

F. L. SANDERSON.  
Hinge.

No. 165,619.

Patented July 13, 1875.

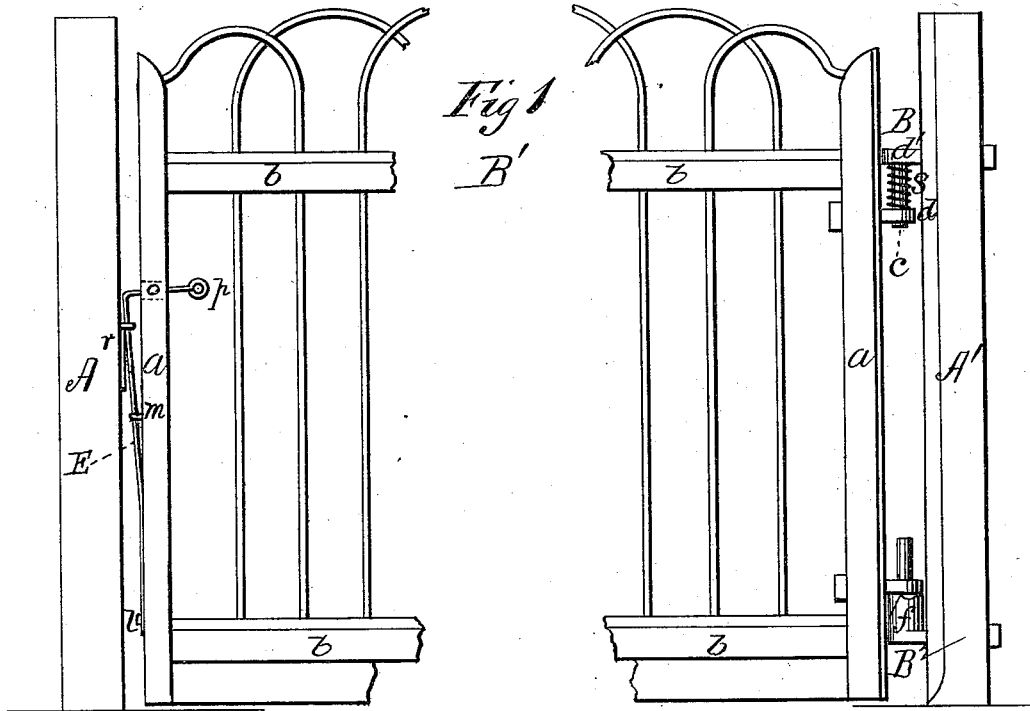


Fig 2

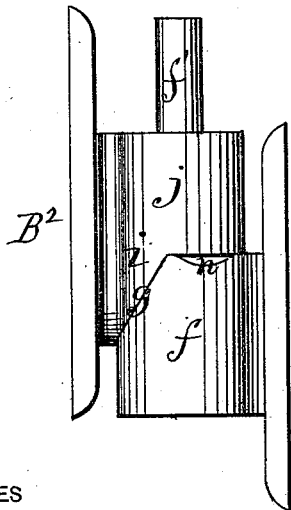
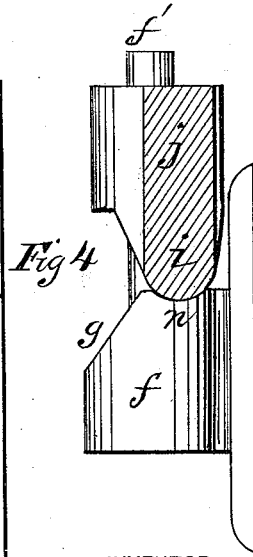
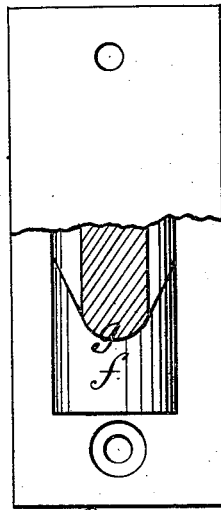


Fig 3



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN HINGES.

Specification forming part of Letters Patent No. 165,619, dated July 13, 1875; application filed December 5, 1874.

*To all whom it may concern:*

Be it known that I, FRANSESCO L. SANDERSON, of Wilmington, in the county of Clinton and State of Ohio, have invented a new and valuable Improvement in Gate-Hinges; 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 drawing is a representation of a front view of my gate and hinge. Figs. 2, 3, and 4 are views of the hinge.

This invention has relation to improvements in rising hinges; and it consists in a gate or door hinge the lower knuckle of which is provided with double inclines and notches situated diametrically opposite each other, in connection with an upper knuckle having double inclines, and a projection adapted to fit into the notches of the lower knuckle, when the gate is opened in either direction at right angles to its closed position, as will be hereinafter more fully set forth.

In the annexed drawings, A A' designate the uprights or posts, between which is hung a gate, B<sup>1</sup>, consisting of two vertical bars, *a*, and two longitudinal bars, *b*, between which may be woven wire of suitable rigidity and of any suitable design. The upper hinge, B, is of the ordinary blacksmiths' or hook-and-eye pattern, and is applied to the posts A' in the usual well-known manner, with the exception that its pin *c* projects downwardly. Upon this pin is applied a helical metallic spring, *s*, in such a manner that when the gate is raised by a lower hinge, hereinafter described, it shall be compressed between the knuckles *d* *d'* of the hinge. The lower hinge, B<sup>2</sup>, is a rising hinge, as it is technically called, and its knuckle *f* in front of the pin *f'* is provided with double inclines *g*, adapted to receive a correspondingly-shaped angular projection, *i*, upon the lower edge of the knuckle *j*.

When the gate is hung, owing to the double-inclined walls of the notch *g*, it may be opened from either side, and when opened will be

raised vertically a short distance, thereby compressing the spring *s*; consequently when it is released the reaction of the spring will cause the gate to be rapidly and effectually shut.

With a view to holding the gate open when necessary—as, for instance, to allow a wagon to be driven through—I have caused a notch, *n*, to be cut into the upper horizontal edge of the knuckle *f*, into which the end or apex of the angular projection *i* is received, its engagement therein being preserved by the spring *s* under all ordinary circumstances.

The advantage of this arrangement will be readily appreciated when it is considered that, in hauling the crops from a field to the barn, the driver is generally alone, and has no one to hold the gate open while he drives his animals through, and consequently is obliged to leave his team to their own guidance at the risk of tearing down the gate, while he holds the same open for their passage.

I am aware that a hinge has heretofore been constructed, in which the knuckles are provided with double inclines, the lower knuckle being also provided with a notch for the reception of a projection in the upper knuckle, and therefore I lay no claim to such invention, broadly, which is incapable of holding the gate, when open in either direction, at right angles to its closed position.

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

In a gate or door hinge, the knuckle *f*, provided with double inclines *g* and notches *n*, situated diametrically opposite each other, in combination with the knuckle *j*, having double inclines, and projection *i*, adapted to fit into said notches *n*, when the gate is swung in either direction at right angles to its closed position; substantially as and for the purpose described.

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

FRANSESCO L. SANDERSON.

Witnesses:

M. J. GRADY,  
WM. HALE.