(No Model.)

T. S. CRAPP.

ATTACHMENT FOR STOOLS.

No. 514,307. Patented Feb. 6, 1894.

Fig. 1.

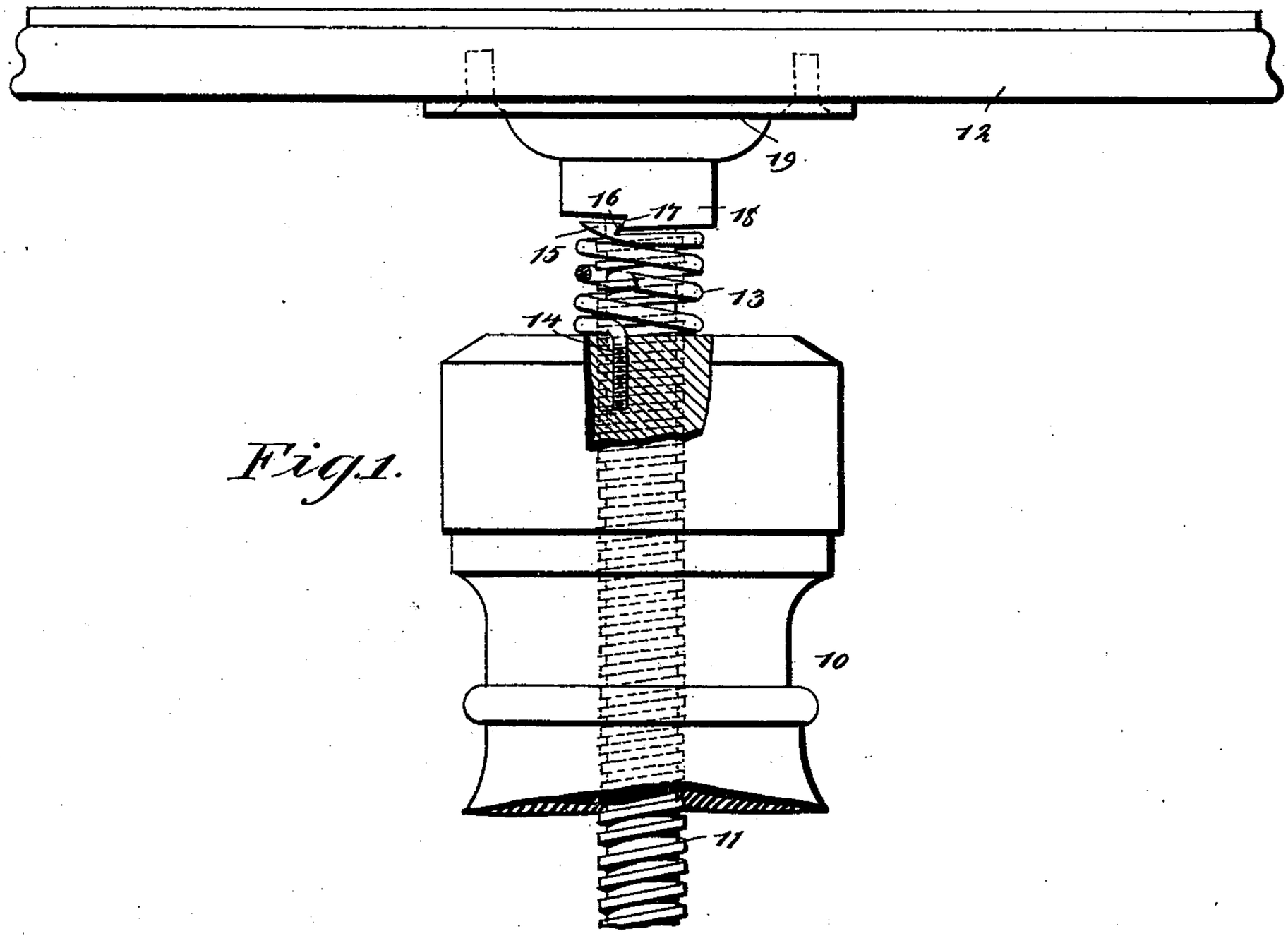
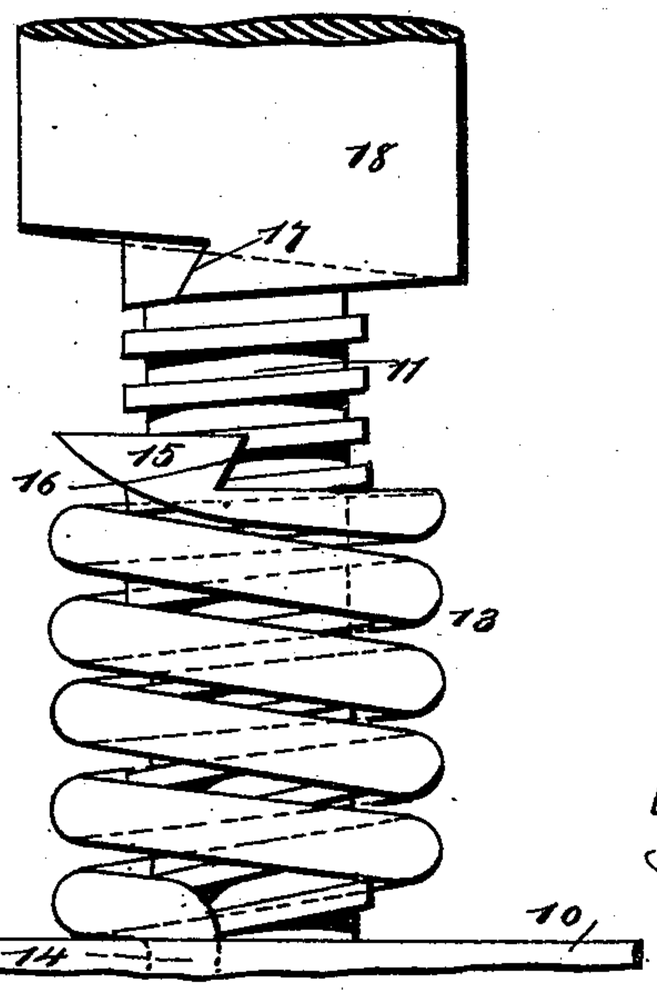


Fig. 2.



WITNESSES:

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THOMAS S. CRAPP, OF TALLAPOOSA, GEORGIA.

ATTACHMENT FOR STOOLS.

SPECIFICATION forming part of Letters Patent No. 514,307, dated February 6, 1894.

Application filed May 15, 1893. Serial No. 474,278. (No model.)

To all whom it may concern:

Be it known that I, THOMAS S. CRAPP, of Tallapoosa, in the county of Haralson and State of Georgia, have invented a new and Improved Attachment for Piano-Stools, Screw-Chairs, and Similar Articles, of which the following is a full, clear, and exact description.

My invention relates to improvements in attachments for piano stools, screw chairs and similar things having a seat or other structure supported on a vertically adjustable screw spindle. It is well known that the spindle of such articles is very likely to stick in the nut when the spindle is turned down, so that the nut is badly strained and the spindle is also strained, and it is also frequently difficult to start the spindle to turn it back, and in the efforts to release it, the nut is loosened in the column or the screw forced off the flange, destroying its usefulness.

The object of my invention is to produce a simple spring attachment which may be applied to any adjusting spindle of the kind named and which, when the spindle is turned down, will act as a bracing sleeve to strengthen and sustain the spindle, will prevent the spindle from sticking, and will automatically act so as to loosen and slightly turn back the spindle after it has been turned forcibly down.

To these ends my invention consists in certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in both the views.

Figure 1 is a broken side elevation of a piano stool provided with my improved attachment and showing the collar of the stool in contact with the spring on the spindle; and Fig. 2 is an enlarged detail elevation of the spindle spring, the spindle, and the shouldered collar on the spindle which engages the spring.

The column or pillar 10 represents the support for the spindle 11 and, as shown in the drawings, this column is like that of an ordinary piano stool, but it may represent the support for the spindle of a screw chair, or other similar article. The spindle 11 supports the seat 12 which is fastened thereto in substantially the usual way. At the top of the column 10 is a spiral spring 13 which is coiled around the spindle 11, and the lower end of the spring is bent downward and formed into a screw 14 which may be screwed into the top of the column so as to hold the spring in place, but the spring may be fastened in position in any other suitable way without affecting the principle of my invention. The upper end of the spring 13 terminates in a flattened head 15, in the upper surface of which is a notch forming a shoulder 16, which shoulder is adapted to engage a similar shoulder 17 on a collar 18 at the top of the spindle, and this collar is formed rigidly on the flange 19 which is secured to the bottom of the seat 12. The coil of the spring 13 should be such, in relation to the thread of the screw spindle 11, that when the spindle is turned down and the shoulder 17 engages the shoulder 16 of the spring, the members of the spring will bear one upon the other, being compressed gradually by the action of the spindle but so as not to yield sufficiently to permit the disengagement of the shoulders. When the seat 12 is actuated so as to turn the spindle 11 down, the collar 18 gradually approaches the spring, and when the shoulder 17 strikes the shoulder 16, the spring 14 is compressed somewhat around the spindle, so as to securely brace and support the same, and the spring is also compressed vertically so that it soon stops the spindle from turning down, and the re-action of the spring turns the spindle back slightly in the opposite direction. It will thus be seen that with the spring 13 in place, the spindle 11 will always be free to turn in the nut, that it will not strain its nut, and that the spindle can never stick, thus obviating all strain between flange and screw, screw and nut, and particularly between nut and base. It will also be observed that the spring attachment is very simple and may be easily attached to any adjusting spindle of the kind referred to, that the nut may be loosely fixed in the base and its usefulness in raising and lowering the seat be fully maintained.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. The combination, with a spindle and its supporting column, of a spring secured to the column and encircling the spindle, and means, as the shoulders on the spindle collar and spring, for throwing the spring and spindle into engagement, substantially as described.

2. The combination, with the supporting column and the vertically movable spindle therein, of the shouldered collar on the spindle, and the spring encircling the spindle and secured to the column, the spring having its upper end extending into the path of the shoulder on the column, substantially as described.

3. The combination, with the supporting column and the screw spindle therein, of the spring fastened to the column and encircling the spindle, the spring having a shouldered head at its upper end, and a shouldered collar carried by the spindle and adapted to engage the shouldered head of the spring, substantially as described.

THOMAS S. CRAPP.

Witnesses:
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