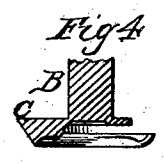
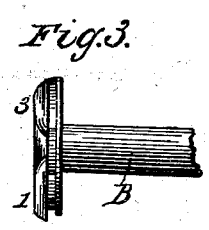
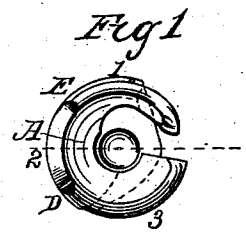
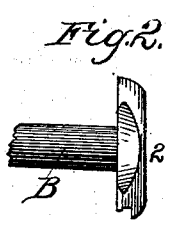


J. A. & H. A. HOUSE.
 Rotary Hook for Sewing Machines.

No. 56,224.

Patented July 10, 1866.



Witnesses.
G. S. Dexter
Chas. Johnson

Inventor.
J. A. House } *by Chas. Alley*
H. A. House } *Baldwin & Son.*

UNITED STATES PATENT OFFICE.

JAMES A. HOUSE AND HENRY A. HOUSE, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN THE ROTATING HOOK OF WHEELER & WILSON SEWING-MACHINES.

Specification forming part of Letters Patent No. 56,224, dated July 10, 1866.

To all whom it may concern:

Be it known that we, JAMES A. HOUSE and HENRY A. HOUSE, both of Bridgeport, in the county of Fairfield and State of Connecticut, have invented a new and useful Improvement in the Wheeler & Wilson Sewing-Machine Hook; and we do hereby declare that the following is a full, clear, and accurate description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 represents a front view of the Wheeler & Wilson hook to which our improvement is applied; Fig. 2, an edge view of the back of the hook; Fig. 3, an edge view of the front of the hook, and Fig. 4 an edge view showing the detached portion of the hook.

The perimeter of the Wheeler & Wilson hook is nearly circular, while the body of the hook varies in thickness, so that when the hook draws the loop of the needle-thread to spread it and pass it around the shuttle-bobbin the loop may pass smoothly off of the hook; but as the loop of needle-thread has to be detained a short time by a presser pad or brush, it is found that the uniform size of the hook does not release the loop of needle-thread as easily as is desirable after and while passing the presser-pad.

Now, it is the object of our invention to enable the loop of needle-thread to pass the presser-pad more easily, and when passed to escape lightly from the hook; and to this end our invention consists in chamfering the back of the hook so as to relieve it from bearing against the whole surface of the presser-pad and permit the loop of needle-thread to escape freely after passing the pad without changing the circular form of the perimeter of the hook.

The hook A in the drawings is formed from a disk of the proper thickness upon the end of the bolt B, which enters the main shaft of the Wheeler & Wilson machine; and for the con-

venience of description we will suppose it divided into three equal parts, numbered 1, 2; and 3, of which division 1 forms the hook proper, division 2 the part occupied by our improvement, and division 3 the heel of the hook. The perimeter of the hook is nearly circular, and the parts 1 and 3 are finished with the usual regular curve of the Wheeler & Wilson hook; but we cut down the part 2 to the angular form shown at C in Fig. 4, and continue this reduction to the points D and E in Fig. 1 by chamfering the curved portion of the hook away for the distance from D to E, leaving the outer and inner edges of the chamfered portion 2 smooth but not sharp and the space between them a convex plane; and as this plane is so situated on the hook as to receive the loop of the needle-thread and retain it by the presser-pad resting against the perimeter of the hook, the side of the loop to be drawn by the upward motion of the needle is released, and as soon as the portion of the loop caught by the presser is released the whole loop is free to escape lightly from over the angular surface of the hook.

It is obvious that by this arrangement of the surface of the hook the needle is relieved from lateral strain, and that the loop of needle-thread will be more easily controlled than from a hook of uniform dimensions, while, of course, the stitching will be more accurate, more especially in very rapid sewing.

What we claim as our invention, and desire to secure by Letters Patent, is—

Chamfering the Wheeler & Wilson sewing-machine hook, substantially in the manner and for the purpose set forth.

In testimony whereof we have hereunto subscribed our names.

JAMES A. HOUSE.

HENRY ALONZO HOUSE.

Witnesses:

GEORGE C. BISHOP,
SAMUEL BURR.