

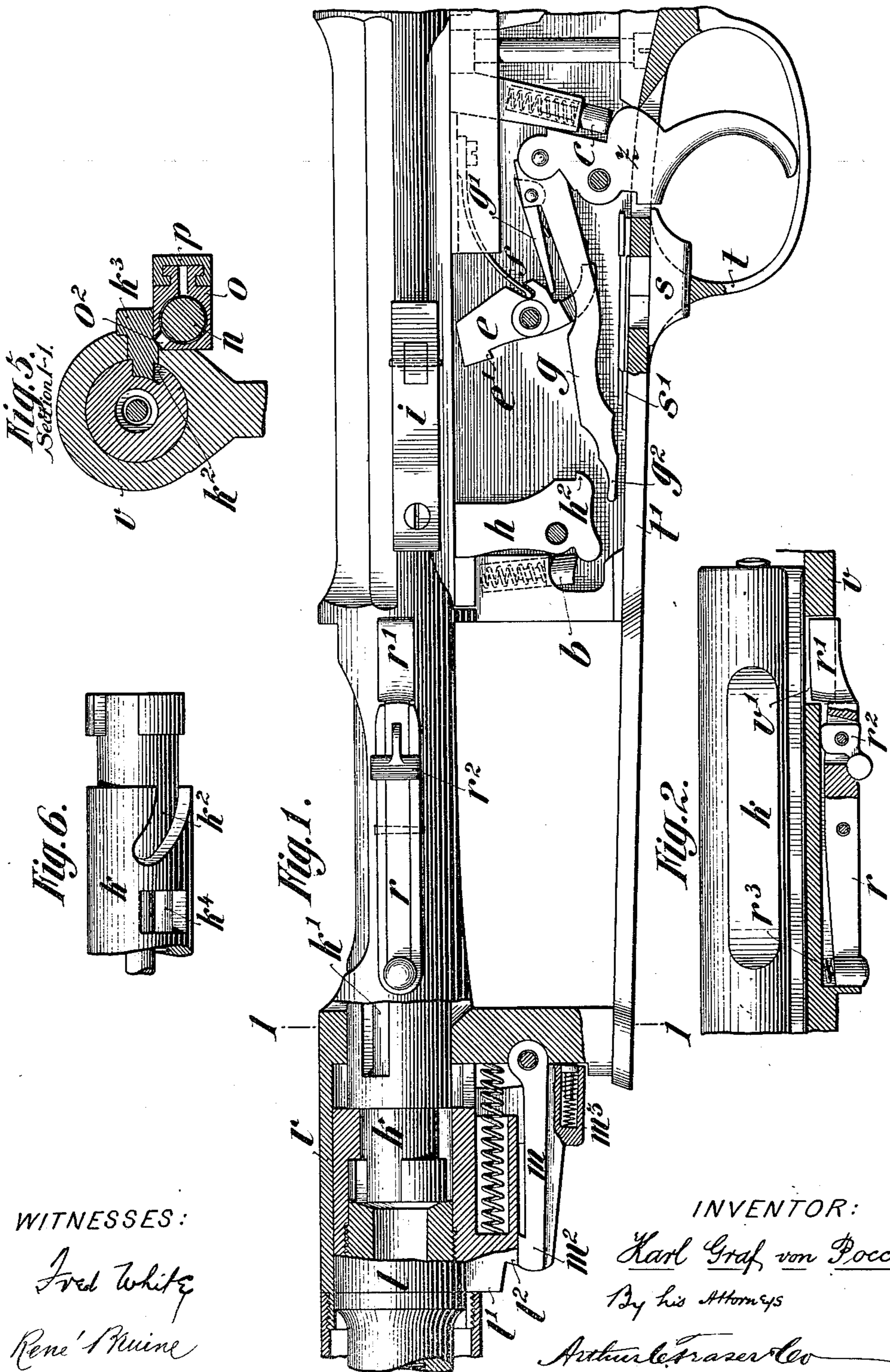
No. 859,974.

PATENTED JULY 16, 1907.

K. VON POCCHI.
FIREARM.

APPLICATION FILED MAR. 13, 1905.

5 SHEETS—SHEET 1.



WITNESSES:

Fred White
Rene Ruine

INVENTOR:

Karl Graf von Pocchi,
By his Attorneys
Arthur Fraser & Co

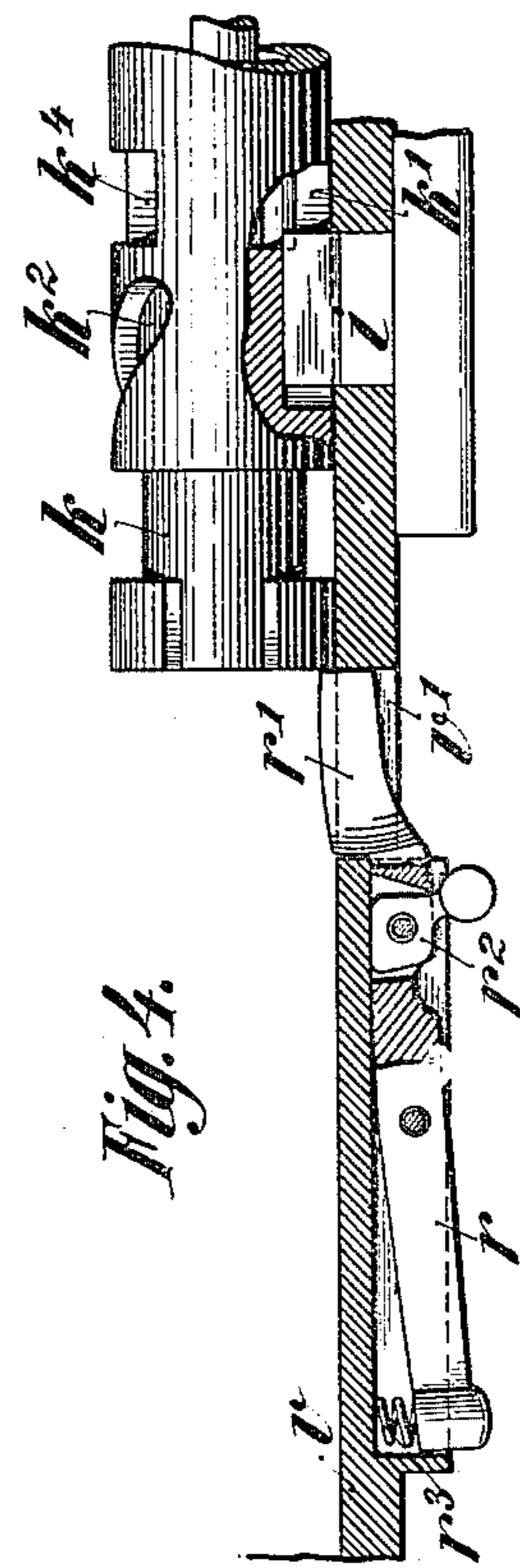
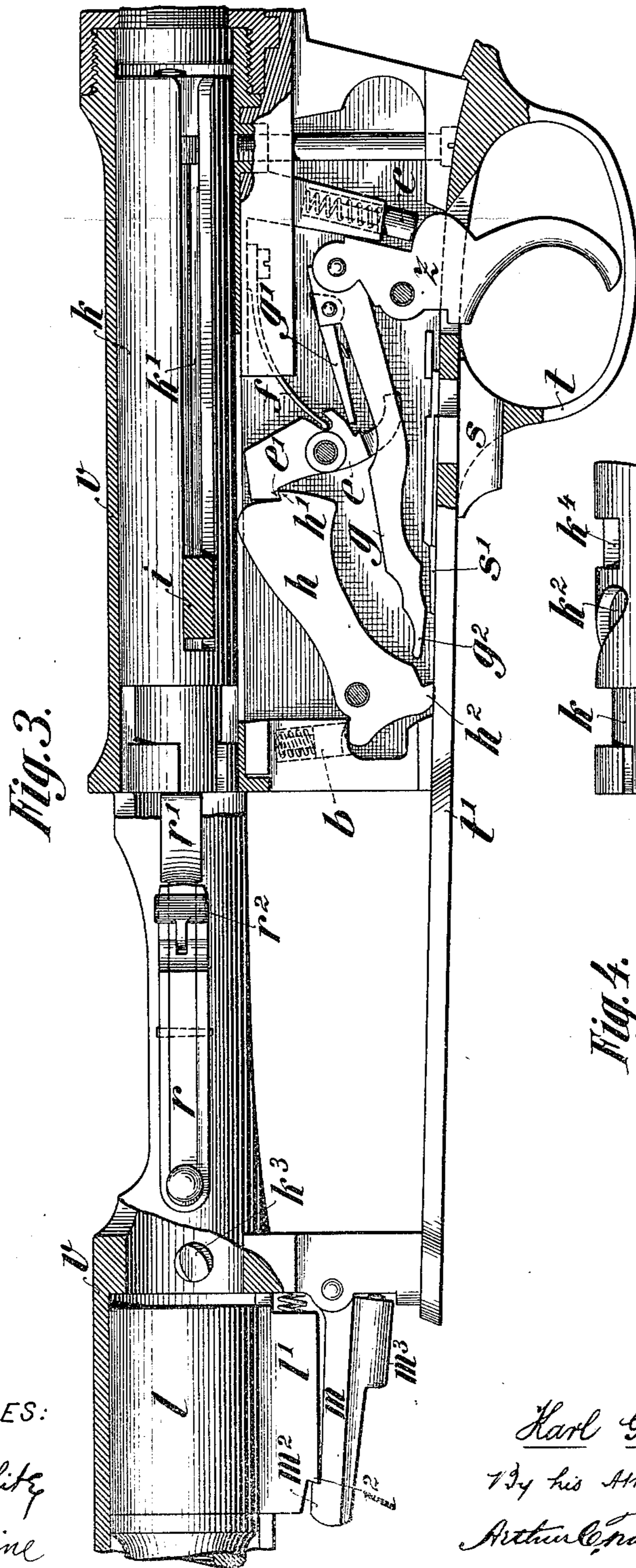
No. 859,974.

PATENTED JULY 16, 1907.

K. VON POCCHI.
FIREARM.

APPLICATION FILED MAR. 13, 1905.

5 SHEETS--SHEET 2.



WITNESSES:

Lord White
Rene & Ruine

INVENTOR:

Karl Graf von Poggi,
By his Attorneys
Arthur Caserles

No. 859,974.

PATENTED JULY 16, 1907.

K. VON POCCHI.
FIREARM.

APPLICATION FILED MAR. 13, 1906.

5 SHEETS—SHEET 3.

Fig. 3b

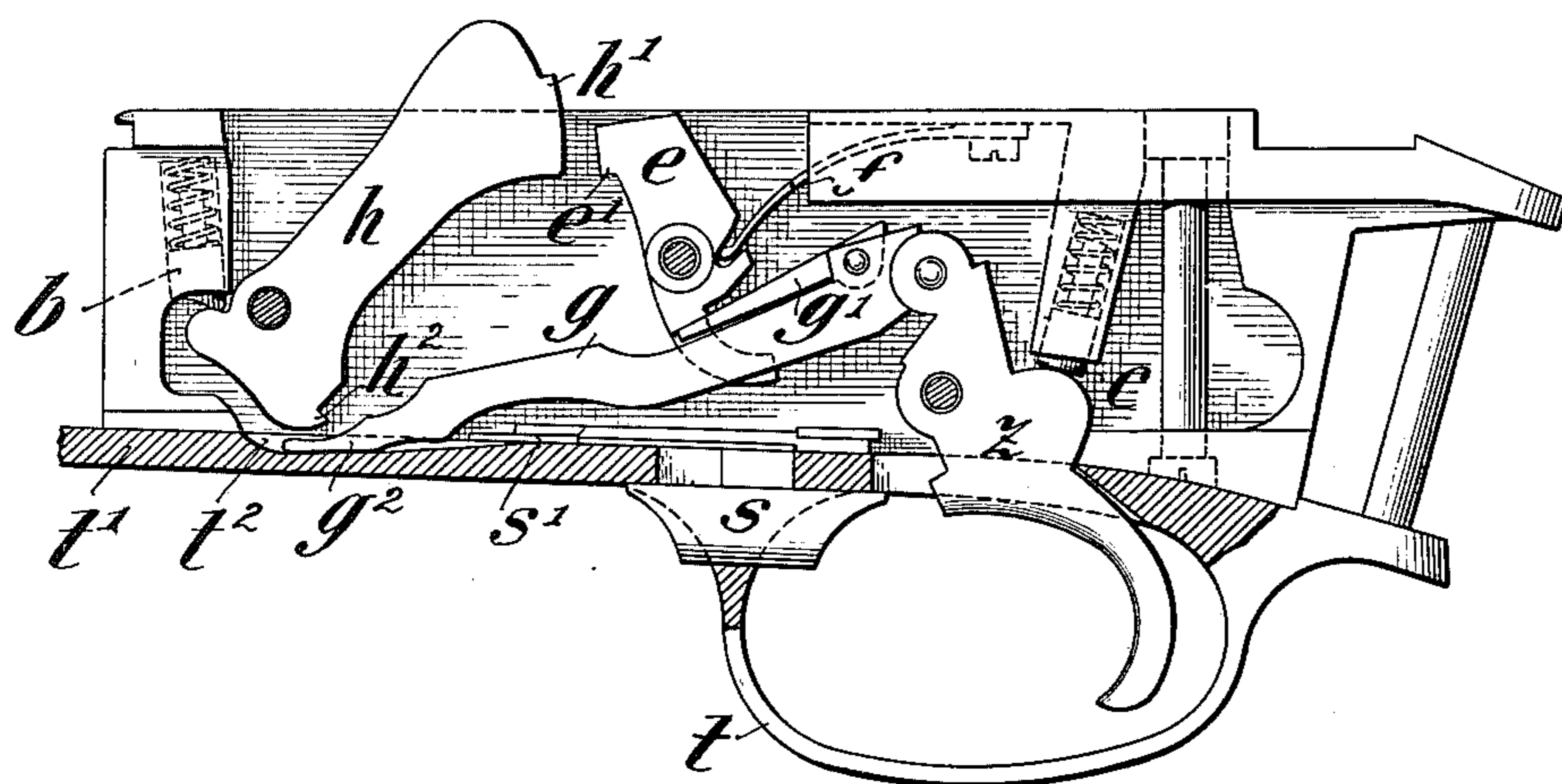
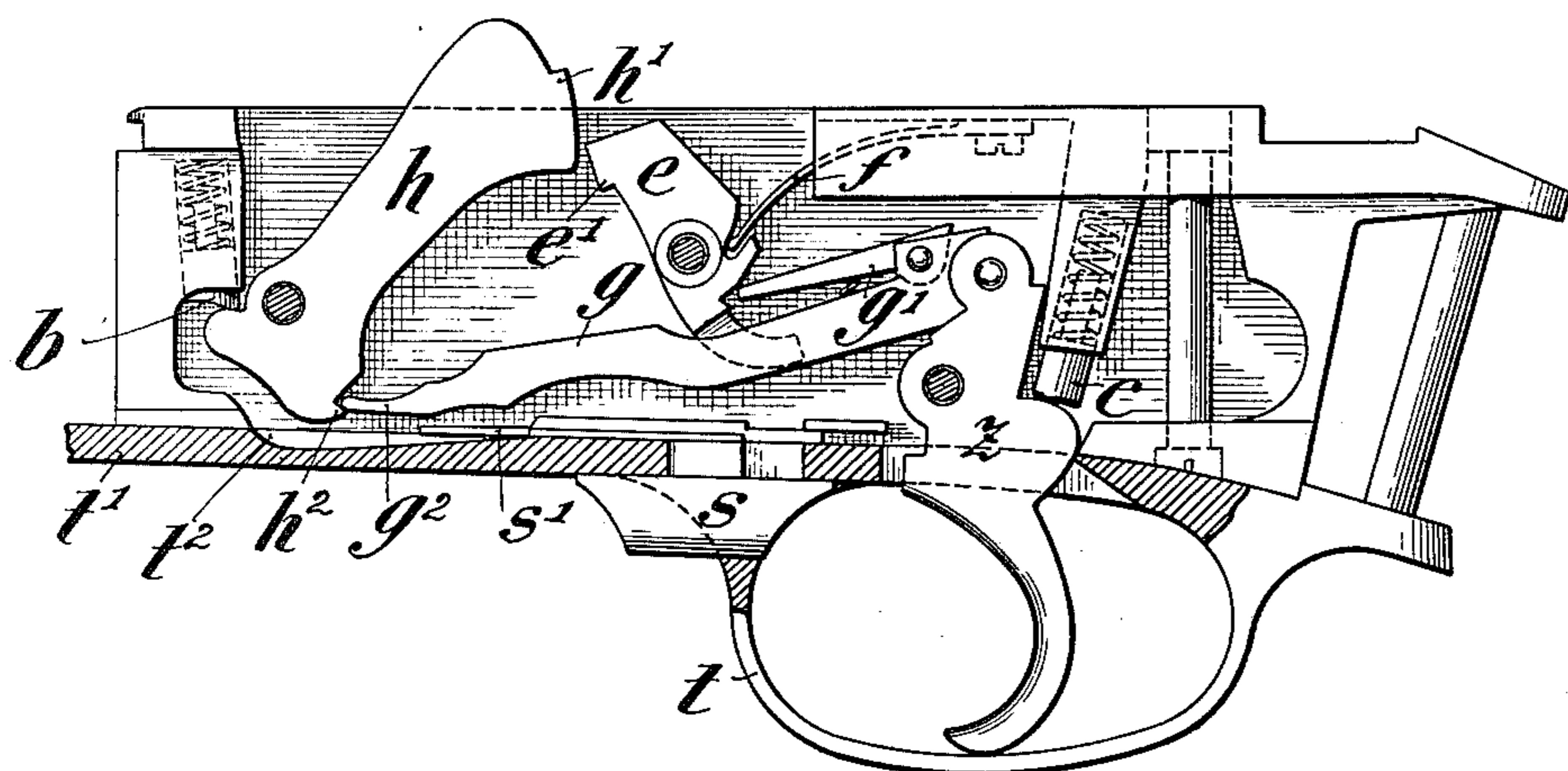


Fig. 3a



WITNESSES:

Ired White
Rene' Muine

INVENTOR:

Karl Graf von Pocci,
By his Attorneys
Arthur L. Fraser & Co

No. 859,974.

PATENTED JULY 16, 1907.

K. VON POCCHI.
FIREARM.

APPLICATION FILED MAR. 13, 1905.

5 SHEETS—SHEET 4.

Fig. 7.

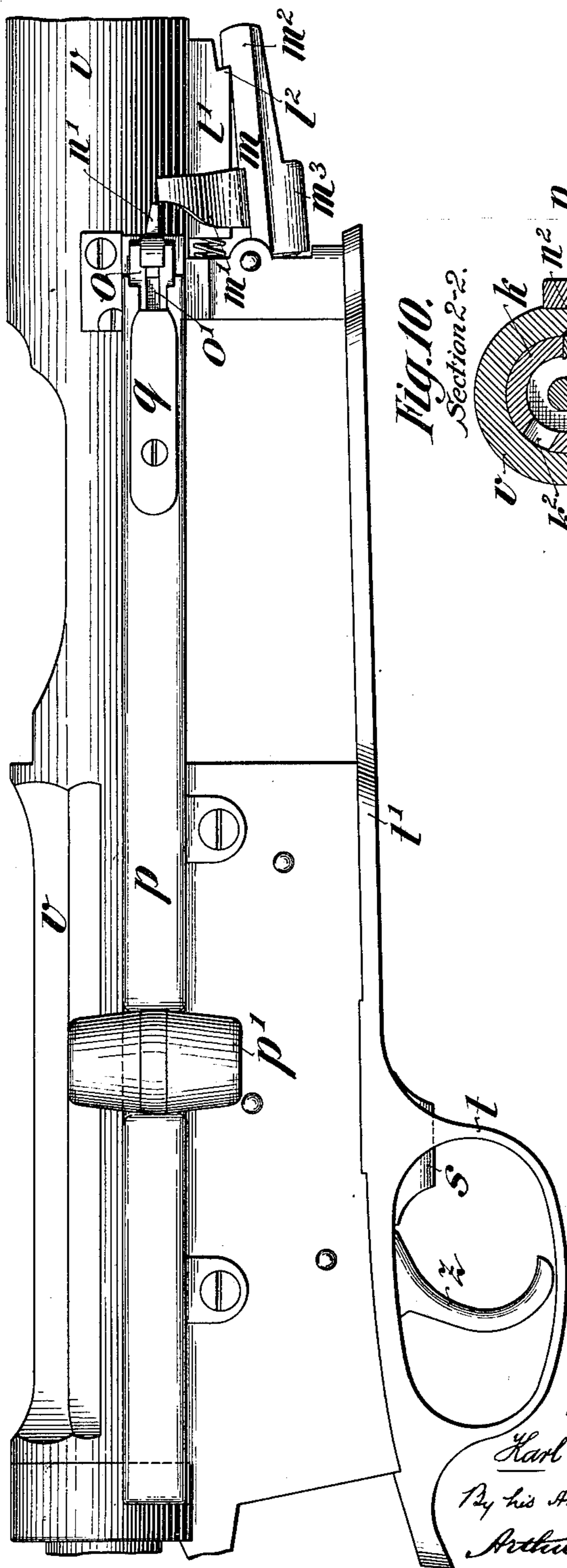
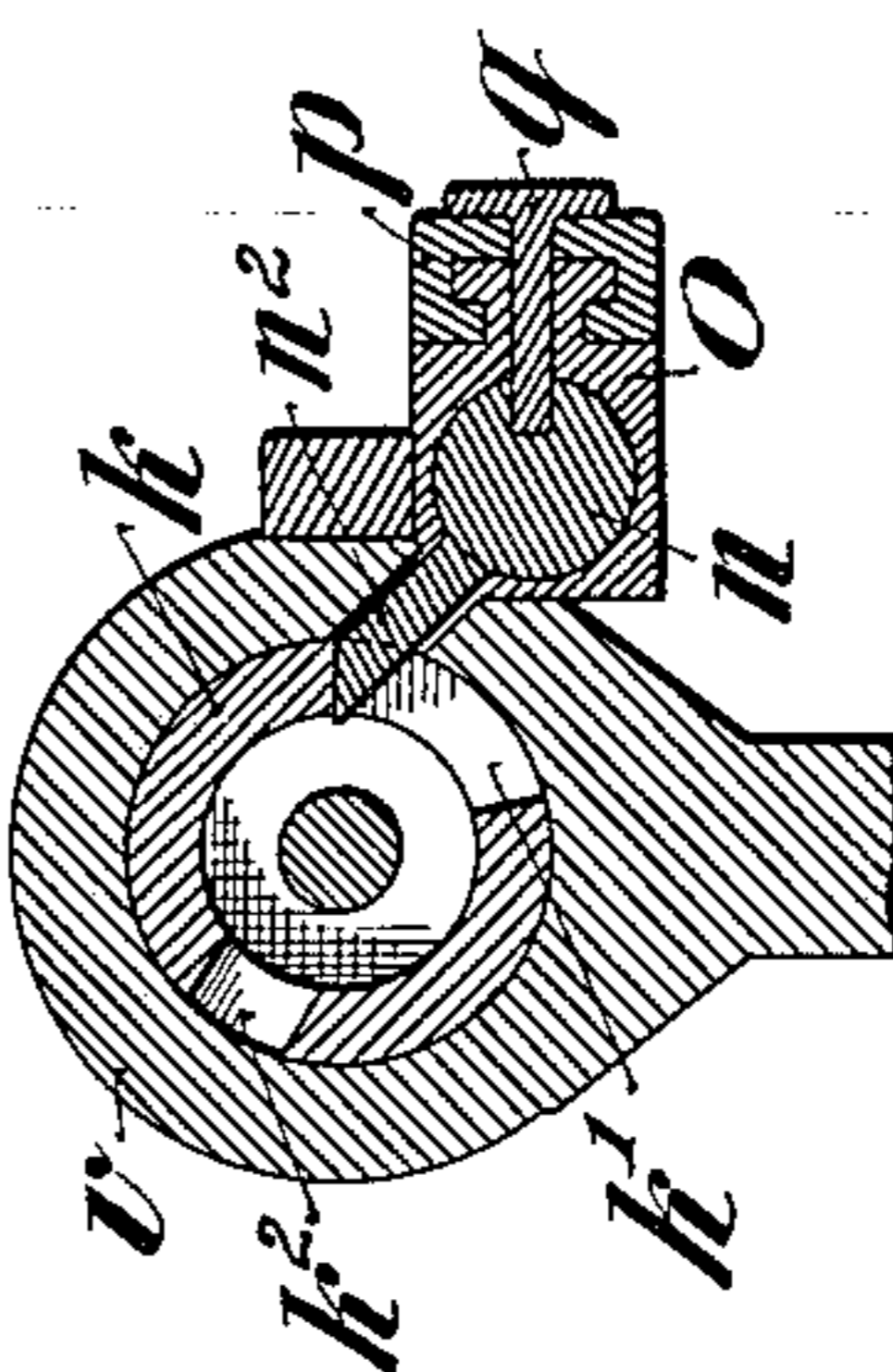


Fig. 10.
Section 2-2.



WITNESSES:

Fred White
Rene Muine

INVENTOR:

Karl Graf von Pocci,
By his Attorneys
Arthur K. Fraser & Co

No. 859,974.

PATENTED JULY 16, 1907.

K. VON POCCHI.
FIREARM.

APPLICATION FILED MAR. 13, 1905.

5 SHEETS—SHEET 5.

Fig. 8.

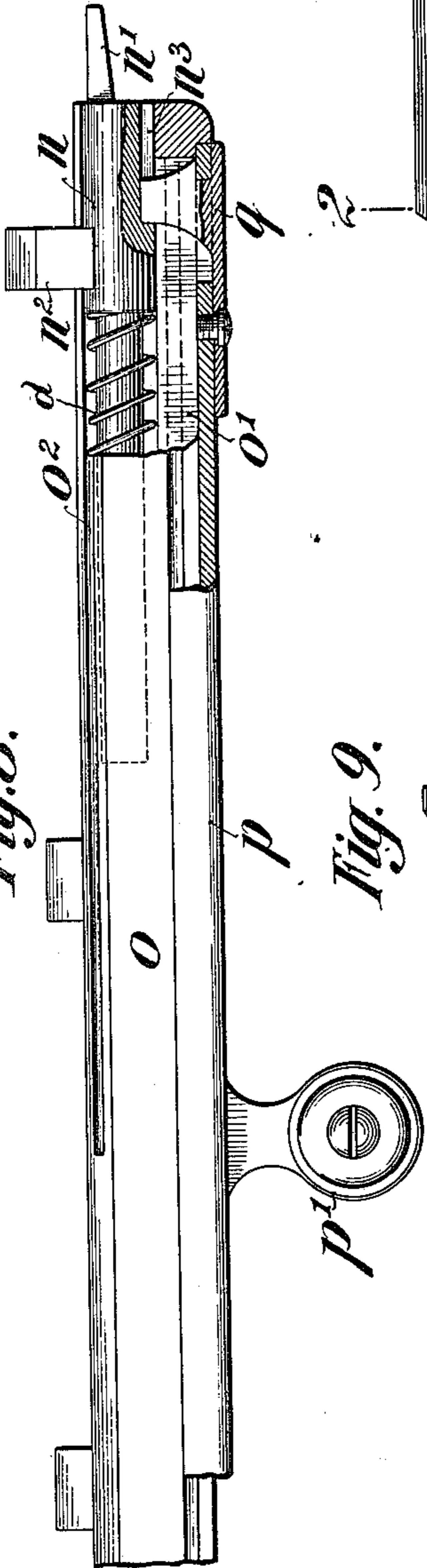
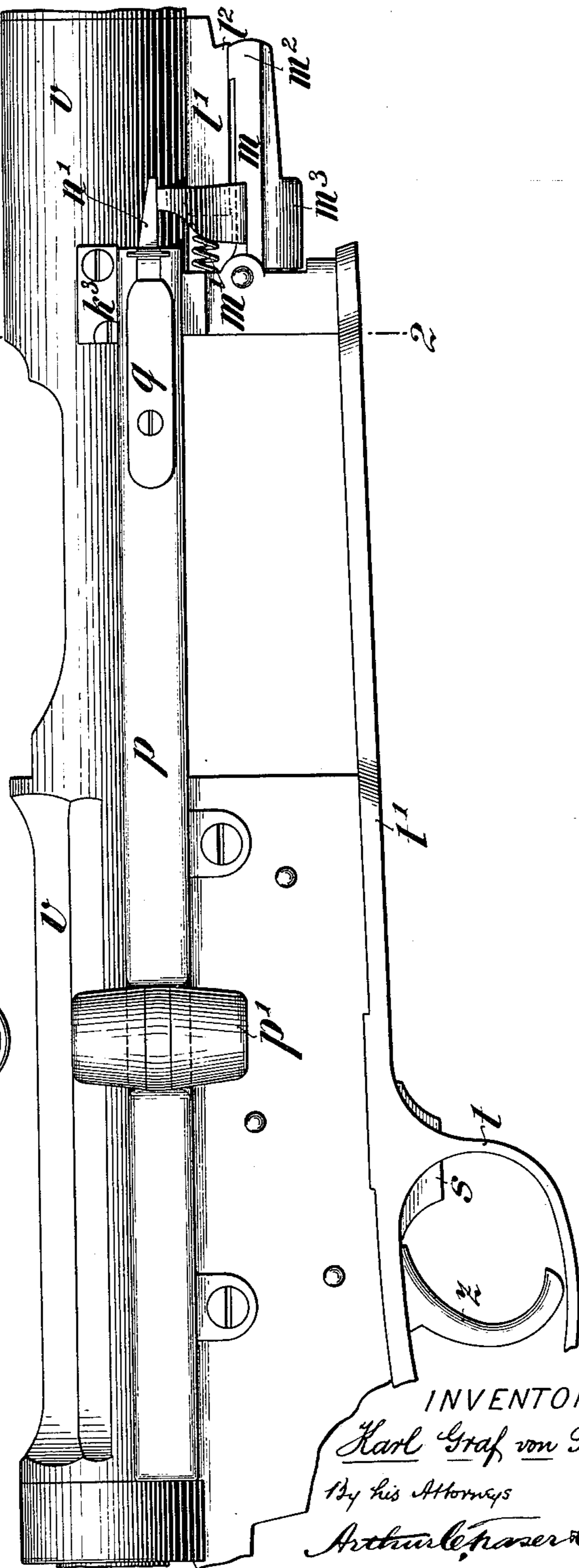


Fig. 9.



WITNESSES:

Ired White
Rene' Bruine

INVENTOR:

Karl Graf von Pocchi
By his Attorneys
Arthur K. Fraser & Co.

UNITED STATES PATENT OFFICE.

KARL VON POCCHI, OF MUNICH, GERMANY.

FIREARM.

No. 859,974.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed March 13, 1905. Serial No. 249,834.

To all whom it may concern:

Be it known that I, KARL VON POCCHI, a subject of the King of Bavaria, residing at Prinz Ludwig strasse, No. 2, Munich, Bavaria, Germany, have invented certain new and useful Improvements in Firearms, of which the following is a specification.

The present invention relates to an automatic gun with slidable barrel, which can also be used as a repeating fire-arm, in so far as the arrangement of a releasable breech bolt arresting device also permits non-automatic single shots to be fired in a suitable order of succession both when using the magazine and during single loading by hand.

This invention also relates to a new device by which the receded barrel, after firing, is secured in the rear position until the locking *i. e.* the coupling of the breech bolt with the barrel commences. The locking mechanism arranged in connection with the trigger mechanism forms another feature of the invention and when adjusted in the locking position, it prevents the striking of the hammer upon the firing pin, or only permits a partial forward striking movement of the former, so that the hammer is secured in an intermediate position or is put at rest, from which position it can be returned to the cocked position by pulling the trigger tongue.

The improved fire-arm is shown in the accompanying drawings and Figure 1 shows the gun in longitudinal section with removed lock-plate, the lock being unlocked *i. e.* the hammer having struck forward and the breech being in the locking position and the barrel in the forward position. Fig. 2 shows the arresting device for the breech bolt in the position for automatically operating the fire-arm, thus for automatically loading, opening and closing the breech. Fig. 3 shows the gun with cocked hammer and locked trigger, the breech bolt receded and the barrel secured in the rear position. Fig. 3^a shows the locked trigger mechanism with the hammer in the intermediate position or at rest, in which position the hammer is prevented from making a further forward striking movement. Fig. 3^b shows the unlocked trigger mechanism with the hammer in the act of striking forward unimpeded by the part, which otherwise secures it when the trigger mechanism is locked. Fig. 4 shows the arresting device for the breech bolt in the position for the non-automatic operation of the fire-arm, in which position the arresting device secures the outer sleeve of the breech bolt in the rearward position after each shot. Figs. 5—10 show in different views the means whereby the outer sleeve of the breech bolt is opened by hand and also the parts which effect the release of the locking device of the barrel.

The automatic operation of the firearm and especially the automatic opening and closing of the breech take place in the known manner. The barrel *l*, which is

subjected to the action of a spring, is moved back into its guide after the firing of the recoil until the rearward face of its rear part, the so-called barrel sleeve, wholly or partly bears against the end of the barrel guide. The separation of the breech bolt *k* from the barrel *l* now takes place in such a manner that the breech bolt is turned, whereby the unlocking takes place *i. e.* the coupling between breech bolt and barrel is released, as by this turning movement of the breech bolt, the locking nibs of the same are so disposed independently of the corresponding projections of the barrel sleeve that on the further movement of the breech bolt, they can pass through the spaces between the projections of the barrel sleeve. After this turning movement, the breech bolt will slide back in a straight line until it reaches the rearward end of the receiver, whereupon it performs another turning movement, by which the locking is insured. This general operation of the fire-arm is known and has only been repeated here for the sake of clearness. The general arrangement of the parts effecting the locking & unlocking of the breech bolt with the barrel is also known. In the present case, the turning movement of the breech bolt is effected by the coöperation of a guide pin *k*³ in the barrel sleeve with a helical shaped groove *k*² of the breech bolt, while the rectilinear guiding of the breech bolt is effected after the unlocking or before the locking by the engagement of the lug *i* in the rectilinear groove *k*¹ of the breech bolt. According to the invention, there is provided laterally of the barrel sleeve, a releasable breech bolt arresting device *r r'*, which has for its object, provided that the magazine is charged, or the fire-arm is to be used for non-automatic firing, to secure the breech bolt, which flies back after the shot, in its rearward position until the loading takes place by hand, whereupon by releasing the arresting device, the breech bolt will be released and permitted to move forward. This arresting device consists of a double armed lever adapted to oscillate on the barrel sleeve and having its rear arm projecting with a suitably formed shoulder *r'* in a recess *v'* of the barrel sleeve. The lever *r* is under the action of a spring *r*³, which operates on its other arm and tends to cause the shoulder *r'* to project into the barrel sleeve (Fig. 4) in such a manner that the receding breech bolt, which flies back after the shot, can slide over the shoulder but not move forward, as the breech bolt is secured by the shoulder *r'* in front of one of its locking nibs.

A slight pressure on the front end of the lever is sufficient for permitting the breech bolt to move forward again and for releasing the arresting device, whereby the shoulder *r'* is moved outwards from the front of the breech bolt, so that the latter can advance forward under the action of its forwardly propelling spring into the locking position.

Now in order to render the arresting device permanently inoperative for the automatic use of the fire-arm, the lever r has an adjustable projection r^2 , which is provided with an outwardly extending handle. The projection is so formed that when it is turned down with its handle directed forwards (Fig. 2) it secures the lever r in such a position that its shoulder r' is kept in the recess v' out of the path of the breech bolt. If, however, the adjustable projection r^2 is turned down with its handle directed rearwardly (Fig. 4) the lever r can be so freely adjusted under the action of its spring r^3 that its shoulder r' is adapted to arrest the breech bolt in the manner hereinbefore described.

As already mentioned, the fire-arm, according to the present invention, has a further improvement, which relates to means, the object of which is to secure the barrel in its rearward position until the locking commences *i. e.* until the locking nibs of the breech bolt have passed through the already mentioned recesses of the barrel sleeve into the barrel sleeve itself.

Now according to the invention, a very simple device has been provided for this purpose, which comprises a lever m oscillating at the front of the magazine box and having its lower part m^3 so formed that it can receive the spring, which actuates the lever. At the front end of the lever m is a hook-shaped projection m^2 , which is adapted to engage with a corresponding shoulder l^2 of a projection l' of the barrel sleeve. If the barrel has moved to its rearmost position, the lever m with its projection m^2 moves automatically under the action of its spring in front of the shoulder l^2 and secures the barrel (Fig. 3). The lever m is provided laterally with an upwardly bent lug m' , which has for its object to effect the release of the lever when the breech bolt advances. For this purpose, the bolt n (Fig. 8), which carries the breech bolt forwardly propelling spring d and is located in a lateral longitudinal sleeve o and engages by means of a projection n^2 in a corresponding recess k^4 (Fig. 6) of the breech bolt, has at its front end an abutting arm n' which, when the breech bolt advances or the spring bolt n moves forward (after the locking nibs have passed through the recesses of the barrel sleeve), bears upon the lug m' and thereby annuls the engagement of the lever m with the projection l' of the barrel sleeve, or interrupts the engagement of l^2 and m^2 , so that the barrel can advance again under the action of its forwardly propelling spring. On the side of the sleeve o , which has a slot o^2 so as to form a guide for the projection n^2 engaging in the breech bolt, is provided a slide p with handle p' for opening the breech bolt by hand (before the first shot). For this purpose, the slide has at its front end a projection q , which engages in a slot n^3 of the head of the spring bolt n and whose path is in a longitudinal groove o' in the outer wall of the sleeve o . When opening the breech bolt by hand, the spring bolt n and the breech bolt k can be withdrawn by means of the slide p in consequence of the engagement of q in n^3 ; during automatic firing, the slide p however remains stationary, as the spring bolt n can freely slide backwards on the projection q without taking the latter with it.

In the fire-arm as shown, the trigger lever z subjected to the action of a spring-bolt c is adapted to oscillate

within the box, which contains the striking parts and the trigger mechanism. The arm of the said trigger lever projects into the trigger guard and forms the trigger tongue. A longitudinal push-bar g is pivoted to the other arm of this trigger lever and carries an upper push-bar g' acting on the sear e . This upper push-bar g' is subjected to spring pressure and generally bears (Fig. 1) against the lower shoulder of the sear e , which is under the action of a spring f . The sear has a lug e' with which it can engage over the hammer h oscillating in the box. This hammer h is moved by the receding breech bolt into the cocked position and is secured in this position by engagement with the sear nib e (Fig. 2) the engagement of h & e being maintained by the action of the said spring f . For this purpose, the hammer is provided at its upper edge with a lug h' , which corresponds with the lug e' and the sear e in such a manner that in the cocked position of the hammer, both lugs are adapted to engage with one another. The lower push-bar g , which, as already stated, is linked to the inner arm of the trigger lever z and carries near to its joint the upper push-bar g' extends nearly to the lower part of the hammer and is generally, as shown in Figs. 1 & 3^b, freely advanced beneath the hammer when pulling the trigger tongue. There is provided beneath the upper push-bar g in the trigger guard plate, which closes the box below, a longitudinally movable locking member s , which has a shoulder s' within the box. This locking member s , when unlocked and projecting rearwards into the trigger guard t (Fig. 1) is so adjusted that the shoulder s' is out of reach of the front end g^2 of the lower push-bar g so that, as already stated, the latter can pass into the recess t^2 of the trigger guard plate t' . Thus when the locking member s is in the unlocked position, the hammer h can freely advance (Fig. 3^b) and when coming in contact with the firing pin, the cartridge explodes. If, however, the locking member s is out of the trigger guard and adjusted in its foremost position (Fig. 3) the shoulder s' is located beneath the front end g^2 of the lower push-bar g . This end of the push-bar g is kept in the elevated position in such a manner that when the trigger is actuated, the forward end of the lower push-bar is within reach of a shoulder h^2 of the lower part of the hammer h . The hammer can thus only strike a certain distance forward, the shoulder h^2 then bears against the outer end of g^2 and the hammer is secured in this intermediate position or is put at rest (Fig. 3^a). If the trigger tongue is drawn back further, the movement of the hammer will be reversed *i. e.* the hammer will be returned to its original arresting position, wherein the previously released sear engages with the head of the hammer (Fig. 3). On drawing back the trigger tongue, the hammer can still only advance a certain distance, it is then secured and on pulling the trigger tongue, the hammer returns to its original arresting position; thus a discharge of the gun cannot take place.

Having now particularly described and ascertained the nature of this said invention, I declare that what I claim and wish to secure by Letters Patent is:—

1. In an automatic fire arm having a slidable barrel, a spring for propelling the barrel forwardly, a locking device for temporarily securing the barrel in its rearward position after firing, said locking device comprising a hook pivoted to the frame, a spring for moving said hook into operative position, a lug upon the barrel sleeve having a shoulder

adapted to engage the hook, means for disengaging said hook from said lug, said means adapted to be operated as the breech bolt advances, and consisting of an arm carried by the bolt *n* which carries the breech bolt spring.

- 5 2. In an automatic fire arm with slidable barrel, the combination of the trigger mechanism comprising a trigger lever, an upper push bar, and a sear arresting the hammer, with a locking device for preventing the forward striking of the hammer and having a lower push-bar connected to
10 the upper push-bar and a locking member moving along the trigger guard plate, said lower push-bar being adapted to prevent the hammer from striking forward when the locking member is moved forward and also to return the ham-

mer from its intermediate position, to the cocked position, substantially as described and shown in the drawings. 15

3. In a firearm, a trigger, means adapted to cause said trigger to release the hammer, and means adapted to return it to its cocked position before it reaches the firing position.

In witness whereof, I have hereunto signed my name in 20 the presence of two subscribing witnesses.

KARL VON POCCL.

Witnesses:

HENRY HASPER,
WOLDEMAR HAUPT.