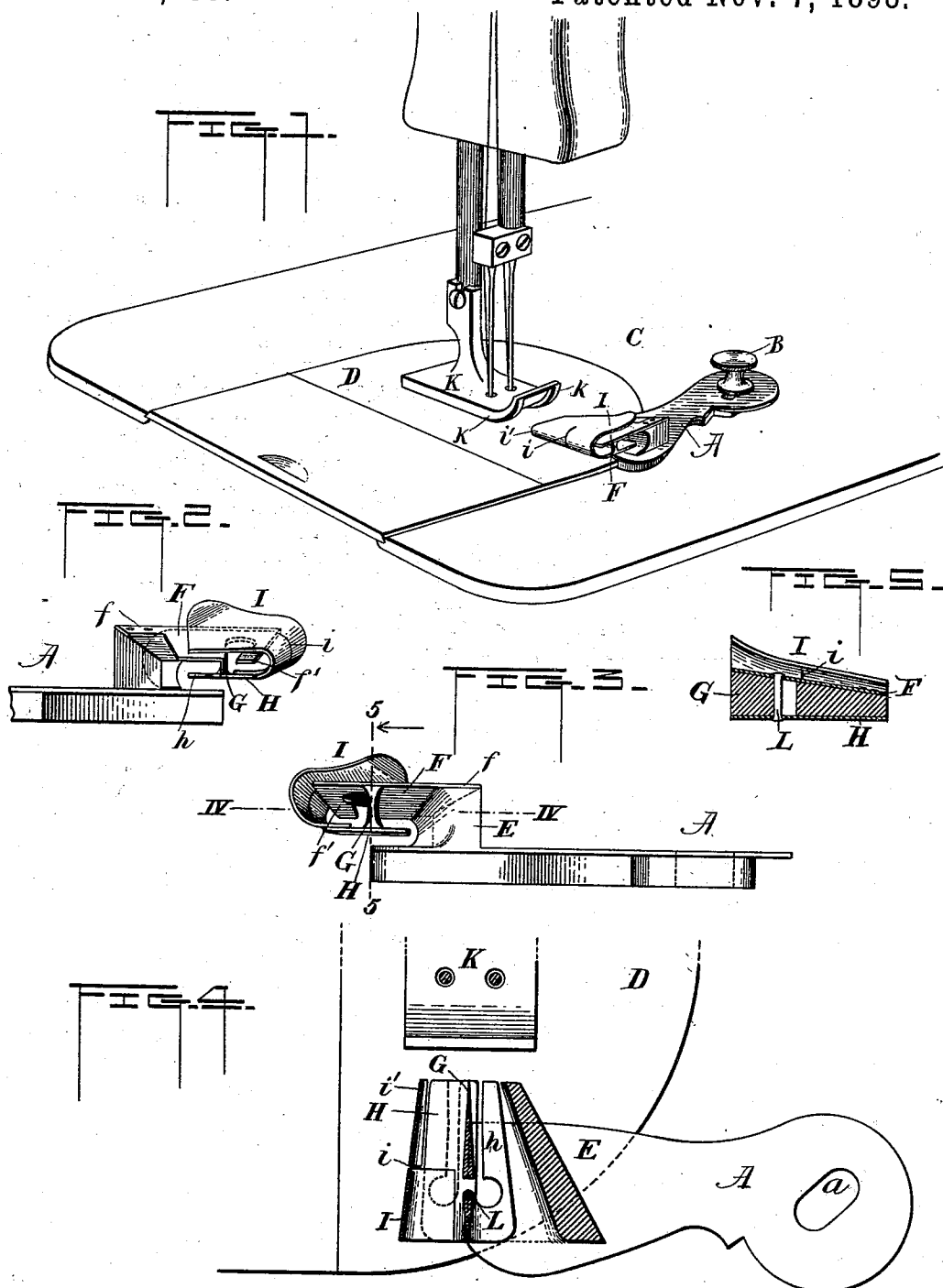


(No Model.)

J. I. McDONALD.
FOLDING GUIDE FOR SEWING MACHINES.

No. 508,233.

Patented Nov. 7, 1893.



Witnesses
Clay Smith
P. L. Clark.

Inventor
John I. McDonald,
By *Geo. D. Whitney*
Attorney

UNITED STATES PATENT OFFICE.

JOHN I. McDONALD, OF ST. JOSEPH, MISSOURI.

FOLDING-GUIDE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 508,233, dated November 7, 1893.

Application filed April 14, 1893. Serial No. 470,293. (No model.)

To all whom it may concern:

Be it known that I, JOHN I. McDONALD, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Guides for Sewing-Machines; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to sewing machine attachments, and its object is to enable varying thicknesses of material to be fed through a folder.

The invention consists in the various matters hereinafter described and referred to in the appended claims.

In the drawings, Figure 1 is a perspective view of a portion of a two needle sewing machine, showing my improved folder in position. Fig. 2 is a rear elevation of the folder. Fig. 3 is a front elevation. Fig. 4 is a sectional plan view on the line IV—IV Fig. 3. Fig. 5 is a vertical section on the line 5—5 Fig. 3.

The machine represented is a two needle machine, but the folder is applicable to a machine with a single needle.

The folder comprises a bar A, having a slot *a* at one end to receive the clamping screw B, which is the one customarily provided for fastening attachments to the bed plate C. The other end of the bar A may be cut to fit snugly against the throat plate D, when the folder is in operative position. Secured to this end of the bar is a block E, whose left hand edge is hollowed on a curve, as shown, and runs obliquely toward the line of travel of the goods, inclining inward from front to back. A plate F is laid upon this block with one edge and an ear *f* overlapping said block. The rest of the plate extends outward to the left, and near its outer edge is a slot running parallel with said edge from the rear end of the plate nearly to the front end thereof where it terminates preferably in a circular enlargement. This slot leaves a tongue *f'* extending along

the outer edge of the plate F to the rear end of the same. Along the middle of the plate F close to the slot and in the line of the movement of the goods is secured rigidly a depending post or partition G which tapers at each end to a knife edge. The partition if desired may be in two parts, one ahead of the other. To the rear portion or part of the partition a plate H is rigidly secured in any suitable manner as by a rivet L. This plate has a slot similar to that in the plate F, running from its rear end close to the partition G nearly to the front end of the plate, and leaving a tongue *h* between the partition and the block E. The other edge of the plate lies substantially under and parallel with the edge of the upper plate F. Secured rigidly to, or formed integral with the lower plate H is a curved guide I, the rear portion of which is partially separated from the front portion and from the edge of the plate H by a slit *i*, which leaves the portion *i'* free to yield outwardly and upwardly. The guide incloses the tongue *f'* and overlaps the plate F, sufficient room being left between them for the passage of the material. The block and plates and tongues and guide all converge toward the delivery end of the folder, so that the material is caused to hug the tongues closely. One piece of the goods has its edge turned around the tongue *f'* and is guided along the left side of the partition. The other piece is turned around the tongue *h* with its edge against the right side of the partition. The two pieces are thus fed to the needles with their edges closely abutting. Other modes of folding the goods will suggest themselves, when the other styles of seam are to be made. The work is delivered close up to and directly in front of the presser foot K, the central longitudinal axes of the folder and the presser foot being in line. The presser foot is provided with two guides or ribs *k* so that the folded work is carried through in a direct line. So long as a single thickness of material is passing the several parts of the folder remain in the position in which they appear in the drawings, being stiff enough to properly guide the work. But on the entrance into the folder of a seam of any extra thickness, the tongues *f'* *h* yield toward the partition in the planes of their respective

plates, the rear end of plate F rises off the block E, and the other parts can separate to such a degree as may be necessary. As soon as the unusual thickness of goods has passed, the parts all spring back to their normal positions.

The precise construction shown and described is not absolutely essential to the perfect working of my device and may be modified within the proper limits without departing from the spirit of my invention.

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

1. A folder comprising a fixed block, an upper rearwardly projecting plate secured to said block at the front end only, a lower plate suitably connected with and supported by said upper plate, and two tongues lying substantially in the respective planes of said plates and having their free ends projecting rearwardly, substantially as described.

2. A folder comprising a fixed block, an upper rearwardly projecting plate secured to said block at its front end only, a lower plate supported from said upper plate, and two tongues an upper and a lower, each lying parallel with one of said plates and substantially in the plane of the other plate, substantially as described.

3. A folder comprising a fixed block, an upper rearwardly projecting plate secured to said block at its front end only, a lower plate supported by said upper plate, two tongues lying in parallel planes and each integral with one of said plates and a vertical partition

separating said tongues, substantially as described.

4. A folder comprising a fixed block, an upper rearwardly projecting plate secured to said block, at its front end only, a resilient tongue lying in the plane of said upper plate, a second resilient tongue lying below and parallel with said upper plate, a vertical partition separating the two tongues, and a lower plate lying below and parallel with the upper tongue, and extending around and over said tongue, substantially as described.

5. A folder comprising a fixed block, an upper plate secured thereto, an upper tongue lying in the plane of said plate, a lower tongue lying below and parallel with said plate, and a lower plate supported from said upper plate, and lying below said upper tongue, and extending around and over the same, the upper part of the plate having a slit whereby a portion thereof is left free to yield, substantially as described.

6. The combination with the block E, of the plate F having the ear *f* and the tongue *f'*, the partition G secured to said plate and having a knife edge at one end, the plate H secured to the partition and having the tongue *h*, and the curved guide I secured to the plate H and having the slit *i*, substantially as described.

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

JOHN I. McDONALD.

Witnesses:

RUFUS L. McDONALD,
CHARLES B. SANDERS.