

(No Model.)

2 Sheets—Sheet 1.

A. DAVIS.

MANUFACTURE OF TUFTED RUGS.

No. 285,735.

Patented Sept. 25, 1883.

Fig. 1.

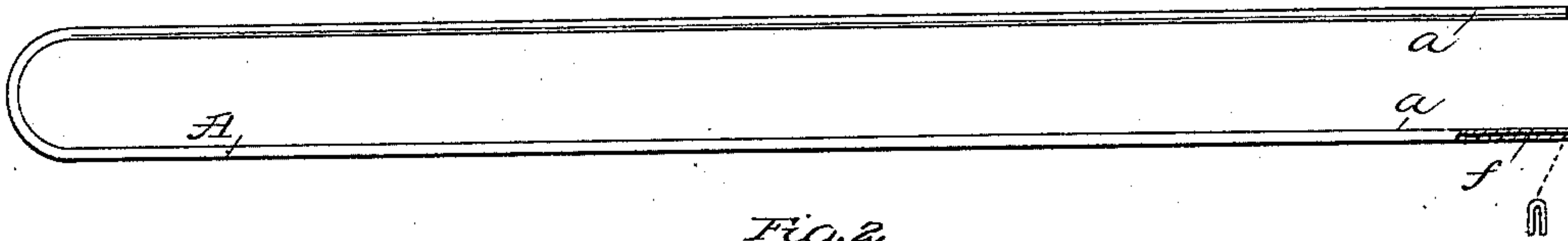


Fig. 2.

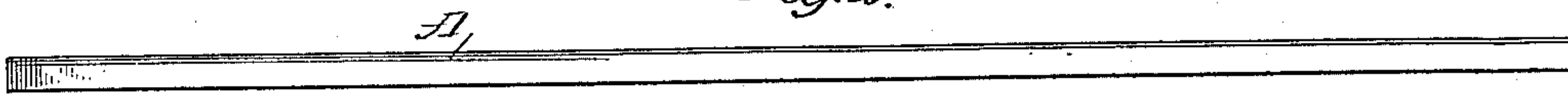


Fig. 3.

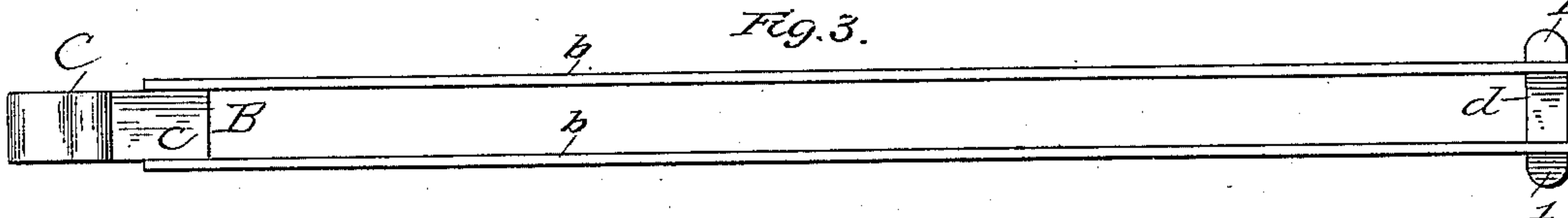


Fig. 4.

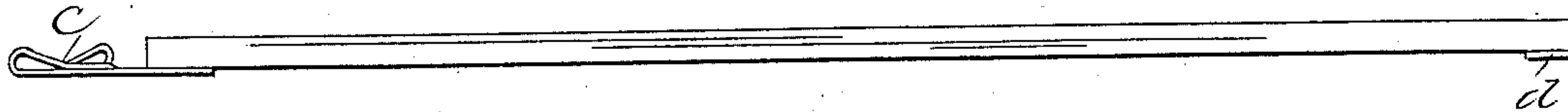


Fig. 5.

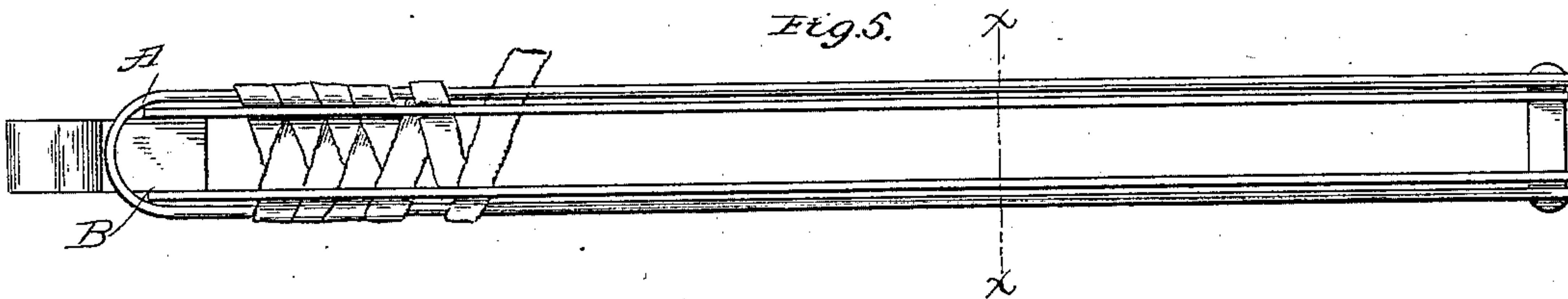


Fig. 6.



Fig. 7.

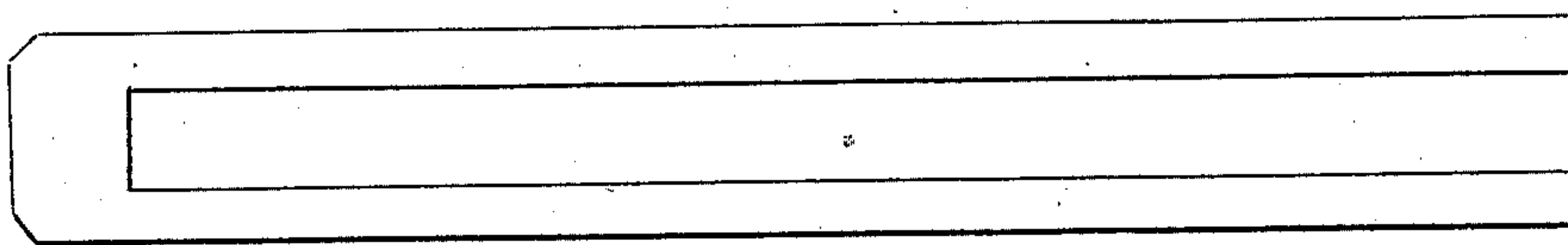
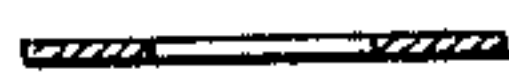


Fig. 8.



Attest:  
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2 Sheets—Sheet 2.

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MANUFACTURE OF TUFTED RUGS.

No. 285,735

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Fig. 9

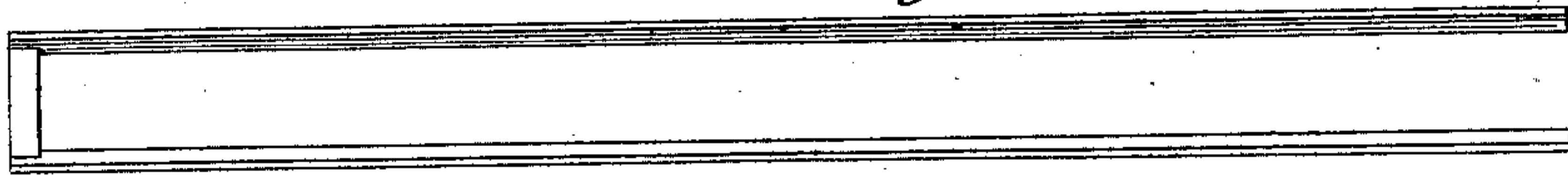


Fig. 10.



Fig. 11

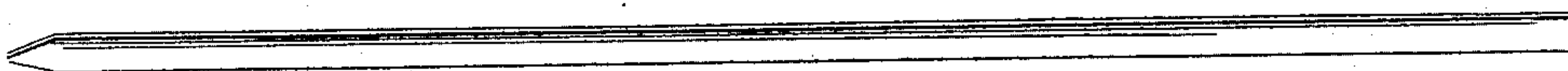


Fig. 13.

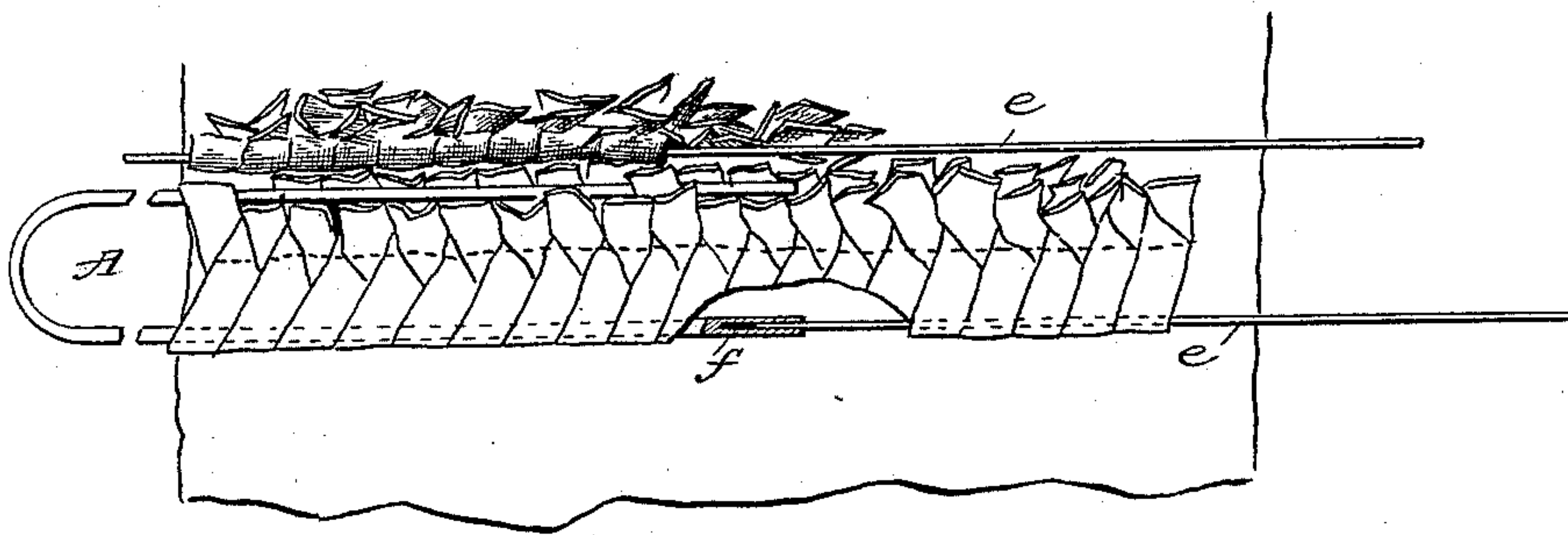
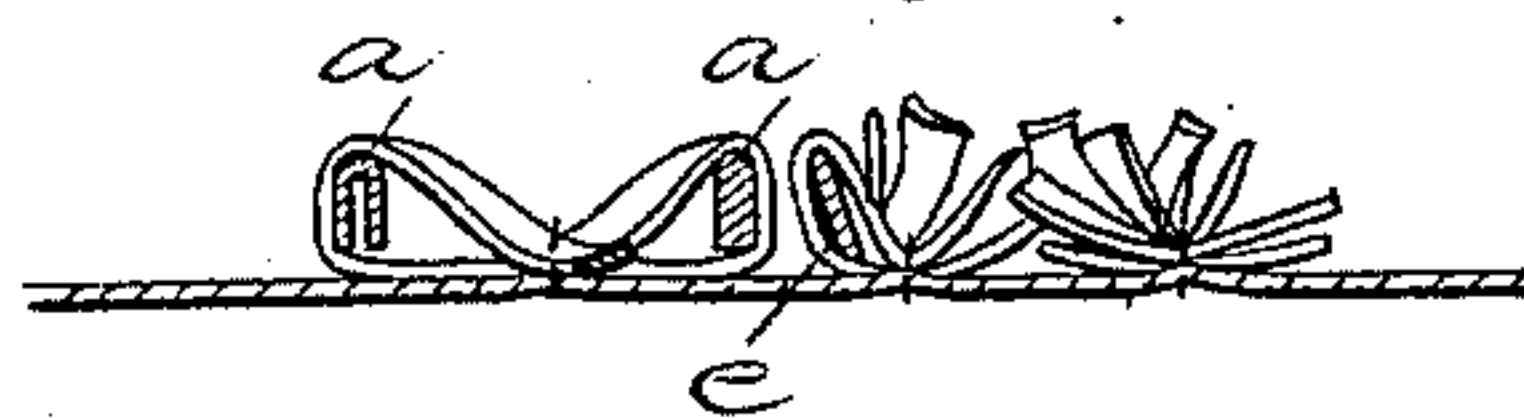


Fig. 14.



Witness:

Harold M. Mason  
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# UNITED STATES PATENT OFFICE.

ADDIE DAVIS, OF RUTLAND, VERMONT.

## MANUFACTURE OF TUFTED RUGS.

SPECIFICATION forming part of Letters Patent No. 285,735, dated September 25, 1883.

Application filed August 21, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, ADDIE DAVIS, of Rutland, in the county of Rutland and State of Vermont, have invented a new and useful Improvement in Manufacture of Tufted Rugs; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to the manufacture of what are technically called "tufted rugs."

The object of the invention is to facilitate the making of such rugs by bringing into use, in connection with their manufacture, the ordinary sewing-machine.

My invention consists, first, of an attachment to a sewing-machine adapted to hold strips of rags or any equivalent fabric wound or folded thereon, and adapted to carry the strips or fabric thus wound or folded under the needle of the sewing-machine, and to be removed from the strips or fabric when they are sewed by the machine to a suitable foundation, whereby rows or series of loops are formed upon the foundation, which rows or loops may be cut into tufts.

My invention also consists in details of construction of the holding device, for the purpose above specified.

It further consists in the mode of operation or improvement in the art, all of which is hereinafter explained.

In the accompanying drawings I have represented the best form of an apparatus known to me for carrying my invention into practical effect. I have also represented the work performed, by showing section of a rug partly finished and partly in progress.

In these drawings, Figure 1 is a plan view of that part of the apparatus upon which the strips are wound, and by which they are held in the process of sewing. Fig. 2 is a side elevation of the same. Fig. 3 shows a part of the apparatus designed to be used in connection with that shown in Figs. 1 and 2, and to hold down the wound or folded strips or fabric, in order to permit the presser-foot to pass over them, the figure showing it in plan. Fig. 4 shows the same part in side elevation. Fig. 5 represents one part placed within the other, the figure being a plan view. Fig. 6 shows a section on line *x x* of Fig. 5. Fig. 7 is a plan view, and Fig. 8 a cross-section, of a modification of the part shown in Fig. 1. Figs. 9 and 10 repre-

sent similar views of another modification. Fig. 11 represents a strip of metal used to hold a row of loops in the manner hereinafter explained. Fig. 12 is a cross-section, and Fig. 13 a plan view, of a rug partially made, and shows the apparatus in place.

It may be stated in general terms that the rug is formed by sewing the material which is to constitute the nap to any suitable cloth which serves as a foundation. The material which is to form the nap may be roughly cut into strips in any of the convenient ways, as, for example, by cutting back and forth upon a piece of cloth, and leaving connection between the successively-severed parts by an unsevered portion at the end. The strips so cut are wound upon what I have called the "receiver" A. (Shown in Figs. 1 and 2.) I preferably wind the strips over and under, so as to cause them all to cross each other between the two prongs or tines of the receiver. The tines *a a* of this receiver may be of any length convenient for handling—preferably about one foot—and are connected at one end only. They may be wound with strips in any manner to suit the fancy in respect to color or mixture of colors—that is to say, the receiver may be wound full of strips of one color—or the colors may alternate or occur in the "hit or miss" manner. All this depends upon the fashion or pattern to be given to the rug. When they have been wound upon the receiver, the holder B is put in place. This (shown in Figs. 3 and 4) consists of two slender bars or rods, *b b*, joined at one end by a web, *c*, and provided with the piece C, which is fitted to pass under the cross-piece of the connected end of the tines by which it may be held. The other end of the holder is connected by the transverse bar extending across on the underside. (Marked *d*.) It is composed of thin metal, and the ends extend outwardly, forming ears 1 1. The bars or rods are made of sufficient strength to withstand the vertical strain put upon them.

The holder is a little narrower than the receiver, and is adapted to fit inside of the receiver. It is inserted in place by passing the piece C through the opening in the connected end of the tines until the ends of the bars bear against the connecting-piece, when the other end is brought down and presses upon the fabric, forcing it down and spread between the



tines. The tines are spread slightly, so as to allow the ears to pass through between them, when the ends of the tines are brought together again above the ears 11. Their own elasticity holds them together, and thus the holder is securely fixed in place. This leaves a path for the presser-foot between the bars or rods of the holder and over the depressed fabric. The holder and receiver, thus united, containing the fabric wound thereon, is then laid upon the foundation cloth in proper position, and the whole arranged under the presser-foot and passed under the needle in the sewing-machine in the usual manner. Thereby a line of stitching is formed across the folds or back-and-forth lines of the strip or strips of rag or other fabric, and thus two rows or loops are firmly connected to the foundation. From these the attachment can be removed by spreading the tines and removing the end of the holder last attached, and then lifting the holder from its place. Afterward, the receiver may be drawn out from the rows of loops; but in order to hold the rows of loops in place upon that side on which another row is to be stitched, I provide a supplemental tine, *e*, made of a single strip of thin metal, rubber, or any other material—preferably steel—of the same size as or slightly smaller than the tine of the receiver. One end is pointed, as shown in Fig. 11, and is fitted to enter a slit or narrow opening, *f*, in the end *a* of one of the tines. These tines may be made conveniently to form this narrow opening by bending thin metal to form a double thickness, as shown in section, the end having the narrow opening being slightly spread. I put the pointed end into the opening and cause it to follow the tine as it is drawn out, and thus leave it in the row of loops, as before stated, on that side on which the work is to be continued. The other row may be released from the tine by running sharp scissors through it and cutting it from the tine, it being easier to cut the row in this manner. The tine *e* left in the uncut row holds them up and permits the filled receiver next applied to lie up closely against it, thus forming a closer and denser mass of tufts than could otherwise be done. The succeeding rows are applied in the same manner.

Manifestly a strip of any length may be formed by a holder, whatever its length, by laying on the rows end to end, and thus forming a row of any desired length; and it is also manifest that a rug may be formed of any desired width within convenient limits of handling.

The form of the holders may be greatly varied—as, for example, I may use a receiver made out of thin sheet-steel or any other suitable material cut in the form shown in Figs. 7 and 8—but in order to cause the receiver to lie more snugly against the preceding rows, the sheet-metal tines may be bent up into an

inclined position, as shown in cross-section in Figs. 9 and 10. Very many modifications of construction may be made, and I do not limit myself in this respect, it being necessary only that a suitable receiver having tines should be provided to receive the fabric wound or folded upon it with any proper means for holding the fabric, so as to permit it to be moved under the presser-foot, with the said foot between the tines and passing across the lines of the fabric.

A rug formed in the manner described may be clipped or sheared smooth in a manner well known to those skilled in the art, and a rug thus formed is better than rugs made by the ordinary process in this respect—that the lines of tufts are laid more closely, and thus a denser nap is formed than can be done by any other way.

I claim as my invention—

1. A sewing-machine attachment for making tufted rugs, consisting of a receiver having tines adapted to be wound with strips of fabric and to form a series of loops, and suitable means for holding the fabric down and spread, whereby the presser-foot of an ordinary sewing-machine may pass between the tines and form two series of attached loops, substantially as described.

2. The receiver *A*, having tines fitted to be wound with strips of fabric and form two series of loops, in combination with a holder, *B*, adapted to press the strips and to permit the presser-foot of an ordinary sewing-machine to pass between the tines, substantially as described.

3. The receiver *A*, connected at one end and having tines *a a*, one of which is provided with a narrow opening in the end, in combination with the supplemental tine *e*, substantially as described.

4. The holder *B*, having bars or rods *b* and connecting-web at one end, and connecting-bar at the other, having ends 11, in combination with the receiver *A*, adapted thereto, substantially as described.

5. The mode hereinbefore described of making tufted rugs, consisting in winding the strips which are to form the tufts upon a suitable receiver of parallel tines, in holding down said strips so that they may pass under the presser-foot, and then passing the receiver under the presser-foot of the sewing-machine and sewing a line of stitching between the tines, and then cutting the formed loops, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ADDIE DAVIS.

Witnesses:

DANIEL P. PEABODY,  
NATHL. S. STEARNS.