

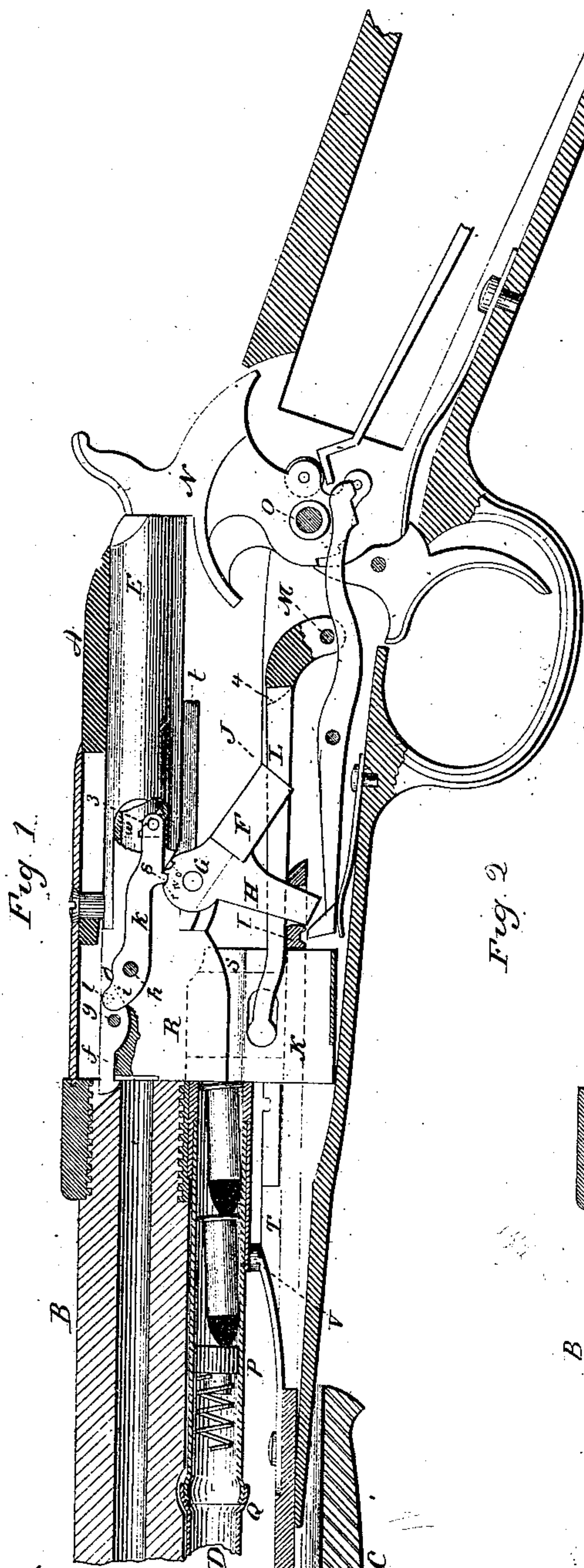
(No Model.)

4 Sheets—Sheet 1.

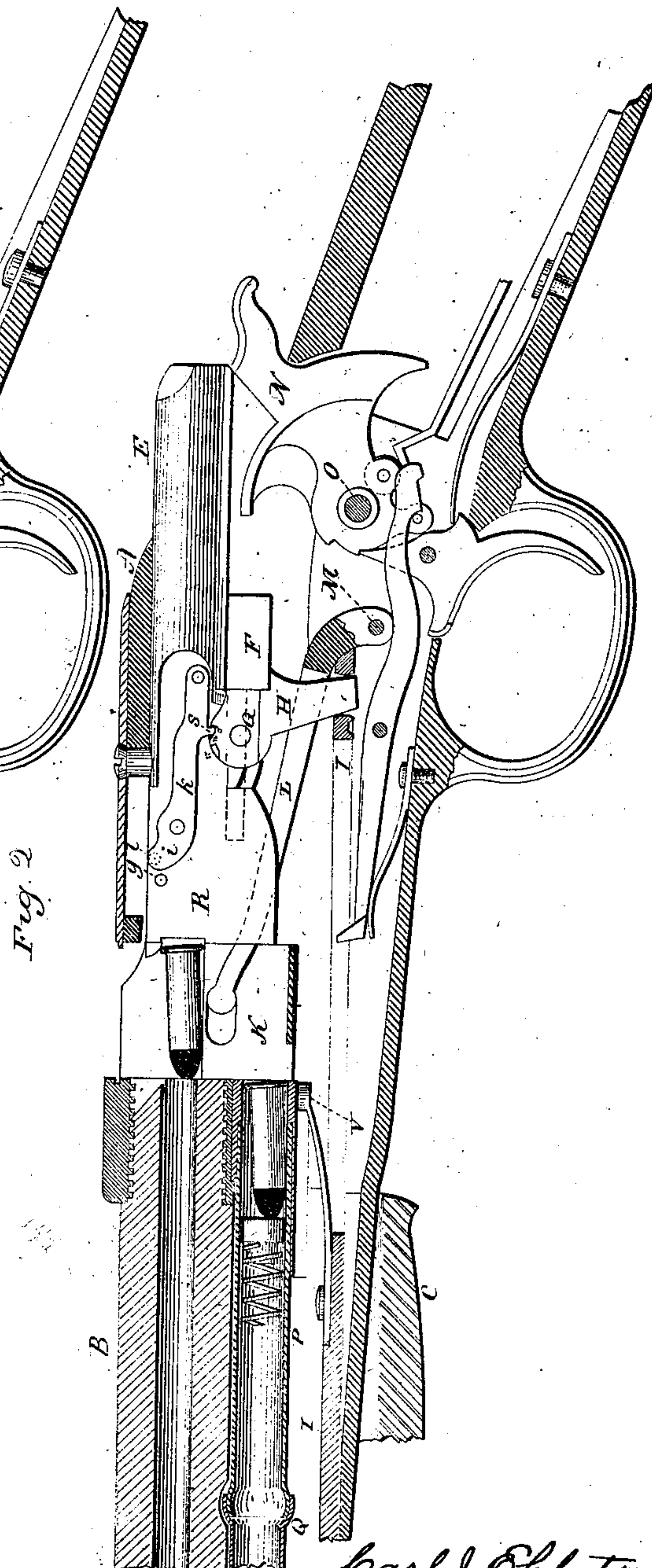
C. J. EHBETS.
MAGAZINE FIRE ARM.

No. 373,277.

Patented Nov. 15, 1887.



Witnesses.
J. H. Shumway
Fred C. Edger



Carl J. Ehbets,
Inventor.
By atty.
J. M. E. M. L.

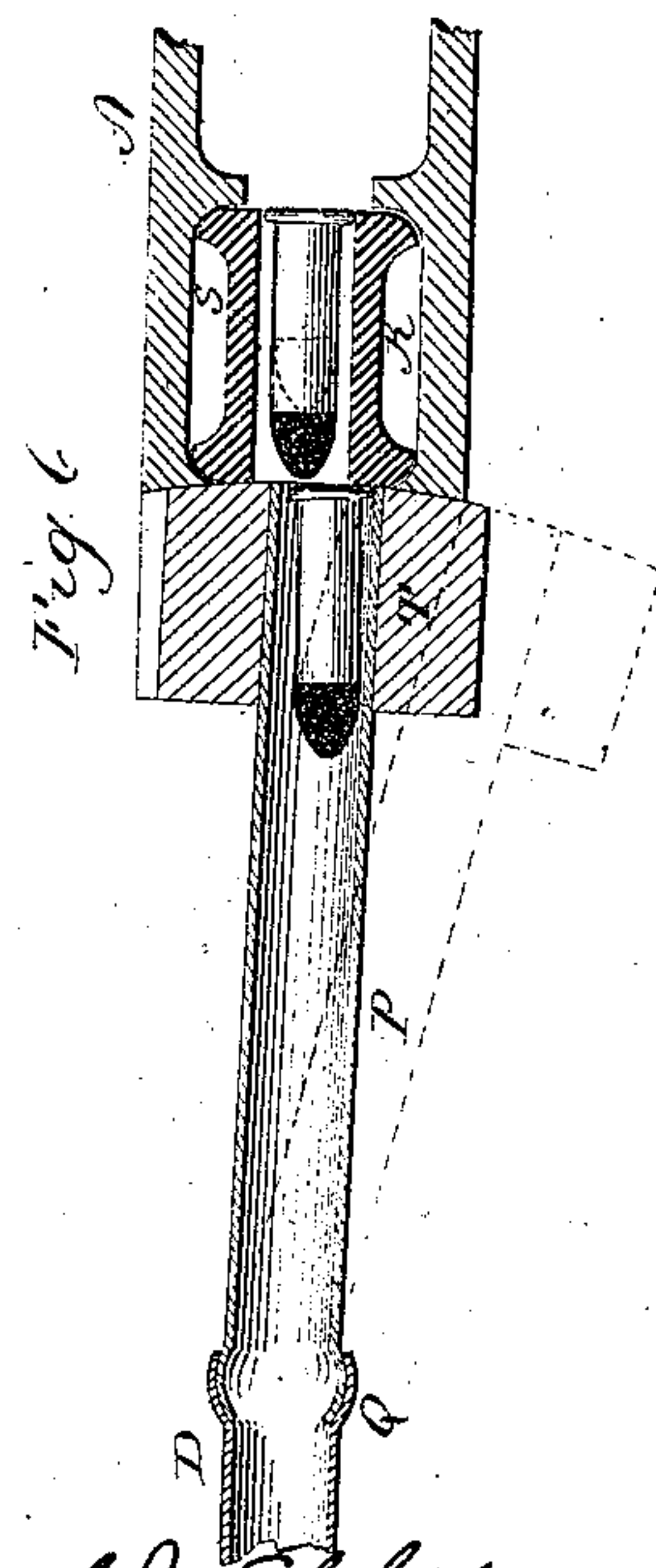
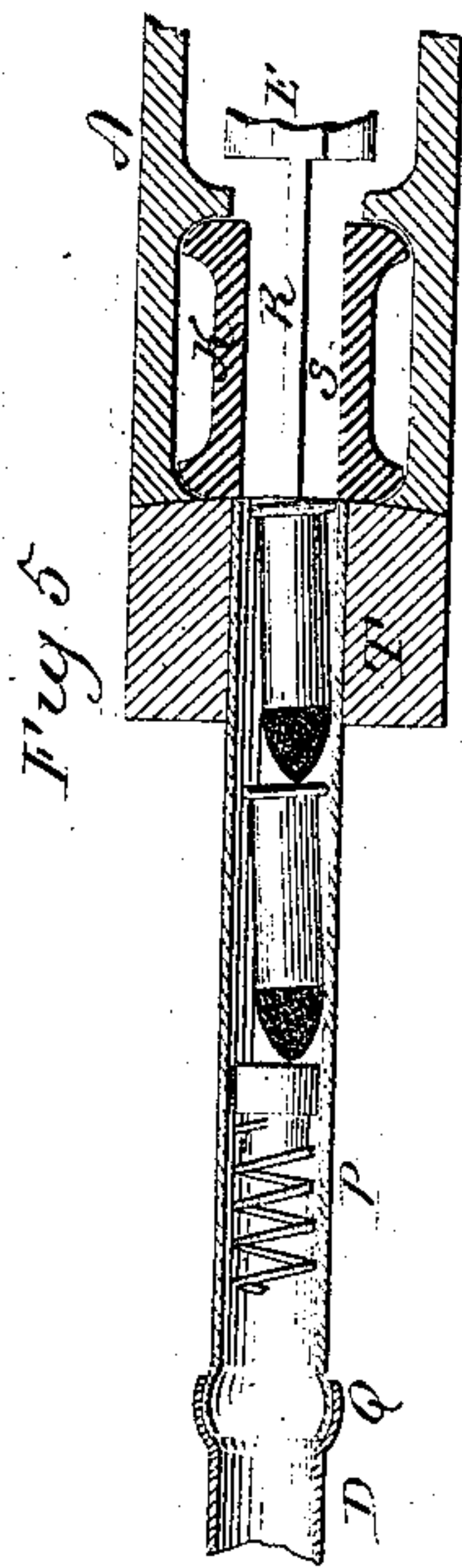
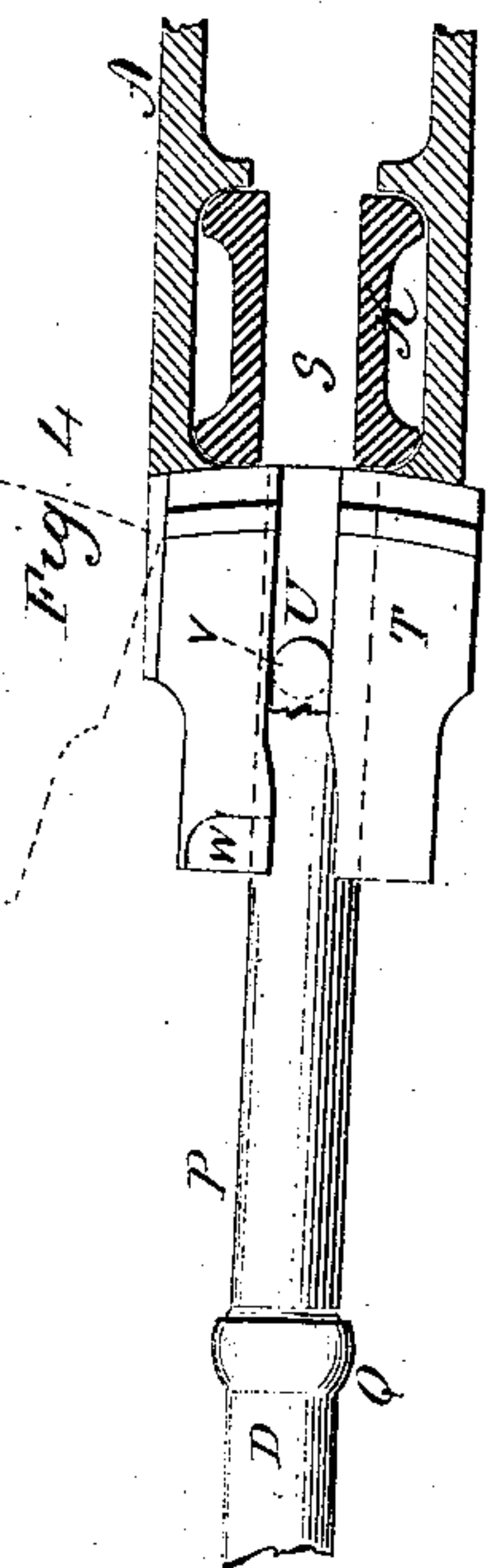
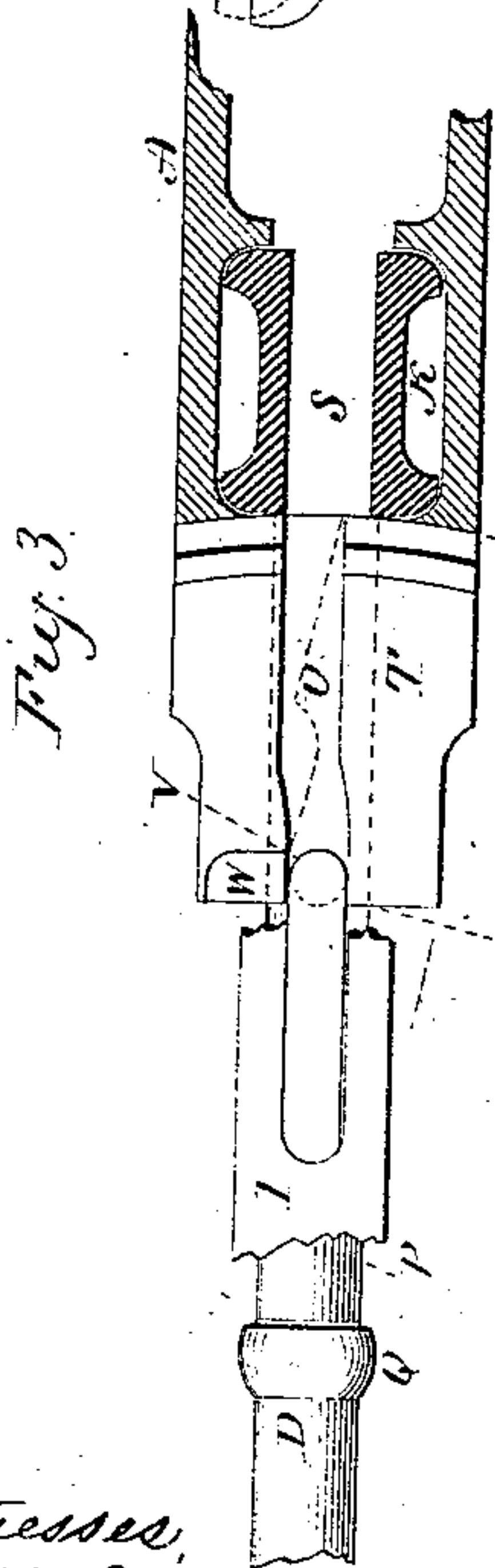
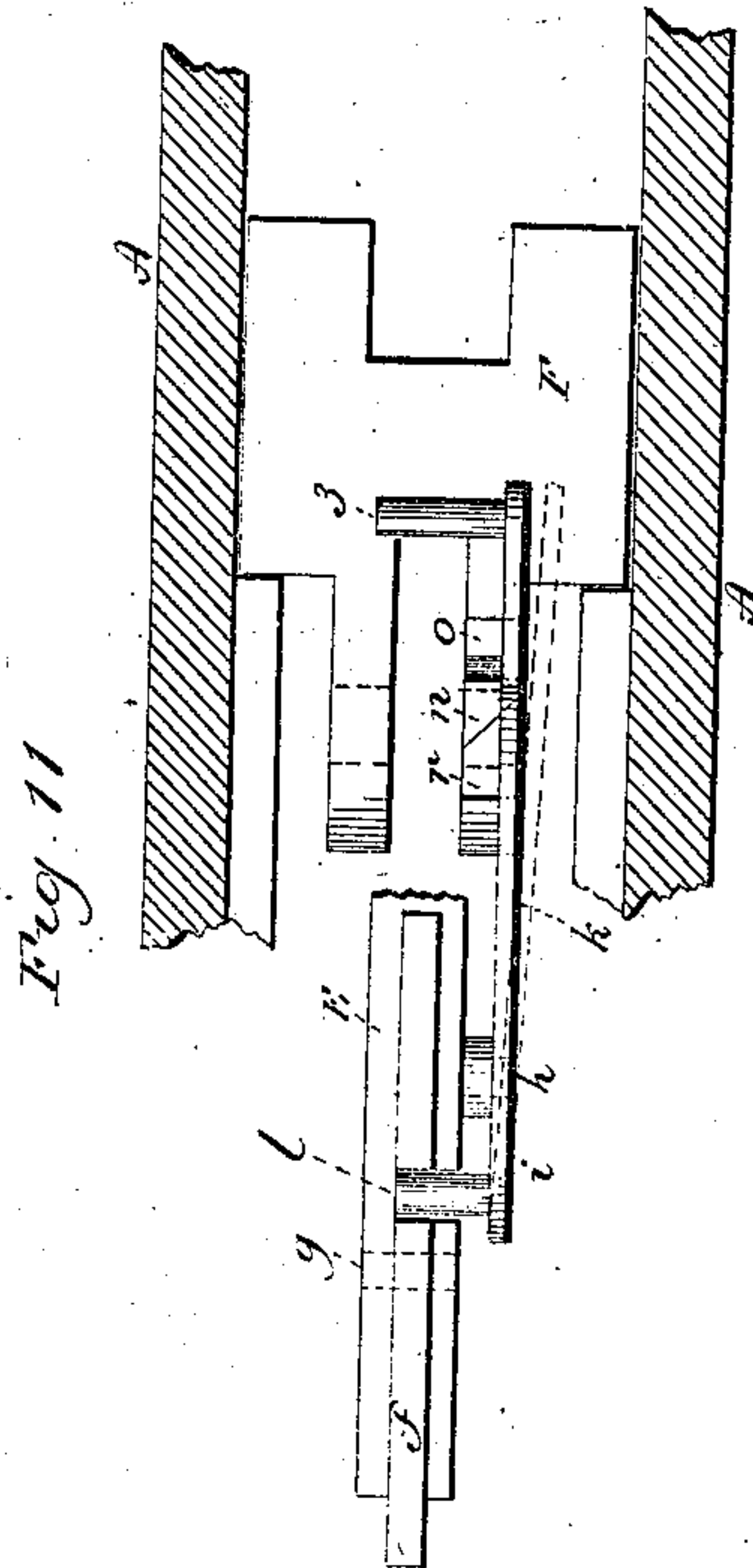
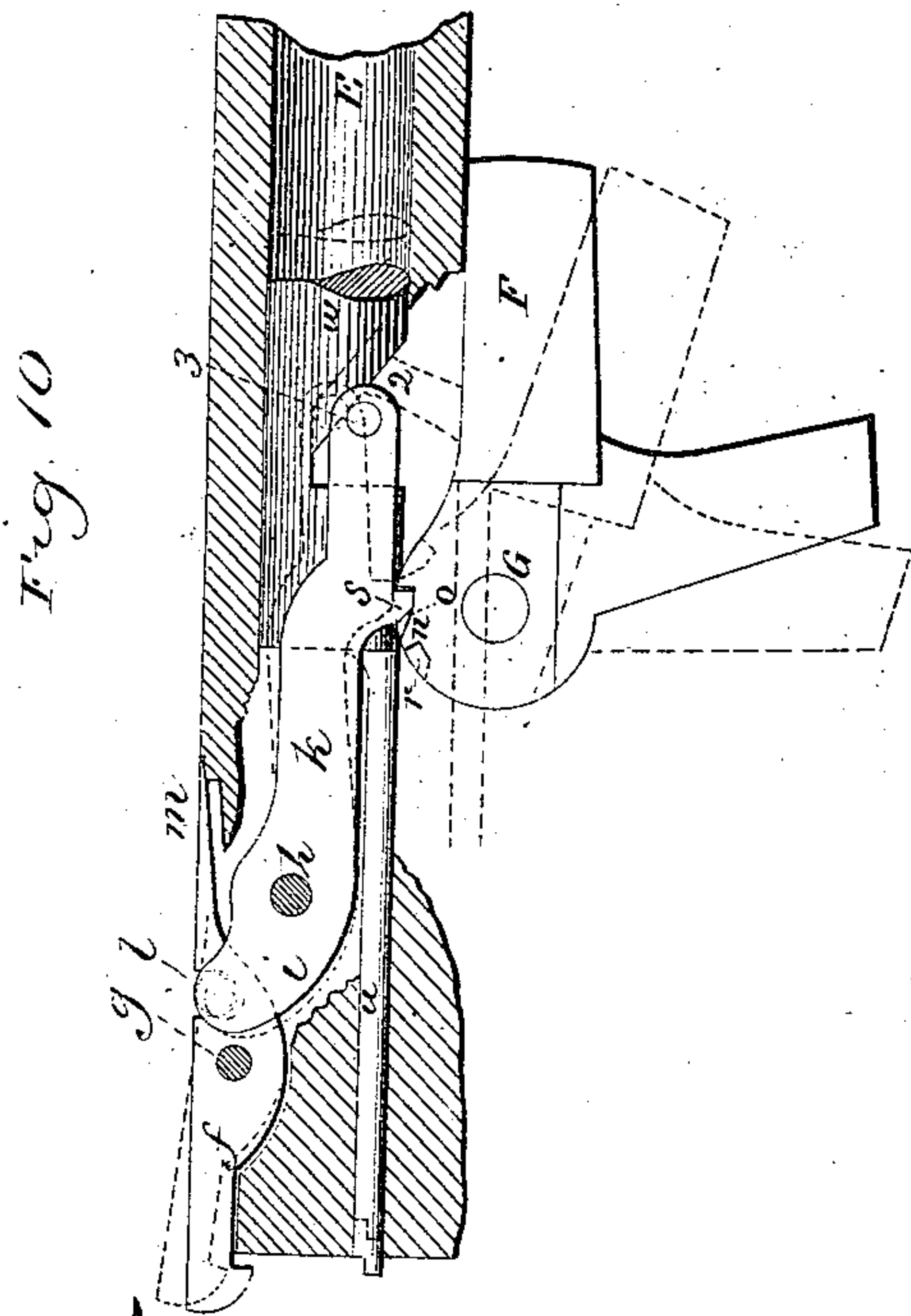
(No Model.)

4 Sheets—Sheet 2.

C. J. EHBETS.
MAGAZINE FIRE ARM.

No. 373,277.

Patented Nov. 15, 1887.



Witnesses,
J. H. Shumway
Fred C. Earle

Carl J. Chabets
By atty Inventor.
Thos. C. Smith.

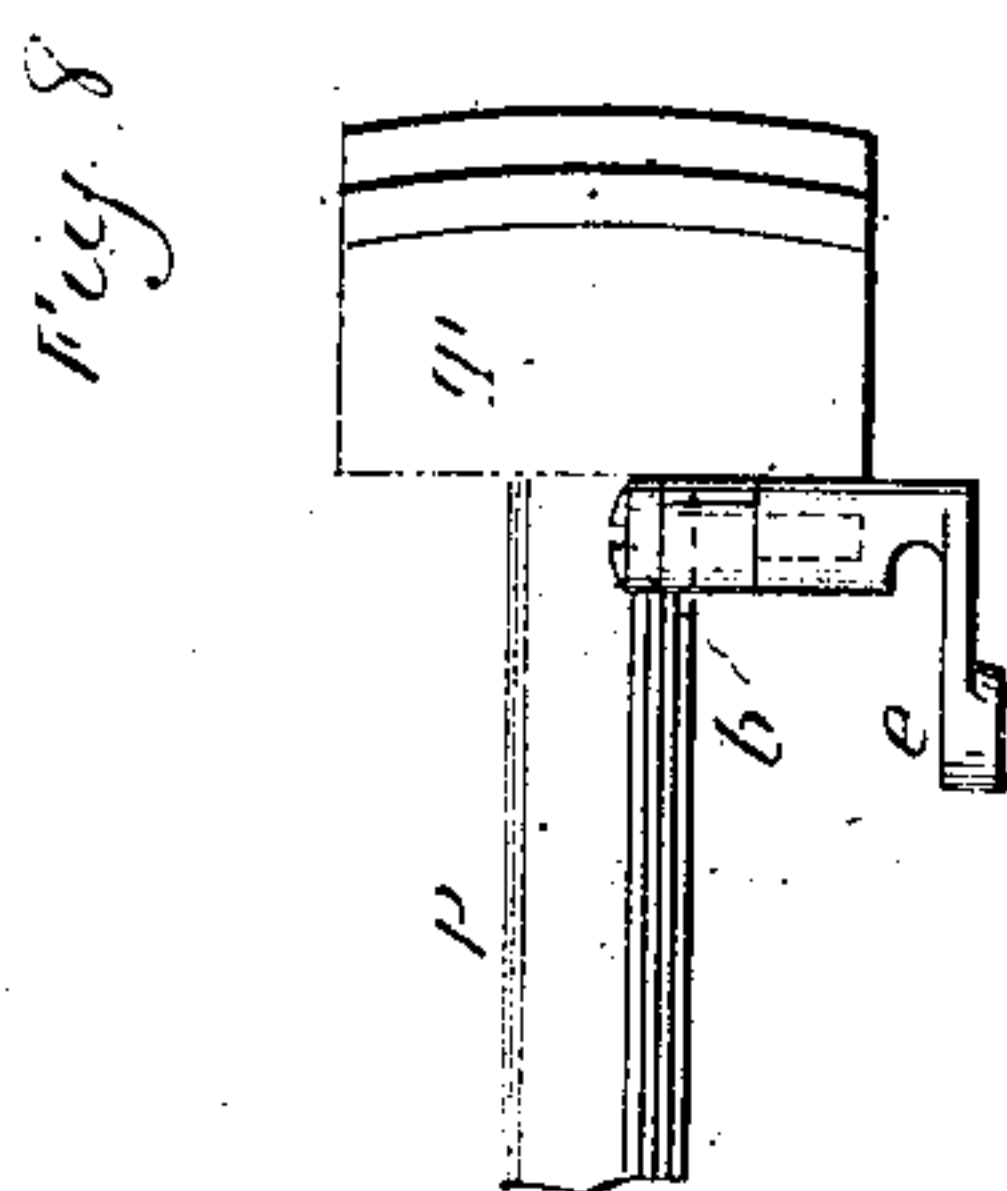
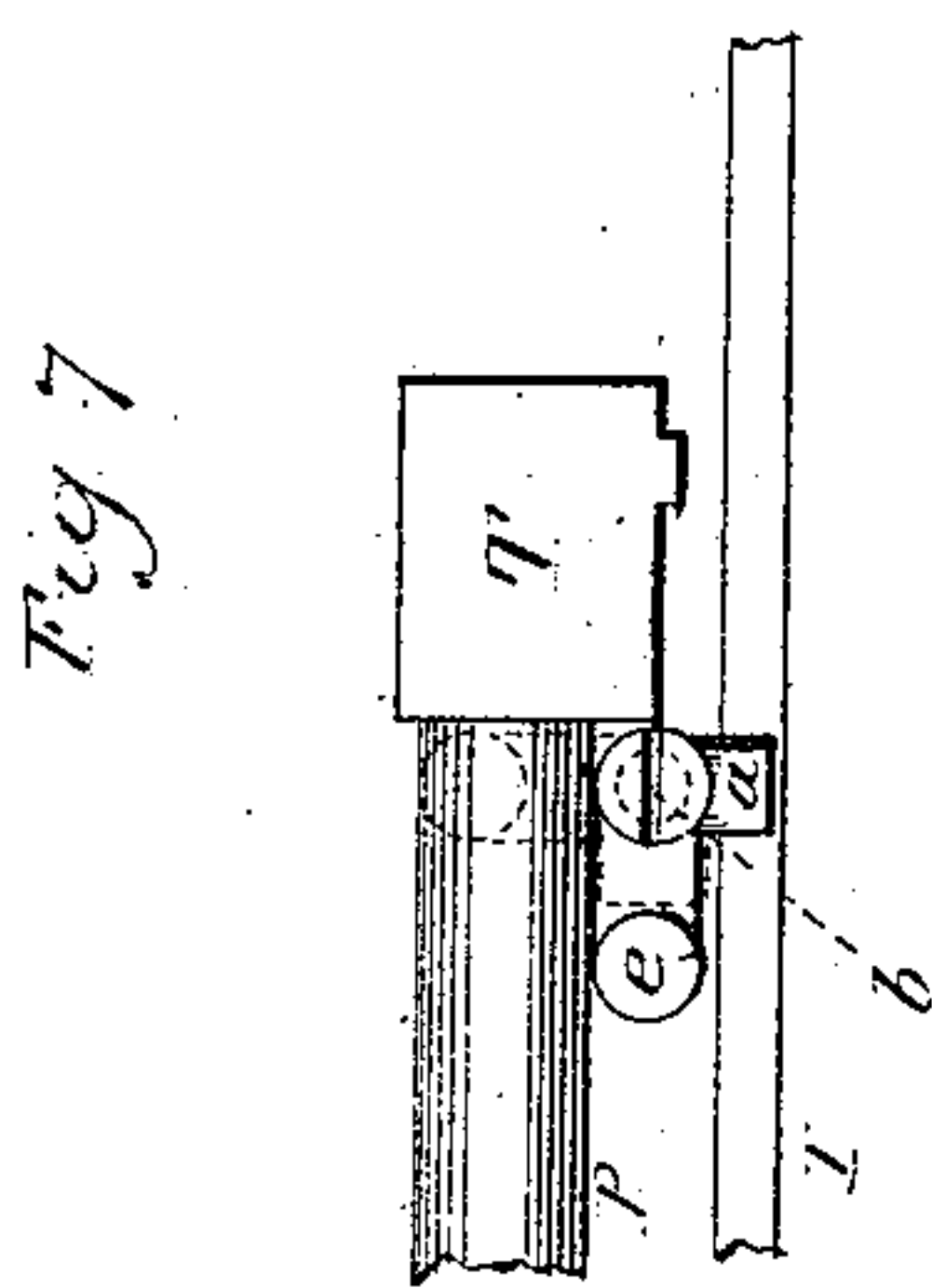
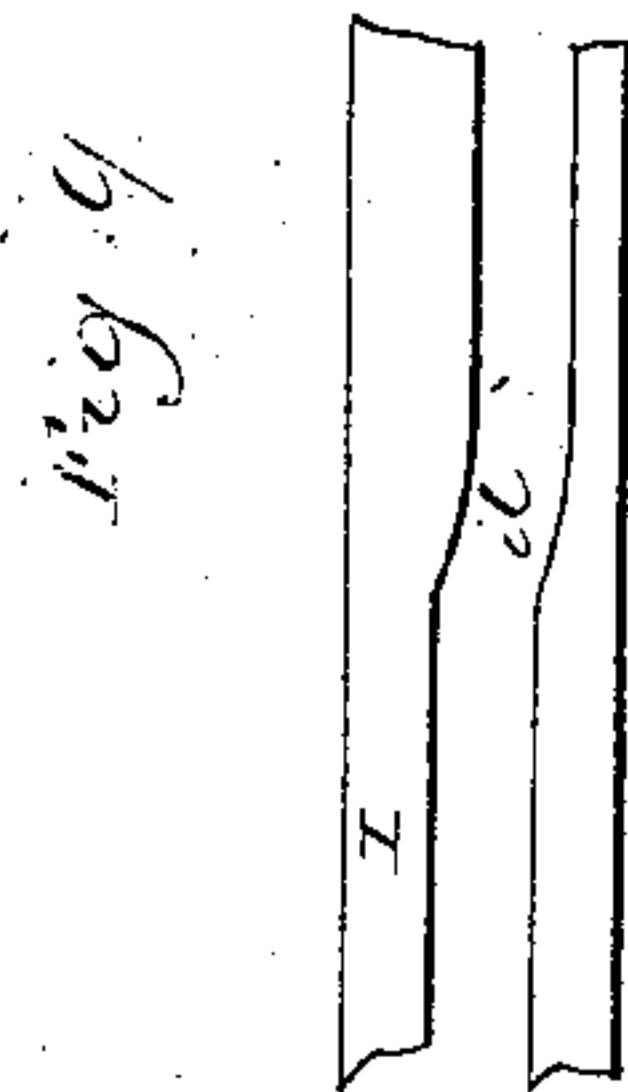
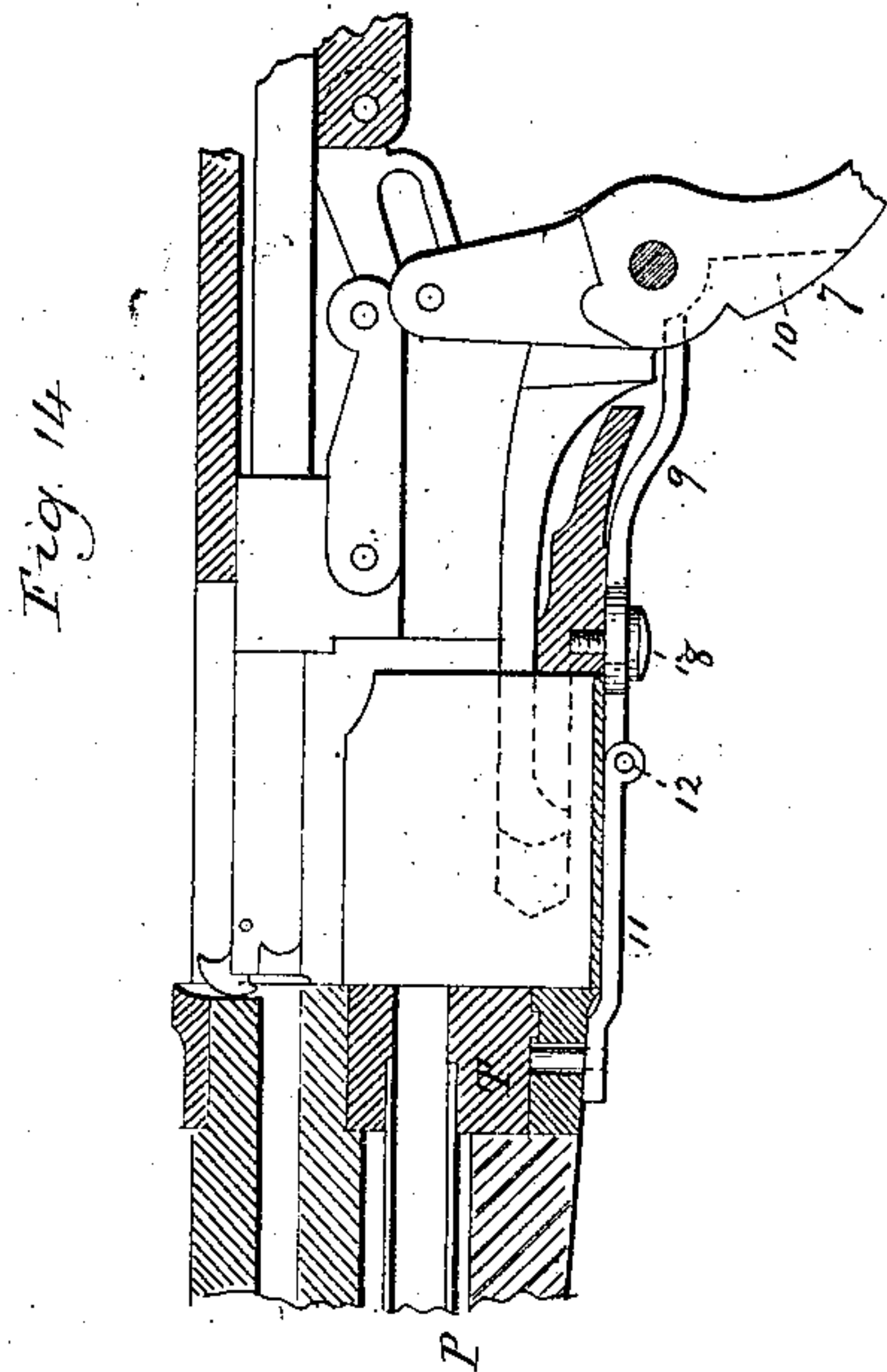
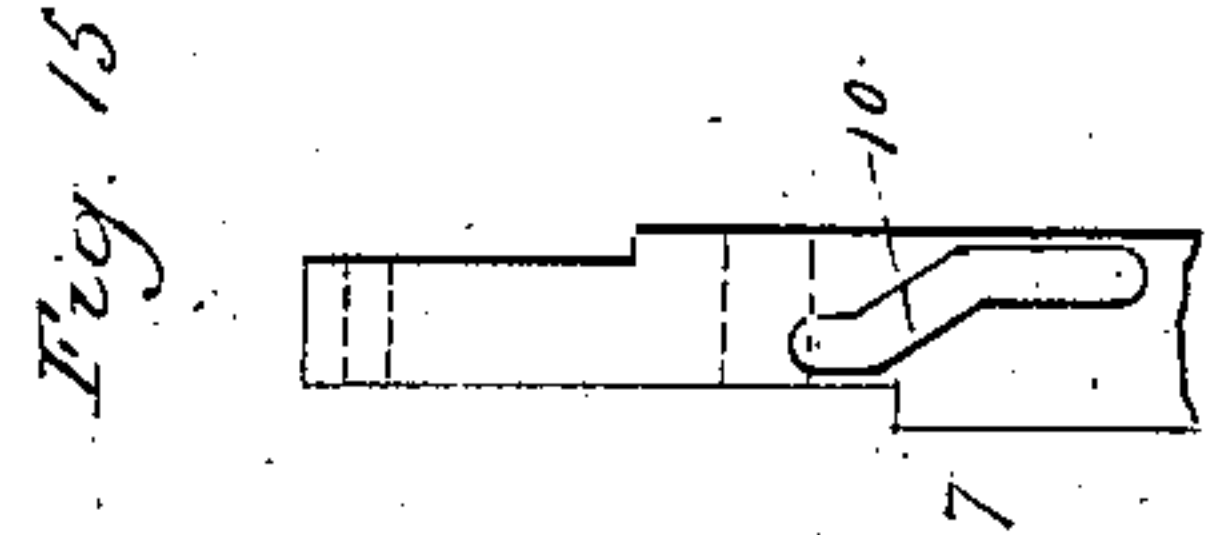
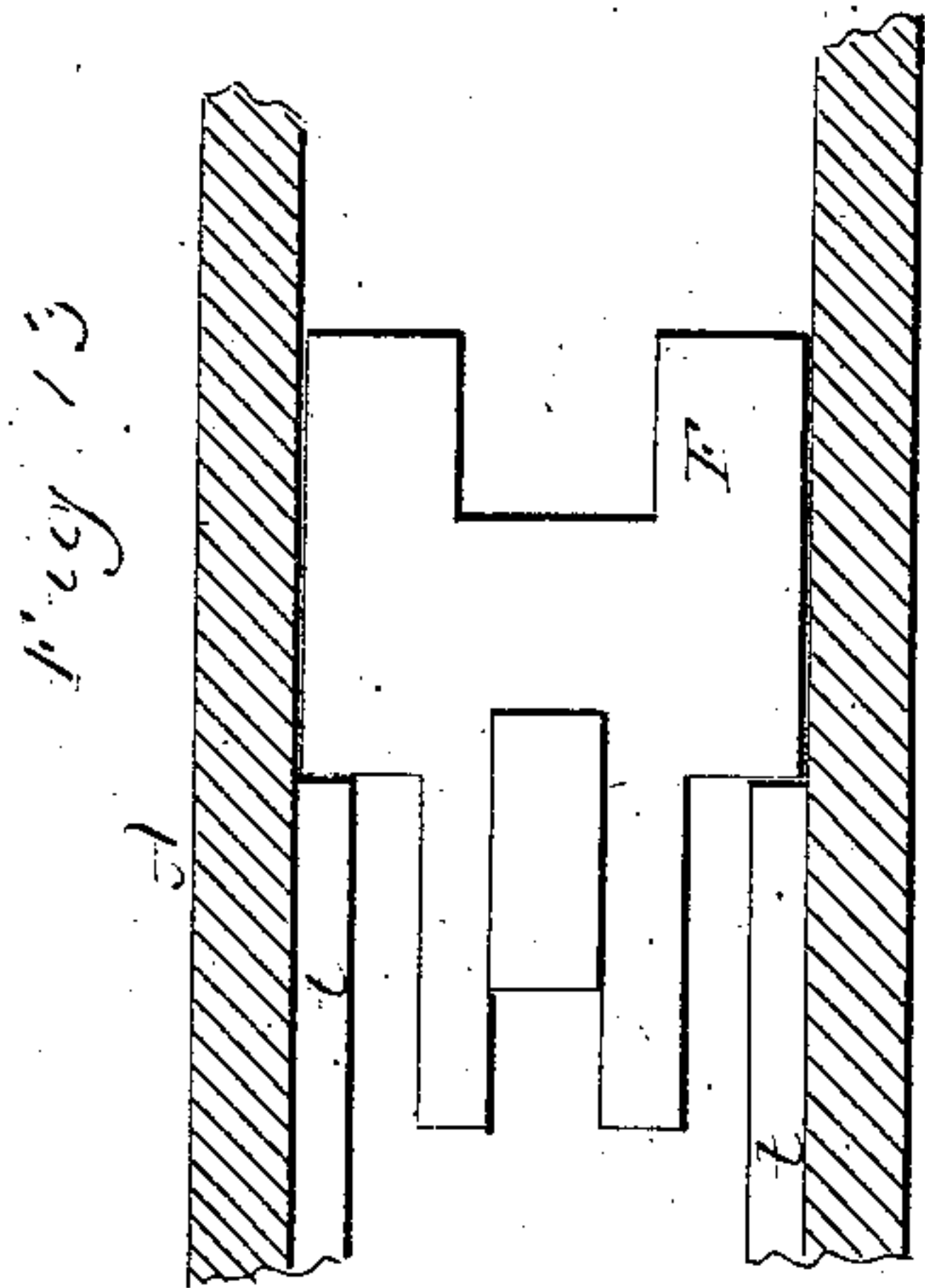
(No Model.)

4 Sheets—Sheet 3.

C. J. EHBETS.
MAGAZINE FIRE ARM.

No. 373,277

Patented Nov. 15, 1887.



Witnesses,
J. H. Shumway,
Fred C. Earle

Carl J. Ehbets,
By atty. Inventor
J. H. Earle.

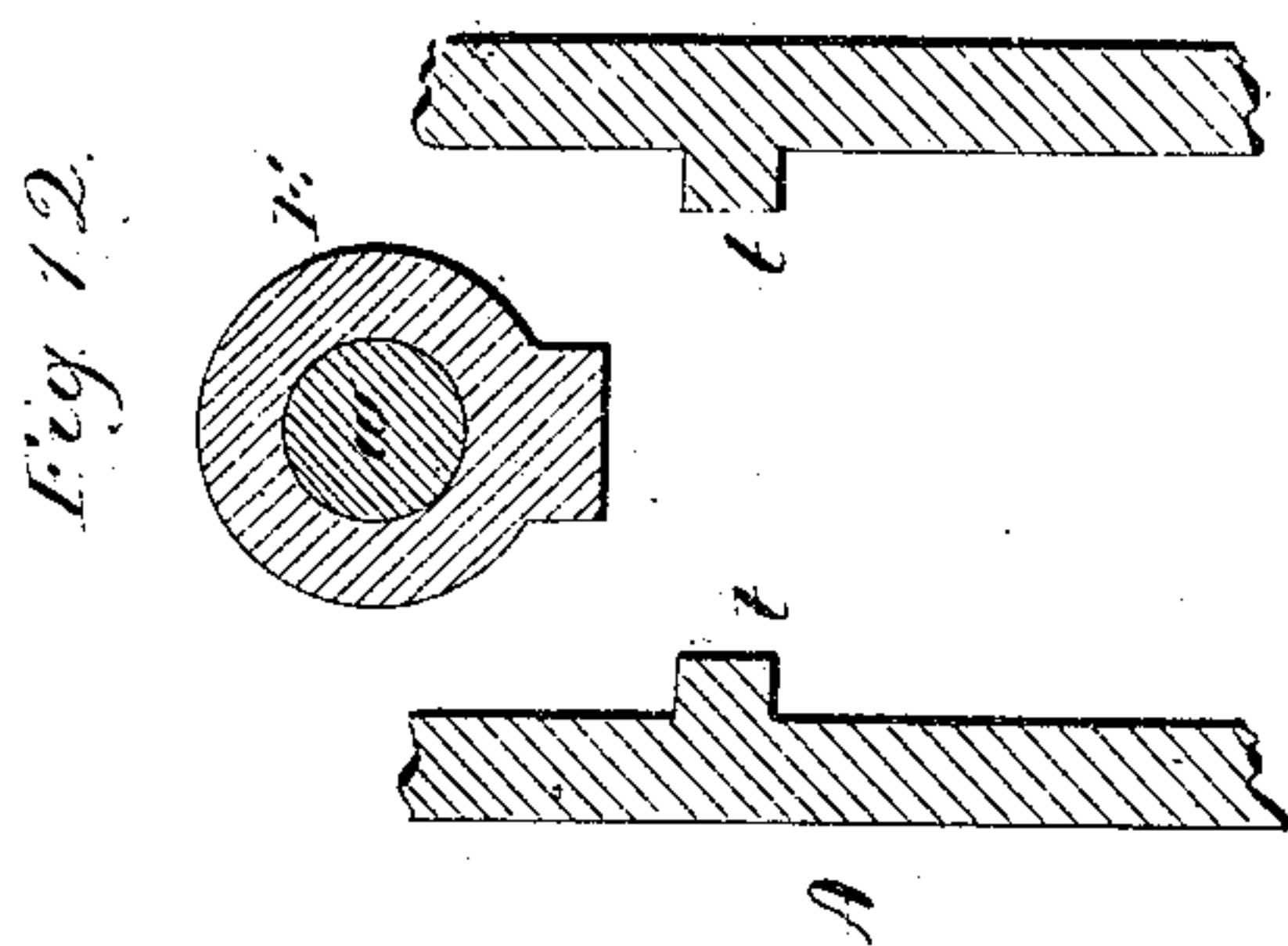
(No Model.)

4 Sheets—Sheet 4.

C. J. EHBETS.
MAGAZINE FIRE ARM.

No. 373,277.

Patented Nov. 15, 1887.



Witnesses,
J. H. Shumway,
Fred C. Earle

Carl J. Ehbets,
Inventor,
By Atty.
Wm. C. Earle.

UNITED STATES PATENT OFFICE.

CARL J. EHBETS, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE COLT'S PATENT FIRE ARMS MANUFACTURING COMPANY, OF SAME PLACE.

MAGAZINE FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 373,277, dated November 15, 1887.

Application filed July 18, 1887. Serial No. 244,597. (No model.)

To all whom it may concern:

Be it known that I, CARL J. EHBETS, of Hartford, in the county of Hartford and State of Connecticut, have invented a new Improvement in Magazine Fire-Arms; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a sectional side view of the arm with the parts in the normal position, or position with the breech-piece closed; Fig. 2, the same section, showing the parts as with the breech-piece in the extreme open position; Fig. 3, a horizontal longitudinal section through the carrier, showing under side view of the magazine-block and portion of the slide, to illustrate the engagement of the slide with the rear end of the magazine, and in the extreme forward position of the slide; Fig. 4, the same view as Fig. 3, but showing the position of the slide as having commenced its rear movement or about to complete its forward movement, illustrating the transverse movement of the rear end of the magazine; Fig. 5, a horizontal longitudinal section through the magazine and carrier, the parts in the position seen in Fig. 3; Fig. 6, the same section as in Fig. 5, showing the parts in the position seen in Fig. 4—that is, with the magazine turned to one side to form the stop for the column of cartridges; Fig. 7, a side view of the rear end portion of the magazine and of the slide, illustrating modification of engagement between the magazine and slide; Fig. 8, an under side view of the magazine-block, showing the same modification; Fig. 9, a top view of the slide, showing the same modification; Fig. 10, a sectional side view of the breech-piece and the locking-brace, illustrating the operation of the extractor, enlarged; Fig. 11, a top plan view of the same, enlarged; Fig. 12, a transverse section through the receiver, showing the ribs *t*, against which the brace bears as it passes rearward in the opening movement of the breech-piece; Fig. 13, a horizontal longitudinal section through the receiver, looking upward, showing the same ribs and the brace as having passed upward over the rear ends of the

ribs; Figs. 14 and 15, modifications in the operation of the magazine cut-off.

This invention relates to an improvement in that class of magazine fire-arms in which the breech-piece is arranged in rear of the barrel and in line therewith, to be moved backward in opening and forward in closing the breech, and in which the magazine is arranged beneath the barrel, with a carrier-block arranged in the receiver in rear of the barrel, and into which a cartridge will pass from the magazine when the carrier is in the down position, so that as the carrier is raised it will bring a cartridge into line with the barrel, and from which the cartridge is transferred to the barrel as the breech-piece moves forward through the carrier, and is an improvement upon the arm for which Letters Patent of the United States, No. 332,203, were granted to the assignees in this application, December 8, 1885, as the invention of F. F. Knous. As in that patent, so in this, the movement is imparted to the mechanism of the arm by means of a handle beneath the barrel forward of the receiver, adapted to slide longitudinally backward and forward.

A represents the receiver, to the forward end of which the barrel B is secured in the usual manner, and opens into the receiver at its rear end.

C is the handle beneath the barrel, arranged to slide parallel to the magazine D, which is arranged longitudinally beneath the barrel in the usual manner, and so as to open into the receiver below the barrel at the rear; E, the longitudinally-moving breech-piece arranged in the receiver in line with the barrel. Upon the under side of the breech-piece, near its forward end, the locking-brace F is hung upon a pivot, G, and from the brace an arm, H, extends downward through an opening in the longitudinal slide I. The said slide extends forward through the receiver, and is secured to the handle C, so as to move with it. In the receiver abutments J are formed, against which the brace F may stand when the breech-piece is in the closed position, as seen in Fig. 1, and as in the patent before referred to, and so that, standing in the closed position, if the handle be moved rearward the first part of its rearward movement will turn the brace F upward from the abutments J, and so as to leave the

breech-piece free to move rearward under the continued rear movement of the handle.

K represents the carrier, which is in the form of a block arranged to move vertically in the receiver, and is of a length for the longest cartridge required. The carrier is raised by means of a lever, L, hung upon a pivot, M, at the rear, preferably below the rear end of the slide I, and so that as the slide moves rearward beneath the body of the lever it will strike the lever as the slide approaches its extreme rear position, and after having opened the breech-piece, and so as to act as a cam upon the lever L and raise its forward end, as seen in Fig. 2. The forward end being connected with the carrier, imparts corresponding upward movement to the carrier, as from the position seen in Fig. 1 to that seen in Fig. 2. The breech-piece is adapted to work through the carrier in its forward movement, while the carrier stands in the up position, in the usual manner for this class of arms, not necessary to be particularly described.

The brace H works above the lever L, and so that as the breech-piece moves forward and comes to the closed position, the brace being above the lever L, will strike upon the top of the lever and force it to its down position, as seen in Fig. 1, returning the carrier to the down position. The carrier lever may, however, be operated as in the patent before referred to, the method of operating the lever to raise and lower the carrier constituting no part of the present invention. When the carrier is in the down position, as seen in Fig. 1, the cartridge-chamber in the carrier is brought into line with the magazine, and so that the rear cartridge in the magazine may be forced into the cartridge-chamber in the carrier, and then as the carrier rises it brings the cartridge so introduced into the carrier in line with the barrel, as seen in Fig. 2, and so that when the breech-piece is advanced with the carrier and the cartridge in this position the breech-piece will force the cartridge from the cartridge-chamber in the carrier into the barrel in the usual manner for this class of arms.

The hammer N is hung upon a pivot, O, and so as to be thrown to full-cock under the rear movement of the breech-piece, as usual in this class of arms.

This arm is designed with special reference to the smaller size cartridges—say No. 22—and which are made of various lengths. It is desirable that an arm adapted for this smaller size of cartridge should also be adapted to use either of the various lengths; but it will be seen that in a carrier of this character, if it be sufficiently long to take the longest cartridge, unless there be some provision to the contrary, in the use of shorter cartridges not only would the rearmost cartridge pass from the magazine into the carrier, but the next or second cartridge would follow the first to some extent onto the carrier, and so as to stand between the carrier and magazine and prevent the upward movement of the carrier to trans-

fer the first cartridge. It is therefore necessary to provide some means to prevent the second cartridge from following the first or extending into the carrier.

In the patent to which I have referred the magazine is formed in two parts, D representing the principal part of the magazine, which extends to a point near the rear end of the barrel, and to the rear end of the part D the rear portion, P, of the magazine is hinged, as at Q, and so as to swing beneath the barrel in a horizontal plane, the part P extending to the carrier, so as to form practically a continuation of the principal part of the magazine directly into the carrier in the receiver, and as seen in Fig. 5, and so that when in line with the cartridge-chamber in the magazine, as seen in Fig. 5, the cartridges in the magazine are free to pass into the cartridge-chamber in the carrier; but to prevent the instantaneous movement of the rear cartridge into the carrier when the cartridge-chamber in the carrier comes into line therewith the breech-piece E is constructed with a downward projection, R, which extends down into the cartridge-chamber S in the magazine, (see Figs. 1 and 5,) and so as to abut against the rearmost cartridge in the magazine when the breech-piece is in the closed position, as seen in Fig. 1, and as in the patent before referred to, and so that as the breech-piece moves rearward the rearmost cartridge will simply follow the breech-piece and pass into the carrier; but the movement of the cartridge will be no faster than that of the breech-piece.

The part P of the magazine is hinged, as before described, so that it may be turned to one side of the receiver, as indicated in broken lines, Fig. 6, so far as to permit the introduction of cartridges to the magazine, as in the patent before referred to. The rear part of the magazine terminates in a block, T, which works transversely through the forward end of the receiver. This block stands above the slide I, and in the under side of the block T is a cam-shaped groove, U. (See Figs. 3 and 4.) From the slide I is an upwardly-projecting stud, V, which works through the groove U as the slide moves backward and forward. The stud V is represented as part of an arm extending from the slide.

When in the extreme forward or closed position, as seen in Fig. 3, the stud V, standing in the groove U, holds the block T, or rear end of the magazine, directly in line with the cartridge-chamber S of the carrier K, as seen in Figs. 3 and 5. The groove U turns out of the direct longitudinal line near its forward end, and so that as the slide I commences its rear movement the stud V acts upon the cam-shaped groove U and forces the block T slightly to one side, as seen in Figs. 4 and 6, and so far as to turn the rear end of the magazine out of line with the cartridge-chamber, as indicated in said Figs. 4 and 6.

The turning of the magazine to one side occurs before the shortest cartridge can have

passed from the magazine into the carrier, and it takes the column of cartridges so far out of line with the cartridge-chamber in the magazine that the head of the next or second cartridge will strike the forward end of the carrier, as seen in Fig. 6, and be prevented from passing into the carrier, so that whether the cartridge already in the carrier be the full length of the carrier, as seen in Fig. 6, or shorter, as indicated in broken lines, Fig. 6, it will be forced into the carrier by the magazine-spring acting through the column of cartridges, but will then be left free, and the next cartridge will be prevented from passing into the carrier to interfere with the movement of the carrier.

After the rear end of the magazine has been turned out of line with the carrier, as described, the groove continues in a straight line parallel with the path of the stud V, as seen in Fig. 4, and so that the slide carrying the stud V will continue its movement, the stud V continuing in the straight-line groove in its entire rear movement. Then, on the return of the slide in closing the breech-piece, the stud V will move forward in the groove U, and, continuing its movement through that groove, will, as it passes the bend in the groove, return the rear end of the magazine into line with the cartridge-chamber, as indicated in Fig. 4.

To limit the extreme opening movement of the rear end of the magazine, the block T is constructed with a recess, W, on one side of the groove, at its forward end, as seen in Figs. 3 and 4, and which recess, when the slide is in its extreme forward position, is in line with the stud V, as indicated in Fig. 3, and so that when in that position the block may be turned to the charging position, as indicated in broken lines, Figs. 3 and 6, the recess W permitting it to move over the stud; but the end of the recess serves as a stop to arrest the block when it is moved sufficiently far for charging purposes. The recess W also performs another important purpose, and that is to prevent the rear movement of the slide to actuate the mechanism of the arm, unless the rear part of the magazine be in its proper position, for if the block be not returned to its home position before the slide commences its rear movement, then the rear side of the recess W will stand in the path of the stud and prevent the rear movement of the slide. Consequently the arm cannot be operated unless the magazine be in proper position to deliver the cartridges to the carrier.

The transverse movement of the rear end of the magazine, to serve as a stop for the column of cartridges after one cartridge shall have entered the carrier, may be produced by forming the cam-groove in the slide and the stud on the magazine, instead of vice versa, as I have described. This modification I illustrate in Figs. 7, 8, and 9.

On the forward end of the block T, I hinge a stud, *a*, upon a transverse pivot, *b*, the said stud *a* extending down into a groove, *d*, in the

slide I. This groove is of cam shape, corresponding to the cam-shaped groove U of the block T, before described, and as seen in Fig. 9, and so that as the slide is moved backward for the operation of the mechanism of the arm the first part of the movement will, through the stud *a*, impart the required transverse movement to the block, to bring it to the position indicated in Fig. 6, to prevent the escape of the second cartridge into the magazine. The stud *a* is necessarily hinged to the block, because otherwise it would prevent the movement of the block to the position for opening the magazine for the insertion of cartridges. On the hub of the stud *a* handle, *e*, projects, by means of which the stud may be turned upward out of the groove in the slide I, as indicated in broken lines, Fig. 7, and when so turned upward it is free from the groove in the slide I, and consequently may be turned to the extreme outward position for charging, and when returned to its closed position the stud *a* will then be returned downward into the groove in the slide. Under this arrangement the magazine is always in position when the stud is in the groove, and cannot escape from that position.

The smaller class of cartridges are usually made rim-fire. Under the rapid manipulation of the arm there is danger of premature explosion from the extractor striking the head of the cartridge as the breech-piece approaches the closed position. In the usual construction the extractor is of a spring character, so as to ride over the head of the cartridge under the pressure of its spring, so that the blow of the extractor upon the head of the cartridge is one of considerable power, and so that under rapid manipulation of the arm premature explosion from this cause may occur. To avoid this difficulty I hang the extractor *f* upon a pivot, *g*, in the breech-piece in the usual position. In the breech-piece, on a pivot, *h*, in rear of the pivot of the extractor, I hang a two-armed lever, *i k*. (See Fig. 1; also seen in Figs. 10 and 11, enlarged.) The arm *i* is provided with a stud, *l*, which extends inward over a projection from the extractor in rear of its pivot. The arm *k* extends longitudinally rearward over the locking-brace F. The lever *i k* is adapted to swing vertically, as indicated by broken lines, Fig. 10, and so that as the rear arm, *k*, is raised it will depress the rear end of the extractor and raise the forward or hooked end, as indicated in broken lines, Fig. 10, or, when left free, the extractor will be turned downward to its normal position, as seen in Fig. 10. To force the extractor to this down or normal position, the rear or tail end of the extractor terminates in the form of a spring, *m*, which bears upon the top of the breech-piece, and which spring is compressed as the nose end of the extractor is raised, and as indicated in Fig. 10, the spring being sufficient to hold the extractor in engagement with the head of the cartridge in the usual manner for spring-extractors.

To actuate the lever *i k* to operate the extractor, the hub of the locking-brace is constructed with a cam, *n*, on the periphery, there being a recess, *o*, on the rear side of the cam and a recess, *r*, on the forward side of the cam, as seen in Fig. 11. The front face of the cam *n* is inclined from the outside forward, as seen in Fig. 11, and on its rear face is inclined downward and backward, as seen in Fig. 10.

The arm *k* is constructed with a downward projection, *s*, which is adapted to enter either of the recesses *o* or *r* on the hub of the brace. This arm is also thin and of elastic metal, as steel, so that it may spring outward, as indicated in broken lines, Fig. 11, and return under its own elasticity. When the breech-piece is in the fully-closed position and the brace in the locking position, (seen in Fig. 1,) the projection *s* of the arm *k* stands in the recess *r* forward of the cam *n* on the brace, and the extractor stands in its normal position as engaging the head of the cartridge, and is there held by its own spring. As the brace is turned from the locking position, as indicated in broken lines, Fig. 10, the cam *n* turns forward and by its incline passes inside the projection *s* of the arm *k* and forces that arm *k* outward, as indicated in Fig. 11, without effect upon the extractor. The brace *T* thus turned to the unlocking position (indicated in Fig. 10,) strikes longitudinal ribs *t* (see Figs. 12 and 13) on the sides of the receiver and rides thereon, so that it is prevented from turning to its extreme up position; but as the breech-piece approaches its extreme open position the ribs *t* terminate, as seen in Fig. 13, and the brace is free to rise to the position indicated in Fig. 10 and stand in rear of the rear ends of the ribs *t*, as indicated in Fig. 10. In so doing the cam *n* passes beyond the projection *s* of the shoulder, and so that the projection will spring into the recess *o* in rear of the cam *n*. Then when the closing movement commences the first part of the closing movement is to draw the brace downward, so that it may escape from the rear ends of the ribs *t*, as indicated in broken lines, Fig. 10, and then be free to pass forward with the breech-piece. In this first downward movement of the brace the back or rear side of the cam *n* acts upon the projection *s* of the arm *k* and causes that arm to rise, as indicated in broken lines, Fig. 10, and correspondingly raise the nose of the extractor. After the brace has been thus turned to raise the arm *k* it holds the arm *k* in that position until the brace shall have passed so far forward that it may drop against its abutments, as seen in Fig. 1, and this is when the breech-piece has reached its extreme closed position. As the brace drops into its locked position, the cam *n* escapes from the projection *s* of the arm *k* and permits that arm to drop into the recess *r*, it being forced so to do by the extractor-spring, which tends to raise the forward end or arm, *i*, of the lever. By this arrangement the extractor is mechanically raised

above the head of the cartridge and is held in that position until the breech-piece is closed and the nose of the extractor has passed to a position forward of the front face of the flange of the cartridge, when it is permitted to drop and engage the flange of the cartridge, so that on the rear movement of the breech-piece the cartridge will be sure to follow, as with common extractors; hence there is no liability of the extractor coming in contact with the head of the cartridge, so as to produce explosion. The arm *k* of the lever *i k* is also utilized as a retractor for the firing-pin *u*. Fig. 10 represents the firing-pin, which is arranged in the forward part of the breech-piece and in a position to strike the flange of the cartridge.

The firing-pin extends through the breech-piece in the usual manner, and on the under side of its rear portion, *w*, is a notch, 2, the rear side of which is inclined upward and forward. Into this notch a finger, 3, on the arm *k*, extends, and so that when the arm *k* is in its down position the firing-pin is free to be forced to its extreme forward position, as indicated in Fig. 10; but as the arm *k* rises the finger 3 operates against the inclined surface of the notch 2 as a cam, and causes the firing-pin to retreat, as indicated in broken lines, Fig. 10; hence, because the arm *k* is held in the up position during the forward movement of the breech-piece, and until the extreme closed position is reached, it follows that the firing-pin is held out of possible contact with the cartridge until after the breech-piece shall have reached its extreme forward and locked position.

The lever for operating the extractor may be omitted and the common extractor employed. In such case, to provide for the retraction of the firing-pin, the retracting-finger may be made as a part of the brace, as indicated in broken lines, Fig. 10, so that as the brace rises it will force the firing-pin rearward.

I have stated that the carrier-lever may be operated as I have illustrated, or as in the patent before referred to. It may, however, be raised directly by the arm *H* of the locking-dog by making the rear end of the recess in the lever through which the arm *H* works of a shape indicated at 4 in broken lines, Fig. 1, and so that as the arm approaches its rear position it will act as a cam upon the lever to raise it and the carrier.

The method which I have described to form a stop for the column of cartridges to prevent the second cartridge from following the first onto the carrier may be utilized in many arms of this class, in which the mechanism differs, essentially, from that illustrated and described—as, for illustration, in Fig. 14 I represent an arm the mechanism of which is that commonly known as the "Winchester" arm, and in which the breech-piece and carrier are operated by a lever hung in the receiver below the breech-piece, and so that the lever swings downward and forward in the opening

movement. The magazine and its block T are in the same arrangement as I have before described.

To impart to the rear end of the magazine a transverse movement to produce the check or cut-off between the magazine and carrier, a lever may be introduced between the operative lever 7 and the head T. This lever is represented as hung upon a pivot, 8, upon the under side of the receiver, and between the pivot of the lever 7 and the magazine-block T, one arm, 9, extending rearward, stands in a cam-shaped groove, 10, in the hub of the lever 7. (See Fig. 15.) The other arm, 11, extends forward and is hung to the lower side of the block T. The cam in the operative lever 7 imparts a transverse vibratory movement to the lever 9, which is communicated to the magazine, and this transverse movement is the same as that which I have heretofore described as imparted by means of the handle forward of the receiver. Under this modification, in case it is desirable to load the magazine, as I have heretofore described, by throwing the magazine out at one side of the receiver, the forward arm, 11, of the lever should be hinged to the rear portion—say as at 12, Fig. 14—which will permit the forward arm, 11, of the lever to be turned downward and out of engagement with the magazine, so as to leave the magazine free to be thrown outward sufficiently far to expose the rear end of the magazine. In case, however, the magazine is to be charged through the side of the receiver, as common in this class of arms, then there will be no occasion for disengaging the magazine from its lever. I therefore do not wish to be understood as limiting this part of my invention to the particular mechanism of the arm described; nor do I wish to be understood as limiting it to a magazine made in two parts, the forward part being rigidly fixed, while the rear part swings, as it may be applied to a magazine made in a continuous tube and adapted to swing bodily, a modification which it is unnecessary to illustrate.

The mechanism which I have described for operating the extractor to prevent its possible contact with the cartridge may also be employed with other reciprocating breech-pieces having a locking-brace of similar character to the one described, but in which the breech-piece and other parts are moved by mechanism of other character, and may be used in single breech-loaders. I therefore do not wish to be understood as limiting this part of my invention to the particular construction of arm which I have described.

I claim—

1. In a magazine fire-arm in which the magazine is arranged longitudinally beneath the barrel and opening into the receiver at the rear, and which is adapted to swing at its rear end out of line with the cartridge-chamber in the carrier, the combination therewith of a cam between the operative mechanism of the arm and said magazine, and substantially as speci-

fied, whereby during the first part of the rear movement of the breech-piece said rear end of the magazine is automatically thrown out of line with the cartridge-chamber in the carrier.

2. In a magazine fire-arm in which the magazine is arranged longitudinally beneath the barrel and adapted to swing at its rear end out of line with the cartridge-chamber in the carrier, the combination therewith of a longitudinal slide moving parallel with the axis of said magazine, the said magazine and slide, the one provided with a stud and the other with a cam-shaped groove through which the said stud may work, substantially as described, and whereby under the movement of said slide in one direction the rear end of the magazine will be turned to one side of its normal position and on the return of the slide the magazine will be returned to its normal position.

3. In a magazine fire-arm in which the magazine is arranged longitudinally beneath the barrel, and in which the mechanism of the arm is operated by a slide extending through the front end of the receiver, and provided with a handle, and in which the rear end of the magazine is adapted to be turned out of line with the opening into the receiver, the magazine provided at its rear end with a transversely-guided sliding block, the said block constructed upon its underside with a longitudinal groove, the said groove of cam or bent shape, the said slide provided with a stud adapted to work through said groove in the said block of the magazine, substantially as and for the purpose described.

4. In a magazine fire-arm in which the magazine is arranged longitudinally beneath the barrel, and in which the mechanism of the arm is operated by a slide extending through the front end of the receiver, and provided with a handle, and in which the rear end of the magazine is adapted to be turned out of line with the opening into the receiver, the magazine provided at its rear end with a transversely-sliding block, the said block constructed with a groove upon its under surface, said groove terminating in a transverse recess, W, at its forward end, the said slide provided with a stud adapted to work through said groove and come into a line with said recess when said slide is in its extreme forward position, substantially as and for the purpose described.

5. In a fire-arm having a longitudinally-reciprocating breech-piece arranged in the receiver in rear of the barrel, the combination therewith of a locking-brace hung upon the under side of the breech-piece, and so as to swing up and down for locking and unlocking the breech-piece, an extractor, f, hung upon a pivot in the breech-piece, the lever i k, hung in the breech-piece upon a pivot in rear of the pivot of the extractor, the forward arm of said lever having an extension therefrom into engagement with the extractor in rear of its pivot, the other arm of said lever extending rearward over the said locking-brace, the hub of the brace constructed with a two-faced cam,

n, and the said rear arm of the lever, with a corresponding projection upon which said cam is adapted to work, substantially as and for the purpose described.

5 6. In a fire-arm having a longitudinally-reciprocating breech-piece arranged in the receiver in rear of the barrel, the combination therewith of a locking-brace hung upon the under side of the breech-piece, and so as to swing up and down for locking and unlocking
10 the breech-piece, an extractor, *f*, hung upon a pivot in the breech-piece, the lever *i k*, hung in the breech-piece upon a pivot in rear of the pivot of the extractor, the forward arm of
15 said lever having an extension therefrom into engagement with the extractor in rear of its

pivot, the other arm of said lever extending rearward over said locking-brace, and a firing-pin longitudinally through the breech-piece, constructed with an upward and forwardly inclined bearing, 2, the rear arm of said lever having a finger extending from it, and adapted to bear upon said inclined surface of the firing-pin, the hub of the brace constructed with a two-faced cam, *n*, and the said rear arm of the lever with a corresponding projection upon which the said cam is adapted to work, substantially as described. 20 25

CARL J. EHBETS.

Witnesses:

JOHN E. EARLE.

FRED C. EARLE.