

W. A. FOX.
SHADE ROLLER WRENCH.
APPLICATION FILED FEB. 2, 1908.

919,566.

Patented Apr. 27, 1909.

Fig. 1.

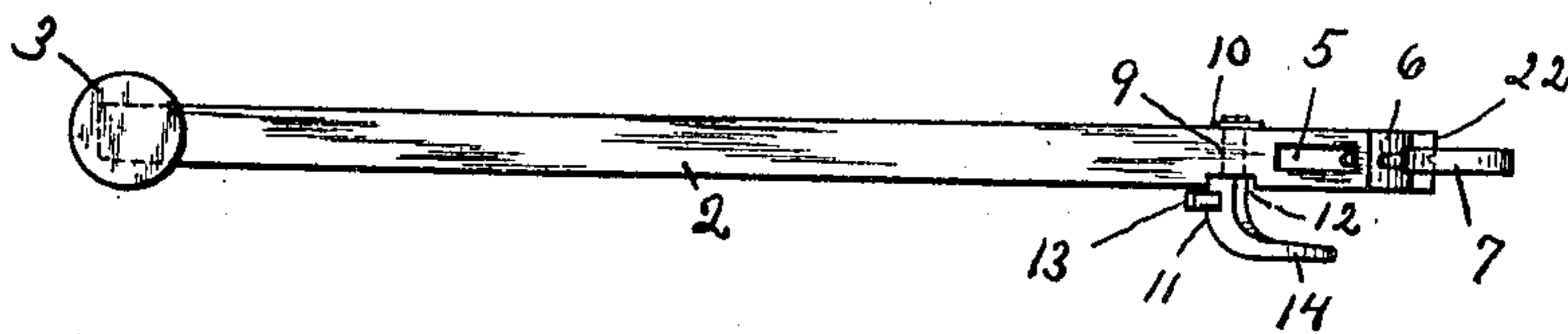


Fig. 2.

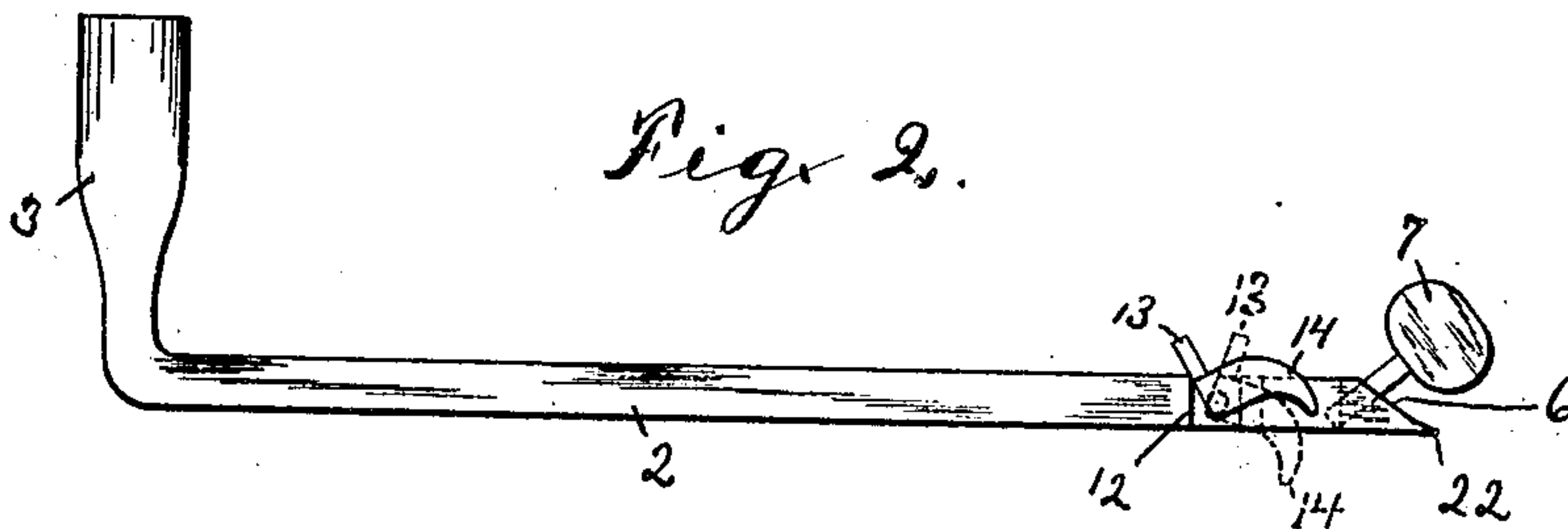


Fig. 3.

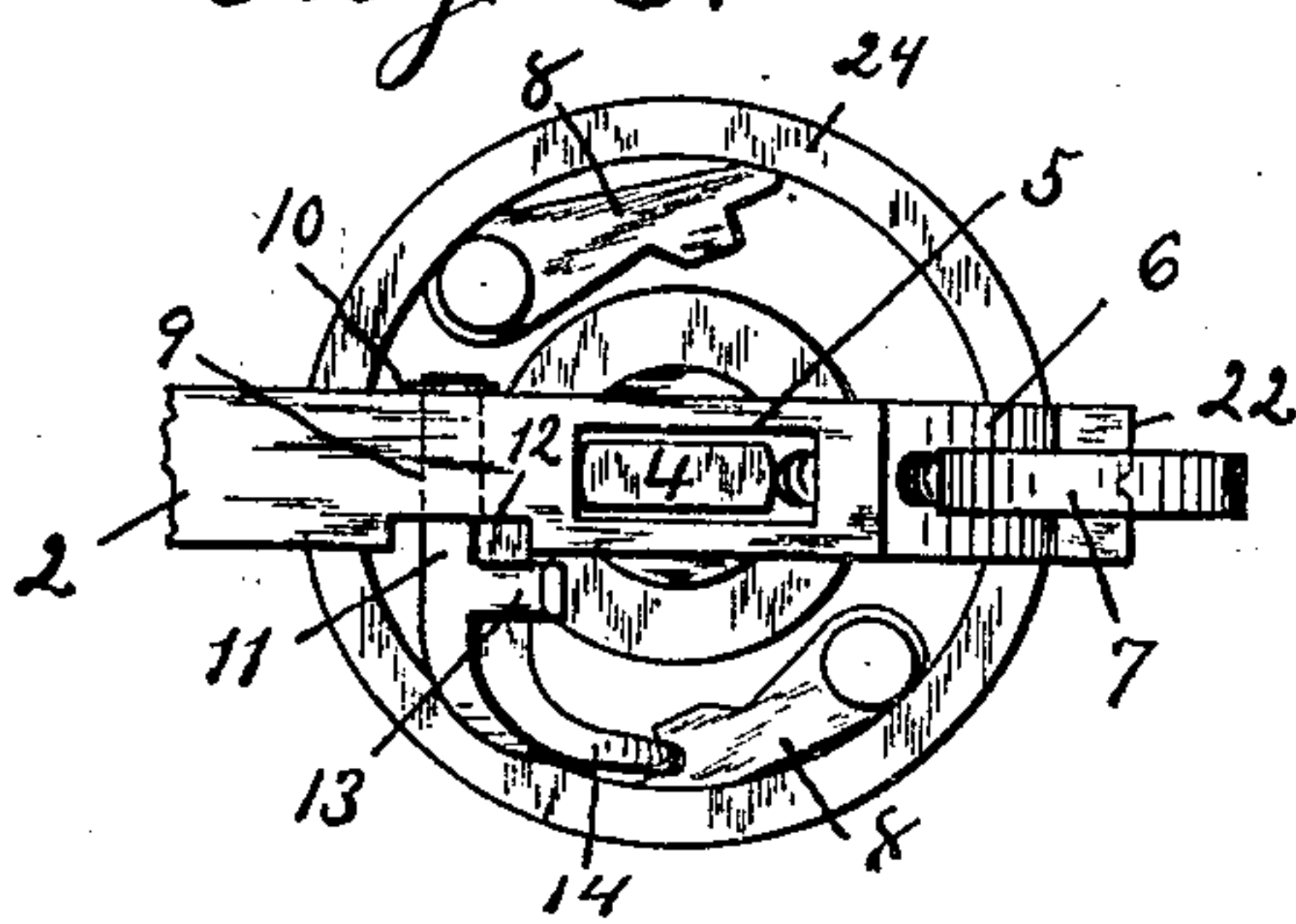


Fig. 4.

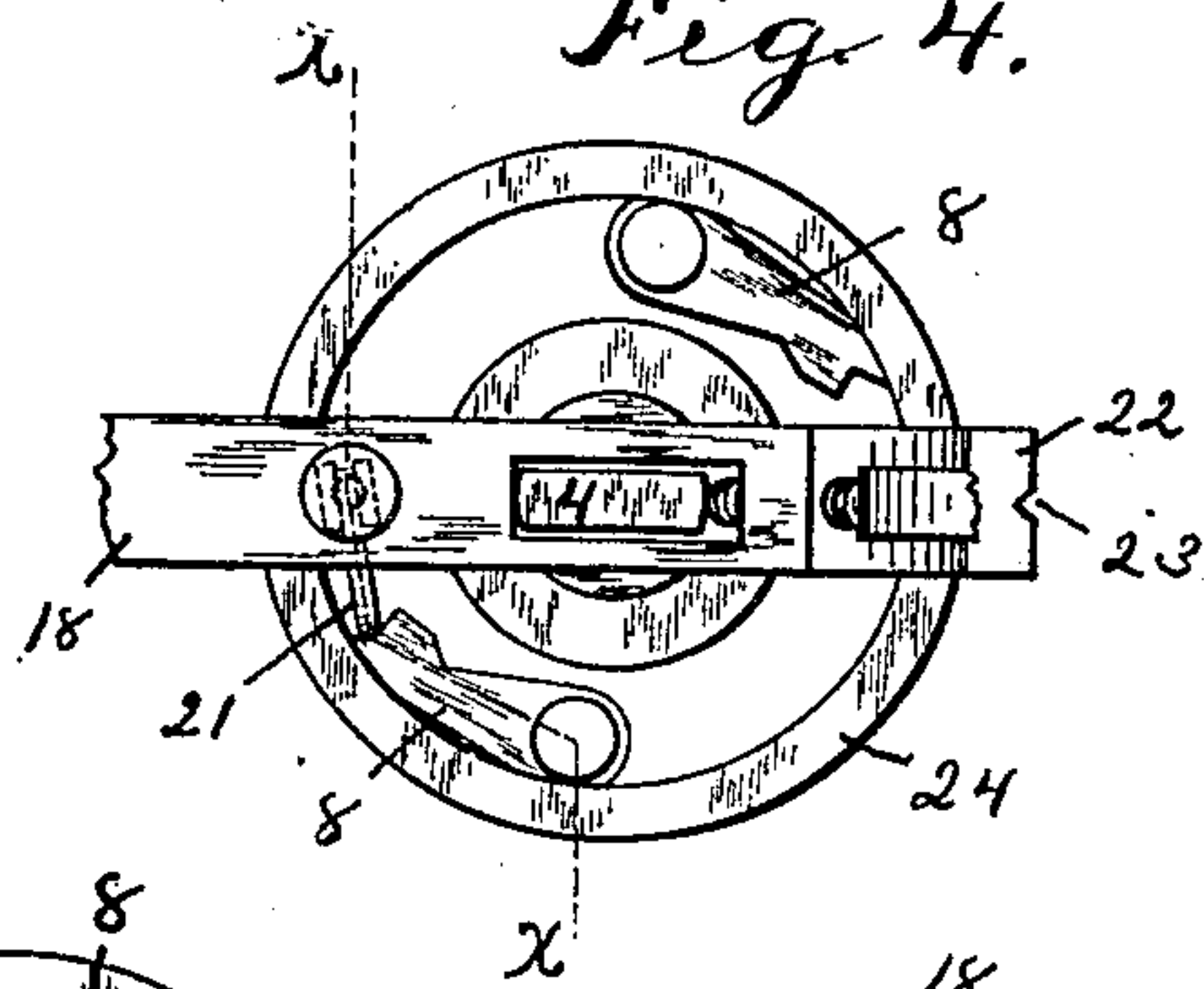


Fig. 5.

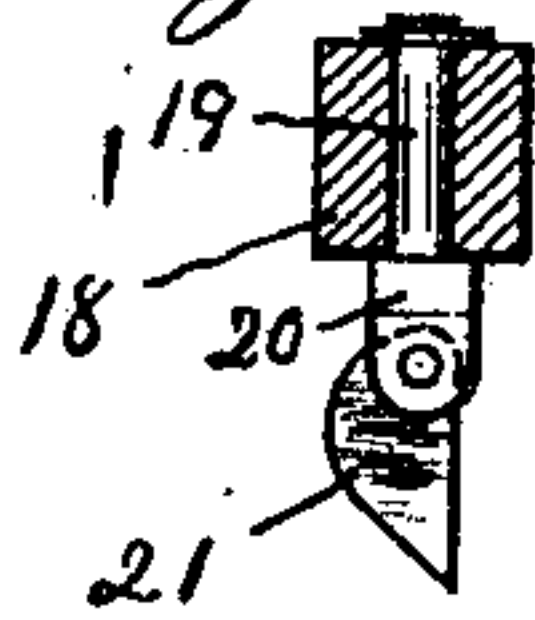


Fig. 6.

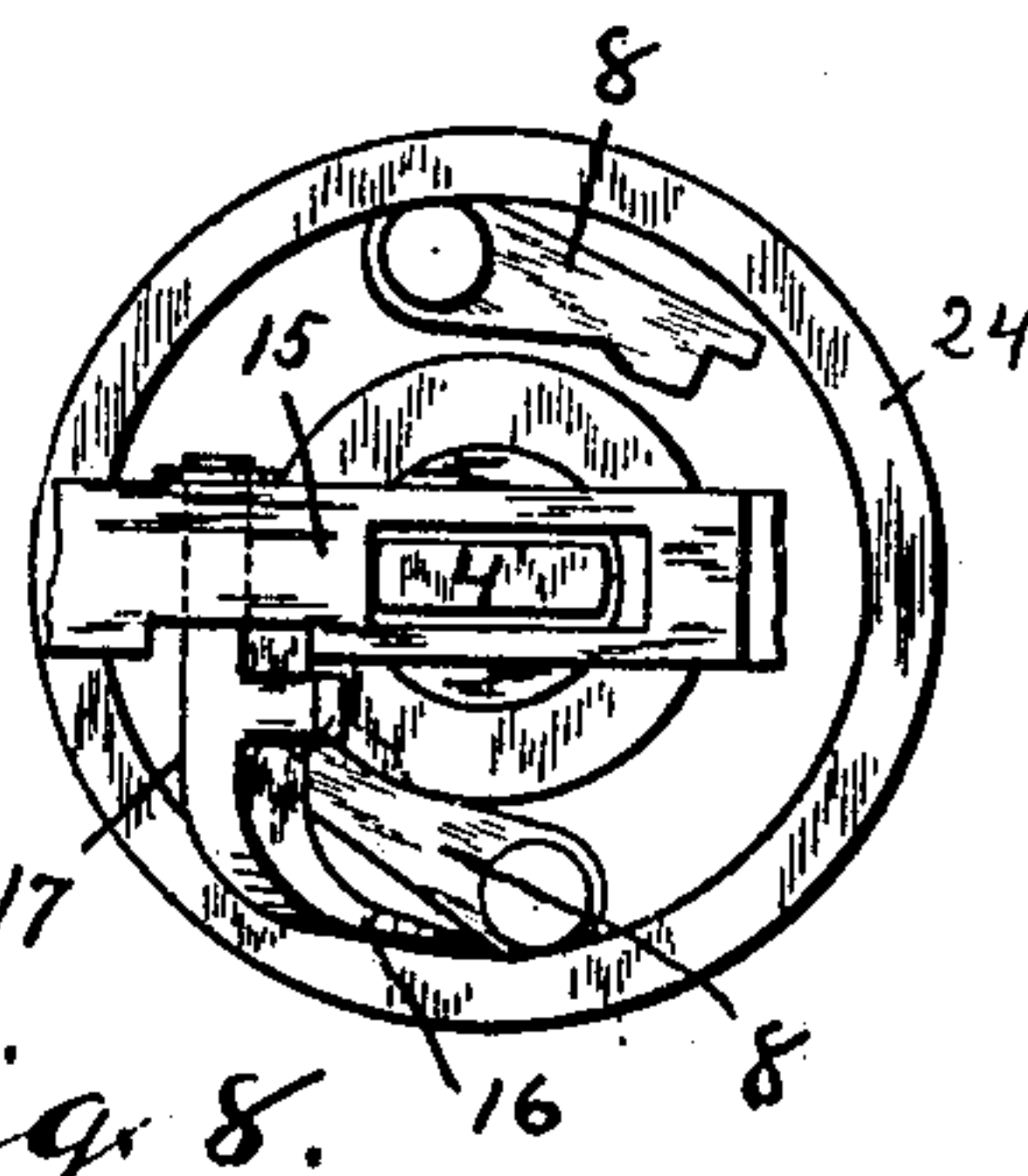
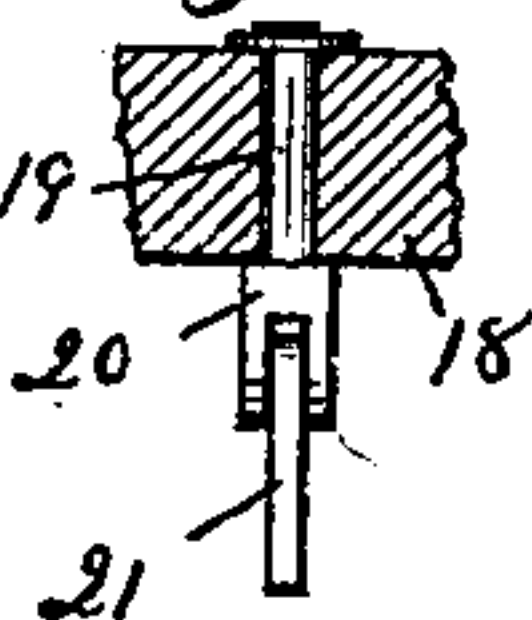
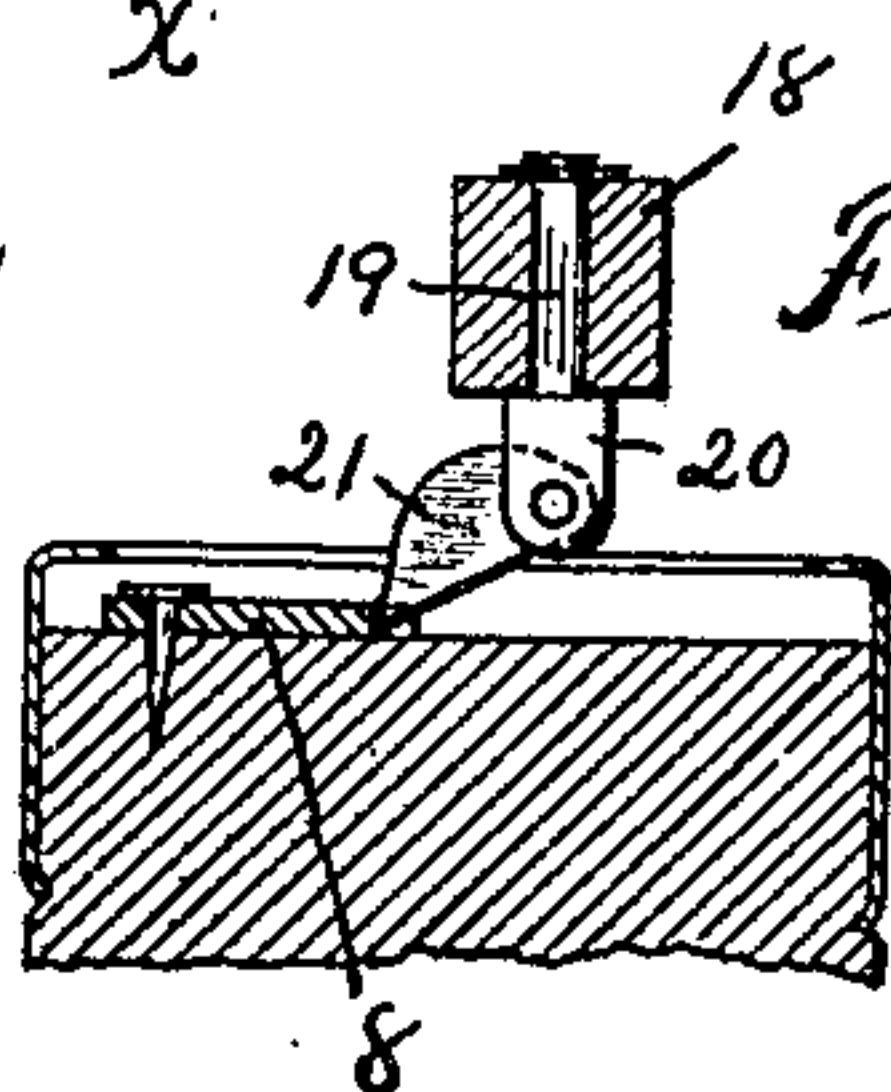


Fig. 8.

Fig. 7.



WITNESSES

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SHADE-ROLLER WRENCH.

No. 919,566.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM A. FOX, a citizen of the United States, residing in the city of Newark, county of Essex, and State of New Jersey, have invented a new and useful Improvement in Shade-Roller Wrenches, of which the following is a specification.

This invention relates to the ordinary and well-known spring rollers for window-shades, and more particularly to means for adjusting the strength of said rollers with respect to their springs, so that the roller may be accommodated to different sizes and weights of shades, conveniently tightened when it has become weakened from use, and so forth.

The objects of the invention are to provide a tool for adjusting the tension of shade-roller springs; to provide such a tool with detent means for preventing the spring from unwinding and carrying the tool with it, if inadvertently released; to secure a simple and inexpensive construction; to provide in combination with such tool a hammer, screw-driver and tack-puller, and to obtain other advantages and results as may be brought out in the following description.

The invention consists in the improved shade-roller wrench, substantially as will be hereinafter described and finally set forth in the claims.

Referring to the accompanying drawings, in which like characters of reference indicate corresponding parts in each of the several figures; Figure 1 is a plan of my improved shade-roller wrench; Fig. 2 is a side elevation of the same; Fig. 3 is a plan of the end of a shade-roller with my wrench applied thereto in use; Fig. 4 is a view similar to Fig. 3, but showing a modified form of holding dog; Figs. 5 and 6 are sections taken transversely and longitudinally of the wrench-body, respectively, and illustrating the said modified form of dog; Fig. 7 is a sectional view taken on line $x-x$, of Fig. 4, and Fig. 8 shows in plan the end of a shade-roller with a wrench having another modification of holding dog applied thereto.

In said drawings, 2 indicates the beam or body portion of my new wrench, having at one end a handle 3, which is preferably

formed, as shown, by bending up an end portion of the body 2. The other end of the body portion is adapted to engage the flattened end 4, of a shade-roller shaft, as by means of an aperture 5, which fits over said end 4. Beyond said aperture 5, the extremity of the wrench body 2, is beveled downwardly, as at 6, and through the said beveled face extends a set-screw 7, which projects into the said aperture 5, to engage the shade-roller end 4, and clamp the wrench thereto. Thus by turning the wrench, when applied, the spring of the shade-roller may be wound up, as will be understood, or by holding the shade-roller vertically so that the pawls 8, 8, thereof are idle, the spring can be unwound.

In order to prevent the shade-roller spring from unwinding, and carrying the wrench with it, in case the wrench is prematurely or inadvertently let go, I provide upon the body of the wrench a dog adapted to lie by gravity against the end of the shade-roller and engage the pawls 8, 8, thereof to arrest backward movement. This dog preferably comprises a reduced shank 9, pivotally entering a horizontal boring extending transversely through the wrench body from side to side, and secured at its extremity by a washer 10, outside of which the shank is upset. Adjacent to said shank the dog is of rectangular cross-section, as at 11, and lies in a lateral recess 12, of the beam, the front and rear walls of which recess form stops, respectively, to limit swinging of the dog into idle position as shown in Fig. 2, or beyond operative position as shown in outline in the same figure. The said dog is further provided with a finger-piece 13, for changing its position, and at its outer end is curved downward and rearward, as at 14, to engage the pawls 8, 8, of the shade-roller. In the construction shown in Figs. 3 and 4, this dog abuts against the ends of the pawls 8, 8, forcing them outward as shown, but in the wrench 15, shown in Fig. 8, I have so formed the end 16, of the dog 17, that it will pass outside the pawls 8, 8, and force said pawls inward to lock the spring shaft.

Instead of the forms of holding-dog above described, I may under some conditions use

the construction shown in Figs. 4, 5, 6 and 7, where 18, indicates a wrench body in which a dog shank 19, is vertically seated and provided at its end beneath the beam with a forked extremity 20, in which the dog proper, 21, is pivoted. Said dog then swings transversely of the beam and is adapted to drag around in a circle to engage the pawls 8, 8, within the flange or rim 24, of the shade-roller end. It will be understood that the slot or aperture 5 in the body portion of the wrench, by reason of its fitting the flattened end 4 of the shade-roller shaft as above set forth, definitely determines the position of the wrench dog with reference to the shade-roller pawls, and thus insures that in the action of the tool the said parts shall accurately engage to prevent backward turning. The said handle 3, of the wrench is preferably formed into a hammer head, as shown, and the edge of the opposite beveled end of the wrench body provides a screw-driver 22, having a slight notch 23, at its middle, to serve as a tack-puller. Thus all the tools necessary for mounting shades upon rollers, and for mounting the rollers upon window-frames, are provided in immediate connection with my wrench.

In the modified construction shown in Figs. 4, 5, 6 and 7, the shank 19, is preferably riveted tight in its place as shown.

Obviously, the wrench-body might engage the spring-shaft extremity otherwise than by having the aperture 5, to receive it, the location of the set-screw 7, might be changed, many different kind of dogs might be employed, and other variations from the exact construction shown and described be made, without departing from the spirit and scope of the invention. I do not intend, therefor, to limit myself by any positive descriptive terms herein employed, except as the state of the art may require.

Having thus described my invention, what I claim as new is:—

1. As an article of manufacture, a shade-roller wrench comprising a body portion adapted to grasp the end of the spring-shaft of a shade-roller which projects beyond the roller proper, and detent means on said body portion adapted to project therefrom toward the end of the shade-roller from which said spring-shaft projects and engage the same in one direction of turning of the wrench, while freely passing over it in the other direction.

2. In a shade roller wrench, the combination of a body portion adapted to receive the flattened end of the spring-shaft of a shade-roller which projects beyond the roller proper and be located thereby with respect to said roller proper, and means at

a fixed point of said body portion adapted to project therefrom toward the end of the shade-roller from which said spring-shaft projects and engage one of the shade-roller pawls at its outer side and force the same into locking position in one direction of turning of the wrench while freely passing over said pawls in the other direction of turning of the wrench.

3. The herein-described shade-roller wrench, comprising a body-portion adapted to grip the end of the spring shaft of a shade-roller which projects beyond the roller proper, and a dog pivoted upon said body-portion to swing toward and away from the end surface of the roller from which said spring-shaft projects.

4. The herein-described shade-roller wrench, comprising a body-portion apertured to receive the spring-shaft extremity and engage the same, and a dog pivoted upon said body-portion to engage the shade-roller pawls.

5. The herein-described shade-roller wrench, comprising a body portion adapted to grip the end of the spring-shaft of a shade roller which projects beyond the roller proper, and a dog adapted to project from the plane of said body portion toward the end surface of the roller from which the spring shaft projects, said dog being adapted in one direction of turning of the wrench to pass the pawls of said roller end and in the other direction to engage said pawls to operate them without passing them.

6. The herein-described shade-roller wrench, comprising a body-portion adapted to grip the spring-shaft, a dog pivoted on said body-portion with its free end adapted to engage the shade-roller pawls as the wrench turns or to be shifted to idle position.

7. The herein-described shade-roller wrench, comprising a body-portion adapted to grip the spring-shaft, and a pivoted dog projecting laterally from said body-portion with its extremity adapted to engage the shade-roller pawls, said dog being adapted to be thrown into either idle or operative position.

8. The herein-described shade-roller wrench, comprising a body-portion adapted to grip the spring-shaft, and a pivoted dog projecting from said body portion with its extremity adapted to engage one of the shade-roller pawls at its outer side and force the same into locking position.

9. The herein-described shade-roller wrench, comprising a body-portion adapted intermediate of its ends to grip the spring-shaft, one of the ends of said body portion being long and having at its extremity a handle upturned at substantially right angles and the other end being closely adja-

cent to the spring-shaft gripping point beveled downwardly, a set-screw working through said beveled face to engage the spring shaft, and detent means on the said
5 body portion adapted to project from the plane thereof against the end surface of the roller from which said spring shaft pro-

jects and prevent backward turning of the wrench.

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Witnesses:

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