

P. SMITH.
Gate.

No. 198,858.

Patented Jan. 1, 1878.
Fig. 1.

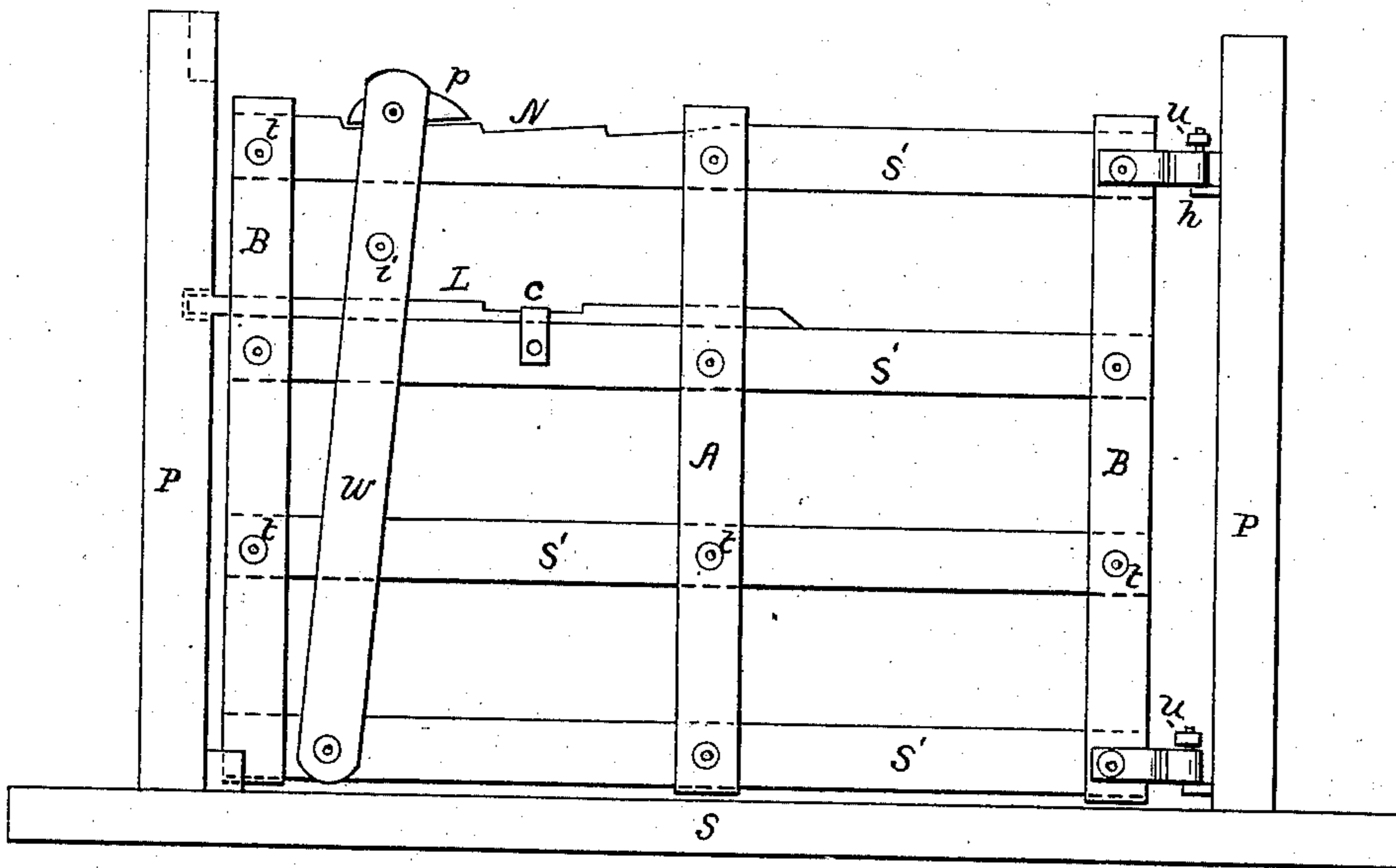


Fig. 2.

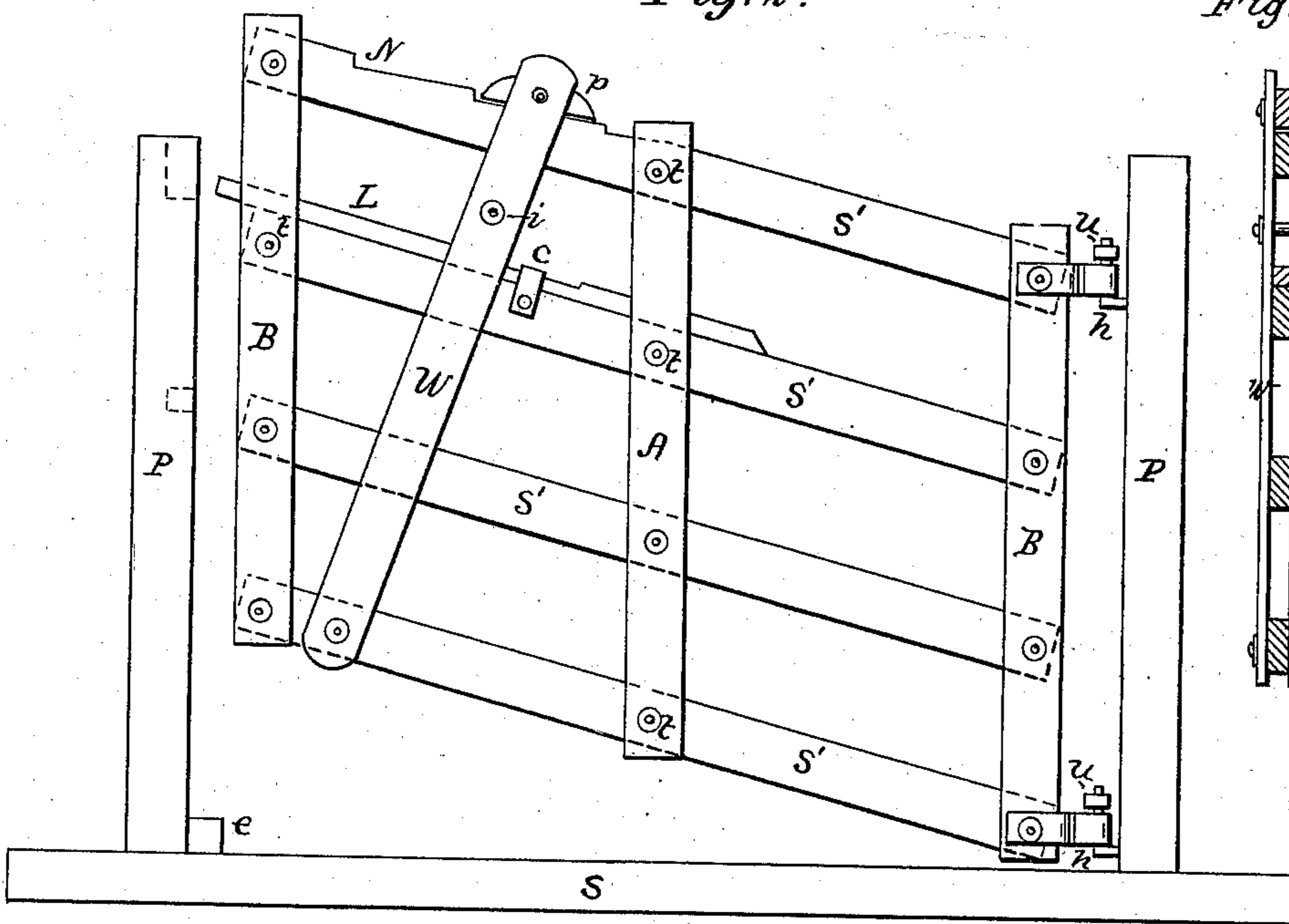
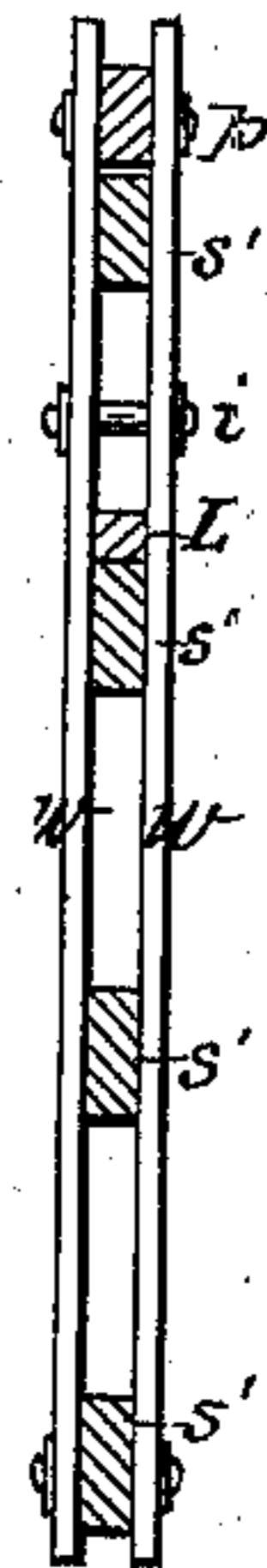


Fig. 3.



Witnesses:
E. E. Masson
D. P. Low

Inventor:
Philester Smith
by Chas. G. Page, atty.

UNITED STATES PATENT OFFICE.

PHILESTER SMITH, OF PALMYRA, NEW YORK, ASSIGNOR OF ONE-HALF
HIS RIGHT TO SAMUEL W. SAWYER, OF SAME PLACE.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **198,858**, dated January 1, 1878; application filed
November 15, 1877.

To all whom it may concern:

Be it known that I, PHILESTER SMITH, of the town of Palmyra, in the county of Wayne and State of New York, have invented a new and useful Improvement in Pivot-Slat Gates, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a front elevation of the gate with its chief accompaniments; Fig. 2, a like view with the gate in an elevated position. Fig. 3 is a vertical section through the loop-pawl and templet, hereinafter more fully described.

The object of my invention is to furnish a light, simple, and cheap device for holding the front end of a farm-gate suspended at any desired point either above or below a level, for separating the different sizes of farm-stock, or to swing clear of mud, sand, or snow, as desired.

In the drawings, P P represent the gate-posts, which, by mortise and tenon, are framed into the mud-sill S. B B are the stiles, composed each of two battens, which face each other, but loosely bestride the slats S', and are through-bolted together by the bolts t, each bolt passing through both battens and one end of each slat, thereby loosely securing both ends of the slats, while the bolts themselves are fastened by nuts or rivets.

The slats S', in number, size, and intervals between, are suited to the varieties of farm-stock to be estopped.

A is a vertical batten-loop, constructed in all respects like the stiles above named, the object of which is to support the slats and prevent their displacement by warping. Bestriding the slats, and near the front end of the gate, and through-bolted to the bottom slat, is the loop-pawl W, which extends far enough above the top slat to receive between the slat and the outward top end of the loop the oscillatory and self-adjustable templet p, having, for the benefit of its gravity, its rear portion elongated, and the bolt to pass through the top end of the loop, passing through and holding the templet, and constituting its pivotal point.

In the top edge of the top slat the notches

N N are formed by a slope downward toward the front, and receive the templet as the loop passes back or forth at any desired point, for raising or lowering the gate; and it conforms to any slope or shaped notches in the top slat, its heavier rear portion, in its forward movement, elevating its front end, which passes the templet over the notches and clear of all obstructions.

The slide-latch L rests on the edge of the second slat from the top in the loop A and latch-stile, while it is held down and limited in its movement by the metal clasp c, which is affixed to the same slat.

By means of mortises at any height in the latch-post the latch holds the gate closed, keeps it from swinging either way, and bars farm-stock against raising it for passing under, while the nuts u on the hooks h of the hinges prevent their throwing it off the hinges for the same object. The through-pin i prevents the sides of the pawl from warping, or from closing too tight for its free movement. A shoe, e, on the sill at the latch-post receives the foot of the latch-stile, by which the hinge-post is relieved of the strain of the gate's leverage, and at the same time bars the stock from pushing it aside for passing through.

The operation of the invention is as follows: The gate being constructed and in position as described, to open the same, either by elevating or swinging the latch-stile for passing different sizes or droves of stock, it is raised by hand, which movement shortens a cross-section of the gate just in proportion to the extent of its elevation or depression, whereby the pawl W is released from and raised above the top slat, and the templet p, by the same movement, raised out of the notch N, and as it naturally leans back, it is carried by its own gravity back to any other notch, or by hand forward, as the gate is lowered to any notch of the same radial distance as the notch it last occupied, settling, as the lifting force is withdrawn, into the same, and upholds the gate against any strain or weight less than a crushing force, the length of the rear portion of the templet preventing the pawl from indenting along its line of contact, or splintering the edge of the slat. As the pawl leans to the rear, if

it is desired to leave the gate open, by releasing the pawl and dropping the gate to the ground, the strain is taken from the hinge-post. In all upward movements of the gate the pawl is self-acting, but in lowering the same it requires to be moved forward by hand. At whatever point, on opening the gate, it is stopped, its latch end may be dropped on the ground, thereby relieving the hinge-post of the gate's leverage, and preventing the structure from becoming crank-sided.

Should the gate incline to drag on the ground, or be obstructed in any manner by mud, sand, or snow, it is easily raised and held by the pawl to swing clear of all obstructions.

For separating the different sizes of farm-stock, the gate is easily set by this pawl for allowing the smaller ones to pass under, while the larger ones are estopped.

Having now described the construction and operation of my improvement in pivot-slat gates, what I claim as my invention is—

1. In a pivot-slat gate, the loop-pawl W, bestriding all the slats S', and through-bolted to the bottom slat at its front end, provided with the oscillatory templet *p*, which, as the front end of the gate is raised, falls by its own weight into any radial notch, N, by which the gate is upheld at any desired point above, and by moving the pawl forward at any point below a level, substantially as described.

2. In a pivot-slat gate, the loop-pawl W, through-bolted to the bottom slat near the latch-stile of the gate, provided with the oscillatory templet *p*, and latch L, in combination with the stiles B, slats S', and loop A, substantially as and for the purposes set forth.

In testimony whereof I have hereto set my hand this 8th day of November, 1877.

PHILESTER SMITH.

Witnesses:

BENJ. F. PARSONS,
M. F. O'DELL.