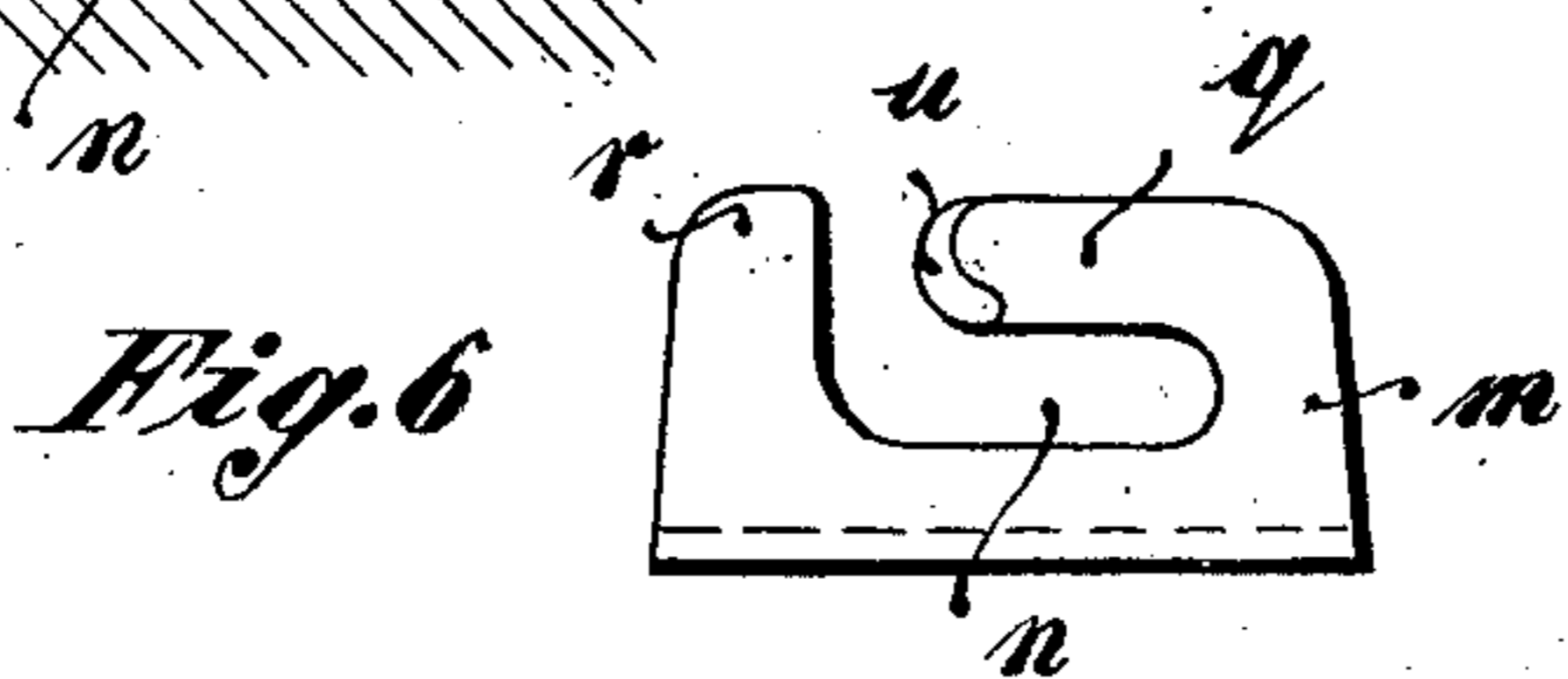
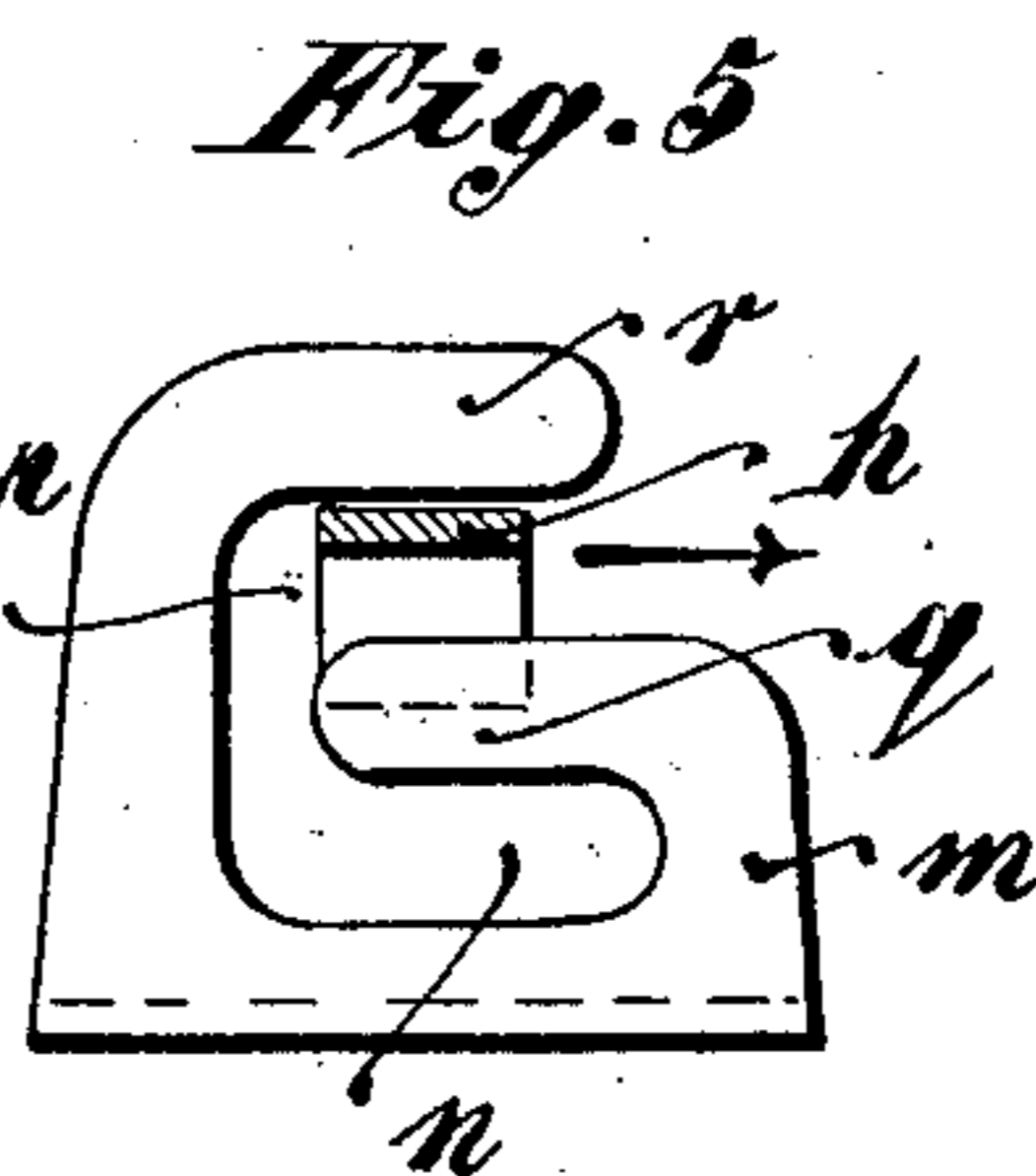
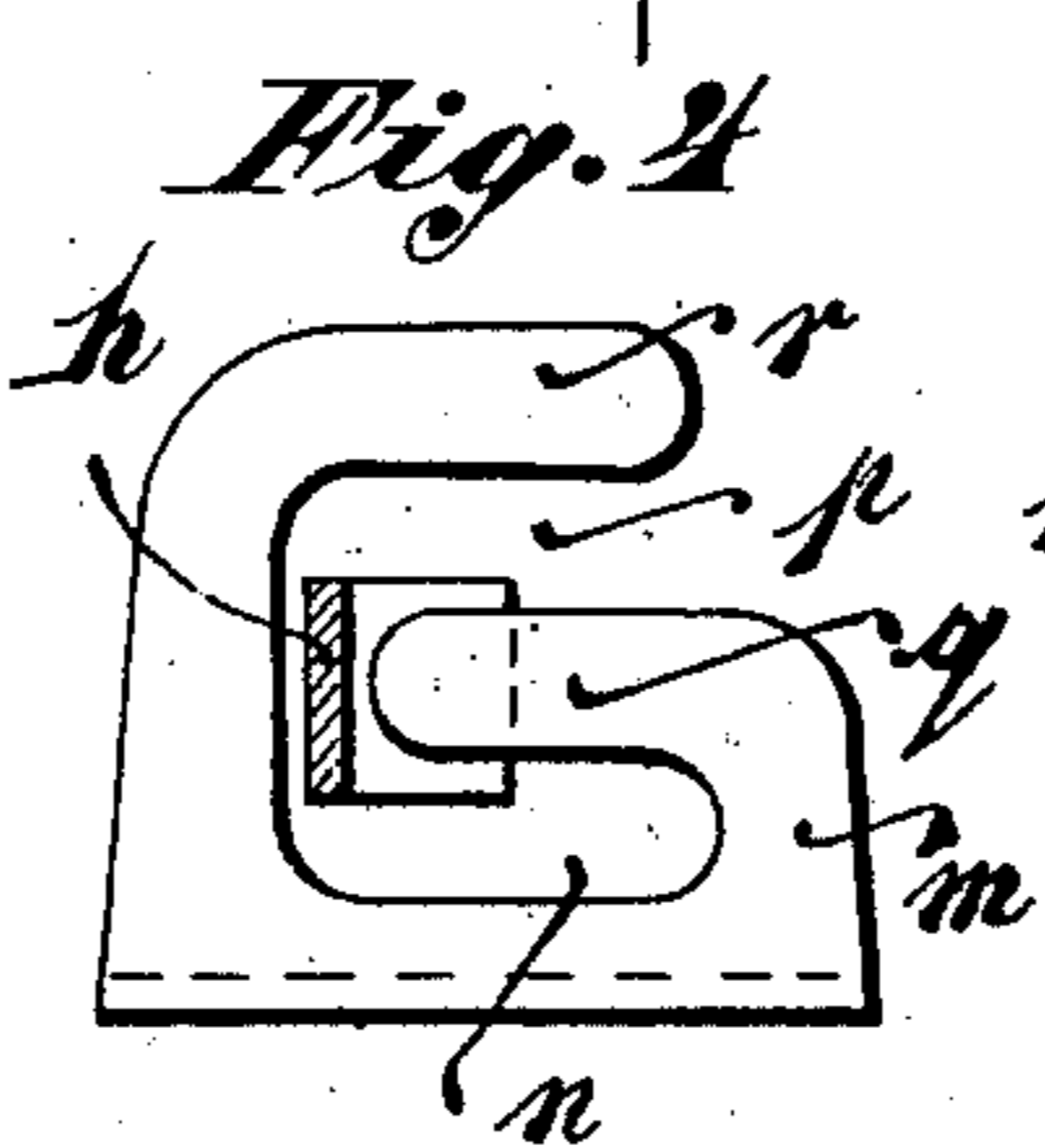
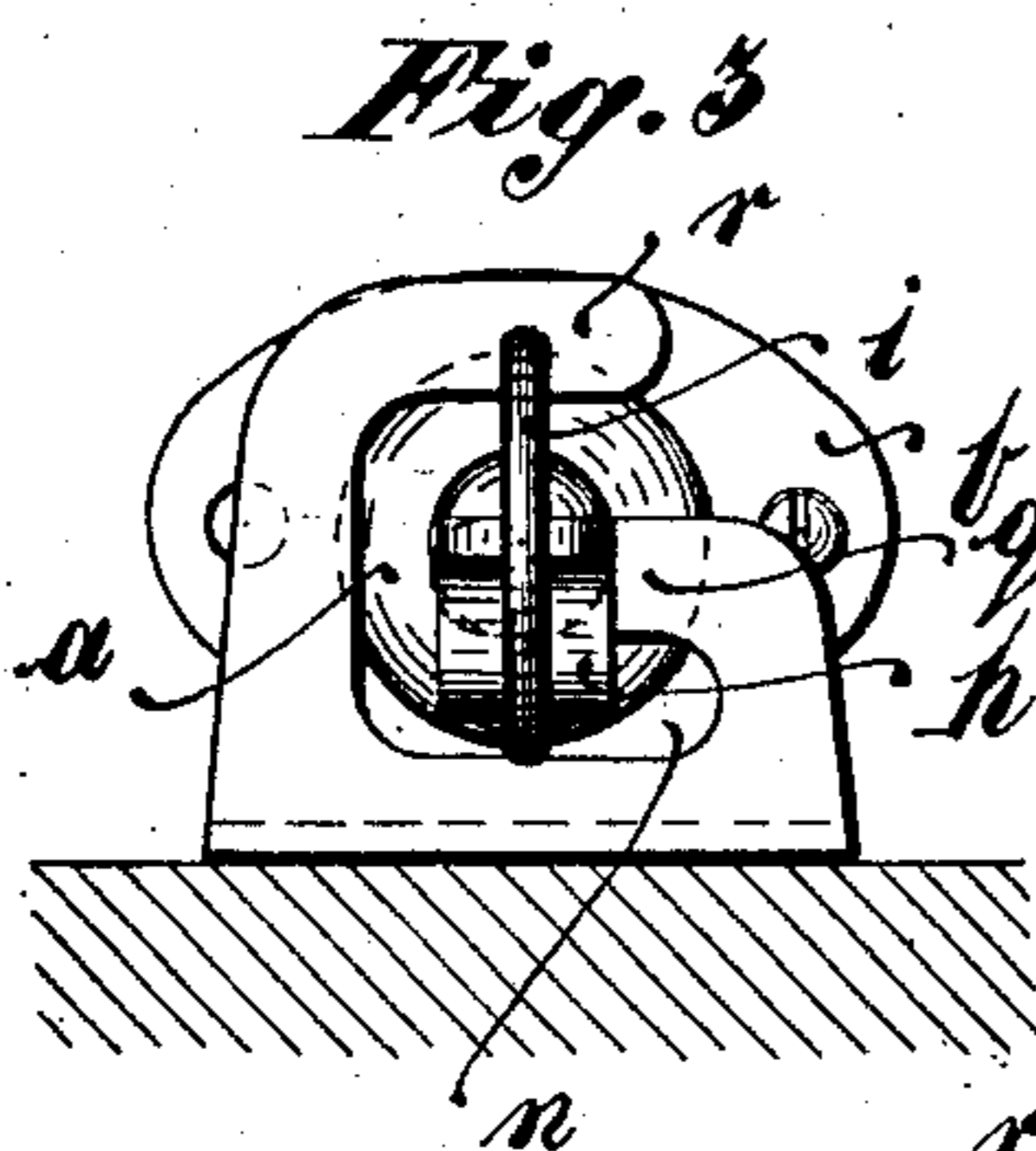
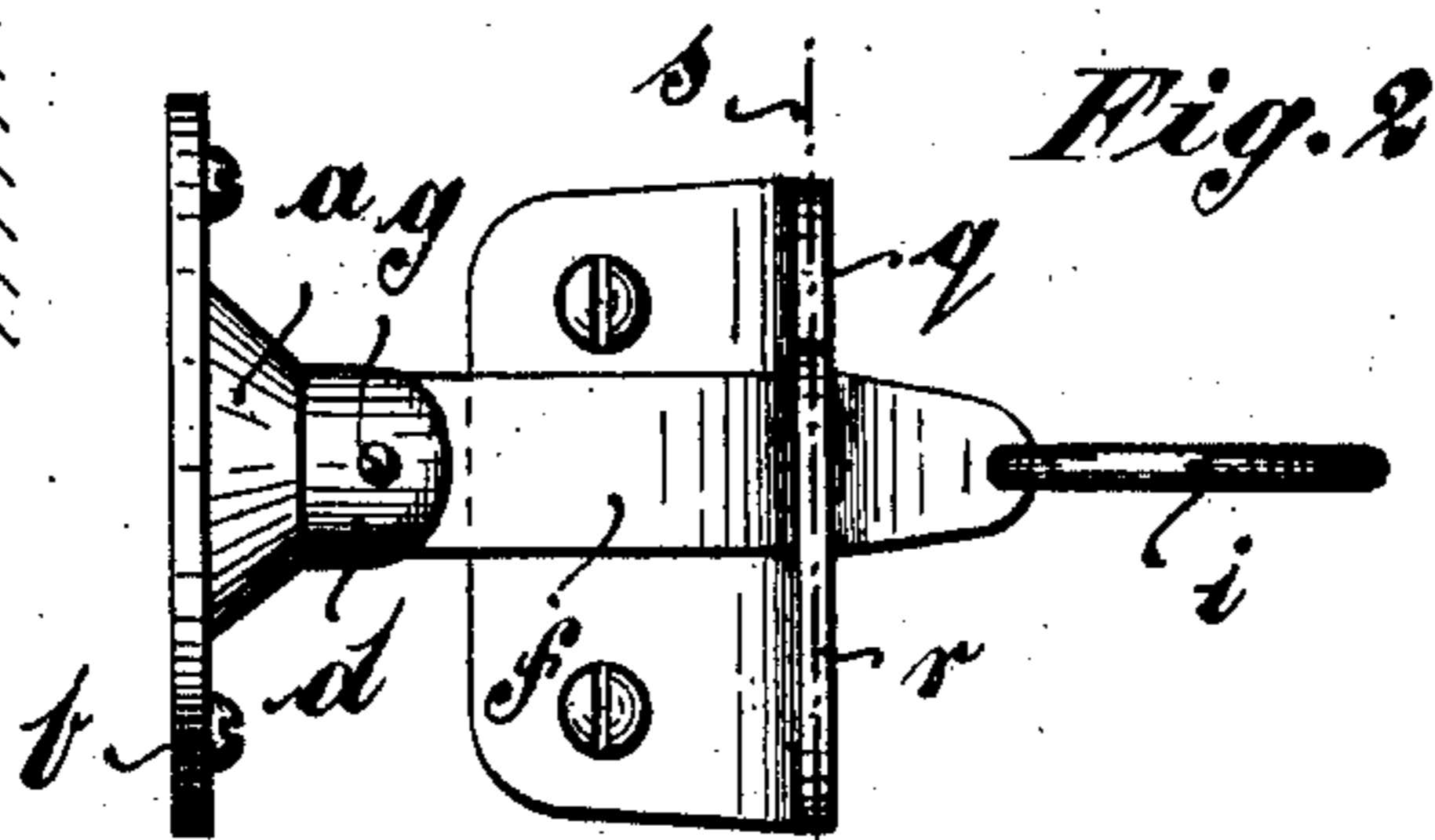
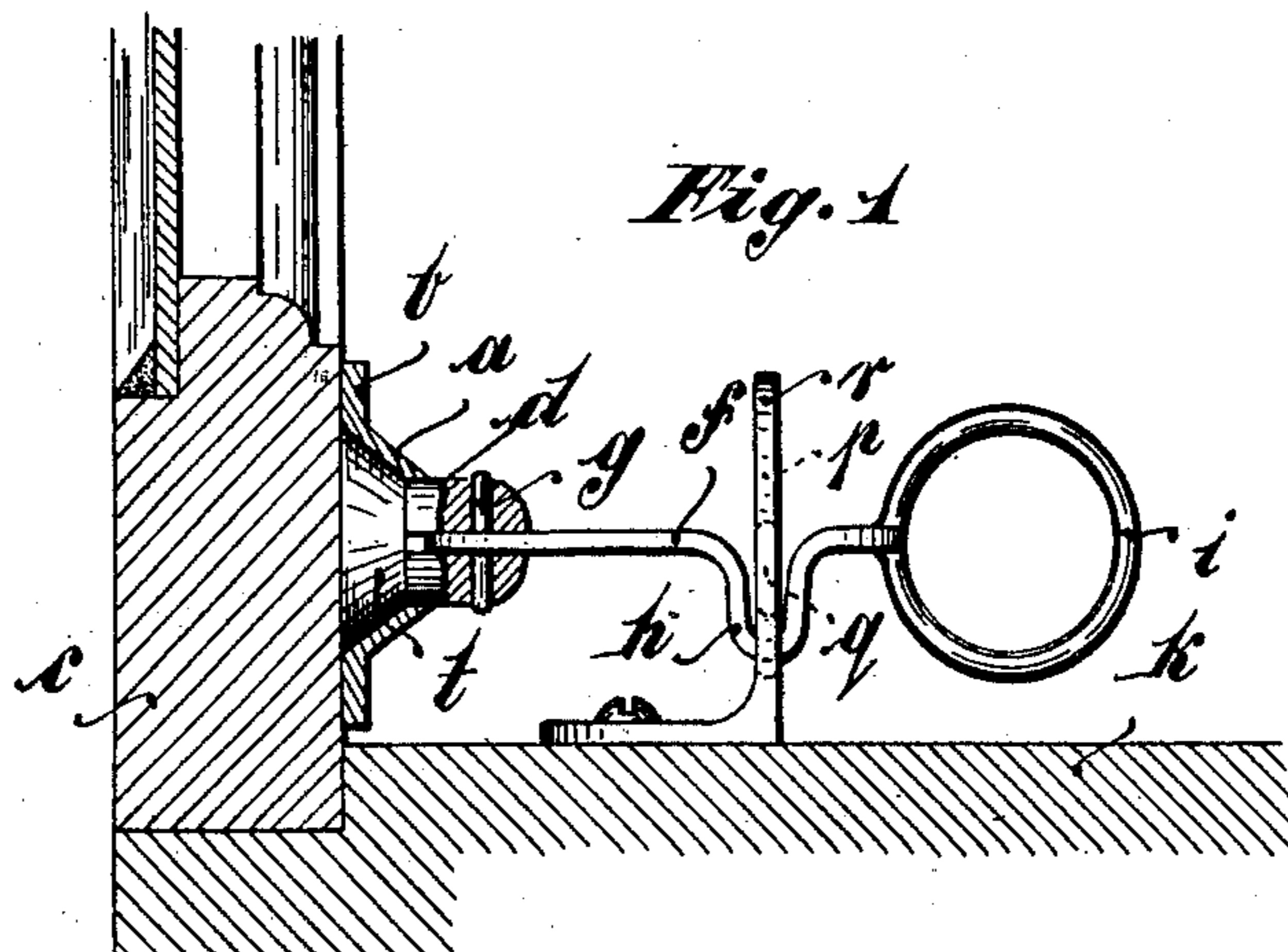


No. 830,672.

PATENTED SEPT. 11, 1906.

P. P. ORUM.
SHUTTER FASTENER.

APPLICATION FILED DEC. 9, 1903.



WITNESSES:

Paul Lomax.
Frank Michel.

INVENTOR:

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UNITED STATES PATENT OFFICE.

PAUL PETER ORUM, OF AARHUS, DENMARK.

SHUTTER-FASTENER.

No. 830,672.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed December 9, 1903. Serial No. 184,502.

To all whom it may concern:

Be it known that I, PAUL PETER ORUM, medical gentleman, residing at 52 Mejlgade, Aarhus, in the Kingdom of Denmark, have invented certain new and useful Improvements in Shutter-Fasteners, of which the following is a specification.

The subject of the present invention is a shutter-fastener for windows, the main feature of which is that the same can be only then opened when the lock is turned round at an angle of one hundred and eighty degrees. The lock can be further applied to doors, boxes, or the like, particularly to boxes arranged on vehicles—for instance, ammunition-boxes of traveling guns. Such boxes must be locked by a device allowing, on one hand, an easy opening and locking, and, on the other hand, not allowing an incidental opening of the lock caused by shaking while the vehicle runs. Both these conditions are fulfilled by the new locking device.

The present invention is illustrated in the accompanying drawings.

Figure 1 shows a side view, partly in section, of the arrangement for windows; Figs. 2 and 3, top and front view, respectively; Figs. 4 and 5, a part of the device in various positions, and Fig. 6 a detail.

a is a conical cap, having a flange *b*, which is attached to one of both parts to be locked together—for instance, the frame *c* of the leaf of the window. The cap *a* bears the conical foot *t* of a turning pivot *d*, such that the foot abuts against the frame *c* or a support applied thereto. The part of the pivot located without the cap *a* is connected with the arm *f* by means of a pin *g*. This arm, in combination with the pivot *d*, corresponding with the hook of ordinary locking devices, is thus capable of turning about two axes—namely, one perpendicular to the plane of the window and one parallel to it. The arm *f* is provided with a semicircular bend *h*, the radius of which is located in the plane which is perpendicular to the longitudinal axis of the arm and parallel to the axis of the pin *g*. At its outer end the arm *f* is provided with a handle (for instance, a ring) *i*. In order to prevent an incidental opening, the handle *i* may be arranged removable.

To the sill *k* of the window a right-angle plate *m* is applied, provided at one end with an open U-shaped cavity having two parts *n* and *p*, separated by a tongue *q*. The plate *m* is so far away from the window that the bend

h can slide around the tongue when the arm *f*, with its foot *t*, is turned on the axis perpendicular to the plane of the window.

When the window is to be locked, the arm *f* is turned so that the pin *g* comes to lie horizontally and the bend *h* underneath the cavity *p*. The bend can be moved upwardly in the part *p* of the U-shaped cavity by turning the arm *f* upon the pin *g* until the bend *h* takes up the position shown in Fig. 5. The arm *f* and bolt *d* are then turned round their longitudinal axis, the bend sliding then over the upper edge of the tongue *q* and adopting the position shown in Fig. 4 and then that of Fig. 3, this being the locking position of the device. The opening of the lock can be effected by turning the arm *f* with the pivot *d* from the last stated position round the longitudinal axis at about one hundred and eighty degrees. When the arm is turned only at ninety degrees, Fig. 4, then the arm cannot be freed from the cavity *p*, though the pin *d* is perpendicular in this position, and thus allows of a rotation of the arm *f* to the right, because the tongue *r* prevents this movement. Only when the arm *d* is turned further at ninety degrees and is brought in position shown in Fig. 5 the bend *h* can be guided downwardly through the cavity *p*, which is open at its bottom, the pin *g* lying now horizontally. The width of the space between the end of the tongue *q* and the plate *m* is preferably chosen so large that the bend *h* has not much play when the arm *f* is turned.

In order to prevent the bolt *d* from easily turning, the foot *t* of it can abut directly against the frame *c* of the window, while the cap *a* is pressed to a certain extent against the frame of the window in order to press the foot against the frame. The foot needs not be exactly conical. The same may be also cylindrical, only the cap *a* will be in the latter case suitably guided. In order to enable the opening of the lock by the rotation of the arm *f* at but ninety degrees, the tongue *r* may be omitted, as shown in Fig. 6.

In order to attain a tight joint of the window, the tongue *q* may be provided with a helical surface *u*, Fig. 6, upon which the inner surface of the bend *h* slides when the arm *f* is turned round its longitudinal axis.

When the locking device is to be used, for instance, for boxes or the like, the same may be correspondingly and suitably changed.

Having now particularly described and as-

certained the nature of my invention and in what manner the same is to be performed, I declare that what I claim is—

5 In a shutter-fastener, in combination, a locking-arm consisting of a cap having a flange; a turning pivot held in said cap and an arm pivotally connected to said turning pivot, said arm having a semicircular bend, the radius of which is located in a plane per-
10 pendicular to the longitudinal axis of the arm

and provided at its outer end with a handle; and a keeper consisting of an angle-plate having a U-shaped opening therein.

In testimony whereof I have hereunto set my hand in presence of two witnesses.

PAUL PETER ORUM.

Witnesses:

T. ORUM,

CHARLES KREHREINMER.