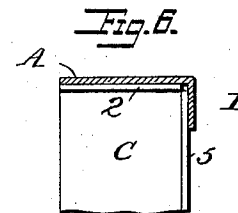
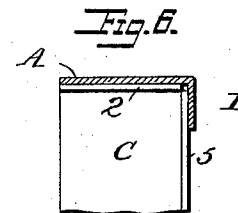
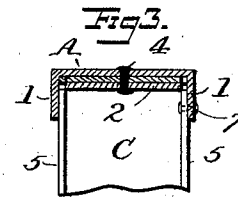
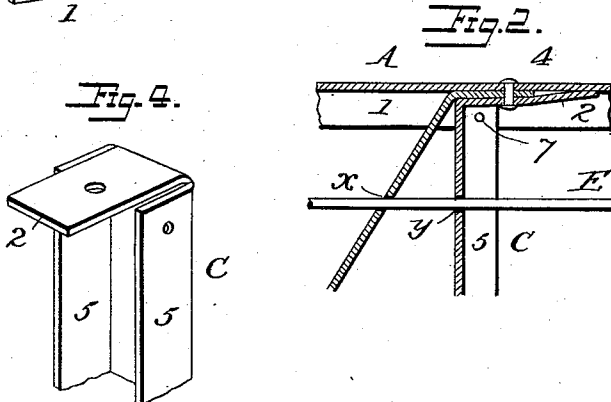
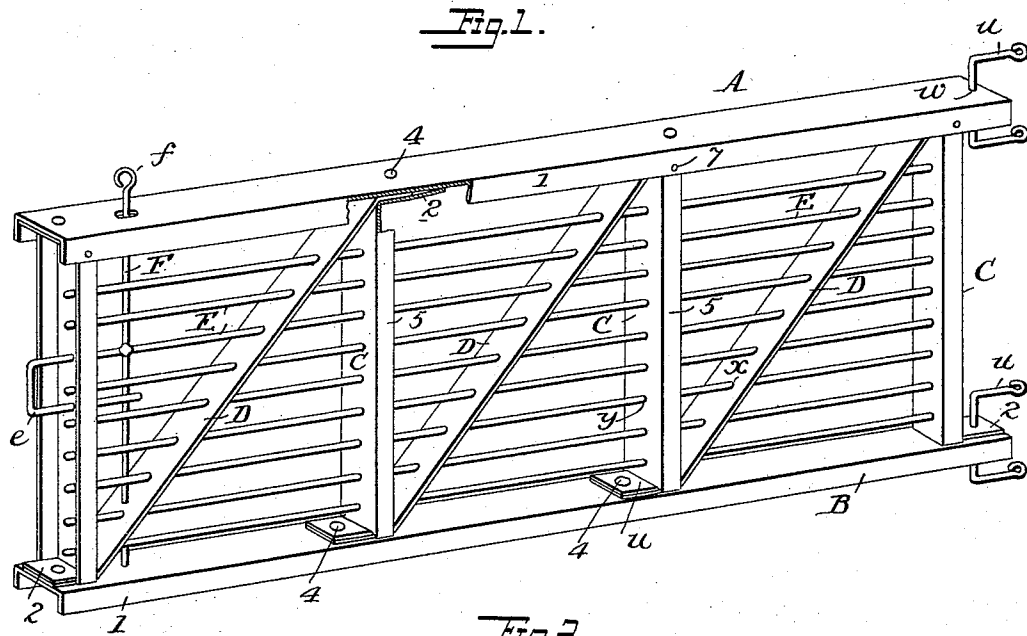


(No Model.)

W. R. WHITE.
GATE.

No. 566,104.

Patented Aug. 18, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM RICHARD WHITE, OF JERSEYVILLE, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 566,104, dated August 18, 1896.

Application filed October 24, 1893. Serial No. 489,035. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM RICHARD WHITE, a citizen of the United States, residing at Jerseyville, Jersey county, State of Illinois, have invented certain new and useful Improvements in Gates, of which the following is a specification.

This invention relates to certain new and useful improvements in metallic gates; and it consists, substantially, in such features of construction, arrangement, and combinations of parts, as will hereinafter be more particularly described.

Figure 1 is a perspective view in part section of my improved gate. Fig. 2 is an enlarged detail in section; Fig. 3, a cross-section of Fig. 2; Fig. 4, a perspective view of one of the standards; Figs. 5 and 6, views showing the modification.

The frame of the gate consists of the upper and lower bars A B, the standards C, and the diagonals D, and with these are combined intermediate bars, preferably in the form of rods, although they may be of wood as well as of metal, or formed of pipe, as, for instance, gas-pipe.

One or both of the bars A B preferably consists of a flat strip of metal bent at one or both edges to form side flanges 1 1, there being a side flange at each edge of the construction shown in Figs. 1, 2, and 4, and at one edge, as shown in Figs. 5 and 6.

Each of the standards C consists of a flat strip of metal bent up to form side flanges 5 5 in the construction shown in Figs. 1 to 4, there being two side flanges on each standard, while in the construction shown in Figs. 5 and 6 there is one side flange on each standard. The end of each strip composing each standard C is bent over at right angles to form a tongue 2, which may be applied and secured directly to the face of one of the bars A B, or when diagonals are used may be applied to the end of the diagonals.

Each diagonal D consists of a flat strip bent at each end to form a tongue 3 at an angle to the strip, which tongue is applied directly to the face of one of the bars A B, and is confined between the tongue 2 of the standard C and the said bar. In some instances, if desired, the tongue of the standard may be ap-

plied to the bar and the tongue of the diagonal may be clamped to the under side or upper side, as it may be, of the tongue of the standard. Any suitable means may be employed for securing together the tongues of the standards and diagonals and the bars A B. For instance, as shown in Fig. 2, there may be a bolt 4, extending through one or both tongues and through the adjacent bars. The diagonals should have their upper ends nearest the hinged end of the gate, as greater strength is thereby secured. When the gate is light and no great strength is required, the diagonals may be dispensed with.

It will be seen that the bars and standards A B C, as above described, may be made of ordinary flat metal which can be bent up by means of rolls at a comparatively slight expense, so as to form the flanges, and that when put together the flanges of the longitudinal bars in connection with the flanges of the standards will so stiffen the whole structure that it can be made of exceedingly light metal and yet still have sufficient strength and rigidity, and when the diagonals are used, especially when they are inclined, as specified, this rigidity may be greatly increased with but little addition to the weight, and to this end it is advisable in some cases to insert bolts or rivets 7 through the overlying flanges 1 and 5, as best shown in Fig. 3.

While the intermediate bars E may be made of strips of wood or other light material, I prefer to make use of rod-iron or wire heavy enough for the purpose, passing through holes *y* in the standards C and holes *x* in the diagonals D in line with each other, securing the rods in any suitable manner, as, for instance, by bending down their ends. I may make use of such rods for the purpose of securing a bolt *e* with a wide bearing. For instance, the end of one of the rods is prolonged and then bent downward and inward, passing through an opening in the end standard, and any suitable means may be employed for shifting the rod E' back and forth to move the bolt *e* into and out of engagement with the post. As shown, there is a vertical spring-rod F passing through openings in the top and bottom bars and diagonal and connected with the rod E' and having its upper end

formed into a handle *f*. Any tendency of the bolting-rod *E'* to move back is resisted by the vertical spring *F*, and by applying the hand against any part of the latter it may be so bent as to push back the bolt, or by seizing the handle *f* and manipulating the same the bolt may be caused to be thrown back, so as to disengage it from the post and allow the gate to be swung.

10 The said gate may be hung in any suitable manner. As shown, the ends of the bars *A* *B* project beyond the rear standard *C* and are provided with openings *w* for receiving the pintles *u*, consisting of wire or rod-iron bent to the proper shape, as, for instance, a *U* shape, and provided with eyes formed by bending the ends and adapting the same for attachment to the post.

It is of course desirable that the projecting ends of the bars *A* *B*, which are perforated to receive the pintles *u*, should be as strong as possible in order to sustain the requisite wear and strain. This is secured, without the expense of forging or riveting extra parts to the gate, by extending the flanges or tongues 2 of the end upright outward beyond the said upright or standard, and by carrying the tongue 3 at the upper end of the rear diagonal *D* outward beyond the said rear standard between the flange 2 thereof and the upper bar *A*.

In the construction shown in Fig. 5 the rod *E'* is not only bent back, as before described, but is also bent downward, so as to practically constitute a spring *F'*, the equivalent of the spring *F* of Fig. 1. Any other suitable

form of a spring-bearing for the sliding and bolting rod *E'* may, however, be employed.

Without limiting myself to the precise construction and arrangements of parts shown, 40 I claim as my invention—

1. The combination in a gate of the upper and lower bars, standards *C*, and intermediate bars *E* consisting of metal rods, one of said rods *E'* being bent at the end to form a bolt *e* and sliding in bearings in the standards, substantially as set forth. 45

2. The combination with the bars and standards of a gate, of the sliding rod *E'* bent at the end to form a bolt *e* and a spring connected with the sliding rod, substantially as set forth. 50

3. The combination with the upper and lower bars, and standards, of intermediate bars *E*, a sliding bar *E'* bent at the end to form a bolt *e*, and a vertical spring-rod *F* connected with the sliding bar *E'*, substantially as set forth. 55

4. The combination of the frame of the gate, the sliding bar *E'* bent to form a bolt *e*, the vertical spring *F* connected to the bar *E'* and extending beyond the upper bar of the gate to form a handle *f*, substantially as set forth. 60

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 65

WILLIAM RICHARD WHITE.

Witnesses:

MATTIE WHITE,

ALBERT A. GREENBERG.