

(No Model.)

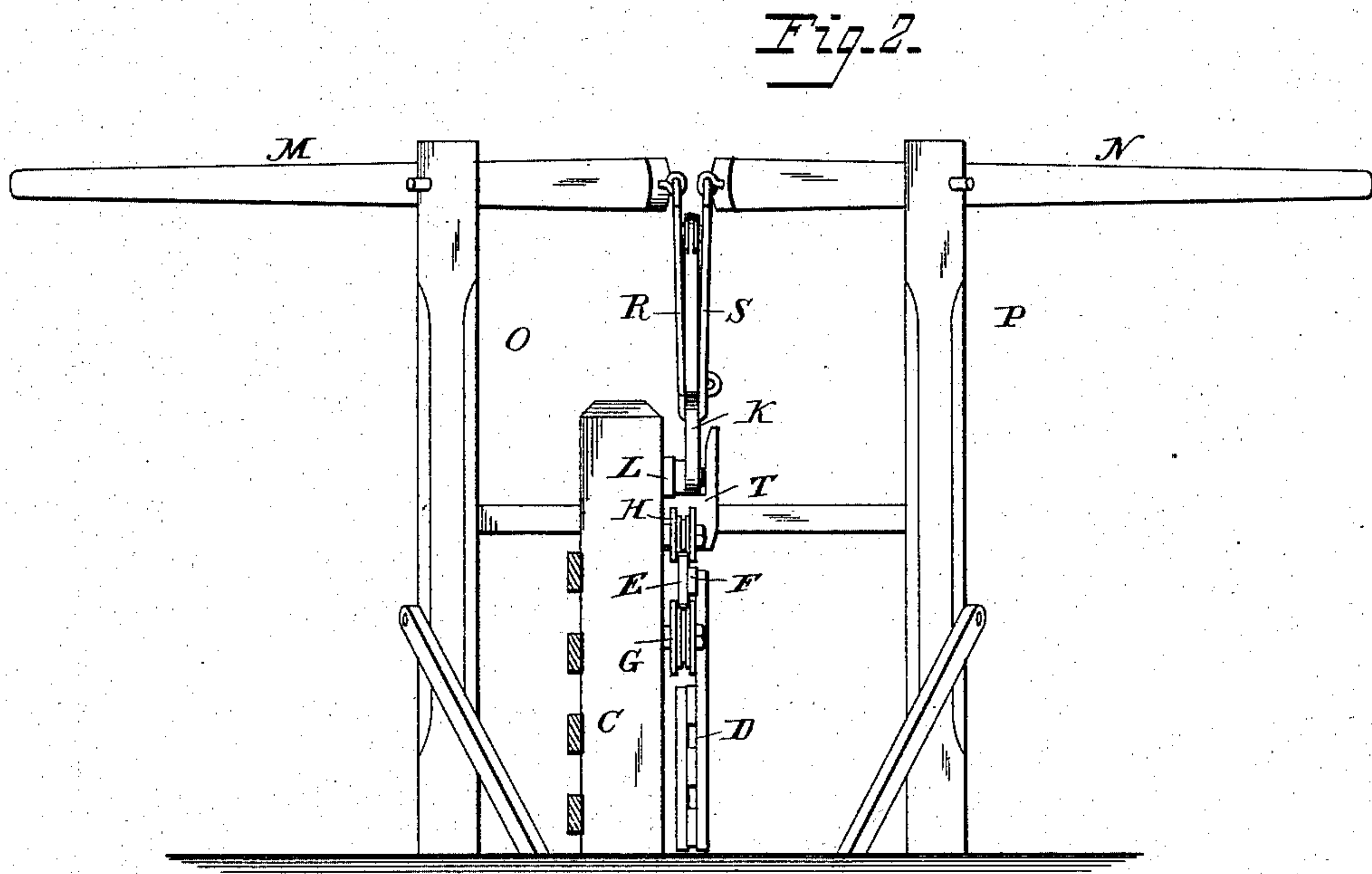
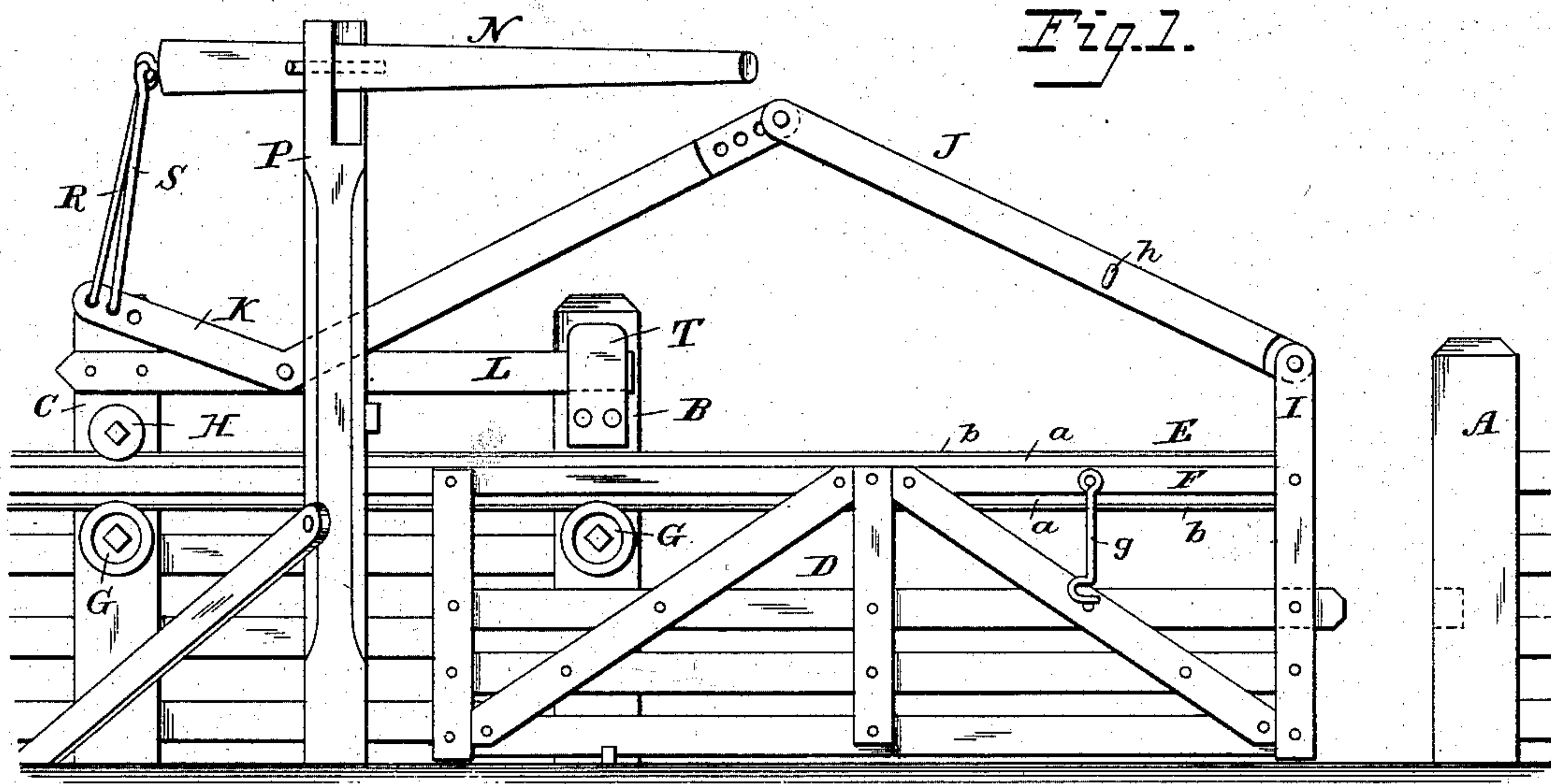
2 Sheets—Sheet 1.

W. R. WHITE.

SLIDING GATE.

No. 282,140.

Patented July 31, 1883.



Attest:

Court A. Cooper

M. E. Stansmann.

Wm. R. White,

Inventor:

By his Attorney,

Charles E. Foster

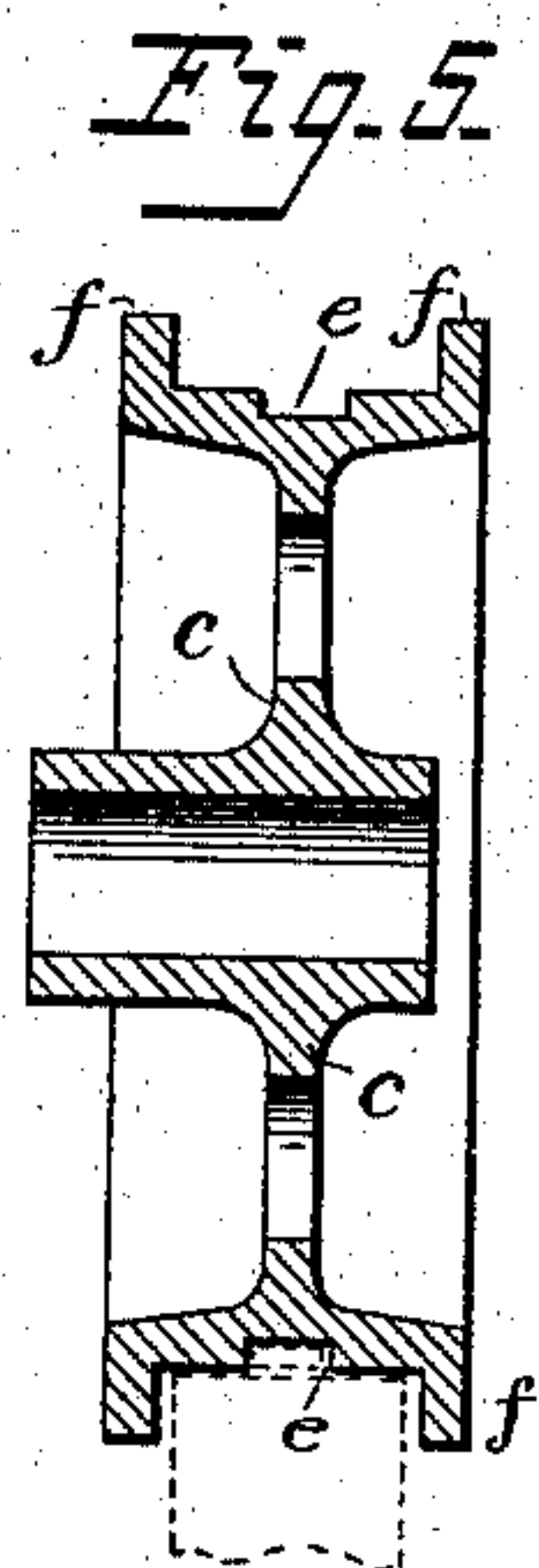
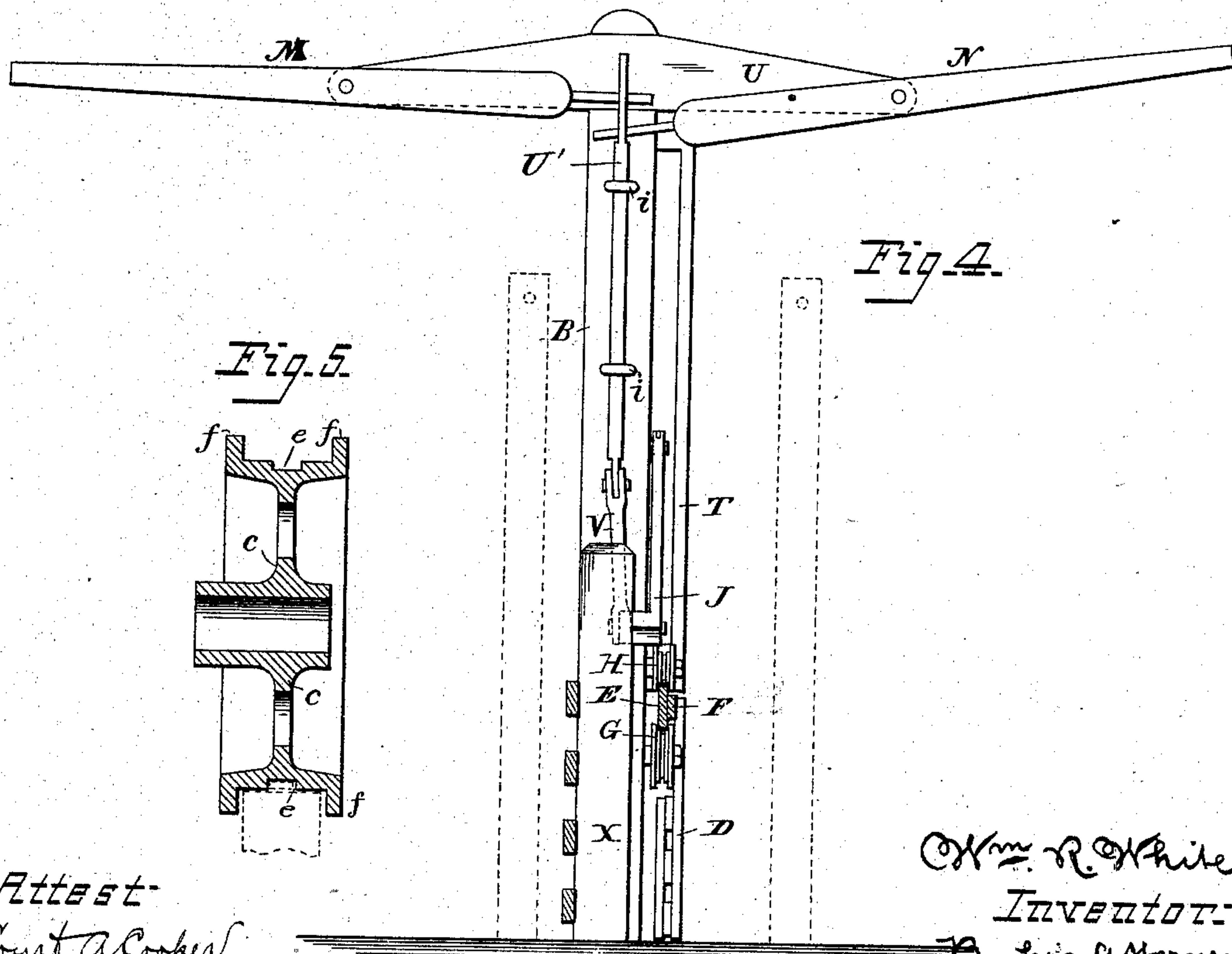
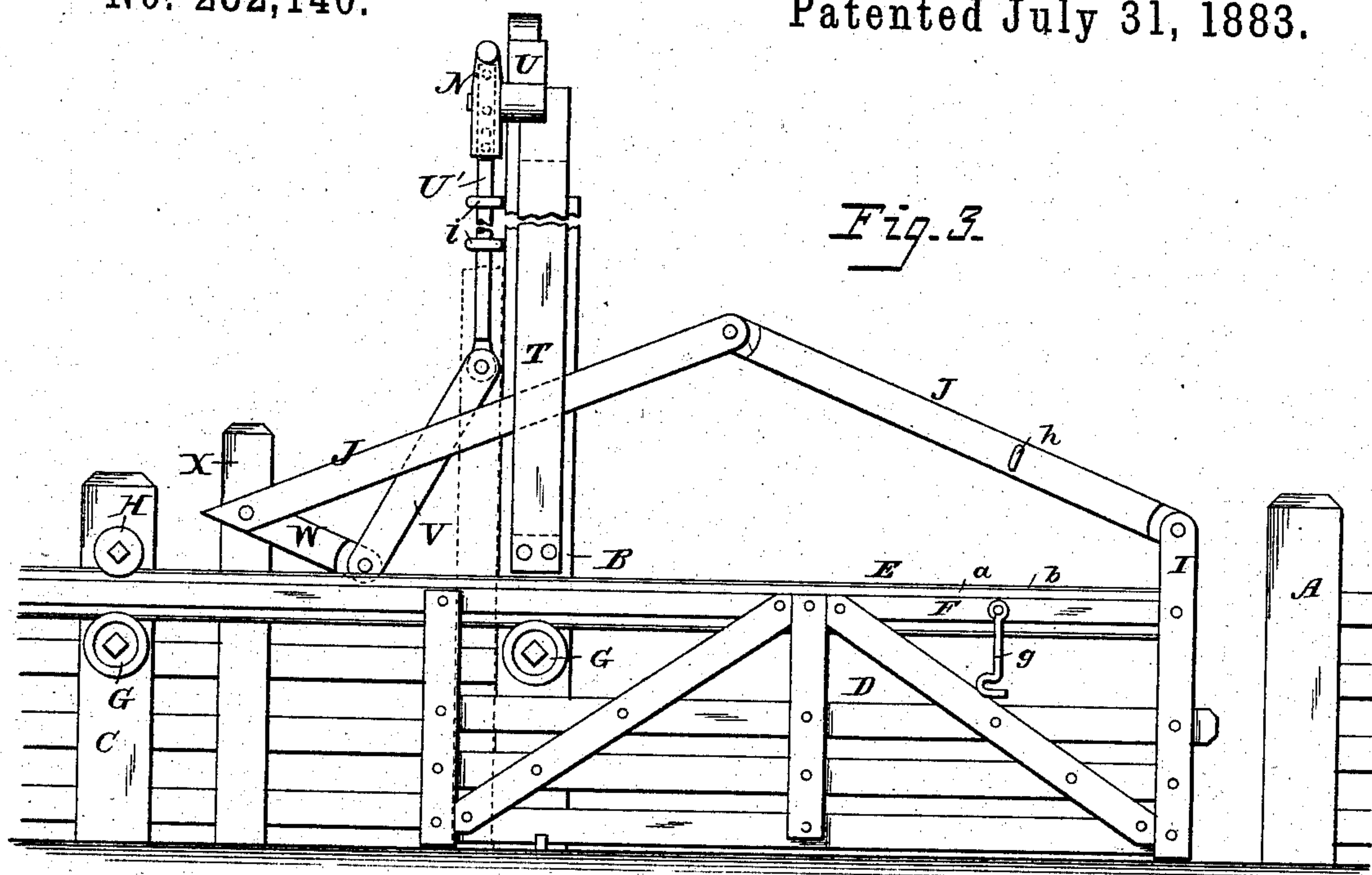
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W. R. WHITE.
SLIDING GATE.

2 Sheets—Sheet 2.

No. 282,140.

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Attest-

Count. A. Cooper.

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Inventor:

By his Attorney
Charles E. Foster

UNITED STATES PATENT OFFICE.

WILLIAM R. WHITE, OF NEOGA, ILLINOIS.

SLIDING GATE.

SPECIFICATION forming part of Letters Patent No. 282,140, dated July 31, 1883.

Application filed March 30, 1883. (No model.)

To all whom it may concern:

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

My invention relates to sliding gates operated by a suspended lever; and it consists in the construction and the combination of parts hereinafter particularly described, and then sought to be specifically defined by the claims, whereby the construction of the gate is made cheaper and its operation easier.

In the drawings, Figures 1 and 3 are side elevations of the gate, showing slightly different arrangements of levers; Fig. 2, an end view thereof; Fig. 4, an end view, partly in cross-section; and Fig. 5, a detached sectional view of one of the rollers.

In the accompanying drawings, the letters A and B indicate the posts of the gate, and C a standard in line therewith. The gate D is of the ordinary construction, except that the top rail is composed of a rail, E, somewhat wider than the other rails, to one side of which is nailed or otherwise secured a narrower rail, F, which leaves a flange or tongue, *a*, above and below the narrow rail, formed without grooving the top rail. By forming the top rail as described, it is made quicker, stronger, and cheaper than by grooving. The top and bottom faces of the rail E are ironed by simply nailing strips, *b*, of ordinary hoop-iron thereto, without countersinking the holes for the nail-heads, as I prefer to have the nail-heads above the surface of the iron, although, if preferred otherwise, the holes may be countersunk to receive them. The top rail is longer than the others and slides in the flanged rollers G, which are suitably secured to the post B and standard C. A third roller, H, constructed like rollers G, is journaled to the standard above roller G, so that the top face of the rail will fit between its flanges and the forward end of the gate be prevented by it from dropping or settling down. These rollers are formed with countersunk sides *c* and a hub, *d*, which on one side is inside of the countersink, so as to permit the rails and cross-braces of the gate to slide by without contact, and on the other side extends

out beyond the side face of the roller, so as to take the place of washers and hold the roller off from contact with the post, except at the hub. The hub might be formed on only one side of the roller and the latter countersunk only on one side; but I prefer the form first described. The periphery of the roller has a central groove, *e*, to receive the heads of the nails which hold the iron to the face of the top rail, and side flanges, *f*, to prevent the rail from slipping off the roller. The periphery of the roller between the flanges is somewhat wider than the face of the rail, so that the latter will slide freely even when it swells. The nail-heads projecting from the top rail clear the central groove of all ice in sleety weather, and the groove serves to cut ice from off the rail, and also to guide and steady the latter in its movement with little friction. This roller may be used on barn-doors and other sliding objects as well as on gates.

To the upper end of the cross-bar I of the gate there is pivoted one end of a jointed bar, J, the other end thereof being provided with an upwardly-extending arm or lever, K, and pivoted at the same end to a bar, L, rigidly secured to post B and standard C. By securing the jointed bar as described, it adds materially to the height of the gate, and is not so apt to get damaged as when placed lower down.

Two levers, M and N, are pivoted, respectively, to posts O and P, and connected by pitmen or rods R and S to the lever or arm K. By lifting the outer end of either of the levers M and N the lever K will be thrown downward, which will elbow or throw upward the jointed ends of the bar J, thereby throwing open the gate. By depressing the outer end of the either lever the jointed bar will be straightened, thereby sliding the gate in the opposite direction and closing it. The gate will be held closed by the bar J when the latter is in a horizontal position, and the bar will be kept from falling below a horizontal by resting on the flanged block T on the side of post B. The gate can be securely locked, when closed, by a hook, *g*, and an eye or pin, *h*, respectively, on the top rail and jointed-bar of the gate.

I prefer using the arrangement of levers just described, because with them low posts can be

used for supporting the operating-levers, as the levers are thrown upward out of the way when the gate is opened; but instead of such arrangement the levers M N may be pivoted to a cross-head, U, as shown in Figs. 3 and 4. In such case a pitman, U', connected to the ends of the levers, will pass downward through guides-eyes i and be jointed to a link-rod, V, which is hinged to one end of a lever, W, extending downward from the end of bar J, which is pivoted to the post X or to a cross-bar, as in Figs. 1 and 2. In this form the gate is opened by depressing the levers instead of raising them. If preferred, the levers may be pivoted in the tops of posts, (shown in dotted lines in Figs. 2 and 3,) instead of to a cross-head.

In Figs. 3 and 4 the flange of the block T is extended up to the top of post B, so as to serve as a guide for the jointed bar; but such construction is not essential.

I reserve for other applications for Letters Patent any patentable features not specifically claimed.

I do not here claim the construction of the upper flanged bar, as it will form the subject of a separate application for Letters Patent.

I claim—

1. The sliding gate having above its top rail a sectional jointed bar, pivoted at one end to the forward end of the gate, above the upper

rail, and at the opposite end to a fixed structure, in combination with an intermediate supporting-block secured to one of the posts of the gate, and suitable levers for elbowing the jointed bar, whereby the gate is operated and its height increased, substantially as and for the purpose set forth.

2. The combination of the sliding gate, the jointed bar at the top thereof, pivoted at one end to a projection above the upper rail of the gate and at the opposite end to a fixed structure, a bell-crank lever with one arm rigidly secured to one end of the bar, and pivoted levers connected with the other arm of the bell-crank, substantially as and for the purpose set forth.

3. The combination of a sliding gate, connected arms constituting a jointed bar, J, above the upper rail of the gate, one of said arms pivoted to a stationary support, and levers M N, pivoted above the bar J, and connected to one end thereof and extending to opposite sides of the gate, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WM. RICHARD WHITE.

Witnesses:

JOHN T. MILLER,
NATHAN B. HASKETT.