

(No Model.)

2 Sheets—Sheet 1.

C. TOMLINSON.

GUN CLEANER.

No. 399,452.

Patented Mar. 12, 1889.

Fig. 1.

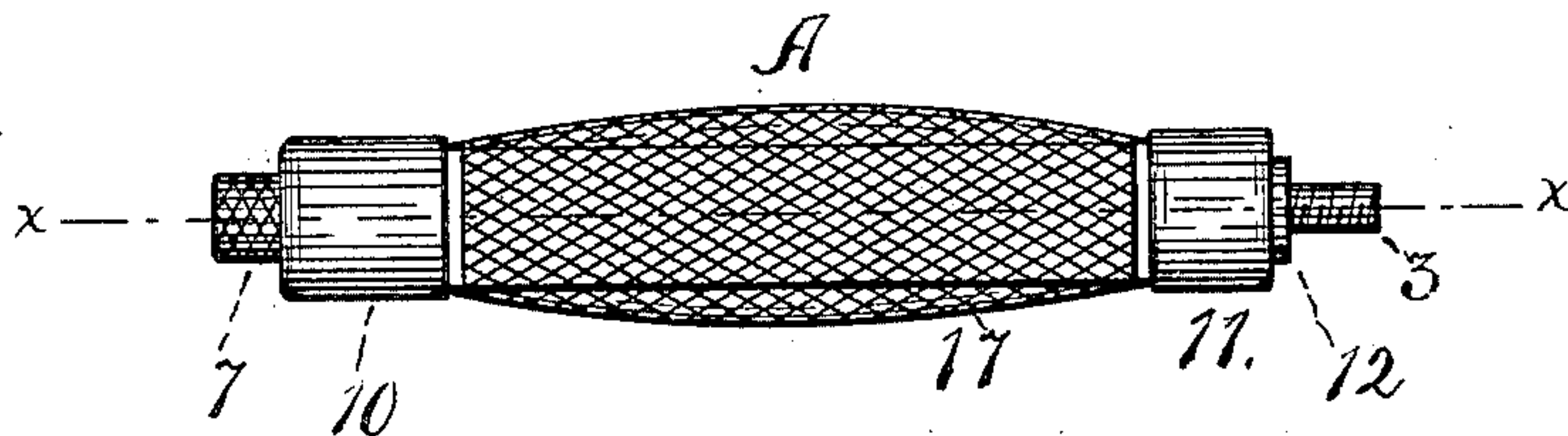


Fig. 2.

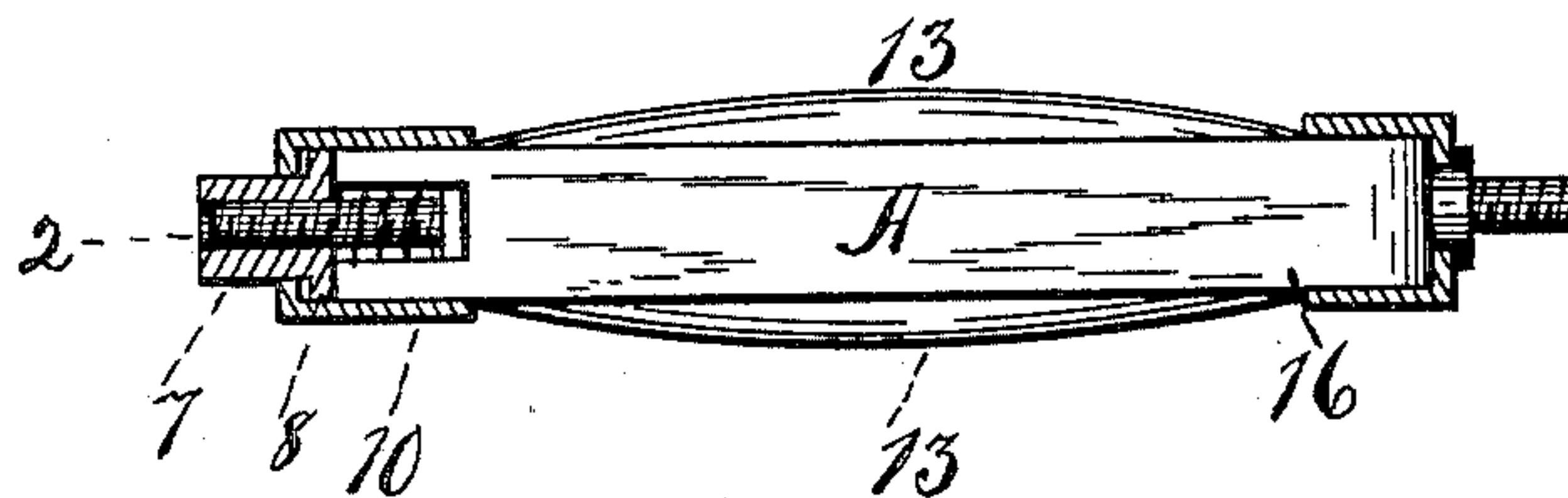


Fig. 3.

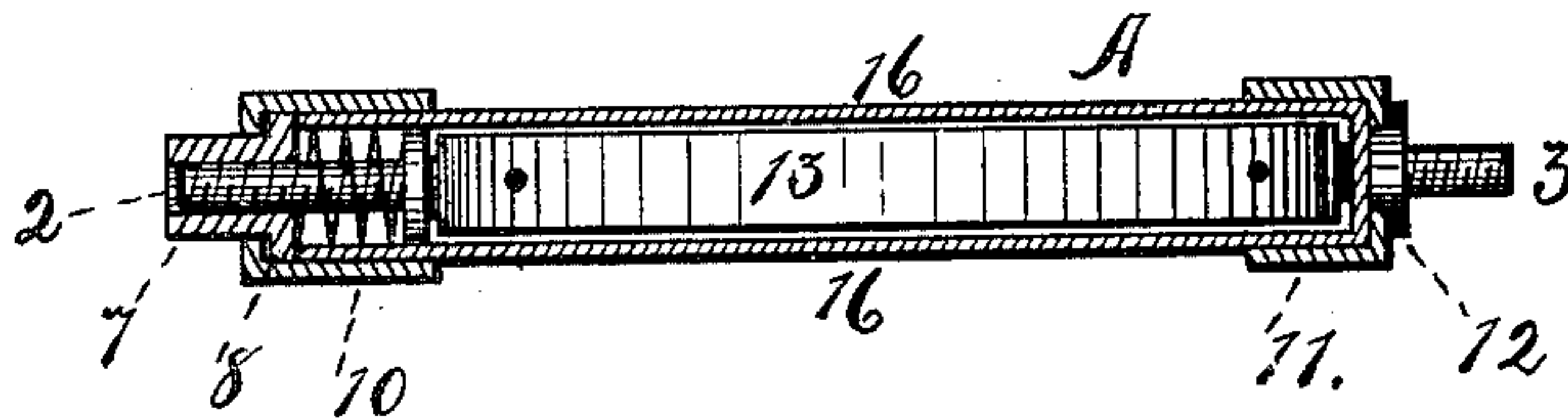
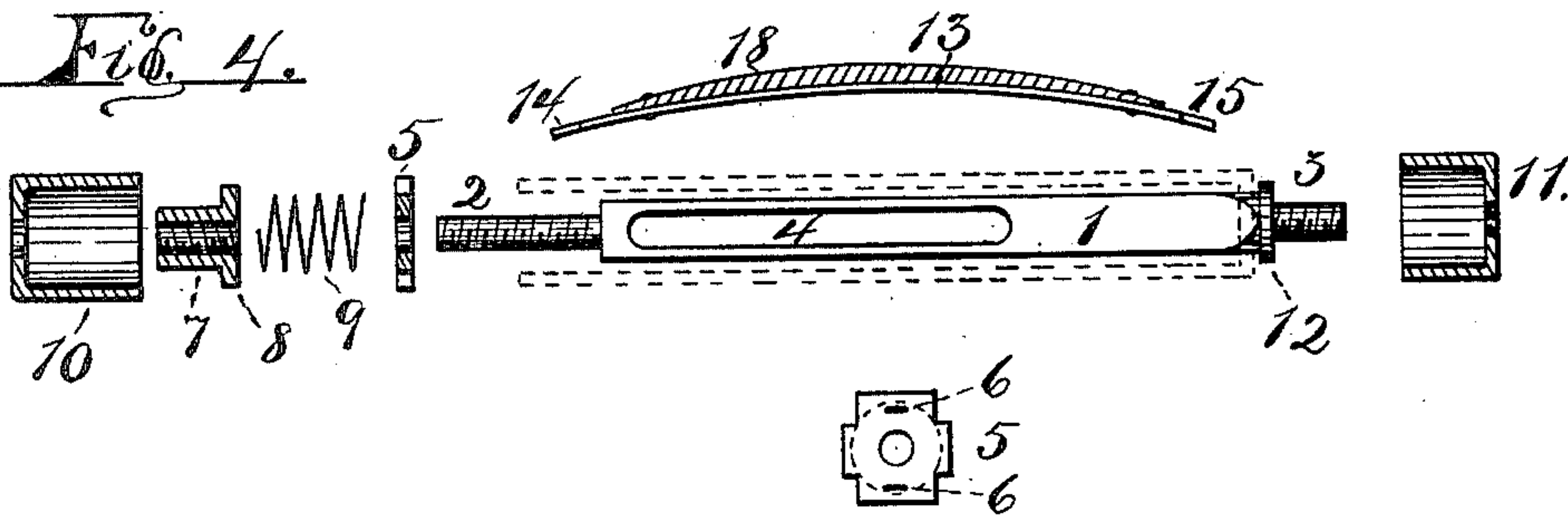


Fig. 4.



Witnesses.

Howard P. Benson
W. H. Jones.

Charles Tomlinson
Inventor.

By his Attorneys
Smith & Benson

(No Model.)

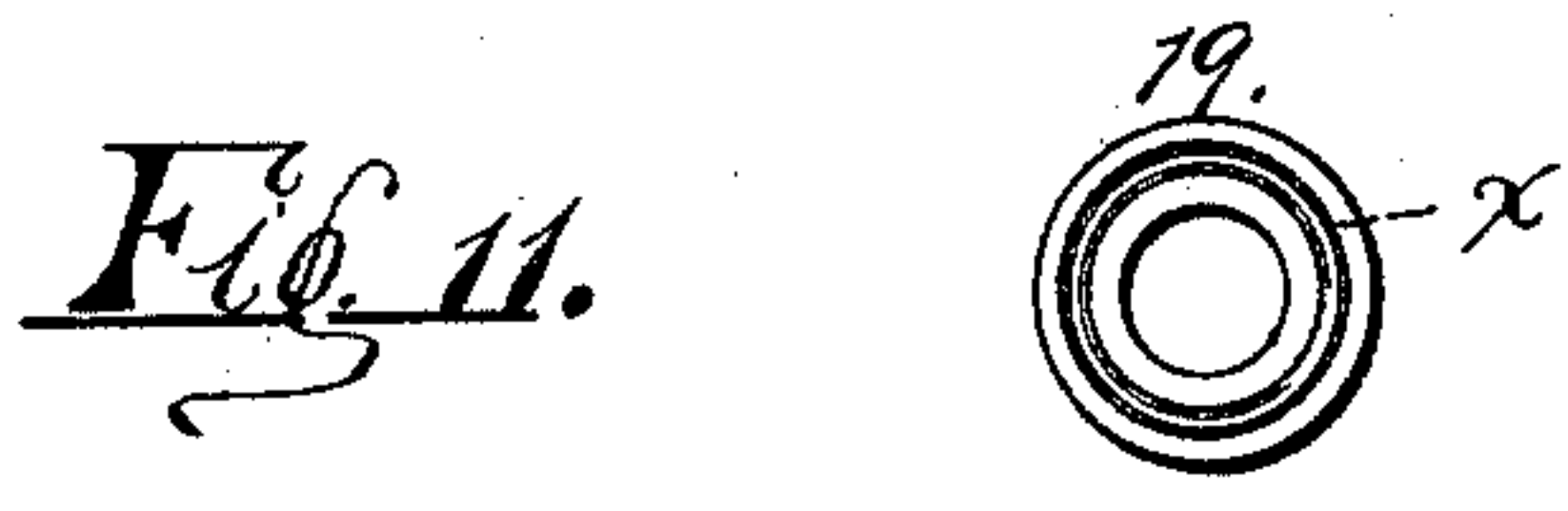
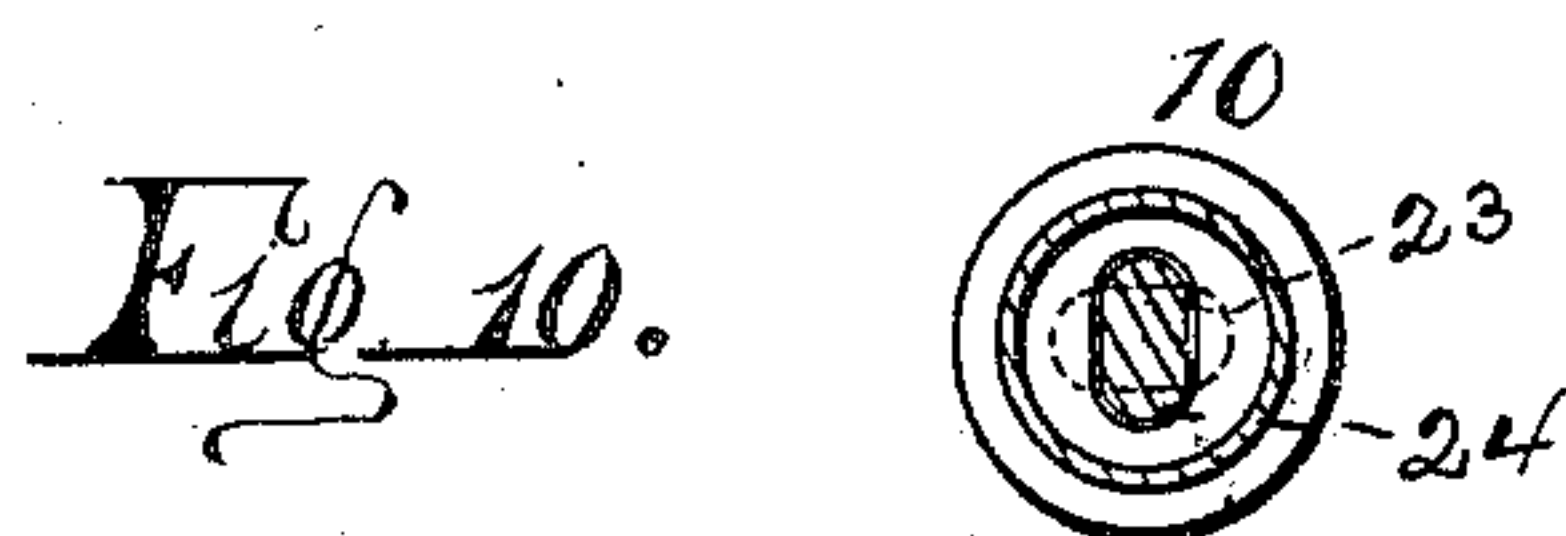
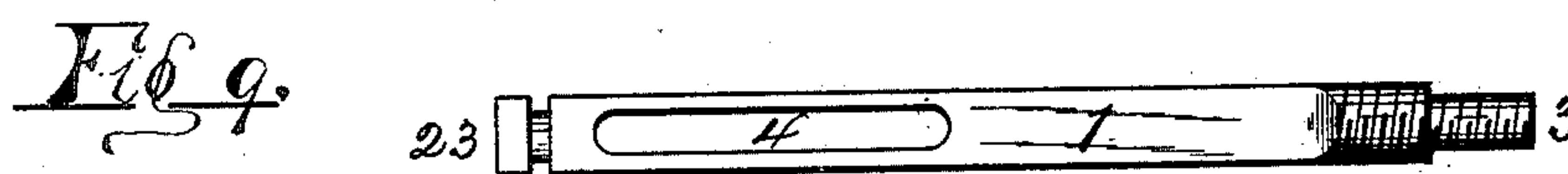
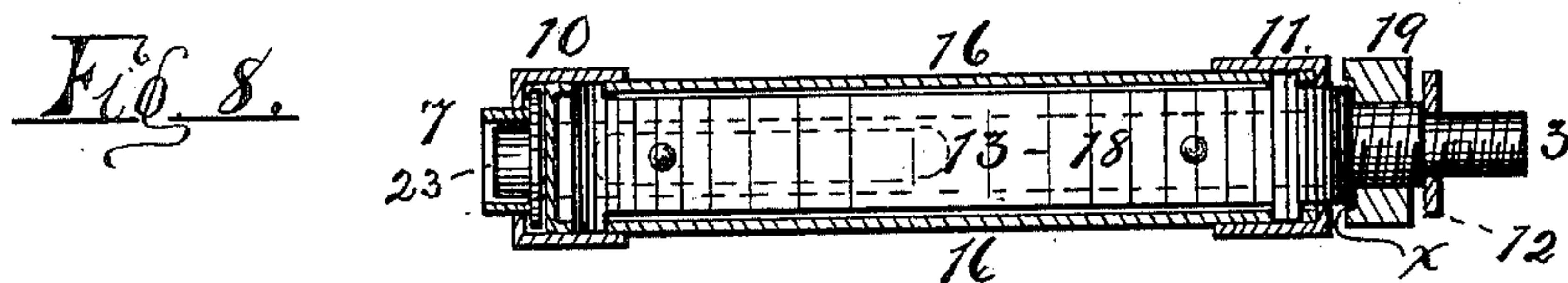
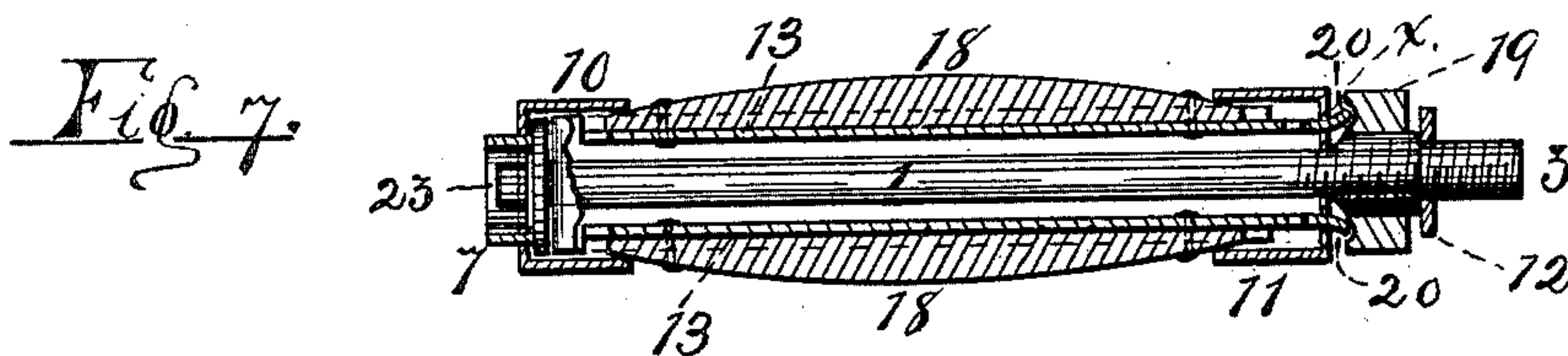
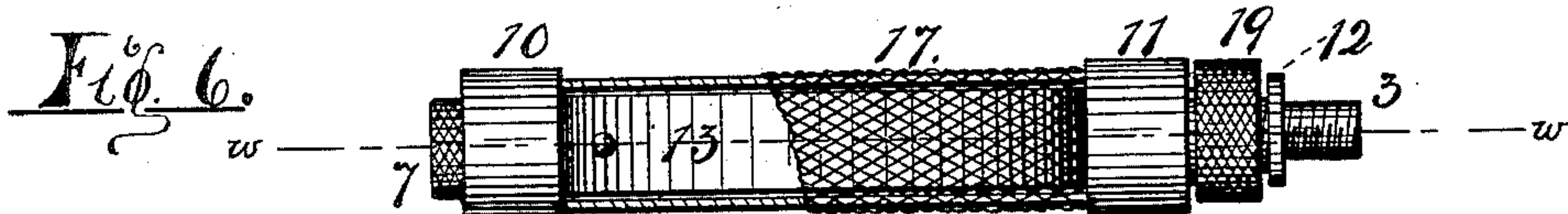
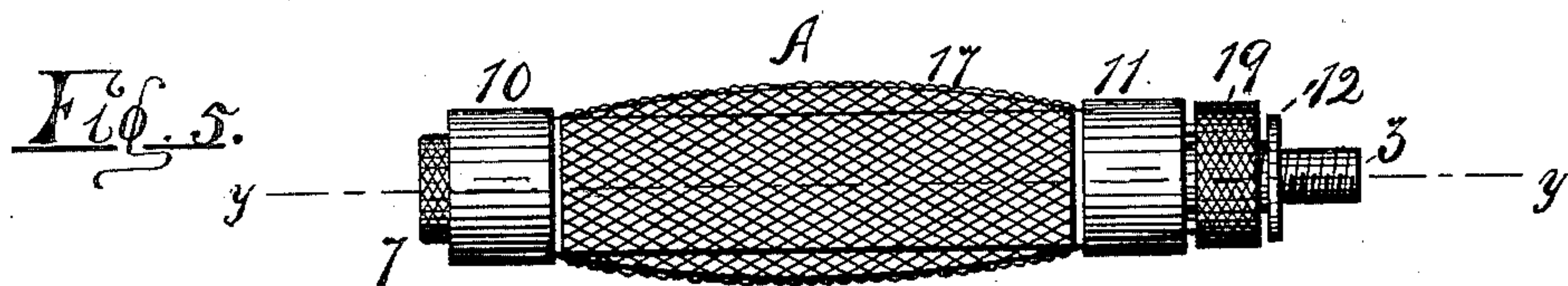
2 Sheets--Sheet 2.

C. TOMLINSON.

GUN CLEANER.

No. 399,452.

Patented Mar. 12, 1889.



Witnesses.

Howard P. Denison.

W. J. Ford

Charles Tomlinson
Inventor.

By his Attorneys
Smith & Denison.

UNITED STATES PATENT OFFICE.

CHARLES TOMLINSON, OF SYRACUSE, NEW YORK, ASSIGNOR TO HARVEY
McMURCHEY, OF SAME PLACE.

GUN-CLEANER.

SPECIFICATION forming part of Letters Patent No. 399,452, dated March 12, 1889.

Application filed December 20, 1888. Serial No. 294,162. (No model.)

To all whom it may concern:

Be it known that I, CHARLES TOMLINSON, of Syracuse, county of Onondaga, in the State of New York, a citizen of the United States, have invented certain new and useful Improvements in Gun Cleaners, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation thereof. Fig. 2 is a sectional elevation on $x x$. Fig. 3 is a like view on a line at a right angle to $x x$. Fig. 4 comprises sections and elevations of parts detached. Fig. 5 is a side elevation of a varied construction. Fig. 6 is a sectional elevation of the same, showing another side. Fig. 7 is a sectional elevation on line $y y$. Fig. 8 is a like view on line $w w$. Fig. 9 is a plan view of the body. Fig. 10 is a sectional elevation of the outer end. Fig. 11 is a plan view of the inner face of the tension-nut marked 19.

My invention relates to devices for cleaning guns and fire-arms when connected to a rod.

My object is to produce a cleaner which will clean and polish the barrel, and is also adapted to remove any accumulation of lead, which frequently and quite generally collects in the "choked" portion of a shotgun-barrel, and to remove it without scratching, marring, or damaging the interior of the barrel.

It consists in the several novel features of construction hereinafter described, and which are set forth in the claims hereto annexed.

It is constructed as follows: A is the cleaner, in which 1 is the body, consisting of a rod having threaded studs 2 3 upon its ends and provided with a longitudinal slot, 4.

5 is a metallic disk provided with slots 6 opposite each other, and with central openings adapting it to slide freely upon the stud 2.

7 is a nut screwed onto the stud 2, and provided with a flange, 8, upon its inner end.

9 is a coiled spring slipped onto the stud 2 between the nut 7 and disk 5.

10 is a cap fitting over the flange of the nut 7 by means of an inward rim on its outer end, and inclosing the spring 9 and disk 5, said rim fitting loosely over the stud 2, so that the nut can be screwed up without any difficulty.

11 is a like cap provided with an inward rim, which rim fits over the body 1 and abuts against the inner face of the collar 12 upon or between the stud 3 and body 1.

13 13 are flat pieces of spring metal provided with teats 14 15, fitting as to studs and teats 14 into the slots 6 in the disk 5, and as to the teats 15 these fit under the edge of or are screwed to the cap 11. The caps 10 11 are connected by and secured to the longitudinal side bars, 16.

17 is a piece of wire woven cloth of any material harder than lead, but softer than the iron of a gun-barrel, and is of tubular or cylindrical form.

18 is a piece of leather, felt, or other material, secured upon the outer surface of the spring 13, and adapted to be used as a polisher or scrubber. The springs 13 stand out in a bowed or bent form upon two sides of the cleaner, so as to project all of the time to a certain extent—usually in a shotgun-cleaner about far enough to make it fit closely in the gun-barrel. If it does not fit tightly enough, I screw up the nut 7, thereby compressing the spring 9, which crowds the disk 5 inward, and this causes the springs 13 to bow outwardly more than before, and so fit tighter in the barrel.

When I wish to remove the lead which usually accumulates in the choked portion of a "choke-bored" shotgun, I pull the sleeve or tube of wire-cloth on over the springs 13, and their outward spring will tensionally hold the wire-cloth and centrally expand it into somewhat of an ovoid form. Then when the cleaner is drawn back and forth in the gun-barrel with a straight draw or twisting motion, the rough surface of the wire-cloth will quickly cut away and remove the lead, acting somewhat like a file.

When the cleaner, either with or without the wire-cloth sleeve, reaches the contracted or choked portion of the barrel, such decrease in the diameter operates to compress the springs 13, which operate to push the disk 5 outward and compress the spring 9, which spring 9 reacts as soon as the cleaner leaves the contracted part of the barrel and throws the springs 13 outward again. This elasticity

in the gun-cleaner permits and forces it at all times to fit the barrel without binding. The projecting end of the stud 3 screws into the end of the cleaning-rod; also, when I unscrew the nut 7 entirely, all of the parts will slide off from the body 1, and I can insert a cloth into the slot 4 and use it then as a swab or rag cleaner. These parts, when so removed, are all held together between and within the end caps, ready to be put on again and screwed up.

Upon the second sheet of the drawings I show another mechanism for expanding the springs 13, consisting of the following features of variance in construction: I leave out the disk 5 and spring 9. I extend the ends of the springs 13 through the cap 11, as at α , Fig. 7, forming a lip, 20, upon the ends, if desired. I place a nut, 19, upon the body 1 between the collar 12 and the plain portion of the body, either providing it with a concavity, 22, in its inner face, when I form lips 20 on the springs to receive such lip ends, or leaving this inner face plain where the spring ends are plain; also, upon the outer end of the body I form a head, 23, which, when inserted through the elongated hole 24 in the cap 10 and twisted, as shown by the dotted lines in Fig. 10, locks the frame upon the body.

I expand the springs 13 by screwing up the nut 19. I can also bend the springs 13 before they are inserted, secure one or both ends to the cap or caps, or leave both ends free, adapting the ends of the springs to slide under one or both caps when they are compressed.

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

1. In a gun-cleaner, a wire-cloth tube, in combination with expansible springs mounted in a frame-work, and means for expanding or contracting the springs, substantially as described.

2. A gun-cleaner consisting of spring side pieces mounted in a frame, the frame mounted upon the body of the cleaner, a take-up spring within the frame, and a tension-nut, in combination, substantially as described.

3. A gun-cleaner consisting of spring side pieces mounted in a frame, the frame mounted upon the body of the cleaner, and a tension-nut, in combination with a wire-cloth tube drawn longitudinally over the spring side pieces.

4. In a gun-cleaner, a wire-cloth tube fitting over and in combination with an elastically compressible and expansible body, substantially as described.

5. In a gun-cleaner, a wire-cloth tube fitting over and in combination with an elastically compressible and expansible body, and means for regulating the expansion and compression, substantially as described.

In witness whereof I have hereunto set my hand this 1st day of December, 1888.

CHARLES TOMLINSON.

In presence of—

HOWARD P. DENISON,
FRANK D. EMERY.