

No. 684,331.

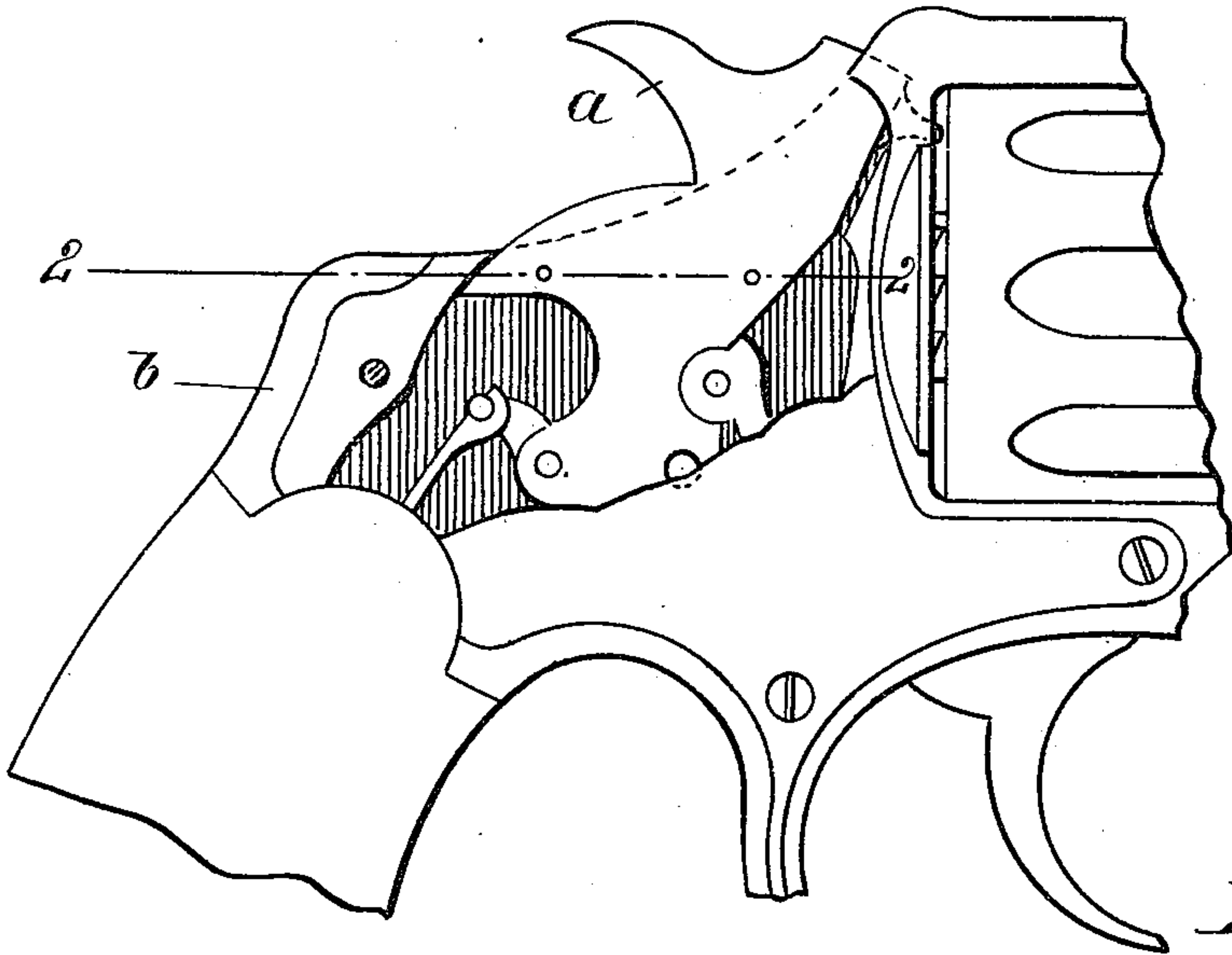
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D. B. WESSON.  
HAMMER CONSTRUCTION FOR FIREARMS.

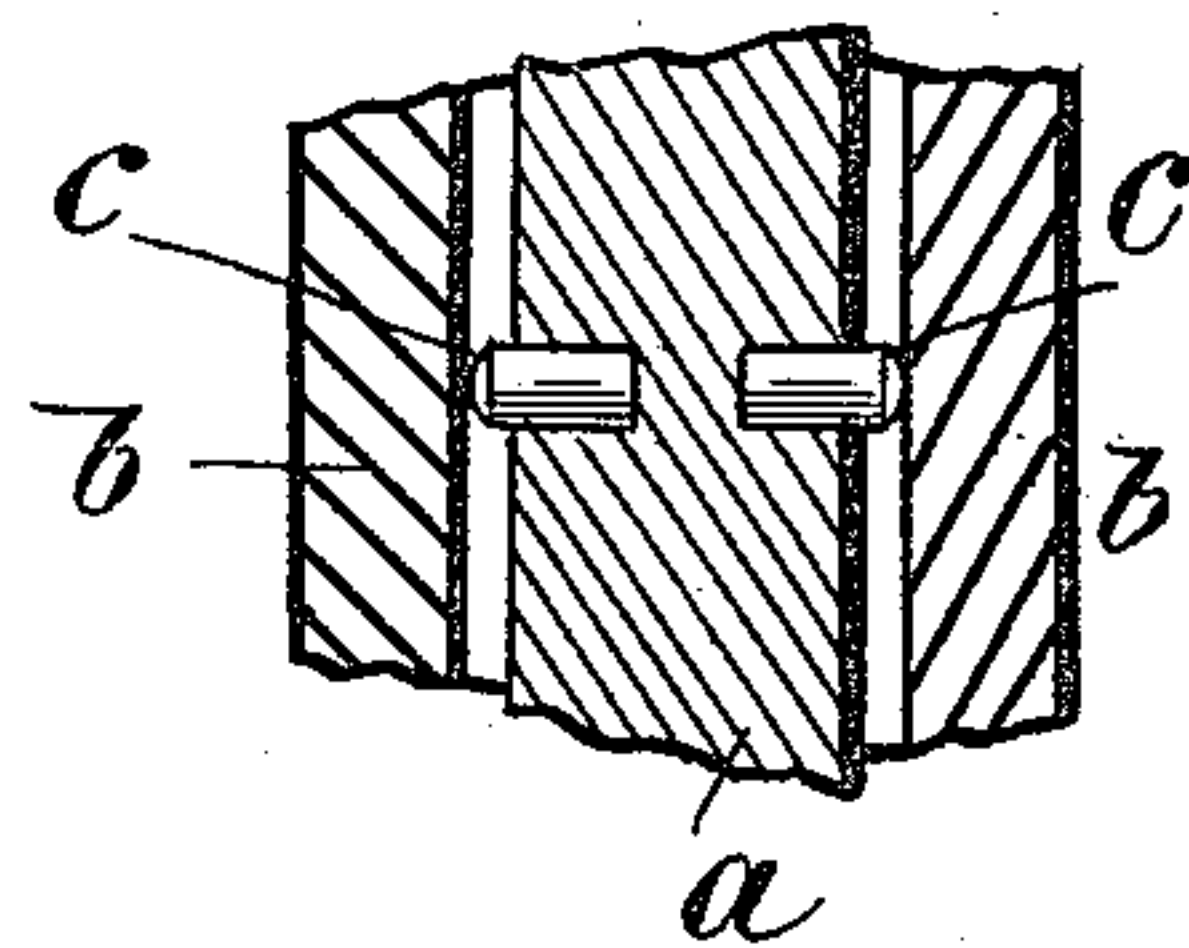
(Application filed Mar. 25, 1901.)

(No Model.)

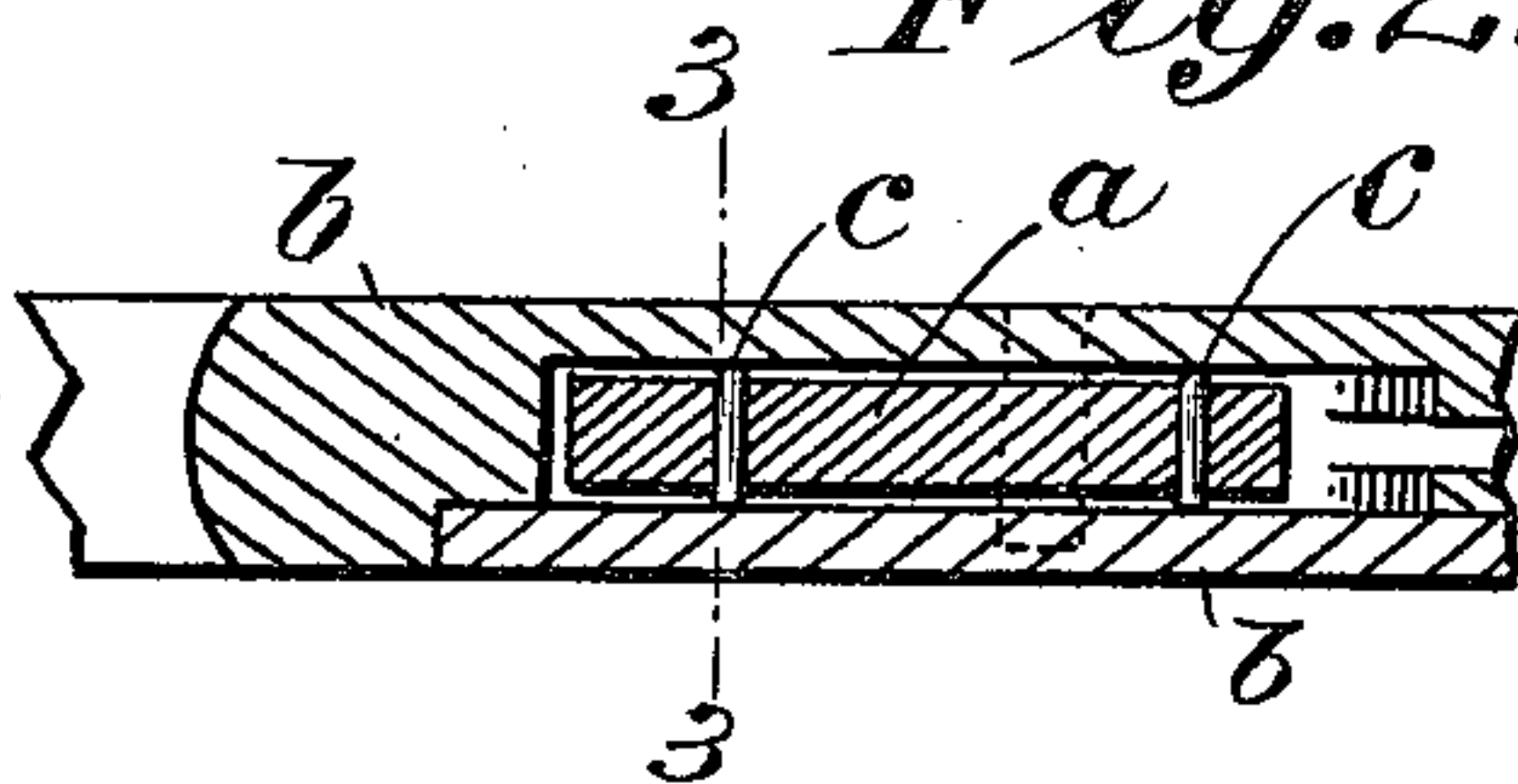
*Fig. 1.*



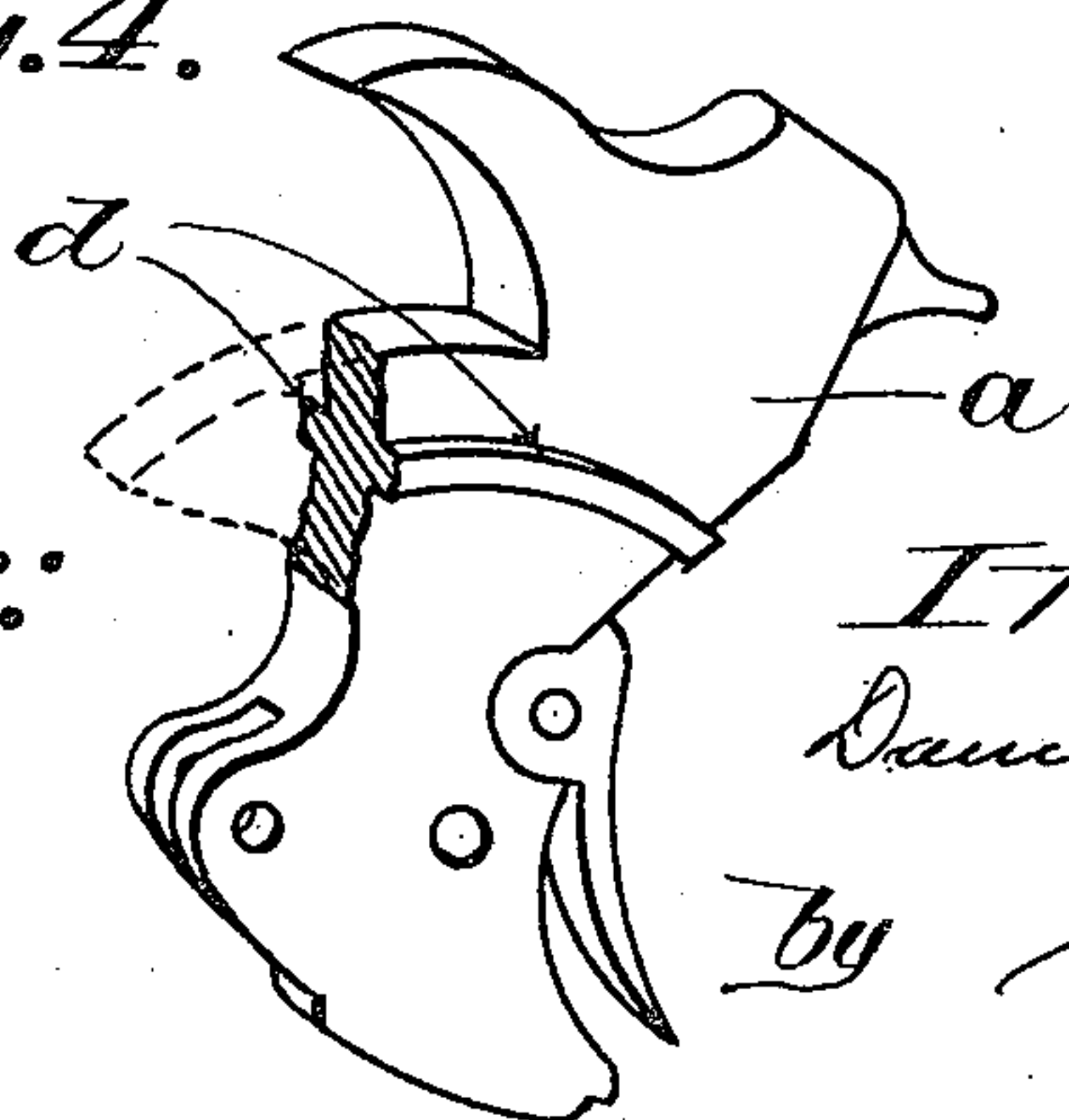
*Fig. 3.*



*Fig. 2.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

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## HAMMER CONSTRUCTION FOR FIREARMS.

SPECIFICATION forming part of Letters Patent No. 684,331, dated October 8, 1901.

Application filed March 25, 1901. Serial No. 52,782. (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 Hammer Construction for Firearms, of which the following is a specification.

This invention relates to firearms, and has for its object the provision of means for preventing friction between the side of the hammer and the frame of the arm, and it is particularly applicable to revolvers of the self-cocking type. It not infrequently happens that for one reason or another the hammer will bear on the frame to such an extent as to render the cocking operation difficult and prevent, at any rate, the smooth working of the arm. Generally this frictional contact is due to the fact that there is either a slight play of the hammer on its pivot or that the latter is not absolutely at right angles with the frame of the arm. However, whatever may be the cause of this friction it is reduced to a minimum by the construction forming the subject-matter of this application.

Referring to the drawings forming part of this specification, Figure 1 shows in elevation a portion of a revolver with the side plate partly broken away. Fig. 2 is a section through the arm on line 2 2, Fig. 1. Fig. 3 is an enlarged transverse section on line 3 3, Fig. 2; and Fig. 4 is a view of a hammer, showing a modification of the construction illustrated in the other figures.

In carrying out my invention the hammer *a* is hung in the frame in the usual manner, *b* indicating the frame. To prevent the contact of the hammer with the sides of the frame on one side and with the side plate on the other, I provide, preferably at two points on the hammer, points of contact between the hammer and the inner surface of the frame and side plate, these two points being so located that they will be at all times within the frame of the arm during the swing of the hammer, and they are preferably provided by drilling holes through the hammer-body parallel with the pivot of the hammer, and preferably in such relation thereto that they will with said pivot constitute a triangle, as shown in Fig. 1. In these holes in the hammer pins

*c* are tightly driven and their outer ends cut off at such a point beyond either side of the hammer as will when the hammer is in the position in the frame permit the latter to swing as closely as possible in the frame without touching it, the ends of these pins only bearing on the frame.

The ends of the pins projecting from each side of the hammer are rounded off smooth, as shown in Fig. 3, and they are preferably hardened. The space between the hammer and the frame and side plate, as shown in Figs. 2 and 3, is very greatly exaggerated for the sake of clearness. In practice the projecting ends of the pin *c* are so close to the side of the hammer as to be scarcely discernible to the touch.

If desired, instead of drilling clear through the hammer, as shown in Fig. 2, holes may be drilled into opposite sides thereof part way through the body of the hammer, and pins of the proper length driven in from opposite sides, or the constructions shown in Fig. 4 may be resorted to, and instead of drilling holes through the hammer and inserting pins therein ribs *d* may be milled on each side of the hammer concentric with the pivot, which will afford bearing-surfaces which will be equivalent to the surfaces provided by the ends of the pins *c*. It is, however, cheaper to insert the pins than to mill ribs on the hammer.

A further advantage in providing bearing-points for the hammer, as shown, lies in the fact that it is not necessary to pay as much attention to the hanging of the hammer on its pivot as is the case when the latter acted as the sole support for the hammer, it having been found necessary in arms of good quality to pay great attention to the manner of supporting the hammer on its pivot-pin, whereby it should not only swing freely thereon, but also swing in a true plane without lateral play.

By the use of this invention much of the care and exactitude in fitting the hammer may be avoided and a better result attained at less expense.

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

1. The combination with the frame of a firearm, of a hammer hung therein, pins in oppo-

site sides of the hammer whose ends project beyond the surface of the latter for bearing against the frame of the arm whereby the body of the hammer is held out of contact  
5 with the frame, in its swinging movement, substantially as described.

2. The combination with the frame of a fire-arm, of a hammer pivotally supported therein free from contact with the frame and one or

more bearing-points projecting from the sides 10 of the hammer between the pivot and the edge thereof for bearing against the frame to keep the body of the hammer out of contact with the frame, substantially as described.

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