No. 884,333. PATENTED APR. 7, 1908.

C. HILL.

GATE.

APPLICATION FILED MAY 13, 1907.

3 SHEETS—SHEET 1.

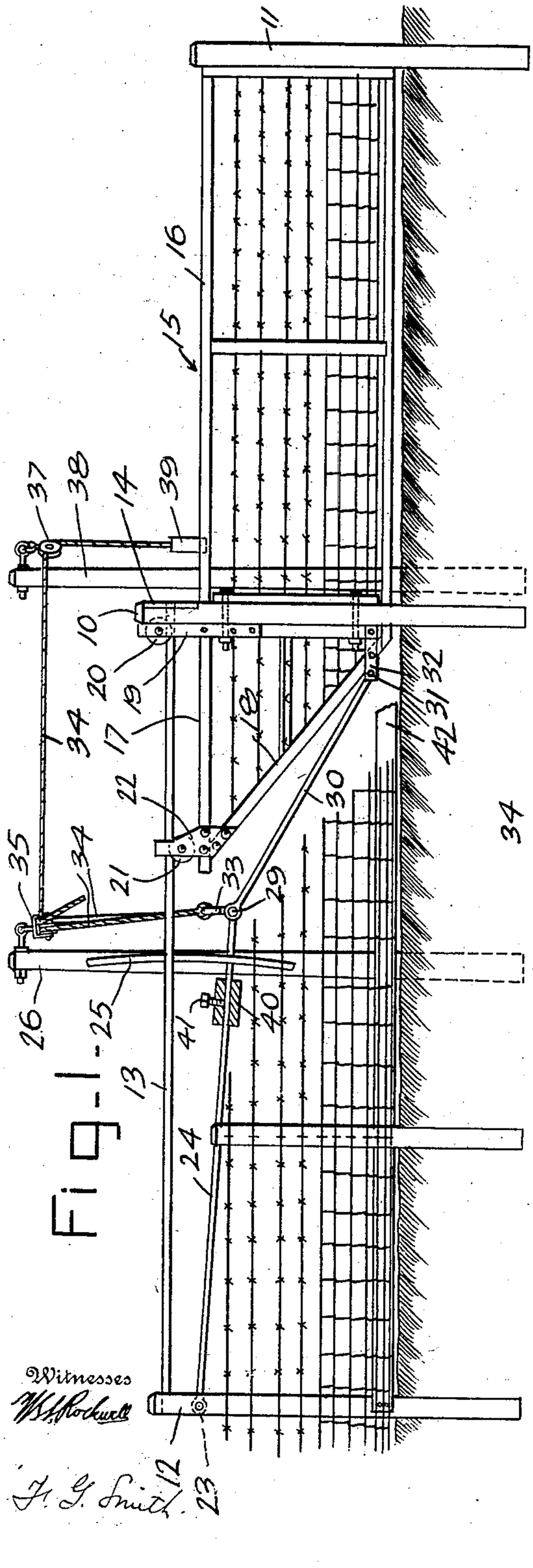


Fig-1-

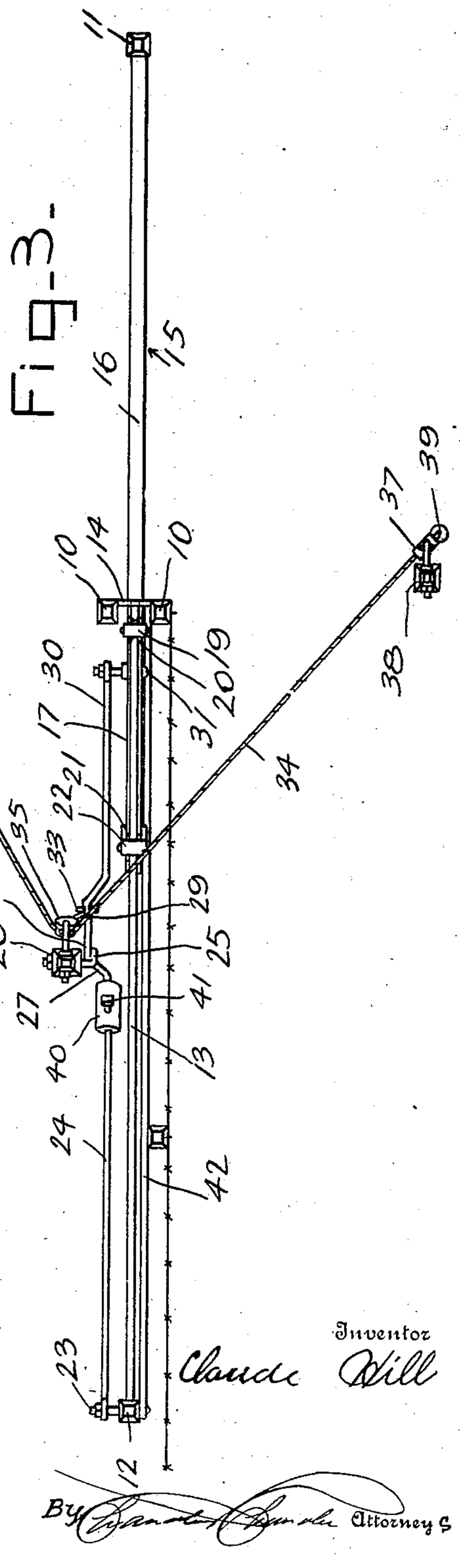


Fig-3-

Witnesses
W. H. Rockwell
F. G. Smith.

Inventor
Claude Hill
By Brandenburg & Brandenburg Attorneys

No. 884,333. PATENTED APR. 7, 1908.

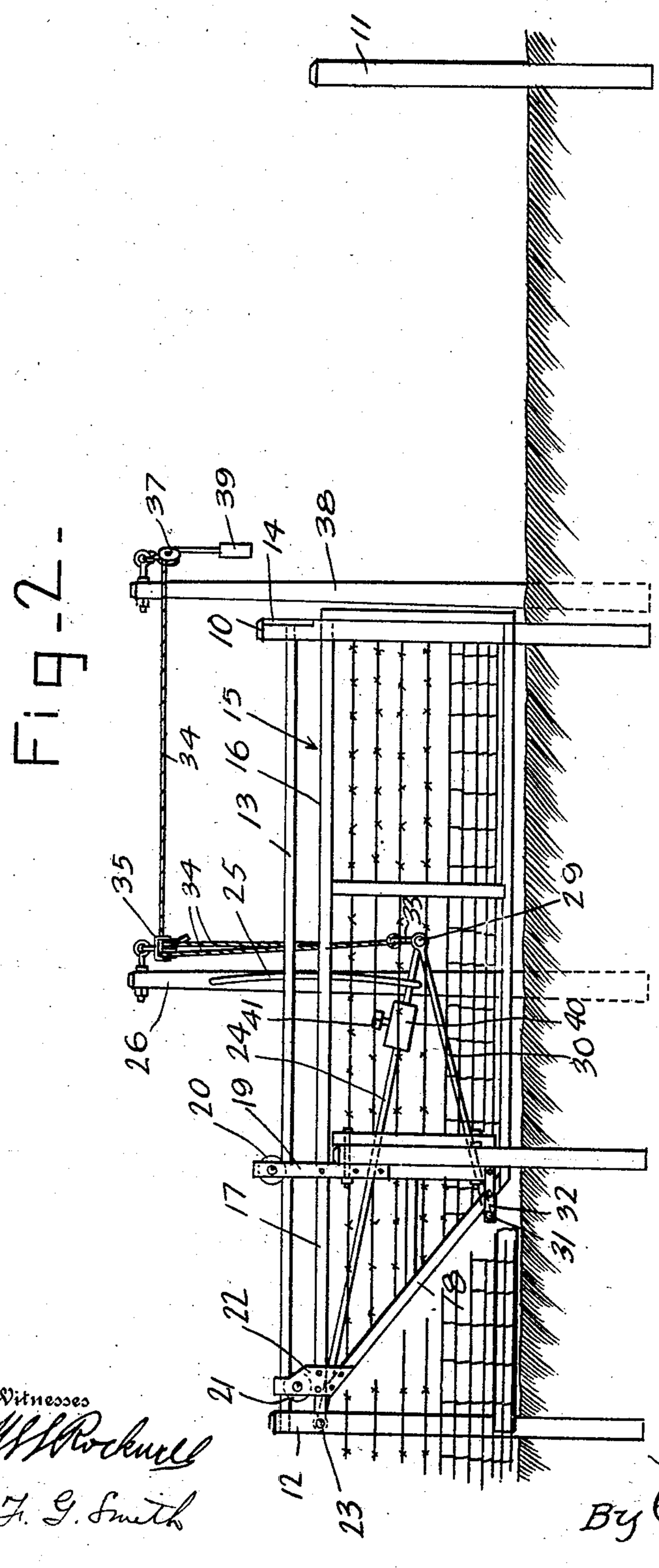
C. HILL.

GATE.

APPLICATION FILED MAY 13, 1907.

3 SHEETS—SHEET 2.

Fig 2.



Witnesses

W. L. Rockwell

F. G. Smith

Inventor

Claude Hill

By Randolph Brandon

Attorneys

No. 884,333. PATENTED APR. 7, 1908.

C. HILL.

GATE.

APPLICATION FILED MAY 13, 1907.

3 SHEETS—SHEET 3.

Fig. 4.

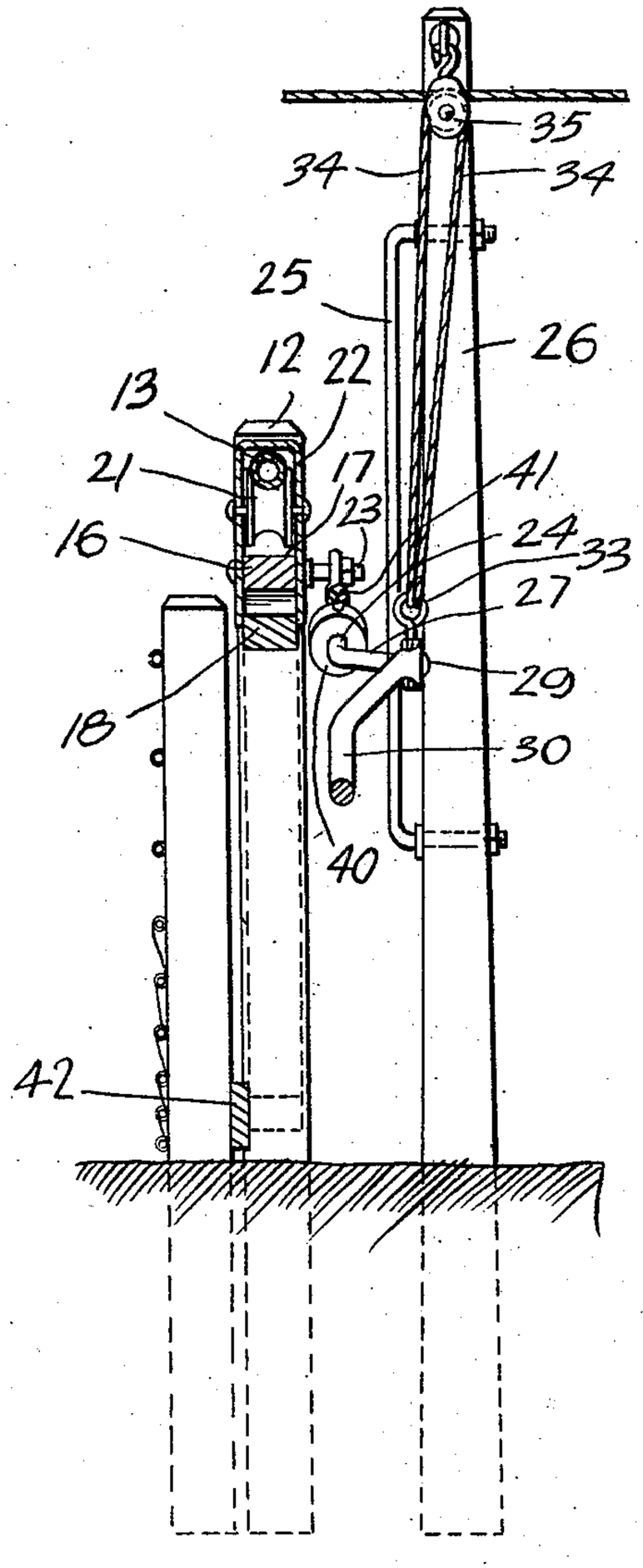
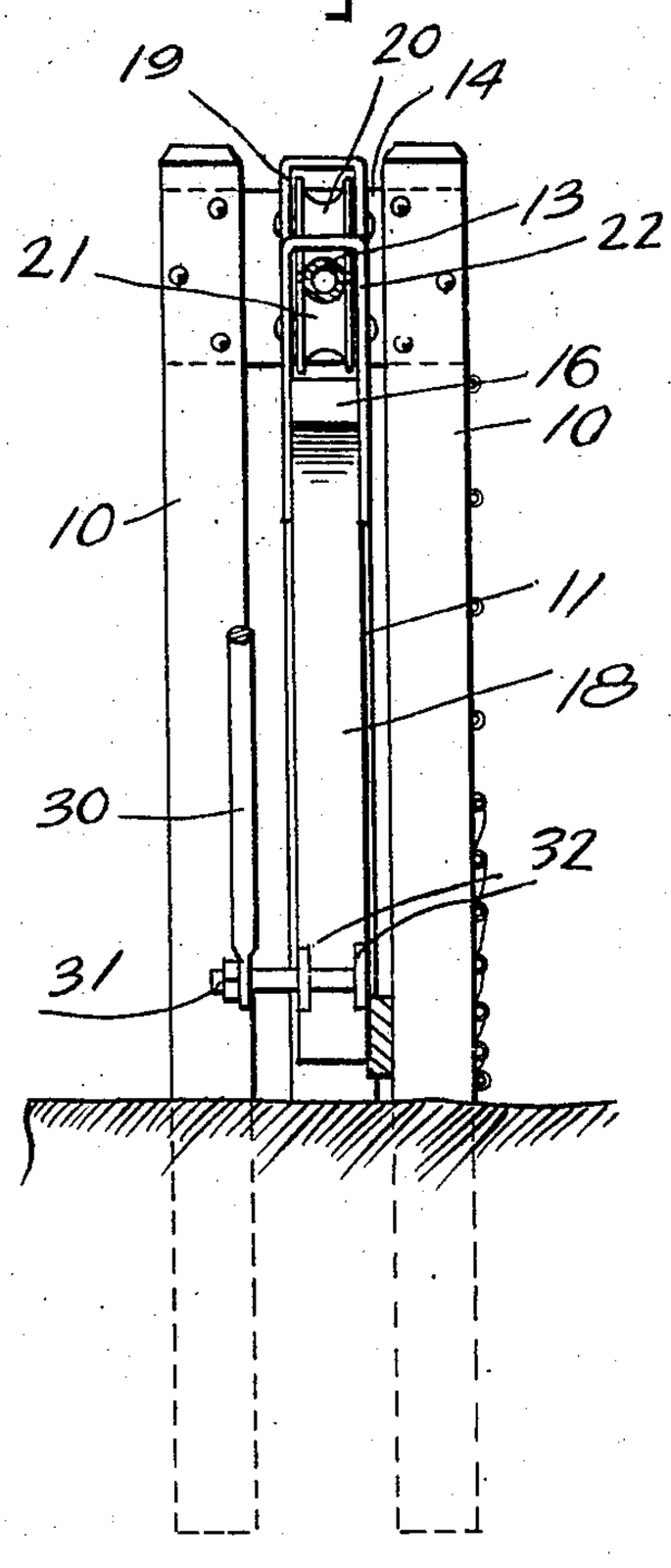


Fig. 5.



Witnesses
W. W. Rockwell
F. G. Smith

Inventor
Claude Hill
By Randolph & Randolph
Attorneys

UNITED STATES PATENT OFFICE.

CLAUDE HILL, OF OGDEN, ILLINOIS, ASSIGNOR OF ONE-HALF TO G. H. NIEMAN, OF FITHIAN, ILLINOIS.

GATE.

No. 884,333. Specification of Letters Patent. Patented April 7, 1908.

Application filed May 13, 1907. Serial No. 373,393.

To all whom it may concern:

Be it known that I, CLAUDE HILL, a citizen of the United States, residing at Ogden, in the county of Champaign, State of Illinois, have invented certain new and useful Improvements in Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to gates and more particularly to that class which are adapted to be opened from a vehicle and the invention relates more strictly speaking to sliding gates.

In carrying out my invention I provide a gate which is slidably mounted and which has pivotally connected to it at its rear end one of a pair of rods which have toggle connection with each other, there being a rope connected to the joint of the rods whereby the relative position of the rods may be changed to cause sliding of the gate.

One novel feature of the invention resides in the fact that the track from which the gate is supported does not extend over the gate or in other words across the roadway as is the case in nearly all such devices now in use.

In the accompanying drawings, Figure 1 is a view in elevation of the gate the same being shown in closed position, Fig. 2 is a similar view the gate however being shown in open position, Fig. 3 is a plan view of the gate in closed position, Fig. 4 is a sectional view therethrough adjacent the rear end thereof, and, Fig. 5 is a rear end view of the gate and its supporting devices.

In the drawings the numeral 10 denotes a pair of posts or uprights which are located at one side of the roadway across which the gate is adapted to extend and 11 indicates a post which is located to the other side of the roadway and against which the front end of the gate is adapted to abut. A post 12 is located at a point removed from the posts 10 and in a plane between the same, the distance between the post 12 and the posts 10 being greater than the distance between the post 11 and the posts 10 for a reason which will presently be apparent and a track 13 which is preferably formed of tubular material is secured at one of its ends to an attaching plate 14 at the upper ends of the posts 10 and at its other end to the post 12 at a corresponding point.

The gate embodying my invention is indicated in general by the numeral 15 and includes a top bar 16 which extends beyond the rear end proper of the gate as indicated at 17 and is braced by means of a diagonally extending brace bar 18, this brace bar being secured at its lower end to the bottom of the gate at the rear end thereof. A bracket 19 is secured upon the gate at its rear end and extends upwardly therefrom and in this bracket is journaled a grooved wheel 20 which travels upon the track 13, there being a similar wheel 21 journaled in a housing 22 which is secured at the point of connection of the brace rod 18 with the top bar 17. The wheel 20 travels above the track 13 whereas the wheel 21 travels beneath the track and it will be understood that by this construction, the gate is rigidly supported through the instrumentality of the wheels and may yet have a sliding movement. It will also be understood that a decided advantage is gained by thus arranging the wheels namely dispensing with an over-head track across a roadway.

Now in order that the gate may be slid to open or closed position, I provide a gate moving mechanism which will now be described. Pivoted as at 23 to the post 12 adjacent the upper end thereof is a rod 24 which extends in the direction of the gate and through a guide 25 which is secured upon a post 26 this post being located intermediate the post 12 and the posts 10 but in such a manner as not to interfere with the sliding movement of the gate. The rod 24 is bent slightly laterally as at 27 for such engagement through the guide and has its end bent as at 28 and pivotally connected as at 29 to a rod 30, the latter being pivoted as at 31 to a bracket 32 at the lower rear end of the gate. A ring 33 is connected with the rods 24 and 30 at their point of connection with each other and to this ring are connected ropes 34 which pass over wheels 35 supported by post 26 and extend also over wheels 37 supported by posts 38 which posts are located a sufficient distance from the gate to permit of the ropes being pulled to open the gate before a vehicle closely approaches the same. Weights 39 are secured to the ends of the ropes and serve to take up the slack therein, at all times.

A weight 40 is adjustably held upon the rod 24 by means of a set screw 41 and it will be understood that when either one of the rods 34 is pulled, the gate being in closed po-

sition, an upward pull will be exerted upon the rods at their point of connection and as the rod 30 is connected with the gate, the gate will be slid rearwardly, the rod being of course moved beyond a vertical position when the gate has been completely moved to open position as clearly shown in Fig. 2 of the drawings. It is obvious that not only will the weight 40 serve to move the rods after the rod 30 has passed a perpendicular position, but the gate will also aid in this movement of the rods owing to the force initially applied to it to move it. In other words it is only necessary, in order to open or close the gate, to pull upon one of the ropes sufficiently to move the rod 30 past the perpendicular, the movement of the gate being automatically accomplished after this has been done.

A guide board 42 extends from the post 12 to one of the posts 10 adjacent the lower ends thereof and serves to guide the gate in its sliding movement.

What is claimed is—

1. The combination with a gate mounted for sliding movement, of an upright, a rod pivotally connected to the upright, a rod pivotally connected to the first mentioned rod and to the gate adjacent the lower end thereof, a weight adjustably supported upon the first mentioned rod, and a pull rope connected with the rods at their point of pivotal connection with each other whereby the rods may be moved to exert a pull upon the gate in the direction of the post, the weight serving to move the gate after the rods have been so moved that the second mentioned rod has past a perpendicular plane.

2. A device of the class described comprising a track supported on one side of a roadway, a gate, wheels journaled upon the gate and adapted to travel one above the track and the other beneath the same whereby the gate will be supported from the track, a rod pivotally connected to one of the supports for the track, a rod pivotally connected to the first mentioned rod and to the gate adjacent the lower end thereof, a weight adjustably supported upon the first mentioned rod, and a pull rope connected with the rods at their point of pivotal connection with each other whereby the rods may be moved to exert a pull upon the gate in the direction of the post, the weight serving to move the gate after the rods have been so moved that the second mentioned rod has past a perpendicular plane.

In testimony whereof, I affix my signature, in presence of two witnesses.

CLAUDE HILL.

Witnesses:
H. O. RAY,
F. E. WATTS.