March 16, 1971 B. MALES 3,570,283

SLIDING GATE PROTECTIVE LATCH

Filed June 30, 1969

FIG. 1

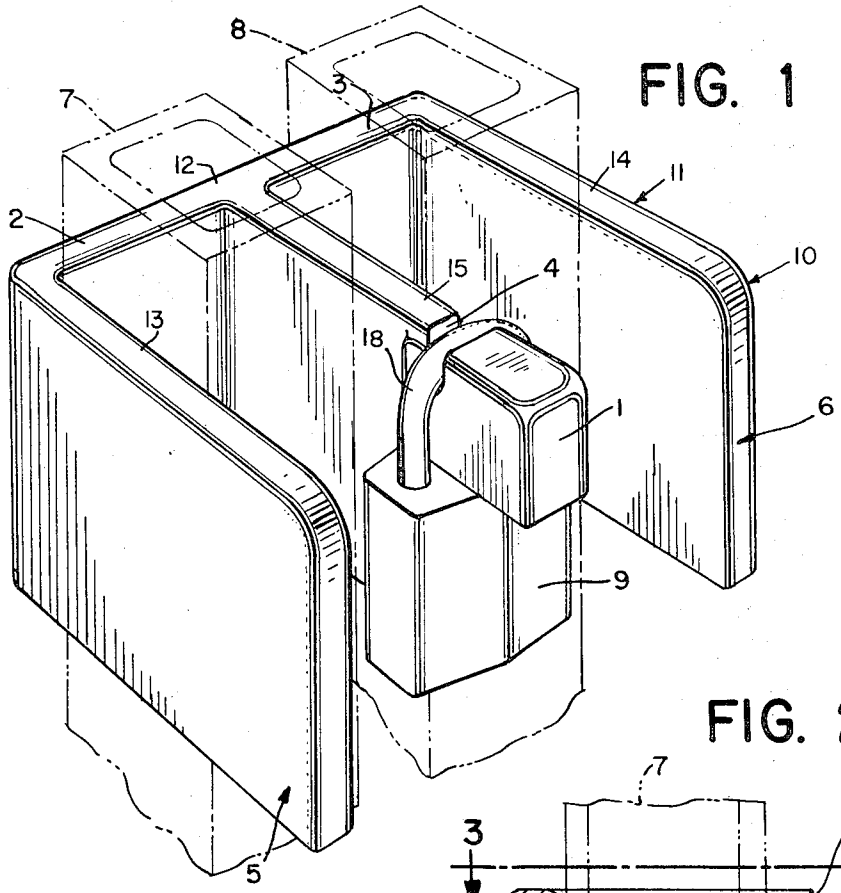


FIG. 2

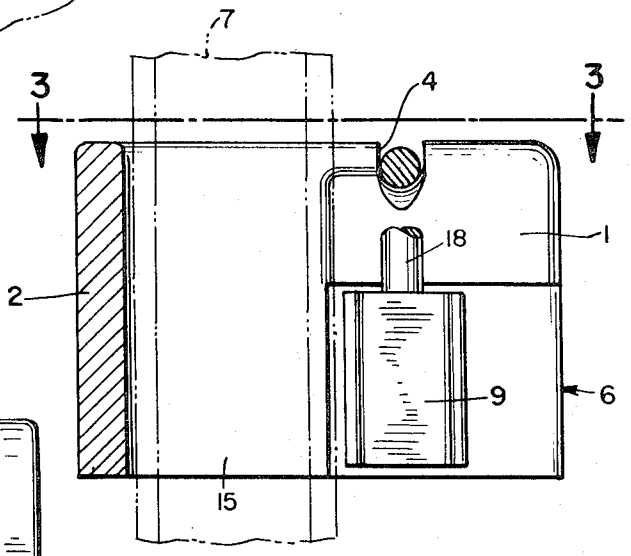
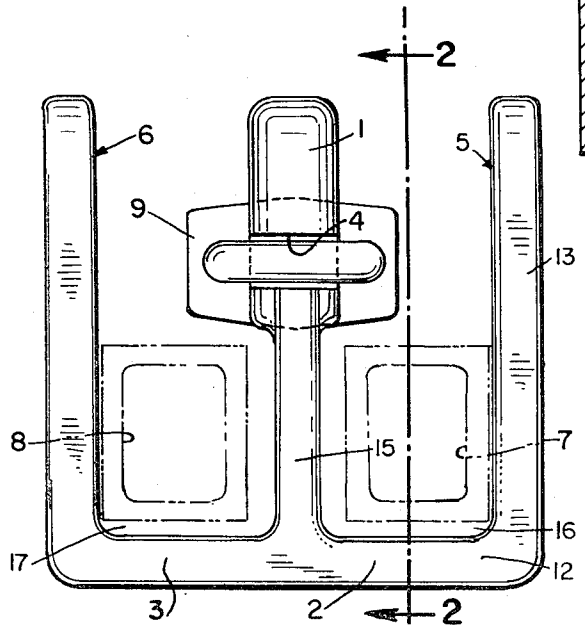


FIG. 3



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SLIDING GATE PROTECTIVE LATCH

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U.S. Cl. 70—14 10 Claims

ABSTRACT OF THE DISCLOSURE

This disclosure relates to latch particularly adapted to secure together adjacent posts of a sliding gate in a manner to be substantially tamper-proof. The latch is constructed to slip over two adjacent gate posts and then have a conventional padlock applied thereto in a manner wherein the padlock prevents the release of the gate posts and at the same time the padlock is in a protected position.

This invention relates in general to new and useful improvements in latch construction, and more particularly to a latch which is specially adapted for latching together two adjacent gate posts.

Gates are conventionally secured together by means of a padlock. The padlock is engaged through special fittings on the gate posts, or is incorporated in a chain which wraps around the gate posts. In these installations, the padlock is subject to cutting and other destructive acts and at the same time the special fitting and chains may be cut. As a result, presently utilized gate latches are merely deterents and not as secure as desired.

In accordance with this invention there is provided a special latch member having adjacent pockets for the reception of gate posts, and means for utilizing a conventional padlock to secure the gate posts in the sockets. In addition, the latch member is so constructed whereby the padlock may be disposed in a protected position.

A particular feature of this invention is the specific shape of the latch member, the latch member being generally W-shape and including a web, two outer flanges and a central strut, all combining to define two adjacent channels or sockets for the reception of two gate posts, and the central strut having means for facilitating the releaseable closing of the channels against the removal of the gate posts by a padlock.

Another feature of the invention is that in the mounting of the padlock, it is disposed in a recessed position between the two flanges so as to greatly restrict tampering.

Still another feature of this invention is the provision of the central strut with an end portion which is particularly adapted to have a padlock mounted thereon, the end portion cooperating with the padlock so as to firmly retain the padlock in position so as to prevent the movement of the padlock relative to the strut in a manner to release a gate post.

A further feature of this invention is to provide a latch which is particularly adapted for securing together a store double-sliding gate in a manner wherein a padlock utilized to secure the gates together is disposed within the enclosure defined by the gates and in a position wherein it is difficult to tamper with the same.

With the above and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claims and the several views illustrated in the accompanying drawing:

In the drawing:

FIG. 1 is a rear perspective view of the latch which is the subject of this invention and shows the specific construction thereof.

FIG. 2 is a vertical sectional view taken along the line 2—2 of FIG. 3 and shows more specifically the details of the latch.

FIG. 3 is a horizontal sectional view taken through a gate structure along the line 3—3 of FIG. 2 above the latch.

Referring now to the drawings in detail, it will be seen that the latch, which is the subject of this invention, is generally identified by the numeral **10** and includes a latch member, generally identified by the numeral **11** and a conventional padlock **9**.

The latch **10** is particularly adapted to releasably secure together two gate posts **7** and **8** against separation from one another.

The latch member **10** is generally of a W shape in plan and is of a one-piece construction, preferably being in the form of a high quality steel casting. The latch member **10** includes a web **12** having projecting therefrom in parallel relation outer flanges **13** and **14**. A central strut **15** also projects from the web **12** and in combination with the web and the flanges **13** and **14**, define two parallel channels or sockets **16** and **17** in which the gate posts **7** and **8**, respectively, are received. It is to be noted that the portions of the web **12** between the flanges **13** and **14** and the strut **15** define what may be considered posts and are identified by the numerals **2** and **3**. These posts **2** and **3**, together with the padlock **9**, cooperate to lock the gate posts **7** and **8** together.

It is to be particularly noted that the strut **15** includes a free end portion **1** which is of an increased width, but is shallower than the remainder of the strut **15**. The enlargement **1** is spaced from the web **12** suffiicently to clear the gate posts **7** and **8**.

It is to be noted that the enlarged end **1** of the strut **15** is provided in the upper surface thereof with a transverse notch **4** which receives an intermediate part of the hasp **18** of the padlock **9**. It is to be further noted that the height of the enlarged end portion **1** is such that when the padlock **9** is in position, there can be very little vertical movement of the padlock **9** so that the same cannot be removed from the strut **15**. In addition, it is to be noted that the width of the enlarged end portion **1** is such that there can be relatively little twisting of the padlock **9** relative to the strut **15**. Thus, the padlock **9** functions as a stable retainer against the removal of the gate posts **7** and **8** from within the channels **16** and **17**.

It is to be further noted that the free portions **5** and **6** of the flanges **13** and **14**, respectively, extend on opposite sides of the position of the padlock **9** so as to protect the padlock **9** against customary tampering. By so placing the padlock **9** in a protected position, the latch **10** provides maximum security.

The latch **10** is particularly advantageous in conjunction with a store double-sliding gate. When the adjacent gate posts **7** and **8** of the double-sliding gate are brought together in slightly spaced relation, the latch member **11** may be slipped into place in the manner clearly illustrated in the drawing. Thereafter, one may reach through one of the gates and drop the hasp portion **18** of the padlock **9** over the enlarged end portion **1** and then swing the body of the padlock **9** under the enlarged end portion **1** and into locking engagement with the hasp **18**. When the padlock **9** is so positioned, it is also protected by the double-sliding gate. This provides for maximum security with a minimum of effort.

It will also be readily apparent that when one is equipped with the key for the padlock **9**, even though the padlock **9** may be in a position providing maximum protection, the padlock **9** may be usually opened and removed, followed by the ease of removal of the latch member **11** so as to release the double-sliding gate.

It is to be understood that while the latch **10** is particularly adapted for store double-sliding gates, it may be utilized in conjunction with gates of all types. It is further to be understood that although only a preferred embodiment of the latch has been specifically illustrated and described herein, minor variations may be made in the construction of the latch without departing from the spirit of the invention.

I claim:

1. A latch particularly adapted for securing together overlapping posts of a gate; said latch comprising a generally W-shaped latch member including a web, two outer flanges and a central strut; said latch member defining two adjacent channels for the reception of two gate posts, and said central strut having means solely thereon for facilitating the releasable closing of said channels against the removal of said gate posts therefrom.

2. The latch of claim **1** wherein said means include a padlock disposed on and transversely of said strut and in each of said channels.

3. The latch of claim **1** wherein said means include a padlock disposed on and transversely of said strut and partially in each of said channels, and an end portion on said strut remote from said web and beyond the intended positions of gate posts of a reduced dimension for the reception thereof in a hasp portion of said padlock.

4. The latch of claim **3** wherein said end portion is snugly received in the hasp of said padlock to limit relative movement between said padlock and said strut.

5. The latch of claim **3** wherein said end portion is snugly received in the hasp of said padlock to limit relative movement between said padlock and said strut, and said end portion has a transverse groove in the upper surface thereof forming an interlock with said padlock hasp.

6. The latch of claim **3** wherein said end portion is snugly received in the hasp of said padlock to limit relative movement between said padlock and said strut, and said flanges being disposed adjacent said end portion for guarding said padlock mounted on said end portion against tampering.

7. The latch of claim **3** wherein said flanges are disposed adjacent said end portion for guarding said padlock mounted on said end portion against tampering.

8. The latch of claim **2** wherein said flanges extend beyond the intended positions of gate posts and are disposed on opposite sides of said means for guarding said padlock mounted on said end portion against tampering.

9. In a gate construction of the type including two gate posts disposed in closely adjacent spaced relation, latch means separate and apart from said gate post for releaseable latching of said gate posts together, said latch means comprising a generally W-shaped latch member including a web, two outer flanges and a central strut, said latch member defining two adjacent channels each having positioned therein one of said gate posts with said central strut extending between said gate posts, and a padlock disposed on and transversely of said central strut and in each of said channels retaining said latch member on said gate posts with said gate posts trapped within said channels.

10. The gate construction of claim **9** wherein said central strut has a free end portion snugly received in a hasp of said padlock and projecting therebeyond remote from said web and limiting relative movement between said padlock and said central strut.

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