

No. 630,758.

Patented Aug. 8, 1899.

W. J. TURNBULL.  
FIREARM.

(Application filed June 30, 1898.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

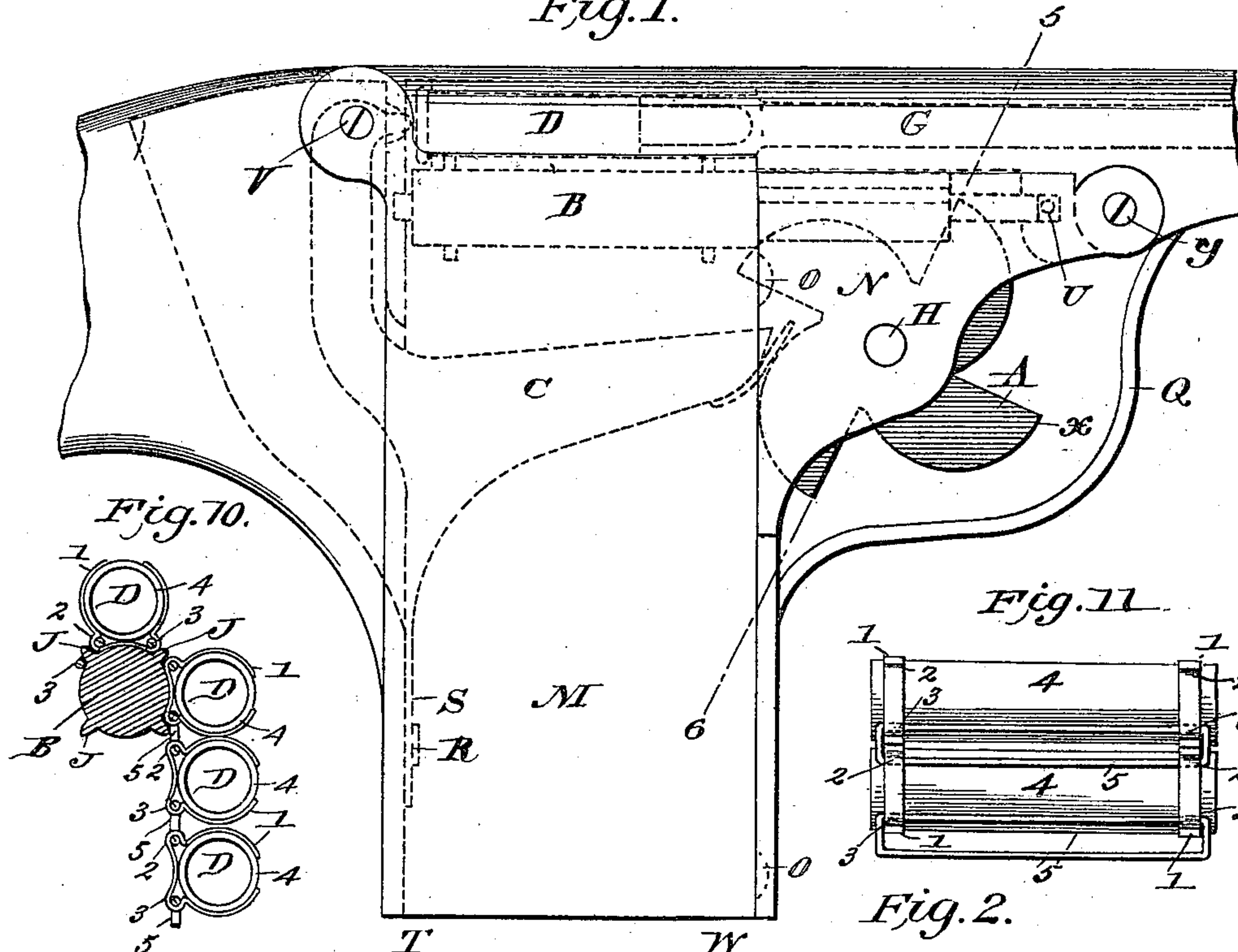


Fig. 10.

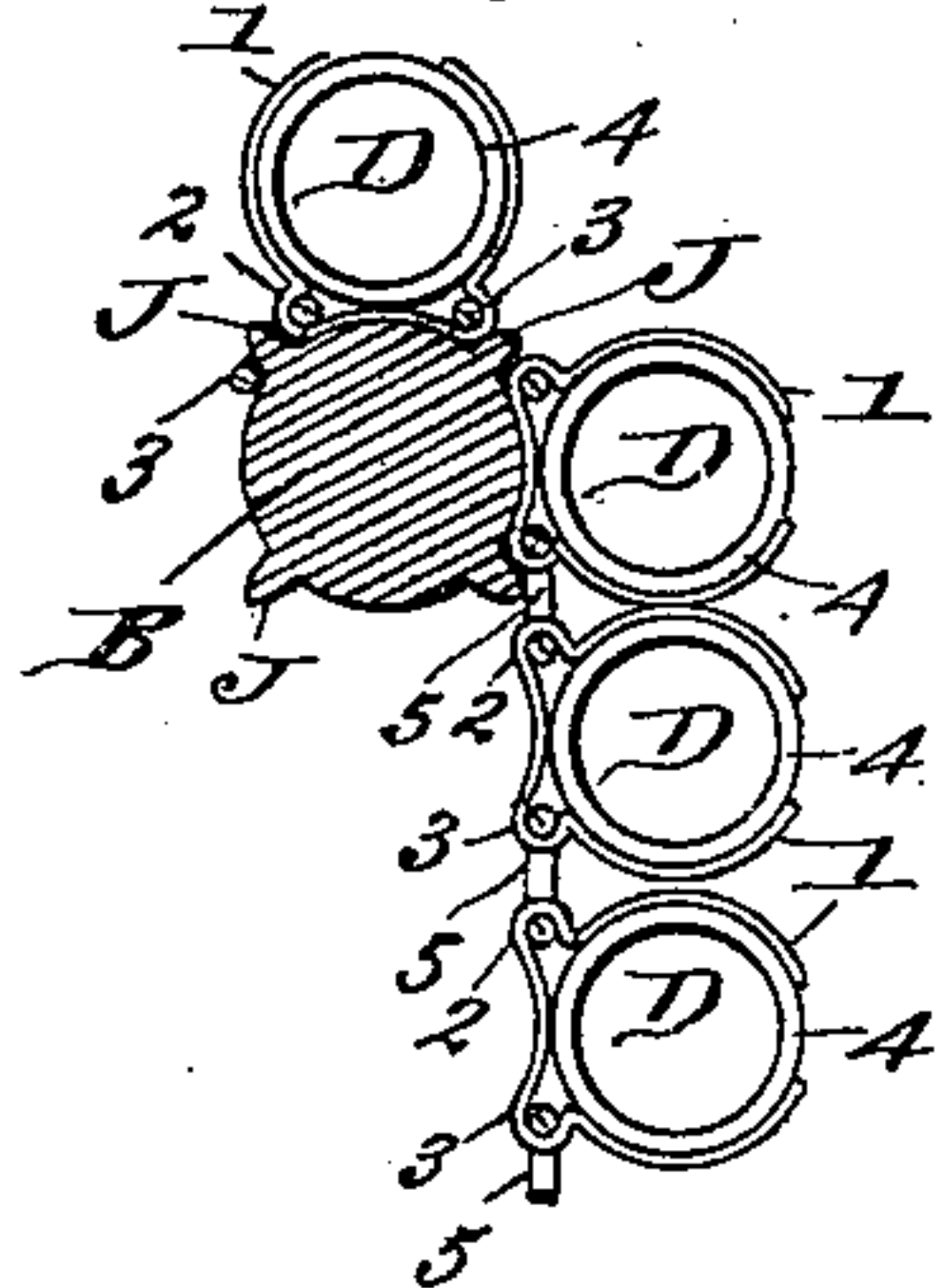


Fig. 11.

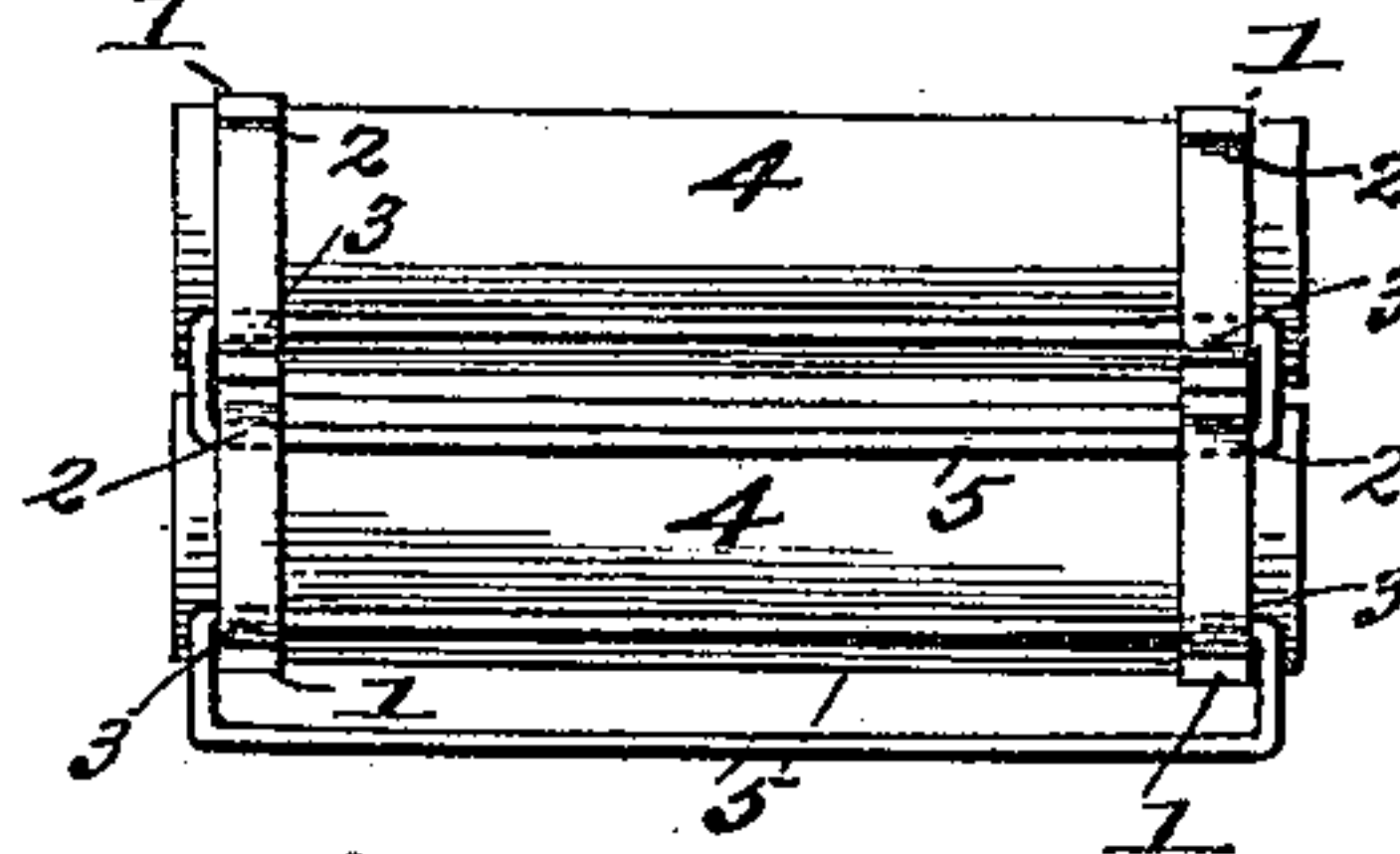


Fig. 2.

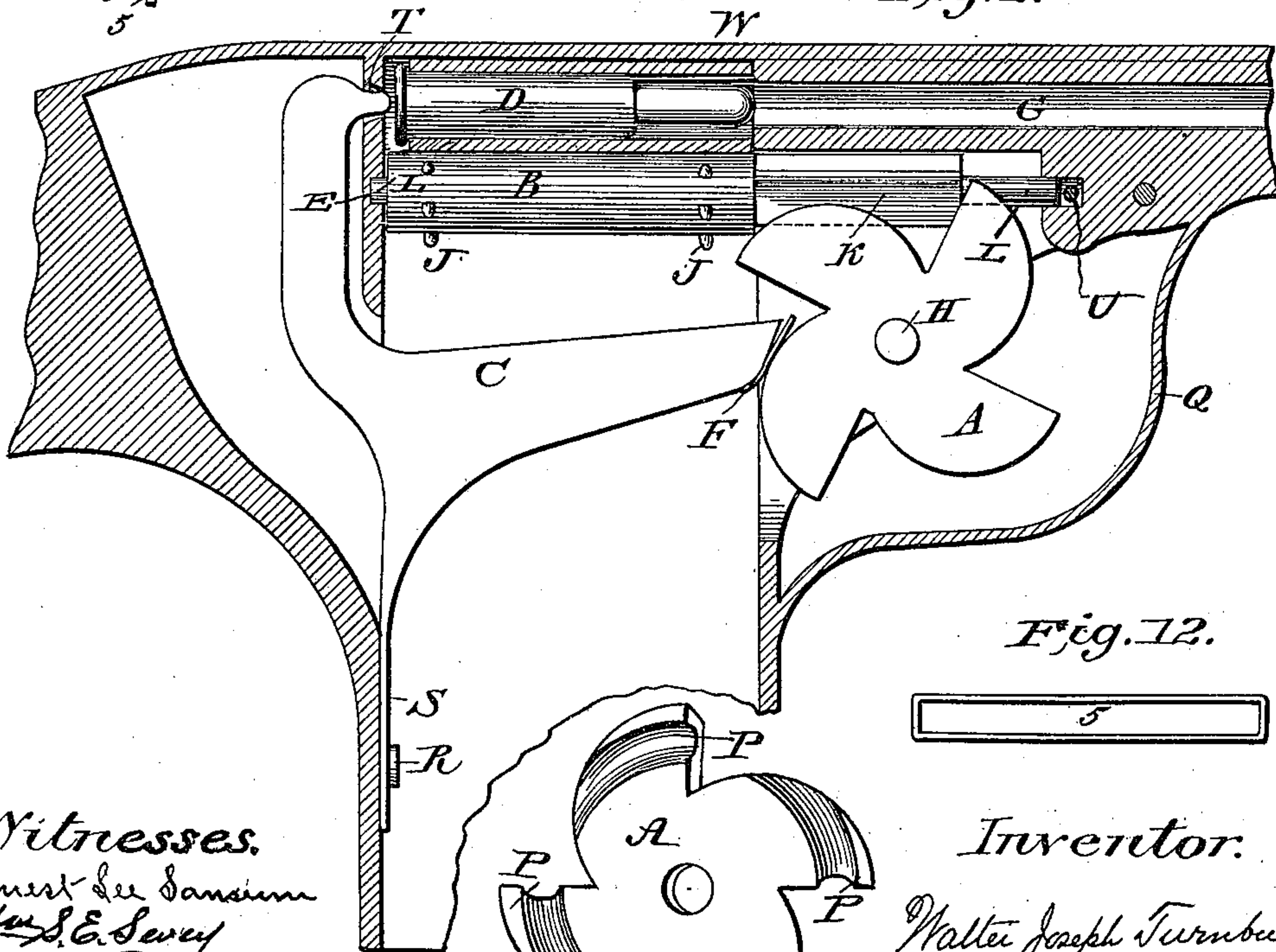
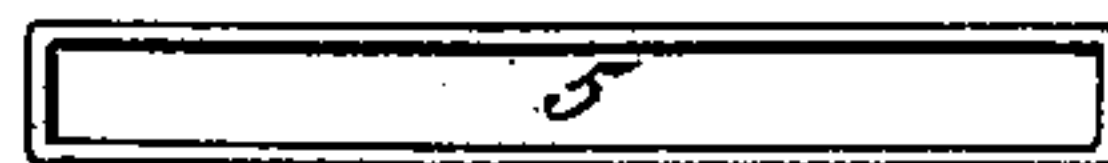
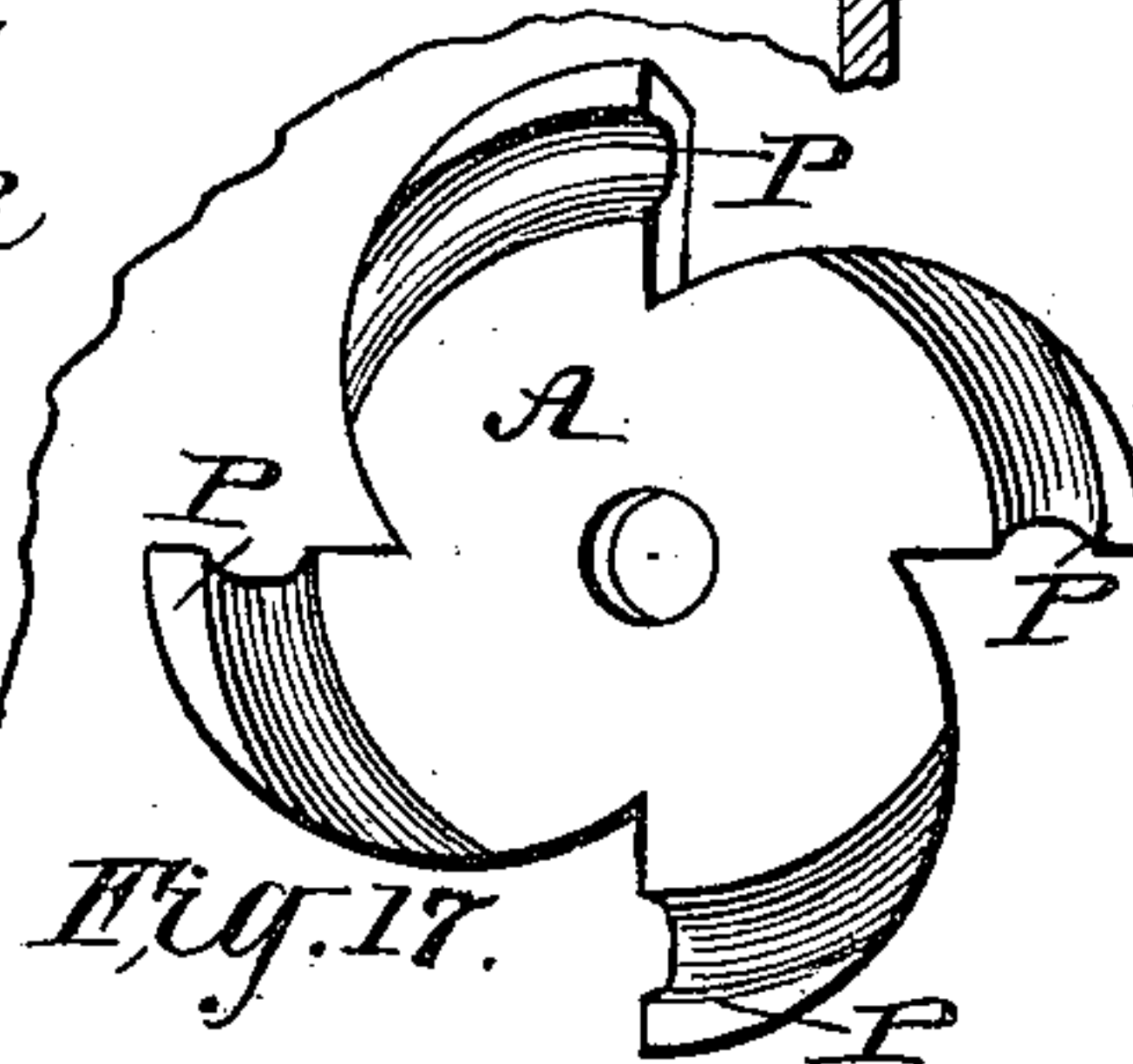


Fig. 12.



Witnesses.  
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Fig. 17.



Inventor.

Walter Joseph Turnbull



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2 Sheets—Sheet 2.

Fig. 3.

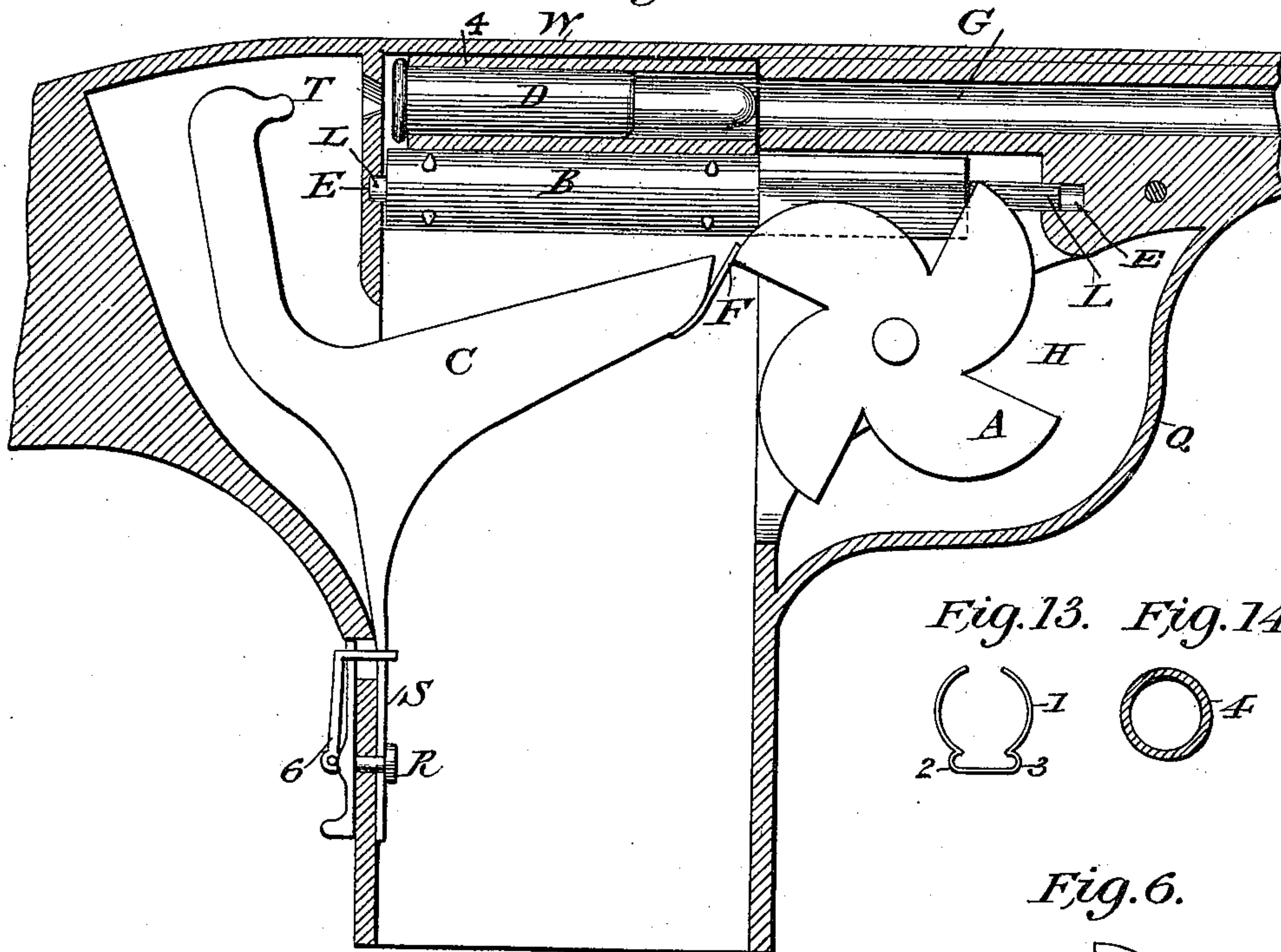


Fig. 13. Fig. 14.

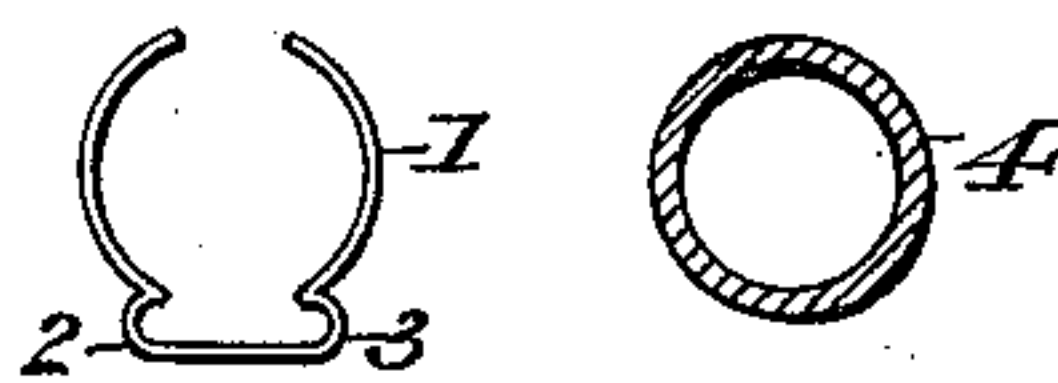


Fig. 6.

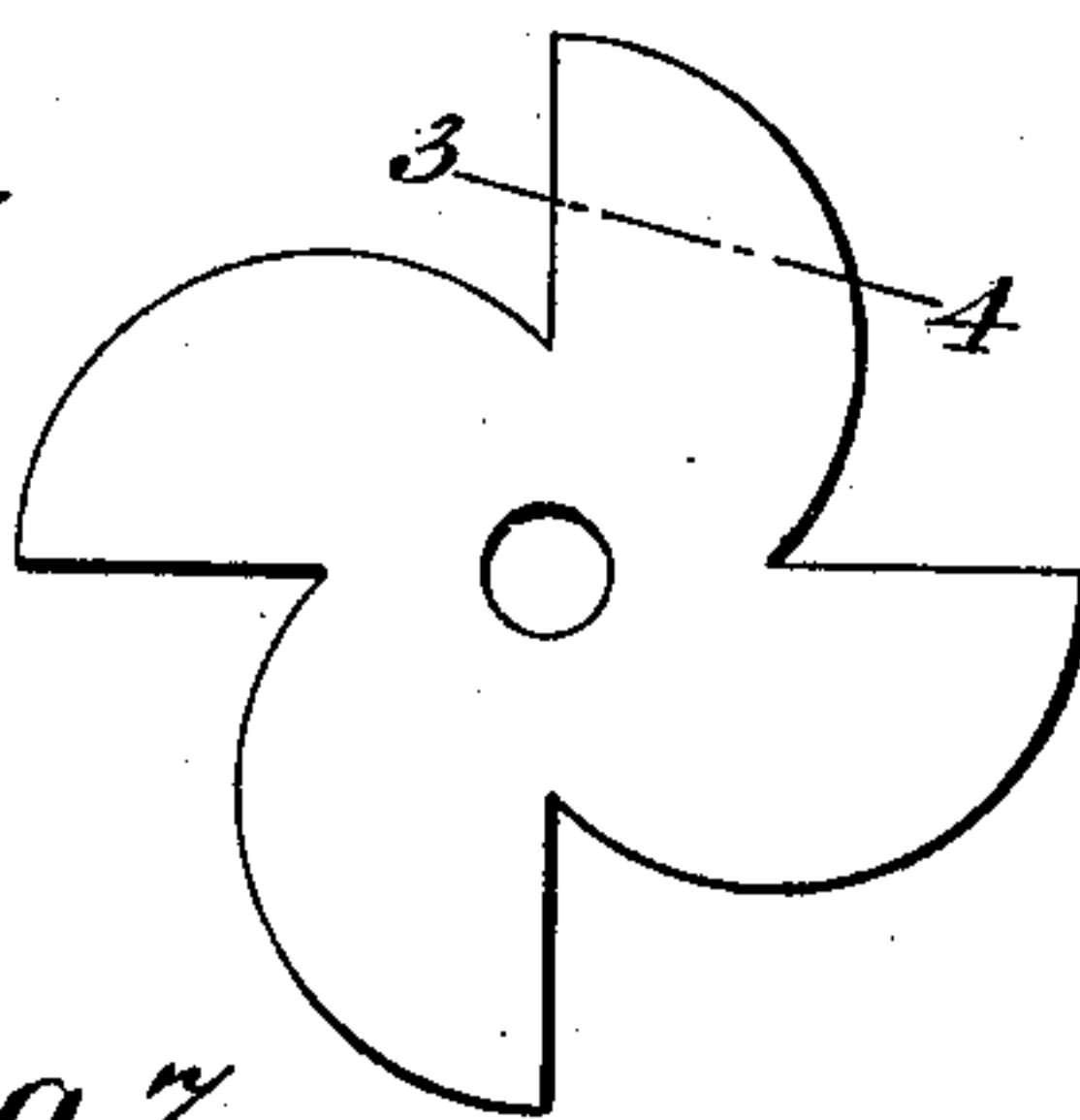


Fig. 4.

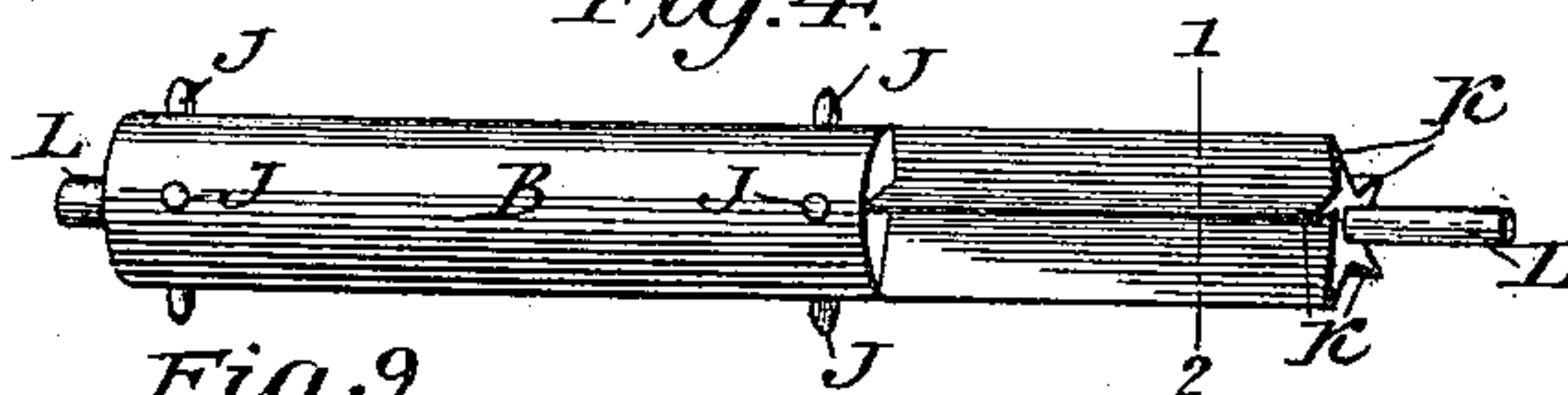


Fig. 9.

Fig. 5.



Fig. 7.

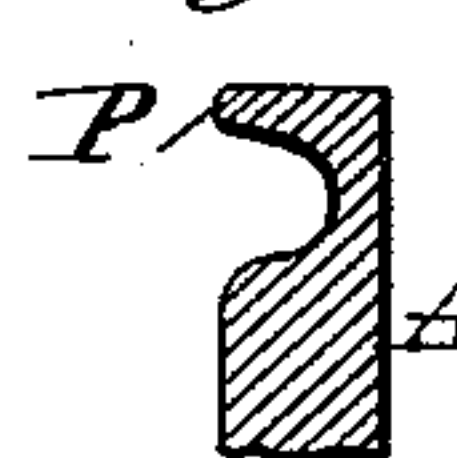
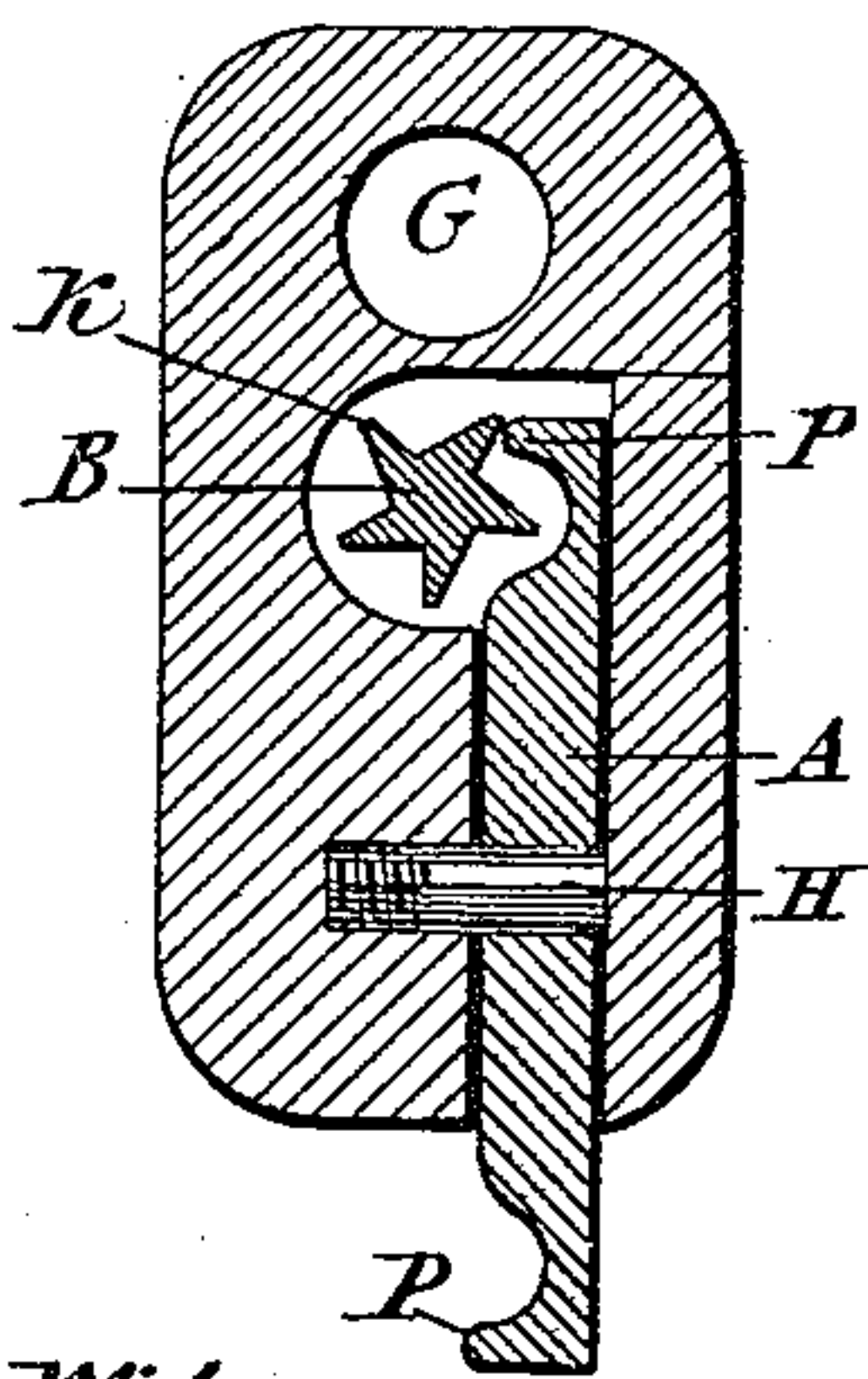
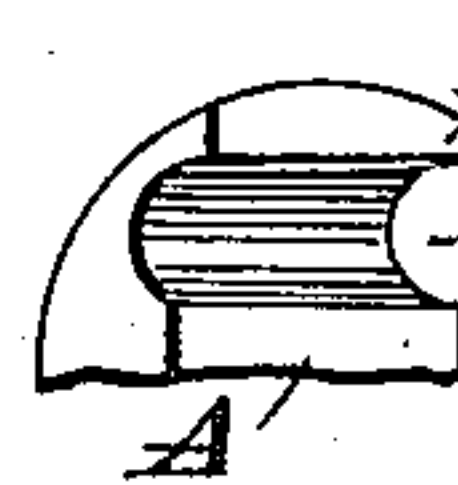


Fig. 8.



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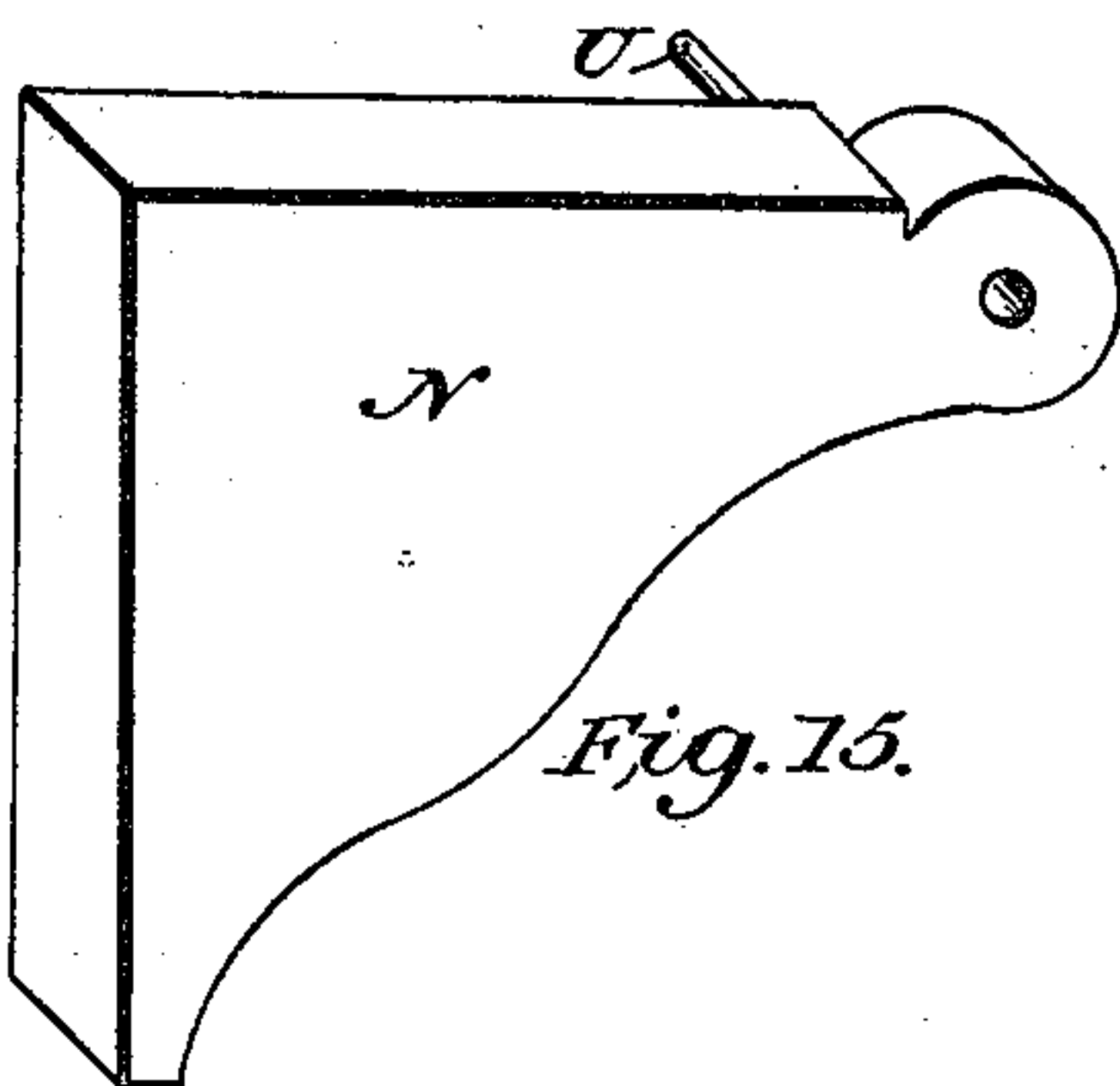
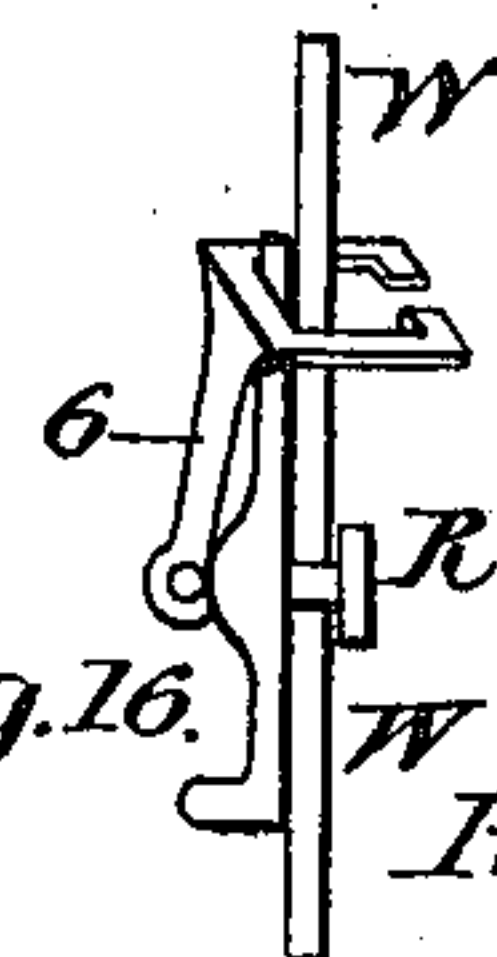


Fig. 16.



Inventor.

Walter Joseph Turnbull



# UNITED STATES PATENT OFFICE.

WALTER JOSEPH TURNBULL, OF NEW ORLEANS, LOUISIANA, ASSIGNOR OF  
ONE-HALF TO WILLIAM S. E. SEVEY, OF SAME PLACE.

## FIREARM.

SPECIFICATION forming part of Letters Patent No. 630,758, dated August 8, 1899.

Application filed June 30, 1898. Serial No. 684,891. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER JOSEPH TURNBULL, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented new and useful Improvements in Firearms, of which the following is a full, clear, and exact specification.

My invention relates particularly to improvements in that class of firearms with which a magazine or cartridge-belt is employed; and it has for its object such improvements as will enable the cartridges to be fed in an accurate and expeditious manner by the same device which operates the hammer.

The invention consists principally in a firearm in which is mounted a wheel formed with cam-teeth engaging with and operating the hammer, the inner faces of the teeth being grooved so as to form shoulders to engage with wings formed on the cartridge-carrier and by turning the latter to bring a fresh cartridge in registry with the barrel and hammer every time the hammer is actuated or the trigger is pulled.

The invention also consists in certain combinations and arrangements of the parts, which I shall first describe and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which like characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of so much of my improved firearm as is necessary to illustrate the novel features of my invention, the barrel and stock being broken away. Fig. 2 is a longitudinal vertical section of the same with parts in elevation. Fig. 3 is a view similar to Fig. 2, but showing the hammer about to be tripped, so as to fire the cartridge. Fig. 4 is a detail perspective view illustrating the carrier which operates or moves the cartridge-belt and which advances the cartridges one by one. Fig. 5 is a section on the line 1 2, Fig. 4, and looking toward the right of said figure. Fig. 6 is a detail face view of the wheel for tripping the hammer. Figs. 7 and 8 are fragmentary views of that portion of the wheel above the line 3 4, Fig. 6, being respec-

tively views of such portion. Fig. 9 is a transverse section taken on the line 5 6 of Fig. 1 and looking toward the right of such figure. Fig. 10 is a detail sectional view through the carrier or feeding roller and a portion of the cartridge-belt in place on said roller. Fig. 11 is a rear face view of a portion of the cartridge-belt. Fig. 12 is a view of a link. Fig. 13 is an edge view of the clamp shown in Fig. 11. Fig. 14 is a section of a cylinder which I employ to receive and hold a cartridge. Fig. 15 is a perspective view of the side plate N. Fig. 16 is a detail view of a safety lock or lever; and Fig. 17 is a detail face view of the wheel for tripping the hammer, showing the opposite face from that shown in Fig. 6.

My improved firearm is provided with the usual stock, (not shown,) barrel G, and trigger-guard Q.

Referring especially to Figs. 2 and 3, it will be seen I employ a hammer T, which is formed with a (preferably integral) forwardly-extending heel C and a spring-leg S, secured by a bolt R in the casing, as shown. With the hammer is arranged a safety-lever consisting of the finger 6<sup>a</sup> and the bifurcated arm 6, mounted on the bolt R, on which the spring-leg S is also mounted. Now when the finger 6<sup>a</sup> is moved it will force the arm 6 to the left, the jaws of the latter pulling the spring-leg S to the left, and thereby holding the hammer from the cartridge.

In order to push back and trip the hammer T, a wheel A, having cam-shaped teeth  $\alpha$ , is mounted on a spindle H, secured in the casing. When the wheel A is in place, the plate N is held by a screw  $\gamma$  at its upper and forward end. Now it will be seen that when the wheel A is turned the cam-teeth thereof will successively engage with a spring F, secured to the end of the heel C of the hammer, and retract the same, the hammer being tripped and sprung against the cartridge to fire the latter as soon as a tooth passes by and releases the spring F.

The cartridges are strung together to form a belt by means of spring-clamps 1, Fig. 13, having a split whereby to receive a cartridge and cartridge-cylinder and recesses 2 and 3 to receive connecting-links 5. In operation the



desired number of clamps are connected together by the links. Cartridge-cylinders are then placed in the clamps, and the cartridges D are placed in the cartridge-cylinders.

5 I shall now describe the means for successively feeding the cartridges into firing position.

A carrier or feeding-roller B, Fig. 4, has journal ends L, by which it is held to rotate 10 in recesses E in the casing, being held therein by a pin U, projecting from the inner side of the side plate N. This feeding-roller consists of a cylindrical portion, on whose surface are arranged pins or projections J, and longitudinal wings K, extending from such cylindrical portion to the forward journaled end L. 15 The belt when formed is strung over the cylindrical portion of the feeding-roller, the side plate M being removed from the casing for this purpose, and the projections J extend 20 between the clamps 1 and through the links 5. After the belt has been put in place the side plate M is returned to its place, being held by a screw V and by lugs O O at its forward edge entering recesses in the casing, as 25 shown in dotted lines in Fig. 1. The teeth of the wheel A are each provided with a groove forming a shoulder P, which latter when the wheel is turned engages with a wing K of the 30 feeding-roller, and thereby turns such roller to bring a fresh cartridge into firing position every time a tooth has tripped the hammer on a cartridge.

From the foregoing description of the construction of my improved firearm it is clear 35 that when the carrier or feeding-roller B and its belt are in place in the casing and the side plate N is also placed in position, with the spindle H inserted through the wheel A, every 40 time such wheel is turned so that a tooth X has tripped the hammer a shoulder P will push up on a wing K and turn the feeding-roller B to bring a fresh cartridge into firing position.

45 It will be observed that I have produced a firearm which is of few and simple parts and one that will operate effectively and in which the feeding of the cartridges is effected by the same device that trips the hammer, the speed 50 of firing depending entirely upon the rapidity with which the wheel A can be turned.

This firearm may be operated by hand or any suitable mechanism, may be made in any reasonable size, and the cartridges may either 55 be fed from a reel or from a permanently-attached magazine, and I do not confine myself to the exact shape of the parts shown in the accompanying drawings, as it is evident that some parts may be changed without departing 60 from the scope of my invention.

Having thus described my invention, what

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

1. A firearm provided with a spring-actuated hammer formed with a forwardly-extending heel, a spring secured to the forward end of said heel, and a wheel formed with cam-teeth successively engaging with said spring 65 when the wheel is rotated whereby to retract and trip the hammer, as set forth. 70

2. In a firearm, the combination with the casing and a hammer in said casing, of a rotatable feeding-roller on which cartridges are held and a wheel engaging said hammer to retract and trip the same and engaging said feeding-roller whereby to turn the latter to bring 75 a fresh cartridge into firing position after the hammer is tripped, as set forth.

3. In a firearm, the combination with a spring-actuated hammer, of a rotatable feeding-roller formed with means for carrying cartridges, and longitudinally-extending wings, and a wheel having cam-teeth arranged to retract and trip said hammer, each tooth being 80 formed with a shoulder engaging a wing on the roller when the hammer is tripped whereby to turn the roller and bring a fresh cartridge in firing position, as set forth. 85

4. In a firearm, the casing, the spring-actuated hammer, the feeding-roller consisting 90 of a barrel having projections whereby to hold cartridges on the roller, and longitudinally-extending wings, and a wheel having cam-teeth arranged to engage with said hammer to retract and trip the same, each tooth 95 being formed with a shoulder engaging a wing whereby to turn the roller when the hammer is tripped, as set forth.

5. In a firearm, the casing formed with interior recesses, the feeding-roller for the cartridges having journal ends loosely received 100 in said recesses, a wheel for turning said roller, and a side plate for the casing, said plate having a pin entering a recess behind a journal end when the plate is in place whereby the roller is held from removal, as set forth. 105

6. In a firearm, the combination with a casing, of a spring-actuated hammer therein, a feeding-roller for the cartridges mounted to rotate in said casing, said roller being provided with cartridge-holding devices and longitudinally-extending wings, and a wheel 110 mounted in said casing and having cam-teeth formed with shoulders, the said teeth when the wheel is turned retracting and tripping the hammer and engaging with their shoulders the wings of the roller whereby to turn the latter, as and for the purpose set forth. 115

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Witnesses:

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