May 9, 1933. W. E. STROBEL 1,907,607

STANDARD FOR SHOEMAKERS' LASTS

Filed June 11, 1932

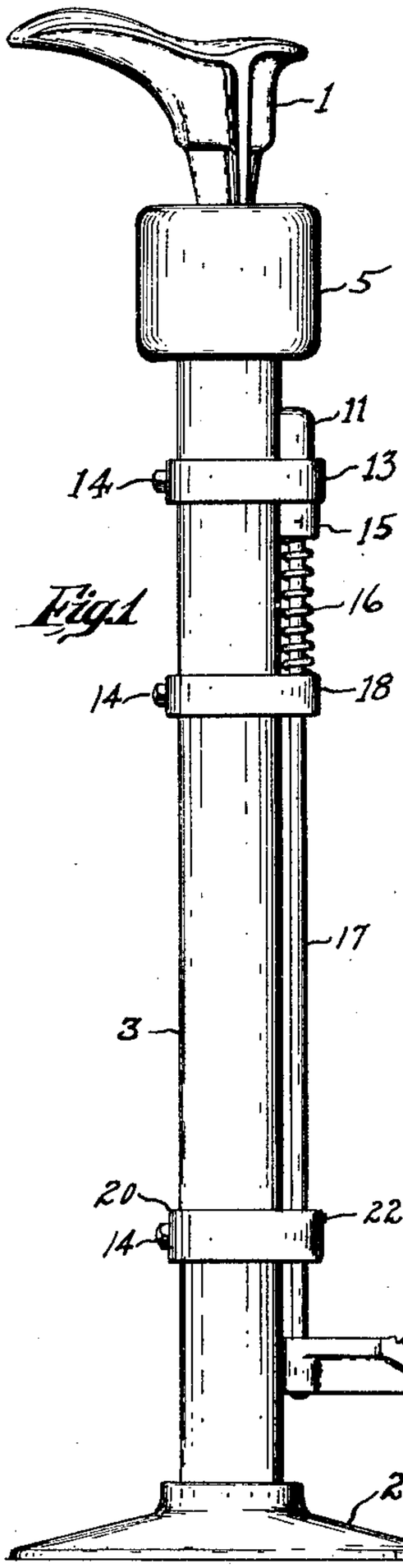

Fig. 1

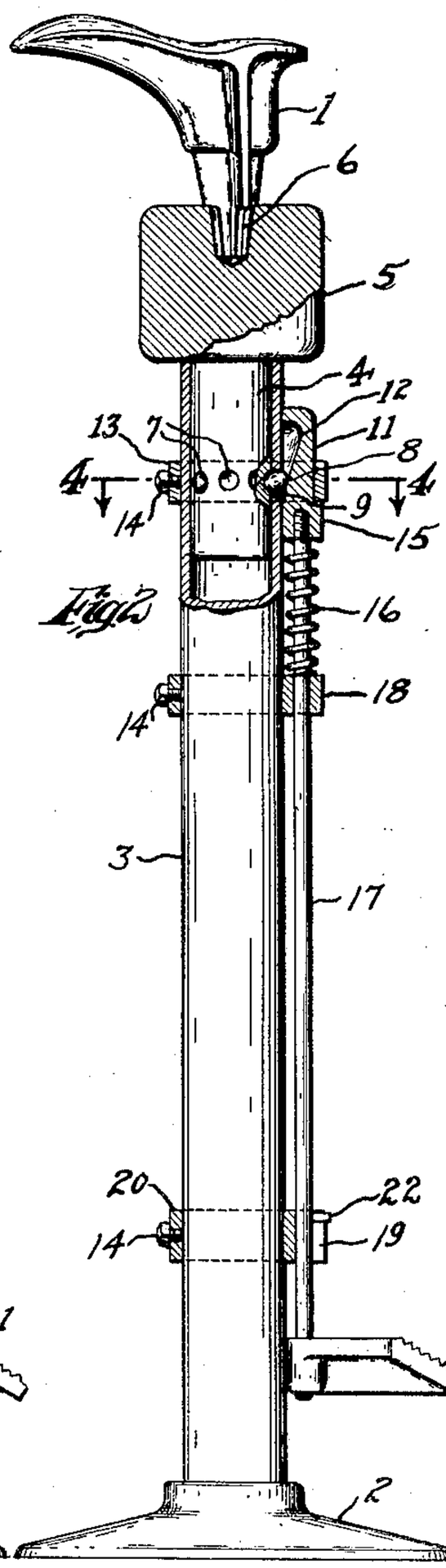

Fig. 2

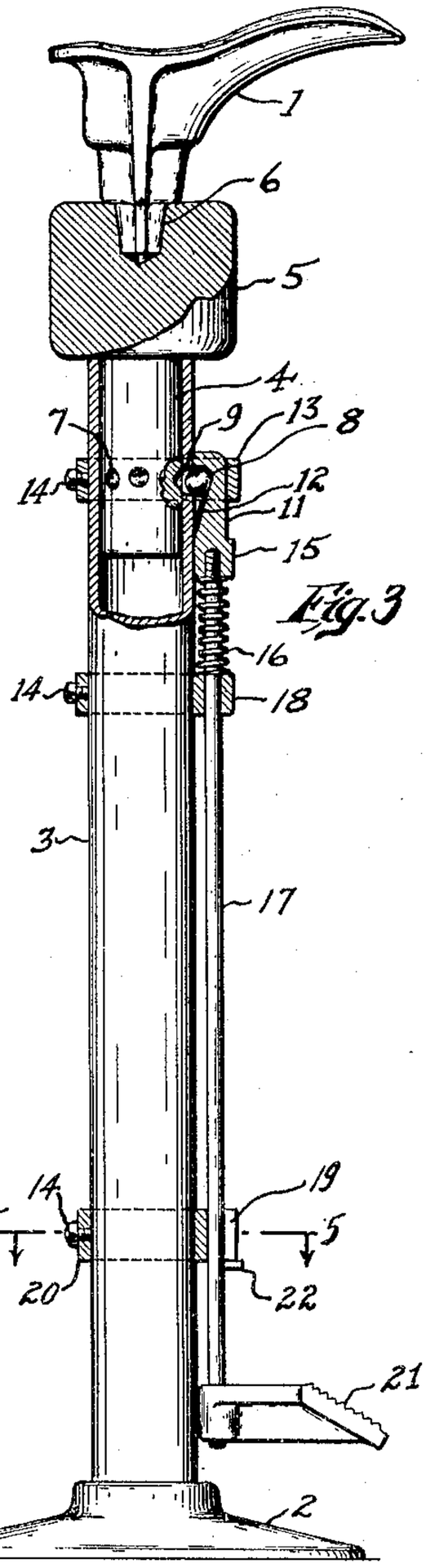

Fig. 3

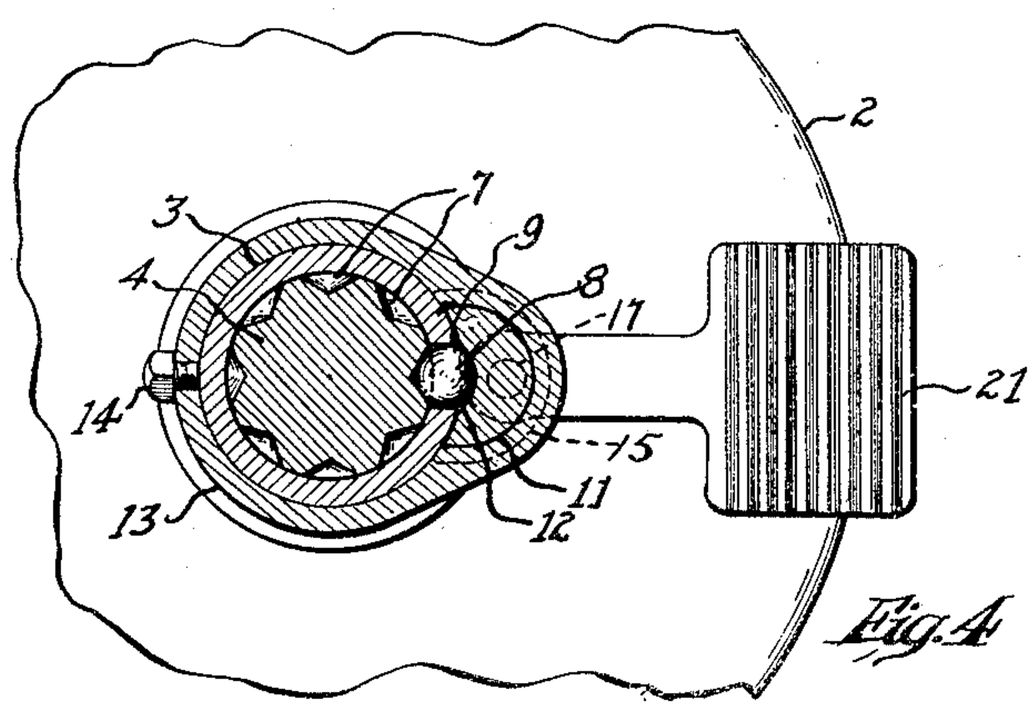

Fig. 4

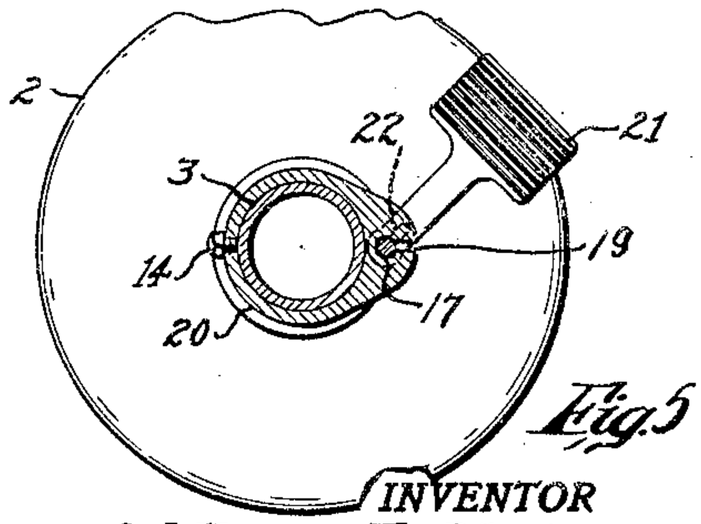

Fig. 5

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STANDARD FOR SHOEMAKERS' LASTS

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This invention relates, generally, to shoemakers' lasts; and the invention has reference, more particularly, to a novel standard for supporting such lasts.

Heretofore, it has been common for shoemakers to mount their shoe lasts in fixed positions upon fixed posts. The use of such stationary shoe lasts is objectionable, because as a shoemaker works on a shoe held by such a last, it is usually necessary for him to either move around the stationary last or else to twist his body into uncomfortable and cramped positions as he works on different parts of the shoe.

The principal object of the present invention is to provide a novel standard for a shoemaker's last, which is so constructed and arranged as to enable the angular adjustment of the shoe last with respect to the vertical axis of its supporting standard to any position desired, said standard having means for holding the last in such selected position for as long as desired.

Another object of the present invention lies in the provision of a novel last supporting standard having an angularly adjustable last supporting block, together with easily operable means for holding the block in any desired angularly adjusted position, said adjustable means also providing for the free swiveling of the supporting block, when desired.

Still another object of the present invention is to provide a novel standard for a shoemaker's last which is of simple, sturdy construction, is reliable in use and which will serve its purpose for almost an unlimited time.

Other objects of this invention, not at this time more particularly enumerated, will be clearly understood from the following detailed description of the same.

The invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a view in elevation of the novel last supporting standard of the present invention showing a last mounted thereon.

Fig. 2 is a view similar to Fig. 1 with parts broken away to illustrate details of construction, the last and its block being illustrated as held in fixed position.

Fig. 3 is a view similar to Fig. 2 but with the last and its block illustrated as freely turnable.

Fig. 4 is an enlarged fragmentary sectional view taken along line 4—4 of Fig. 2; and

Fig. 5 is a sectional view taken along line 5—5 of Fig. 3 but showing the operating pedal turned to an angle to effect the locking of the operating mechanism in released position.

Similar characters of reference are employed in all of the above described views to indicate corresponding parts.

Referring now to said drawing, the reference numeral 1 designates a shoe last which is illustrated as supported by the novel standard of the present invention. This standard comprises a circular base 2 which may be made of cast iron or other suitable material and is preferably fixed to the floor. A hollow cylindrical column or tube 3 has its lower end portion secured to the base 2 and extends vertically upwardly from this base. The top of the column 3 is left open for receiving a depending cylindrical extension or boss 4 formed on a shoe last supporting block 5.

Last supporting block 5 is illustrated as of cylindrical shape, the same being of larger diameter than the column 3, whereby this block is adapted to rest upon the column with its depending boss 4 projecting downwardly through the open upper end of this column and into the interior thereof. The upper surface of the block 5 is provided with a non-circular recess for conformably receiving the shank 6 of the shoe last 1. With the shank 6 of the shoe last set into the recess provided therefor in block 5, this shoe last, in effect, becomes fixed to the block 5.

The depending boss 4 has a loose or turning fit within column 3 and is provided around its periphery with a plurality of circircumferentially disposed depressions or pockets 7 of cone shape for cooperating with a ball 8. Ball 8 may be of steel or other suitable hard material and is adapted to be moved through a conforming circular aperture 9 provided in the column 3 so that this ball will engage in any one of the pockets 7

to thereby lock the boss 4 against turning movement. A shoe member 11, illustrated as of approximately semi-cylindrical shape in cross section, is employed for moving the ball 8 through aperture 9 and into engagement with any one of the pockets 7. This shoe member 11 has a tapered ball receiving recess 12 therein, as especially shown in Figs. 2 and 3, which recess is open toward the aperture 9.

The depth of the ball receiving recess or slot 12 increases from nothing at the lower end of this recess to a maximum at the upper end thereof. When the shoe member 11 is positioned so that the lower end of recess 12 is opposite the ball 8, the latter is held in engagement with one of the pockets 7, thereby locking boss 4 and hence the last 1 against turning; but when this shoe member is positioned so that the upper end of recess 12 is opposite the ball 8, the latter is free to enter the deep portion of recess 12, thereby disengaging the boss 4 and permitting turning movement of block 5 and last 1.

In order to move the recess 12 up and down with respect to the ball 8 and aperture 9, the shoe member 11 is made vertically adjustable and to this end is mounted within a slide bearing provided in bracket 13 that has the form of a strap encircling the column 3. A set screw 14 serves to lock the bracket 13 in fixed position upon the column 3. The lower portion of the shoe member 11 is somewhat enlarged as indicated at 15, which enlargement by engaging the under surface of bracket 13 is adapted to limit the upward movement of the shoe member.

A coil compression spring 16 surrounds a vertical rod 17 and bears at its lower end against a bracket 18 and at its upper end against the under surface of the shoe member 11, thereby urging this shoe member upwardly so that the lower and shallow end of recess 12 will engage the ball 8, resulting in the locking of the shoe last against turning movement, as especially shown in Fig. 2. The bracket 18 is similar in form to the bracket 13 and is fixed upon the column or tube 3 by a set screw 14. The vertical rod 17 has its upper end portion threaded into the shoe member 11 and extends downwardly through conforming apertures provided in the bracket 18 and in a bracket 20 which is similar to bracket 18. Bracket 20 is also secured in fixed position in the column 3 by a set screw 14. The lower end of the rod 17 terminates near the base 2 and this rod has a pedal 21 fixed upon the lower end portion thereof.

By depressing pedal 21, as by means of the foot of the user, the tension of spring 16 may be overcome and rod 17 depressed, causing the deep portion of recess 12 to move opposite the ball 8 and aperture 9, thereby releasing the boss 4 and enabling the turning of shoe last 1 to any angular position desired. A transverse pin 22 is fixed to rod 17 and is positioned within a vertical slot 19, provided in the bracket 20, when the ball 8 engages in one of the pockets 7 (see Fig. 2). As the pedal 21 is depressed, the pin 22 moves downwardly within the slot 19. When the pedal 21 is fully depressed, the pin 22 has moved below bracket 20, and by then giving the pedal a part turn with the foot, the pin 22 may be caused to engage the under surface of the bracket, as especially illustrated in Fig. 5, thereby holding rod 17 in its fully depressed position, and freeing the ball 8 from engagement with pockets 7.

In use, assuming that the shoe last 1 is in the position illustrated in Fig. 2, and that the shoemaker is desirous of turning this last around into the position shown in Fig. 3. To accomplish this result, all that he need do is to press his foot down upon the pedal 21, thereby depressing this pedal into the position shown in Fig. 3. With the pedal 21 thus depressed, the deep portion of groove 12 lies opposite ball 8, thereby freeing this ball from pockets 7 and permitting the turning of the shoe last 1 into the desired position.

Should the shoemaker now desire to lock the shoe last 1 in fixed position, all he need do is to release his foot from pedal 21, thereby enabling spring 16 to raise this pedal and shoe member 11 so that the shallow portion of recess or groove 12 moves opposite ball 8, thereby pushing this ball inwardly and into engagement with a pocket 7 registering with the aperture 9. On the other hand, should the shoemaker desire to have the shoe last 1 freely turnable, all he need do is to give the depressed pedal 21 a portion of a turn, so that the pin 22 engages the under side of bracket 20, as illustrated in Fig. 5, whereupon the rod 17 is held in its depressed position and the ball 8 is maintained in the deep portion of recess 12.

Owing to the use of the plurality of pockets 7 extending completely around the boss 4, the last 1 may be locked in use in substantially any desired angular position with respect to the supporting standard. It will thus be noted that by simple manipulations of the foot, the shoemaker is enabled to either free the shoe last so that the same may be turned to any convenient position or he may lock the last in any such position at will. The simple rugged nature of the novel standard of this invention renders the same reliable in use over a long period of time.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, as defined by the following claims, it is intended that all matter contained in the above description or shown in

the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. In a standard for shoe lasts, a column having an open upper end, a last supporting block having a depending boss projecting into the open upper end of said column, said boss being turnable within said column, whereby a shoe last carried by said supporting block may be turned to any desired angular position with respect to said column, ball stop means carried by said column, means for moving said ball stop means into engagement with said boss, whereby said supporting block is held in fixed position, and means for effecting the release of said ball stop means from said boss.

2. In a standard for shoe lasts, a vertical column having an open upper end, a shoe last supporting block turnably mounted upon said column and having a depending boss extending downwardly through the open upper end of said column, said boss having a plurality of circumferentially arranged and horizontally disposed pockets in the surface thereof, said column having an aperture in the wall thereof in horizontal alignment with said pockets, a ball movable within said column aperture, and a member operable for moving said ball inwardly through said column aperture and into engagement with a selected one of said pockets, thereby locking said shoe last supporting block in selected angular position, said member being also operable to permit said ball to move outwardly of said aperture, thereby disengaging the said pocket.

3. In a standard for shoe lasts, a vertical column having an open upper end, a shoe last supporting block turnably mounted upon said column and having a depending boss extending downwardly through the open upper end of said column, said boss having a plurality of circumferentially arranged and horizontally disposed pockets in the surface thereof, said column having an aperture in the wall thereof in horizontal alignment with said pockets, a ball movable within said column aperture, a member operable for moving said ball inwardly through said column aperture and into engagement with a selected one of said pockets, said member being also operable to permit said ball to move outwardly of said aperture, thereby disengaging the said pocket, spring means for actuating said member to effect the inward movement of said ball through said column aperture, and manually operable means for actuating said member to enable outward movement of said ball through said column aperture.

4. In a standard for shoe lasts, a base, a vertical column extending upwardly from said base and having an open upper end, a shoe last supporting block turnably mounted upon the top of said column and having a depending cylindrical boss extending downwardly through the open upper end of said column, said boss having a plurality of circumferentially arranged and horizontally disposed pockets in the surface thereof, said column having an aperture in the wall thereof in horizontal alignment with said pockets, a ball movable within said column aperture, a shoe member having a tapered receiving recess cooperable with said ball, spring means for urging said shoe member in one direction whereby the recess of said member tends to urge said ball inwardly through the column aperture and into engagement with one of said supporting block pockets, and manually operable means for moving said shoe member in the opposite direction against the tension of said spring to thereby permit said ball to disengage the pocket of said supporting block.

5. In a standard for shoe lasts, a base, a vertical column extending upwardly from said base and having an open upper end, a shoe last supporting block turnably mounted upon the top of said column and having a depending cylindrical boss extending downwardly through the open upper end of said column, said boss having a plurality of circumferentially arranged and horizontally disposed pockets in the surface thereof, said column having an aperture in the wall thereof in horizontal alignment with said pockets, a ball movable within said column aperture, a shoe member having a tapered receiving recess cooperable with said ball, spring means for urging said shoe member in one direction whereby the shallow portion of said shoe member tends to urge said ball inwardly through the column aperture and into engagement with one of said supporting block pockets, manually operable means for moving said shoe member in the opposite direction against the tension of said spring to thereby permit said ball to disengage the pocket of said supporting block and move into the deep portion of said shoe member recess, thereby releasing the supporting block, and means for holding said shoe member in its latter position against the tension of said spring means.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 3rd day of May 1932.

WILLIAM E. STROBEL.