

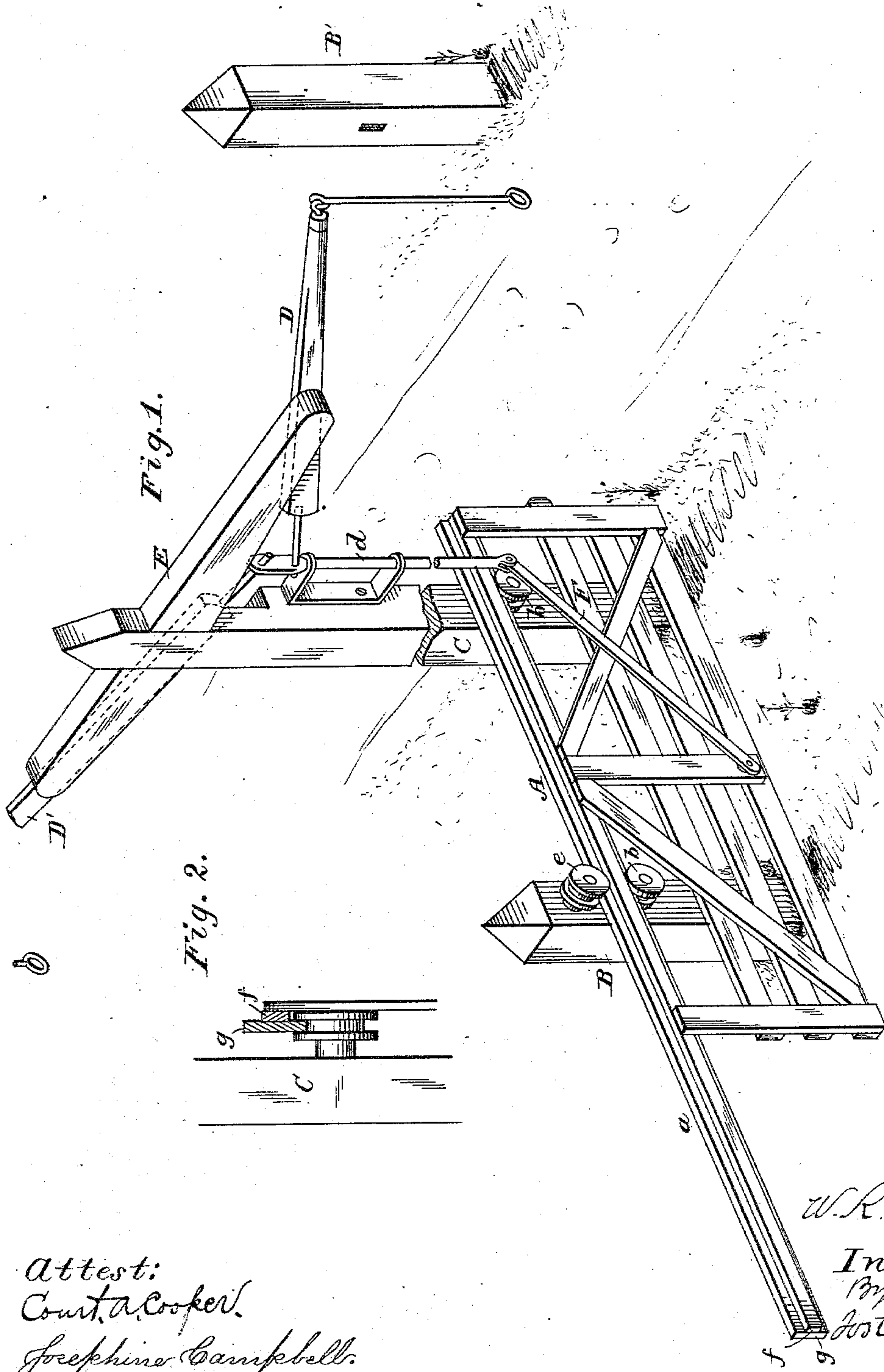
(No Model.)

W. R. WHITE.

GATE.

No. 303,091.

Patented Aug. 5, 1884.



UNITED STATES PATENT OFFICE.

WILLIAM R. WHITE, OF VINCENNES, INDIANA.

GATE.

SPECIFICATION forming part of Letters Patent No. 303,091, dated August 5, 1884.

Application filed June 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. WHITE, a citizen of the United States, and a resident of Vincennes, in the county of Knox and State of Indiana, have invented certain new and useful Improvements in Gates, of which the following is a specification.

My invention relates to that class of gates which are arranged to slide upon rollers, so as to be carried longitudinally across the passage to be opened or barred; and my invention consists in certain improvements described fully hereinafter, whereby readily to lock the same in either position to which it may be adjusted.

In the drawings, Figure 1 is a perspective view showing a gate with my improvements, and Fig. 2 is a detached sectional view illustrating the construction of the upper bearing-rail.

The gate consists of the panel A, of any suitable construction, provided at or near the upper edge with a rail, *a*, preferably constructed as hereinafter described, extending beyond the rear end of the gate, and having its bearings upon two guide-pulleys, *b b*, turning upon pins projecting from the sides of two posts, B C. The rail *a* is of such length that when the gate is carried forward to its full extent and into contact with the post B' it will be still supported by the pulleys. The weight of the projecting rear end of the rail *a* tends to counterbalance that of the gate when the latter is in its forward or closed position, a pulley, *e*, above the rail serving, when the gate is at the extreme limit of its motion, to maintain its horizontal position. When the gate is drawn to the rear, the body of the same, resting directly upon the two pulleys, does not require to be counterbalanced. Ordinarily, in cases of gates running upon rollers, grooved or flanged, it has been common to make the upper rail of a single piece of wood grooved at the under side. This requires the use of very perfect material for the rail, and necessitates the grooving thereof, either by hand or machinery, at more or less expense for the employment of skilled workmen. I avoid this by making the upper rail of two plain strips of wood, *f g*, the former being the upper bar of the gate, to which the verticals and diagonals are attached, and the latter being secured

to the side of the former, and either set lower or wider, so that the lower edge will project below the strip *f*, forming a flange, which enters the grooves of the wheels. The rail thus constructed may readily be made by any one who can nail the pieces together, and of such pieces as can be found upon almost any farm, and without the use of any special tools. When worn, the strip *g* can be reversed or replaced without injury to the body of the gate.

To facilitate the closing and opening of the gate by those upon horseback or in vehicles, I use appliances similar to those described in my Letters Patent granted May 23, 1882, the same consisting of two levers, D D', pivoted to a cross-piece, E, upon the post C, and connected to a sliding rod, *d*, guided in bearings upon the post. The lower end of the post is connected to the gate by a pitman, F, so that upon drawing down the lever and raising the rod *d* one end of the pitman will be drawn upward and the other will be drawn toward the post, thereby carrying the gate either forward or backward, according to the position which it occupied previous to this movement. In the said Letters Patent the pitman is described as being connected centrally to the lower edge of the gate. This is not in all cases necessary, as a connection may be made at a higher point and to one side, it being necessary, however, to lengthen the post and elevate the levers. In my aforesaid patent the construction shown was such that after the adjustment of the gate in any position it could be moved by pressure applied to carry it toward the post. This necessitated locking devices to keep the gate opened or closed. To avoid this I so proportion and arrange the rod *d* and pitman F that the latter, when the gate is either opened or closed, will be at an angle of less than forty-five degrees, so that any pressure upon the gate in either direction will force the pitman against the rod without any tendency to raise the latter, the gate being thus locked by the pitman and rod in either position to which it may be adjusted. This arrangement of lever and rod may be employed in connection with other means than those described for operating the gate, and I therefore do not limit myself to the use of these means in this connection.

The rail *g* may extend above the rail *f*, as

shown, so as to constitute a flange entering the groove of the roller *e*.

I claim—

As an improvement upon the combination
5 consisting of a sliding gate, a sliding rod, *d*,
means for operating the same, and a pitman
connected to the gate and to the said rod, the
said pitman so constructed and arranged as to
assume an angle of less than forty-five degrees
10 when the gate is either in an open or closed
condition, whereby the gate is locked in either

position without the use of other locking
means, substantially as and for the purposes
set forth.

In testimony whereof I have signed my name 15
to this specification in the presence of two sub-
scribing witnesses.

WM. R. WHITE.

Witnesses:

NATHAN B. HASKETT,
M. E. HASKETT.