No. 733,101. PATENTED JULY 7, 1903.

D. B. WESSON.

REVOLVER.

APPLICATION FILED MAY 19, 1902.

NO MODEL.

Fig. 1.

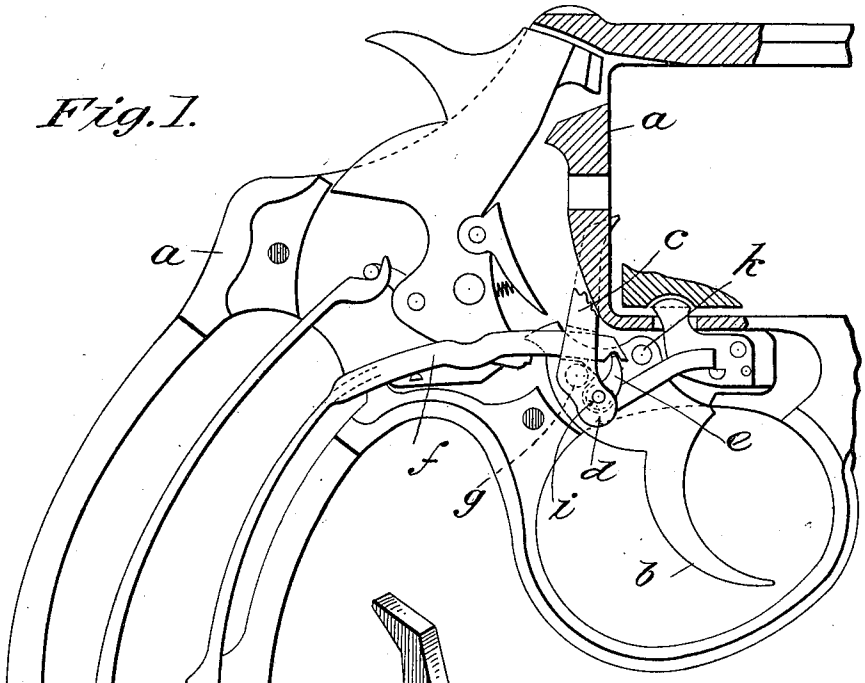


Fig. 3.

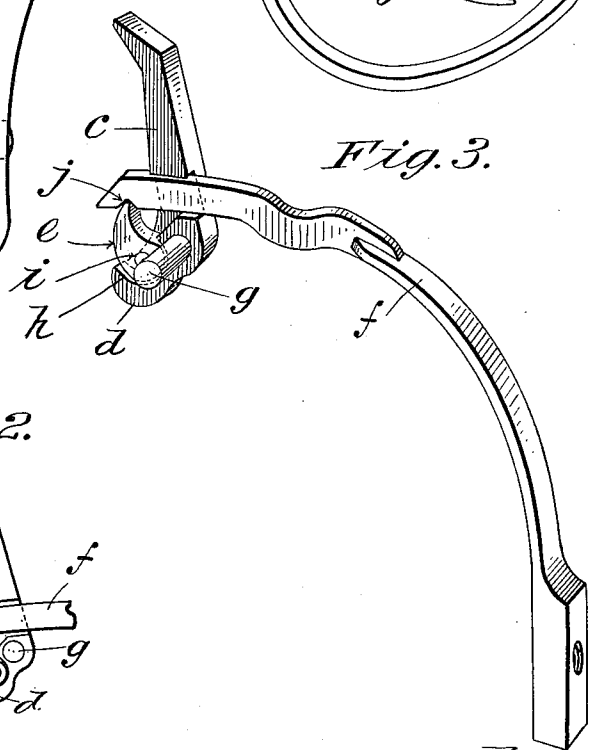
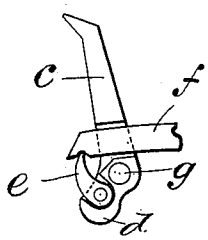


Fig. 2.



Witnesses:
J. D. Garfield
H. A. Clemons

Inventor:
Daniel B Wesson
by Chapin & Co
Attorneys.

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No. 733,101. Patented July 7, 1903.

UNITED STATES PATENT OFFICE.

DANIEL B. WESSON, OF SPRINGFIELD, MASSACHUSETTS.

REVOLVER.

SPECIFICATION forming part of Letters Patent No. 733,101, dated July 7, 1903.

Application filed May 19, 1902. Serial No. 108,063. (No model.)

To all whom it may concern:

Be it known that I, DANIEL B. WESSON, a citizen of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Revolvers, of which the following is a specification.

This invention relates to improvements in revolving firearms, and is in the nature of an improvement on the construction described in Letters Patent of the United States issued to Joseph H. Wesson on August 14, 1900, and numbered 655,844; and this invention relates particularly to improvements in the mechanism whereby the hand is operated, all as fully set forth in the following specification, and pointed out in the claims appended thereto.

In the drawings forming part of this application, Figure 1 is a side elevation of a revolver mechanism in which my invention is embodied. Fig. 2 is a side elevation of the hand and a portion of its actuating-spring, and Fig. 3 is a perspective view of the hand and its actuating-spring. The drawings are on a somewhat enlarged scale.

In the aforesaid prior patent the spring *f*, as in the present application, constitutes both the trigger-spring and the spring for holding the hand to its work; but in said prior patent the spring bears on a shoulder on the hand and in the actuation of the arm has more or less sliding movement on said shoulder, which measurably interfered with the free and easy action of the parts.

The object of this invention is to do away with this frictional contact and to increase the leverage which the spring may have on the hand to render the action of the parts easier and less liable to wear.

Referring to the drawings, *a* indicates the frame of the revolver; *b*, the trigger; *c*, the hand; *d*, an extension of the hand below its pivotal point, and *e* a short arm pivotally supported on the said extension *d* of the hand. *f* indicates the trigger and hand actuating-spring.

In carrying my invention into practice the hand *c* is made as usual and is pivotally supported on the trigger *b* by a pin *g*. Near the pin *g* the hand is broadened in a plane transverse to the pin, said broadened portion being indicated by *d*. Preferably, this broadened portion extends somewhat downwardly and forwardly of the pin. This direction, however, is not because of any requirement of proper operation, but because of the necessities imposed by the construction of the frame, and by broadening the lower end of the hand in this direction the required space in the frame is obtained. This is manifest by a glance at Fig. 1 of the drawings. Were it not for this limitation, imposed by the requirements of construction, the hand could as well have been broadened in a direction leading forwardly or forwardly and upwardly without in any way affecting the operation of the hand and the parts associated therewith, about to be described. In this broadened portion *d* a semicircular cavity *h* is milled in the side thereof next to the trigger, in which cavity the rounded end of an arm *e* is seated, pivotally secured therein on a pin *i*, passing through the hand. The cavity *h*, within which this rounded end of the arm *e* is seated, is so proportioned that the two opposite sides thereof act as stops to confine the movement of the arm *e* within certain limits. This latter tapers to a blunt edge on its upper extremity, which edge is parallel with the axis on which the hand swings, and the free end of the trigger-spring has a notch *j* formed therein to receive this upper end of the arm. It is clear that by means of this construction there is an entire absence of friction between the spring and the hand, and the action of the parts is thereby rendered much smoother and the wear between the hand and its actuating-spring reduced to a minimum.

As the trigger is drawn backward to cock the arm it swings on its pivot *k*, and the hand is carried upward to perform its function of rotating the cylinder against the tension of the spring *f*, which returns the trigger to normal position when the latter is released, and in both of these movements the spring has practically no movement relative to the upper end of the arm *e*, on which it is supported, said arm oscillating on its pivot as the trigger swings.

While it is desirable that the arm *e* should be let into the side of the extension on the

hand, as shown, and that the end of the spring *f* should be let into a recess in the side of the hand, these are not essential features, and this construction is followed only to reduce the transverse width of the parts, whereby when they are assembled they will occupy less room within the frame of the arm.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a revolver, the combination of a trigger, a hand pivotally supported thereon, and having an extension below its support, an arm pivotally supported on said extension and extending upwardly therefrom, a spring one end of which is secured to the frame of the revolver and whose free extremity bears on said arm.

2. In a revolver, the combination of a trigger, a hand pivotally supported thereon, said hand being broadened near its pivotal point in a plane transverse to its axis; an upwardly-extending arm pivotally supported on the broadened portion of said hand, and means to limit the swinging movement of said arm toward and from the hand, together with a spring secured to the frame by one end, its free end bearing on the upper end of said arm.

DANIEL B. WESSON.

Witnesses:
WM. H. CHAPIN,
K. I. CLEMONS.