

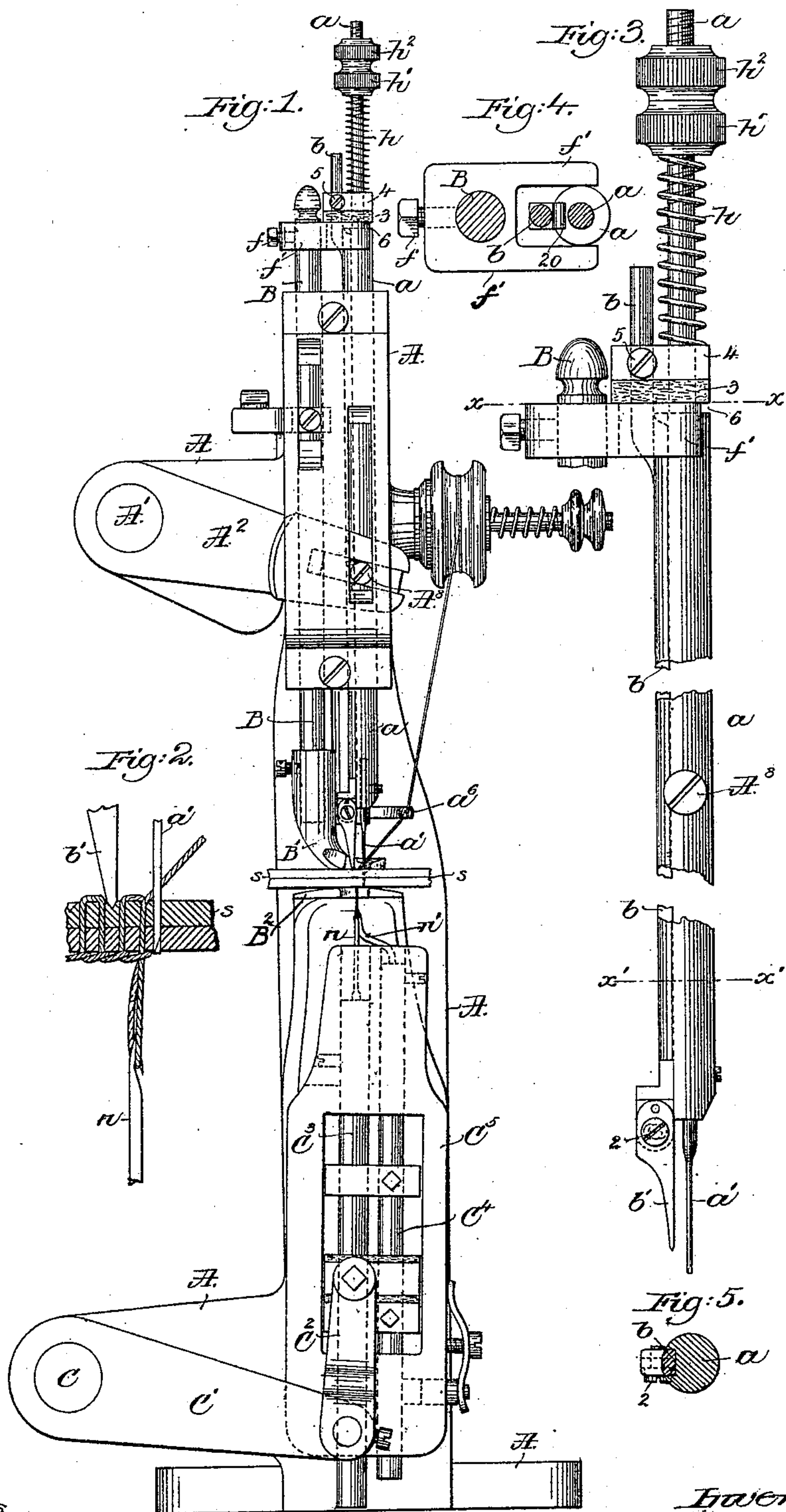
(No Model.)

W. S. COBB.

STITCH SETTING UP DEVICE FOR SEWING MACHINES.

No. 421,095.

Patented Feb. 11, 1890.



Witnesses.

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STITCH-SETTING-UP DEVICE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 421,095, dated February 11, 1890.

Application filed May 28, 1889. Serial No. 312,421. (No model.)

To all whom it may concern:

Be it known that I, WINFIELD S. COBB, of Holbrook, county of Norfolk, State of Massachusetts, have invented an Improvement in Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the combination, with a needle and awl to make a stitch, of a simple setting-up device to enter the stock just behind a stitch already made and "set it up," as it is called, this setting up taking place while the awl is in the stock and making a hole for a succeeding stitch.

Figure 1, in front elevation, represents a well-known form of leather-stitching machine with my improvements added. Fig. 2 is an enlarged detail showing two pieces of leather united by stitches and as having its stitch set up or "marked," as it is called. Fig. 3 is an enlarged detail of the awl with my improved setting-up device added and a part of the presser-foot bar. Fig. 4 is a section in the line x , Fig. 3; and Fig. 5 is a sectional detail in the line x' , Fig. 3.

The frame-work A , the rock-shaft A' , the arm A^2 to actuate the awl-bar, the presser-bar B , the presser-foot B' , the throat-plate B^2 , the rock-shaft C , the arm C' , the link C^2 , the needle-bar C^3 , the cast-off bar C^4 , the rocking frame C^5 , in which the needle and cast-off bars reciprocate, and the needle n and cast-off n' and thread-guide a^6 are and may be all as usual in wax-thread or leather-stitching machines now in the market and well known. The awl-bar a , carrying the awl a' , differs from the usual awl-bar in that it is grooved longitudinally at one side for the reception of a set-up bar b , to the lower end of which is attached by a suitable screw or device 2 the setting-up point b' , the said bar and point constituting a setting-up device. The presser-foot bar B has attached to it by a screw f a block f' , which is forked next to and embraces the awl-bar, as shown in Figs. 1, 3, and 4, to act as a guide for the presser-foot bar and to keep the presser-foot in proper place. The upper end of the setting-up bar b carries, as shown, a felt or leather washer 3 and a collar or other suitable projection 4, the said collar,

if made, as I prefer, as a separate piece, being held in place by a set-screw 5. The collar or projection 4 and washer 3 surround the awl-bar more or less just above the shoulder 6 thereof, and on the reduced upper and threaded end of the awl-bar is placed a spiral spring h , which rests at its lower end on the collar 4, the upper end of the spring being acted upon by an adjustable nut h' under preferably the control of a locking-nut h^2 .

In practice the awl at each descent makes a hole in the stock for the needle at its next ascent, and while the awl descends to enter the stock the needle-bar and needle descend, as in Figs. 1 and 2, and as the awl penetrates the stock the chisel-pointed end of the point device b' of the setting-up device enters the stock between two stitches previously made, or substantially so, as in Fig. 2, and sets up or separates the stitches at the fair face of the stock, or "marks the stitches," as it is called, as when the same is done by hand. As the awl-bar is made to descend in usual manner by the arm A^2 acting on the usual stud A^8 of the awl-bar, the spiral spring h , the strength of which has been adjusted according to the hardness and thickness of the stock by the nut h' , is made to act on the collar 4 and force down the bar b until the device b' enters the leather between two previous stitches, the spring h permitting the device b' to stop in its descent sooner or later, according to the thickness of the stock, while the awl-bar continues to descend. As the awl-bar is raised the shoulder 6 meets the washer 3 and, acting against the collar 4, lifts the rod b up from the stock. The descent of the bar b is arrested by the contact of the washer or the collar 4 with the block f' , attached to the presser-foot bar, the position of the said block being higher or lower, according to the thickness of the stock under the presser-foot.

I do not claim a marker or stitch-setting-up device rigidly attached to a presser-foot. If the stock were of uniform thickness, the descent of the collar 4 might be arrested by the top of the head of the machine in which the awl-bar reciprocates, or by a block, such as f' , resting on the said head; but where the stock varies in thickness the block f' should

rise and fall. The bar *b*, near its upper end, is offset, as at 20, to carry it outside the awl-bar groove, in which it slides.

I claim—

5 1. The combination, with the stitch-forming mechanism and an awl-bar and awl carried by it to puncture the stock for the passage of the needle, of a bar *b*, yieldingly mounted on the awl-bar to provide for stock of different thick-
10 ness, and a stitch-setting-up device attached to the said bar *b* and moved with it, as described, and for the purposes set forth.

2. The presser-foot, the presser-foot bar, a block *f'* thereon, stitch-forming devices, and
15 an awl-bar and awl, combined with a stitch-

setting-up device consisting of a sliding bar *b* and attached point *b'*, and a spring, to operate substantially as described.

3. The combination, with a longitudinal grooved awl-bar and spring, of a stitch-set- 20 ting-up device consisting of a bar *b* and point *b'*, and a collar or projection 4, to operate substantially as described.

In testimony whereof I have signed my name to this specification in the presence of 25 two subscribing witnesses.

WINFIELD S. COBB.

Witnesses:

GEO. W. GREGORY,

B. DEWAR.