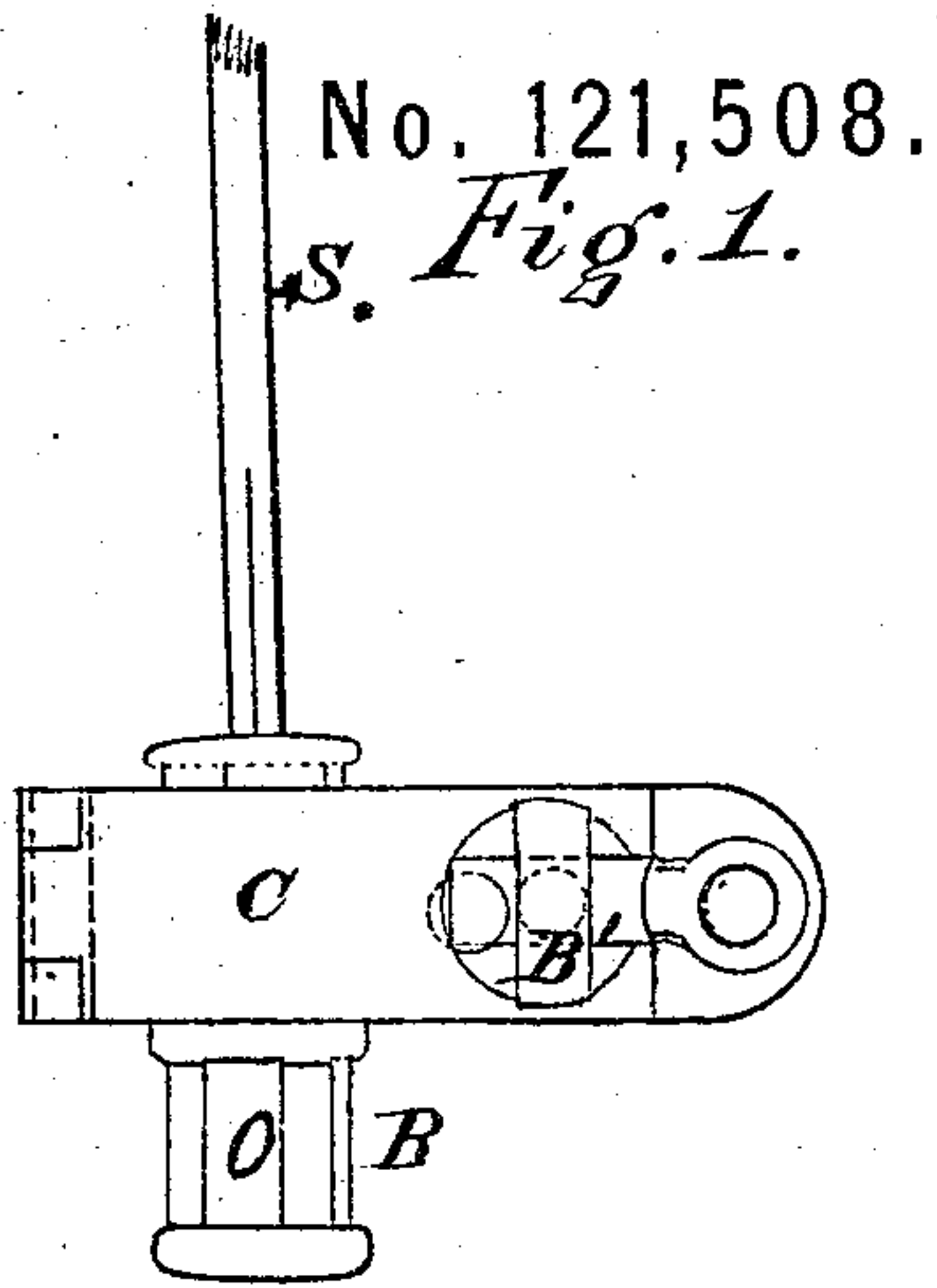


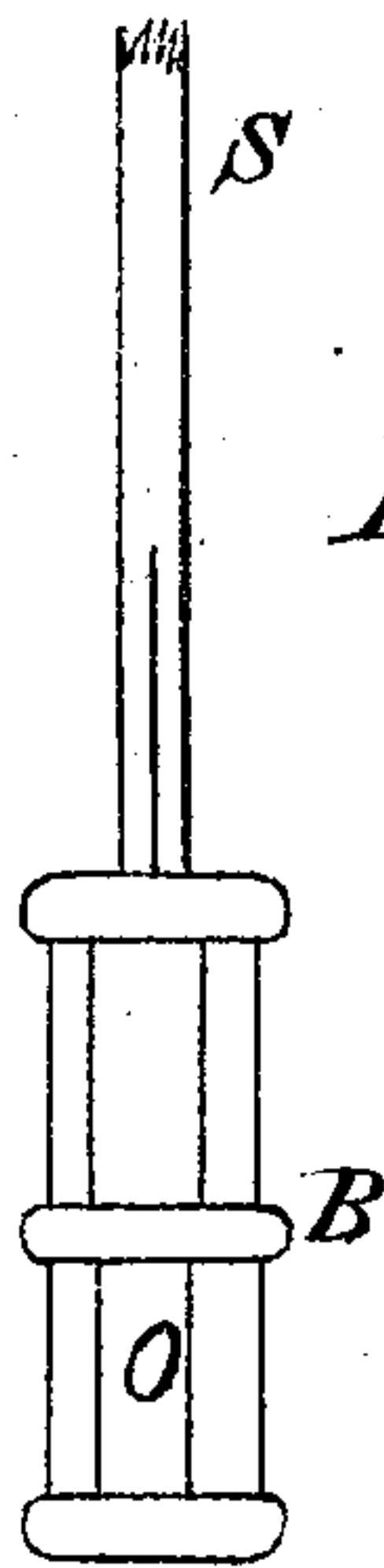
(24.)

WILLIAM M. GRAY.

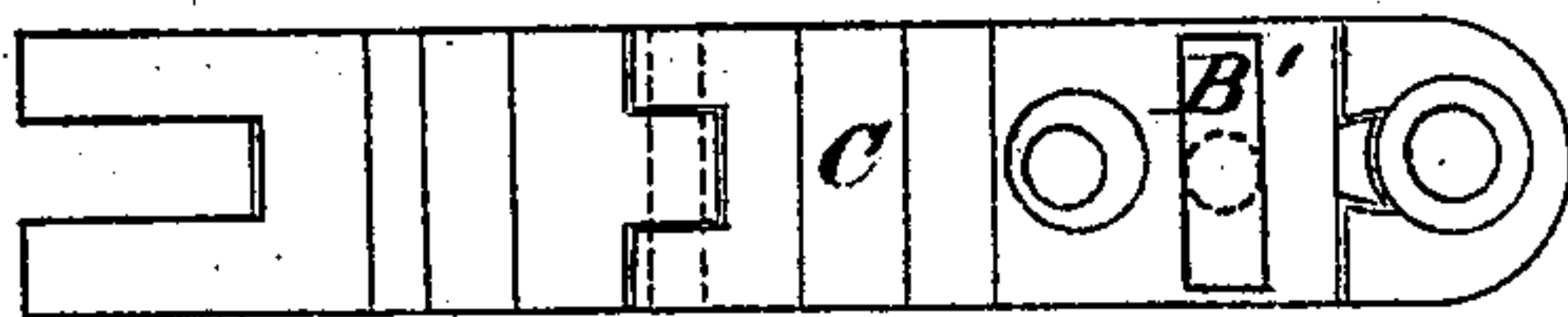
Door Spring.



Patented Dec. 5, 1871.



*Fig. 3.*



Witnesses.  
Wm Howard  
H L Perrine

William M. Gray  
By  
James A. Skilton  
his attorney.

# UNITED STATES PATENT OFFICE.

WILLIAM M. GRAY, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN DOOR-SPRINGS.

Specification forming part of Letters Patent No. 121,508, dated December 5, 1871.

*To all whom it may concern:*

Be it known that I, WILLIAM M. GRAY, of Brooklyn, New York, have invented certain Improvements in Door-Springs, of which the following is a specification:

My invention relates to a hinged clamp of peculiar construction, arranged so as to grasp and firmly hold a barrel, made of the corresponding male form to fit the female-formed clamp. These forms may be of any irregular form capable of fitting in correspondence, excepting the regular round form. This barrel and clamp are to be so shaped as to permit the barrel to be moved or rotated short distances when relieved from the hold of the clamp and its securing button, and the barrel is bored in the upper end of a form to receive the end of the usual rod-spring for shutting or holding open doors, &c. This barrel is provided with a collar above and a collar below the inclosing clamp to fix it in place when the button is screwed down; and also with a bottom collar or cap, securing the ends of four or more legs or bars, arranged so as to take the end of a chisel or screw-driver for the purpose of turning the barrel and twisting the spring inserted in the same.

Figure 1 is a side elevation of the clamp-barrel and spring in place together. Fig. 2 is a side elevation of the barrel. Fig. 3 is a side elevation of the open clamp or hinge.

B is the barrel, bolt, or pin, which, as shown, is solid and five-sided where clasped by the clamp C. It has two slots, O, cut entirely through between the two lower collars, at right angles to each other. B' is the button for securing the clamp C, which last is hinged and shaped to grasp the angled barrel B tightly and prevent it from turning. The clamp C conforms to the shape of B in the socket formed by closing the same. S is the rod-spring firmly inserted in the angled barrel B.

Previous to my invention John L. Gray secured a patent dated January 11, 1859, for a door-spring, in which a polygonal barrel projected above the socket, below which the socket and the corresponding part of the barrel were regularly rounded to match; but it was finally condemned and driven from the market; and I disclaim the combination set forth in the specification of said patent.

I claim as my invention—

1. The hinged clamp C, arranged to clasp and hold the angled barrel B of a door-spring.
2. The hinged clamp C, secured by the button B', and holding the barrel B.

WILLIAM M. GRAY.

Witnesses:

JAMES A. SKILTON,  
GEORGE LYONS.

(24)