Oct. 2, 1923. 1,469,425

W. E. MEHANNA

GATE HINGE

Filed Sept. 27, 1922

Fig. 1.

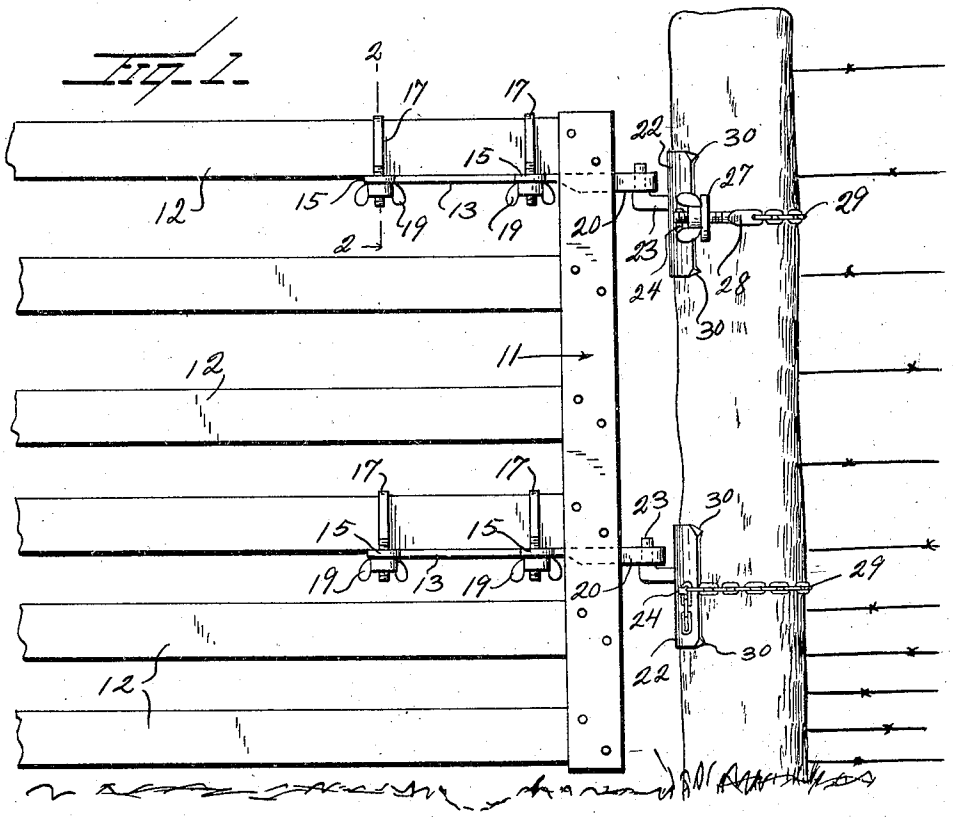


Fig. 3.

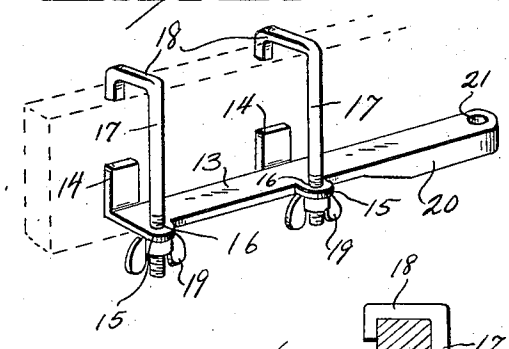


Fig. 4.

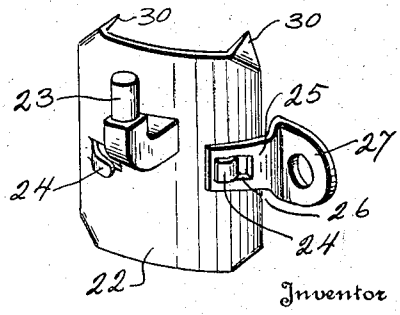
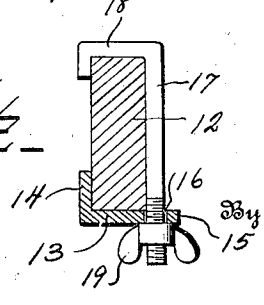


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIS E. MEHANNA, OF BUSSEY, IOWA.

GATE HINGE.

Application filed September 27, 1922. Serial No. 590,899.

To all whom it may concern:

Be it known that I, WILLIS E. MEHANNA, a citizen of the United States, residing at Bussey, in the county of Marion and State of Iowa, have invented certain new and useful Improvements in Gate Hinges, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to hinges, and more particularly to a gate hinge.

An important object of the invention is to provide a device of this character which prevents the sagging ordinarily met with in the hanging of farm gates and the like.

A further object of the invention is to provide a device of this character which is adjustable and which permits hanging of the gate in substantially any manner which may be desired.

A still further object of the invention is to provide a hinge of this character wherein the means of attachment whereby the hinge is attached to the gate and gate post are such that the attachment of the gate or mounting thereof will require but a few moments of time.

These and other objects I attain by the construction and arrangement shown in the accompanying drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein like reference characters designate like parts throughout.

In the drawings:—

Figure 1 is a side elevation showing hinges constructed in accordance with my invention applied to a gate;

Figure 2 is a section on the line 2—2 of Figure 1;

Figure 3 is an enlarged perspective view of the supporting bar detached; and

Figure 4 is a perspective view of the post plate detached.

Referring now more particularly to the drawings, the numeral 10 indicates a gate post and 11 a gate embodying horizontally extending bars 12 as is usual. The numeral 13 designates an attaching bar forming one section of a hinge which is flat upon its upper surface and adapted to engage beneath the under face of a horizontally disposed bar 12. The attaching member 13 is provided at one side thereof and at one end with an upstanding lug 14 adapted to engage against the side face of the bar 12 beneath which the attaching member 13 is mounted. At the opposite side of the bar from the lug 14 which is disposed at right angles to the bar is arranged an ear 15 having an opening 16 formed therein through which is directed a bolt 17, the upper end of which is uncinated, as at 18, and adapted for engagement over the upper edge of the bar 12. The lower end of the bolt 17 is threaded and provided with a butterfly nut 19 which engages against the under face of the ear and by means of which the bolt may be tightened.

Intermediate its ends and at a point well spaced from the lug 14 and ear 15, a second lug 14 and ear 15 are provided, having a bolt 17 similar to that just described. The attaching bar 13 is attached to the bar 12 by engaging the same against the under surface of the bar 12 with the lugs 14 in engagement with one side face of the bar 12. The uncinated ends 18 of the bolts 17 are then engaged over the upper edge of the bar and the wing nuts 19 tightened to firmly clamp the attaching member 13 against the under surface of the horizontal bar 12 of the gate. The opposite end of the attaching bar 13 is relatively thickened, as indicated at 20, and has formed therein an opening 21 adapted for the reception of a pintle or hinge pin.

A post attaching plate 22 is provided for each attaching bar 13 employed in hanging the gate. These plates are arcuate in form so as to fit against the post to which they are to be applied and are provided with hinge pins 23 which are vertically disposed and adapted for engagement in the openings 21 of the attaching bars 13. The plates 22 are preferably formed of suitable heavy gauge metal, which is struck out at opposite sides thereof to form hooks 24. With one of these hooks 24 an attaching plate 25 is engaged through medium of a slot 26 formed in the plate, the hook being bent inwardly against the plate to prevent its removal. This attaching plate is arcuately curved to conform to the curve of the plate 22 and is provided at its free end with an angular portion 27 having an opening formed therethrough through which is directed a bolt 28. One end of this bolt is threaded, and has mounted thereon a wing nut engaging the face of the angular portion 27, and the opposite end thereof has

an eye formed therein with which is engaged the end link of a chain 29, any of the links of which are engageable with the remaining hook 24 of the plate 22. The plate 22 has its corners bent inwardly to form post engaging tangs 30.

When the plate 22 is applied to a post, the desired position thereof having been previously determined, it is abutted against the face of the post and the chain passed about the post with the bolt 28 fully extended and the furthermost possible link thereof engaged with the hook 24. The wing nut is then tightened and by this tightening, forces the plate 22 into engagement with the post, causing the tangs 30 thereof to become imbedded in the wood of the post and firmly hold the plate against all movement. With the plate 22 in position, it is merely necessary to mount the gate upon the pivots 23 thereof. In placing the plates upon the post, they may be arranged so that the pivots thereof will engage with the attaching bars 13 in any desired manner.

From the foregoing it is believed to be obvious that a gate hinge constructed in accordance with my invention may be very readily applied to a gate and when applied will be held firmly in position. Attention is directed to the fact that if the gate show any tendency to sag after use, this may be readily rectified by simply loosening the wing nuts 19 of the bolts 17 of one of the supporting bars and shifting the supporting bar upon the bar 12 to which it is attached until the gate assumes the proper level. Many changes being possible in the shape, size and arrangement of the various parts above described, I do not limit myself thereto except as hereinafter claimed.

I claim:—

1. In a gate hinge and in combination with a gate and gate post, the gate embodying horizontal bars, a hinge plate secured to the gate post, a bar pivotally engaged with the hinge plate and adapted to engage a horizontal face of the horizontal bar of the gate, said bar being provided at one side thereof with spaced upstanding lugs adapted to engage against a side face of the horizontal bar of the gate, and at the opposite side thereof with spaced ears having openings formed therein, bolts extended through said openings and provided with nuts abutting said ears, said bolts having their free ends uncinated and adapted to engage about the opposite face of the gate bar from that against which the attaching bar is engaged.

2. In a gate hinge and in combination with a gate and gate post, the gate embodying horizontal bars, a hinge plate secured to the gate post, a bar pivotally engaged with the hinge plate and adapted to engage one face of a horizontal bar of the gate, said bar being provided at the sides thereof with portions engaging the horizontal bar of the gate to prevent transverse movement of the hinge bar thereon, one of said means being provided with an angular portion opposing the hinge bar and adjustable toward the same, whereby to clamp the gate bar to the hinge bar.

In testimony whereof I hereunto affix my signature.

WILLIS E. MEHANNA.