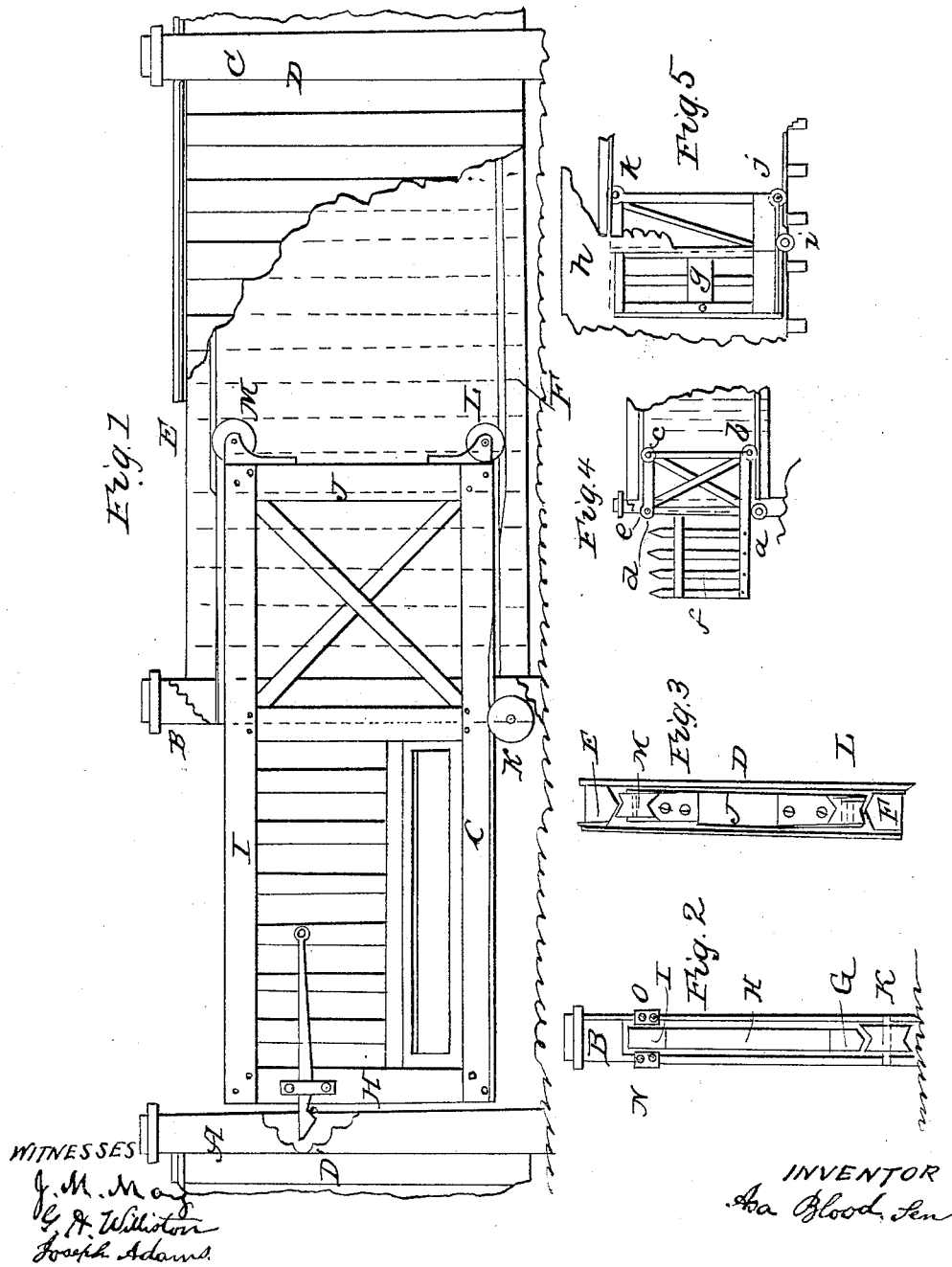


Gate.

No. 45,132.

Patented Nov. 22, 1864.



UNITED STATES PATENT OFFICE.

ASA BLOOD, SEN., OF JANESVILLE, WISCONSIN.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. 45,132, dated November 22, 1864.

To all whom it may concern :

Be it known that I, ASA BLOOD, Sen., of the city of Janesville, county of Rock, and State of Wisconsin, have invented a new and Improved Gate and Door; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making part of the specification, the same letters of reference indicating corresponding parts in each figure.

The nature of my invention relates to constructing and operating farm and other gates and doors of that class of gates and doors that move longitudinally instead of having a swinging motion when being opened to allow persons, &c., to pass, and is supported and operated by means of sheaves or wheels and ways or track wholly within a panel of the fence, or, if a door, within a hollow wall, and without support either above or below the gateway or doorway.

Figure 1 shows a panel of fence and a gate, the panel being broken away to show the portion of the gate-frame and wheels or sheaves that move inside the panel as the gate is operated in opening and closing. Fig. 2 is a view of the front of post B at right angles with the view in Fig. 1, also showing the end of the gate within the post. Fig. 3 is a view of the rear end of a gate and wheels and casing to form the panel, cut through and at right angles with Fig. 1. Fig. 4 is a view of a small gate with pickets, and mode of support with wheels for moving the gate. Fig. 5 is a view of a door with the wall of the partition broken away to show the supports of the door.

A, B, and C in Fig. 1 are the fence-posts, B being made hollow or with a mortise-like aperture to allow the gate to pass through it.

G, H, I, and J are the outside frame of the gate, the portion extending over the gateway being made in panels or otherwise, while the portion of the frame that extends into the panel of the fence between posts B and C is properly braced, the rear end of the gate-frame being provided with wheels L and M, while the gate itself rests on wheel K, which last-named wheel is made in form as seen at K in Fig. 2, with the lower rail, G, of the gate-frame made in form to fit the wheel, as shown. This wheel K, being attached to the post, allows the gate to pass freely over it back and forth, as the gate is used in opening and clos-

ing the gateway, the upper edge of the gate being steadied by blocks of wood or iron N and O, or, instead thereof, friction-rollers may be used, while the wheels L and M, attached to the gate, are made in a similar manner to wheel K, and travel on the rails E and F in the fence-panel. (Shown also in Fig. 3.) Thus, as the gate is moved into the panel, its weight rests on the wheels K and L, relieving the wheel M, and as the gate is withdrawn from the panel sufficiently to allow the weight of the portion projecting over the gateway to preponderate over the weight of the gate and frame in the panel, the wheel M receives the upward pressure as it travels underneath the rail E, and thus the gate is kept in line, moves steadily, requires no support above or below the passage-way for vehicles, &c., takes up no room, as required by the swinging gate, and being incased in the panel of the fence, the working part is not exposed to destruction by the elements, is free from obstructions of snow and ice, &c., and withal durable and convenient, obviating the difficulties connected with the swinging gate, or those that are suspended on wheels over the passage-way, or those that travel on ways extending from post to post on the ground in the passage-way, and thus by my invention leaves the passage-way perfectly free.

In Fig. 4 a small gate, *f*, is represented with pickets, the panel being of sufficient height to allow the pickets to pass freely within the panel, the support and movement of the gate being by a wheel, *a*, located in the post, and wheels *b*, *c*, and *d*, attached to the frame of the gate, as shown. The wheel *d* may be omitted, and rubber-blocks of wood or iron, as N and O in Fig. 2, may be attached to the post to steady the gate as it is moved through the post *c*. The close panel, as in Figs. 1 and 4, may be omitted.

The door *g* and frame to support it in the wall or partition *h* are shown in Fig. 5. The wall is broken away, showing the frame and wheels *i*, *j*, and *k* to guide and support the door as it is opened and closed, passing just clear of the floor, the wheel *i* being located in proper bearings in the floor, while the wheels *j* and *k* are attached to and travel over ways, one above and one below, (the same as in the case of the gates in Figs. 1 and 4,) as the door is opened and closed.

I do not confine myself to any particular form or size of gate-frame or wheels, only so that they properly support and guide the gate or door.

A door made in this manner has the advantage of the sliding doors in use as to room occupied, and, in addition thereto, not requiring any ways to support the door on the floor; the floor is left as clear for carpeting and use as any other portion of the floor, and withal is free from the noise and liability to get out of order incident to the usual sliding doors.

My invention is applicable to farm, garden, and other gates for allowing persons or vehicles to pass and repass, and for doors for dwellings and barns, and for analogous purposes, and weights or springs may be used to aid in opening or closing.

I am aware that gates and doors are in use that move in line with the fence if a gate, and in line with the partition or wall if a door; but such are provided with a way above or below the gateway or doorway for wheels to travel on as the gate or door is moved, and I do not claim a gate or door when those devices are used; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

A gate and door, when constructed and supported substantially as and for the purposes described.

ASA BLOOD, SEN.

Witnesses:

J. M. MAY,
G. H. WILLISTON,
JOSEPH ADAMS.