

No. 720,988.

PATENTED FEB. 17, 1903.

W. G. WIESENER.
SHADE ROLLER.

APPLICATION FILED AUG. 20, 1901. RENEWED JAN. 2, 1903.

NO MODEL.

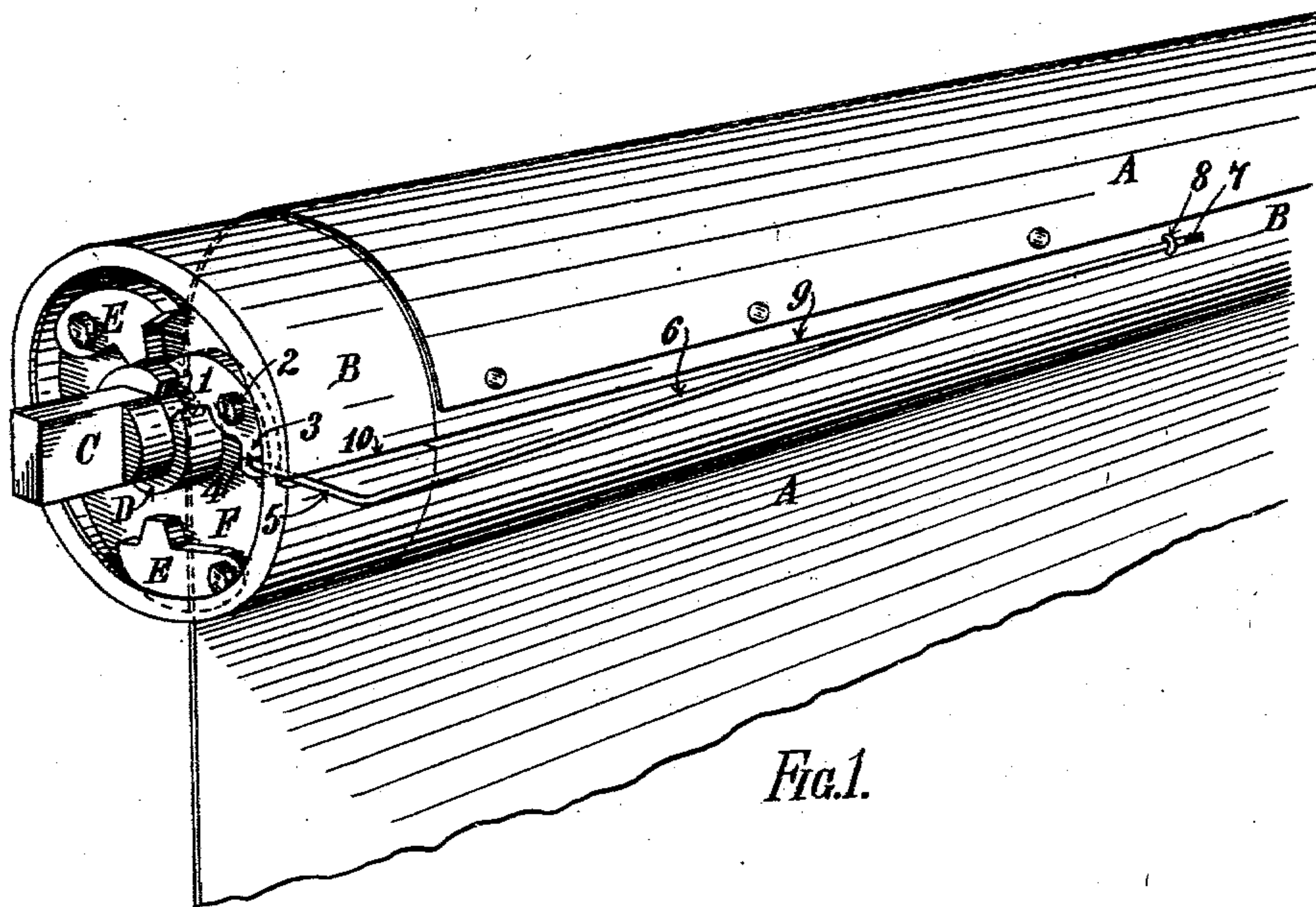


Fig. 1.

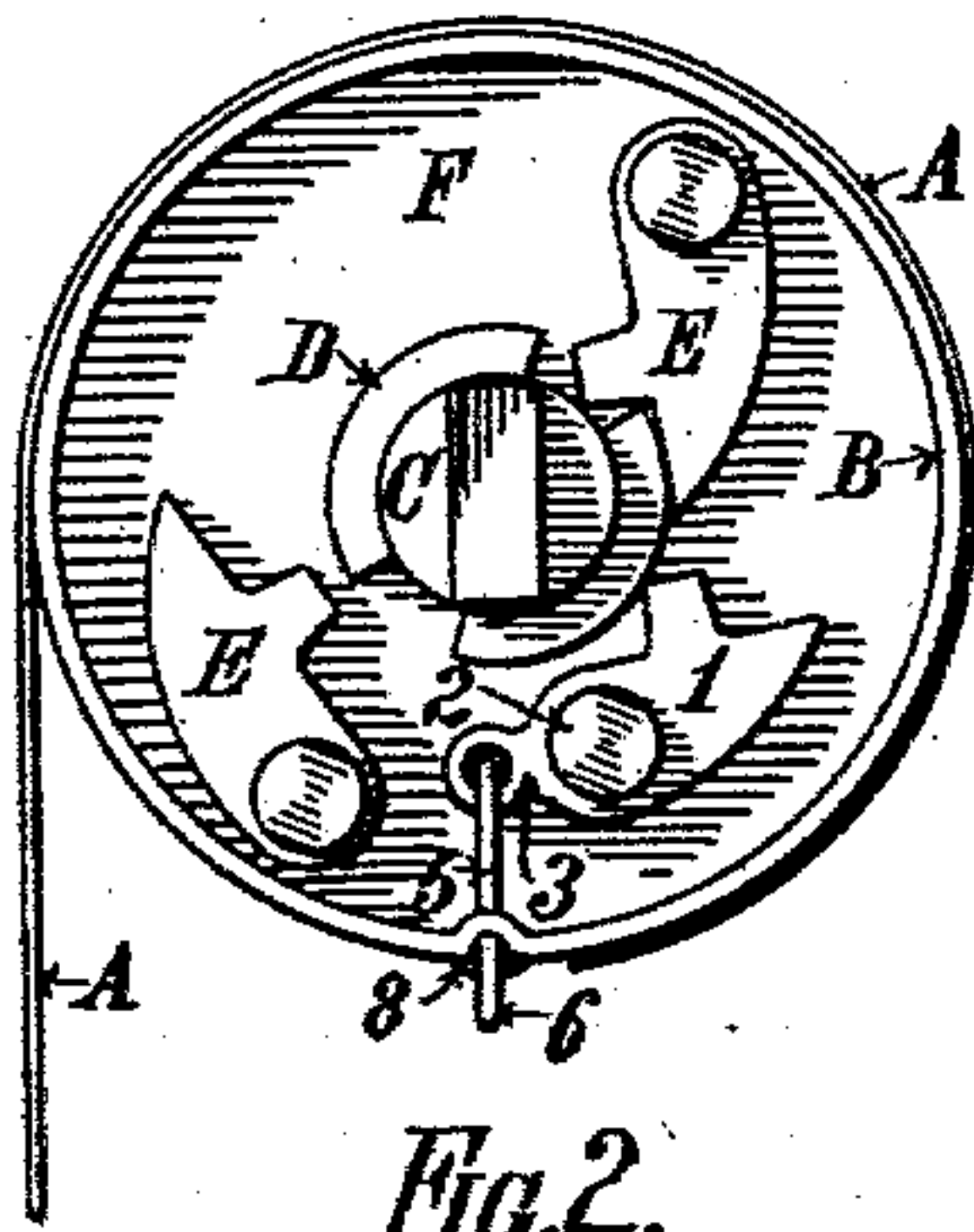


Fig. 2.

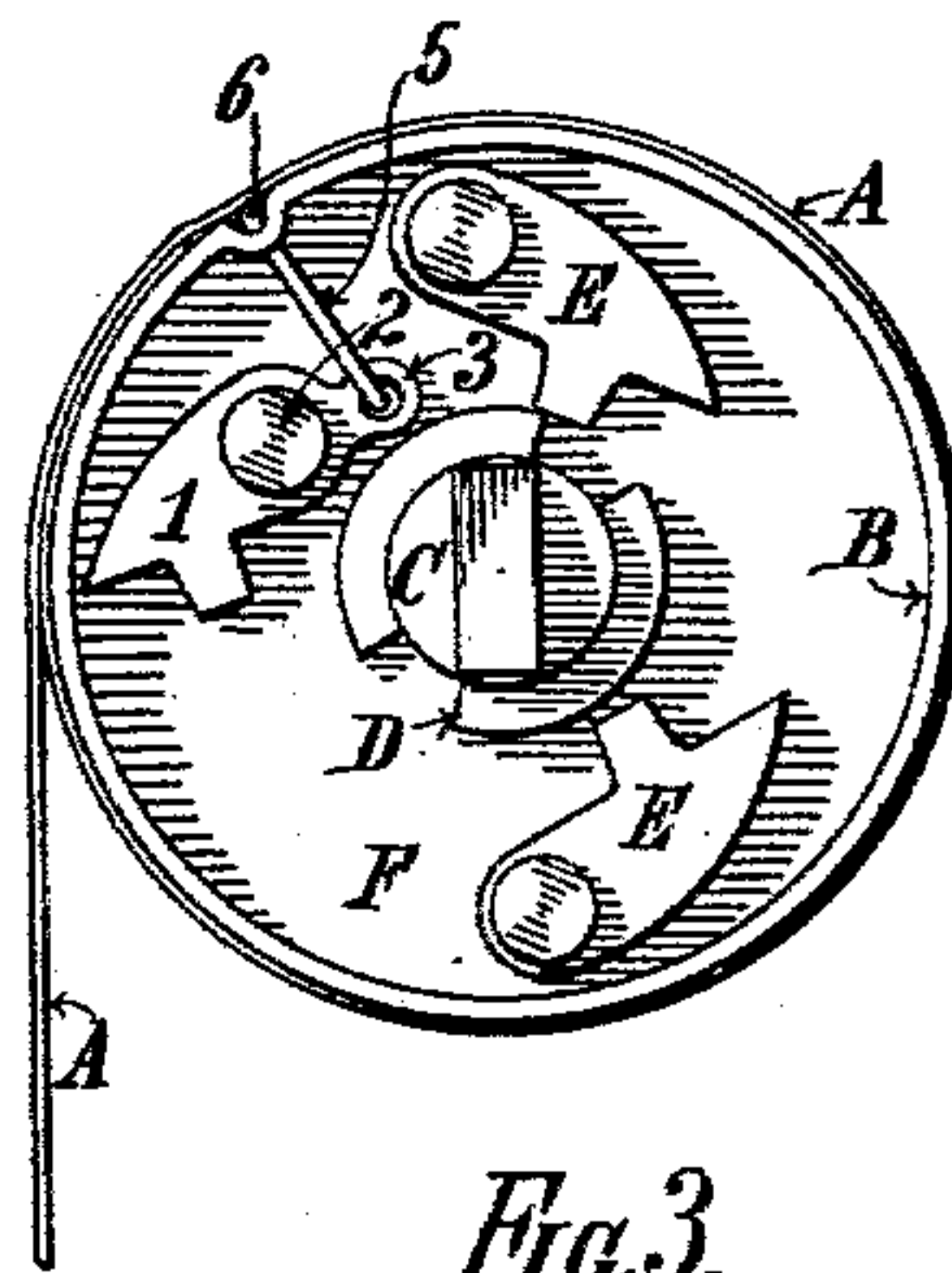


Fig. 3.

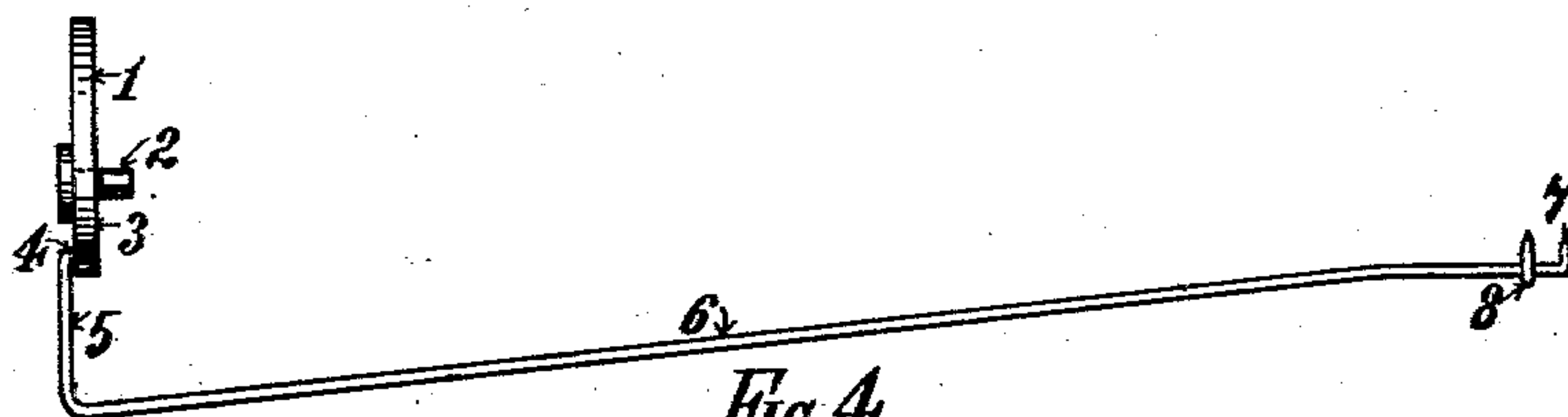


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM GEORGE WIESENER, OF SYDNEY, NEW SOUTH WALES,
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SHADE-ROLLER.

SPECIFICATION forming part of Letters Patent No. 720,988, dated February 17, 1903.

Application filed August 20, 1901. Renewed January 2, 1903. Serial No. 137,568. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GEORGE WIESENER, scientific-instrument maker, a subject of the King of Great Britain, residing at No. 334 George street, in the city of Sydney and State of New South Wales, in the Commonwealth of Australia, have invented new and useful Improvements in Spring Shade-Rollers, of which the following is a specification.

10 This invention relates to those window blind or shade rollers commonly known as the "Hartshorn" shade-rollers, in which a hidden spring is wound up by the unrolling of the blind or shade, is retained so wound up
15 by pawls or detents on the roller meshing or engaging into or on the spindle to which one end of said spring is attached, and is released by a further unrolling of the shade or blind by unwinding again at such speed as will
20 not allow the pawl or detent to again engage with said spindle until said speed is checked. Heretofore in these Hartshorn spring shade-rollers when the shade or blind which is attached to the rollers was unrolled too much—
25 that is to say, when the blind became radial with the center of the roller—it was liable to be torn away from the roller. In such case, too, it was difficult or impossible to release the pawls or detents from the spring-spindle by
30 further unrolling or pulling of the shade or blind. In many cases in endeavoring to achieve the desired reverse motion to start the rolling up of the blind or shade this latter is torn or forcibly removed from the roller.
35 Now this invention has been specially devised to obviate these demerits and to insure in all cases that the blind or shade will always cease to unroll before it is possible for it to be torn away from the roller and that the
40 blind or shade will always be tangential to the roller, and thus the necessary reverse motion precedent to the rolling up of the blind or shade may always be given to said roller.

45 In order that this invention may be clearly understood, reference will now be made to the drawings herewith, in which—

Figure 1 is a perspective view of the end of an ordinary Hartshorn spring shade-roller
50 with these present improvements attached

when the blind or shade is at the limit of its unwinding. Fig. 2 is a face view of said end, showing the position of these present improvements ready to check and stop the further unwinding of the roller. Fig. 3 is a
55 similar view to Fig. 2, showing the position of these present improvements out of operation when the blind or shade is partially rolled, and Fig. 4 is a side elevation of these present improvements in position, but removed
60 from the roller.

The blind or shade A is attached to the roller B, which has spring-spindle C, notched hub D, and pawls or detents E on end plate or disk F; but as the construction and opera-
65 tion of the various parts of such a spring shade-roller are well understood no further or detail description of them is here necessary. Now to the end plate or disk F a lever or pawl having a tooth or detent 1 is piv-
70 oted by means of a screw pin or rivet 2. The turned-over end 4 of the radial part 5 of a light spring 6 takes into the tail 3 of the detent lever or pawl 1, and said radial part or
75 extension 5 projects through a perforation in the casing of the head of the roller, which perforation opens in a groove, hereinafter described, extending lengthwise of the roller. This spring 6 is affixed by means of tack end
80 a staple 8 driven over it. It is housed, preferably, in a saw-kerf or a groove 9 in the roller and a groove 10 in the casing of the head of the roller. The spring 6 holds said detent 1
85 normally out of contact with the notched hub D when the shade or roller is wound up so far that it covers said spring 6, as shown in Fig. 3. As soon as the blind or shade A is un-
90 wound sufficiently to uncover or get away from the spring 6 the detent-pawl 1 meets and is pulled by the spring 6 into one of the notches of the hub D, as shown in Fig. 1. In the position as shown in Fig. 1 there is left
95 enough blind or shade unwound to allow of the necessary reverse motion being given to release the detent-pawl 1, so that the spring may wind the blind upon the roller. Again, if the mechanism be as shown in Fig. 2 the
same margin of operation is insured.

Having now particularly described and as- 100

certained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

5 A spring shade-roller of the class described, having a body, a casing at the end thereof, and the body and the casing being longitudinally grooved, a spindle having a notched hub, a longitudinal spring adapted to lie in the
10 grooves of the body and casing respectively and fastened at one end, the other end of the spring being free and having a transverse extension projecting through a perforation in the casing, and a pivoted detent supported

by said casing and having a tooth at one side of its pivot to engage the hub, and said detent being connected at the opposite side of
15 said pivot with the transverse extension of said spring.

In testimony whereof I have signed my name to this specification in the presence of
20 two subscribing witnesses.

WILLIAM GEORGE WIESENER.

Witnesses:

FRED WALSH,
VICTOR CHURCH.