

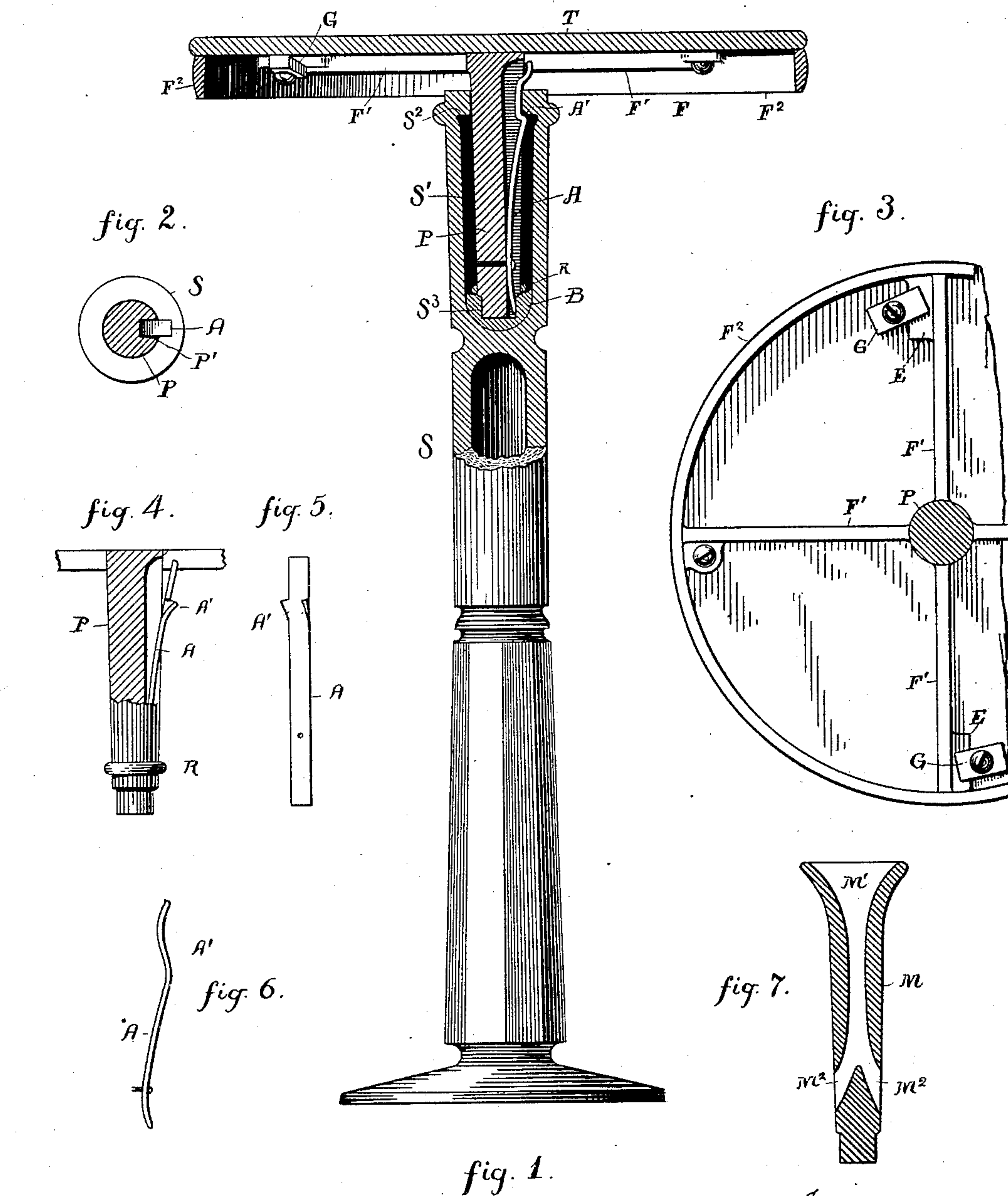
(No Model.)

J. S. DUNLAP.

STORE STOOL.

No. 358,024.

Patented Feb. 22, 1887.



Witnesses;

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UNITED STATES PATENT OFFICE.

JOHN S. DUNLAP, OF PEORIA, ILLINOIS.

STORE-STOOL.

SPECIFICATION forming part of Letters Patent No. 358,024, dated February 22, 1887.

Application filed October 17, 1885. Serial No. 180,155. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. DUNLAP, of Peoria, in the county of Peoria, in the State of Illinois, have invented an Improved Store-Stool; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a vertical central section of the stool-seat and its standard; Fig. 2, a horizontal section at top of standard of the stool-seat pivot; Fig. 3, a view of the under side of the stool-seat; Figs. 4, 5, and 6, views of modified forms of the spring-catch; Fig. 7, a sectional view of the former.

My stool is of the kind in which the seat is adapted to be revolved upon a central pivot or spindle; and this invention particularly relates to means for preventing the too easy withdrawal of the seat-pivot from the standard, to means for keeping the pivot from revolving too freely in its standard and from rattling in its bearings, and to means for securing the wooden top or seat proper to the frame that holds it to the pivot.

My stool, which consists of the wooden top, the pivot projecting from below the top, the standard having a bearing-aperture in its upper end for the reception of the pivot, and a spring-catch for fastening the pivot into its bearing and preventing rattling and too easy turning thereof, is constructed as follows: My means for fastening the pivot in place in its bearing consist, essentially, of a strip of spring metal fixed to the pivot and having a shoulder formed near its upper end for engaging with an internal flange of the standard.

In the drawings, S represents the standard having its lower end adapted for securement to the floor, and formed at its upper end with the bearing-cavity S'. The mouth of said cavity is provided with the unbroken flange S², and at the bottom of said cavity is the bearing S³ for the extremity of the pivot.

T is the top or seat of the stool.

F is the cast-metal frame having the pivot P projecting from the center thereof. Said frame consists of the radial arms or spokes F', extending from said pivot to the ring F², which forms the rest of said frame.

To secure together said top and frame, and yet permit of the shrinking of the wooden top, two opposite spokes, F', are given the laterally-projecting ears E. Small blocks G are screwed against said ears and the under side of the top T, and the grain of the wood being at right angles to the line joining said blocks any shrinking of said wood causes the blocks to slip along the ears E and still hold the top securely in place. Prior to this arrangement of mine it has been customary to form slots in the spokes and insert the screws through the same. The trouble with this is the liability of the screws binding in their slots and not yielding to the shrinking of the wood, and thereby causing the splitting of the latter. By means, however, of the blocks G there is sufficient play to suit the wood, notwithstanding the force with which the screws may have been set in.

From near the upper end of the pivot P to the lower extremity thereof extends the groove P', and in this groove I rivet the spring A, the short arm of which is adapted to press outwardly in the bearing-socket S³. The upper arm of said spring is adapted to press against the annular face of the flange S², and projects up above the same for a short distance, as shown in Fig. 1. Just below said flange the spring A is given the double bend, which forms the shoulder A', whereby the pivot P is fastened into its bearing. The extremity of said upper arm of the spring is curved outwardly somewhat, so that by pressing the same the shoulder A' thereof is moved back into the groove P' far enough to free it of the flange S², and the pivot P can be readily removed from its bearing-cavity S'. It will be noticed that not only does the spring A serve by its shoulder or catch A' to hold the stool-pivot in place in the standard S, but the pressure thereof against the inner face of the flange impresses the pivot against the opposite side of the flange, and thereby prevents said pivot from rattling however loose it may be. The lower arm of the spring A similarly prevents the pivotal point of the pivot P from rattling in the socket S³. In addition to this prevention of rattling, the pressure of the spring A keeps the pivot and seat from revolving too freely. The seat is readily turned by one who is sitting thereon; but the

spring keeps the seat from being given a rapid whirling by any one who may pass.

Instead of forming the catch A' by a double bend of the spring, it can be made by bending out one or two spurs from the edge of the spring, as shown in Figs. 4 and 5.

In Fig. 6 I show another and favorite form of the spring A. Instead of making a marked shoulder or catch to engage with the flange S², I give the said spring a gently-rounded curve, which, while offering a sufficient resistance to any ordinary force that would tend to raise the seat-pivot from its bearing-cavity, will yield to a strong upward pull. In this form I do not have the upper end of the spring extend above the top of the standard, as it is not necessary to push the spring back by hand, for the reason previously referred to, that the rounded projection of the spring will yield to a strong lift on the seat and so slide up by the flange of the standard. This form of my spring is of advantage over the ones previously described for many reasons, among which are the decrease in length and consequent saving in material, the greater ease in making and tempering a gently-rounded shoulder than a sharp catch, the great convenience in removing the stool-seat from its standard, and also by the pressure of the curve of the shoulder against the lower edge of the flange, the increased force with which the pivot is held in its bearings. This latter force, in addition to the horizontal pressure of the spring A against the flange of the standard, aids in preventing the rattling of the pivot in the standard.

If desired, more than one spring A can be used; but I usually find one alone to be sufficient.

I am aware that there has previously been constructed a form of table in which the legs were secured to the top thereof by means of a device somewhat similar to my arrangement for attaching the stool-seat to its frame, so that my claim therefor is restricted to the specific contrivance.

I am aware that prior to this invention a spring-catch has been connected with the pivot to engage with the standard-flange, and is pro-

vided with a projection extending above the flange and outwardly therefrom to enable said catch to be disengaged from the flange. I do not, therefore, broadly claim the same; but

What I do claim, and for which I desire Letters Patent, is as follows, to wit:

1. In a stool, the combination, with the standard having the bearing-cavity provided with the flange, of the seat-pivot loosely mounted in said cavity, and the strip of elastic metal having one end fixed to said pivot and formed at the other end into the shoulder adapted to press against said flange and by such engagement to prevent too easy rotation and withdrawal of said pivot.

2. In a stool, the combination, with the standard having the bearing-cavity provided with the unbroken flange, of the seat-pivot P, having the groove P' therein, and the strap-spring A, riveted at its lower end in said groove and formed with the shoulder A' near its upper end, whereby when said seat-pivot is inserted in said bearing-cavity the engagement and pressure of said shoulder against said flange prevent too easy rotation and withdrawal of said pivot.

3. In a stool, the combination, with the frame F, having radially-extending ears E, of the wooden seat, and the blocks G, secured to said seat and abutting against said ears, whereby to hold the frame and seat together and still permit shrinkage of the latter, substantially as set forth.

4. The combination, in a stool, of the standard having the bearing-cavity provided with the unbroken flange, the seat-pivot P, mounted in said cavity, the strap-spring A, riveted to said pivot and formed with the shoulder A' for engaging with said flange, the frame F, rigidly connected to said pivot and having the ears E, the wooden seat T, and the blocks G, secured to said seat and in contact with said ears, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand this 10th day of October, 1885.

JOHN S. DUNLAP.

In presence of—

A. KEITHLEY,
A. B. UPHAM.