No. 621,874. Patented Mar. 28, 1899.

H. G. VOIGHT.

STOP FOR LATCHES.

(Application filed Aug. 22, 1898.)

(No Model.)

Fig. 1.

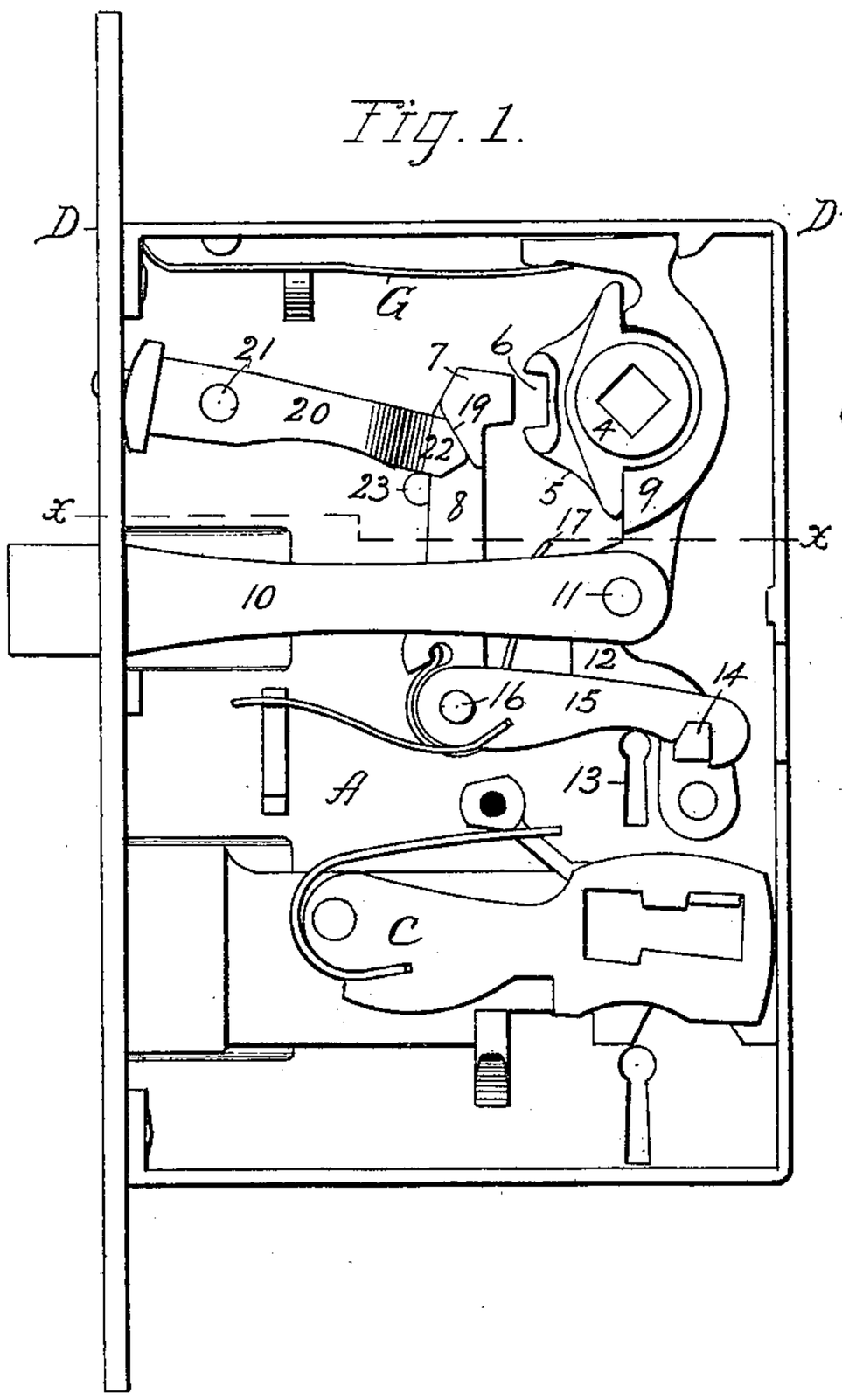


Fig. 2.

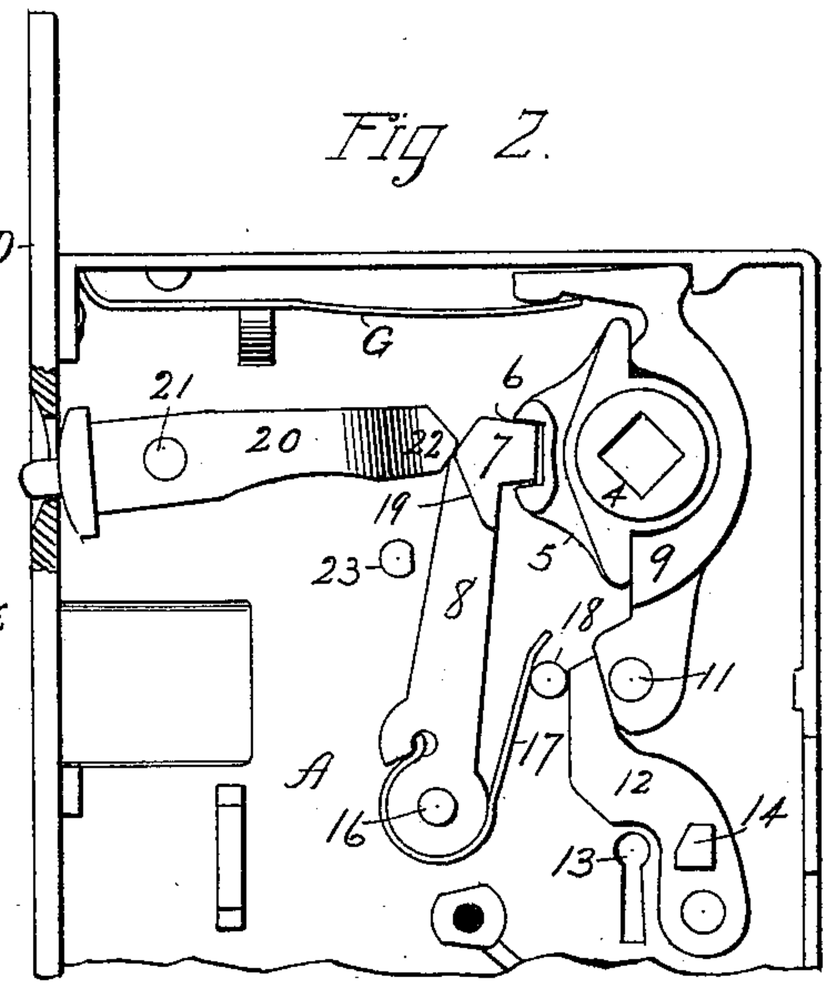
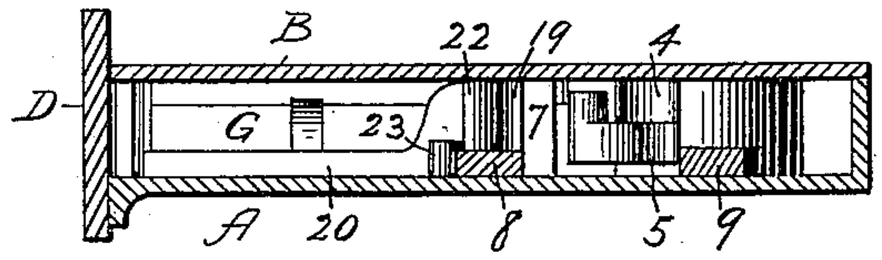


Fig. 3.



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UNITED STATES PATENT OFFICE.

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STOP FOR LATCHES.

SPECIFICATION forming part of Letters Patent No. 621,874, dated March 28, 1899.

Application filed August 22, 1898. Serial No. 689,225. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. VOIGHT, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Stops for Latches, of which the following is a specification.

My invention relates to improvements in stops for latches; and the objects of my improvements are simplicity and economy in construction and efficiency in operation.

In the accompanying drawings, Figure 1 is a front elevation of my latch and lock with the cap-plate removed. Fig. 2 is a like view, partly in section, of a portion of the same with the stop engaged in the hub, the latch-bolt and night-latch tumbler being removed; and Fig. 3 is a horizontal section on the line *x x* of Fig. 1 looking upwardly, the cap-plate being in place.

A designates the body of the case, and B its cap-plate. The case may, if desired, be provided with the lock mechanism C, of any ordinary construction; but said lock mechanism is no part of my present invention. The main portion of the latch mechanism may also be of any ordinary construction. As shown, the divided hub is composed of the two parts 4 5, the part 5 having a locking notch or recess 6 for the engagement of the short arm 7 of the swinging stop 8. Both parts of the hub are provided with the usual wings for acting on the latch-lever 9, to which the inner end of the latch-bolt 10 is connected by means of the pin 11. The night-latch lever 12 is pivoted by the side of the keyhole 13 and provided with a tumbler-fence 14, while its upper end bears against one side edge of the lower end of the latch-lever. A spring-tumbler 15 is arranged to engage the fence 14 in the ordinary manner. The latch-lever 9 is provided with the usual spring G. I have described this latch mechanism for the sake of clearness, but wish it distinctly understood that any other latch mechanism having a locking notch or recess 6 for the engagement of the short arm 7 of the swinging stop 8 may be substituted therefor as an equivalent.

The swinging stop 8 is pivoted to the case at 16 and is provided with a spring 17, that presses against the pin 18, Fig. 2, with a constant tendency to force said stop away from the latch-hub. The said stop 8 is also provided with an inclined face 19 on that side which is farthest from the latch-hub. It is also provided with a let-off incline above the face 19, said let-off and face meeting each other at an angle, as shown. The stop-controller 20 is in the form of a lever pivoted to the case on the pin 21 and having its finger end extended into an opening in the face-plate D. The opposite end 22 is pointed or provided with a double bevel for moving longitudinally to the said swinging stop and acting in connection with the inclined face 19 of the swinging stop. The upper face of this double bevel is the one that acts on the face 19, and its lower face is a let-off incline that acts, as hereinafter described, to hold the parts in position after the upper face of said end 22 and inclined face 19 have passed by each other, as shown in Fig. 2.

For convenience in assembling the parts I provide the case with a stop-pin 23 to limit the movement of the said swinging stop against the action of its spring 17; but I intend to so fit the parts to said pin that when they are in the position shown in Fig. 1 the spring 17 will be free to act to hold the face 19 of the swinging stop firmly against the end 22 of the stop-controller and also firmly hold said end of the controller in its lowermost position.

When the stop and its controller are in the position shown in Figs. 1 and 3, the short arm 7 is disengaged from the notch 6 in the part 5 of the latch-hub, so that said part of the latch-hub may be operated for withdrawing the latch-bolt. In order to lock or fasten said part 5 of the hub, the stop-controller 20 is moved from the position shown in Fig. 1 to that shown in Fig. 2. The short arm 7 of the stop is so loosely fitted to the notch 6 in the part 5 of the latch-hub that it may extend therein a little farther than the position shown in Fig. 2, whereby after the end 22 of the controller passes by the upper end of the inclined face 19 the stop 8 may move back a little under the force of its spring and hold

the stop mechanism in its locked position. To unlock the stop mechanism, the controller is moved in a direction to force its end 22 down over the upper end of the inclined face 19 of the stop 8, and then the spring 17 will return the parts to the position shown in Fig. 1.

By my improvements the stop mechanism may be cheaply constructed and at the same time a very efficient stop is produced. The spring 17 always acts to hold the stop and its controller firmly in place, so that there are no loose parts which are liable to rattle.

I claim as my invention—

1. The combination with the latch-bolt, of the divided hub for operating said latch-bolt, one part thereof having the locking notch or recess the swinging stop 8 having the arm 7 and inclined face 19, a spring acting to force the said short arm away from said locking-recess, and the stop-controller 20 having the end 22 for moving longitudinally to the said swinging stop and acting on said inclined face, substantially as described.

2. The combination with the latch mechanism having the locking notch or recess in one part of its hub, with the swinging stop 8 having the arm 7, a spring acting to force the said arm away from said locking-recess, the stop-controller 20 having the arm-engaging end terminating in a point, and a let-off incline on one of the confronting faces of the said end and arm over which the said point passes, whereby the said stop may move back a little within the said locking-recess in reaching its locking position, substantially as described.

HENRY G. VOIGHT.

Witnesses:
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