

H. S. MILLS.
LENS HOLDER.
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929,776.

Patented Aug. 3, 1909.

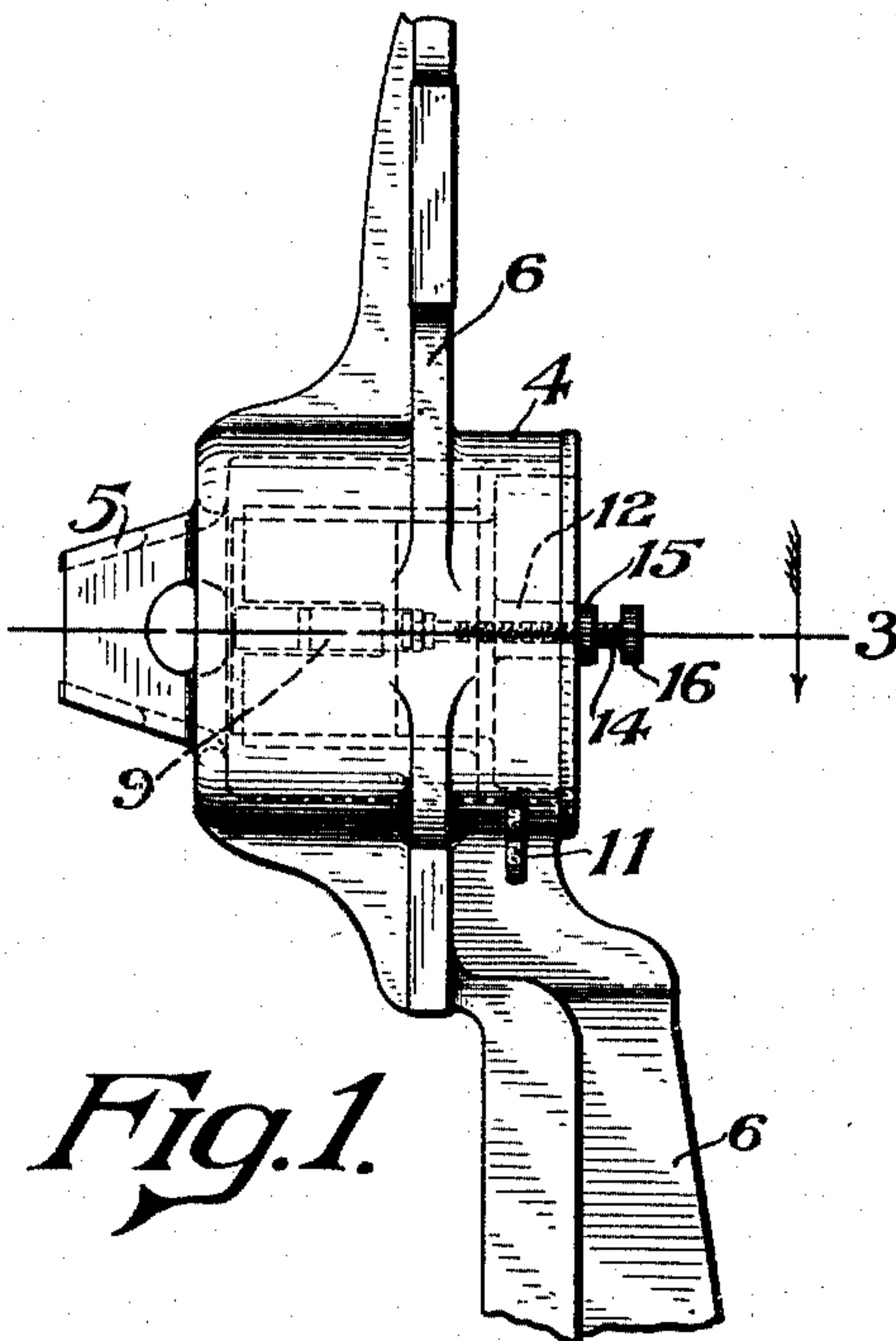


Fig. 1.

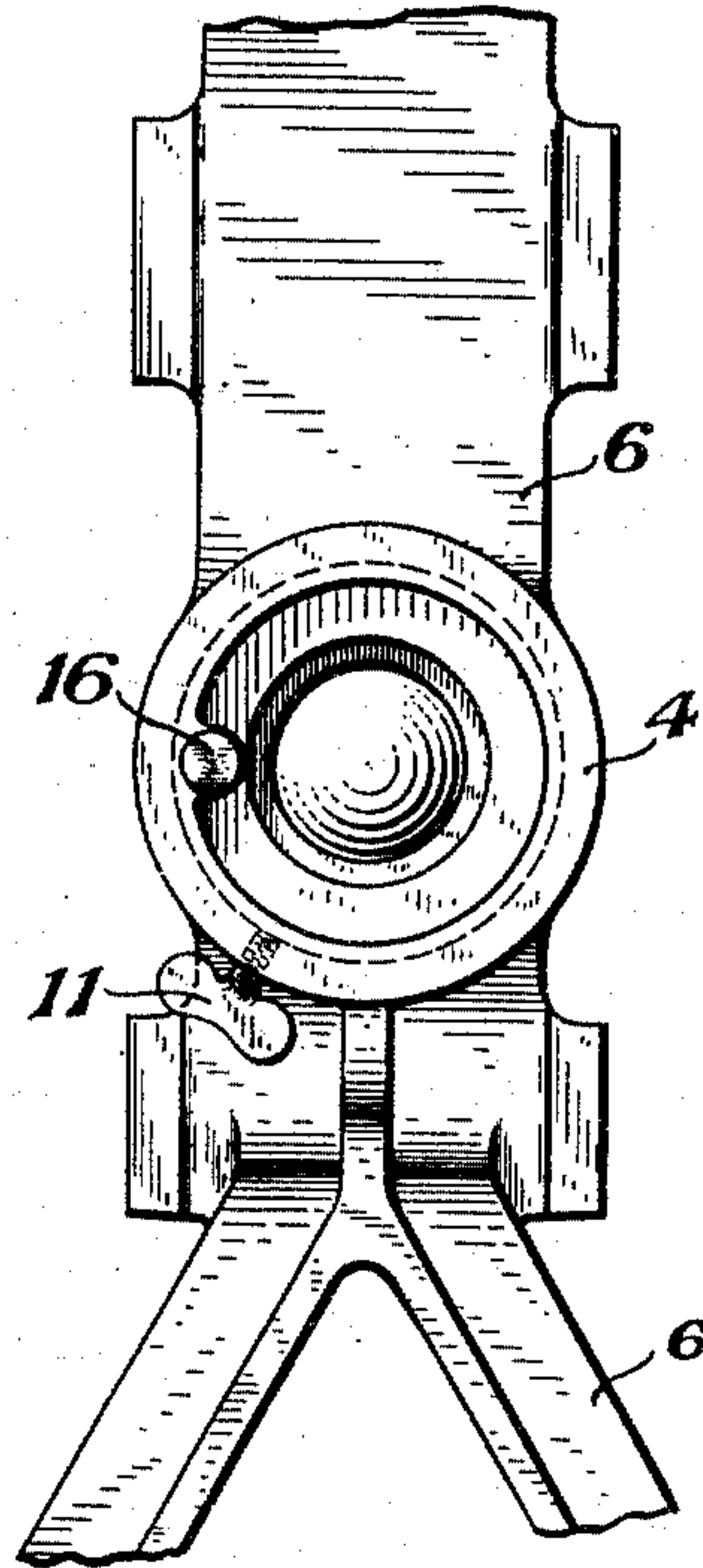


Fig. 2.

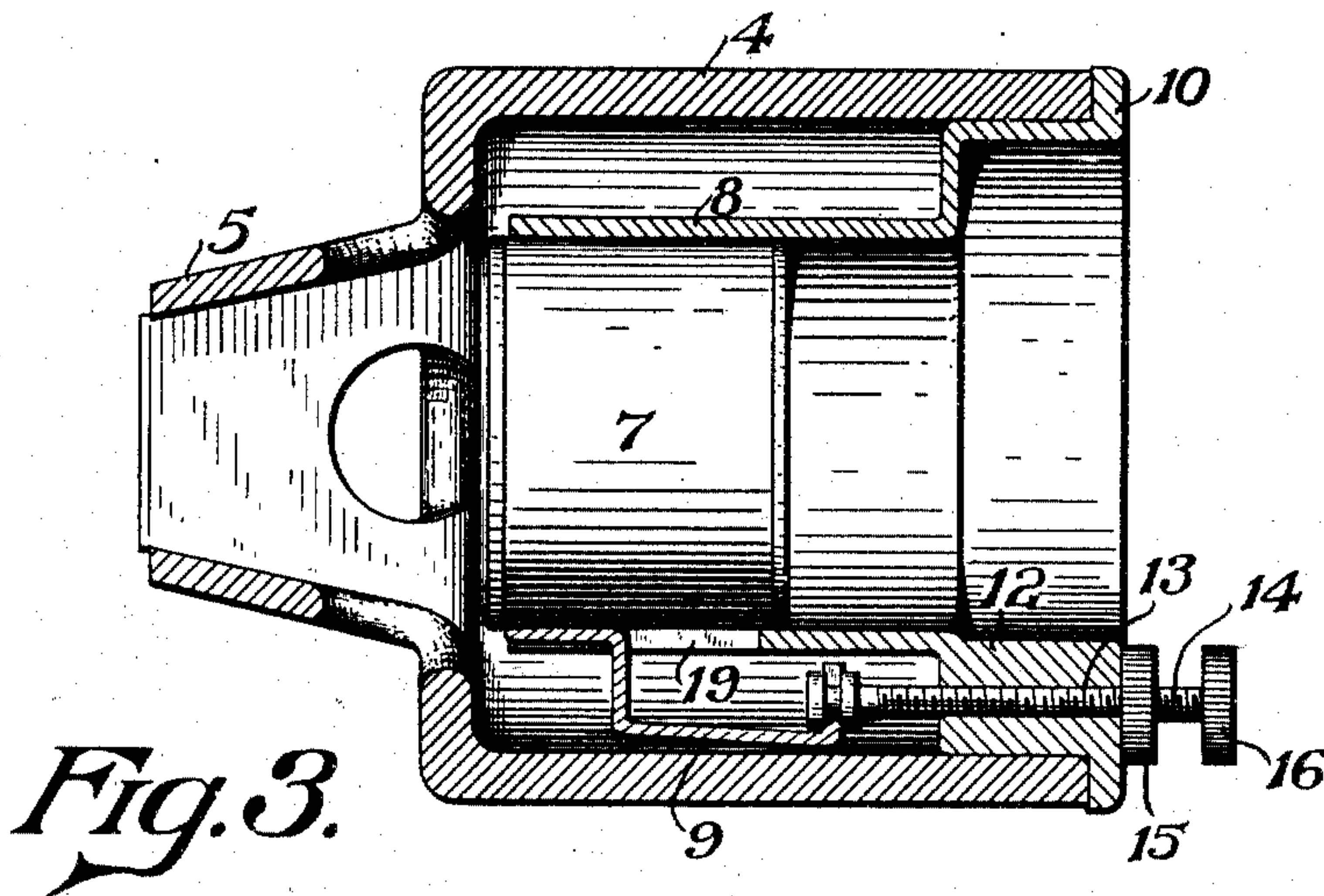


Fig. 3.

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LENS-HOLDER.

No. 929,776.

Specification of Letters Patent.

Patented Aug. 3, 1909.

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To all whom it may concern:

Be it known that I, HERBERT S. MILLS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Lens-Holders, of which the following is a specification.

My invention is designed primarily for use in moving-picture machines to provide therein a construction of holder for the projecting-lenses in the lens-tube, which shall render the lens-containing case conveniently adjustable for focusing the lenses and readily removable to facilitate access to the lenses for cleaning them.

In the accompanying drawing, Figure 1 shows my improvement by a view in side elevation; Fig. 2 shows the same by a view in rear elevation, and Fig. 3 is an enlarged longitudinal section on line 3, Fig. 1.

The lens-tube or barrel 4, provided on one end with the tapering extension 5, is usually formed, for moving-picture machines, as an integral part of the cast frame which supports the mechanism of the machine and of which a broken portion is represented at 6 in Figs. 1 and 2. The projecting lenses are commonly supplied to the user in a cylindrical case 7. For supporting this case in centralized position in the barrel I provide a tubular holder 8 to receive and conform to the lens-case, the latter having brazed to it an arm 9, shown bent into rectangular shape and protruding through a longitudinal guide-slot 19 in the holder. The holder 8 is expanded toward its rear end to fit the inner circumference of the barrel and is provided with a flange 10 about its extremity to abut against the end of the barrel and afford a stop limiting the extent of inserting the holder into the barrel, in which it is releasably fastened by a thumb-screw 11. An enlargement or lug 12 formed on the expanded portion of the holder contains a longitudinal threaded opening 13 for a set-screw 14 engaging rotatably at its inner end with the arm 9 and carrying a lock-nut 15 and a milled head 16 forming a handle by means of which to manipulate it.

With the holder 8 in place in the barrel, se-

cured by the screw 11, and from which it may, on loosening the screw, be easily withdrawn at the rear end of the barrel for access to the lenses, as for cleaning them, the holder may be readily adjusted to a nicety by turning the screw 14 to advance or retract it in the barrel for focusing the lenses.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination, a lens-barrel, a lens-casing holder releasably confined in the barrel, a lens-casing adjustably fitting said holder and centralized by it in the barrel, an arm extending from said casing, and a set-screw engaging said arm for adjusting the casing, for the purpose set forth.

2. In combination, a lens-barrel, a lens-casing holder provided with a slot and releasably confined in the barrel, a lens-casing adjustably fitting said holder and centralized by it in the barrel, an arm extending from said casing through said slot, and a set-screw working in said holder and engaging said arm, for the purpose set forth.

3. In combination, a lens-barrel, a lens-casing holder releasably confined in the barrel to be removable therefrom at its rear end and provided with an expanded end-portion fitting and centralizing the holder in the barrel, a lens-casing adjustably fitting said holder, an arm extending from said casing, and a set-screw engaging said arm for adjusting the holder, for the purpose set forth.

4. In combination, a lens-barrel, a lens-casing holder releasably confined in the barrel to be removable therefrom at its rear end and provided with a slot and a flanged and expanded rear-end portion fitting the inner circumference of the barrel and having an enlargement containing a threaded opening, a lens-casing adjustably fitting said holder, an arm extending from said casing through said slot, and a set-screw working in said opening with one end rotatably engaging said arm and a lock-nut on its outer-end portion, for the purpose set forth.

HERBERT S. MILLS.

In presence of—

K. M. CORNWALL,
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