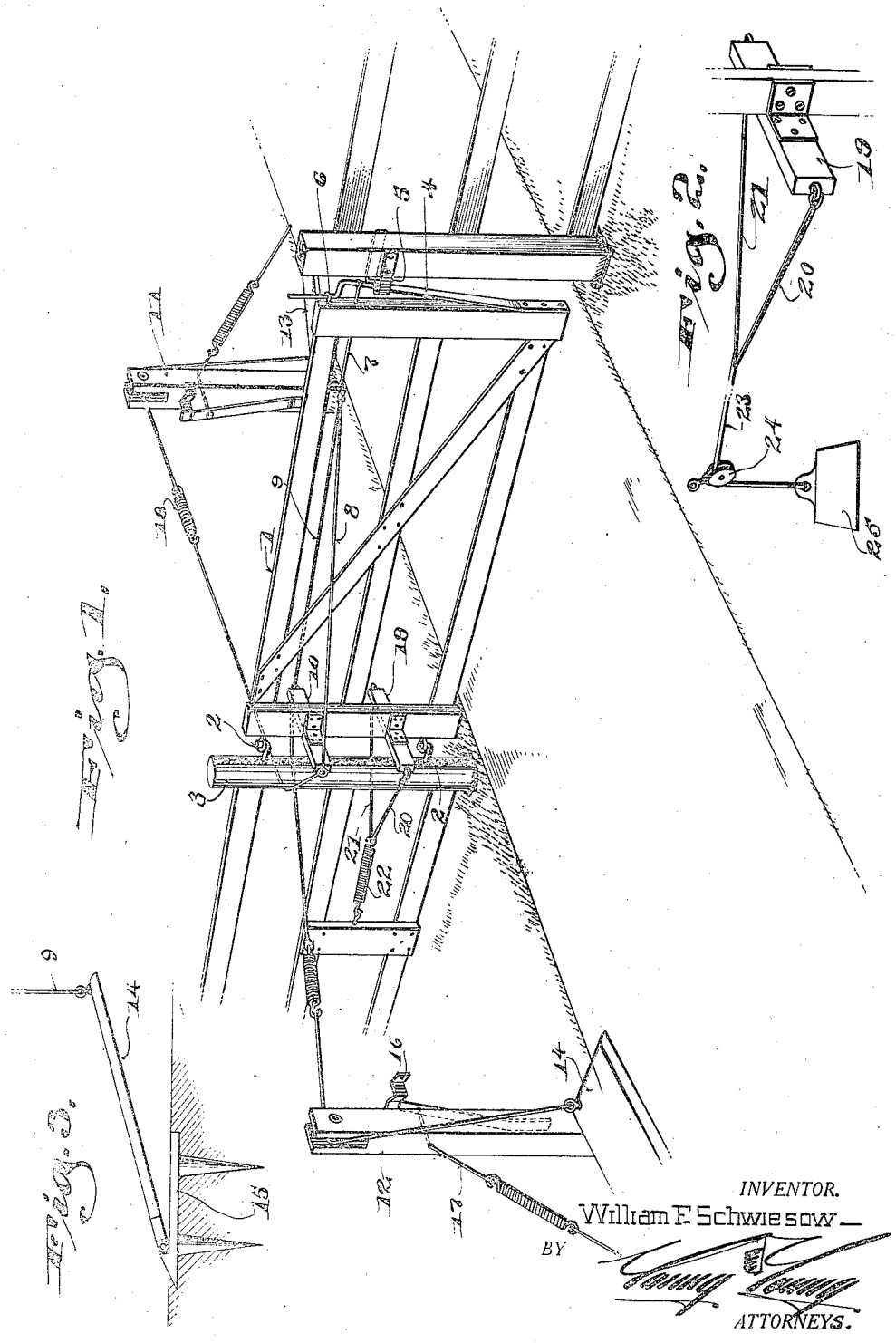
Feb. 27, 1923.

1,446,934.

W. F. SCHWIESOW.

FARM GATE.

FILED SEPT. 1, 1921.



INVENTOR.

William F. Schwiesow

BY

ATTORNEYS.

Patented Feb. 27, 1923. 1,446,934

UNITED STATES PATENT OFFICE.

WILLIAM F. SCHWIESOW, OF RIPON, WISCONSIN.

FARM GATE.

Application filed September 1, 1921. Serial No. 497,505.

To all whom it may concern:

Be it known that I, WILLIAM F. SCHWIESOW, a citizen of the United States, and resident of Ripon, in the county of Fond du Lac and State of Wisconsin, have invented certain new and useful Improvements in Farm Gates; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to a new and useful improvement in farm gates and more particularly to the mechanism for latching and unlatching the gate and for opening and closing the same.

The general object of the invention is to provide means for operating the gate automatically upon the approach of a vehicle without the necessity of the driver leaving his seat.

With the above object in view the invention consists in the details of construction as set forth hereinafter in connection with the accompanying drawing and subsequently claimed.

In the drawing:—

Figure 1 is a perspective view of a gate constructed according to my invention together with the approaches thereto.

Figure 2 is a perspective view of a modified form of one feature of the invention.

Figure 3 is a side elevation of the platform for operating the gate.

Referring more specifically to the drawing the numeral 1 designates a gate which is hinged as shown at 2 to a gate post 3, the free end of the gate being provided with a spring latch 4 which cooperates with the detent 5 to secure the gate in closed position. The upper or free end of the latch is limited in its movement by a keeper 6. A cable 7 is secured to the latch 4 in such a manner that by pulling on the cable the latch will be released from the detent. The cable 7 divides into two branches 8 and 9 which pass through eyes or the like in the opposite ends of a cross head 10 which is secured to the end of the gate near its pivotal point. The branches of the cable pass thence around the post 3 to opposite sides of the gate where they are passed over suitable sheaves or the like, in the posts 11 and 12, the ends of the cables being secured to the outer ends of the respective platforms 13 and 14. These platforms are hinged at their inner ends as shown in Figure 3 to suitable anchors 15 which are embedded at one side of the roadway.

When a vehicle approaches the gate the driver may guide it over the platform 13 or 14 whereupon the weight of the vehicle will force the platform downwardly. The first result of this movement of the platform will be to draw the latch 4 inwardly and unlock the gate. The tension upon the branch 8 or 9 as the case may be will exert a pull in the direction of the end of the cross head 10 while the other branch of the cable will be slack. This will result in swinging the gate away from the approaching vehicle to open position. Each of the posts 11 and 12 is provided with a latch 16 which will automatically engage the latch 4 when the gate reaches full open position and lock the same. When the vehicle has reached the post at the other side of the gateway the latch 16 may be released to permit the gate to swing shut.

Any suitable means may be provided for unlocking the latch 16. In the drawing I have shown a conventional means which consists of a cable 17 which may be pulled by the driver or means may be provided for operating the same by the weight of the vehicle. Each of the cables are provided with a spring portion 18 in order to relieve excessive strain which might be caused by the weight of the vehicle. When the vehicle leaves the platform the cable which supports the same is released whereupon the other branch of the cable becomes the one which is under greatest tension and will therefore tend to close the gate after the same has been released by the latch 16. It has been found preferable however to provide additional means for closing the gate. In its preferred form this means consists of a second cross head 19 the ends of which are connected by short cables 20 and 21 to one end of a coil spring 22, the other end of which is secured to the fence as shown in in Figure 1. When the gate is swung open one of the cables 20 or 21 depending upon which way the gate is swung will become tightly stretched by the spring 22 which will exert a force to close the gate as soon as the latter is released. It will be of course understood that the weight of the vehicle and the strength of the spring in the cable

operated thereby will be sufficient to overcome the resistance of the spring 22 when the gate is being opened.

In the modification shown in Figure 2 the spring 22 is replaced by a cable 23 which passes over a sheave 24 and has a weight 25 secured to the end thereof.

From the foregoing description it will be seen I have provided a device which is entirely automatic in its nature whereby the opening and closing of the gate may be accomplished entirely by the weight of the vehicle without any attention from the driver other than guiding the vehicle in its proper course.

I claim as my invention:—

1. A device of the character described comprising a pair of gate posts, a gate hinged to one of said posts to swing in either direction past the other post, a spring latch for locking the gate normally in closed position, said latch being secured to the outer stile of the gate and extending upwardly adjacent thereto and tensioned so as to be resiliently held outwardly in engagement with a detent on the adjacent gate post, a cross head on the end of the gate near its pivot, a post on each side of the gate toward which the outer end of the gate swings when opened, a sheave supported on each of said last named posts, a hinged platform beneath each sheave and in the path of an approaching vehicle, a pair of cables secured at one end to said latch and passing around the ends of the cross head and the adjacent gate post and over the sheaves and secured to the respective platforms, whereby the weight of a vehicle on the platform will first unlock the latch and then swing the gate to open position, a spring latch on each of the sheave-supporting posts and engageable with the latch on the gate to lock the gate when it reaches open position, and resilient means tensioned by the gate in opening in either direction for returning the same to closed position when released.

2. A device of the character described comprising a pair of gate posts, a gate hinged to one of said posts to swing in either direction past the other post, a spring latch for locking the gate normally in closed position, said latch being secured to the outer stile of the gate and extending upwardly adjacent thereto and tensioned so as to be resiliently held outwardly in engagement with a detent on the adjacent gate post, a cross head on the end of the gate near its pivot, a post on each side of the gate toward which the outer end of the gate swings when opened, a sheave supported on each of said last named posts, a hinged platform beneath each sheave and in the path of an approaching vehicle, a pair of cables secured at one end to said latch and passing around the ends of the cross head and the adjacent gate post and over the sheaves and secured to the respective platforms, whereby the weight of a vehicle on the platform will first unlock the latch and then swing the gate to open position, a spring latch on each of the sheave-supporting posts and engageable with the latch on the gate to lock the gate when it reaches open position, resilient means tensioned by the gate in opening in either direction for returning the same to closed position when released, and manually operable means for independently operating said last mentioned latch.

In testimony that I claim the foregoing I have hereunto set my hand at Ripon in the county of Fond du Lac and State of Wisconsin.

WILLIAM F. SCHWIESOW.