C. T. SWEET.

Gate and Door Fasteners.

No. 200,106. Patented Feb. 5, 1878.

Fig 1

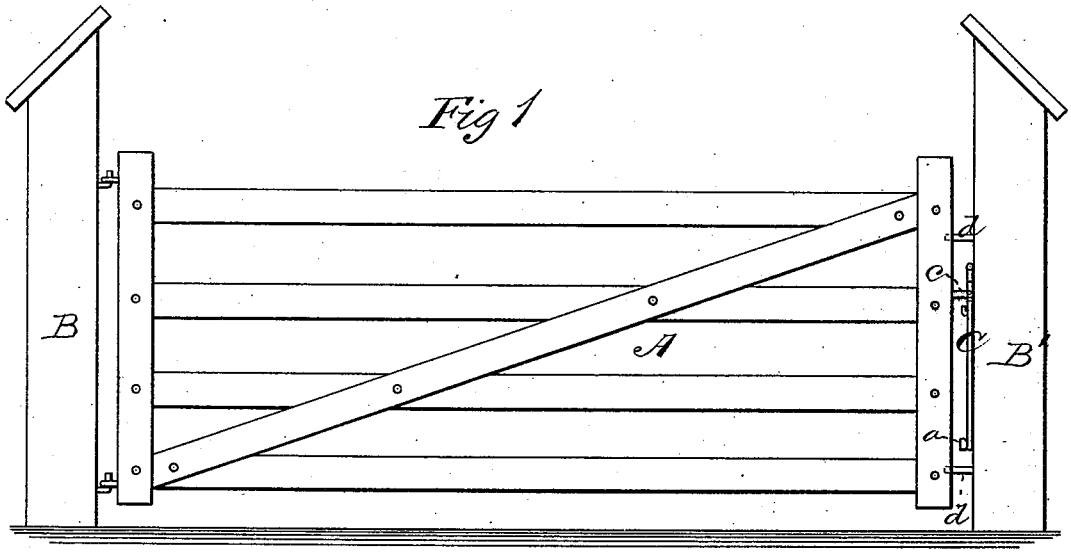


Fig 2

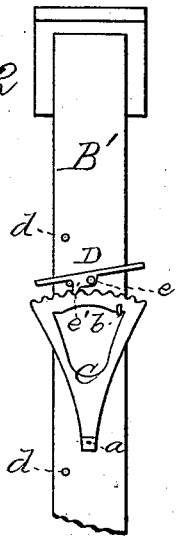
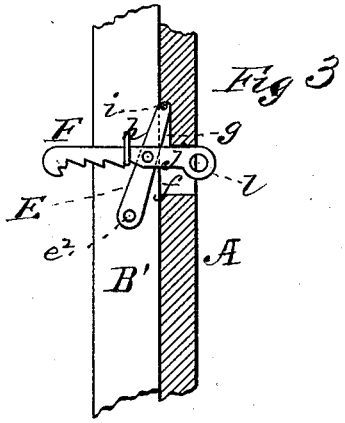


Fig 3



WITNESSES

Mary F. Utley.

F. J. Allasi

INVENTOR

Charles Thomas Sweet.

by E. W. Anderson

ATTORNEY

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES T. SWEET, OF CUMBERLAND, OHIO.

IMPROVEMENT IN GATE AND DOOR FASTENERS.

Specification forming part of Letters Patent No. **200,106**, dated February 5, 1878; application filed July 21, 1877.

To all whom it may concern:

Be it known that I, CHARLES THOMAS SWEET, of Cumberland, in the county of Guernsey and State of Ohio, have invented a new and valuable Improvement in Gate and Door Supports; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my invention applied to a gate, and Figs. 2 and 3 are detail views.

This invention has for its object to prevent gates and doors from sagging, and thereby to increase their utility, and the ease with which they may be opened or closed.

The nature of the invention will be hereinafter more fully shown and described.

In the annexed drawings, the letter A designates an ordinary gate, hinged, in the customary manner, to a post, B, and adapted, when closed, to fill the space between it and a second post, B′.

As is well known, the tendency of the gate, however it may be hung, is to sag, and, in time, to drag upon the ground, thereby causing great delay and inconvenience in opening or closing it. This sagging I have effectually prevented by the following devices: The post B′ is provided with a toothed sector, C, that is pivoted to the inner face thereof, as shown at *a*. The sector is guided during its vibration, and held in contact with the face of the post, by means of a guide-pin, hook, or staple, *b*. When the former is used, the sector will be provided with a curved slot, concentric to the curved periphery of the same, and the pin will pass through the slot into the post.

The end post of the gate is provided with a projecting pin, *c*, which strikes, when the gate is closed, against the periphery of the sector, near its edge, and the impulse being continued, the said sector is vibrated backward until the gate abuts against stops *d*, which limit its movement. During this backward movement of the gate, from the moment that the pin strikes the sector its free edge is gradually raised until its weight is equally supported by the hinges and the said sector.

D indicates a vibrating latch, pivoted at *e* above the sector, and provided with a tooth, *e′*, that automatically engages the toothed edge of the said sector when the gate is fully closed, and prevents the same from being opened until the said tooth is disengaged from the sector. The arms of this latch extend at each side of the post B′ a sufficient distance to afford a handle, by means of which this disengagement may be readily effected from either side of the gate. In lieu of this latch I may, however, substitute an ordinary gravitating-dog; or I may add to either a spring to quicken the action. By pressing down or raising this latch, the tooth is disengaged from the sector and the gate opened.

In the drawing I have shown the sector with its curved perimeter upward; but its position may be reversed, and it may be pivoted to the edge of the gate, the pin projecting from the post B′; or I may dispense with the latter altogether, and utilize the ordinary weather-strip to discharge its function, or substitute in lieu thereof a stub or post projecting above the ground inside of and in close proximity to the said post B′, the sector being held in advance of the gate while being closed by means of a spring or weighted side.

When a door is the object to be supported, it will be provided with a horizontal staple, *i*, or metallic bearing, in lieu of the pin. This bearing will be placed at the upper edge of a recess, *g*, terminating below in a slot, *f*, in the door, and it is engaged by a finger upon the upper edge of a vertically-vibrating rod or bar, E, pivoted at e^2 to the post B′. This rod is pivoted to a ratchet-bar, F, which extends through a strong staple, *h*, on the said post B′, and engages therewith. When the door or gate is closed the bar E impinges against the gate, and is vibrated upward until its upper end or finger engages the bearing *i*, and, when the closure is complete, raises the door. At the same time the ratchet-bar is thrust through the staple *h*, and engages it in such manner as to lock the door.

As shown in Fig. 3, the ratchet-bar may

have an extension, *j*, terminating in an eye, *l*, that projects through the slot *f*, serving as a means for opening the door from the outside, or of securing a padlock thereto.

In this construction the bar E raises and supports the door or gate, and the ratcheted bar F locks the same in the closed position.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of a vibrating support, a ratchet-bar, and a guide therefor with a gate or door, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES THOMAS SWEET.

Witnesses:
O. L. OLDS,
ALICE M. OLDS.