No. 667,554. Patented Feb. 5, 1901.

W. B. MURPHY.

DIE FOR FASTENER SETTING MACHINES.

(Application filed May 8, 1900.)

(No Model.)

Fig. 1.

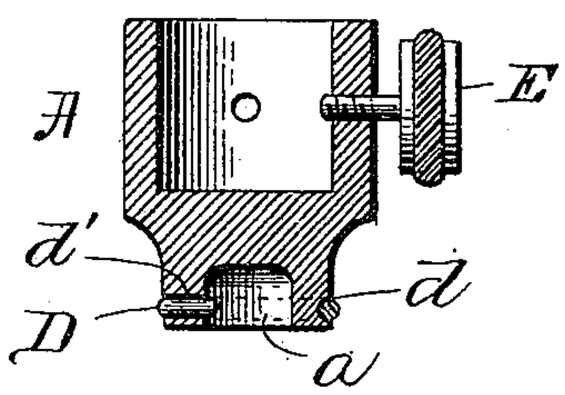


Fig. 3.

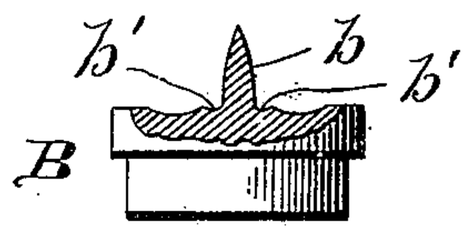


Fig. 2.

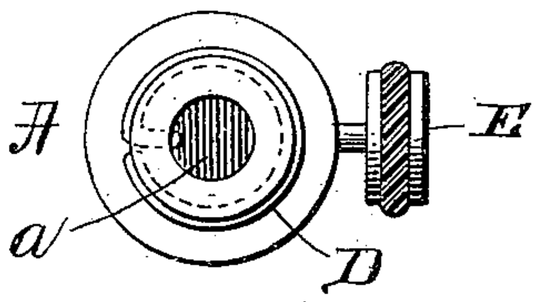


Fig. 4.

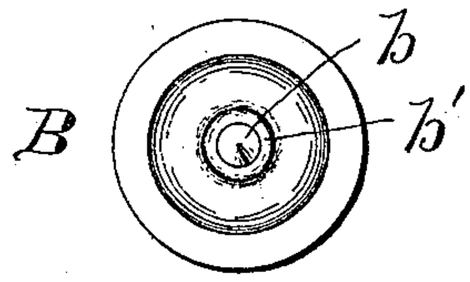


Fig. 5.

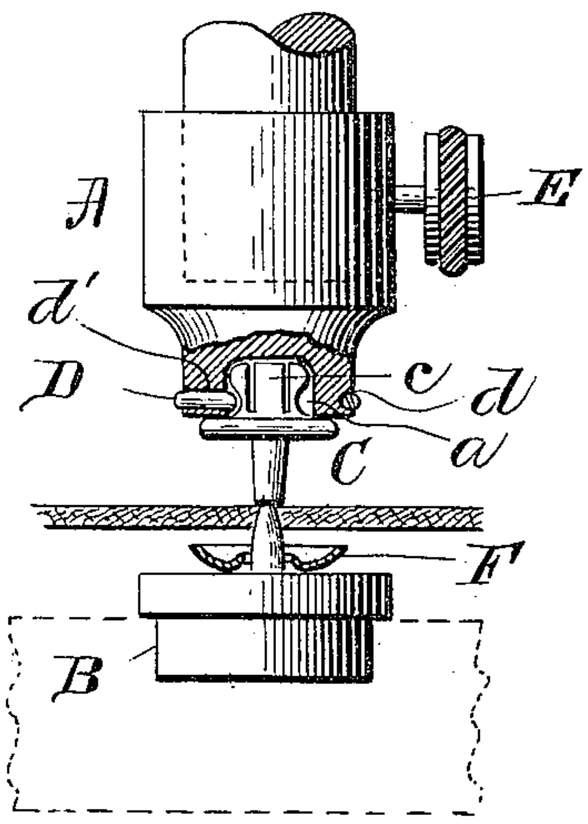
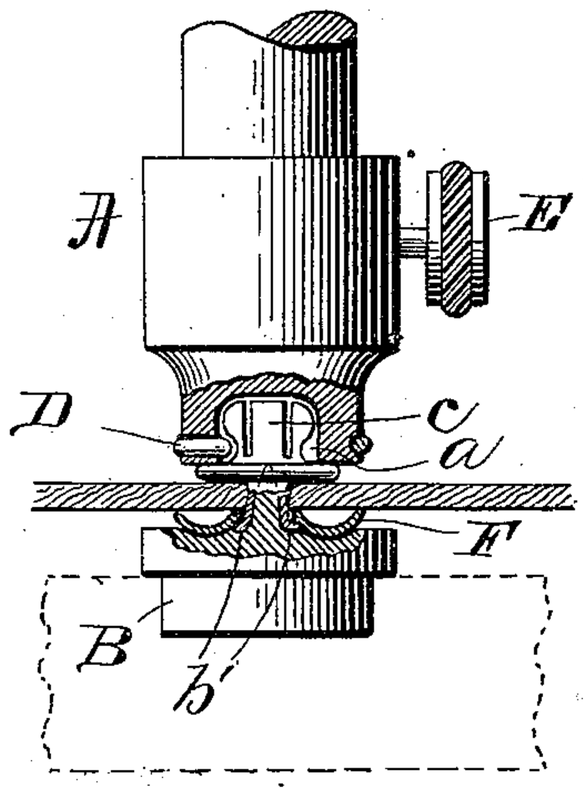


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM B. MURPHY, OF NEW YORK, N. Y., ASSIGNOR TO LUCIUS N. LITTAUER, OF GLOVERSVILLE, N. Y.

DIE FOR FASTENER-SETTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 667,554, dated February 5, 1901.

Application filed May 8, 1900. Serial No. 15,902. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. MURPHY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Dies; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in dies by which fasteners known as "snap-fasteners" are riveted to gloves or other articles, the parts of the fasteners being held in proper relation to each other during the operation or action of said dies.

The object of the invention is to provide such dies with means for accomplishing the riveting in a quick and positive manner.

It consists in certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a vertical longitudinal section through the upper die. Fig. 2 is a bottom plan view of the same. Fig. 3 is a vertical plan view of the lower die, partly in section to better show the construction. Fig. 4 is a top plan view of the same. Fig. 5 represents the initial position of the dies in the action of riveting the stud and washer to the fabric. Fig. 6 represents the final position of the dies in the same operation.

With my improvement in dies the ordinary fasteners, commonly known as "snap-fasteners," are used, the said fasteners consisting of two members—the stud and the washer. The dies themselves are so constructed as to receive the two members of the said fasteners and hold them in proper position and at stated intervals force them into the fabric and secure them in a permanent manner.

A in the drawings represents the upper die, and B the lower. The upper die A is preferably provided with a recess *a* in its lower end to permit of the insertion of the stud C, forming part of the snap-fastener, the said recess conforming to the shape of the head *c* of the said stud. To retain the said stud within the said recess, a spring, as D, is inserted within a groove, as *d*, on the outer contour of the upper die at its lower end, one end of the said spring being passed through an aperture *d'* into the recess *a*. It will be seen that by means of this spring after the head of the stud has been inserted into the recess, the spring being forced outwardly during said operation, the spring will rebound into contact with said stud and hold it within the said recess by frictional contact. The upper die A may be connected with any suitable power, as a plunger, by means of a thumb-screw E.

The lower die B is formed on its upper surface with a raised point *b* and with fillets, as *b'*. The lower die is adapted to support the washer F, forming part of the snap-fastener, for a purpose as will be hereinafter described. The top of the lower die may be slightly depressed around the raised point, if desired. The lower die may be connected with and operated by any suitable means—as, for instance, a suitable foot-press.

The operation of the device is shown in Figs. 5 and 6, where the two movements are shown in detail. From these figures and the description heretofore given it will be seen that after the stud and washer have been placed in their respective positions and the fabric forced over the raised point on the lower member the said dies are forced together and the raised point will enter the eyelet on the stud and split it, as shown in Fig. 6, and the ends of the said eyelet will be forced down through the aperture in the center of the washer until they reach the fillets on the lower die, which by their shape will turn up the ends of the said split eyelet, so as to hold the washer against the fabric in a permanent manner.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with a lower die, of an upper die, provided with a recess in its lower end for the reception of a stud, an annular groove or recess on the periphery of said up-

per die, and a curved spring mounted in said groove and extending around the entire length thereof, one end of said spring being bent inwardly through an aperture in the upper die so as to engage the head of the stud placed within the recess in the lower end of the die and hold the same in position, the construction of the groove being such that the spring will hold itself therein by means of its own pressure, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM B. MURPHY.

Witnesses:

WILLIAM H. BARKER,

H. J. STRAHAN.