Feb. 7, 1933. P. T. MAXWELL 1,896,909

GATE LATCH

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Fig. 1.

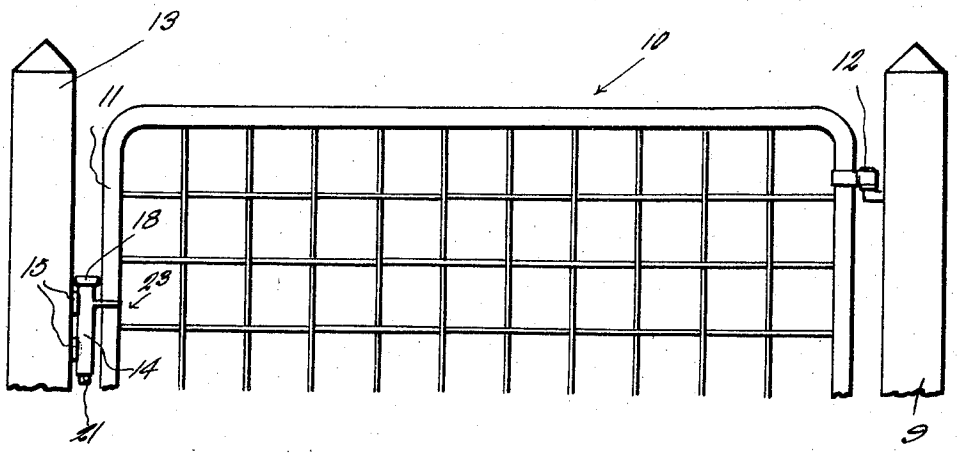


Fig. 2.

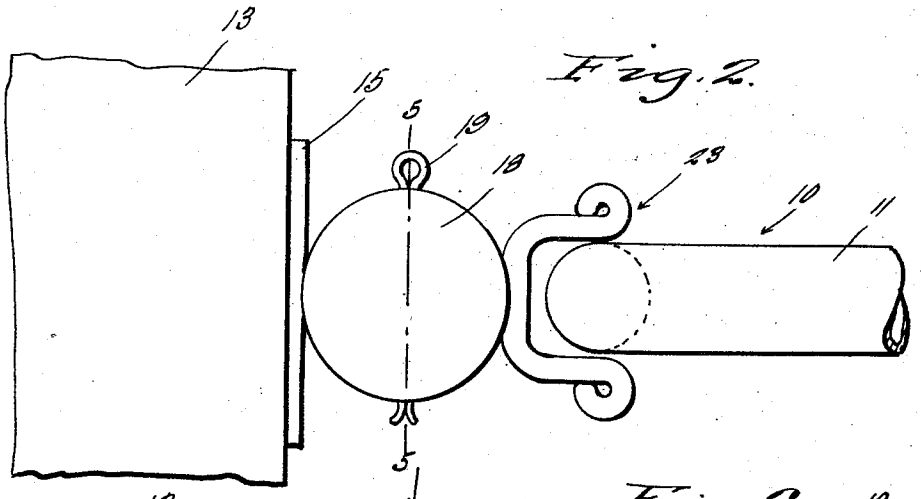
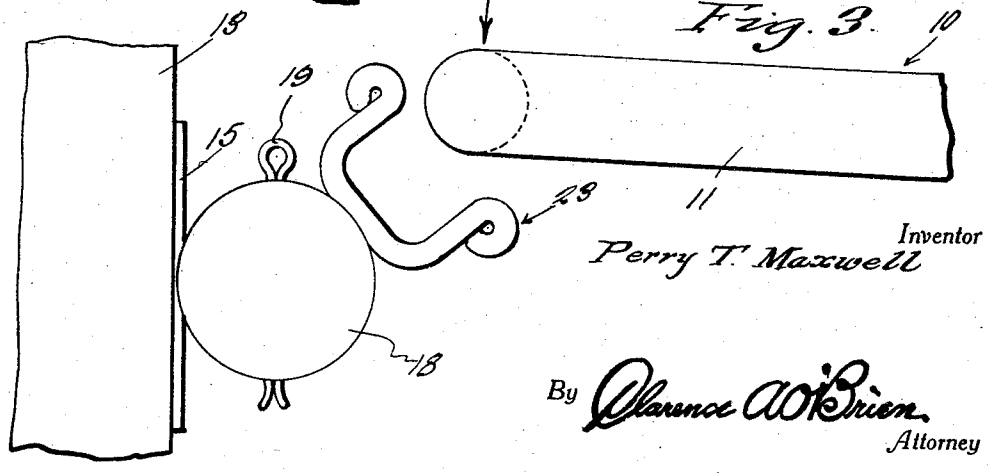


Fig. 3.



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Fig. 4.

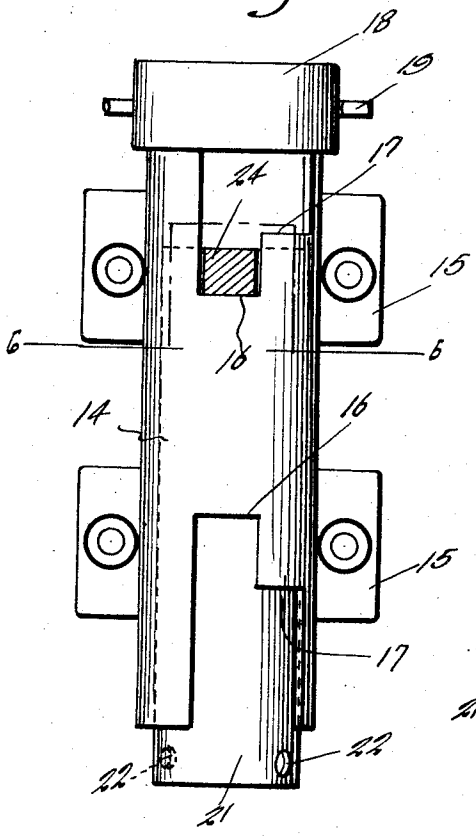


Fig. 5.

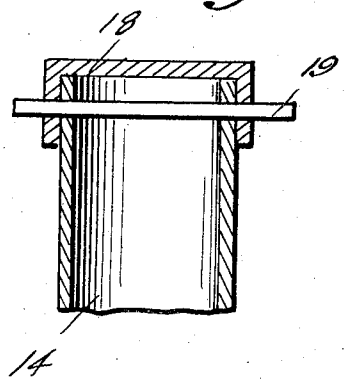


Fig. 6.

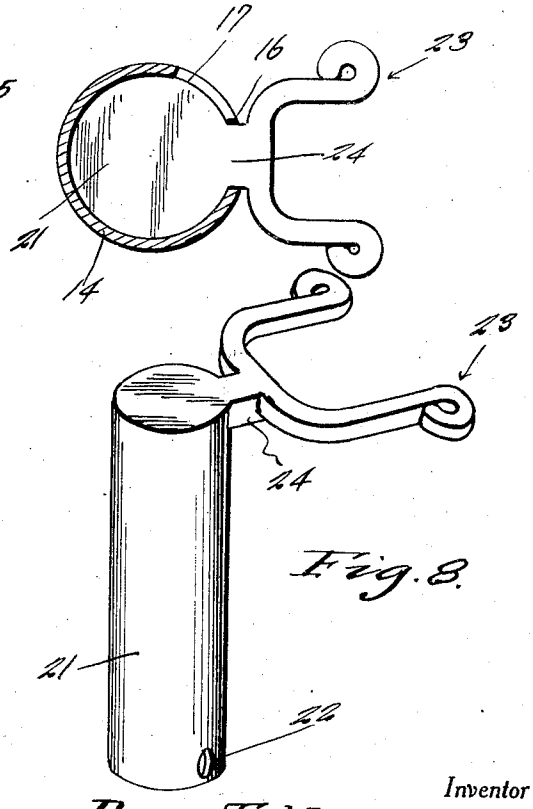
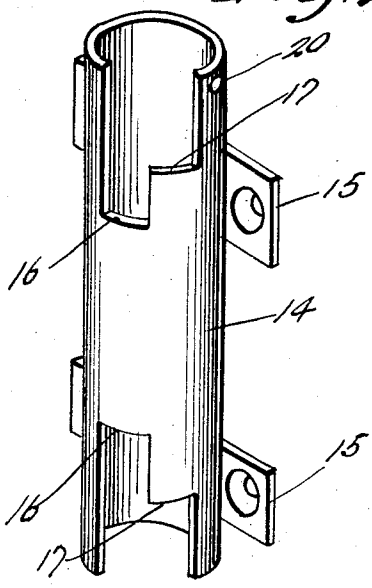


Fig. 8.

Fig. 7.



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UNITED STATES PATENT OFFICE

PERRY THEODORE MAXWELL, OF POTOSI, MISSOURI

GATE LATCH

Application filed March 16, 1932. Serial No. 599,316.

This invention relates to gate fasteners and retaining devices, and has more specific reference to a novel manually released gate tripped latch arrangement.

My primary aim is to generally improve upon inventions of this general classification by providing one of novel design and construction which is calculated to fulfill the requirements of the invention in a practical and efficient manner.

Briefly stated, the preferred embodiment of the invention comprises a fixedly mounted cylindrical or tubular keeper and an especially designed intimately co-acting latch member wherein said latch member is mounted for longitudinal or vertical reciprocation and oscillation in the keeper and having a form for convenient co-operation with the adjacent end bar of the frame of the hinged gate.

The explicit details selected for provision of this arrangement will become more readily apparent from the following description and the accompanying drawings.

In the drawings, wherein like numerals are employed to designate like parts throughout the same:

Figure 1 is an elevational view of a gate and post ensemble including the improved latch type fastener.

Figure 2 is a top plan view showing the gate closed and the relationship of the parts of the structure at this particular time.

Figure 3 is a view like Figure 2 showing the gate in the act of resuming its closed position.

Figure 4 is an elevational view of the invention per se with the gate fork removed to expose the reversible notch arrangement of the keeper.

Figure 5 is a section on the line 5—5 of Figure 2.

Figure 6 is a horizontal section on the plane of the line 6—6 of Figure 4.

Figure 7 is a perspective view of the keeper.

Figure 8 is a perspective view of the latch member.

In Figure 1, the gate post is denoted by the numeral 9 and the gate is represented by the numeral 10, and the gate frame by the numeral 11, the gate hinges by the numeral 12, and the latch post by the numeral 13.

The latch device is composed primarily of two essential parts. The first part may be designated as a keeper and it is represented by the numeral 14 and as seen in Figure 7 comprises an open-ended cylinder or tube provided with suitable attaching brackets 15.

Upper and lower L-shaped notches are formed in the opposite end portions of the working face of the cylinder, said notches being arranged in reverse order so that it is possible to place either end of the tube up depending on whether the gate swings to the left or the right. Each notch is of stepped form and the elongated portion is distinguished by the reference character 16 and this provides the retaining keeper recess while the shorter portion of the notch denoted by the numeral 17 forms an elevated temporary rest for the bolt when it is in the position seen in Figure 3.

The closing cap for the upper end of the cylinder is indicated by the numeral 18 and is interchangeable and is held in place by a cotter key 19, said key being passed through the apertures 20 in either end of the cylinder, depending on which end is disposed upwardly.

The latch unit or member represented in Figure 8 comprises a hollow cylindrical stem 21 of a diameter to fit slidably and rotatably in the cylinder 14 as seen in Figure 4. The lower end thereof is provided with holes 22 to accommodate the shackle of a padlock (not shown) for locking the latch whenever occasion demands.

The U-shaped fork is distinguished by the numeral 23 and is constructed to embrace the adjacent end bar of the frame of the gate as seen in Figure 1 and is connected to the stem by way of a short connection 24 which may be distinguished as the bolt, and this bolt may occupy the closing position seen in Figure 4, or may be elevated and placed on the shoulder 17 to permit the gate to be unlatched and allowing the fork to swing to the position represented in Figure 3.

The free end portions of the arms of the

yoke or fork are rounded so as to avoid sharp projections.

In practice, the keeper cylinder 14 is secured by way of the attaching members 15 to the latch post 13 in the manner shown in Figure 1, and the latch unit is assembled in the cylinder as shown in Figure 4, and the cap 18 fastened in place. Obviously when the stem 21 of the latch member drops down to the position seen in Figure 4, the bolt 24 seats itself in the elongated keeper recess 16, at which time the gate is held in closed position. When it is desired to swing the gate to open position the U-shaped fork 23 is lifted up to disengage the bolt from the recess 16 and at the same time, the stem 21 slides up allowing the bolt 24 to be temporarily seated on the rest or shoulder 17 and this places the latch unit in the position seen in Figure 3.

Upon swinging the gate to closed position, it is obvious that the frame of the gate strikes that arm of the fork which is in its path and the blow thus imparted to the latch member causes it to oscillate and allows the bolt 24 to drop by gravity down into the keeper recess 16, which position it is occupying in Figure 4.

The gist of the invention is in the position of an open-ended cylinder having the upper and lower L-shaped notches forming the reversible keeper recess and temporary latch rests 17 together with the detachable pin retained closing cap 18 which is applicable to either end of the cylinder depending on whichever end is disposed upwardly. This permits the cylinder to be used for a gate which opens either to the left or the right as the case may be.

In addition, novelty is predicated upon the latch unit comprising the stem mounted for vertical sliding and limited oscillation in the cylinder, wherein the upper end of the stem is provided with a U-shaped member to embrace the adjacent bar of the frame of the gate with that portion of the unit between said member 23 and the stem functioning as a bolt 24 which occupies the position shown in Figure 4 when the gate is closed and occupies the temporary lateral angular position when the latch member is in the position seen in Figure 3.

It is thought that the description taken in connection with the drawings will enable a clear understanding of the invention to be had. Therefore, a more lengthy description is thought unnecessary.

While the preferred embodiment of the invention has been shown and described, it is to be understood that minor changes coming within the field of invention claimed may be resorted to if desired.

I claim:

As a new article of manufacture, a relatively stationary keeper device for use in connection with a gate latch of the class described comprising an open ended cylinder provided with apertured attaching members, and having L-shaped longitudinally alined notches formed at opposite ends defining upper and lower selectively usable keeper recesses, also having its opposite ends apertured, a removable cap selectively usable for either end of said cylinder, a connecting pin co-operable with the apertures for holding the cap detachably in place, the order of the aforesaid notches being reversed to permit either end of the cylinder to be disposed upwardly.

In testimony whereof I affix my signature.

PERRY THEODORE MAXWELL.