Dec. 22, 1925. 1,566,552

J. A. MANSON ET AL

HOG GATE

Filed Nov. 15, 1924

Fig. 4

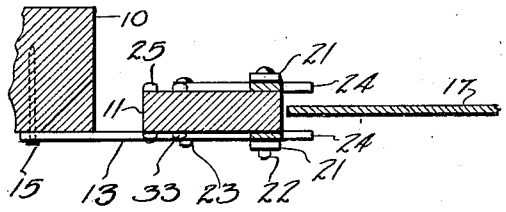


Fig. 3

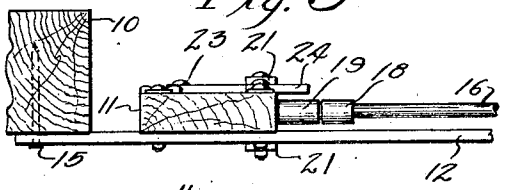
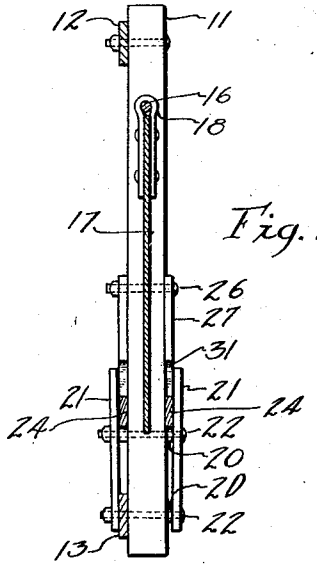


Fig. 2



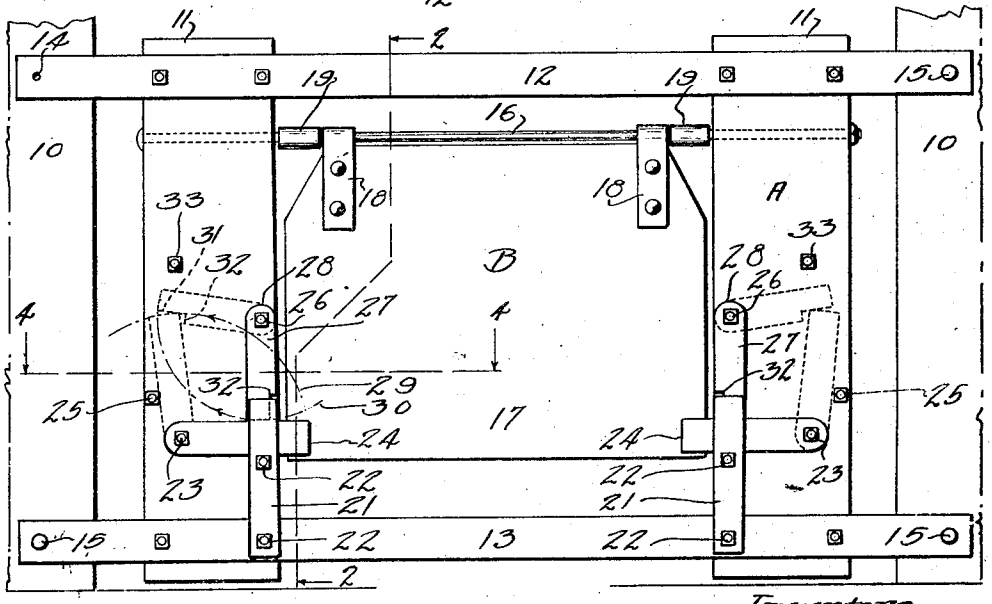


Fig. 1

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UNITED STATES PATENT OFFICE.

JOHN A. MANSON AND JOHN W. MACKLEM, OF BATTLE CREEK, IOWA.

HOG GATE.

Application filed November 15, 1924. Serial No. 750,179.

To all whom it may concern:

Be it known that we, JOHN A. MANSON and JOHN W. MACKLEM, citizens of the United States, and residents of Battle Creek, in the county of Ida and State of Iowa, have invented certain new and useful Improvements in Hog Gates, of which the following is a specification.

Our invention relates to devices for protecting small, partly grown hogs from constant contact with full grown hogs, and it is our object to provide for this purpose a swinging gate of simple, durable and inexpensive construction, adapted to selectively exclude passage of the larger hogs into the individual pens or houses provided for the smaller hogs, and also adapted to allow passage of the smaller hogs only in the direction leading into such individual pens or houses, whereby the smaller animals may be trapped in their pens.

More specifically it is our object to provide such a gate, hinged at its upper edge in a gateway, and thereby adapted to swing to closed position by gravity, together with swinging stops pivoted to the gateway and adapted to be moved into the path of swing of the gate on one side thereof to prevent swinging of the gate beyond that side of the gateway.

A further object is to provide such stops for either side of the gateway, with which the swinging of the gate in either direction, or in both directions, may be limited.

A further object is to provide effective means for locking the stops in operative position which can not be accidentally released by the nosing of the hogs.

A still further object is to provide such stops and locking means which are so arranged as to coact in their inoperative positions and lock the stops against accidental movement to operative positions by the nosing of the hogs.

A further object is to provide a gateway of simple and durable construction comprising spaced uprights connected by cross bars having extended portions adapted to be secured to the spaced posts outlining an opening in a hog pen.

With these and other objects in view, our invention consists in the construction, arrangement and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in our claims and illustrated in the accompanying drawings, in which:

Fig. 1 is an elevation of the device secured to the posts in the opening of a hog pen.

Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a plan view of one side of the gate, and

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 1.

Farmers have been troubled somewhat in raising hogs farrowed at different times by the injuring of the smaller hogs by those of fuller growth. It has been found that the fall hogs, for instance, do not do as well when allowed to run constantly, and to sleep, with the spring pigs.

An attempt has therefore been made to segregate them in separate pens by themselves, especially during the night. In the daytime it is desirable to allow the entire flock to run free in the pastures provided for them. The driving of the hogs, however, into the individual pens, is a very arduous task, and it is practically impossible to select all of the smaller hogs from the flock and get them into their pens.

Our invention contemplates the use of a gate adapted to selectively allow passage only of the smaller hogs, and prevent their returning. The smaller hogs may be lured into their pens by placing feed in the pens.

We have used the reference character 10 to indicate the posts defining the opening in such an individual pen. Our device comprises the gateway, A, and the swinging gate, B. The gateway is formed of two uprights, 11, preferably of wood, connected by the metallic bars, 12 and 13, which are extended beyond the uprights, 11, and provided at their ends with openings, 14, through which the spikes, 15, may be inserted to connect the gateway to the posts, 10.

Embedded in the uprights, 11, is a hinge rod, 16, from which is swung the gate, B. The gate, B, comprises a sheet metal plate, 17, and the riveted hinge loops, 18, which receive the rod, 16. Sleeves, 19, space the gate from the uprights, 11.

Fixed to the uprights, 11, and spaced away therefrom by means of the bar, 13, and washers, 20, are the keepers, 21. The keepers, 21, are secured by bolts, 22, passing, respectively, through the washers, 20, and the bar, 13.

Pivoted to the uprights, 11, by means of

bolts, 23, are the swinging stops, 24. The stops, 24, are so positioned that when swung to a horizontal plane they are received by the keepers, 21, and against the upper washers, 20, and project into the opening of the gateway so as to cut the path of swing of the gate, B. The uprights, 11, are of such width as to carry the bolts, 25, which serve to limit the movement of the stops, 24, in an upward direction to a position slightly beyond the vertical, as illustrated in dotted lines in Fig. 1.

Pivoted to the uprights, 11, by means of bolts, 26, aligned with the keepers, 21, and of such length that when depending vertically, as illustrated, they snugly engage the upper edges of the stops, 24, when in their operative position, as shown in Fig. 1, are the pawls, 27. The keepers, 21, are extended so as to receive the lower ends of the pawls, 27, when in depending position. The stops, 24, are of sufficient length and so situated relative to the pawls, 27, that the path of swing of their outer ends just clears the circumference of the rounded end, 28, of the pawls, 27.

It will now be seen that in moving the stops to inoperative position the pawl, 27, may first be swung to the left, as indicated by the line, 30, until it no longer engages the stop, 24, when the stop, 24, may be swung upwardly, as indicated by the line, 29. A point will be reached when the stop, 24, will engage the pawl, 27, and push it on up beyond the dotted line position shown. The end of the pawl, 27, is notched, as at 31, to form a shoulder, 32, into which the end of the stop, 24, is received when it has swung to the dotted line position shown. After the stop, 24, is swung outwardly, it will push the pawl, 27, upwardly until the notch, 31, is reached, when the pawl, 27, will drop back to the position shown in dotted lines.

The bolts, 33, limit the upward movement of the pawls, 27.

It will now be seen that the stops, 24, on the side of the gate facing within the pen may be raised to inoperative position, and the stops on the other side of the gate lowered to operative position when it is desired to trap the smaller hogs within their enclosure.

By placing feed within the enclosure the farmer may leave the premises and the smaller hogs will gradually be lured within the pen. The stops on the outside of the gate will prevent their returning and they will thereby be trapped within the enclosure for the night so as to prevent their mingling with the larger hogs. The larger hogs will be excluded by the limited size of the opening in the gateway, A.

In the morning when it is desired to allow the smaller hogs to pasture, the stops on the outside may be raised.

If it is desired to use the pen for a farrowing hog and to therefore exclude both the large and small animals, the stops on both sides of the gate may be lowered to operative position and the gate thereby securely locked.

It will be seen that the stops and pawls are peculiarly arranged to facilitate their manipulation. The operator may release one of the stops with the use of one hand by placing the fingers under the stop and swinging the pawl, 27, sideways with the thumb of the same hand, simultaneously moving the stop upwardly to engage the pawl.

The pawl, 27, is hung rather loosely on the bolt, 26, in order that it may work freely, and it is therefore advantageous to have the lower end of the pawl received behind the keeper in order to prevent any possibility of the pawl, 27, being jarred laterally sufficient to allow the stop, 24, to catch underneath the pawl.

The swinging pawl, depending by gravity into locking position is also advantageous in that though it may be nosed sideways by the hog, it will return to locking position when released. Were it possible for the pawl to be moved to inoperative position by the nosing of the hog, and to remain there, the latch might then also be moved to inoperative position. The construction shown eliminates this possibility.

It will be seen also that the pawl and stop arrangement is such that when in inoperative position the same condition exists, namely, that the pawl would have to be moved against its gravitational tendency, and held there while the stop was being moved in order to return the stop to operative position.

Some changes may be made in the construction and arrangement of the parts of our invention without departing from the real spirit and purpose of our invention, and it is our intention to cover by our claims any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

We claim as our invention:

1. In a device of the class described, a gateway, a gate hinged at its upper edge in the gateway, stops pivoted on the gateway adapted to swing downwardly toward each other to substantially horizontal positions partially within the path of swing of the gate, keepers receiving the stops in such positions, and pawls pivoted above the keepers, adapted to swing to position locking the stops within the keepers.

2. In a device of the class described, a gateway, a gate hinged at its upper edge in the gateway, stops pivoted on the gateway adapted to swing downwardly toward each other to substantially horizontal position

partially within the path of swing of the gate, keepers receiving the stops in such positions, and pawls pivoted above the keepers, adapted to swing by gravity to position locking the stops within the keepers.

3. In a device of the class described, a gateway, a gate hinged at its upper edge in the gateway, stops pivoted on the gateway adapted to swing downwardly toward each other to substantially horizontal positions partially within the path of swing of the gate, keepers receiving the stops in such positions, and pawls pivoted above the keepers and alinged therewith, adapted to swing by gravity to position locking the stops within the keepers.

4. In a device of the class described, a gateway, a gate hinged in the gateway at its upper edge, stops pivoted on the gateway adapted to swing upwardly from substantially horizontal positions extending into the path of swing of the gate, to substantially vertical positions, means for limiting such swinging movement at such positions, pawls pivoted to the gateway in position to swing upwardly from substantially vertical, depending positions engaging the stops in their horizontal positions, to substantially horizontal positions engaging the stops in their vertical positions, and means for limiting such upward movement of the pawls, the pawls being provided with shoulders adapted to retain the stops in their vertical positions.

Signed at Battle Creek, in the county of Ida and State of Iowa, this 5 day of November, 1924.

JOHN A. MANSON.
JOHN W. MACKLEM.