

No. 843,183

PATENTED FEB. 5, 1907.

F. L. SMITH.

MOUNTING FOR RIFLE TELESCOPES.

APPLICATION FILED AUG. 28, 1903. RENEWED DEC. 29, 1906.

Fig. 1.

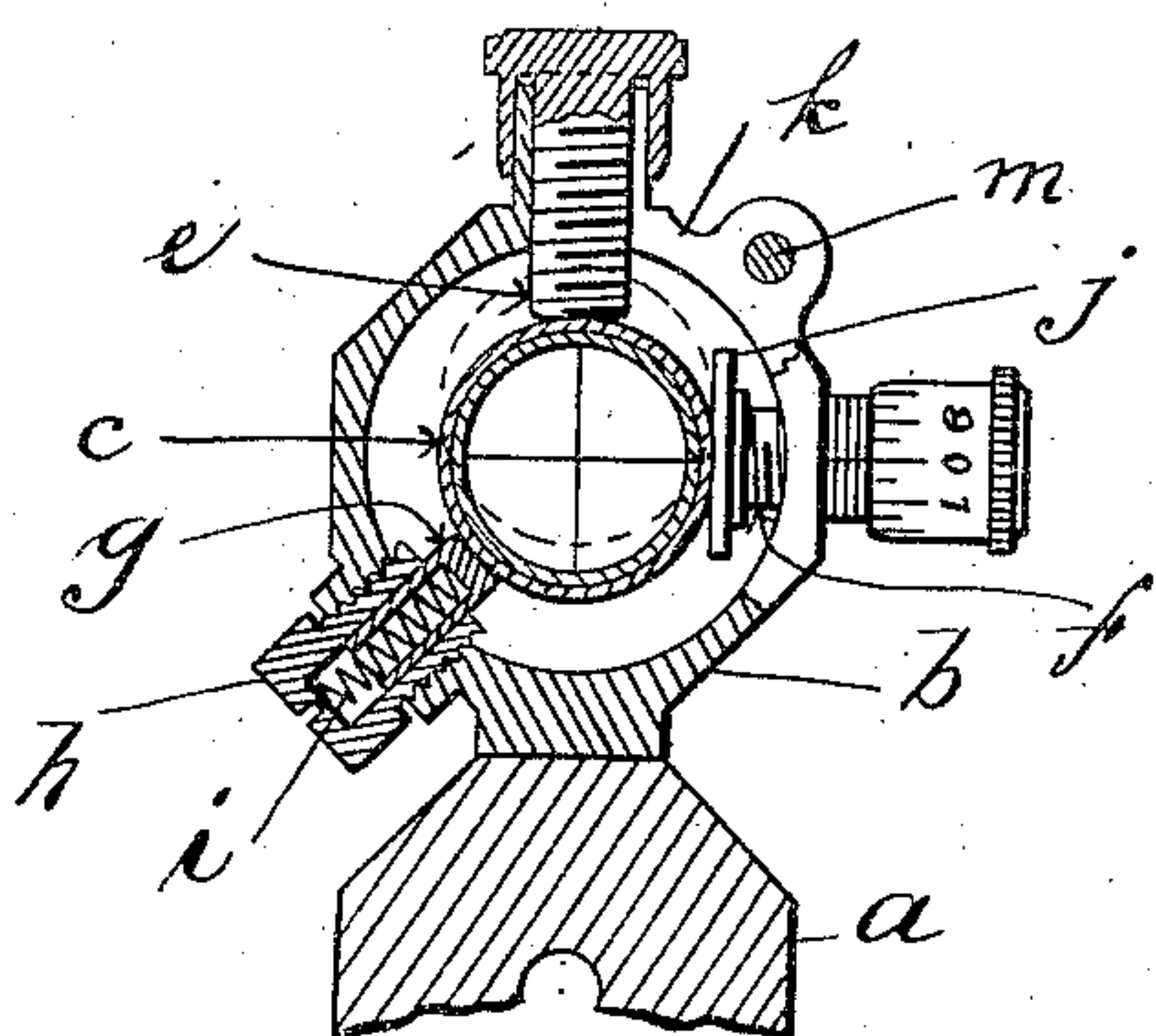


Fig. 2.

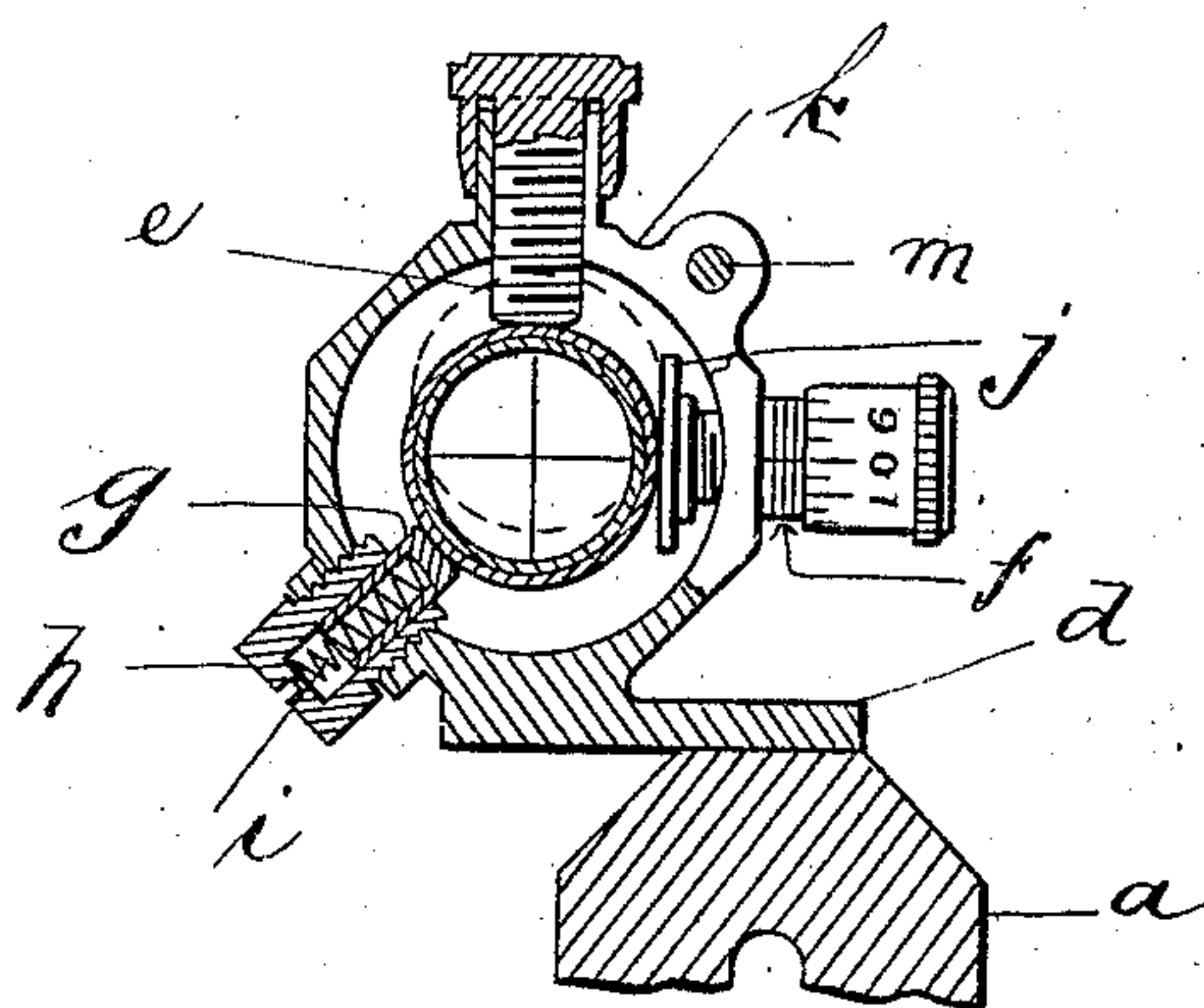


Fig. 3.

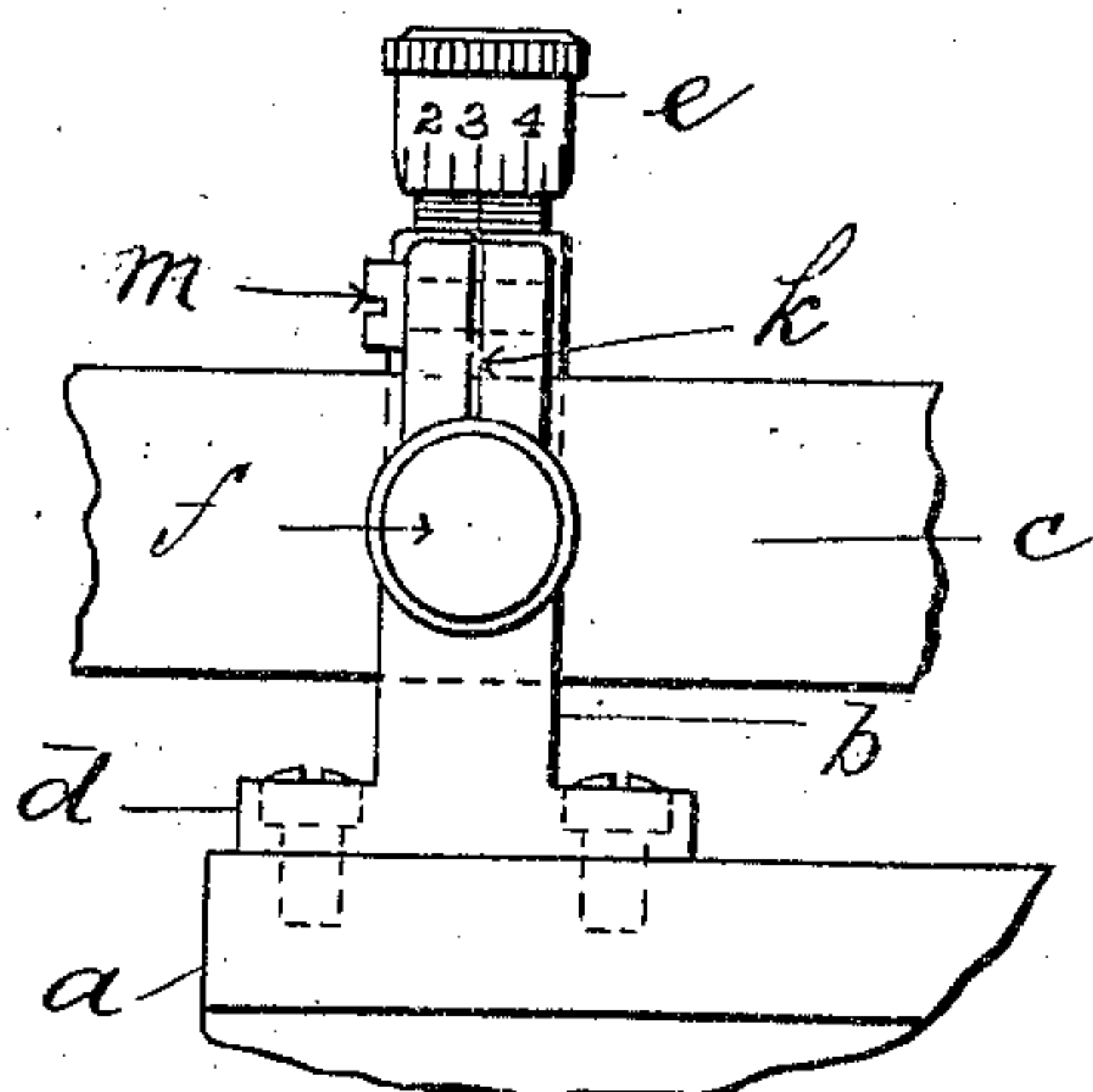


Fig. 4.

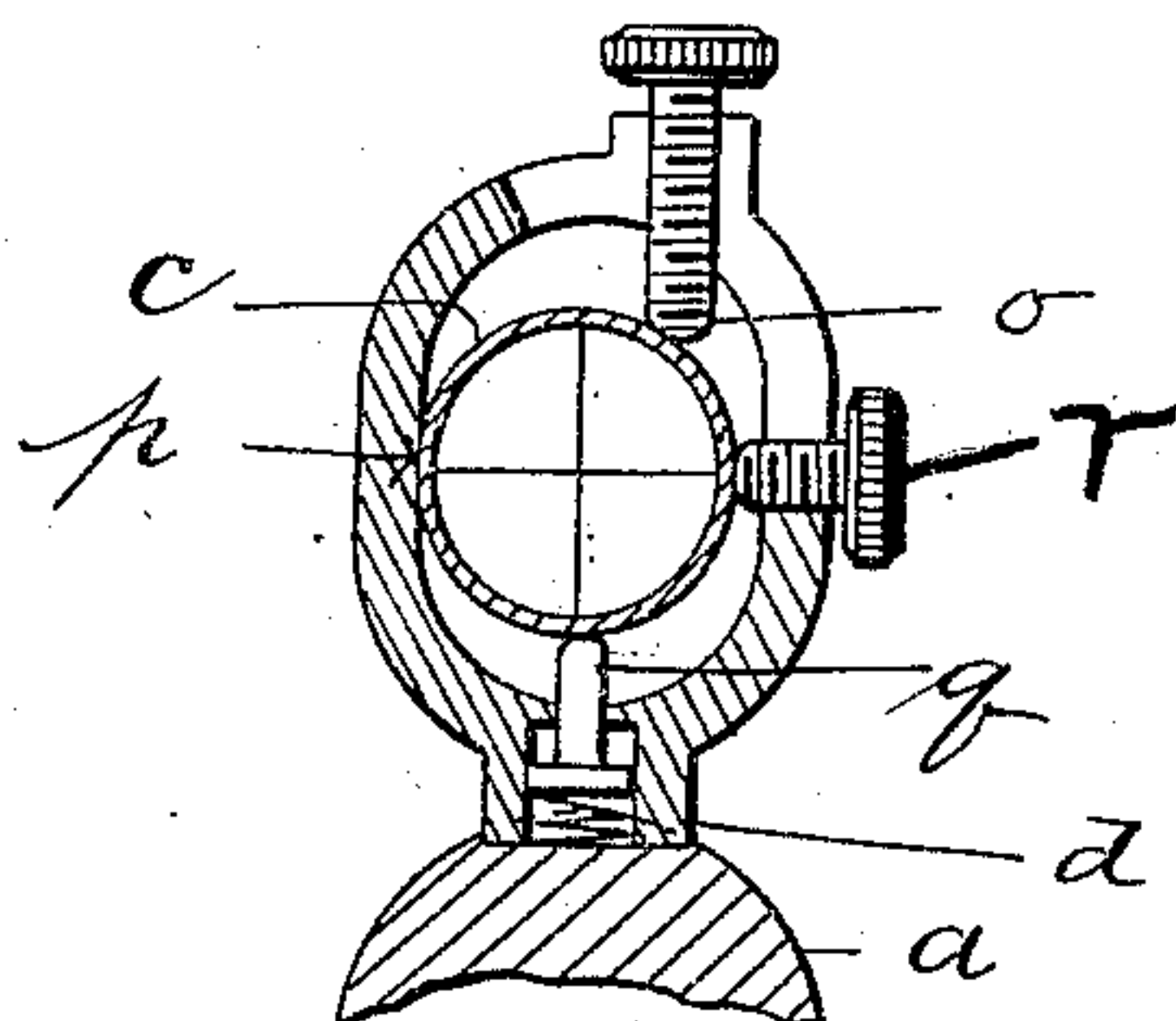
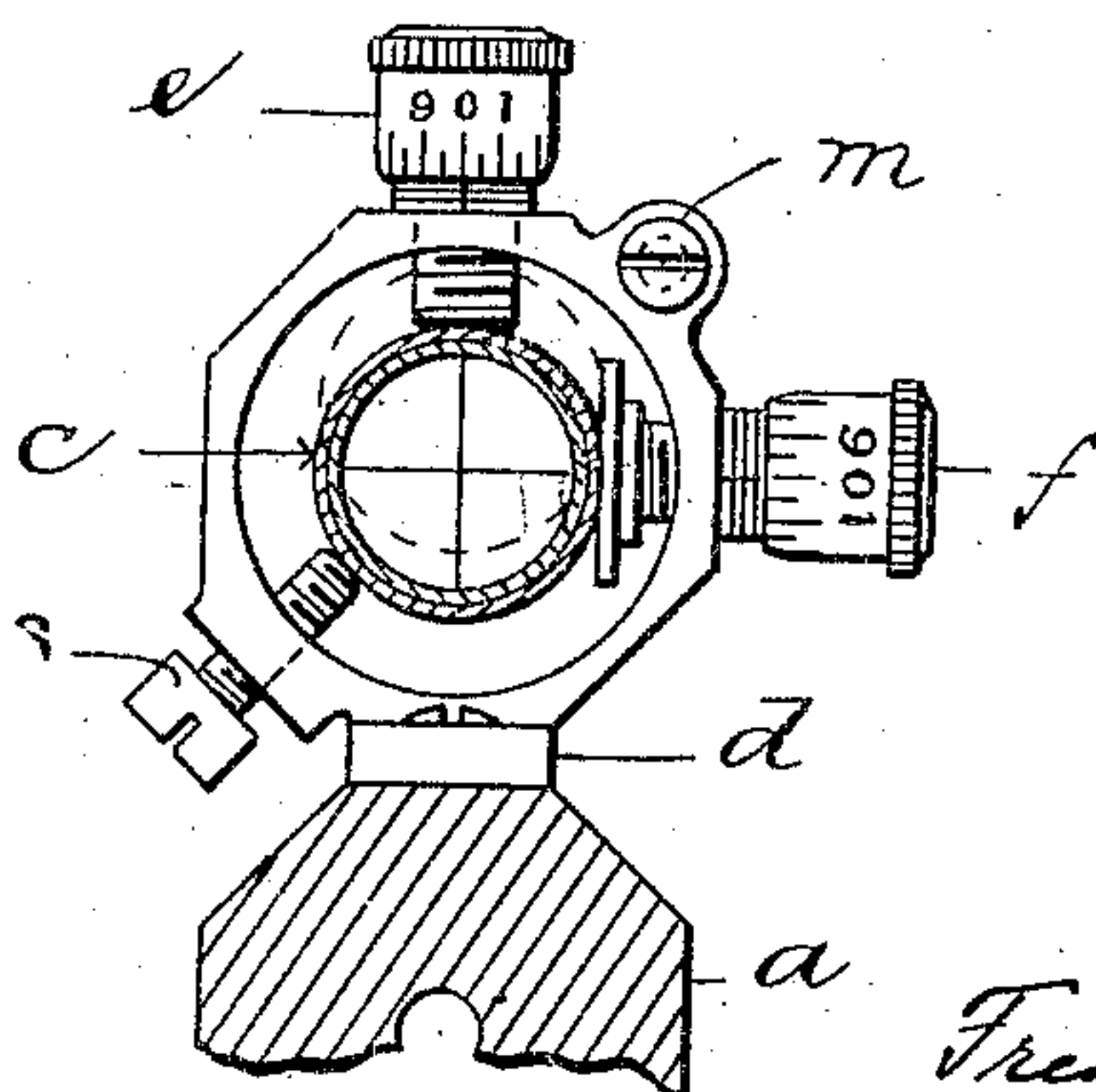


Fig. 5.



Witnesses:

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# UNITED STATES PATENT OFFICE.

FREDERICK L. SMITH, OF CHICOPEE FALLS, MASSACHUSETTS.

## MOUNTING FOR RIFLE-TELESCOPES.

No. 843,183.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed August 28, 1903. Renewed December 29, 1906. Serial No. 350,008.

*To all whom it may concern:*

Be it known that I, FREDERICK L. SMITH, a citizen of the United States, residing at Chicopee Falls, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Mountings for Rifle-Telescopes, of which the following is a specification.

This invention relates to improvements in telescope-rifles, the object of the invention being to provide a mounting for the telescope in which the latter is supported on the barrel of the firearm and provided with certain adjusting devices whereby the telescope may be yieldingly supported throughout, to the end that if the barrel of the rifle and the telescope be both grasped by the hand the telescope will yield, or if it be stood up against the wall or in a rack the telescope will yield, and thus the thin tube of the latter will not be subjected to any strain or shock which would injure it, a further object of the invention being to provide means whereby the telescope may be held against two abutments horizontally and vertically disposed substantially at right angles one to the other, the telescope being spring-pressed equally against both, means being provided on the horizontal abutment to guide the telescope in a vertical plane independently of its lateral adjustment; and the invention consists in the construction described in the following specification, and clearly pointed out in the claims forming a part thereof.

Referring to the drawings, Figure 1 is an elevation, partly in section, of a telescope-mounting and embodying the invention. Fig. 2 is a like view of the mounting, showing the manner of applying it to the barrel in an offset position relative to the latter. Fig. 3 is an edge view of Fig. 1. Fig. 4 is a sectional elevation of a modification of the mountings shown in the preceding figures. Fig. 5 is an elevation of the rear mounting, showing still another modification of the construction.

In these drawings, *a* may indicate the rifle-barrel, *b* the telescope-mounting, and *c* the telescope.

The letter *b* indicates the mounting as a whole, said mounting comprising the annular or oval member through which the telescope passes and a base, (indicated by *d*,) whereby the mounting is secured to the barrel. This may be located, as shown in Figs. 1 and 3, relative to the annular member to locate the lat-

ter centrally over the barrel, as shown in Fig. 1, or it may extend to one side or the other, as shown in Fig. 2, whereby the telescope may be so mounted on the barrel as to bring it in line therewith, but one side thereof, to the end that it may not interfere with the use of the regular rifle-sights, which may be located in their usual positions. The particular form of the base is immaterial, and the location of the telescope relative to the barrel is also immaterial.

The adjusting devices for the telescope are screws, of which one, *e*, is vertically located centrally of the mounting and the other, *f*, at right angles thereto, thereby providing two movable abutments against which the telescope is yieldingly pressed by the spring-plunger *g*, located midway between these two screws, to the end that it may force the telescope equally against both abutments. This plunger is mounted in a hole bored in a bushing *h* from the inner end thereof, which bushing is screwed into the mounting, as shown in Fig. 1, a spring *i* being compressed between the plunger and the end of said bushing. The inner end of the screw *f* is provided with a relatively large flat head *j*, the face of which is at right angles to the axis of the screw, whereby provision is made to guide the telescope in a vertical plane during its adjustments in that direction. By this means the telescope may be adjusted vertically without being thrown out of line horizontally, it being obvious that without this head the limit of the vertical adjustment of the telescope would be determined by the diameter of the end of the screws in the mounting.

Preferably the adjusting-screws *e* and *f* are provided with micrometer-scales, as shown in the drawings, (see Fig. 5,) and preferably the mounting is split, as at *k*, and a tightened screw *m* passed through the split portions, whereby when the adjusting-screws have been operated to sight the rifle the screw *m* is turned up and the screws locked in their adjusted positions.

In Fig. 4 of the drawings there is shown a mounting for the muzzle end of the telescope, in which the latter is capable of vertical adjustment only, but in which the principle of the two-point bearing is carried out in a manner which seems clearly to fall within the scope of the invention. In this construction the two points of abutment for the telescope are the end of the screw *o* and the vertical side *p* of the mounting, the latter



serving as the vertical guide for the telescope, a spring-plunger *q*, located in the base *d*, pressing the telescope against these two points referred to. In this form of construction a binding-screw *r* may be used, if desired. Another slight modification is shown in Fig. 5, which consists in substituting a screw *s* for the spring-actuated plunger *q*. The latter, however, is preferred.

From the foregoing description it is seen that accurate adjustments for the telescope are provided, both vertical and horizontal, whereby the rifle may be accurately sighted, and that the telescope is spring-pressed against two points only, and is so arranged that it may be moved away from these points and when returned to position thereagainst will occupy the same position relative to the axis of the barrel as before removal, thus eliminating possible error. Furthermore, by so supporting the telescope it will yield under pressure or from any shock, and thus preserve the tube from injury.

Having thus described my invention, what I claim, and desire to secure for Letters Patent, is—

1. A telescope-mounting consisting of a member to encircle the telescope, two radially-disposed adjusting-screws extending through said member and constituting two abutments for the telescope arranged substantially in vertical and horizontal planes, a spring located equidistant from each of said abutments to press the telescope against the latter and to permit it to yield under pressure, in the opposite direction.

2. A telescope-mounting consisting of a member to encircle the telescope, two radially-disposed adjusting-screws extending through said member in substantially vertical and horizontal planes and constituting

two abutments for the telescope; there being a vertically-disposed bearing-surface on said horizontally-located screw having a height greater than the range of adjustment of said vertically-disposed screws, and a spring located opposite and midway between said adjusting-screws to press the telescope equally against the ends of the latter, and to permit it to yield under pressure, in the opposite direction.

3. A telescope-mounting consisting of a member encircling the telescope, a vertically and a horizontally disposed adjusting-screw in said member against the ends of which the telescope may bear, and a spring constituting the third point of support for the telescope, located opposite and midway between said adjusting-screws whereby the telescope is pressed equally against the ends of said screws, and whereby it may yield under pressure, in the opposite direction.

4. The combination with the barrel of a rifle, of a telescope mounted thereon, supports on the barrel for the telescope, bearing-screws in the supports for the telescope, and springs in said supports and between said screws to press the telescope away from the barrel.

5. The combination with the barrel of a rifle, of a telescope mounted thereon, supports on the barrel for the telescope, springs between the barrel and telescope to press the latter away from the barrel and against said supports, and adjusting-screws in one of the supports to effect the horizontal and vertical adjustment of the telescope.

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Witnesses:

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