

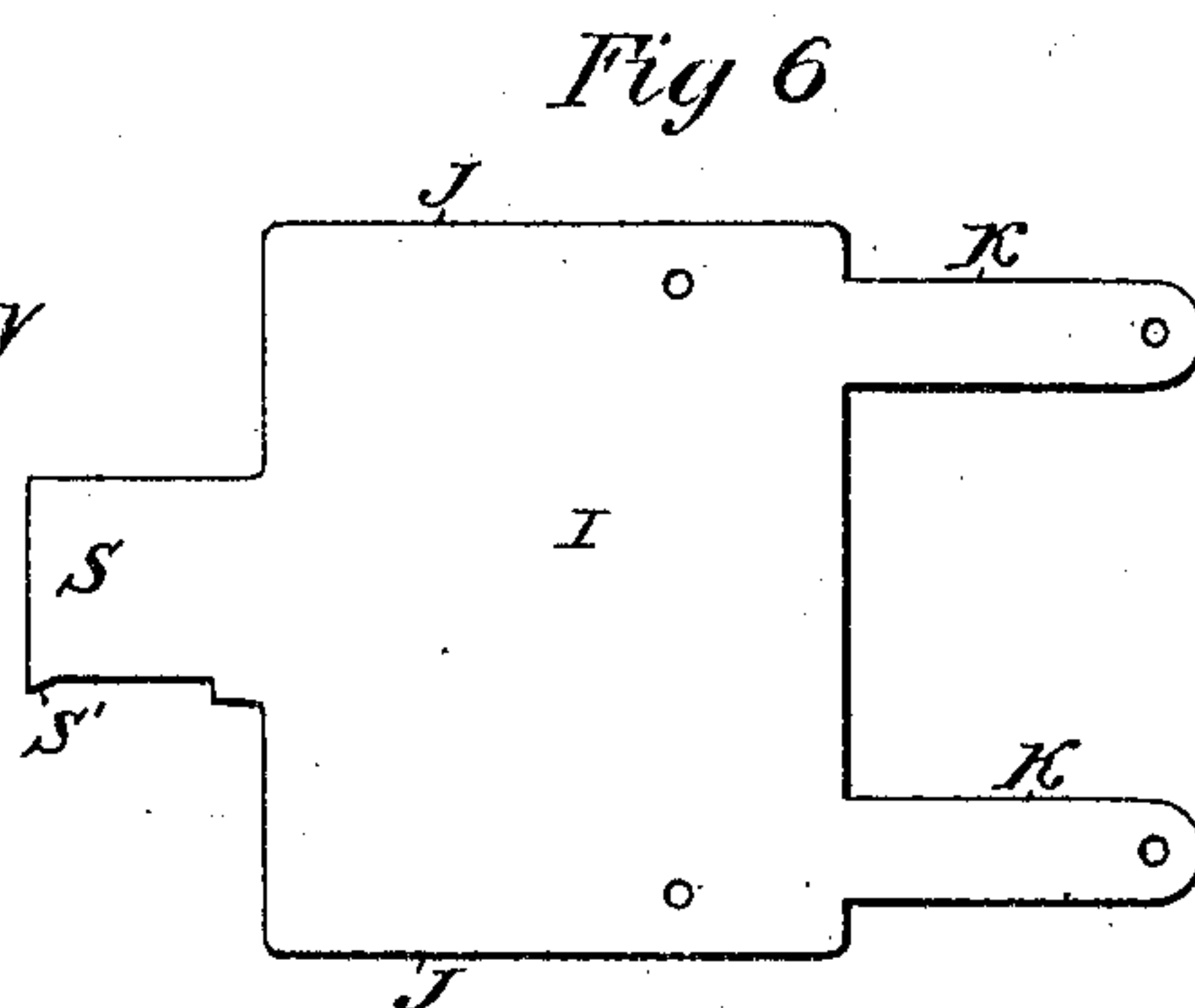
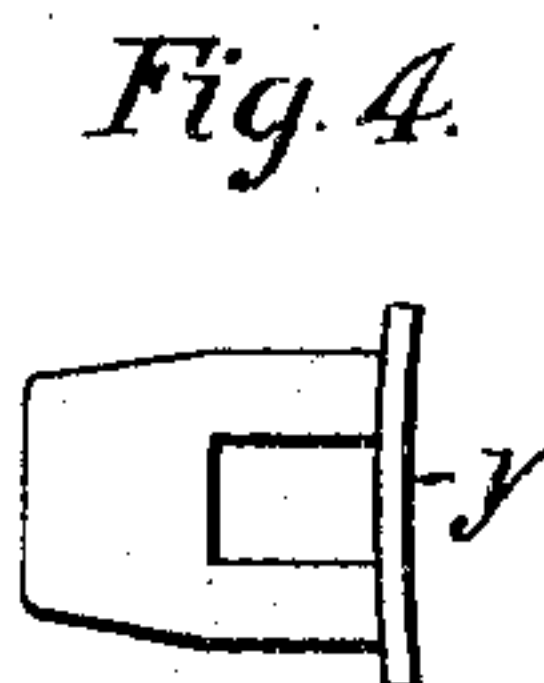
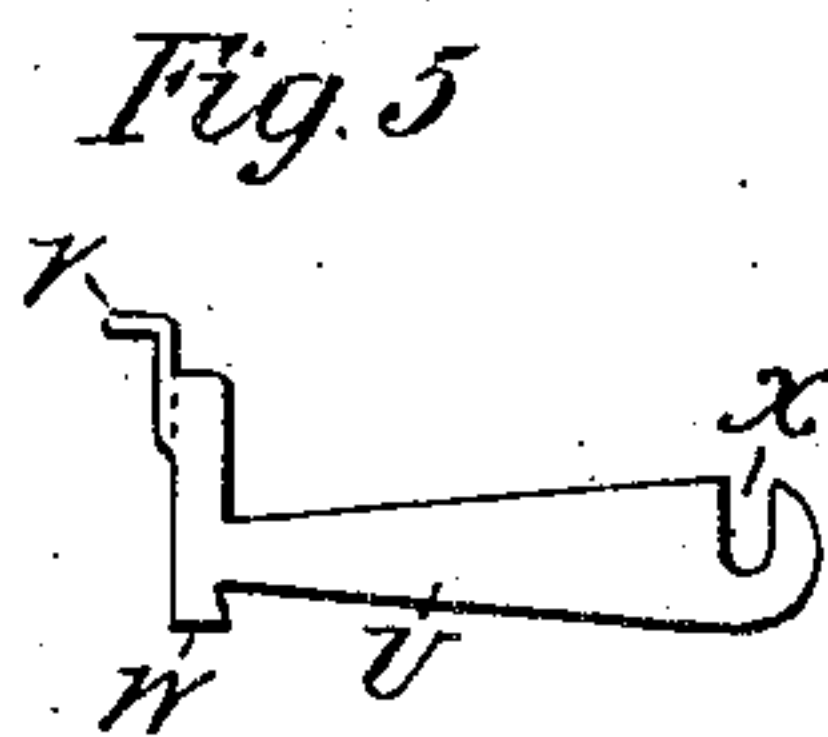
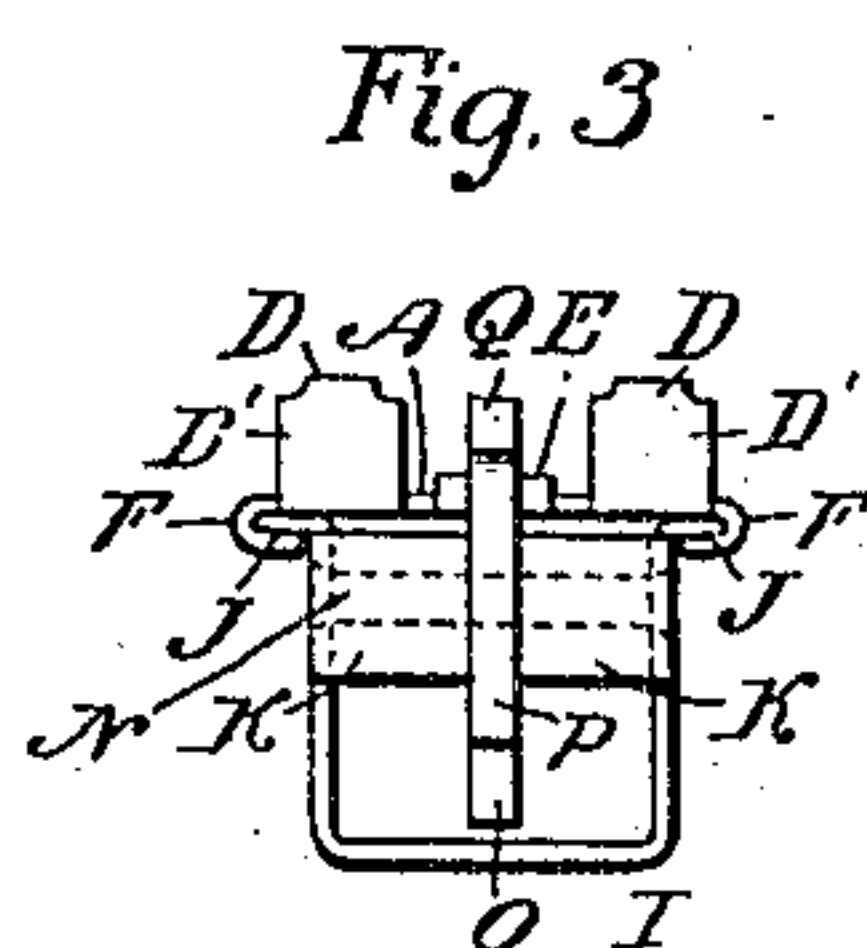
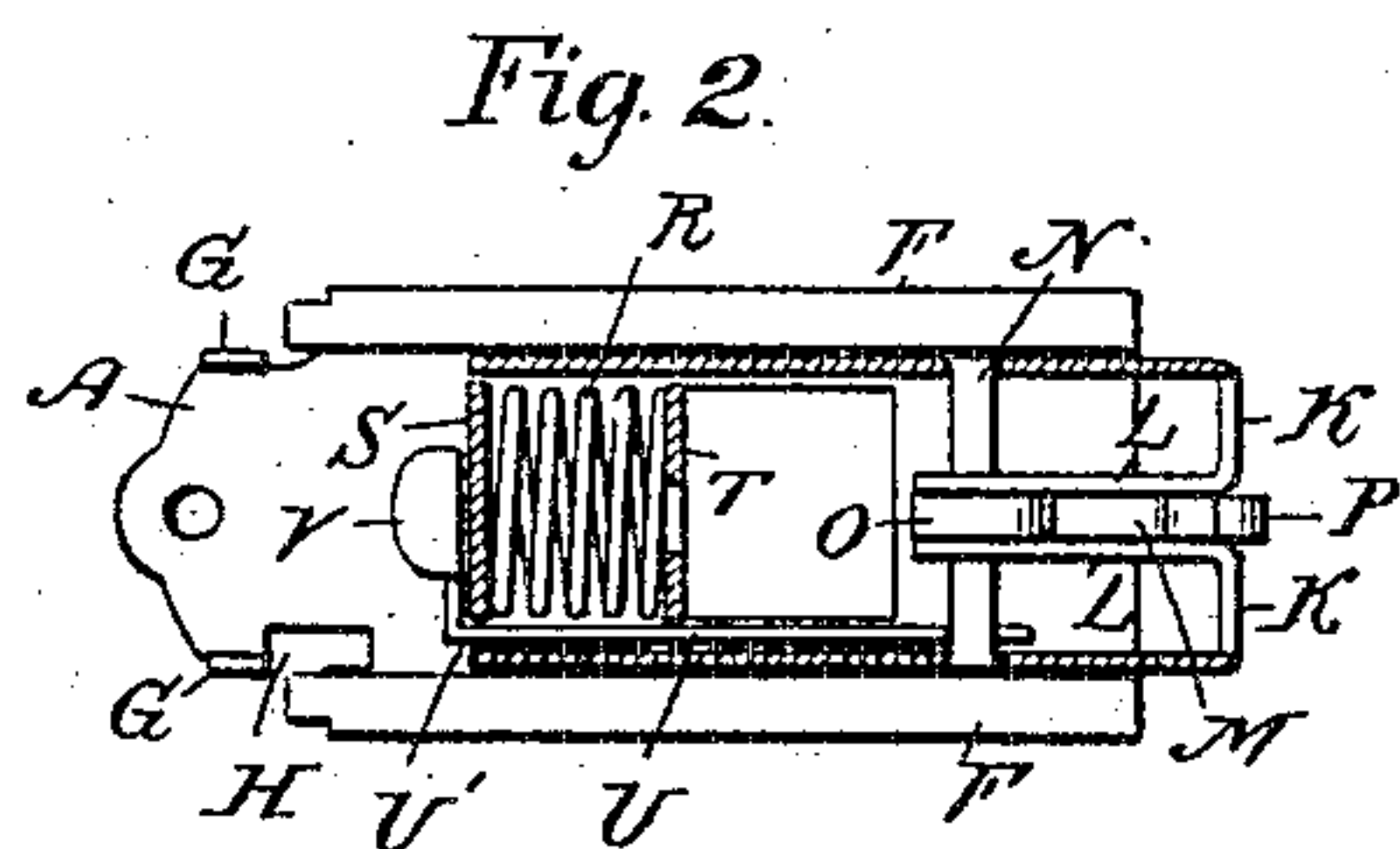
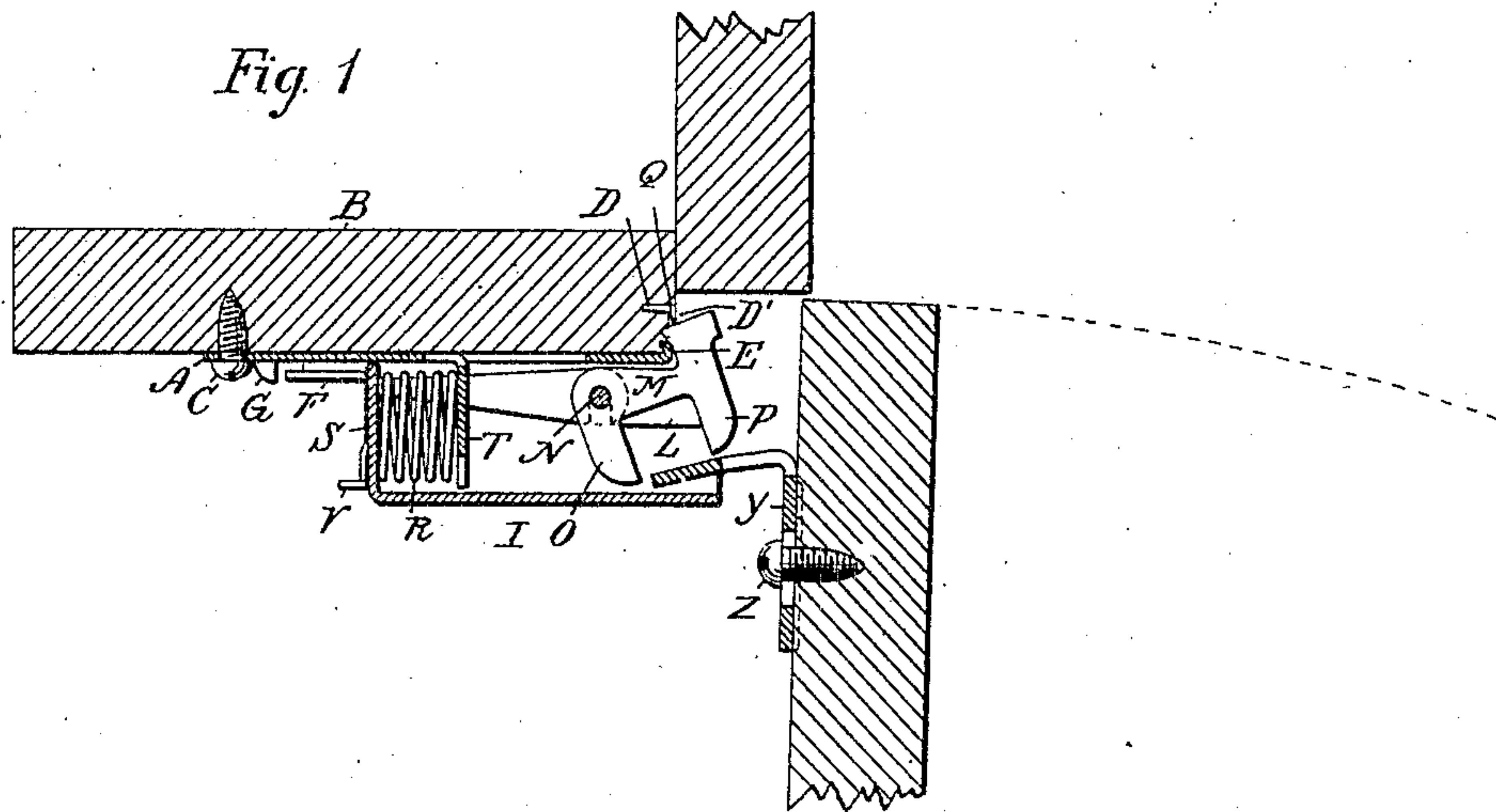
No. 849,692.

PATENTED APR. 9, 1907.

G. W. MALLORY.

DOOR CATCH.

APPLICATION FILED APR. 23, 1906.



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# UNITED STATES PATENT OFFICE.

GEORGE W. MALLORY, OF DETROIT, MICHIGAN.

## DOOR-CATCH.

No. 849,692.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed April 23, 1906. Serial No. 313,132.

*To all whom it may concern:*

Be it known that I, GEORGE W. MALLORY, a subject of the King of Great Britain, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Door-Catches, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in door-catches designed more especially for holding screen-doors, cabinet-doors, &c., closed, and has for its object to make a cheap, simple, and compact device for holding the door closed so that it may be readily opened from either side and to provide means for locking the door, the whole mechanism being inclosed within a suitable housing.

To this end the invention consists in the peculiar construction, arrangement, and combination of parts, all as more fully hereinafter described, and shown in the accompanying drawings, in which—

Figure 1 is a horizontal section through a door and door-casing, showing my device in section as in use with the door in the act of being closed; Fig. 2, a section through the sliding member of the catch at right angles to Fig. 1; Fig. 3, an end elevation of the catch; Fig. 4, an end view of the keeper-plate; Fig. 5, a side elevation of the locking-lever, and Fig. 6 a plan of the sheet-metal blank for the housing.

A indicates the base-plate, secured to the inside of the door-casing B by a screw C at one end and at its opposite end by the spurs D, adapted to be driven into the door-jamb. The spurs D are formed by bending the base-plate at right angles to form shoulders D' and then again bending at right angles to form the spurs D.

E indicates a curved lip on the base-plate between the spurs D, and F indicates longitudinal guides formed along the opposite edges of the base-plate by bending the opposite edges of the base-plate inward.

G indicate stops at the rear end of said guides formed by bending the base-plate upward, and H indicates a cut-out portion of the base-plate adjacent to one of said stops for the locking-lever.

I indicates a housing preferably stamped from a single sheet of metal formed with laterally-extending flanges J along its lower edge adapted to slide in the guides F.

K indicate arms integrally formed with the side walls of the housing by bending the arms at right angles thereto and thence inward to form ears L, between which is pivotally secured the dog M by the transverse pin N.

O P indicate fingers on the front edge of the locking-dog, and Q a shoulder on the rear edge adapted to cooperate with the lip E on the base-plate to hold the housing projected while the door is open.

R indicates a coil-spring interposed between the rear wall S of the housing and a wall T, struck up from the base-plate to clamp the spring therebetween under compressions, and thus keep the housing and locking-dog retracted.

U indicates a lever projecting through a slot U' in the rear wall of the housing and formed with a finger-piece V and a locking-lug W, cooperating with the cut-out portion H on the base-plate to lock the housing in its retracted position should it be desired to lock the door closed. The opposite end of the lever is slotted at X to receive the pivot-pin N.

S' indicates a lug on the wall S to form a friction-lock for the lever U.

Y indicates an aperture-plate adjustably secured to the inside of the door by a screw Z and adapted to cooperate with the fingers O P to trip the dog M. The base of the plate Y is curved, as shown in Fig. 4, so that it will sink into the wood of the door along its opposite edges and prevent the plate from turning when secured by a single screw Z.

In assembling my device the housing is first assembled with spring inside and slid into place, when the wall T is struck up from the base-plate, thus securely locking all the parts together, the slotted lever U being held in place on the pin H by the base-plate. It will thus be seen that when the door is closed the edge of the plate Y will strike the finger O and trip the dog, when the finger P will engage the aperture in the plate Y and the spring R exert a force to slide the housing and close the door. In opening the door the edge of the opening in the plate Y will engage the finger P and put the spring R under extra tension until the shoulder Q shall have cleared the lip E, when the dog will be tripped and the spring held under tension, the door being free to open farther.

Having thus fully described my invention, what I claim is—

1. In a device of the character described, the combination of a base-plate adapted to



be secured to a door-casing, of a housing guided on said plate, a spring interposed between the rear wall of the housing and a shoulder on the base-plate, a dog pivoted in the housing and cooperating with the base-plate and a plate carried by the door adapted to trip the dog.

2. In a device of the character described, the combination of a base-plate formed with guides adapted to be secured to a door-casing, of a housing movable in said guides, a wall on the base-plate, a coil-spring interposed between said wall and the rear wall of the housing, a dog pivoted in the housing and cooperating with the base-plate to lock the housing in one position, fingers on said dog and an apertured plate carried by the door cooperating with said fingers to trip the dog.

3. In a device of the character described, the combination of a base-plate formed with longitudinal guides, a housing formed with lateral flanges sliding in said guides, a spring for normally holding said housing retracted, a dog formed with fingers pivoted in the housing, a shoulder on said dog cooperating with the base-plate and an apertured plate on the door cooperating with said fingers to trip the dog.

4. In a device of the character described, the combination of a base-plate formed with guides, a housing formed with lateral flanges traveling in said guides, a dog pivoted in said housing, a shoulder on said dog cooperating with a lip on the base-plate, a coil-spring within the housing for normally holding the same retracted, a lever for locking the housing in its retracted position and a plate on the door to trip the dog.

5. In a device of the character described, the combination of a base-plate formed with guides along its sides and stops at one end,

shoulders terminating in spurs at its opposite end and a wall struck up from the base-plate at its middle, a housing movable in said guides, a coil-spring interposed between said wall and the rear wall of the housing, a dog pivoted in the housing and cooperating with the base-plate, fingers on said dog, an apertured plate carried by the door cooperating with said fingers to trip the dog and a lever for locking said housing.

6. In a device of the character described the combination of a base-plate formed with guides and a transverse wall struck up therefrom, a housing formed with lateral flanges traveling in said guides, a coil-spring interposed between said wall and the rear wall of the housing having a slot formed therein, a dog pivoted in the housing on a transverse pin, a slotted lever projecting through said slot and loosely engaging said pin, a finger-piece and a locking-lug on the free end of said lever cooperating with an aperture in the base-plate to lock the housing in its retracted position and a lug in said slots frictionally engaging said lever.

7. In a device of the character described, a base-plate, a movable member guided on said plate, a dog formed with fingers pivoted in the movable member and adapted to hold said member in its projected position, a spring for holding said member in its retracted position, and an apertured plate cooperating with the fingers to trip the dog and formed with a curved base adapted to be secured to a door.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. MALLORY.

Witnesses:

OTTO F. BARTHEL,  
THOS. Y. LONGSTAFF.