A. V. RUFLE.

ADJUSTABLE STAND.

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1,384,676. Patented July 12, 1921.

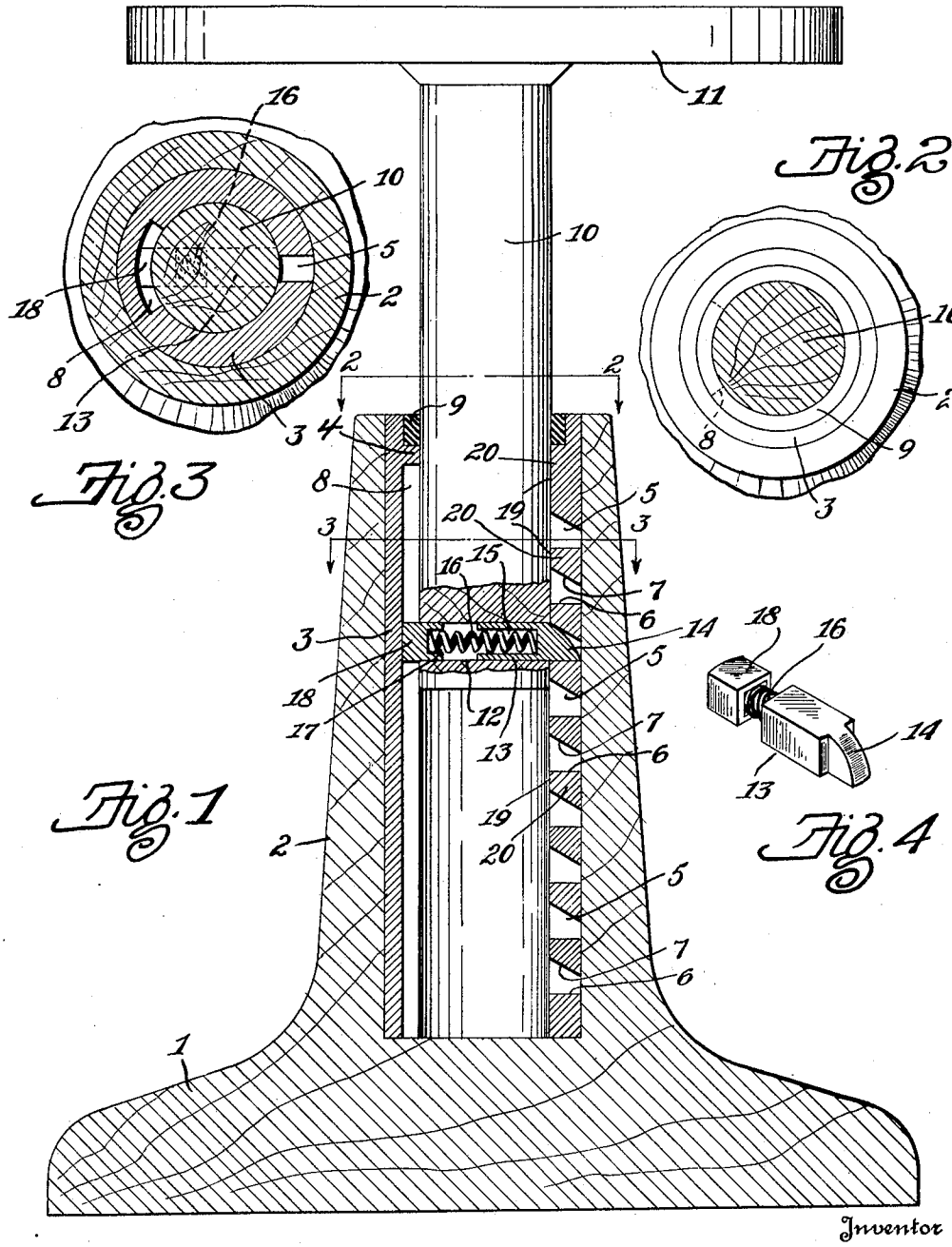


Fig. 1

Fig. 2

Fig. 3

Fig. 4

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ADJUSTABLE STAND.

1,384,676. Specification of Letters Patent. Patented July 12, 1921.

Application filed December 2, 1920. Serial No. 427,898.

To all whom it may concern:

Be it known that I, ALBERT V. RUFLE, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented a new and useful Adjustable Stand, of which the following is a specification.

This invention relates to adjustable stands and especially to such a stand which is vertically adjustable to raise or lower the top thereof as may be desired.

The objects of the invention are to provide a stand which may be easily and quickly adjusted into any desired raised or lowered position, the operative portions of the device being inclosed within the base of the stand in order that the external appearance of the stand will not be marred, the adjusting mechanism being so constructed that it is only necessary to rotate the top of the stand slightly when it is desired to lower the same, after which the top may be lowered to the desired height and again slightly turned to lock it in the adjusted position; the stand being so constructed that the top may be raised to any height by simply pulling the top upward to the desired height, at which point it will automatically lock itself.

With these objects in view the invention consists in the construction and arrangement of parts hereinafter described and illustrated in the accompanying drawings, it being understood that various changes in the form, proportion and details of construction may be made without departing from the invention as defined in the appended claims.

In the accompanying drawings,

Figure 1 is a longitudinal, vertical section through a stand embodying the invention,

Fig. 2, a section on the line 2—2, Fig. 1,

Fig. 3, a section on the line 3—3, Fig. 1, and

Fig. 4, a detail perspective view of the locking pawl.

Similar numerals of reference indicate corresponding parts throughout the several views.

The numeral 1 indicates the base which is provided with the hollow column 2 within which is located the sleeve 3 provided near its upper portion with the inwardly disposed flange 4, spaced notches 5 being formed in one side of said sleeve, each of said notches being provided with a lower horizontal face 6 and an upper inclined face 7.

Diametrically opposite to the notches 5 a vertical groove 8 is provided in the sleeve 3, said groove being of considerably greater width than the notches 5. A suitable washer 9 is preferably provided within the upper end of the sleeve, the stem 10, upon which is mounted the top 11 of the stand, extending through said washer and into the sleeve.

The lower end of the stem 10 is provided with a transverse rectangular passage 12 within which is slidably mounted the locking pawl 13, the outer extremity of which is provided with the beveled nose 14 arranged to be received within the notches 5, the inner portion of said pawl being provided with a chamber 15 which receives one end portion of the expansion spring 16, the other end portion of said spring being received within the recess 17 formed in the block 18 which is extended into the groove 8.

It will thus be seen that the spring 16 will hold the beveled nose of the locking pawl within the adjacent notch 5, while the block 18 will be held extended into the groove 8.

When it is desired to raise the top of the stand, an upward pull upon the stem 10 will cause the beveled nose 14 of the pawl to be forced inwardly by engagement with the upper inclined face 7 of the notch. The stand can be raised as many notches as desired, the locking pawl automatically springing into place in the highest notch to which it is raised.

When it is desired to lower the top of the stand, it is only necessary to raise the stand sufficiently to move the beveled nose of the locking pawl out of engagement with the notch and into engagement with the vertical face 19 of the next highest tooth 20. The stem 10 may then be rotated a slight distance to the left or right sufficient to move the pawl out of line with the notches 5. The top may then be lowered to the desired point and the stem 10 rotated back bringing the locking pawl into line with the notches 5, the pawl being allowed to spring into the adjacent notch, locking the top in this position.

It will thus be evident that an adjustable stand is provided which is simple in its construction and neat in appearance and in which none of the working parts are visible

from the exterior, and in which it is not necessary to operate any mechanical devices to raise and lower the top of the stand.

I claim:—

1. A stand comprising a base, a hollow column mounted thereon, a vertical row of notches within the interior of said column, the diametrically opposite side of the column being provided with a vertical groove, a stem slidably mounted within said hollow column and provided with a top, a block upon said stem extending into said groove and a spring pressed pawl carried by said stem and arranged to selectively engage said notches.

2. A stand comprising a base, a hollow column mounted thereon, a vertical row of upwardly and inwardly inclined notches within the interior of said column, the diametrically opposite side of the column being provided with a vertical groove, a stem slidably mounted within said hollow column and provided with a top, a block upon said stem extending into said groove and a spring pressed pawl carried by said stem and provided with a tapered nose arranged to selectively engage said notches.

3. A stand comprising a base, a hollow column mounted thereon, a vertical row of notches within the interior of said column, the diametrically opposite side of the column being provided with a vertical groove of greater width than said notches, a stem slidably mounted within said hollow column and provided with a top, a block upon said stem extending into said groove and a spring pressed pawl carried by said stem and arranged to selectively engage said notches.

In testimony that I claim the above, I have hereunto subscribed my name.

ALBERT V. RUFLE.