Mar. 27, 1923. 1,449,587

C. COLVIN

FARM GATE

Filed Sept. 26, 1921.

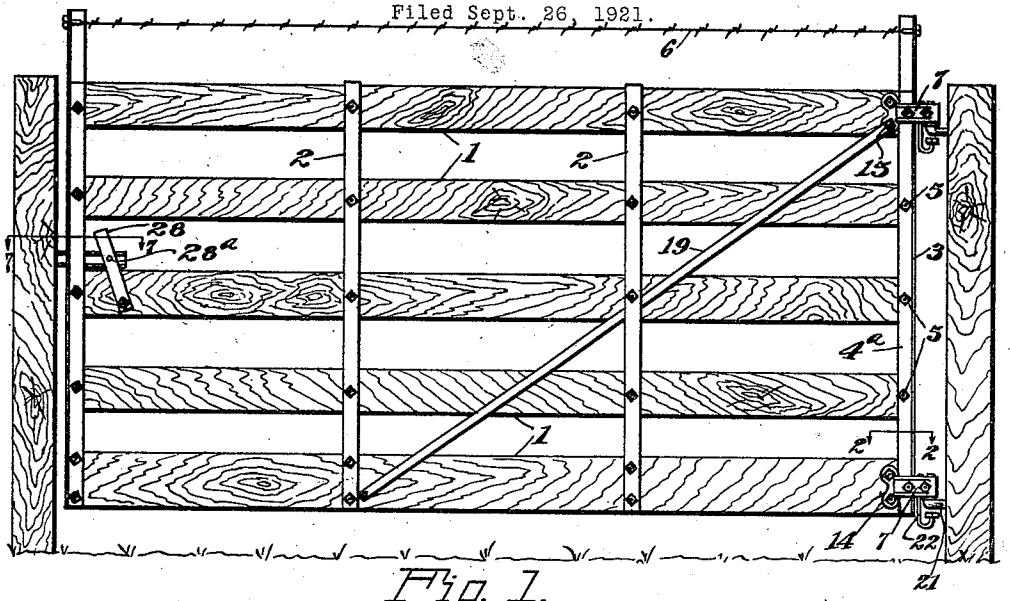


Fig. 1.

Fig. 2.

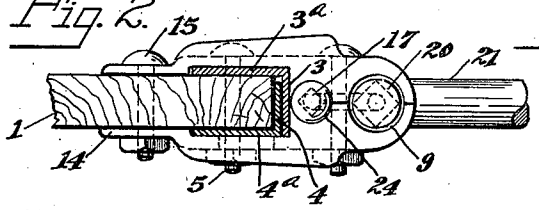


Fig. 3.

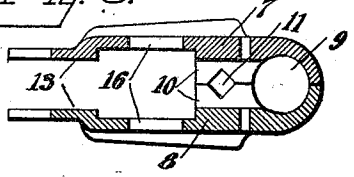


Fig. 4.

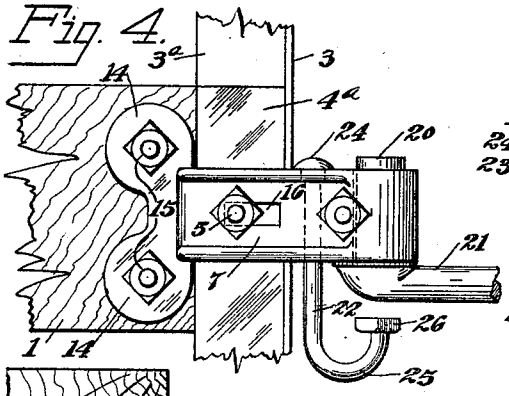


Fig. 5.

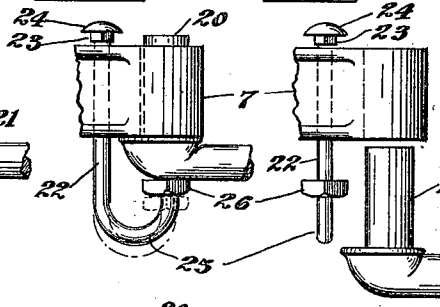
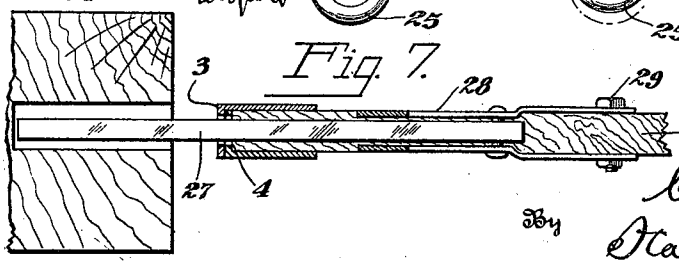


Fig. 6.

Fig. 7.



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UNITED STATES PATENT OFFICE.

CHASE COLVIN, OF SOUTH CHARLESTON, OHIO.

FARM GATE.

Application filed September 26, 1921. Serial No. 503,343.

To all whom it may concern:

Be it known that I, CHASE COLVIN, a citizen of the United States, residing at South Charleston, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Farm Gates, of which the following is a specification.

My invention relates to improvements in gates of the kind which swing horizontally in opening or closing.

An object of my invention is to provide an improved form of angle-iron upright for the ends of the gate of a character which will enclose the ends of the longitudinal wooden rails of the gate by the employment of angle-irons of standard construction.

A further object of my invention is to provide hinge members arranged to be clamped to the gate in a manner to not only snugly fit the angle-iron upright at the hinge end of the gate but also snugly engage the adjacent portion of the wooden longitudinal rails; a further object in this connection being to so construct the hinge members that the upper one will serve as a point of attachment for the usual brace bars employed to prevent the gate from sagging.

Other objects of the invention will appear from the accompanying description and claims.

In the accompanying drawings:—

Fig. 1 is a side elevation of a gate embodying my improvements.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a transverse section through the gate hinge members.

Fig. 4 is an enlarged side elevation of a portion of the gate and one of the hinges.

Fig. 5 is a side elevation illustrating the manner of releasing the locks for the hinges.

Fig. 6 is another side elevation of the hinge lock showing the same in complete releasing position and the hinge lifted from the pintle.

Fig. 7 is a section on the line 7—7 of Fig. 1.

Referring to the drawings, 1 represents the longitudinal wooden rails of the gate, having their intermediate portions connected together by two upright bars of any suitable construction and also have their ends connected by uprights, the peculiar construction of which forms one of the features of my invention. I form each of the end uprights of two angle-iron bars of standard construction, the wings 3 and 4 of which overlap and abut the ends of the respective rails 1 while the wings 3^a and 4^a of the bars are fitted to the sides of the rail ends and clamped thereto by bolts 5. The side wing 4^a is, however, less in width than the width of the plate 3^a to a degree equal to the thickness of the wing 4 so that the vertical edges of the wings 3^a and 4^a will stand flush with a perpendicular plane arranged at right angles to said wings, or in transverse alignment.

The angle-iron formed by the wings 4 and 4^a terminates flush with the upper edge of the top rail 1, while the other angle-iron is projected above the top edge of the upper rail a suitable distance to provide a point of attachment for barbed wire 6.

Each of the hinges for the gate consists of two clamping members 7 and 8, preferably of cast metal cored out to provide, when placed together, a round pintle opening 9, webs 10 having a square opening 11, a rectangular recess 12 of a size equal to the outside dimensions of the angle irons, and offset portions 13 having a pair of ears 14. These clamping members, of which there are two pairs, are connected to the upper and lower rails of the gate by bolts 15 which pass through the ears 14 and the rail 1 and also by one of the bolts 5 which passes through slotted openings 16 in the clamping members and other openings formed in the angle iron members and the wooden rail 1. An additional bolt 17 is also passed through the openings 18 in the clamping members intermediate the openings 9 and 11. The upper ends of the braces 19 which are employed to keep the gate from sagging may be conveniently attached to one of the bolts 15. By reason of the offset end portions 13 of the clamping members, it will be seen that these members when in position, not only serve to tightly hug the angle irons, but also are permitted to tightly clamp the wooden bar just forward of the angle-iron members. It will also be seen that by reason of the fact that the forward edges of the wings 3^a and 4^a of the angle-bars are in alignment described, these edges are permitted to lie closely adjacent the offset portions 13 so that there will be no intervening

exposed portion of the wooden rail. It will also be noticed that none of the bolts 5 and 15 pass through the wooden rail on the same longitudinal lines so that danger of splitting the rail is obviated.

The hinge members are hung on the vertical pintle portions 20 of lug screws or hinge-bolts 21 and are secured in this position by a lock which has a vertical portion 22 terminating at its upper end in a squared portion 23 and a head 24, and at its lower end in a hook-shaped portion 25 which has a nut 26 preferably threaded on its end. The vertical portion 22 is inserted in the square opening 11, with the hook-shaped portion thereof at the lower end and its head at the upper end. The squared portion 23 will snugly fit the squared opening 11 in the webs 10 to prevent the lock from turning and thereby hold it in the locking position shown in Fig. 4, with the nut beneath the pintle portion. The portion 22, however, is round in cross-section so that when the lock is raised to the position shown in Fig. 5 it may be turned at right-angles or to the position shown in Fig. 6, thus freeing the same from the under side of the pintle thereby permitting the gate to be raised from the pintles. By the peculiar construction of this lock, the gate may be lifted from the hinge pintles while in closed position, which is very desirable when the gate is banked by snow or when it cannot otherwise be freely swung upon its hinges.

Referring to Figs. 1 and 7, 27 represents a latch bar which is slidably mounted in slots cut in the wings 3 and 4 of the forward upright angle-irons, and has pivotally connected therewith as at 28^a a loop 28, the free ends of which are pivotally connected to one of the longitudinal bars 1 by the bolt 29.

Having thus described my invention, I claim:—

1. In a gate structure, the combination, with a series of longitudinal bars, of a metallic upright enclosing the ends of said bars, a pair of hinge clamps secured to said upright and one of said bars, said clamps being offset so as to snugly fit the metallic upright and also the sides of said bar adjacent said upright, the vertical edges of the side wings of said upright being in transverse alignment with each other and extending to within close proximity to the shoulders formed by the offsets of said clamps, bolts projecting through said clamps, upright and bar in different longitudinal planes, and a brace for said gate having a connection with one of said bolts at its upper end and with one of the longitudinal bars at its lower end.

2. In a gate structure, the combination, with a series of longitudinal bars, of an upright formed of two angle-iron members of standard shape placed together with two of the wings overlapping and abutting the ends of said bars with the other wings lying parallel to and enclosing the sides of said bars near the ends thereof, and a pair of clamps secured to said angle irons, each pair of said clamps being also secured to one of said bars, the clamps of each pair being formed with parallel inner faces fitted snugly to the outer faces of the angle-irons and also with parallel offset inner faces fitted snugly to the sides of the corresponding bar with the shoulders formed by the offsets lying in comparatively close proximity to the vertical edges of the angle-irons.

In testimony whereof, I have hereunto set my hand this 20th day of September 1921.

CHASE COLVIN.