Aug. 11, 1953 R. ESSLINGER 2,648,092

COMBINATION GATE HINGE AND LOCK

Filed April 19, 1951

FIG. 1.

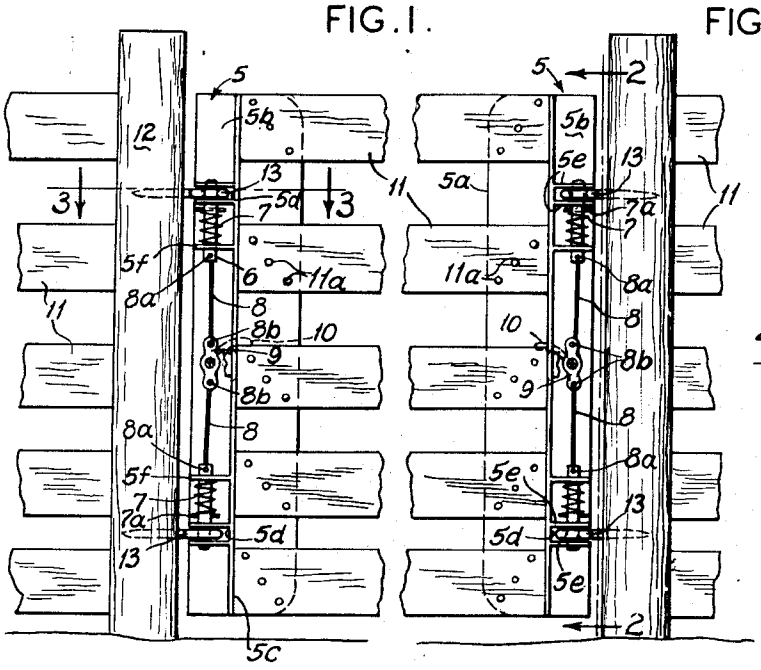


FIG. 2.

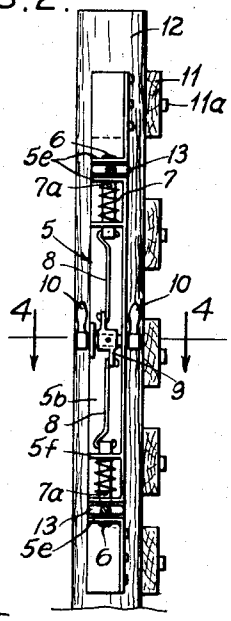


FIG. 3.

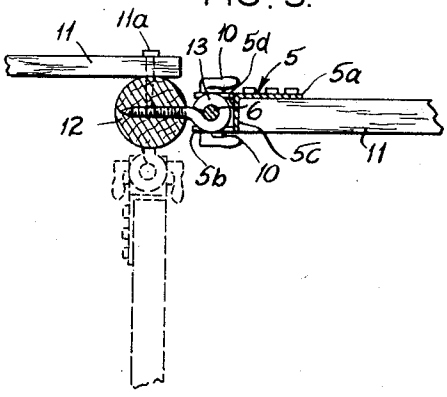


FIG. 4.

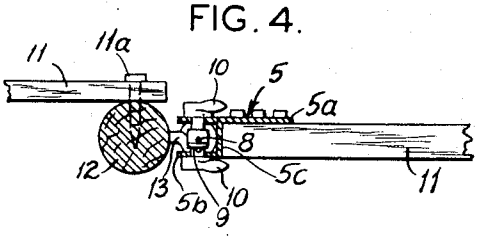


FIG. 6.

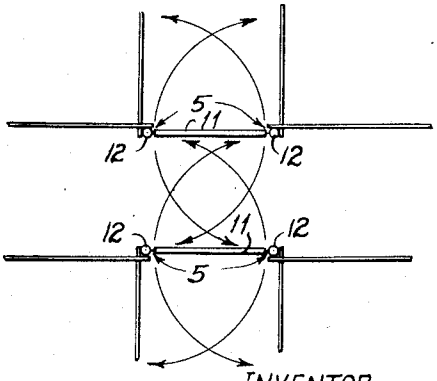
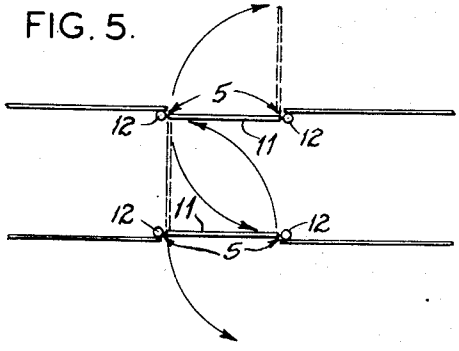


FIG. 5.



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COMBINATION GATE HINGE AND LOCK

Robert Esslinger, Prophetstown, Ill.

Application April 19, 1951, Serial No. 221,823

1 Claim. (Cl. 16—147)

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This invention relates to gates and the hinges and locks as used thereupon, and the chief object of the invention is to provide a combined gate hinge and lock unit for mounting at each side of a gate, with means for attachment on the units for operatively engaging the gate-posts at each side of the gate-way, and whereby the gate will normally stand supported and in locked position against opening at either side thereof, said units including pivot pins for slidably engaging eye-bolts seated in the gate-posts at top and bottom ends thereof, whereby said pins may function in one position as pivots for the gate to open and close upon, or may function in another position for locking the gate against movement in either direction, as when the ends of the pins are passed through said eye-bolts of the posts, and means for sliding said pivot pins at either side out of engagement with the eye-bolts, for opening the gate at that side while the opposite side of the gate remains pivotally hinged to the gate post at that side.

Another object of the invention is to provide a pair of combined gate hinge and lock units for mounting at each side of a gate as positioned between gate-posts, each said post having at the top and bottom ends thereof eye-bolts seated therein in transverse alignment with pairs of spaced and perforated keeper lugs extended out at the upper and lower ends of the hinge and lock units and adapted for engaging between them the eyes of the eye-bolts of the posts, pivot-pins slidably mounted on the units and adapted for slidable engagement with and disengagement from the eyes of the eye-bolts, means on the units for supporting the pivot-pins in operative slidable position, and means on the units for slidably operating the pivot-pins at either side of the gate for freeing that side of the gate for opening same while the opposite side of the gate remains pivotally supported by the pivot-pins at that side of the gate.

With the stated objects in view, together with such other objects as may appear from the specification, attention is directed to the accompanying drawing as illustrating certain preferred structural features of the invention, and wherein

Figure 1 is a side elevational view of a gate assembly constructed in accordance with the invention, the gate being here shown in normally closed and locked position.

Figure 2 is an edge or end view of the assembly of Figure 1, taken on the line 2—2 of Figure 1.

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Figure 3 is a horizontal sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a horizontal sectional view on the line 4—4 of Figure 2.

Figure 5 is a diagrammatic lay-out illustrating a pair of the gates as positioned at opposite sides of a run-way or road.

Figure 6 is a similar diagrammatic lay-out illustrating a pair of the gates as positioned at cross-run-ways or roads.

In practising this invention I provide a pair of elongated gate hinge and lock units represented generally at 5, the same being constructed of any suitable material, such as sheet metal, and including inner and outer webs 5*a*, 5*b*, and the centrally positioned and perpendicularly outstanding webs 5*c*. The outer webs 5*b* are slotted into at the upper and lower ends as shown at 5*d*, and pairs of perforated keeper-lugs 5*e*, of flat formation, are horizontally and rigidly anchored onto the margins of these slots. Similar flat and perforated guide-lugs 5*f* are horizontally and rigidly anchored onto the webs 5*b*, 5*c*, inwardly of the keeper-lugs 5*e* and in spaced relation thereto. Suitably heavy pivot pins 6 are freely and slidably seated through the perforated keeper and guide lugs 5*e* and 5*f*, and compression coil springs 7 are mounted over these pivot pins 6 and braced at their ends between the lugs 5*e*, 5*f*, the said springs being anchored at their outer ends to the pivot pins, as indicated at 7*a*. Thus the normal action of the springs is to urge the pivot pins outwardly through the keeper and guide lugs, to their locking positions as will later be pointed out.

Pairs of operating wires or rods 8 are hooked at their outer ends through the inner ends of the pivot pins 6, as indicated at 8*a*, said wires or rods being extended inwardly in alignment as shown, with their inner adjacent ends falling short of meeting so as to leave an intervening space. This space is then bridged by means of short operating or turn-links 9, to the ends of which links the inner ends of the wires or rods 8 are freely connected as indicated at 8*b*, by passing the turned ends or extremities of the wires or rods through apertures in the ends of the links 9. Operating handles 10 are rigidly anchored to the links 9 through their centers, and these handles are extended outwardly at each side.

For completing a gate in accordance with this invention, a plurality of cross boards or slats 11 are secured at their ends to the inner webs 5*a* of the units 5, by means of bolts, screws or

rivets 11*a*. The gate as thus completed is mounted within the gateway as provided by the laterally spaced gate-posts 12, by seating pairs of eye-bolts 13 into the posts 12 adjacent their upper and lower ends, said eye-bolts 13 being positioned so as nicely to align with the keeper lugs 5*e* of the uints 5, and so as to enter into the intervening spaces between these lugs, the eyes of the bolts 13 being turned flatly horizontal for this purpose. The pivot pins 6 are then retracted to permit the full entry of the eyes of the eye-bolts into place with the eyes aligned with the apertures of the keeper lugs. The pivot pins 6 are easily retracted for the stated purpose by merely turning the handles 10, and when the handles are again released the ends of the pivot pins 6 pass outwardly again through the eyes of the eye-bolts 13, thus pivotally hinging the gate in place and also locking the gate against movement in either direction. To open the gate and swing it open in either direction, one of the handles 10 at either side of the gate is turned, thus withdrawing the pivot pins at that side of the gate and freeing the gate to swing open at that side, while held pivotally suspended at the opposite side by reason of the pivot pins at such side remaining inserted through the eyes of the eye-bolts at that side. Thus it is apparent that the gate may be either locked into closed position, or may be readily opened at either side and swung in either direction. Various adaptations and uses of the gate may be readily accomplished for different purposes, and as indicated in Figures 5 and 6 of the drawing, such as opening or closing stock run-ways, and the like.

While I have here shown and described certain specific structural features of the invention, it is understood that the embodiment shown as well as the structural features disclosed, may be changed and varied as found desirable, within the scope however of the following claim.

I claim:

In a device for the purpose described, an elongated plate member adapted to be secured to one face of a vertical edge portion of a gate to extend therealong and project beyond said gate edge, a vertical web extending from said plate member between the vertical edges thereof and adapted to cover said gate edge, a second web extending from the free edge of the first web parallel to the plate member and away from the gate edge, said plate member and the second web having opposite and aligned slots extending from corresponding edges to the first web, and pairs of spaced keeper lugs at the edges of said slots and fitting in the space between the second web and plate, said lugs having openings therein for bolt members.

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