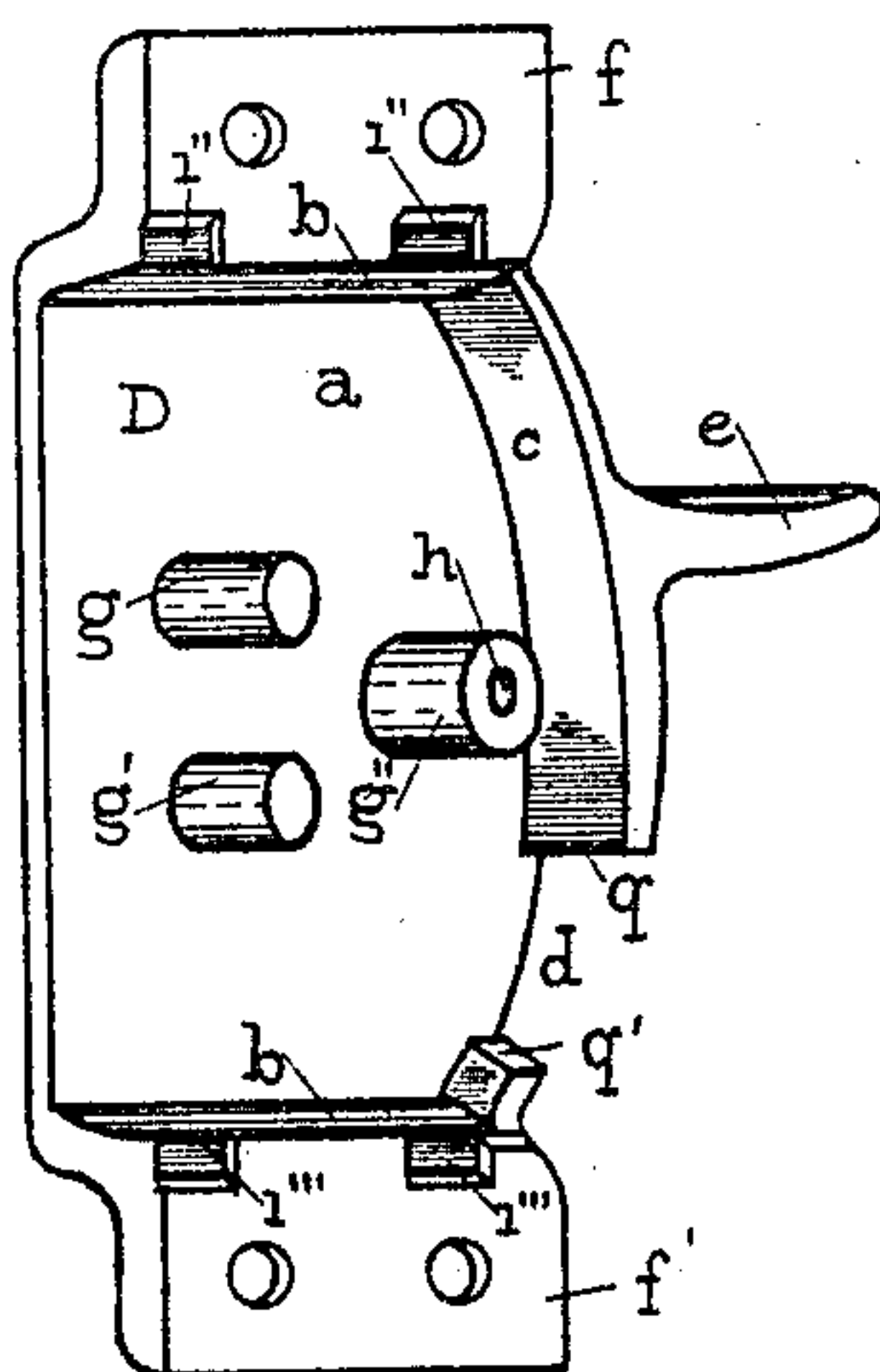
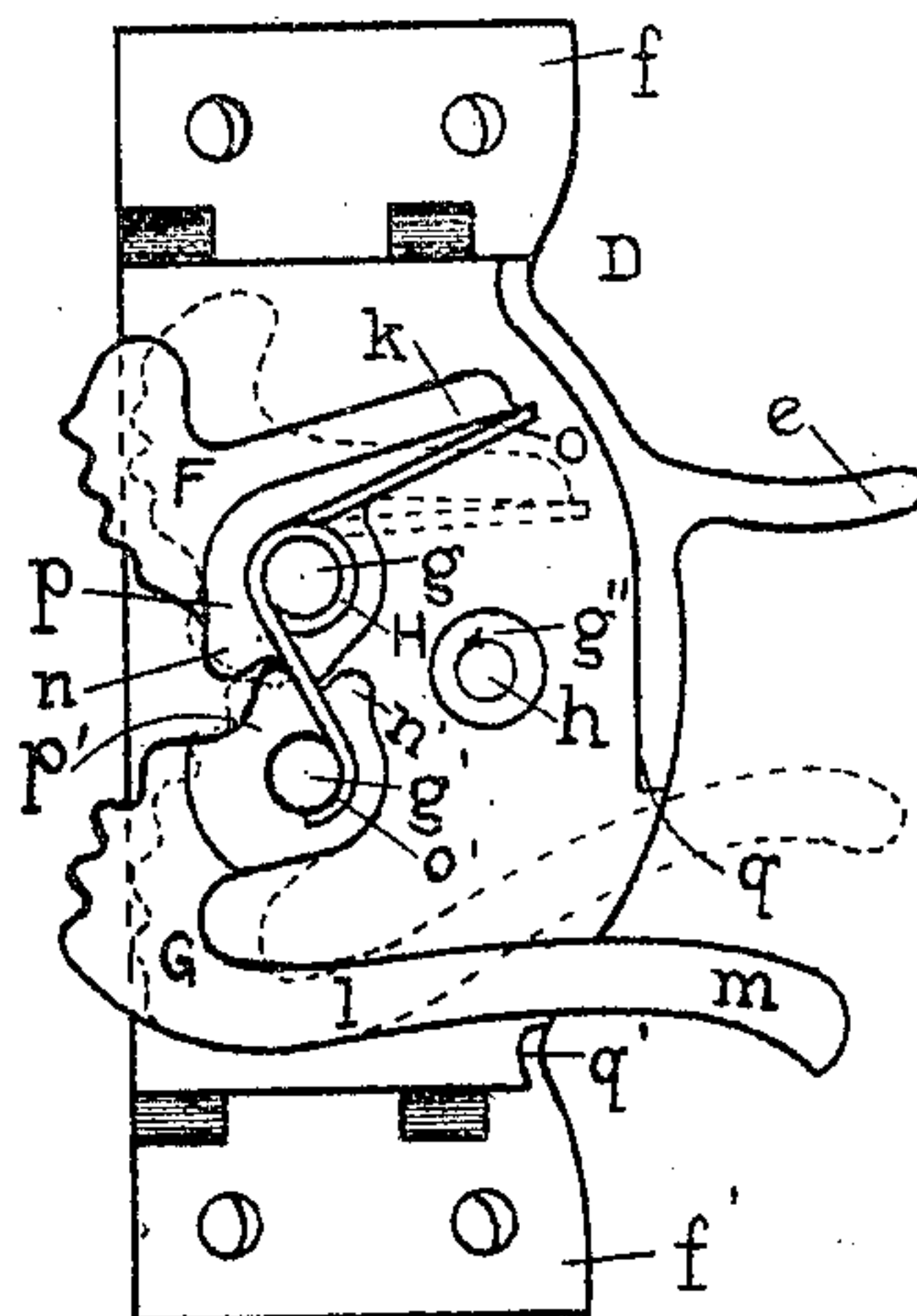


Fig 2.



Attest.

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SASH-LOCK.

No. 803,169.

Specification of Letters Patent.

Patented Oct. 31, 1905.

Application filed December 28, 1904. Serial No. 238,599.

To all whom it may concern:

Be it known that I, JOHN KIRBY, Jr., a citizen of the United States, and a resident of the city of Dayton, in the county of Montgomery, in the State of Ohio, have invented certain new and useful Improvements in Sash-Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming a part of this specification.

My invention relates to sash-locks such as are employed for locking the sash of railroad-cars, and more particularly to the class of sash-locks which are adapted to hold the sash in any desired position, either open or closed, by means of a plurality of pivoted levers having their faces serrated and cooperating with a rack secured to the window-frame and provided with teeth with which the serrated faces of the levers engage; and it has for its object to simplify and improve upon the construction of such sash-locks, as well as to contribute security against undue falling of the sash when in a raised position.

To these ends and with a view to convenience in manufacture my invention consists in certain details and combination of parts, as will hereinafter be fully described, and pointed out in the claims at the end of this specification.

In the accompanying drawings, which form a part hereof, Figure 1 is a front elevation of the lock applied to a sash and shows the levers in engagement with the rack and the sash in an elevated position; Fig. 2, an elevation of the reverse side of the lock, the normal positions of the levers being shown in full lines and the abnormal positions thereof in dotted lines, the back plate being removed; Fig. 3, a rear perspective view of the casing; Fig. 4, a plan view of the back plate; Fig. 5, a perspective view of the upper lever, and Fig. 6 a similar view of the lower lever.

In the said drawings similar reference-letters indicate corresponding parts throughout the several figures thereof.

A denotes the window-casing, B the sash, and C a toothed rack secured to the casing in the usual manner.

D represents the lock-case, comprising, in

integral formation, a front member *a*, end walls *b b*, rear wall *c*, cut away, as shown, to form an open space *d*, and a rearwardly-extending thumb-piece *e*, the said end walls being provided with flanges *f f'*, having screw-holes to receive screws for fastening the lock to the sash in the ordinary manner. On the inside of the case there are located posts *g*, *g'*, and *g''*, the latter being bored and screw-threaded at *h* to receive a screw by which a back plate E is held in place to complete the case, the said plate having ears *i i'*, that fit into recesses *i'' i'''*, formed in the end walls of the case, the front edge of which, having no wall, is open to permit of the operation of the locking-levers, presently to be described.

The locking mechanism consists of upper and lower eccentric levers F G, pivotally mounted upon the posts *g g'* and having serrated or toothed outer faces *a'* to engage the teeth of the rack C. The upper of said levers is pivoted to the post *g* and has a rearwardly-extending arm *k*, the lower one being pivoted to the post *g'* and having a rearwardly-extending arm *l* projecting through the space *d* and forming a finger-piece *m* at the outer end thereof. These levers are each provided with gear-teeth *n n'*, which mesh with each other, as clearly shown in Fig. 2, so that an upward pressure on the finger-piece *m* will operate both levers and release the teeth thereof from engagement with the teeth of the rack C, leaving the sash to slide freely, while when the pressure on the said lower lever is released the teeth on the outer faces of both levers will be forced into locking engagement with the corresponding teeth of the rack C by means of a spring H, coiled around the post *g* and having branches *o* and *o'*, the outer end of the branch *o* bearing against the end of the arm *k* and the outer end of the branch *o'* bearing against the post *g'*, as more clearly shown in Fig. 2, the movement of the levers being regulated by the length of the space *d*, as the ends *q q'* of the wall *c* serve as stops to limit the same. The said upper and lower levers are reduced in thickness at *p p'* to provide the necessary room for the spring.

Having thus fully described my invention, I claim—

1. In a sash-lock, the combination with a case therefor having a thumb-piece extending rearwardly therefrom, of upper and lower eccentric levers pivoted within the case, a

spring fulcrumed upon the pivot of the upper lever and having one end bearing against the pivot of the lower lever and the opposite end against an extension of the upper lever; the
5 lower of said levers being provided with an operating-arm extending out and beyond the rear edge of the case and each of the said levers having a plurality of projecting members which engage each other for the purpose
10 of moving said levers in opposite directions by a lifting pressure upon the said operating-arm and in reverse directions by pressure of the said spring exerted upon the upper lever, substantially as and for the purpose set forth.
15 2. In a sash-lock, the combination with a case comprising a front member, a back plate and end and rear walls but no front wall, a thumb-piece formed on the rear wall of the case, upper and lower eccentric levers pivot-

ally mounted within the case and each having a plurality of projecting members which engage each other to move both levers in unison, a spring fulcrumed upon a fixed member and having one end bearing against a fixed support therefor and its opposite end bearing against one of said levers to exert pressure thereon, and means combined with the lower of said levers for operating both levers, substantially as and for the purpose set forth. 20 25 30

In testimony that I claim the foregoing as my own I hereunto sign my name, this 22d day of December, 1904, in the presence of two witnesses.

JOHN KIRBY, JR.

Witnesses:

N. EMMONS, Jr.,

H. D. HENDRICK.