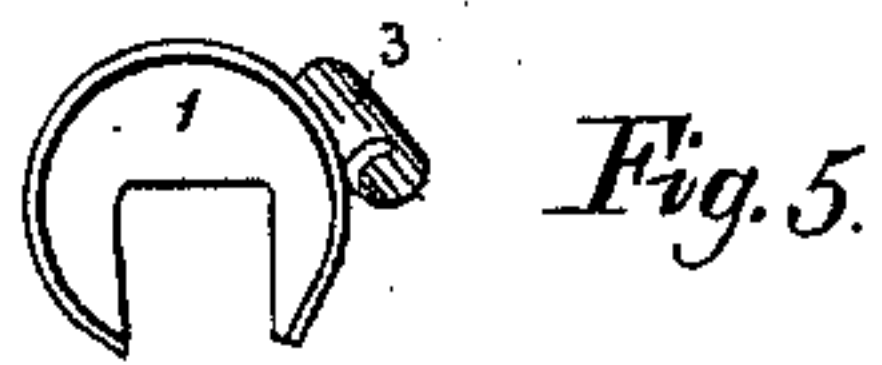
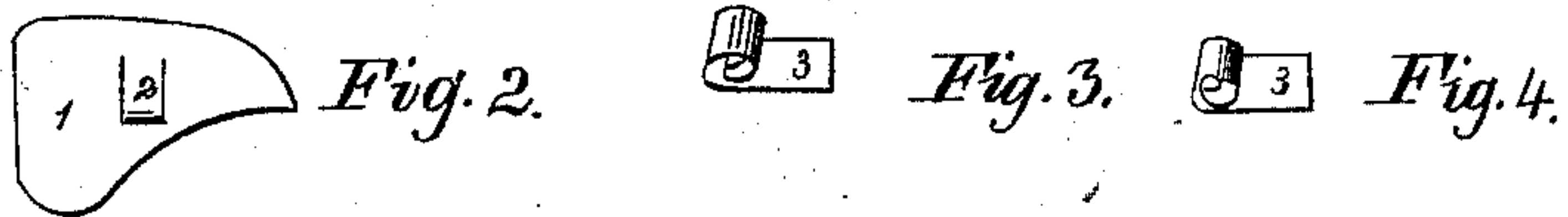
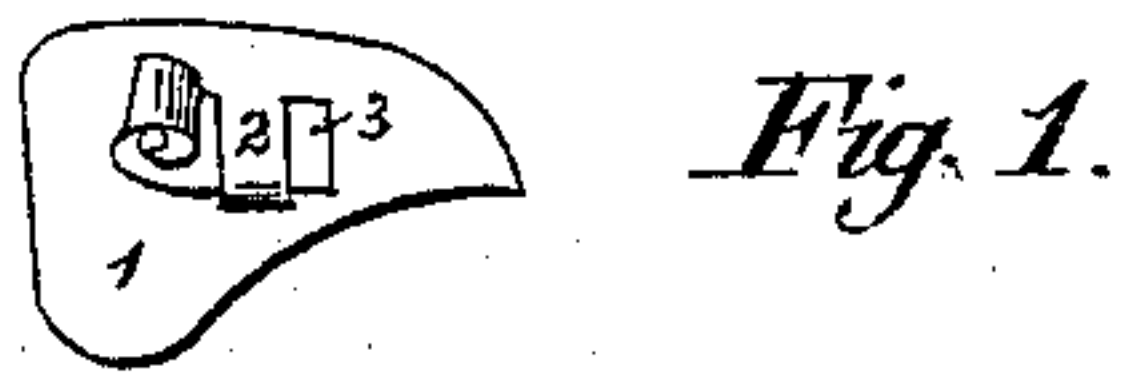


A. H. DOWNER.

Sewing Machine Hemmer and Shield.

No. 31,878.

Patented April 2, 1861.



Witnesses

Inventor

H. Jas Weston  
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# UNITED STATES PATENT OFFICE.

A. H. DOWNER, OF NEW YORK, N. Y.

## IMPROVEMENT IN HEMMERS AND FINGER-SHIELDS FOR HAND-SEWING.

Specification forming part of Letters Patent No. 31,878, dated April 2, 1861.

*To all whom it may concern:*

Be it known that I, AVERY H. DOWNER, of New York, in the county of New York and State of New York, have invented an Improved Hemmer and Shield for Sewing and Hemming by Hand, the construction and operation of which I have described in the following specification and illustrated in its accompanying drawings with sufficient clearness to enable competent and skillful workmen in the arts to which it pertains or is most nearly allied to make and use my invention.

My invention relates to that construction of hemmer and guard intended to be used in hand-sewing, the hemmer being attached to the finger for that purpose, and, while it serves as a shield to protect the finger from the needle, also serving to fold a hem preparatory to its being stitched down in place. A device designed to accomplish these purposes combined may be found in the patent of the United States granted to J. C. Howells the 10th day of April, 1860. The device there described is, however, defective in its arrangement, and its usefulness to the public is therefore much less than it might otherwise be.

The object of my invention is to correct the defects found in the device of Howells and increase the range of usefulness of the instrument, which is done by placing the hemmer in a different position upon the shield, and also by attaching said hemmer in such a manner that it can be conveniently changed and a variety of sizes of snails to form different widths of hems furnished at a trifling expense.

In the accompanying drawings, Figure 1 is a side elevation, showing the side which would be presented to the wearer if the shield be placed upon the first finger of the left hand—the position in which it should properly be placed. Fig. 2 is a like view, representing the shield without the hemmer attached. Figs. 3 and 4 represent two different sizes of “snails,” as they are termed, capable of turning two different widths of hems. These are so constructed as to be capable of being easily removed from the shield or changed one from the other. Fig. 5 is an end elevation of my invention.

The shield 1 is made of sheet metal, a little like a thimble in shape, though open upon one side, the form being such that it will fit the finger closely and leave the opening upon the under side of the finger.

In the patent above referred to, the hemming attachment was attached upon the top of the finger, or rather upon that side of the shield which would come upon the top of the finger when the shield is put upon the finger in the usual manner. This is objectionable, for the reason that the shield is sometimes required for a shield only, without the necessity of using the hemmer, or it even being desirable or practicable to do so. In this case, therefore, the hemming attachment is in the way, its position being such as to seriously interfere with the use of the shield. In mine, however, the shield is so placed as not to interfere with the ordinary operation of sewing by being brought over on the side toward the wearer.

It is often desirable to use different widths of hem for different kinds of work. In the arrangement and construction described in the patent of Howells before referred to, such change involves the necessity of a change of the entire instrument for one giving a less width of hem; but in mine I strike up a portion, 2, of the metal and make incisions in such a manner as to form a mortise in which the movable piece 3 may be inserted, as represented in the first figure. These snails or hemming attachments 3 may be cheaply constructed, and are by the device described attached and detached with ease and held firmly in position. The instrument is thus made much more available than before, and the expense of construction with the necessary varieties in the sizes of the snails which turn the hem is probably no greater than with the old construction.

When desirable, for certain varieties of work, the hem-folder may be removed entirely and for the time being laid aside.

Having thus fully described my said invention, I claim—

1. The arrangement of the snails upon the side of the finger next the work, instead of on the top, by which it is made to clear other work when the shield is used for other purposes besides that of hemming.

2. Connecting the hem-folder or snail to the shield or piece of metal upon which it is supported upon the finger in the manner described, so that it may readily be removed or changed without changing the main plate, as set forth.

Witnesses: A. H. DOWNER.  
H. JAMES WESTON,  
CHAS. W. THOMPSON.