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WILLIAM M. GRAY.

Door Spring.

No. 121,507.

Patented Dec. 5, 1871.

Fig. 3.

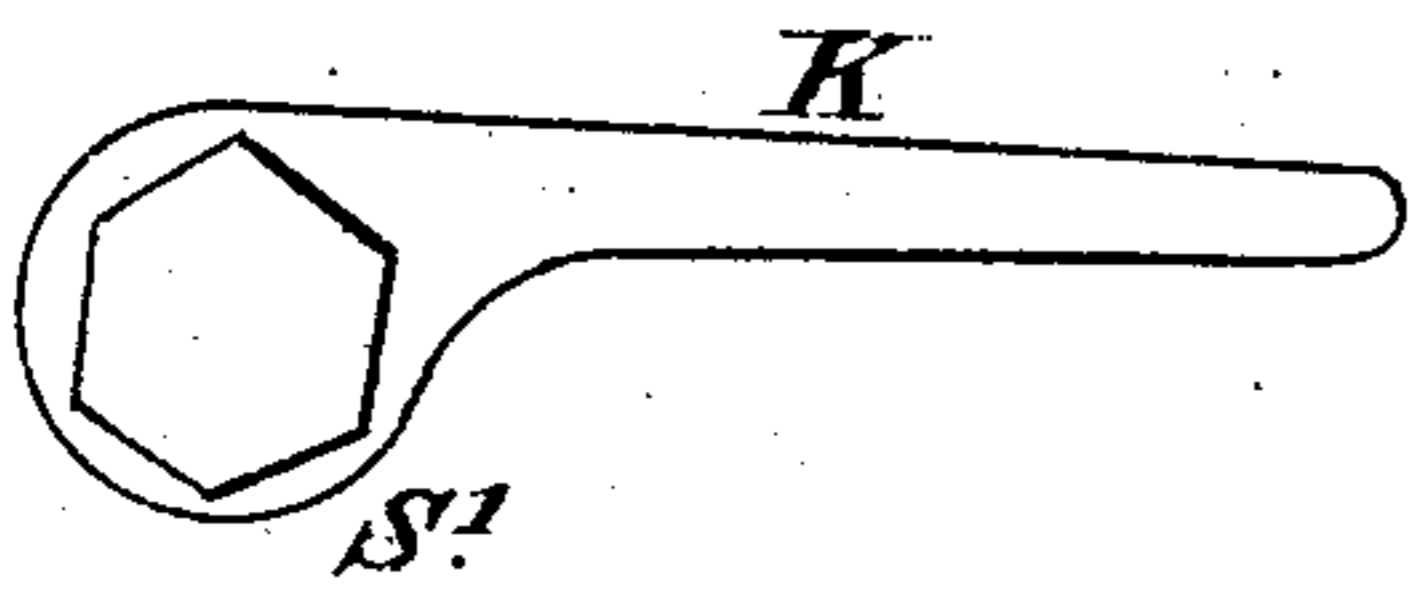


Fig. 2.

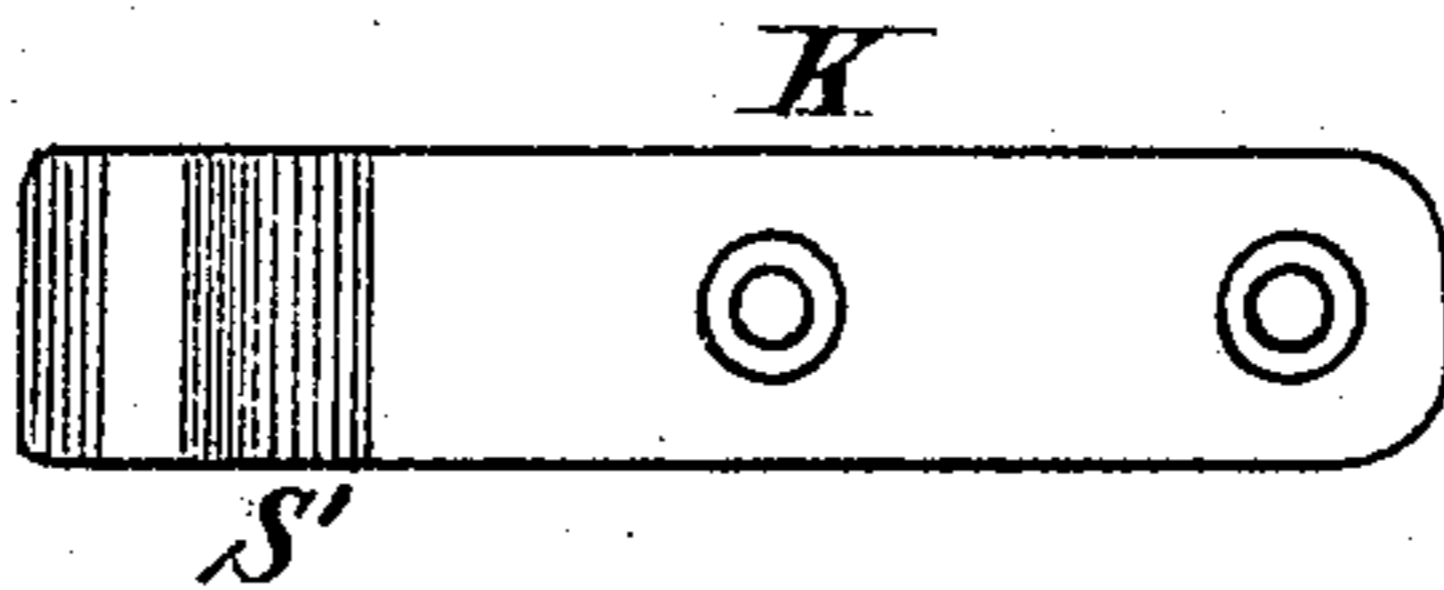


Fig. 1.

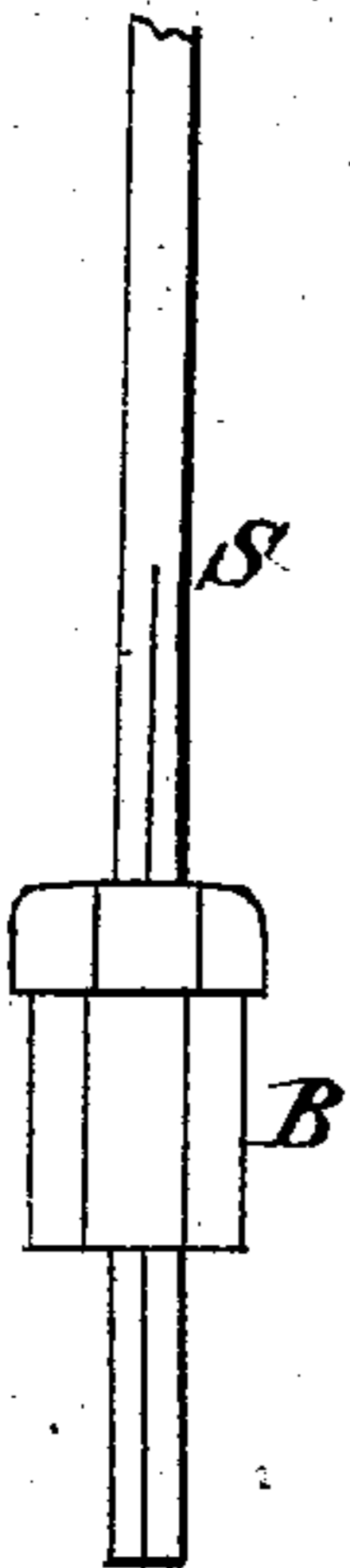
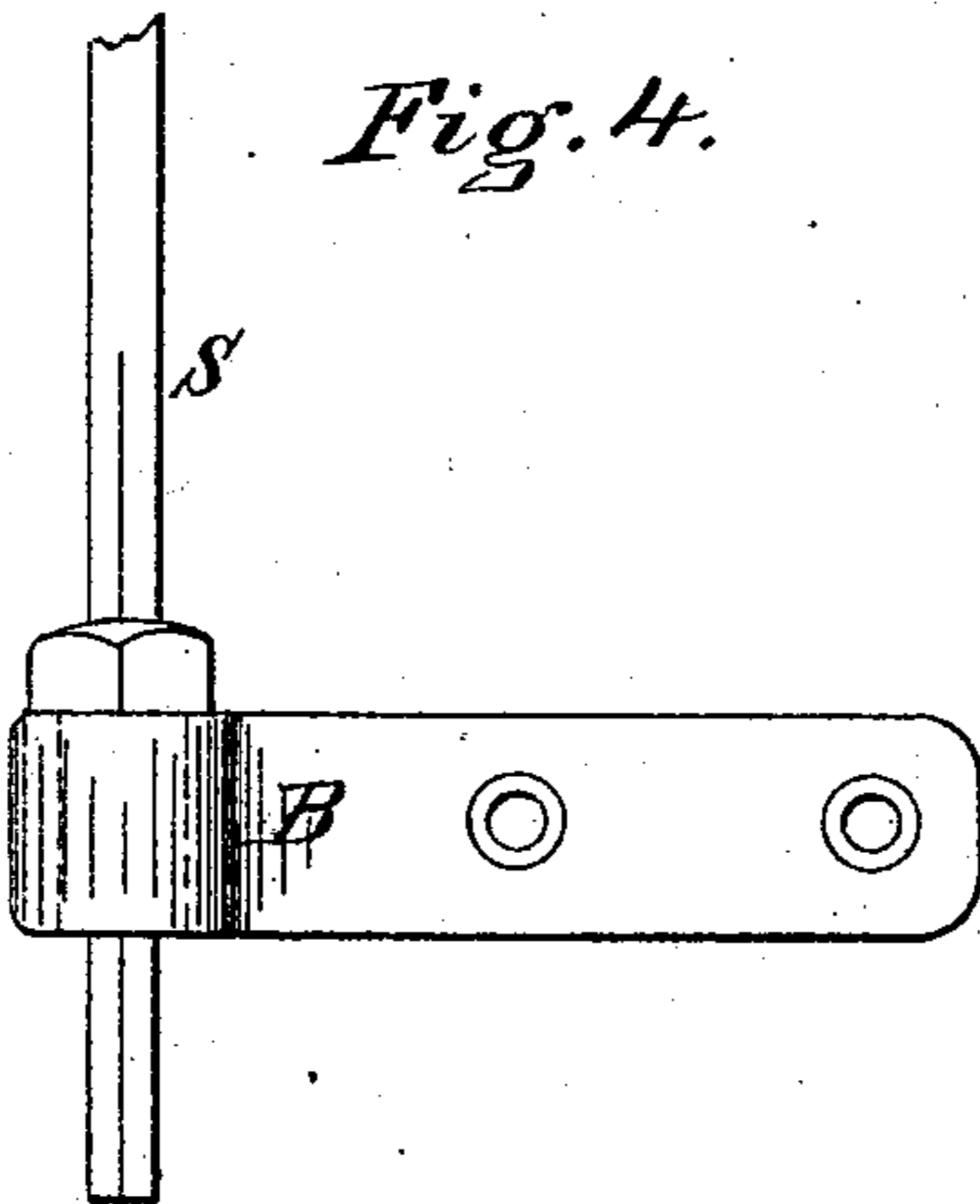


Fig. 4.



Witnesses,
Wm Howard.
H. L. Perrine

William M. Gray.
By
James A. Skilton
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UNITED STATES PATENT OFFICE.

WILLIAM M. GRAY, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN DOOR-SPRINGS.

Specification forming part of Letters Patent No. 121,507, dated December 5, 1871.

To all whom it may concern:

Be it known that I, WILLIAM M. GRAY, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Rod Door-Spring Attachments or Brackets, of which the following is a specification:

The first part of my invention relates to a prismoid bolt or pin, provided with a prismoidal hole in the center of the same from end to end, a collar or other stop surrounding the upper end of the same, said prismoid bolt being fitted so as to slide up and down—not too easily—on the lower end of a common rod-spring for doors made of a shape to correspond thereto. The second part of my invention relates to a socket made to correspond and easily but firmly fit to the prismoid bolt, and further provided with a flange, bracket, or extension for fitting and securing the same by means of screws to the door.

Figure 1 is a side elevation of the prismoid bolt or pin, shown in one form. Fig. 2 is a side elevation of the bracket and socket. Fig. 3 is an end (top or bottom) view of the same socket and bracket. Fig. 4 is a side elevation of the same, with the bolt in place for use.

B is a prism-shaped plug or tampon, its cap of prism-shape also to facilitate the grasp of fingers or wrench, with a prism shaped bore entirely through the same, fitted not too snugly to the spring S, which projects below the plug. K is the bracket, provided with screw-holes for fastening to the door, and an angular socket, S', snugly fitting the plug B so as to prevent turning therein, but permitting motion endwise on the spring S far enough to clear or take it into the cap at will.

It is evident that the parallelogram planes forming the sides of the bolt or plug B may be concaved or convexed, and the socket also conversely convexed or concaved, without changing the character of my invention so long as the bolt-plug or tampon B slides up and down on the spring to free or secure the same.

The operation of my invention is as follows, viz.: The usual wrench being applied to the lower end of the spring when tension thereof is to be increased or diminished, and slight torsion being made, the plug B may be lifted out of the socket, and, torsion or release being made, be located in the socket at will by a slight tap of a hammer, forcing it along and down the rod, or left out to free the door from control.

The action and uses of the rod door-spring are too well known to require description here. It is sufficient to say that this device meets all the required conditions, and has the merits of low cost and efficiency, which appear at a glance.

I claim—

1. The exteriorly prismoid bolt B, in combination with the spring S, and arranged to slip up and down on the same.
2. The bracket K, provided with a socket of prismoid form interiorly, in combination with the corresponding prismoid bolt B and the spring S, the bracket being arranged to be secured to the door and sustain the bolt B.

WILLIAM M. GRAY.

Witnesses:

JAMES A. SKILTON,
RUFUS P. LIVERMORE.

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