

JAMES BARROWS.  
Improvement in Hinges.

Patented Feb. 27, 1872.

No. 124,111.

Fig. 1.

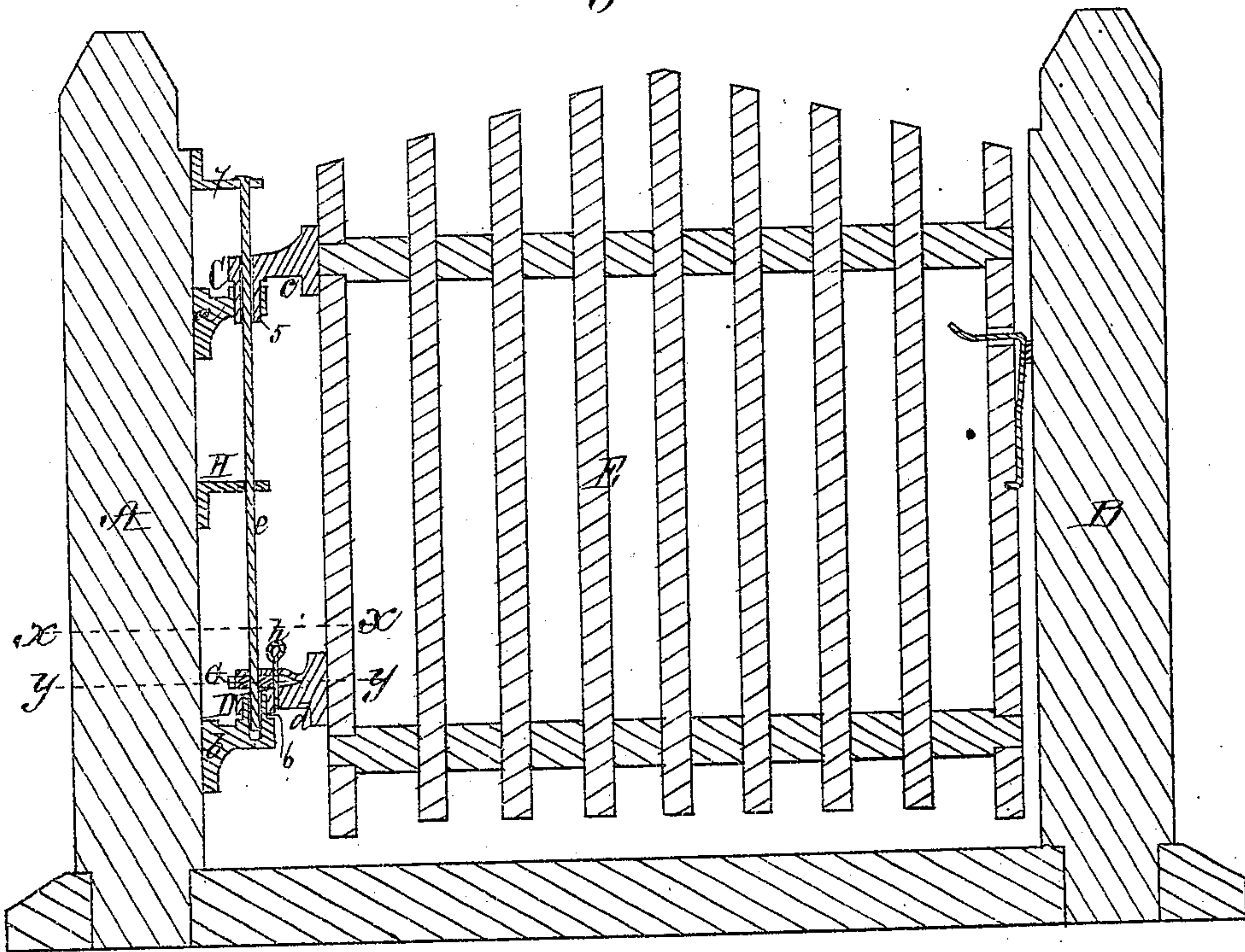


Fig. 2.

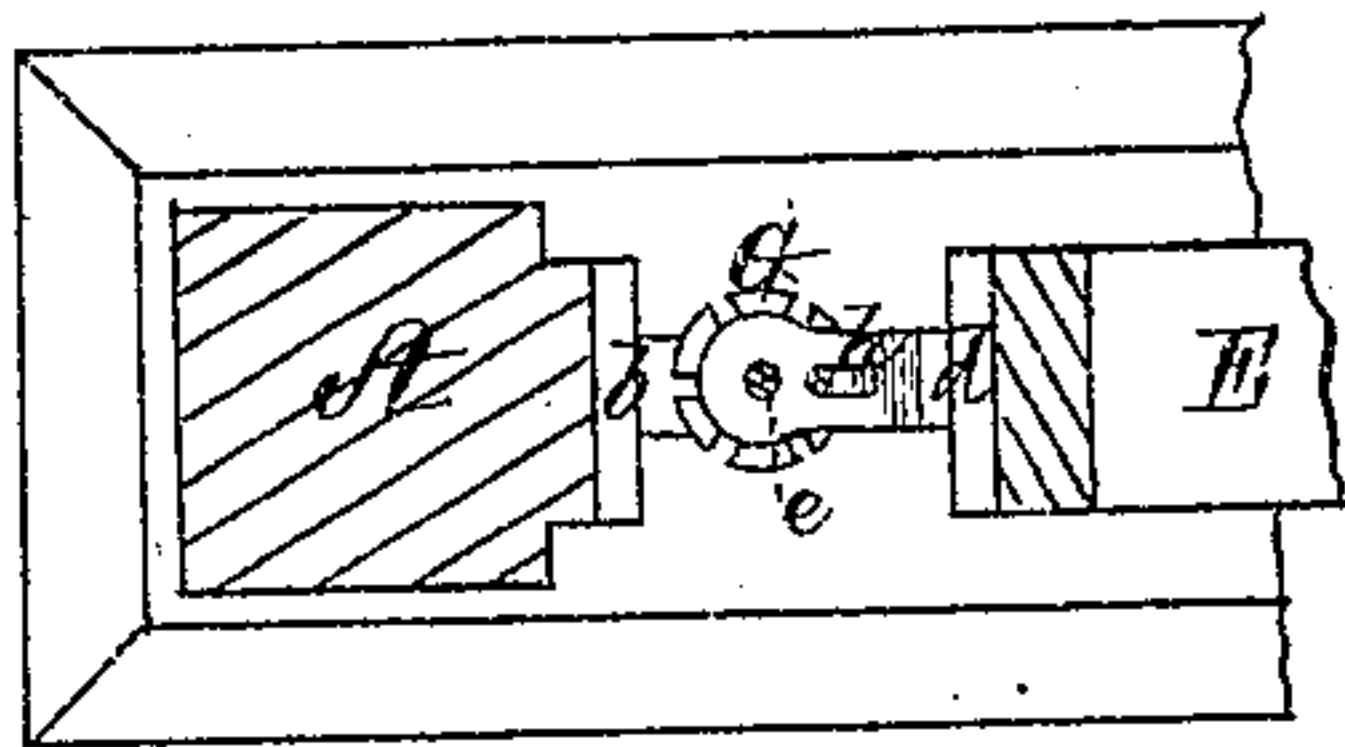
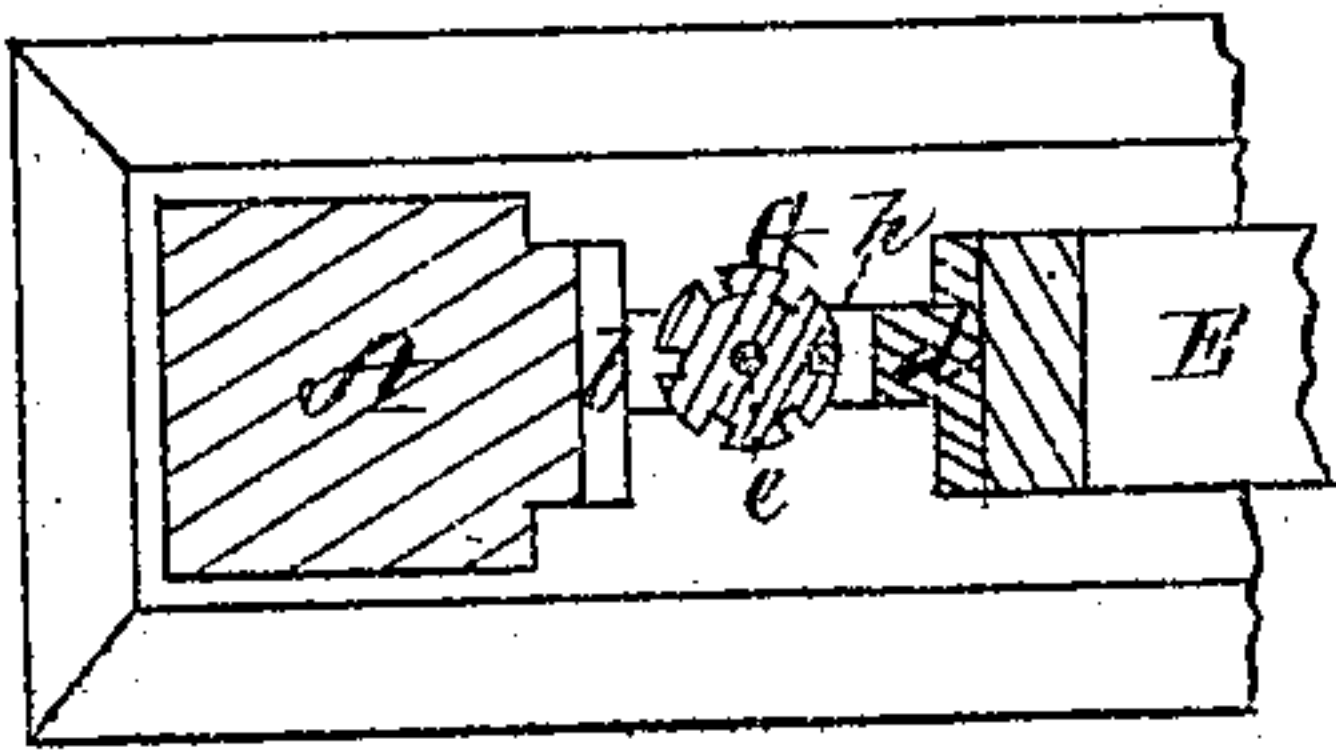


Fig. 3.



Witnesses,  
W. J. Cambridge  
E. B. Whittier

Inventor,  
James Barrows  
Per His Attorneys  
Teschmacher & Stearns.



# UNITED STATES PATENT OFFICE.

JAMES BARROWS, OF HYDE PARK, MASSACHUSETTS.

## IMPROVEMENT IN HINGES.

Specification forming part of Letters Patent No. 124,111, dated February 27, 1872.

*To all whom it may concern:*

Be it known that I, JAMES BARROWS, of Hyde Park, in the county of Norfolk and State of Massachusetts, have invented an Improved Combined Spring and Hinge for Gates and Doors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a longitudinal vertical section through the center of a gate with my combined spring and hinges applied thereto. Fig. 2 is a transverse section on the line *xx* of Fig. 1. Fig. 3 is a transverse section on the line *yy* of Fig. 1.

My invention has for its object to provide a means for producing the required torsion in either direction of a vertical wire or rod, when used in connection with the hinges of a gate or door, to serve the double purpose of a pintle for all the knuckles and a torsion-spring; and consists in a notched wheel and pin, or equivalent device, placed or arranged in line with the common axis of the vertical wire spring and hinges, whereby any required degree of torsion in either direction may be produced to hold the gate when closed; whereas, as heretofore, in this position of the gate the spring was without torsion.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawing, A B are the gate-posts, to one, A, of which are secured the stationary portions *a b* of the two hinges C D. *c d* are the movable portions of the hinges secured to the gate E, and resting upon the stationary portions *a b*, a projection, 5, on the under side of the portion *c*, and a similar projection, 6, on the upper side of *b*, fitting into openings of corresponding size formed in the ends of the portions *a d*, these projections serving as axes for the gate to swing or pivot on in either direction. *e* is a rod or wire, suitably tempered, extending between the hinges C D, the upper end of the wire being secured to a stationary

bracket, 7, projecting from the gate-post A above the hinge C, the lower end of the wire being secured to a notched wheel, G, placed in an opening formed in the movable portion *d* of the hinge D. This notched wheel may be turned in either direction, to produce the required twist or torsion of the wire spring, by means of a wrench or otherwise; and, when turned sufficiently, is securely held to the movable portion *d* by a pin, *h*, which passes through one of the notches of the wheel. H is a guide, secured to the post A midway between the hinges, for steadying and keeping the wire in place.

From the foregoing, it will be seen that the torsion of the wire is sufficient to close the gate after being opened in either direction; and, when the gate is intended to open in one direction only, it is simply necessary to increase the amount of torsion by turning the notched wheel G to hold the gate closed without the use of a latch, a suitable stop being provided to prevent the gate from swinging open in the opposite direction. By placing the center of the notched wheel in line with the common axis of the wire spring and hinges, I am enabled to produce a torsion of the spring in either direction, which cannot be done where the twisting device is situated at one side of the axis of the hinges, as heretofore.

I am aware that the regulating device for the torsion-spring is, of itself, not new.

### *Claim.*

What I claim is—

The compound hinge composed of the bracket, step-guide, and knuckles upon the post, the torsion-spring, pintle, and the regulating-wheel G within the knuckles, all as shown, and for the purpose set forth.

Witness my hand this 19th day of January, A. D. 1872.

JAMES BARROWS.

In presence of—

P. E. TESCHEMACHER,  
N. W. STEARNS.