

No. 673,882.

Patented May 14, 1901.

A. H. MARTIN.

LATCH.

(Application filed July 28, 1900.)

(No Model.)

Fig. 1.

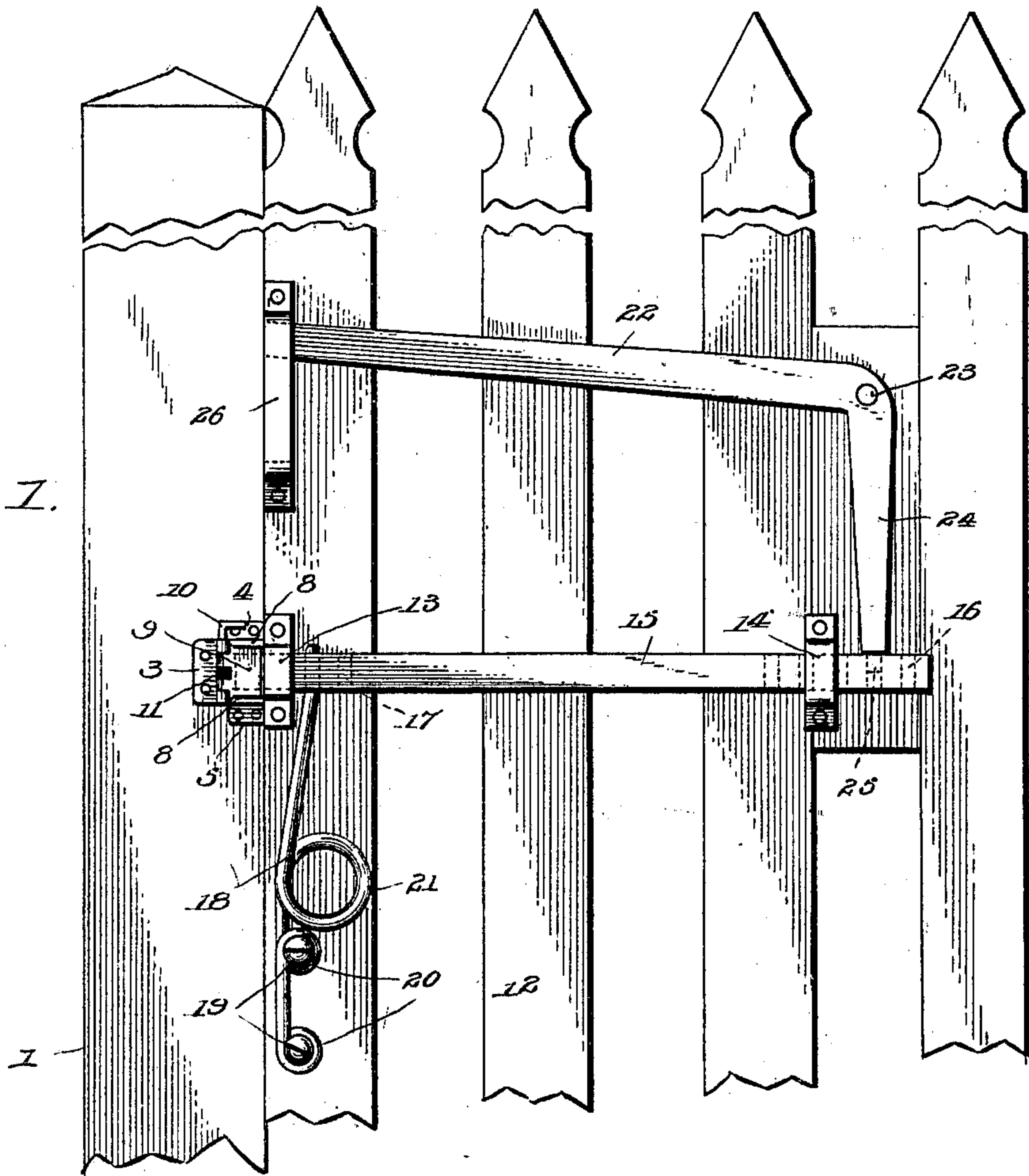


Fig. 2.

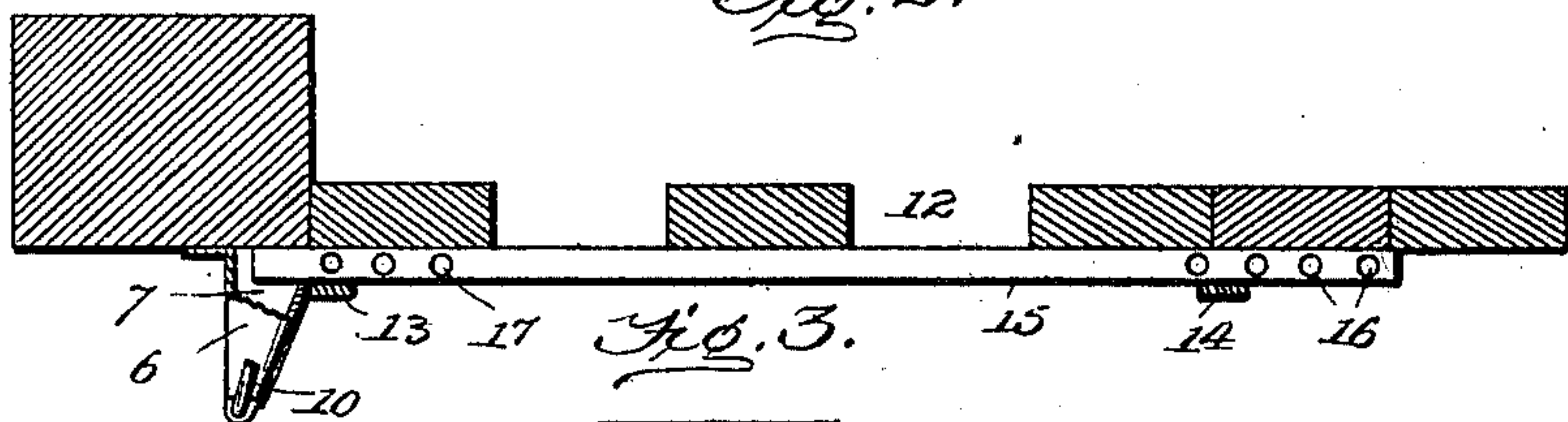
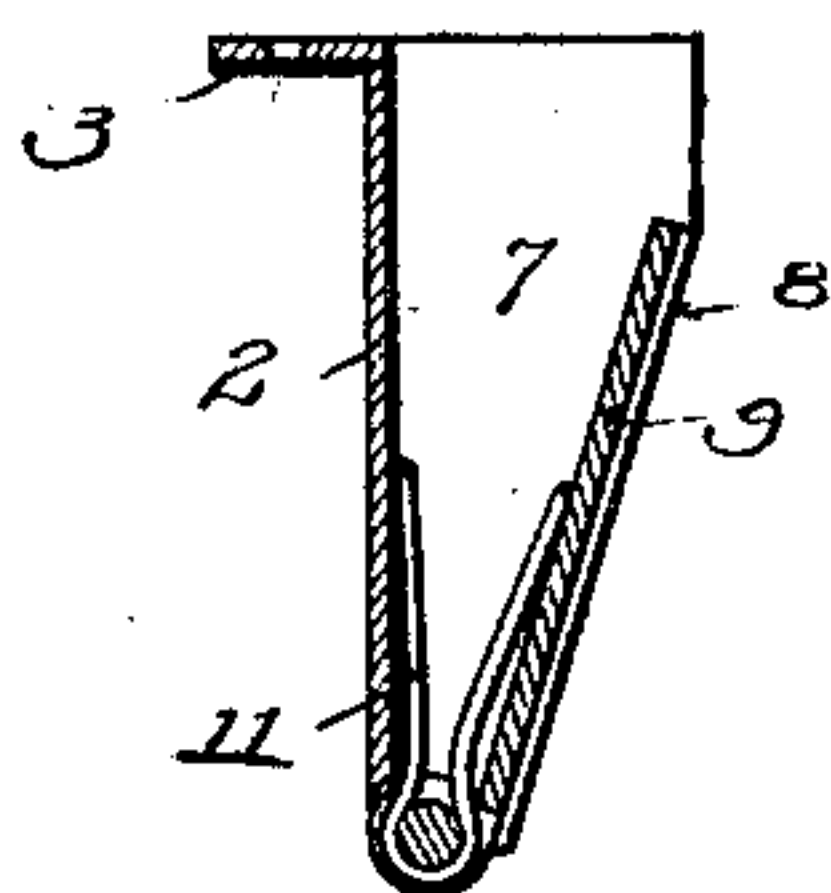


Fig. 3.



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LATCH.

SPECIFICATION forming part of Letters Patent No. 673,882, dated May 14, 1901.

Application filed July 28, 1900. Serial No. 25,154. (No model.)

To all whom it may concern:

Be it known that I, ARCHIBALD H. MARTIN, a citizen of the United States, residing at Woodland Mills, in the county of Obion and State of Tennessee, have invented new and useful Improvements in Latches, of which the following is a specification.

My invention relates to latches designed especially for use upon swinging gates, the object being to provide a simple and inexpensive device of this character which will latch the gate automatically and may be readily released by hand to open the gate.

The construction of the improvement will be fully described hereinafter in connection with the accompanying drawings, which form a part of this specification, and its novel features will be definitely claimed.

In the drawings, Figure 1 is an elevation of a portion of a gate and gate-post with my improvement applied thereto. Fig. 2 is a horizontal section of the same; and Fig. 3 is a detail horizontal section, on an enlarged scale, of the socket or keeper.

The reference-numeral 1 designates a gate-post, to which is secured a socket or keeper comprising two members, one of which is a plate 2, formed integral with a laterally-projecting perforated ear 3, upper and lower projecting perforated ears 4 and 5, and parallel horizontal triangular flanges 6 and 7, the edges of which are bent at right angles toward each other so as to form stops 8. The other member 9 of the keeper consists of a plate hinged at its outer end to the adjacent end of the plate 2 by means of a pintle 10, extending through loops or eyes formed on the plates 2 and 9. A spring 11 is coiled around the pintle 10, so that the opposite ends of said spring will rest against the inner surfaces of the plates 2 and 9 to hold the plate 9 normally against the parallel stops 8.

12 designates a gate, upon which are secured guide-brackets 13 and 14, which are horizontally alined to serve as guides for a longitudinally-movable bolt 15. This bolt 15 is formed near both its ends with a plurality of vertical perforations or indentations 16 and 17.

18 designates a spring-wire secured by

means of loops 19 and screws 20 to the gate 12, adjacent to the free unhinged side thereof. This wire spring is formed with a coil 21 above the loops and its upper end is adapted to project into the perforations 17 in the bolt 15 to throw the bolt into engagement with the socket or keeper.

The bolt-retracting means consists of a bell-crank lever 22, fulcrumed at a point 23 upon the gate and having its depending arm 24 formed with a projection 25, which enters one of the perforations 16 in the adjacent end of the bolt 15. The opposite end of the horizontal forwardly-projecting long arm of the lever 22 is guided by a loop or keeper 26, secured to the gate adjacent to the post 1.

The utility and operation of the device constructed as thus described will be readily understood from the accompanying illustration. Normally the bolt 15 is projected into its keeper or socket by the force of the spring 18, and to withdraw the bolt the long arm of the bell-crank lever 22 is depressed, causing the short depending arm of said lever to move the bolt 15 longitudinally until it is free from engagement with the hinged plate 9 of the keeper. When the gate is closed, the contact of the projecting end of the bolt 15 with the hinged plate 9 forces the latter inward against the tension of the spring 11 until the bolt clears the end of the plate 9, when the spring 11 will force said plate outward, thus securing the bolt, as will be obvious.

The series of perforations 16 and 17 formed in the ends of the bolt permit of the adjustment of the bolt with relation to the spring and lever 22 to compensate for wear or loss of tension of the spring and to vary the force with which the bolt is projected against the inclined plate 9.

While the latch is especially designed for use upon gates of different kinds, it is applicable also to all uses where a longitudinal movable bolt is required to coact with a receiving socket or keeper.

I claim—

A gate-latch comprising a bolt-socket having a spring-hinged plate, guide-brackets, a draw-bolt working in the guide-brackets having series of perforations at the ends thereof

and adapted to enter the bolt-socket, a spring
engaging with an outer perforation for throw-
ing the draw-bolt, and a bell-crank lever hav-
ing a horizontal forwardly-projecting long
5 arm located over the draw-bolt and a pend-
ent short arm engaging with an inner per-
foration for withdrawing the draw-bolt.

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

ARCHIBALD H. MARTIN.

Witnesses:

F. K. BRADLEY,
F. P. PREUETT.