

(No Model.)

J. T. ROBERTS.

REEL FOR RAISING AND LOWERING ELECTRIC LAMPS.

No. 445,903.

Patented Feb. 3, 1891.

Fig. I.

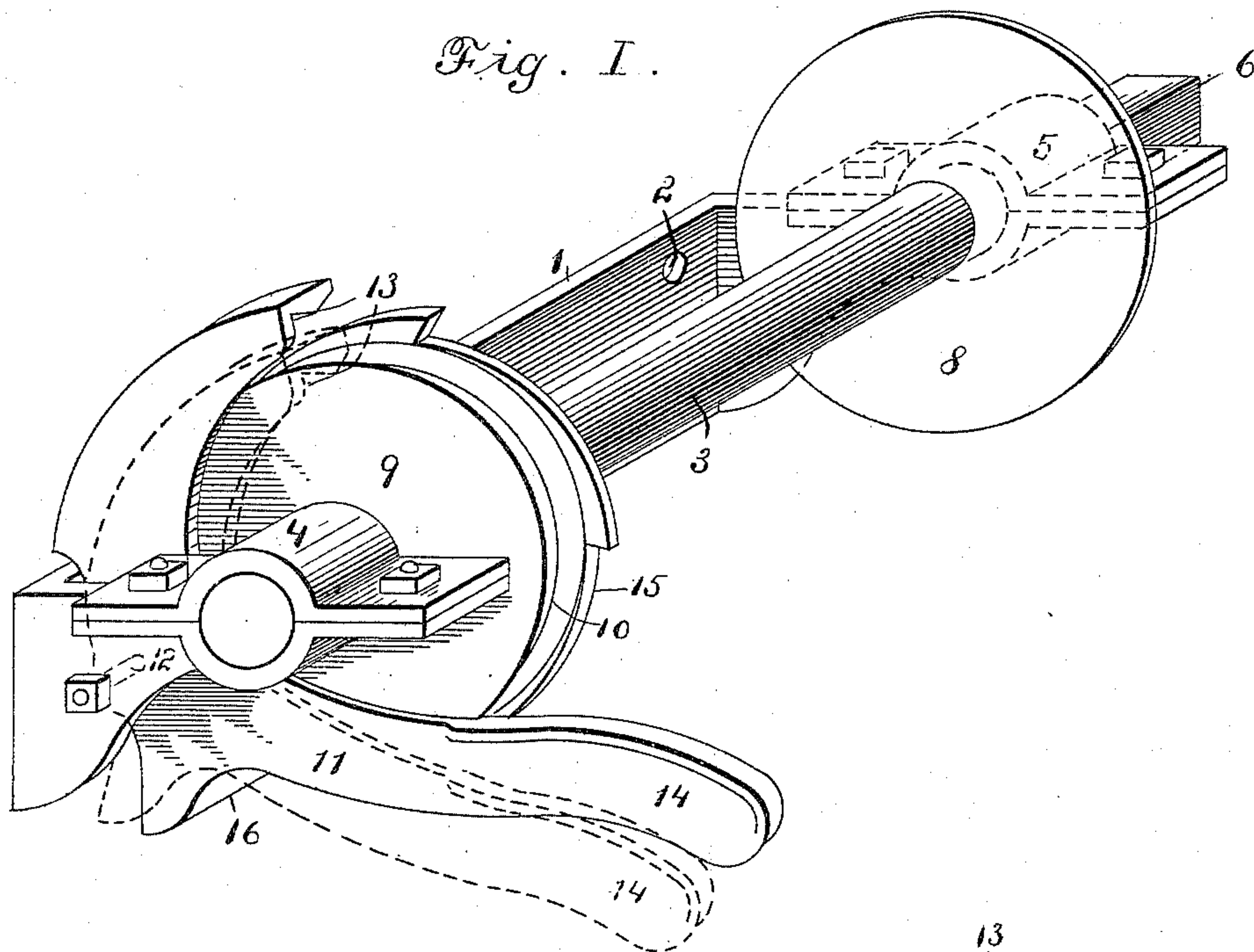


Fig. II.

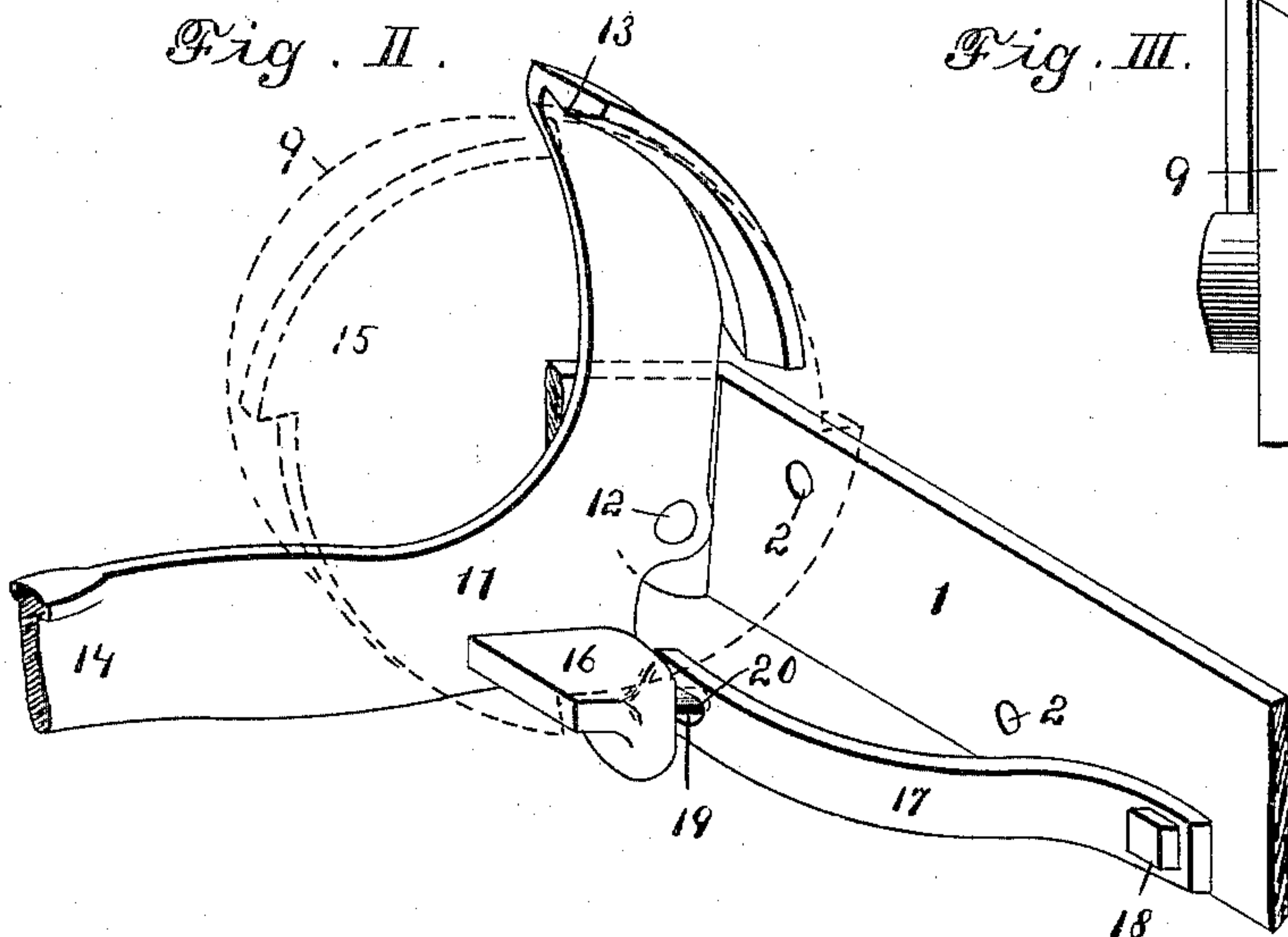
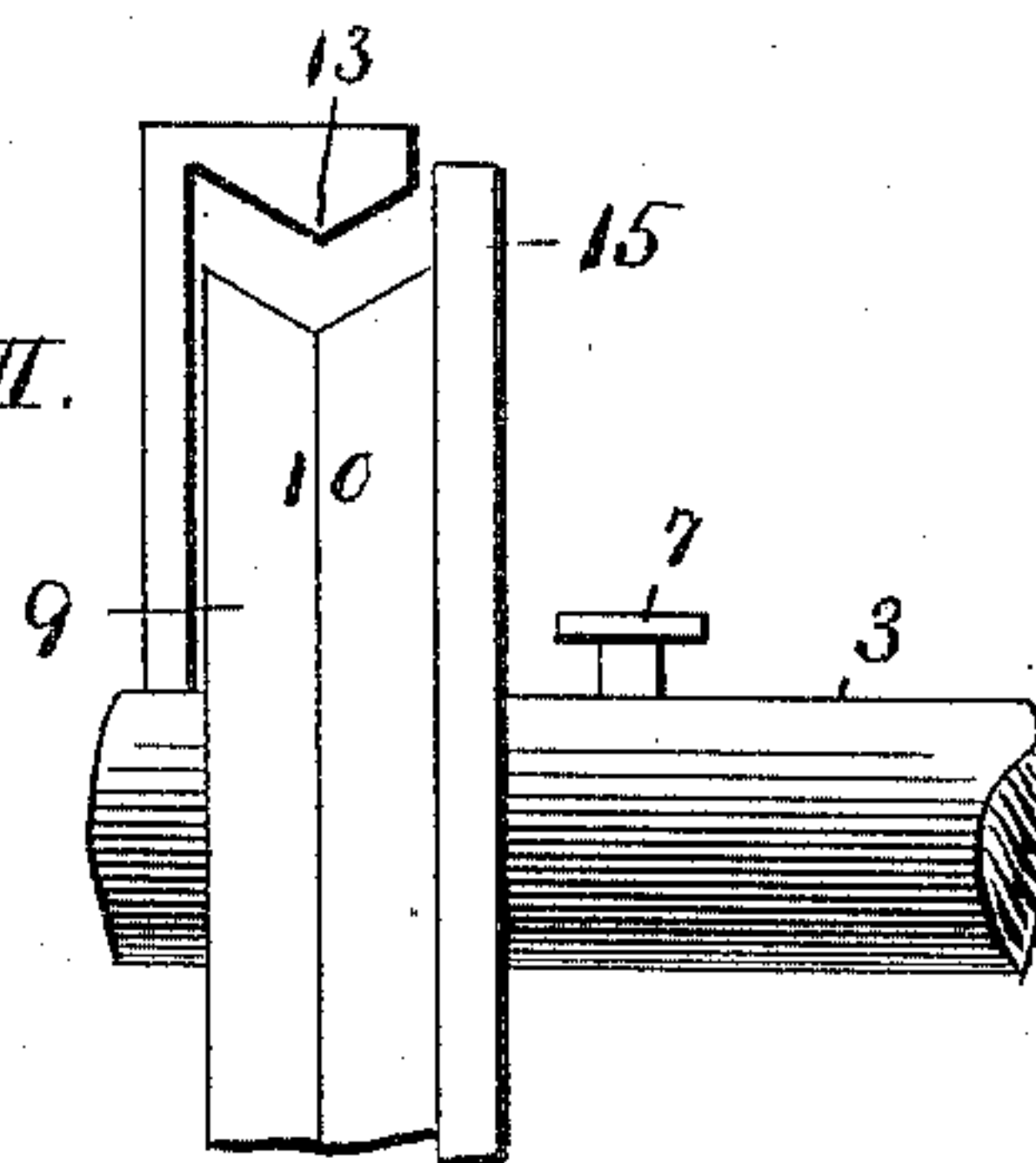


Fig. III.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN T. ROBERTS, OF FORT SCOTT, KANSAS.

REEL FOR RAISING AND LOWERING ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 445,903, dated February 3, 1891.

Application filed July 26, 1890. Serial No. 360,058. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. ROBERTS, of Fort Scott, in the county of Bourbon and State of Kansas, have invented certain new and useful Improvements in a Reel for Raising and Lowering Electric Lamps, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to a device whereby an electric lamp or other device may be readily raised or lowered; and my invention consists in features of novelty hereinafter described, and pointed out in the claims.

Figure I is a perspective view of my improved device, the operative position of the lever being shown in dotted lines. Fig. II is a detail perspective view showing the pawl, brake, and spring for holding the pawl in engagement with a ratchet-wheel, the brake-wheel and ratchet-wheel being shown in dotted lines, so as not to obstruct an inner view of the lever and pawl. Fig. III is an enlarged detail edge view showing brake and grooved brake-wheel and ratchet-wheel.

Referring to the drawings, 1 represents a supporting-bracket, having holes 2, through which bolts or screws may be inserted in order to secure the reel to any suitable support, such as a pole, &c.

3 represents a shaft journaled to the bracket 1, as shown at 4 5. On one end of the shaft 3 is a square extension 6, to which a removable crank (not shown) may be readily attached in order to rotate the shaft, and thus wind up or unwind the rope or cable which supports the lamp.

7 represents a pin on the shaft 3, to which one end of the lamp-supporting cable or rope (not shown) may be secured.

8 represents a disk situated near one end of the shaft 3, said disk preventing the rope or cable from traveling too far endwise on the shaft at that end.

9 represents a brake-wheel, situated near the other end of the shaft 3 opposite from the disk 8, said brake-wheel being secured rigidly to or an integral part of the shaft 3. The

circumferential face of the brake-wheel 9 is provided with a V-shaped surface or groove 10.

11 represents a lever, fulcrumed at 12 to the bracket 1.

13 represents a V-shaped brake-shoe, the same being an integral part of the lever 11, said brake-shoe being at will forced into contact with the brake-wheel 9 by pressing down on the outer end 14 of the lever, thus allowing the shaft 3 to revolve rapidly or causing the same to revolve slowly at the will of the operator as the lamp is being lowered to a convenient position for the operator to obtain access thereto. The V-shaped brake-shoe and wheel afford a greater amount of frictional surface than an ordinary brake-shoe and flat surface-wheel would afford, and at the same time the wheel forms a guide which holds the shoe firmly to its place. Integral with the brake-wheel 9 is a ratchet-wheel 15.

16 represents a pawl on the lever 11, said pawl being held normally in engagement with the ratchet-wheel 15 by means of a spring 17. The spring 17 is secured to the bracket 1, as shown at 18.

19 represents a pin on the inner side of the pawl, said pin engaging in an opening 20 in the spring, the spring being thus always held in its proper relation to the pawl.

In operation, when it is desired to raise the lamp, the crank is applied to the extension 6 and the shaft 3 rotated, winding up the cable or rope to which the lamp is attached. When the lamp has been raised the desired distance, the shaft is permitted to turn backward until one of the teeth or projections on the ratchet-wheel 15 come in contact with the pawl 16, said pawl being pressed firmly against the ratchet-wheel by means of the spring 17. When it is desired to lower the lamp, all that is necessary to do is to pull down on the outer end 14 of the lever 11, thus forcing the pawl 16 out of contact with the ratchet-wheel and permitting the reel to rotate and unwind the cable or rope. The rapidity of the reel in unwinding is governed by the brake 13 being applied to the brake-wheel 9, which is accomplished by pressing the end 14 of the lever 11 down still further, forcing the brake-shoe

into contact with the brake-wheel. (See dotted lines Fig. I.)

I claim as my invention—

The combination of the reel-shaft 3, means
5 for supporting the same, a brake-wheel, ratchet-wheel 15 on said shaft, lever 11, having a brake-shoe, pawl 16 on the lever, spring 17,

having an opening 20, and a pin 19 on the pawl engaging in said opening, substantially as described, and for the purpose set forth.

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Witnesses:

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