No. 894,319. PATENTED JULY 28, 1908.

D. FASOLD.

GATE.

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Fig. 1.

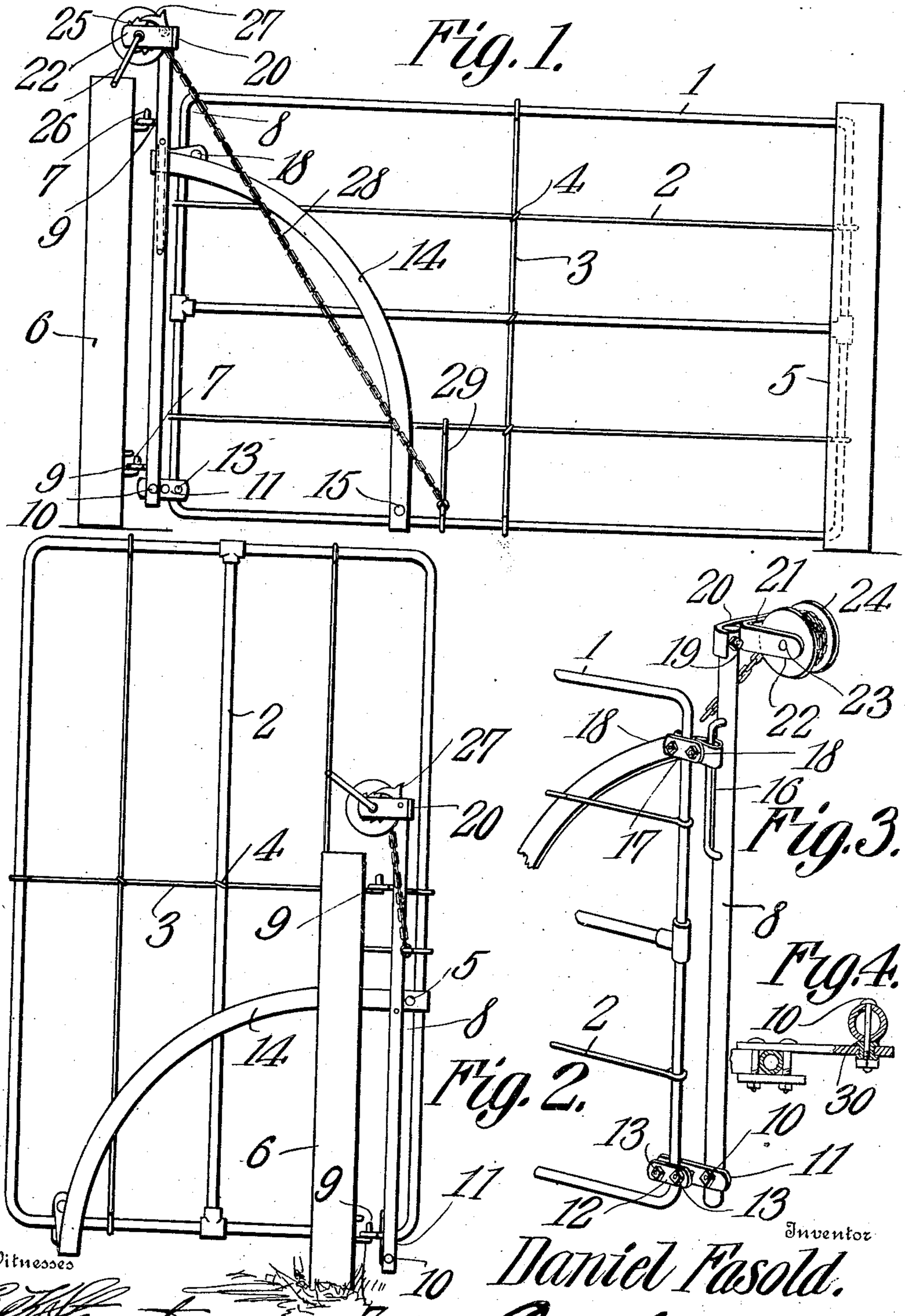

Fig. 2.

Fig. 3.

Fig. 4.

Witnesses

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DANIEL FASOLD, OF KESWICK, IOWA.

GATE.

No. 894,319. Specification of Letters Patent. Patented July 28, 1908.

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To all whom it may concern:

Be it known that I, DANIEL FASOLD, a citizen of the United States, residing at Keswick, in the county of Keokuk and State of Iowa, have invented a new and useful Gate, of which the following is a specification.

This invention relates to gates.

It has for its object to provide an attachment for an ordinary gate by means of which the latter may be swung vertically or laterally, as desired.

It is well known that with most gates now used on farms or in the open country, great difficulty is experienced in operating the same after heavy snow, or where ice has formed on the ground and surrounds the lower panel.

The present invention is designed to remedy this defect by employing a means by which the gate may be tilted upwardly to clear such obstructions, and then swung either in a vertical or horizontal direction.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a side view of a gate closed and in a position ready to be swung vertically or laterally. Fig. 2 is a similar view showing the position of the parts when the gate has been swung vertically. Fig. 3 is a view, partly in perspective, showing the operating mechanism and the means for suspending the gate. Fig. 4 is an enlarged horizontal section through the lower portion of the hinge end of the gate and showing the pivot on which the gate is arranged to swing vertically.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

A gate 1 in the present instance is shown as being formed with a frame of metal tubing provided with the usual horizontal bars 2 having eyes on either end for the reception of the vertical sides of the frame. The vertical bar 3 is disposed at the center of the frame with eyes formed on either end, through which pass the horizontal tubes of the frame, and is secured to the horizontal bars 2 by rings or straps 4. The posts 5 and 6 are anchored in the ground and disposed on the sides of the roadstead in a well known manner, the post 5 performing the usual function of limiting the lateral swinging of the gate and having a catch for securing the gate in a closed position. On the inner face of the post 6 are secured bolts 7 having their ends turned upwardly and at right angles and forming pintles which support the second or auxiliary post 8 of slightly greater height than the gate 1 or post 6. This post is preferably formed of metal and is provided with eye bolts 9 for the reception of the pintles 7.

A guide or bail 16 is formed of a metal rod, either end of which is bent at right angles and secured in seats formed in the post 8, the function of which will presently appear. The upper and lower ends of the auxiliary post are provided with perforations, and the lower of these receives a pivot bolt 10 which supports a bearing sleeve 30 fitted thereon and having a head normally in contact with the auxiliary post and on this bearing sleeve is loosely mounted one end of a metal plate 11 having a perforation adapted to receive the bearing sleeve and this plate is retained on the sleeve by the fixed head of the bearing sleeve and by an outer head adapted to fit over the bolt 10. After the plate has been placed on the bearing sleeve, a nut of ordinary type screws on the bolt 10 and maintains the parts in place and at the same time prevents the gate from binding. One end of the metal plate 11, the opposite end of which is disposed on one face, and at the lower end of the gate frame 1, is secured to the latter by means of a similar plate 12 disposed on the opposite face of the gate frame 1 and provided with perforations registering with similar perforations in the plate 11 for the reception of bolts 13, thus clamping the lower end of the gate frame 1 therebetween. A metallic strip 14 substantially the shape of a quadrant, has one end bent in the form of a short loop adapted to straddle the lower panel of the gate frame at a point between the vertical bar 3, and inner end of the gate, and is rigidly secured thereto by means of the bolt and nut 15. The opposite end of the strap 14 extends through the bail or guide 16 and is bent into a loop embracing the bail, thus forming a support to maintain

tne gate in a normal horizontal position above the ground. The end of the strap is secured to the upper end of the gate frame 1, and in a vertical plane with the plate 11, by the plate 17 which is disposed on the opposed face of the frame 1, and is provided with perforations for the reception of bolts 18 extending through the end of the strap 14, thus clamping the upper end of the gate frame therebetween. The upper end of the post 8 is provided with a hole for the reception of a bolt 19 which supports a metallic plate 20 extending at right angles to the post 8 and to which is secured the base of a forked bracket, the arms 22 of which extend outwardly at right angles to the plate 20 and adjacent either end are provided with perforations which form bearings for the shaft 23, to which is keyed a drum 24 and ratchet wheel 25. A handle 26 is keyed to one end of the shaft 22 for the purpose of rotating the drum. A pawl 27 is pivotally mounted on the arm 22 and is designed to override the teeth of the ratchet when the gate is being hoisted. A chain 28 having one end secured to the drum and the opposite end to an arm 29 is secured to the lower gate panel at a point between the strap 14 and vertical bar 3.

In the operation of the device, the parts occupying the position shown in Fig. 1, when it is desired to raise the gate, the handle 26 is turned causing the drum 24 to rotate and wind up the chain 28. The gate then moves upwardly, turning on the pivot bolt 10 and in its upward movement is reliably guided by the strap 14 bearing against the bail or guide 16, and may be raised to any angle and held in position by the pawl 27. To lower the device, the pawl 27 is brought from engagement with the ratchet 25. It is obvious that in the use of extremely long or heavy gates when there is a tendency of the latter to sag, the same can be adjusted and maintained in a horizontal position by taking in the chain 28.

What is claimed is:—

1. The combination with a hinged auxiliary support and a guide thereon; of a gate pivotally connected adjacent the bottom thereof to the auxiliary support and mounted to swing upwardly relatively thereto, an element secured to the gate and movably mounted within the guide, said guide and element coöperating to limit the downward movement of the gate, and means for elevating the gate.

2. The combination with a hinged auxiliary support and a guide thereon; of a gate pivotally connected adjacent the bottom thereof to the auxiliary support and mounted to swing vertically relatively thereto, an arcuate element secured to the gate and movably mounted within the guide, said guide and element coöperating to limit the downward movement of the gate, and means connected to the gate and support for elevating the gate.

3. The combination with a hingedly mounted auxiliary support and a guide bail upon the support; of a bearing sleeve secured to said support, a gate, a plate fixedly secured to the gate and bearing upon the sleeve, an arcuate arm secured to the gate and movably mounted within the guide bail, and means secured to the support and gate for swinging said gate vertically upon said sleeve.

4. The combination with a main support; of an auxiliary support hingedly mounted thereon, a gate pivotally connected adjacent the bottom thereof to the auxiliary support and mounted to swing vertically relatively thereto, a guide upon the auxiliary support, an arcuate element secured to the gate and movably mounted within the guide, said guide and element coöperating to limit the downward movement of the gate, a hoisting drum mounted upon the auxiliary support, a flexible connection between the drum and the gate, and means for preventing rotation of the drum in one direction.

5. The combination with a hingedly mounted auxiliary support, of a gate pivotally connected to the support and mounted to swing vertically relatively thereto, a guide upon the auxiliary support, an arcuate strip secured to the gate and movably mounted within the guide, said strip having a terminal loop, the loop and guide coöperating to limit the downward movement of the gate, a drum mounted upon the support, a flexible connection between the drum and the gate, and means for holding the drum against rotation in one direction.

6. The combination with a main support; of an auxiliary support hingedly mounted thereon, a gate offset laterally relatively to the auxiliary support and pivotally connected to said support to swing vertically independently thereof, a laterally-extending guide upon the auxiliary support, an arcuate strip upon the gate and movably mounted within the guide, said strip having a terminal loop mounted within the guide to limit the downward movement of the gate, and means upon the auxiliary support for swinging the gate vertically and to one side of the main and auxiliary supports.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

DANIEL FASOLD.

Witnesses:
U. McBRIDE,
A. A. HUNGERFORD.