

No. 639,796.

Patented Dec. 26, 1899.

P. H. TREADWAY & R. V. PARKER.  
BED BRACE AND SLAT FASTENER.

(No Model.)

(Application filed May 20, 1899.)

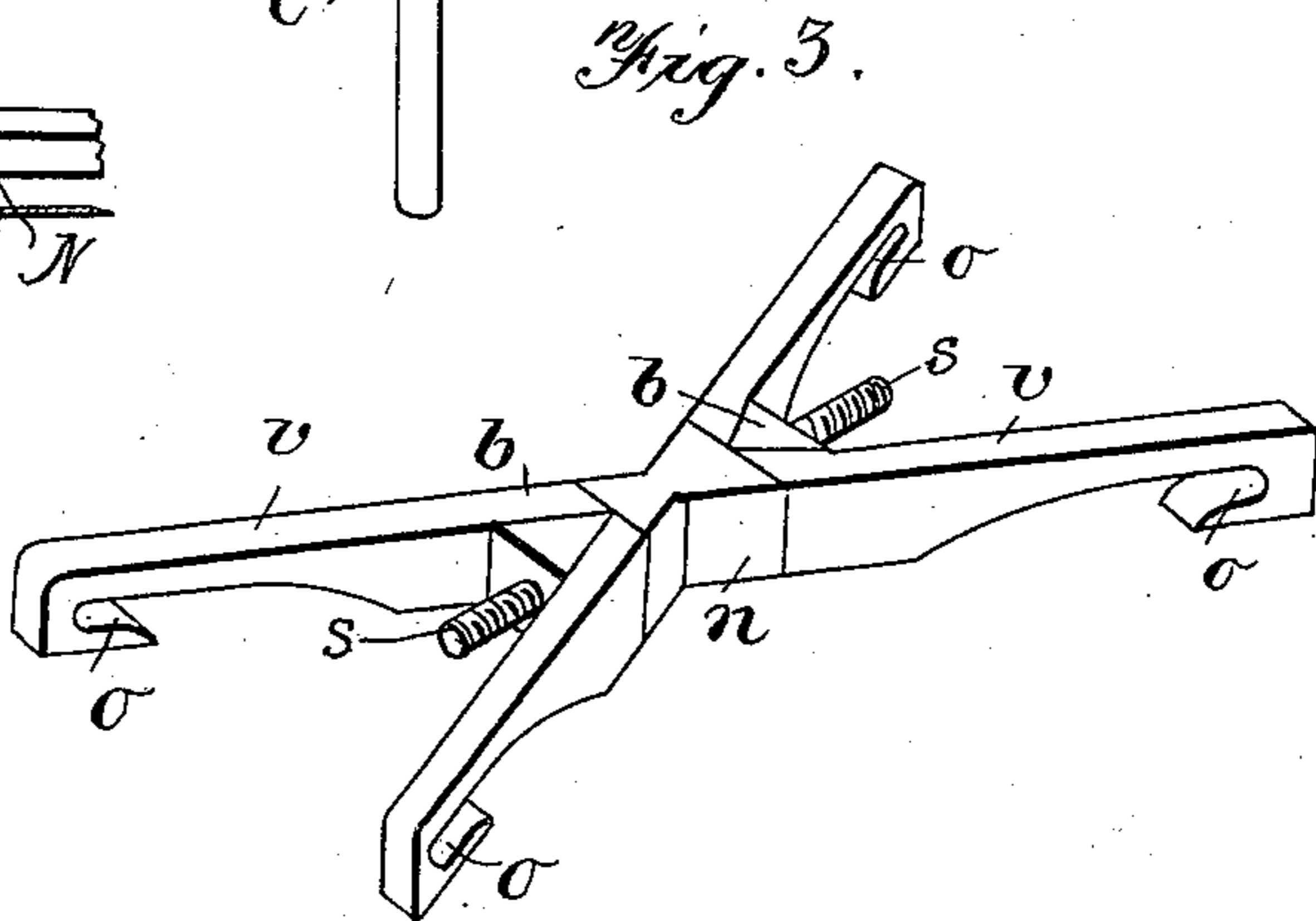
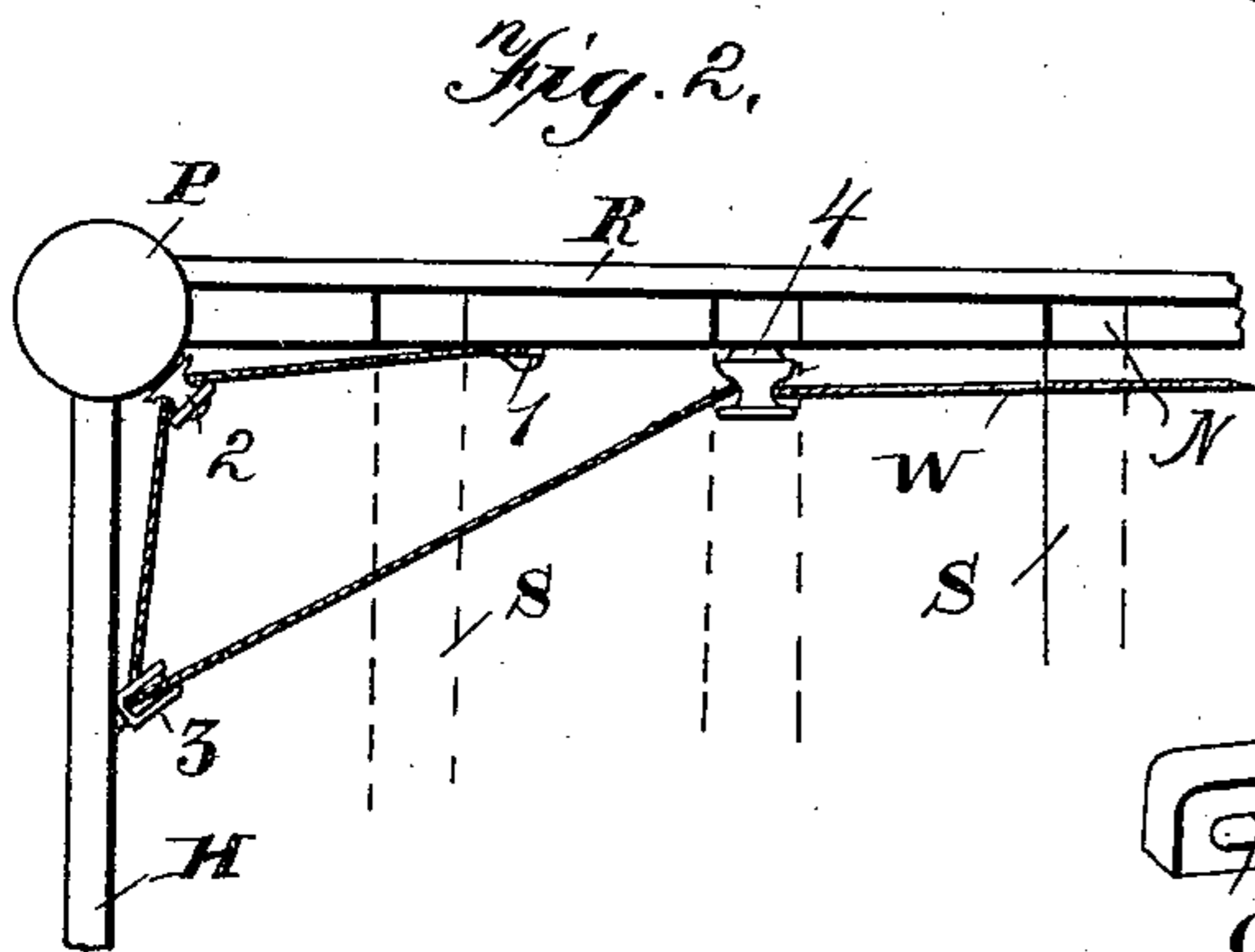
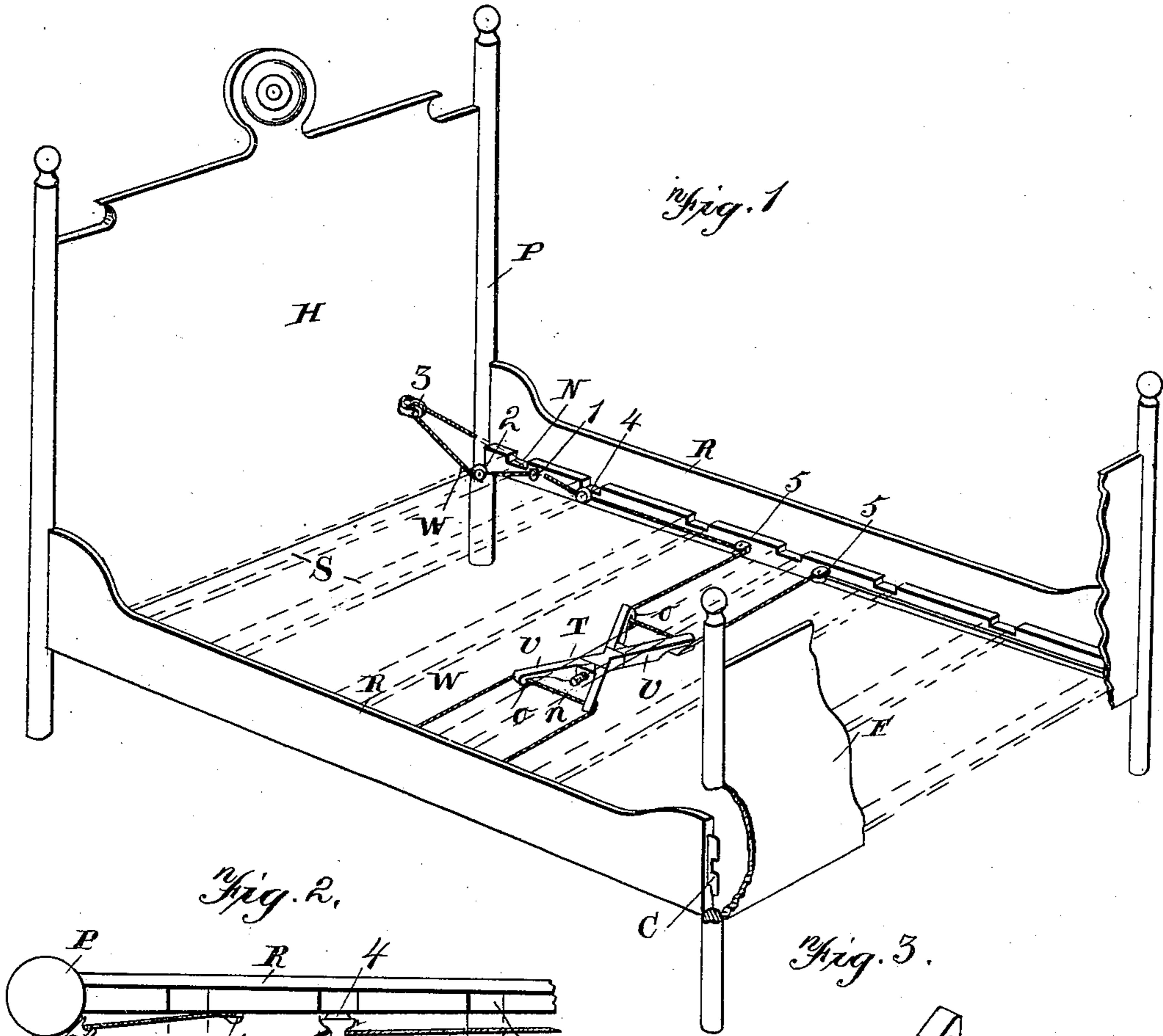


Fig. 4.

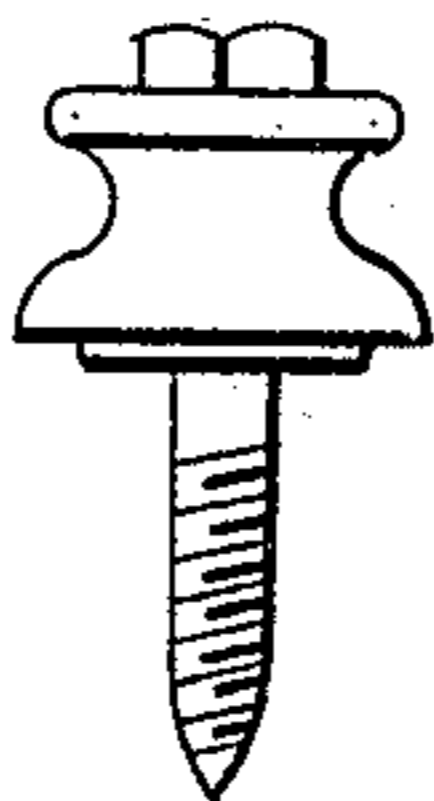
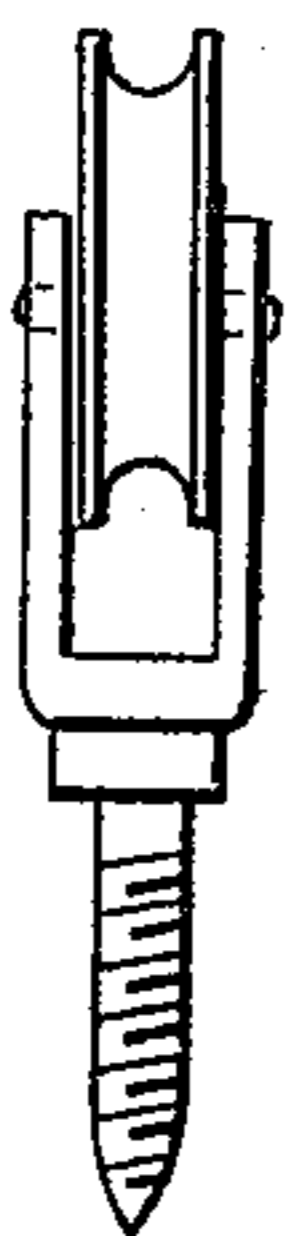


Fig. 5.

Witnesses  
Geo. C. Puch.  
Thos. R. Stead.

Paca H. Treadway Inventors,  
and  
Robert V. Parker  
by  
Collamer & Co., Attorneys

# UNITED STATES PATENT OFFICE.

PACA H. TREADWAY AND ROBERT V. PARKER, OF REYNO, ARKANSAS.

## BED-BRACE AND SLAT-FASTENER.

SPECIFICATION forming part of Letters Patent No. 639,796, dated December 26, 1899.

Application filed May 20, 1899. Serial No. 717,607. (No model.)

*To all whom it may concern:*

Be it known that we, PACA H. TREADWAY and ROBERT V. PARKER, citizens of the United States of America, and residents of Reyno, Randolph county, Arkansas, have invented certain new and useful Improvements in Bed-Braces and Slat-Fasteners, of which the following is a specification.

This invention relates to bedsteads, and more particularly to the braces employed for holding the parts thereof together; and the object of the same is to produce an improved brace of this character which also serves as a fastener for the slats.

To this end the invention consists, specifically, in the peculiar manner of leading the cables from and connecting them to the several parts.

The following specification describes our preferred manner of carrying out the invention, all as illustrated in the accompanying drawings, wherein—

Figure 1 is a general perspective view elevation of a bedstead partly broken away to show the application of our invention thereto, some of the slats being illustrated in dotted lines. Fig. 2 is an enlarged plan view of one corner of the bedstead, showing the course of the cable. Fig. 3 is an enlarged detail of the tightening device. Figs. 4 and 5 are details of the so-called "pulley" and "roller," respectively, these terms being employed herein to differentiate the pulley, whose axis is at right angles to its screw-stem, from the roller, which has its bearing directly on its stem.

In the drawings is represented a bedstead of conventional type embodying a headboard H, footboard F, side rails R, attached by catches C, and slats S, all being well known and forming no part of the present invention. It frequently occurs, especially after a bedstead has had hard use for many years, that it grows weak and shaky, or perhaps its rails spring out and permit some of the slats to drop out of place. Experience has shown us that the catches C, if not strongly and perfectly made, often work loose, even, and in general the structure wears with age and use until it finally becomes unserviceable. The object of our present invention is to produce an attachment which can be applied to such worn-out bedsteads, (or which, indeed, can be

as well applied to them when first set up,) whereby their several parts can be drawn tightly together and held so, and even outwardly bulging or yielding side rails can be drawn inward to such an extent as to clamp the ends of the slats and hold them tight. This we accomplish by means of a cable, preferably of wire, run or strung about the interior of the bedstead in the following manner and tightened by a device T. (Best seen in Fig. 3.)

Beginning at the point 1, the cable W is attached to the rail R by means of a nail, screw, or staple about four inches inward from the end of the rail and on a line below the bottom of the slat-notches N. Thence it passes under a roller (see Fig. 5) at a point 2 in the post P about one and one-half or two inches below the horizontal plane of the point 1. Thence it rises about eight inches to a point 3 on the inner face of the headboard H and about four inches from the end thereof, where it passes over a pulley. (See Fig. 4.) Thence it leads inward over the endmost slat S and downward under the second slat to the point 4, where it passes under a second roller located in the inner face of the rail R. Thence it passes along beneath the slats and just inside the rail R to a point 5 near the center of the length thereof, or perhaps some eight inches toward the point 1 from said center, where it passes through a second pulley and turns inward beneath the plane of the slats, and, finally, T designates the tightening device described below and to which the cable is connected. By preference we employ one such cable along each side of the bedstead and attach its extremities at similar points 1 and 1 at the head and foot, and the centers of these two cables are tightened as below, although it is to be understood that any other equivalent tightening means might be employed.

The above description, taken with the accompanying drawings, will make it clear that when tension is imparted to the cable a compound action takes place—to wit, the stretch of cable 1 2 draws the rail toward the post, especially at the bottom of the rail, and slightly downward, thus forcing the catches C more deeply into their notches in the post than formerly. The stretch 2 3 draws the headboard

toward the post and clamps it thereto, although these members are often made integral, and the stretch 3 4 by its oblique position and descent not only draws the upper edge of the rail against the post, but also springs the rail slightly inward at and adjacent the point 4, thus tightening it against the ends of all slats toward this part of the bedstead. The stretch 4 5 conveys the strain from the tightening device at the center to the corner just described, and the stretch from the point 5 inward to said device draws the rail inward at and adjacent the center of its length and tightens it against the ends of the centermost slats. If the improved tightening device described below is employed, this action takes place at the four corners and the longitudinal centers of both rails simultaneously, and the result is that the complete bedstead is tightened quickly and thoroughly.

Referring now to Fig. 3, *v v* designate two duplicate claws of substantially V shape and which may be cast each in one piece or made with a small bracing-block *b* within their angles, and in the lower face of each arm of each claw is cut a notch or opening *o*, as seen. *n* is a nut or enlargement formed fast upon the center of a double screw *s* or one having its opposite ends cut with respectively right and left hand threads, and through the angles of the claws are similarly-threaded holes for these ends of the screw. The location of this tightening device is best seen in Fig. 1, and it will be clear that it is only necessary to pass the loops at the centers of the two cables *W* upward into the openings *o*, when the whole will be ready for immediate use. By turning the nut *n* in the proper direction the two claws are first separated until said loops can be inserted, after which the nut is turned in the other direction to draw the claws and loops inward, and thereby the entire bedstead is tightened in the manner above described. There is nothing on this tightening device to injure or interfere with the slats beneath which it stands, and even if it stood opposite a space between two slats and the mattress came in contact with it no injury thereto would result. On the contrary, it is desirable that something rest upon or contact with the flat upper face of the nut *n* after its adjustment in order to prevent its unscrewing under strain and agitation. All parts of this device are of the desired sizes, shapes, proportions, and materials, leaving the matter of preference to the manufacturer. Especial attention is called to the formation of an upright triangle by the stretches 1 2 and 3 4, which triangle draws the rail firmly against the post, and a second triangle by the stretches 1 2 3 4, as seen in plan view in Fig. 2, which draws the headboard toward the post and also springs the rail inward near its end. In addition the bend the cable makes at the two points 5 5 near the center of the length of each rail also springs the latter inward there,

which is desirable for the reason already set forth. The advantages of the use of our improved form of tightening device in this special connection and with the stringing of the cable as described are apparent.

What is claimed as new is—

1. In a bed-brace, the combination with the members of a bedstead, and a tightening device located within the framework thereof; of two cables, each connected at its center to said device and having each end leading to one corner of the bedstead and there forming an upright triangle with the extremity of the cable attached to the side rail, and antifriction-guides in the angles of said triangle and respectively attached to the headboard above and to the post below the horizontal plane of said point of terminal attachment, as and for the purpose set forth.

2. In a bed-brace, the combination with the members of a bedstead, and a tightening device; of two cables, each connected at its center to said device and having its ends leading to the corners of the bedstead, and each end there forming a triangle in plan view with its extremity attached to the side rail some little distance inward from the end of the latter, and antifriction-guides in the angles of said triangle and respectively attached to the rail, the post, and the headboard, as and for the purpose set forth.

3. In a bed-brace, the combination with the members of a bedstead, and the catches uniting them; of a cable end within each corner of the bedstead attached at 1 to the side rail, thence leading as at 2 to the post, thence as at 3 to a point on the headboard some little distance from the post, thence to a point 4 on the side rail adjacent the attaching-point 1, thence to a point 5 near the center of the rail, and finally to a tightening device, and antifriction devices located at said several points, as and for the purpose set forth.

4. In a brace for a bedstead-corner, the combination with the post and headboard, the side rail, the catches between said rail and post, and the slats; of a cable attached at a point 1 within the rail some little distance from the end of the latter, a roller in the post at a point 2 below the plane of said point 1 and beneath which the cable passes next, a pulley in the headboard at a point 3 above the plane of the attaching-point 1 and some little distance from the post and through which the cable passes next, and a roller in the rail at a point 4 beneath the second slat under which the cable passes next, and means for drawing on the other end of the cable, as and for the purpose set forth.

Signed at Reyno, Arkansas, this 17th day of May, 1899.

PACA H. TREADWAY.  
ROBERT V. PARKER.

Witnesses:

DANIEL W. BLUNT,  
JOHN W. THOMPSON.