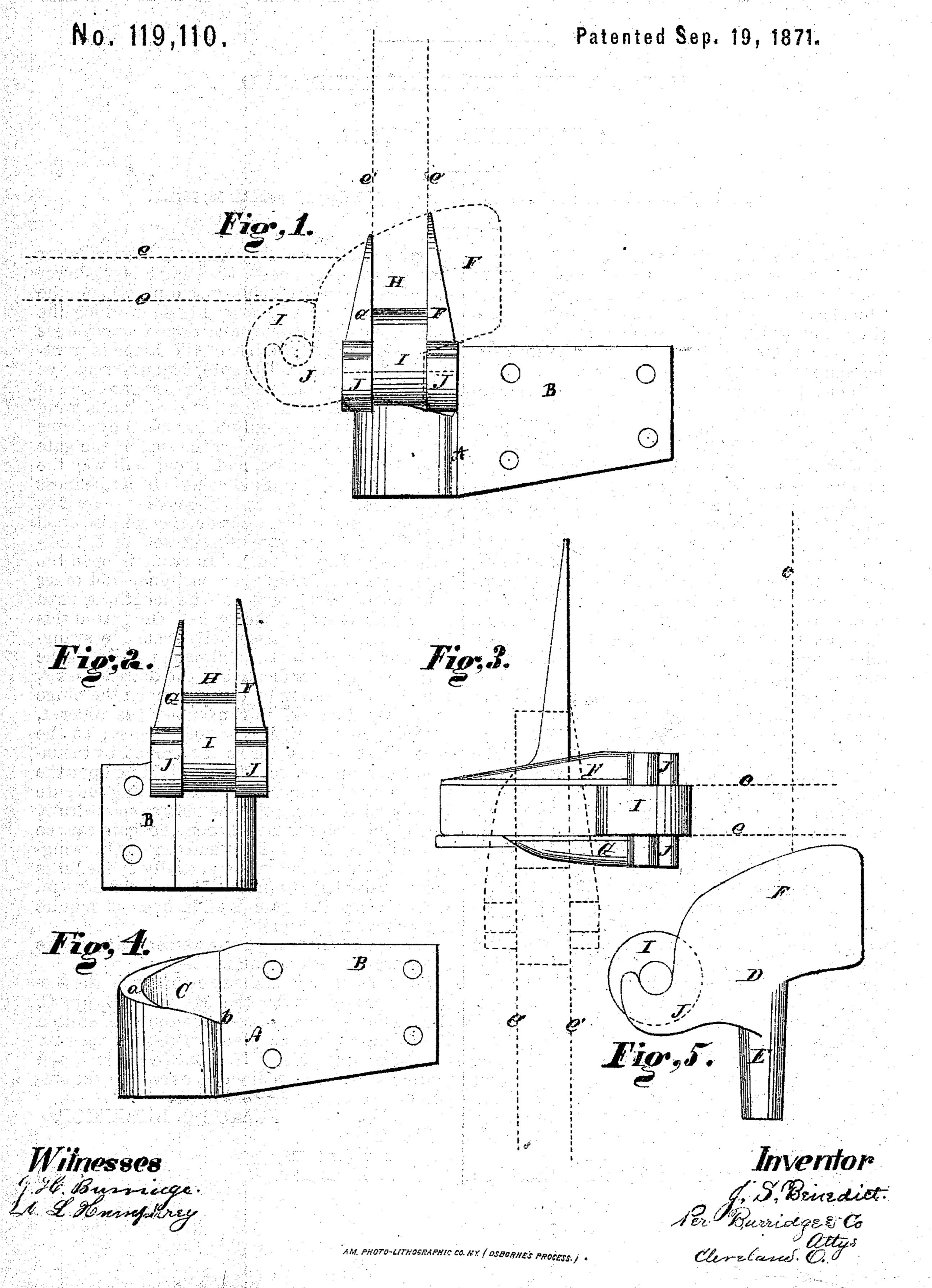
JULIUS S. BENEDICT.

Improvement in Gates.



UNITED STATES PATENT OFFICE.

JULIUS S. BENEDICT, OF BEDFORD, OHIO.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. 119,110, dated September 19, 1871.

To all whom it may concern:

Be it known that I, Julius S. Benedict, of Bedford, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Gate-Hinge; of which the following is a description, reference being had to the accompanying drawing making part of this specification:

Figure 1 is a view of the hinge when the gate is closed and looking endwise of the gate. Fig. 2 is a view of the hinge when the gate is open and looking endwise of the gate. Fig. 3 is a top view of the hinge when the gate is closed. Figs. 4 and 5 are detached sections of the hinge.

Like letters of reference refer to like parts in the different views.

The nature of this invention relates to a gatehinge; and the object thereof is to allow said gate to be pushed back about half way its length over the hinge before being swung around, and at the same time permit of its being raised from the ground by running an incline of the gate over a roller supplementary to the hinge, as hereinafter more fully described.

In the drawing, Fig. 1, A represents the lower section of the hinge, and which is secured by the rings B to the gate-post in a firm and substantial manner. A detached view of said section of the hinge is shown in Fig. 4, in which it will be seen that the upper edge of the eye C of the section forms an incline plane, a, from the point b around upward to the top of the eye, as shown in the drawing. D, Fig. 5, shows the upper section of the hinge, of which E is the stem or pintle fitted to the eye C, so as to turn freely therein. F G, Figs. 2 and 3, are wings or guides projecting upward from the head of the pintle, and which, as will be seen, are some distance apart from each other, forming a passage-way, H, in which is fitted and slides an incline-plane rail of the gate. In front of the said passage-way H is a roller, I, having its bearing in the arms J of the head of the hinge. The under side of the head or upper section of the hinge is also a curving incline plane, a counterpart of the incline a of the lower section above described, and upon which the head rests and slides upward on swinging open the gate, and whereby said gate is raised from the ground.

The practical operation of the above-described

hinge is as follows: The hinge is secured at or near the top of the post; the wing B of the lower section being on that side of said part facing the carriage-way, as shown in Fig. 3, in which the dotted line c indicates the carriage-way, whereas the upper part or section of the hinge is transversely therewith. The gate, which is or may be of the ordinary plain board or bar-gate, and of a length equal to the width of the drive, is hung upon the hinge (one only being used) by means of a rail or cleat secured to the side of the gate in an incline direction, and about half way the length of the gate. Said cleat is of a thickness to fit closely but not tightly between the wings GF, and rests upon the bottom thereof, also upon the roller I. Said gate is indicated by the dotted lines e, Figs. 3 and 1. In order to open the gate when thus hung upon the hinge and roller it is pushed back about half its length, or until the gate balances on the hinge. The gate at this time is half open, and is wholly opened by swinging it around, so that it will hang parallel to the carriage-way, as indicated by the dotted lines e', Fig. 3. The sliding of the gate upon the hinge is readily done, as it runs upon the roller I, thereby moving with ease and facility; at the same time it is raised from the ground by the incline cleat upon which the gate is hung upon the roller and rolls back. In thus elevating the gate I am enabled to clear obstructions, as snow-drifts, ice, or uneven ground; hence the gate can be opened with but little labor and time. On swinging the gate around when partially opened it is further raised by the incline plane a of the hinge, so that when the gate is wide open it is quite high above the ground.

What I claim as my improvement, and desire

to secure by Letters Patent, is—

The construction and arrangement of the section A, provided with the extension B, eye C, and incline plane a, in combination with section D having an incline plane corresponding with the plane a, guides F G, arms J, roller I, and pintle E, operating conjointly, as and for the purpose substantially set forth.

JULIUS S. BENEDICT.

Witnesses:

R. H. Moses, H. N. Knapp.

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