

(No Model.)

T. GILL.

MEANS FOR FASTENING CLICKS TO WATCH PLATES.

No. 275,762.

Patented Apr. 10, 1883.

Fig. 1.

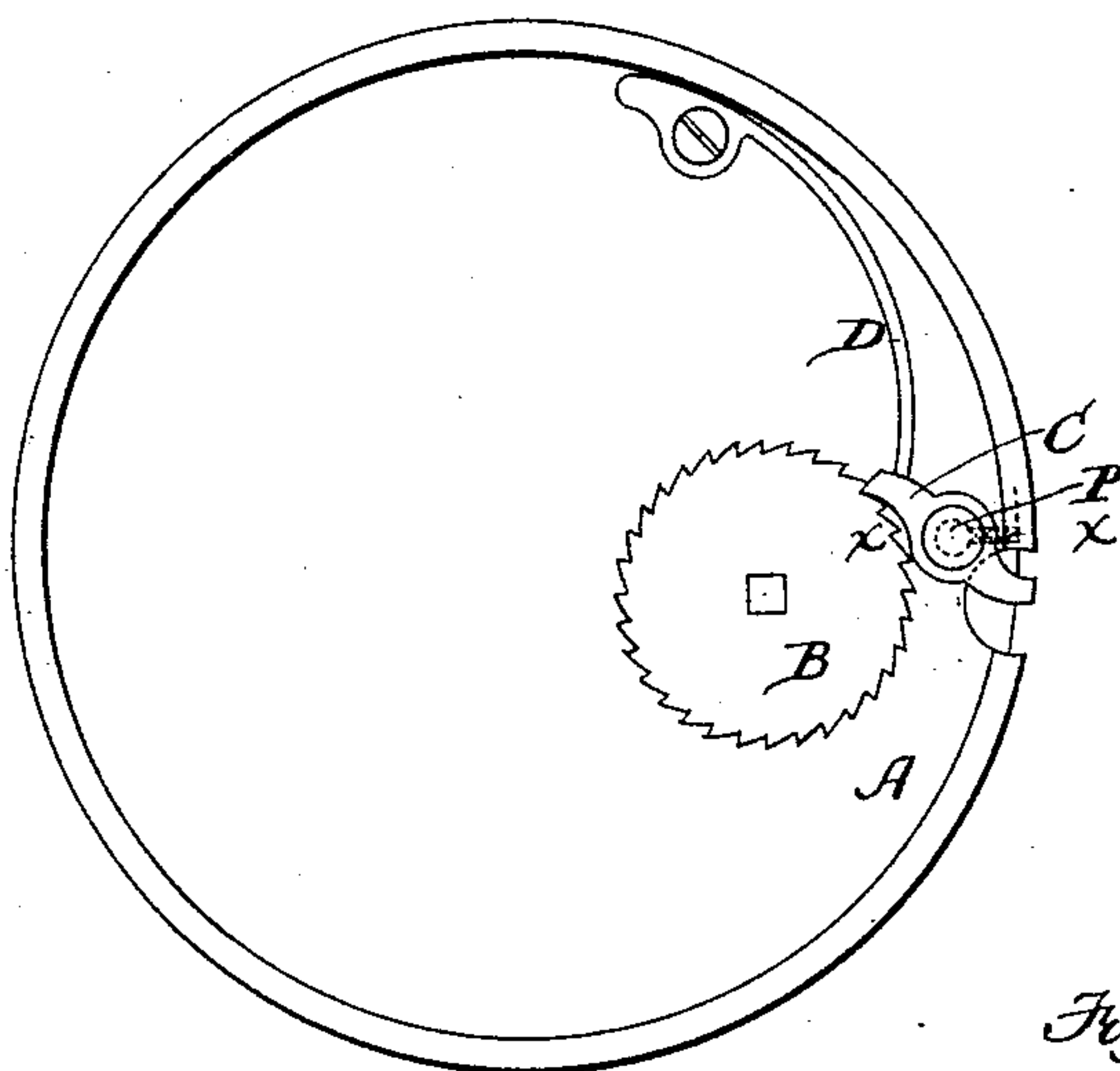


Fig. 3.

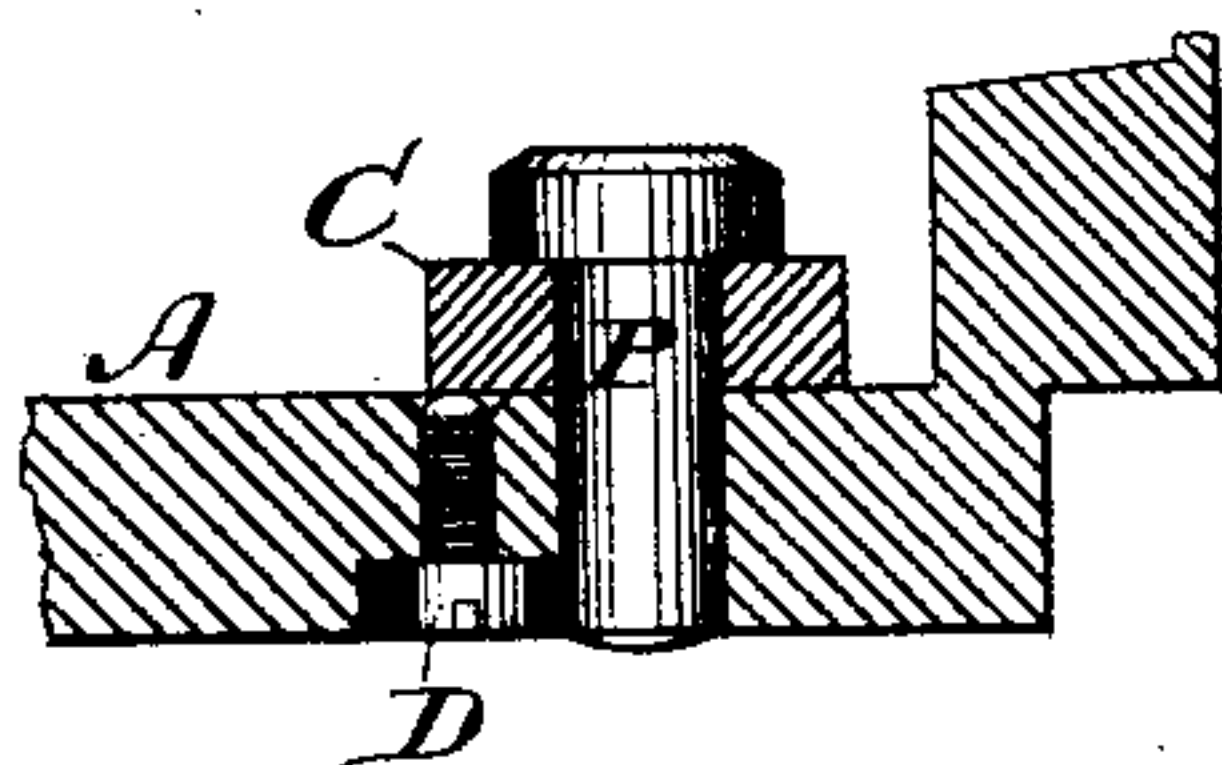


Fig. 2.

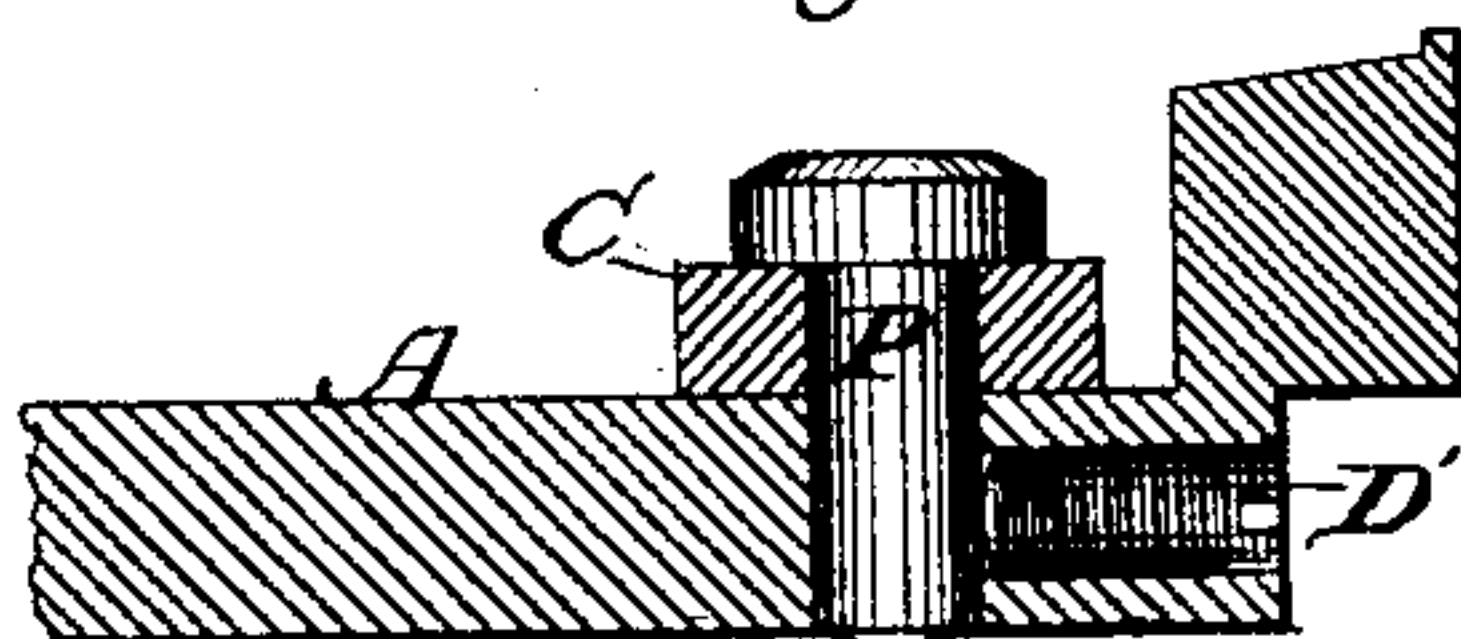


Fig. 4.

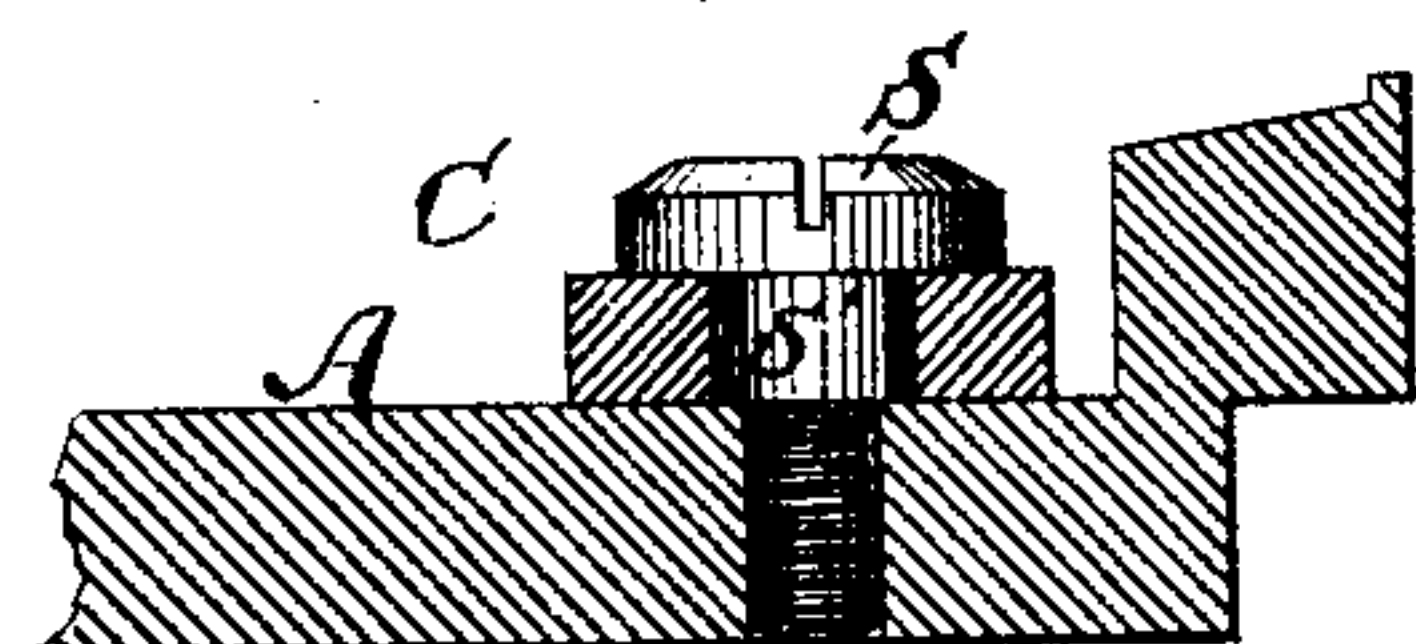
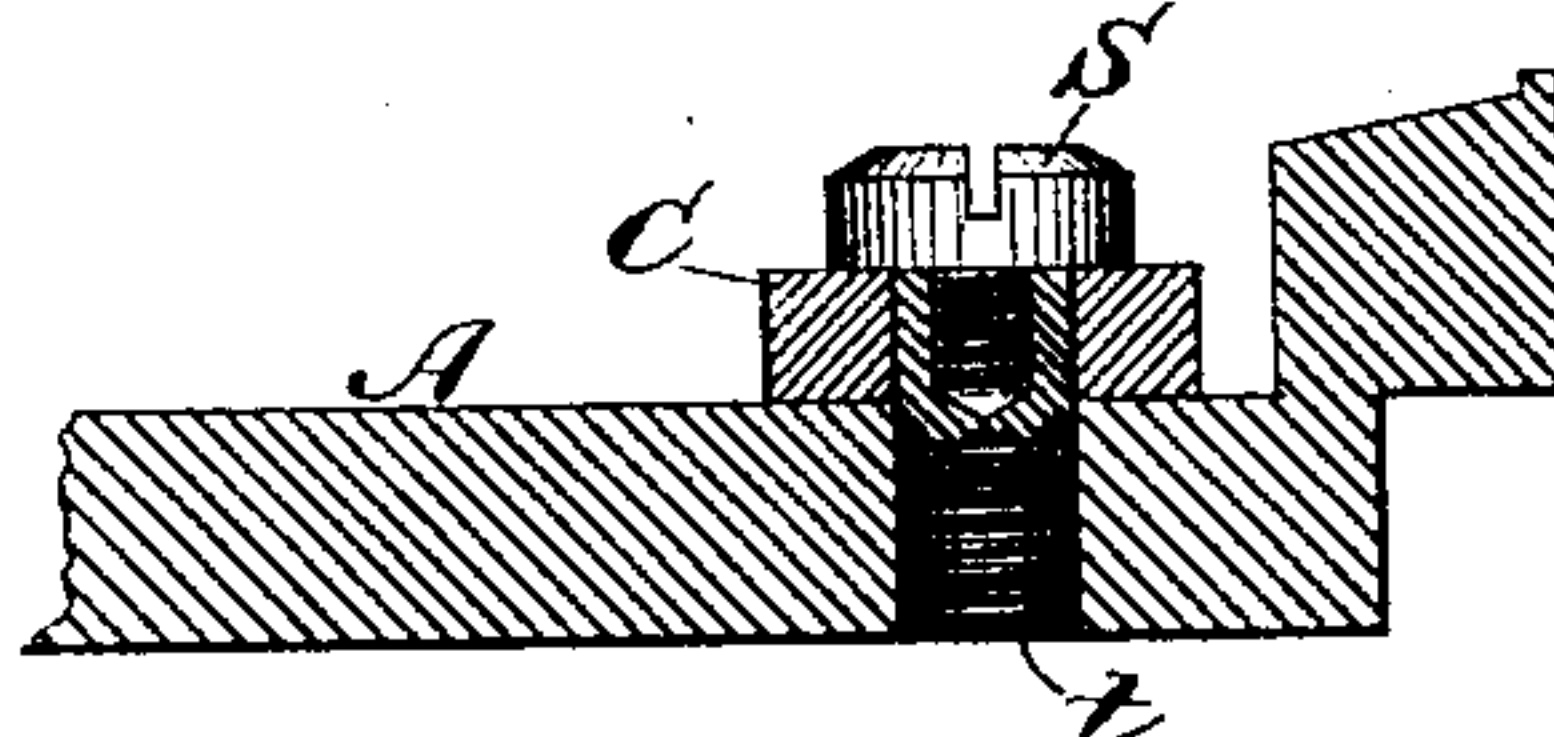


Fig. 5.



WITNESSES.

C. P. Judd
A. L. White.

INVENTOR.

Thomas Gill
by Wright & Brown
Attys.

UNITED STATES PATENT OFFICE.

THOMAS GILL, OF WALTHAM, MASSACHUSETTS, ASSIGNOR TO HIMSELF
AND HENRY A. HOOD, OF SAME PLACE.

MEANS FOR FASTENING CLICKS TO WATCH-PLATES.

SPECIFICATION forming part of Letters Patent No. 275,762, dated April 10, 1883.

Application filed August 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, THOMAS GILL, of Waltham, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in the Method of and Means for
5 Securing Clicks to Watch-Plates, of which the following is a specification.

This invention has for its object to provide an improved method of securing the click that
10 holds the ratchet of the mainspring-arbor in a watch, and to obviate the objections existing to the method heretofore employed.

To this end the invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a top view of a watch-plate, showing the ratchet of the mainspring-arbor and its click. Fig. 2
20 represents an enlarged section on line *x x*, Fig. 1. Fig. 3 represents an enlarged section, showing a modification. Figs. 4 and 5 represent the common methods of attachment.

The same letters of reference indicate the same parts in all the figures.

In the drawings, A represents a watch-plate, B the ratchet of the mainspring-arbor, C the pivoted click of said ratchet, and D the spring which presses the click against the ratchet.
30 Heretofore the click has been secured to the plate by a screw, S, the same being screwed into a tapped orifice either in the plate itself, as shown in Fig. 4, or into a projecting stud, *t*, which is itself screwed into the plate, as shown
35 in Fig. 5. In the former case the screw has an enlarged smooth portion, S', which constitutes the pivot of the click, and by bearing against the plate is intended to prevent the head of the screw from binding upon and preventing
40 the proper end-shake of the click. In the other case the stud *t* projects from the plate and constitutes the pivot of the click, the head of the screw preventing the click from being removed from the stud. Both of these methods
45 are objectionable for the following reasons: First, the vibrating motion of the click when the watch is being wound has a tendency to loosen the screw, particularly when the head of the screw bears too closely against the click, the loosening of the screw being obviously a
50 source of danger, since it involves sooner or

later the sudden release of the ratchet and damage to the mechanism of the watch by the sudden uncoiling of the mainspring; secondly, great care is required in inserting the screw
55 to properly end-shake the click, or, in other words, to adjust the screw so that the click will have the proper freedom of motion, neither bearing too closely against the head of the screw nor being left in too loose a condition by the insufficient insertion of the screw.
60 It is impossible in making the different parts to secure such exact uniformity as will enable each click to be secured by simply turning the screw as far as possible, something having to
65 be left to the judgment of the operator who applies the click. When the stud *t* is employed and the screw is inserted too far, so that it binds on the click, the stud is liable to be unscrewed or loosened by the action of the
70 click.

In carrying out my invention I obviate all of the above-named objections by securing the click C by means of a smooth-surfaced or plain pin, P, dropped into the orifices of the click and
75 plate, and attached to the plate by means of a suitable clamping device, D', preferably a set-screw inserted in the plate and bearing against the side of the pin, as shown in Fig. 2, so as to secure the same firmly without exerting
80 endwise pressure thereon. By this method of attachment all liability of accidental loosening and disengagement of the click is prevented, and also the possibility of an improper adjustment of the click-securing
85 device by carelessness of the operator, who has only to drop the pin P into place and secure it by the clamping device, the pin adjusting itself to the click by coming to a light bearing thereon, so that when the pin is secured the
90 click has the proper end-shake without the exercise of care or skill by the operator.

Instead of being a set-screw, the clamping device D may be a screw with an eccentric head arranged to bear against the pin P, as
95 shown in Fig. 3. In fact, I do not limit myself to any particular device for holding the pin.

I claim—

1. The method of securing and end-shaking ratchet-holding clicks in watches, the same
100 consisting in dropping a headed pin into the orifices of the click and watch-plate, so that

the head of the pin will rest on the surface of the click with a degree of pressure due only to the weight of the pin, and attaching the pin to the watch-plate by a device pressing later-
5 ally against the pin without exerting endwise pressure thereon, as set forth.

2. In a watch, the combination of a ratchet-
holding click, a headed pin dropped into ori-
fices in the click and watch-plate, and thereby
10 adjusted to the surface of the click by its own weight, so as to properly end-shake the click,

and a securing device pressing laterally against the pin without exerting endwise pressure thereon, as set forth.

In testimony whereof I have signed my name 15
to this specification, in the presence of two
subscribing witnesses, this 23d day of August,
1882.

THOMAS GILL.

Witnesses:

F. H. EATON,

W. W. MARSH.