

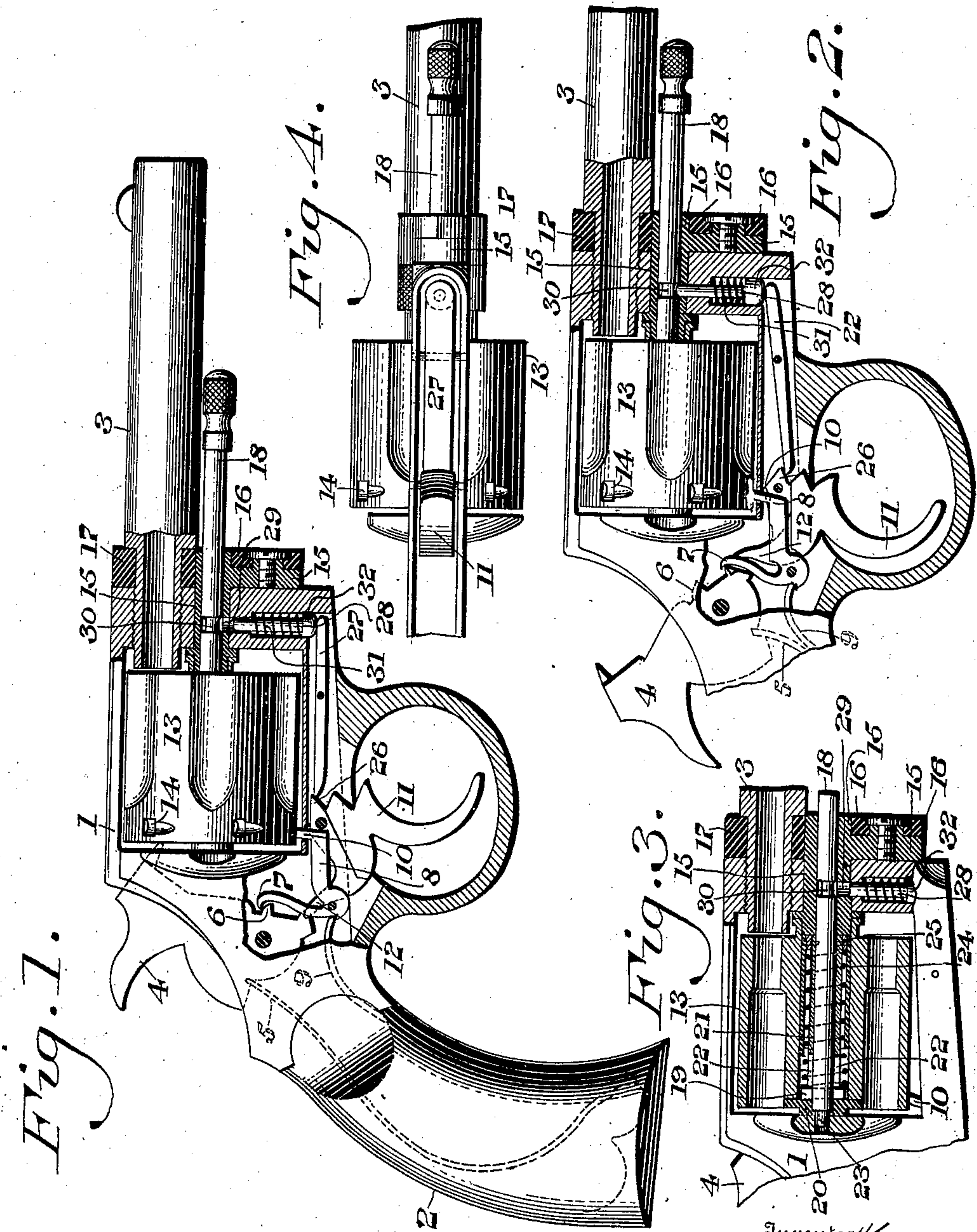
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H. M. KOLB & C. FOEHL.

FIREARM.

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Witnesses
P. F. Nagle.
L. Rouville.

Inventors
Henry M. Kolb.
Charles Foehl.
By
Kiedersheim & Fairbanks.
Attorneys

UNITED STATES PATENT OFFICE.

HENRY M. KOLB AND CHARLES FOEHL, OF PHILADELPHIA, PENNSYLVANIA.

FIREARM.

No. 826,788.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, HENRY M. KOLB and CHARLES FOEHL, of the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Firearm, of which the following is a specification.

Our invention relates to a new and useful firearm; and it consists in means for locking the cylinder-support in order that the same may be positively held in alinement.

It further consists in locking the cylinder or extractor rod.

It further consists of other novel details of construction, all as will be hereinafter fully set forth.

Figure 1 represents a partial side elevation and a partial sectional view of a firearm shown as a revolver embodying our invention. Fig. 2 represents a partial elevation and partial sectional view of a portion of the revolver, showing the parts in a different position from that shown in Fig. 1. Fig. 3 represents a sectional view of a portion of the device, showing the extractor-rod and connections. Fig. 4 represents a bottom plan view of a portion of the device.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates the frame of the revolver, 2 the handle or stock, and 3 the barrel, which is suitably connected with the frame 1.

4 designates the hammer, which is pivotally mounted in the frame and is suitably actuated by the spring 5.

6 designates a lug or projection on the hammer with which is adapted to engage a lever-arm 7 of the dog 8, said dog being pivotally mounted in the frame and suitably actuated by a spring 9, said dog having a bolt 10 for a purpose as will be hereinafter explained.

11 designates the trigger, which has a suitable projection 12, engaging with a suitable portion of the hammer 4 in order that the latter may be actuated by the movement of the trigger.

13 designates the cylinder of the revolver, which is provided with a series of notches 14 and with which the bolt 10 is adapted to engage in succession as the cylinder is rotated in order to hold the cylinder in alinement with the barrel.

The cylinder is mounted upon the sleeve

15, said sleeve being pivotally connected with the rotary arm 16, which has integral therewith or secured thereto a collar 17, which is adapted to rotate on the barrel, whereby it will be seen that said cylinder-sleeve and rotary arm may be moved to one side for loading the cylinder and ejecting the shells.

18 designates the cylinder or extractor rod, which passes through the sleeve 15 and has a pin 19 adjacent its inner end which is adapted to abut against the ejector-plate 20, carried by the tube 21, which latter has slots 22 adjacent its end, in which said pin is adapted to move, said pin, having its end 23 slightly reduced and passing through a suitable opening in the plate 20, is adapted to enter a recess in the frame 1 of the revolver for locking the cylinder and parts at the inner end. A spring 24 surrounds the tube 21 and bears against the pin 19, tending to hold the same in position normally seen in Fig. 3, it being seen, however, that the rod 18 can be pulled to the right from the position seen in said Fig. 3 against the tension of the spring, so that the end 23 thereof is released from the recess, whereby the cylinder and the parts can be moved to one side, as before stated, said spring 24 serving further to return the parts to their normal position when the rod 18 and ejector-plate 20 have been moved to the left, which can be done after the cylinder has been swung out, said action being for the purpose of ejecting the shells from the cylinder, the said rod being moved in this direction, carrying with it the ejector-plate 20 and the tube 21, the shoulder 25 on the tube bearing against the spring 24, as will be evident.

26 designates a lug or projection on the trigger 11, said lug or projection engaging with one end of the lever 27, which is suitably pivoted in the frame of the revolver; and the opposite end of said lever bearing against the locking-pin 28, which is vertically movable in a suitable opening or passage in the frame 1 of the revolver. The sleeve 15 is provided with a suitable opening 29 in alinement with the passage in the frame 1; and said extractor-rod 18 having a reduced neck or groove 30 so situated with respect to the opening 29 and the passage in the frame 1 that when the rod is in normal position, as seen in the figures; the same will be in alinement with said opening 29. The spring 31

bears against a suitable portion of the frame and surrounds the pin 28, which in the present instance is provided with a head 32, against which said spring acts, so that the locking-pin 28 is normally held in the position seen in Figs. 1 and 3.

By reason of the action of the spring 31, in addition to the function already described, upon the lever 27 it serves as a trigger-return—that is to say, the end of said lever 27 bearing on the projection 26 causes the trigger to return to its normal position, as seen in Fig. 1.

The operation of the device will be readily appreciated. When the parts are in the position seen in Fig. 1—that is to say, with the hammer down—the cylinder or extractor rod 18, as well as the sleeve 15, upon which the cylinder is mounted and which is pivoted to the rotary arm 16, are not locked at their forward end, although the end 23 of the rod is in engagement with the frame 1; but by a slight pull upon the rod 18 to the right from its position seen in the figures of the drawings the end 23 is released from the frame 1, and the cylinder, with its coacting parts and the rod 18, can be moved to one side, swinging on the barrel 3 by reason of the collar of the rotary arm 16 being mounted thereon. The cylinder is then in position to receive the cartridges, and after loading the parts are thrown back to the position seen in Fig. 1, the spring 24 immediately returning the rod 18 to the position seen in Fig. 3 with the end 23 engaged in the frame 1. The revolver is now ready for firing. As the trigger 11 is pulled back the projection 12 raises the hammer 4 by reason of its engagement therewith, and at the same time the lug 6 acts upon the dog 8 in order to remove the bolt 10 from the notch 14, with which it is in engagement at the time of starting the fire. As soon, however, as the lug 6 has passed the lever-arm 7 of the dog 8 the spring 9 acts upon the said dog in order to force the bolt 10 into engagement with the next notch 14, which is so spaced on the cylinder that one of the chambers of the cylinder is in alinement with the bore of the barrel at the proper time. By continued rearward movement of the trigger 11 the hammer 4 is released and is forced forward by the spring 5, striking the cartridge and firing the same. The lever-arm 7 is formed of thin material and is resilient, so that the return movement of the hammer causes the lug 6 to press the lever-arm 7 to one side to permit proper movement of the parts. It will be noted that as soon as the trigger 11 is started on its rearward movement the end of the lever 27 in engagement with the lug 26 is depressed, raising the opposite end of said lever, which thus elevates the locking-pin 28 and overcomes the tension of the spring 31. The pin 28 will be thus passed through the opening 29 in the sleeve

15, which is the cylinder-support, and enters the groove 30 in the extractor-rod, it being seen that by this provision the forward end of the cylinder-support and the cylinder are positively locked in position, as well as the extractor-rod 18, so that the same cannot be moved in either direction. The hammer is released or tripped at a suitable point in the rearward movement of the trigger, while the latter is still held in its rearward position until after firing, whereby the locking-pin 28 is held in elevated position, whereby the cylinder and its support, as well as the cylinder-rod, is positively locked and absolutely insures proper firing of the revolver, it being noticed that by reason of the locking of the rod 18 the rear end 23 thereof cannot be removed from the recess in the frame 1, with evident results. As soon as the trigger is released, in addition to the usual return, the spring 31, acting through the lever 27 and pin 28, serves as a trigger-return, at the same time removing the pin 28 from engagement with the cylinder support or sleeve 15 and rod 18. It will thus be seen that the locking of the parts occurs at each firing and is automatic in its action. It will be further seen that by the construction and arrangement of the parts that it is necessary for the pin 28 to enter the recess 30 in the rod in order that the firing may take place, so that in addition the locking the parts when firing the construction prevents firing unless the parts are in proper position therefor, as should the recess 30 not be in proper position to receive the pin 28 the latter when elevated would abut against the rod 18, and thus would be stopped from further upward movement, so that the hammer will not be released, as will be evident, and thus the firearm cannot be discharged. It will thus be seen that until the parts are in proper position discharge is prevented.

It will be evident that various changes may be made by those skilled in the art which will come within the scope of our invention, and we do not, therefore, desire to be limited in every instance to the exact construction herein shown and described.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a firearm, a cylinder rotatably mounted on a suitable support, a pin and automatic means for locking said support forward of the trigger by upward movement during the act of firing.

2. In a firearm, a cylinder rotatably mounted on a suitable support, an extractor-rod suitably connected with respect to said cylinder and a pin adapted to be automatically actuated to engage with said extractor-rod to lock the same when the trigger is actuated.

3. In a firearm, a cylinder rotatably mounted on a suitable support, an extractor-rod

suitably mounted with respect to said cylinder and adapted to forward and backward movement with respect thereto and means for automatically locking said extractor-rod.

5 4. In a firearm, a cylinder rotatably mounted on a suitable support, an extractor-rod in suitable connection therewith and means operated by the trigger for automatically locking said support and said extractor-rod forward of the trigger.

10 5. In a firearm, a cylinder rotatably mounted on a suitable swinging support, a pin forward of the trigger and means adapted to be actuated by the trigger for preventing movement of said support.

15 6. In a firearm, a cylinder rotatably mounted on a suitable swinging support, said support having a suitable recess or opening therein and a pin actuated by the movement of the trigger and adapted to enter said recess in order to lock said support when the trigger is actuated.

20 7. In a firearm, a cylinder rotatably mounted on a suitable swinging support, the latter having a suitable opening or recess therein, an extractor-rod in suitable connection with said cylinder, a groove or recess in said extractor-rod and normally in alignment with the opening in said support and a pin adapted to be actuated by the movement of the trigger in order to enter said opening and said groove in order to lock said support and said extractor-rod.

25 8. In a firearm, a cylinder rotatably mounted on a suitable swinging support, said support having an opening or recess therein, a spring-actuated pin mounted in a suitable portion of the frame of the device, a lever bearing against said pin and engaged by the trigger, whereby when said trigger is actuated, said pin is caused to enter said recess or opening and lock the cylinder-support.

30 9. In a firearm, a cylinder rotatably mounted on a suitable swinging support, an extractor-rod in suitable connection with said cylinder, said support having a suitable recess therein and said extractor-rod being provided with a suitable groove, in alignment,

ment, a pin suitably mounted in the frame of the device and a lever actuated by the trigger 50 in order to actuate said pin and cause the same to enter said recess and groove and thus lock the cylinder-support and extractor-rod.

10. In a firearm, a cylinder rotatably mounted on a suitable swinging support, a 55 spring-actuated extractor-rod in suitable connection with said cylinder and adapted for movement in either direction with respect thereto and means for locking the said cylinder-support and said rod during the act of firing.

11. In a firearm, a frame, a cylinder rotatably mounted on a suitable swinging support, an extractor-rod in suitable connection therewith and adapted for engagement with 65 the frame of the device for holding the parts in position and a suitable locking device adapted to lock said cylinder-support and said extractor-rod with respect to the frame.

12. In a firearm, a cylinder rotatably 70 mounted, an extractor-rod adapted to move forwardly and backwardly with respect to said cylinder, and means actuated by the trigger to engage with said rod for preventing discharge of the firearm unless said rod is in proper position therefor.

13. In a firearm, a cylinder rotatably mounted, an extractor-rod having a reduced neck therein, and means actuated by the trigger which is adapted to enter said neck when 80 the rod is in proper position for firing and will prevent discharge of the firearm if said rod is not in proper position.

14. In a firearm, a cylinder rotatably mounted, an extractor-rod suitably connected, 85 and a pin forward of the trigger and adapted to be actuated thereby to engage said rod to lock the same in proper position for firing and to prevent discharge of the firearm if said rod is not in position therefor.

HENRY M. KOLB.
CHARLES FOEHL.

Witnesses:

JESSE GILBERT,
I. S. ROSENBERGER