

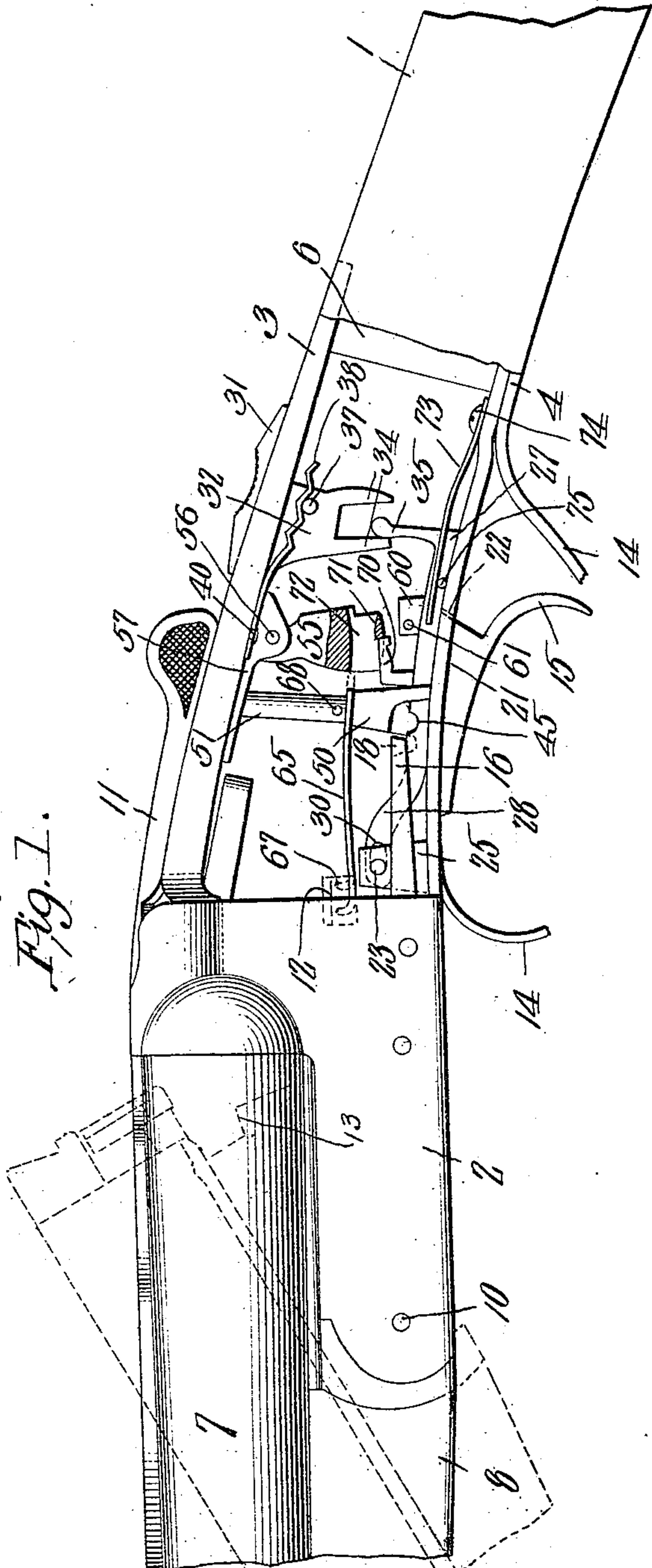
No. 890,702.

O. H. PEAK.
GUN.

PATENTED JUNE 16, 1908.

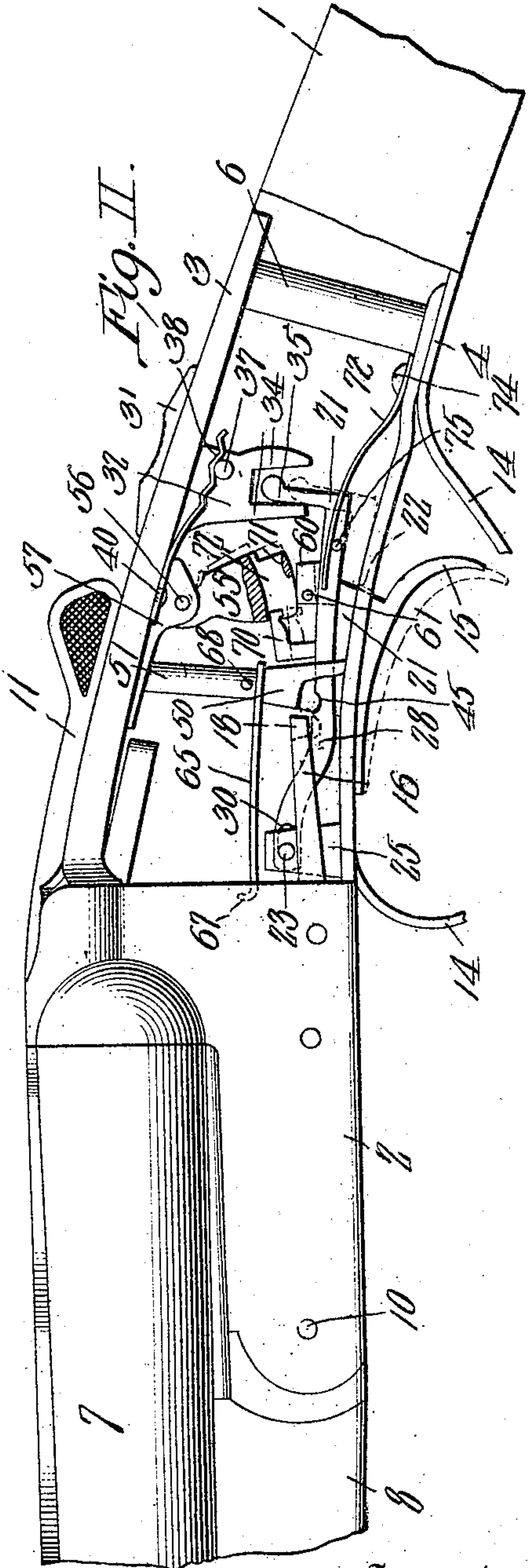
APPLICATION FILED JULY 24, 1906.

3 SHEETS—SHEET 1.



Witnesses

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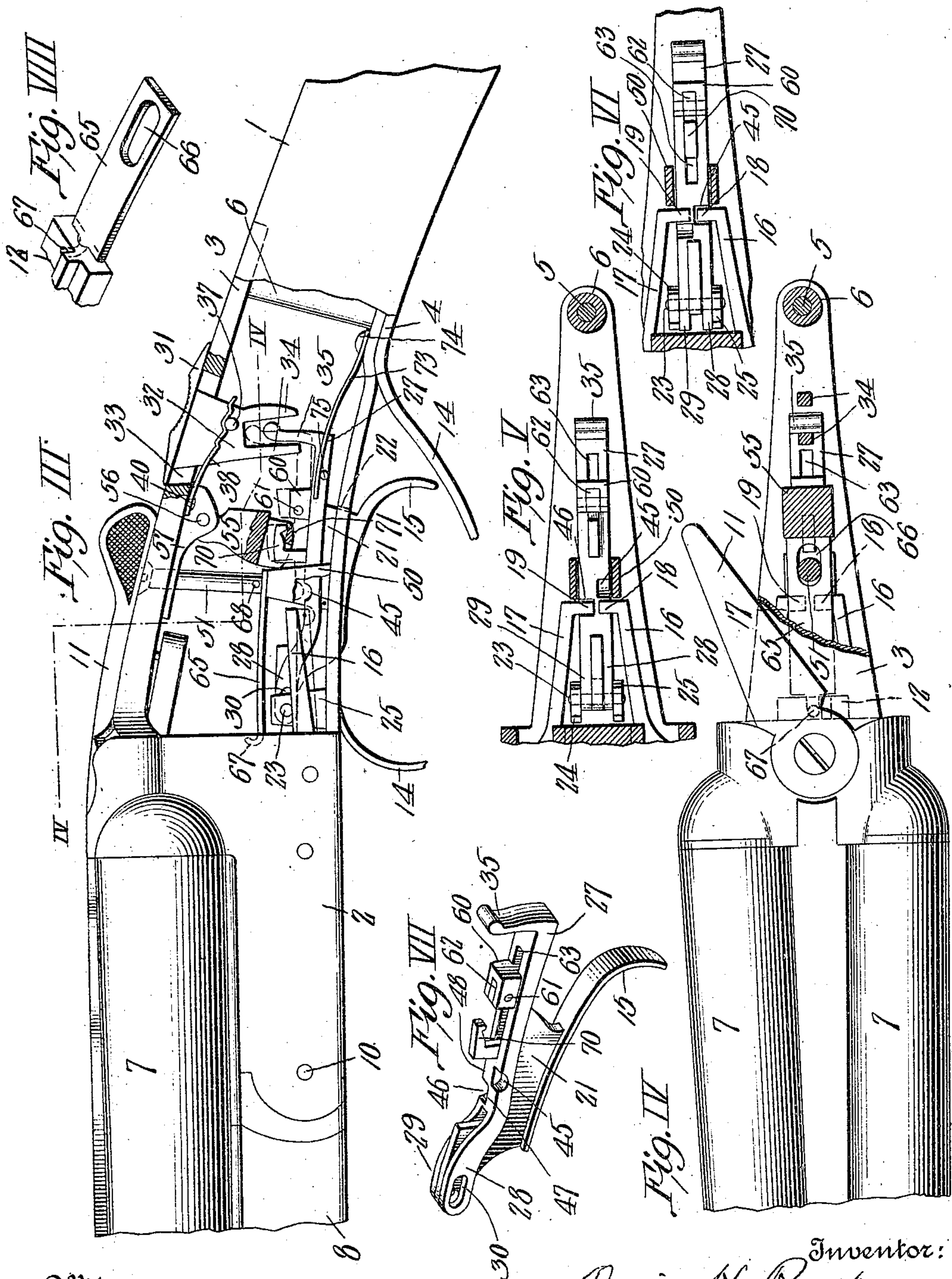
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3 SHEETS—SHEET 2.



Witnesses
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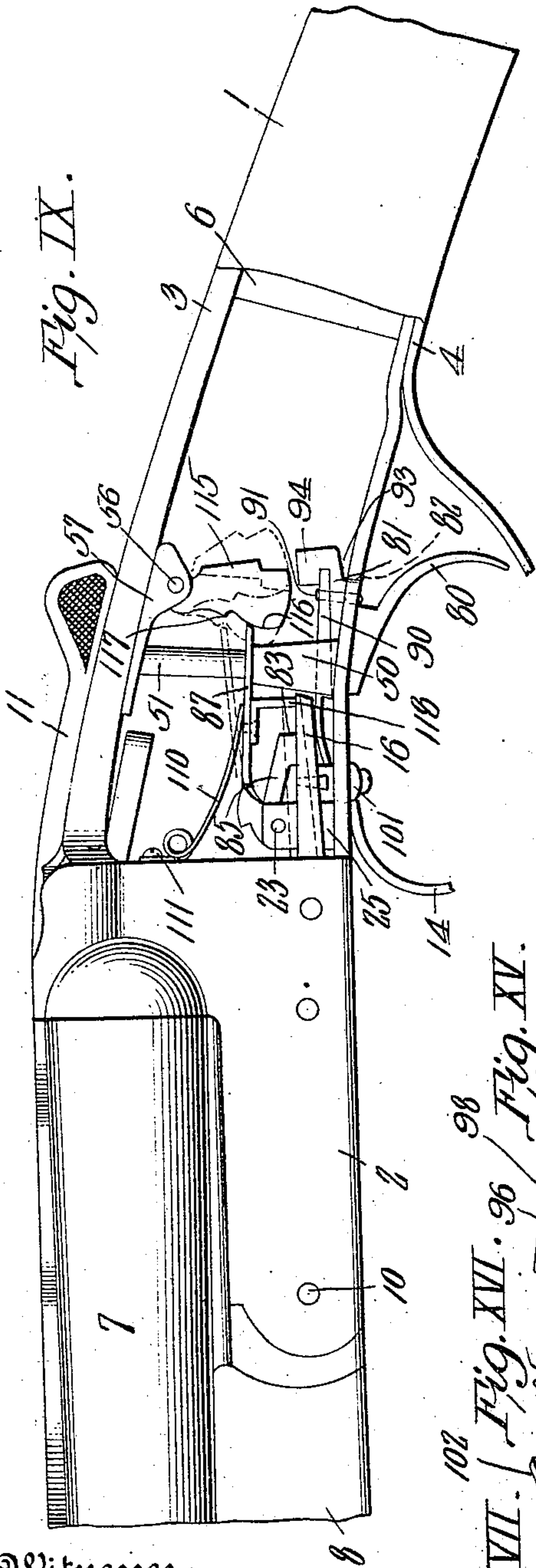
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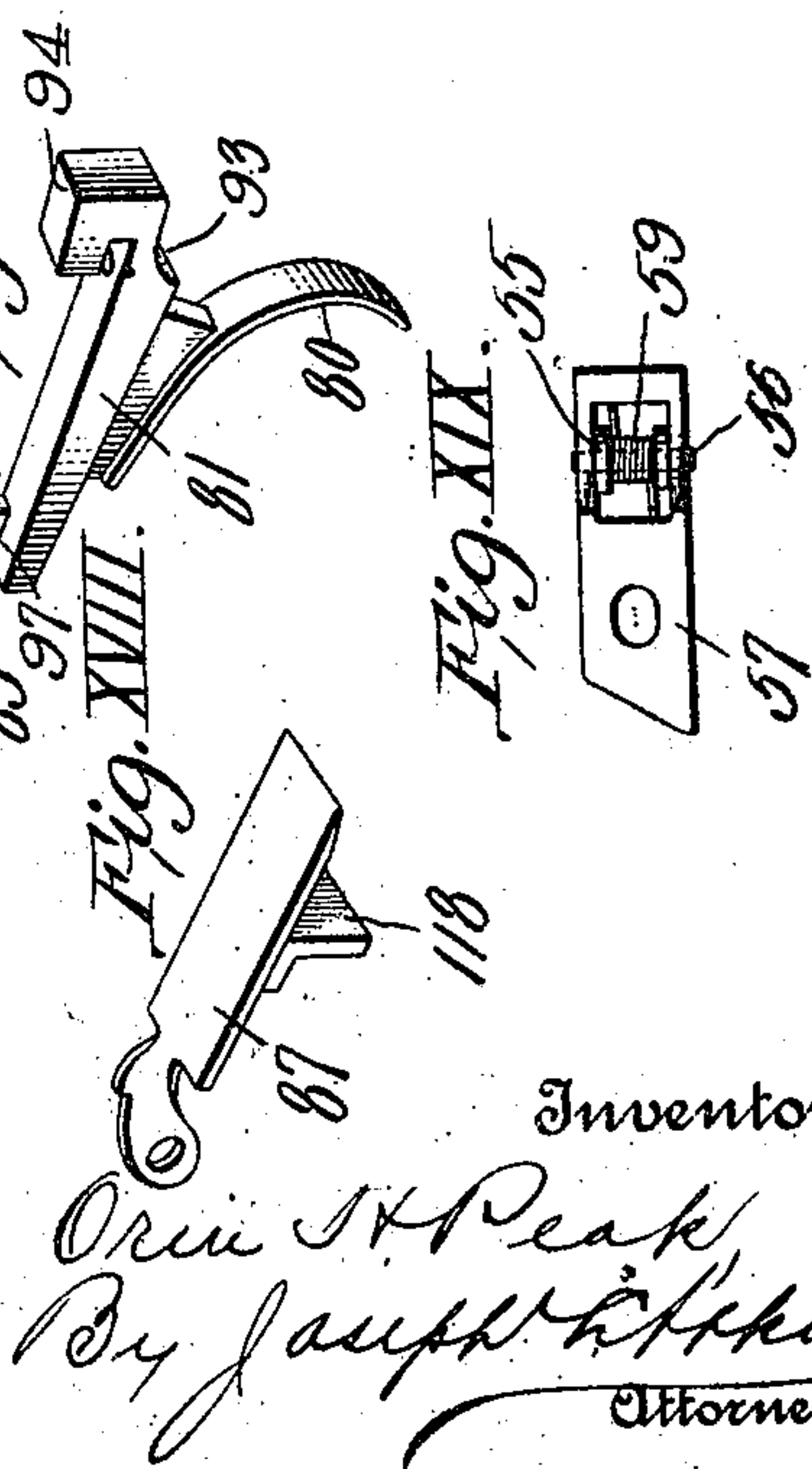
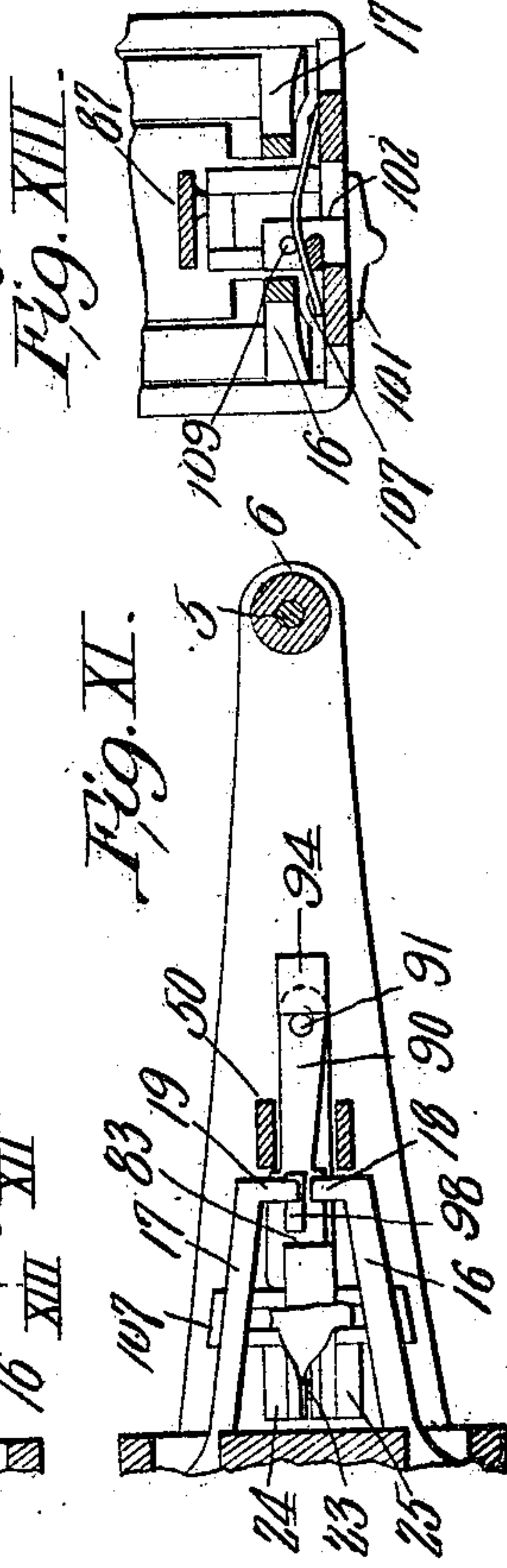
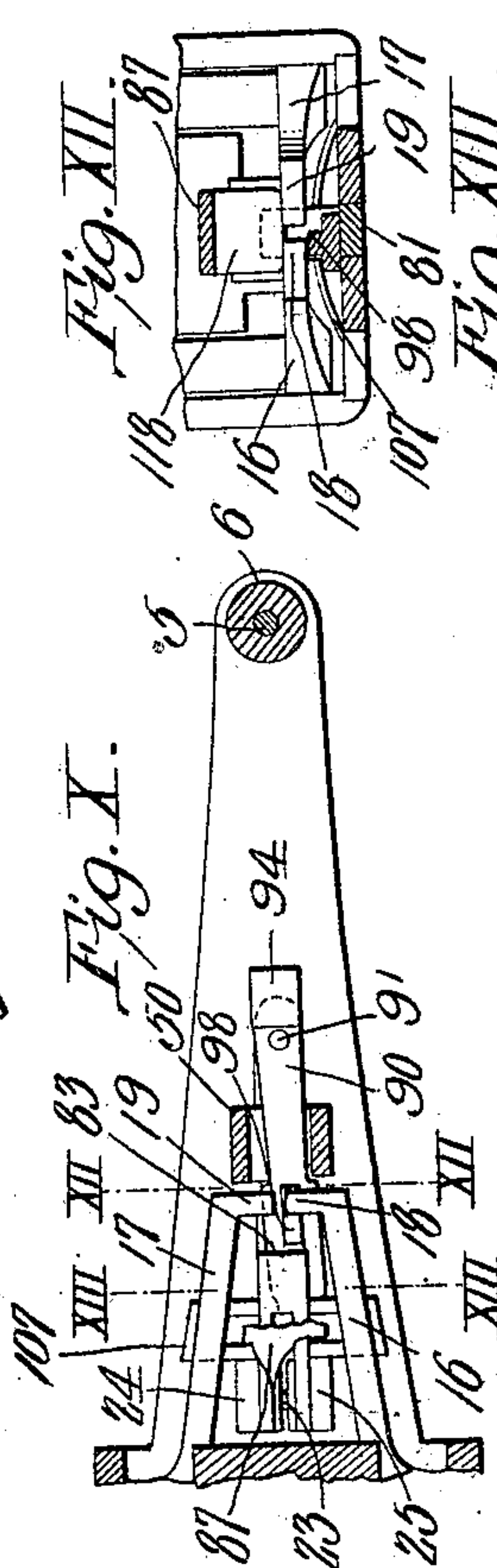
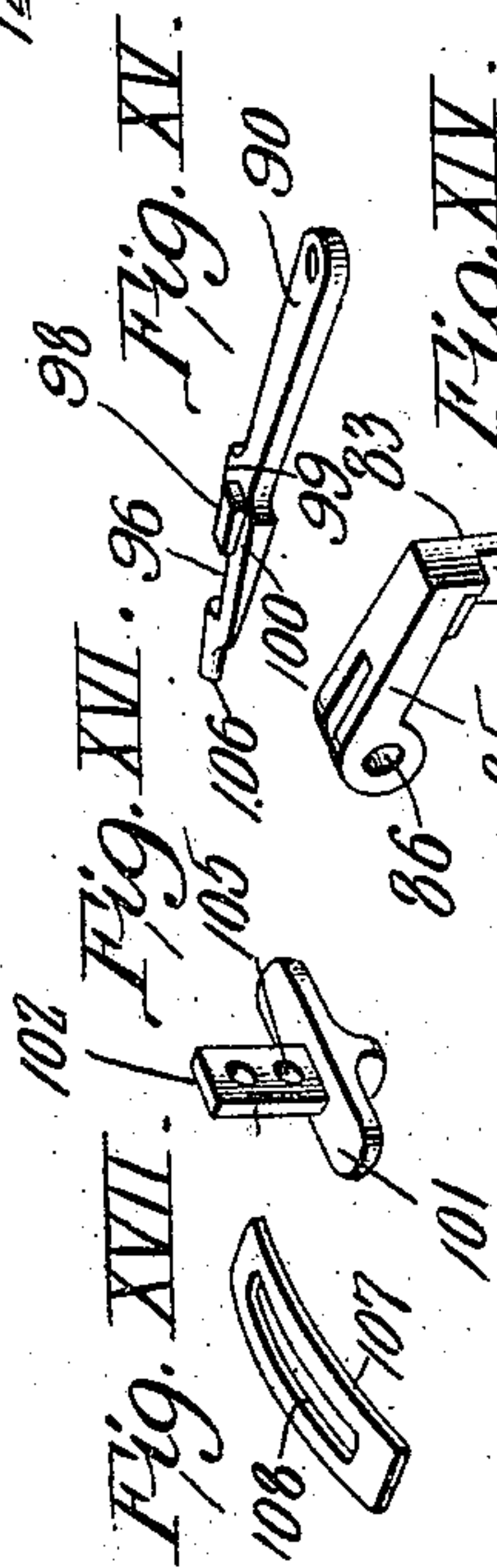
PATENTED JUNE 16, 1908.

APPLICATION FILED JULY 24, 1906.

3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

ORIN H. PEAK, OF PARSONS, KANSAS.

GUN.

No. 890,702.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed July 24, 1906. Serial No. 327,525.

To all whom it may concern:

Be it known that I, ORIN H. PEAK, of Parsons, in the county of Labette, State of Kansas, have invented certain new and useful Improvements in Guns, of which the following is a specification.

My invention relates to improvements in small arms, specifically, double-barrel shot guns, which may be discharged through the manipulation of a single trigger.

The object of my invention is to produce positive and reliable means for effecting discharge of both barrels of a double-barrel gun in any preferred order of selection, and for preventing a double discharge, that is to say, a discharge of both barrels substantially at the same time. The means which I prefer to employ, for rendering practicable and effective the use of a single trigger for the purpose specified, are in part automatic and wholly positive in their operation.

What constitutes my invention will be hereinafter specified in detail and succinctly set forth in the appended claims.

In the accompanying drawings, which constitute a part of this application, Figure I is a side elevation of portion of a Remington shot gun, representative of any preferred type, and equipped with my invention in its preferred form of embodiment. In this figure, the working mechanism directly involved in my invention is exposed, portions of said mechanism being broken away to exhibit the interior construction which would be otherwise concealed. The gun is shown in full lines with the breech closed, and in dotted lines with the breech raised as in the operation of "breaking" the gun, and the operation of the stop-piece-actuating-member consequent thereupon is indicated in dotted lines. In this figure, the trigger is set for the firing of the left-hand barrel as the first barrel to be discharged in the order of firing. Fig. II is a view substantially identical with the illustration made in full lines in Fig. I but with the illustration afforded by dotted lines in Fig. I, in Fig. II, omitted. In this figure the trigger is shown in full lines in the position it occupies after the left-hand barrel has been fired, and the trigger stop-piece is interposed to prevent the firing of the second barrel, the position of the parts prior to the firing of the left-hand barrel being indicated in dotted lines. Fig. III is a view similar to Fig. II, showing, in full

lines, the position which the parts assume after the firing of one barrel—in this instance the left-hand barrel—and preparatory to the firing of the remaining barrel, the position of the parts after the firing of the remaining right-hand barrel being shown in dotted lines. Fig. IV is a top plan view of a portion of the subject matter of Fig. III, the breech lever being swung to one side, as for "breaking", and exhibiting the working mechanism of my device in a horizontal section, taken as upon the line IV—IV of Fig. III. Fig. V is a horizontal sectional view of a portion of the subject matter of Fig. III, sectioned to exhibit the sears and the sear-actuating trigger-bar, the latter being shown in the position for first firing the left-hand barrel of the gun as shown in Figs. I to III, inclusive. Fig. VI is a view of a portion of the subject matter of Fig. V, showing the sear-actuating trigger-bar shifted from the position shown in Fig. V to that in which it may serve to fire the right-hand barrel of the gun first in order of firing. Fig. VII is a perspective view of the trigger and sear-actuating trigger-bar detached, but in the relative positions which they occupy when assembled. Fig. VIII is a perspective view of the stop-piece-actuating-member and a portion of the breech-detent of the gun, illustrative in detail of the preferred means of operatively uniting those parts. Fig. IX is a view corresponding in general scope to Fig. III, but showing a modified form of my device. In this figure, the trigger-stop-piece is shown in full lines in the position which it occupies when interposed to prevent the firing of the second barrel after the firing of the first, irrespective of the order of the firing of the two barrels which may be selected. The oscillations of the trigger-stop-piece are shown in dotted lines, two other positions than that shown in full lines of said stop-piece, derived through its oscillation, being shown. The dotted position of the stop-piece, shown to the right of the full line illustration of the stop-piece, indicates the extreme rearward swing of the stop-piece. The dotted position of the stop-piece, shown to the left of its full line illustration, indicates the extreme forward swing of the stop-piece, wherein the trigger may be pulled for the firing of the second barrel. Fig. X is a view corresponding substantially to Fig. V, illustrating the modified trigger-bar, shown in Fig. IX, in that position which it

occupies for firing the left-hand barrel in advance of the right. Fig. XI is a view corresponding to Fig. X illustrating the modified trigger-bar in the position which it occupies for firing the right-hand barrel in advance of the left. Fig. XII is a transverse, vertical section on the line XII—XII of Fig. X looking toward the breech. Fig. XIII is a transverse, vertical section on the line XIII—XIII of Fig. X looking toward the breech. Fig. XIV is a perspective view of the trigger detached, and with its oscillatory trigger-bar removed. Fig. XV is a perspective view of the oscillatory trigger-bar, detached. Fig. XVI is a perspective view of the trigger-bar-shifting-member, detached. Fig. XVII is a perspective view of the slotted bridge-spring which yieldingly holds the trigger-bar-shifting-member in place upon the lowermost breech-plate or trigger-plate of the gun. Fig. XVIII is a perspective view of the trigger-stop-piece detent, shown in Fig. IX, detached. Fig. XIX is a detail plan view, showing a preferred mode of assemblage of the trigger-stop-piece and the supporting-member.

Referring to the numerals on the drawings, wherein is illustrated by way of example a gun of the hammerless type, 1 indicates the forward end of the wood stock which is securely united to a breech-piece 2 containing the lock mechanism, as by the usual upper plate 3 and lower or trigger-plate 4 united by a bolt 5 passing through a spacing-sleeve 6. 7 indicates the barrels of the gun fastened to a forestock 8 that is operatively united to the breech-piece as by a pivot-pin 10.

11 indicates a breech-lever of the familiar side-swing type, which, by suitable mechanism of usual or preferred type, not illustrated, is adapted to operate a breech-detent 12 that is adapted to engage and disengage a breech-hook 13 secured to the bottom of the barrels 7 and having accommodation made for its movements in the body of the breech-piece 2.

14 indicates a trigger-guard, and 15 a trigger.

Double-barrel shot guns ordinarily are provided with two triggers, one for each barrel, but my present invention contemplates, as heretofore specified, the employment of a single trigger for the actuation of the firing mechanism of both barrels. The elements above specified are intended to represent any double-barrel gun of ordinary or preferred construction, the mechanism of which, constituting no part of my present invention, it is deemed unnecessary to illustrate in detail or to specify the same to any further extent than is set forth above in view of the accompanying drawings. Suffice it to say in this connection that the lock mechanism of the gun is assumed to be provided with sears 16 and 17 of any usual or preferred construction,

and provided, preferably, with oppositely extending sear-lugs 18 and 19, clearly shown, for instance, in Fig. V, as well as in other figures of the drawings. First in order of consideration, reference is made to Figs. I to VIII inclusive of the drawings, wherein is illustrated my invention in preferred form of embodiment. In those figures, the trigger 15 is shown as provided with a web 21, which, extending through the usual slot 22 in the trigger-plate 4, is pivoted, as upon a pin 23, at its forward end between a pair of upwardly projecting lugs 24 and 25, rigidly secured to or incorporated with the trigger-plate 4, at a point closely adjacent to the rear end of the breech-piece 2.

In intimate connection with the web 21 of the trigger, I provide a sear-actuating-member, herein designated as the sear-actuating-trigger-bar, or briefly the trigger-bar, 27, shown in detail in Fig. VII. This trigger-bar is, preferably, a single piece whose horizontal extent preferably somewhat exceeds that of the trigger and its web. At its forward end, it is provided (see Fig. VII), by bifurcation, with cheek-plates 28 and 29, which, straddling the pivoted end of the web 21, are provided near their respective opposite ends with slots 30, through which the pin 23 passes, thereby securing it in place upon the web with liberty of determinate endwise movement thereon. Such movement, for the performance of a function hereinafter set forth, is designed to be imparted to it by a member movably secured, in convenient position for manipulation, upon the outside of the gun. I prefer to employ for this purpose a slide 31 resembling, or identical with as preferred, the usual "safety", of familiar use in guns of the hammerless type. The slide 31 is provided with a web 32 working in a slot 33 in the plate 3, and operatively engaging, as between jaws 34, a tail-piece 35 upon the trigger-bar 27. The web 32 is preferably provided upon opposite sides with studs 37 with which the free notched end of a bifurcated spring 38, secured at its forward end, as indicated at 40, to the inner face of the plate 3, engages the notches of the said spring serving by engagement with the studs 37 to hold the slide 31 yieldingly in as many different determinate positions as the office or offices of the slide 31 may require, three notches being shown in the drawings. In the form of embodiment of my invention, which is shown in the drawings, only two of the notches are employed, the third not being necessary for the operation of the gun, unless more than two barrels are employed. Two different positions of the slide 31 are required for the purpose of actuating the trigger-bar 27. The one position is that shown in Fig. V and corresponding figures of the drawings, in which the front end of the slots 30 engage with the pin 23. The other position, in

which the rear ends of the said slots engage with said pin, is shown in Fig. VI of the drawings.

The endwise movement of the trigger-bar 27 is designed to afford means for shifting the recesses 45 and 46 (compare Figs. V, VI, and VII) with reference to the sear-lugs 18 and 19, respectively. In the front of the recess 45 and in the rear of the recess 46, sear-tripping-faces 47 and 48, are, respectively, provided. The relative disposition of the respective sear-tripping-faces 47 and 48, and recesses 45 and 46 is such that when the trigger-bar 27 is driven to the forward limit of its endwise movement, as shown in Fig. VI, the recess 45 underlies and registers with the sear-lug 18, the sear-tripping-face 48 underlying and registering with the sear-lug 19. On the other hand, if the trigger-bar be retracted to its rearward limit of endwise movement, as shown in Fig. V, the relative positions of the sear-lugs, recesses, and sear-tripping-faces of the trigger-bar are reversed, the sear-tripping-face 47 underlying and registering with the sear-lug 18, and the recess 46 underlying and registering with the sear-lug 19.

In consequence of the construction and disposition of the trigger-bar with its recesses and sear-tripping-faces, as specified, when the trigger-bar is thrust forward, as shown in Fig. VI, the lifting of the trigger-bar, as by a pull upon the trigger 15, will serve to actuate the sear 17 in advance of the sear 16. Reversal of the endwise movement of the trigger-bar 27, that is to say its retraction to the position shown in Fig. V, will serve to actuate the sear 16 in advance of the sear 17. The reason that the endwise movement of the trigger-bar serves to actuate the sears in different relative order, as has just been specified, depends upon the difference in elevation between the sear-tripping-faces 47 and 48, respectively and the bottoms of the recesses 45 and 46, each sear-lug of the trigger-bar being actuated by engagement with its face 47 or 48, in the one position, and with the bottom of its recess 45 or 46, in the other position.

The trigger web 21 and the trigger-bar 27 are preferably accommodated with space for operation within a bridge-piece 50 that is secured to the upper or inside face of the trigger-plate 4 for the reception of a screw 51, which, through the intervention of the bridge-piece, joins the plates 3 and 4 together after the usual manner of construction.

It will be apparent to one skilled in the art that provision is made, in the construction of the trigger-bar 27, with its correlatively disposed recesses 45 and 46 and sear-tripping-faces 47 and 48, for the consecutive actuation of the sears 16 and 17; but, without other provision, the actuation of the second sear

would follow close upon the actuation of the first.

I now proceed to describe the important feature of my invention which, by direct and positive means, is calculated and adapted to prevent the involuntary firing of the second barrel of the gun after the first has been fired, or, in other words, involuntary double discharge. In accomplishing the end last referred to, I provide, as a positive and direct means of controlling the movement of the single trigger 15, a trigger-stop-piece 55 adapted automatically to interpose itself in the path of movement of the trigger each time one barrel has been fired, and automatically, upon voluntary release of the trigger, to retreat out of the way of the trigger, thereby permitting the deliberate firing of the second barrel. The movement of the trigger-bar 27, previously specified, determines which barrel, in the order of firing, shall be the first fired by the movement of the trigger. The trigger-stop-piece 55 is preferably a ponderable member, assembled with its correlative members in such manner as to oscillate freely in a vertical plane substantially parallel to the longitudinal axes of the gun barrels. It is from the requisite ponderosity of the trigger-stop-piece 55 and its mode of assemblage that its automaticity, in respect to its proper function, is derived, as will be hereinafter presently specified. The stop-piece 55 is, preferably, loosely dependent from a pin 56 secured to a supporting-member 57, fixed to the side of the plate 3, at the proper point above the trigger 15, and between the screw 51 and the tail-piece 35. The member 57 may also be conveniently employed as a means of securing the spring 38 in place. The free end of the stop-piece 55 is yieldingly urged towards the screw 51, as by a spring 59 coiled about the pin 56 and operatively connected with the stop-piece and with the pin or its supporting-member 57, for imparting to the stop-piece the movement which it is required to impart. The spring 59 must be light in order to develop just sufficient force for the performance of its function and such as may be readily overcome by power developed in the rebound of the gun, as and for the purpose hereinafter specified.

Coöperative with the stop-piece 55, I provide upon the web 21 of the trigger, a stop-block 60, which engages the stop-piece when the trigger is pulled, except when the stop-piece has moved to the extreme forward limit of its travel, as shown in Fig. III, thereby interrupting the upward movement of the trigger 15 upon its pivot-pin 23. The stop-block 60 should be broad enough to insure the engagement specified, and is, for assembling purposes, a bifurcated block, as shown in Fig. VII, secured as by a pin 61 to an upwardly projecting extension 62 of the web

21, for whose accommodation, in part, an elongated slot 63 in the trigger-bar 27 is provided.

It being an initial function of the stop-piece 55 to interpose to prevent the firing of the second barrel after the firing of the first, I provide means for positively presenting the stop-piece 55 for engagement with the stop-block 60 when the hammers of both barrels are cocked and before either is fired. That means, as shown in Figs. I to VIII inclusive, consists of a stop-piece-actuating-member 65 that is separably but operatively connected with the breech-detent 12, and which being provided with an oblong slot 66 for the reception of the screw 51, is, by the rearward reciprocation of the detent 12 as often as it occurs, thrust against the forward face of the stop-piece 55 to set it, as shown in dotted lines in Fig. I. A hook 67, entering a recess provided for it in the rear of the breech-detent 12 and engaging with the wall of said recess, is a simple and preferred means of uniting the member 65 to the member 12. Suitable means should be provided for properly alining the movement of the member 65, such, for example, as a pin 68 passing through the screw 51 above the upper face of the member 65.

Provision having been made, as last above specified, for the setting of the stop-piece 55, it is necessary to provide means for holding the stop-piece when set in the position to which it is set. To that end, I prefer to provide upon the web 21 and extending upwardly through the slot 63, a rearwardly deflected stop-lug 70, substantially bell-crank in shape, which, engaging a cross-piece 71 spanning a recess 72 in the lower end of the stop-piece 55, serves to hold the stop-piece when set in position to engage the stop-block 60. The recess 72 is provided within the lower end of the stop-piece 55, through which it extends horizontally from end to end, in order to enable the stop-lug 70 to clear the cross-piece 71 after it has served the purpose of holding the stop-piece 55 in the position to which it is set by the movement specified of the member 65. It may be observed in that connection at this juncture that a pull upon the trigger 15 serves at the same instant to bring the stop-block 60 and the stop-piece 55 into engagement, and to disengage the stop-lug 70 from the cross-piece 71. Consequently at the moment of the disengagement of the latter pair of members, the engagement of the former pair of members continues to hold the stop-piece 55 substantially in the one position, wherein it effectively interrupts the movement of the trigger. A leaf-spring 73, secured as by a screw 74 to the upper face of plate 4, engaging with a pin 75 projecting from the trigger-bar 27, serves to yieldingly hold the trigger

15 in the depressed position shown, for example, in Fig. I of the drawings.

Reserving description of the operation of the foregoing mechanism to a subsequent portion of this specification, attention is now directed to Figs. IX to XVIII, inclusive, of the drawings, wherein my invention is shown in modified form of embodiment.

The principal distinctions between the modified form of embodiment of my invention and that previously described are in respect to the means of liberating the trigger-stop-piece from its set position, wherein it engages the trigger and interrupts its movement, and also in the means for selectively determining the barrel which shall come first in the order of firing. As previously specified, it is the movement of the stop-lug 70 by pull of the trigger 15 which liberates the trigger-stop-piece, and it is the endwise movement of the trigger-bar 27 which selectively determines the barrel to be fired first. In the modified form of embodiment of my invention now under consideration, the stop-lug 70 is dispensed with, another means being substituted for the performance of its function, and an oscillatory trigger-bar is substituted for the reciprocatory trigger-bar previously described.

Referring to the numerals on the figures at present under consideration, first premising that the members of the gun mechanism proper, indicated by the numerals 1 to 14 inclusive, remain unchanged and, therefore require no other identification than that afforded by the numerals referred to, indicates a trigger depending from a lever 81 working in a slot 82 provided for it in the trigger-plate 4. The lever 81 is a bent lever having an intermediate portion 83 and a fore-end 85, in which is provided a knuckle 86 for the reception of the pin 23 that passes through the lugs 24 and 25 previously described. The knuckle portion of the fore-end 85 is bifurcated for the accommodation upon the same pin 23 of a stop-piece-detent 87. The lever 81 passes through the bridge-piece 50, previously described as affording means of connection for the screw 51 with the trigger-plate 4. The deflection of the lever 81, represented by the intermediate portion 83, is provided for the accommodation of an oscillatory trigger-bar 90 that is pivotally secured, as by a pin 91, within a recess 93 provided for it beneath a stop-block 94, the latter corresponding in function to the stop-block 60 previously specified. The trigger-bar 90, passing between the sides of the bridge-piece 50, as illustrated in Figs. X and XI, is limited in its oscillatory movement by those members, but provision for the said movement within the limit so imposed, is made by recesses 96 and 97 located in the forward end of the oscillatory trigger-

bar 90 and the intermediate portion 83 of the lever 81, respectively. The trigger-bar, for the performance of its function, is provided with a projection 98, which, as will appear upon comparison of Figs. X and XI, is adapted, through the oscillatory movement of the trigger-bar 90, to engage one or the other of the sear-lugs 18 and 19, but never both at the same time. The trigger-bar 90 is provided upon each side of the projection 98 with sear-tripping-faces 99 and 100, respectively, which alternately serve to engage the remaining sear-lug for actuation of the second sear when the sear-lug of the first sear in order of selection is engaged by the projection 98. Consequently, the projection 98 corresponds, as a unit, in function to the two sear-tripping-faces 47 and 48, previously specified, while the sear-tripping-faces 99 and 100 correspond to the recesses 46 and 45. In point of fact, the bottoms of the recesses may be as properly described as sear-tripping-faces as the more elevated sear-tripping-faces 47 and 48, and it is the space which separates the sear-tripping faces 47 and 48 from the bottoms of recesses 45 and 46 that differentiates them from each other, and that in like manner differentiates the member 98 and 99 and 100, respectively, from each other.

The oscillation of the trigger-bar 90 is imparted to it by means similar to the means employed for actuating the trigger-bar 27, that is to say by a member movably secured to the outside of the gun. The member in the present instance may consist of a transverse slide 101, having upon its face a lug 102 transversely elongated in cross-section, as shown in Fig. XVI, which works in a transverse slot provided for it in the trigger-plate 4 (compare Figs. XII and XIII). The lug 102 is provided with an aperture 105 for the reception of a nose 106 on the trigger-bar 90. It is yieldingly held in place, as by a bridge-spring 107, provided with an elongated slot 108 for the reception of the lug 102, which is confined in place above the nose 106 (see Fig. XIII) as by a pin 109 in the lug 102. The stop-piece-detent 87, preferably carried by the pin 23 in the bifurcated knuckle portion of the fore-end 85 of the lever 81, is normally held as by a spring 110 secured to one end as by a screw 111 to the rear face of the breech-piece 2, or otherwise conveniently disposed in engagement with a trigger-stop-piece 115 identical in function with the stop-piece 55. Like the stop-piece 55, the stop-piece 115 is suspended from the supporting-member 57 by the pin 56 and is in like manner actuated by the spring 59. The material distinction between the two stop-pieces is that the recess 72 in it, being no longer needed for the stop-block 70 for which the detent 87 is substituted, is dispensed with in the stop-piece 115. The end of the detent 87 rides against a smoothly curved face 116

on the front face of the stop-piece 115, the face 116 being terminated by a shoulder 117 which affords a stop for the detent 87 and defines a recess for the end thereof, permitting the retreat of the stop-piece 115 against, or substantially against, the bridge-piece 50 out of the way of the stop-block 94. The normal position of the stop-piece 115 being due to the spring-actuated interposition of the detent 87 against the face 116 of the stop-piece, shown in full lines in Fig. IX, I provide means for liberating the stop-piece from engagement with the detent 87 when required.

In its normal position referred to as shown in full lines in Fig. IX, the stop-piece 115 permits a limited rise of the lever 81 upon pull of the trigger 80. This movement of the lever 81 is sufficient to actuate one or the other of the sears, which is first in order of selection according to the position to which the trigger-bar 90 is set. Having actuated the first sear, further movement of the lever 81 is prevented by the interposition of the stop-piece 115 into engagement with the stop-block 94. It is necessary, therefore, that the said stop-piece give way before the stop-block 94 in order that the lever 81 may, by pull upon the trigger 80, be lifted sufficiently to actuate the second sear. Accordingly, I provide means for lifting the detent 87 against the shoulder 117 of the detent 115 whenever either sear is actuated. Such means may consist simply and conveniently of a projection 118 depending from the lower face of the detent 87 and engaging with both sear so that the movement of either sear may actuate it to lift the detent 87.

In respect to the operation of my device it may be briefly outlined as follows. The gunner having determined upon the barrel which he desires to fire first, sets the slide 3 or 101, as the form of embodiment of my invention which he is using requires, proceed to manipulate the gun in the ordinary manner, breaking it through the usual manipulation of the lever 11, and pulling the trigger first for one barrel and then for the other. If he desires, he may continue to fire one barrel to the exclusion of the other by merely breaking and reloading after each firing of the single barrel selected. The stop-piece 55 or 115, as the case may be, is always ready for the performance of its function, the stop-piece 55 being automatically set by its actuating-member 65 through the operation of breaking, as often as it occurs. The stop-piece 115 is always normally held in the position for the performance of its function as a stop-piece by the detent 87, except when it is lifted through the actuation of one of the sears.

The operation upon which depends the automatic action of the stop-piece 55 or 115 in their operation in that respect being identical, requires further description as follows.

Both barrels being loaded and the gun ready to fire, the gunner pulls upon the trigger and thereby discharges the first barrel in order of firing to which the trigger-bar 27 or 90, with which the gun may be provided, is set. It is well understood in gunnery that a double-barrel gun, after a discharge of the first barrel, is almost immediately subjected to a second involuntary pull upon the trigger, which would suffice to discharge, substantially at the same time, the second barrel if one trigger were employed for both barrels without provision of means for preventing the double discharge. It is means for preventing such double discharge that my invention is, as specified, intended to provide. The reason for the involuntary pull upon the trigger after the first discharge is not perhaps generally well understood, but the following description is adopted hypothetically as accounting for it, and it is demonstrated that my present invention, operating upon the principle involved in that hypothesis, may be relied upon for successful operation, in practice. The correctness of the hypothesis is accordingly believed to be demonstrated. The theory of operation referred to is that upon discharge of a gun, the recoil drives the butt of the stock against the shoulder, where, expending itself against the resistance of the shoulder, the gun rebounds in a direction opposite to that in which it recoiled. It is the rebound of the gun which, driving the trigger against the trigger finger, produces the so-called involuntary pull. As a matter of fact, however, the involuntary pull is not a pull of the finger upon the trigger but a thrusting of the trigger against the finger, the effect being, of course, identical with a pull. The rebound of the gun after recoil takes place in so short a space of time as to make it practically impossible to get the finger out of the way of the trigger upon the rebound. Now my invention takes the condition above referred to into consideration in order to secure automaticity of action in the following manner.

Referring to Figs. I and IX, it will be observed that the position of the stop-pieces 55 and 115, respectively shown in those figures, is substantially identical. In each figure, the stop-piece is shown in a position to permit a limited pull upon the trigger sufficient to actuate the first sear, but insufficient to actuate the second, and that as against the actuation of the second sear, the stop-piece interposes itself. From the position shown in the two figures referred to, the operation of the stop-piece, considered alone, with respect to its stop-block 60 or 94, is identical. Reference may, therefore, be had particularly to Fig. IX in which the several movements of the stop-piece, which occur in consequence of the recoil and rebound, respectively, of the gun, are illustrated in dotted lines. Proceeding accordingly, let it be as-

sumed that the gunner pulls upon the trigger 80, thereby discharging the first barrel. With the lifting of the sear of the first barrel, the detent 87 is lifted by the projection 108 along the face 116 until it reaches the recess-defining-shoulder 117. This is a momentary operation, so that by the time the stop-piece 115 is released from the detent 87 it is engaged by the stop-block 94, and the lift of the trigger is thereby interrupted and the firing of the second barrel prohibited. Immediately upon the firing of the first barrel, the recoil ensues, the effect of which is to release the trigger from the pressure of the trigger finger. Thereupon the stop-piece 115, under impulse of its spring 59 and of the force of recoil, swings towards the screw 51 clear of the stop-block 94. If now a pull upon the trigger should occur, it would fire the second barrel, but the recoil prevents the pull for the instant and the involuntary pull does not come until with the rebound of the gun from the shoulder, the trigger 80 is thrust back against the trigger finger. At such time, however, the loosely pendent stop-piece 115 has been swung back by the force of the rebound, say to the position shown on dotted lines to the right of the full line illustration of the stop-piece 115 in Fig. IX, so that when the involuntary pull comes it finds the stop-piece 115 automatically interposed to receive and engage the stop-block 94. The gun then comes to a rest, the force of its rebound being spent, and the gunner may release the trigger, subsequently, at his pleasure, and discharge the second barrel, the stop-piece 115 being swung out of the way by the spring 59 upon the said release of the trigger after the involuntary pull occurs. It may be pointed out that the only difference in the operation of the device as shown in Fig. I and that as shown in Fig. IX is in respect to means and not in respect to the principle of operation. For explanation in Fig. IX it is the detent 87 which holds the stop-piece 115 set to engage the stop-block 94, while in Fig. I it is the stop-lug 70 which, by engagement with the cross-piece 71, holds the stop-piece 55 in the set position. In each instance, it is the pull upon the trigger which releases the stop-piece—in the one instance by lifting the detent 87 out of the way of the stop-piece 115, and in the other, by lifting the stop-lug 70 out of the way of the stop-piece 55. In the latter instance the engaging arm of the stop-lug 70 permits freedom of movement to the stop-piece 55 by reason of the presence in the latter of the recess 72.

What I claim is:

1. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger, of positive means upon a fixed support, dependent for operation upon the recoil and rebound of the gun for interrupting the upward movement of

the trigger, and thereby preventing immediate, consecutive operation of both sears.

2. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger, of a ponderable member directly pendent from a fixed support, dependent for operation upon the recoil and rebound of the gun, to interrupt the upward movement of the trigger, and thereby to control the consecutive actuation of the sears.

3. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger, of a sear-actuating member, and automatic means independent of the said member for interrupting the upward movement of the trigger and thereby controlling the consecutive actuation of the sears, said automatic means being dependent for operation upon the recoil and rebound of the gun.

4. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger, of a trigger-stop-piece, dependent for operation upon the recoil and rebound of the gun, to interrupt the upward movement of the trigger, and thereby to control the consecutive actuation of the sears.

5. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger, of an automatic trigger-stop-piece, dependent for operation upon the recoil and rebound of the gun, to interrupt the upward movement of the trigger, and thereby to control the consecutive actuation of the sears.

6. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger, of a ponderable, pendent, automatic trigger-stop-piece, independent of the trigger, and depending for its action in interrupting the upward movement of the trigger upon the recoil and rebound of the gun.

7. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger, of a trigger-stop-piece, dependent for operation upon the recoil and rebound of the gun, to interrupt the movement of the trigger, thereby controlling the consecutive actuation of the sears, and a stop-piece-actuating-member.

8. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger, of a trigger-stop-piece, dependent for operation upon the recoil and rebound of the gun, to interrupt the movement of the trigger, thereby controlling the consecutive actuation of the sears, a stop-piece-actuating-member, and means for actuating the last named member.

9. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism,

and a single trigger provided with a stop-block, of a trigger-stop-piece, dependent for operation upon the recoil and rebound of the gun and movable in and out of the path of movement of the stop-block, for interrupting the upward movement of the trigger, and thereby controlling the consecutive actuation of the sears.

10. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger provided with a stop-block, of a trigger-stop-piece, dependent for operation upon the recoil and rebound of the gun and automatically movable in and out of the path of movement of the stop-block, for interrupting the upward movement of the trigger, and thereby controlling the consecutive actuation of the sears.

11. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger provided with a stop-block, of a ponderable, pendent, automatic trigger-stop-piece, independent of said trigger and depending for its action upon the recoil and rebound of the gun, located in the path of the stop-block, and adapted to interrupt the upward movement of the trigger.

12. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger provided with a stop-block, of a ponderable, pendent, automatic trigger-stop-piece, independent of said trigger and depending for its action upon the recoil and rebound of the gun, located in the path of the stop-block, and adapted to interrupt the upward movement of the trigger, and a spring for actuating the stop-piece in one direction.

13. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger provided with a stop-block, of a trigger-stop-piece movable into and out of the path of movement of the stop-block, substantially for the purpose specified, and means for initially setting the stop-piece in position to engage the stop-block.

14. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger provided with a stop-block, of a ponderable, pendent, automatic trigger-stop-piece provided with a recess, a cross-piece spanning said recess, and a stop-lug upon the trigger adapted to engage and disengage said cross-piece.

15. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, a single trigger, a longitudinally movable sear-actuating-member carried upon the trigger, and means for actuating said last named member from the outside of the gun, of a ponderable, pendent, automatic trigger-stop-piece, means upon the trigger for engaging said stop-piece to interrupt the move-

ment of the trigger, and means also upon the trigger for initially holding the stop-piece in position for said engagement.

16. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger, of means automatically actuated by the rebound of the gun to interrupt the movement of the trigger, and thereby to prevent the immediate consecutive actuation of the sears.

17. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger, of a ponderable member pendent from a fixed support, automatically actuated by the rebound of the gun to interrupt the movement of the trigger, and thereby to prevent the immediate consecutive actuation of the sears.

18. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger, of a ponderable member pendent from a fixed support, auto-

matically actuated by the rebound of the gun to interrupt the upward movement of the trigger, and thereby to prevent the immediate consecutive actuation of the sears. 25

19. In a gun, the combination with a plurality of barrels, the sears of its lock mechanism, and a single trigger, of positive means, comprising a ponderable movable member operated by the recoil and rebound of the gun, moving into and out of the path of movement of the trigger, for interrupting the upward movement of the trigger, and thereby preventing immediate consecutive actuation of the sears. 30 35

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ORIN H. PEAK

Witnesses:

JAMES HEACOCK,
S. B. NEWTON.