(No Model.)

2 Sheets—Sheet 1.

G. F. McCOMBS.

BROOM SEWING MACHINE.

No. 487,196. Patented Nov. 29, 1892.

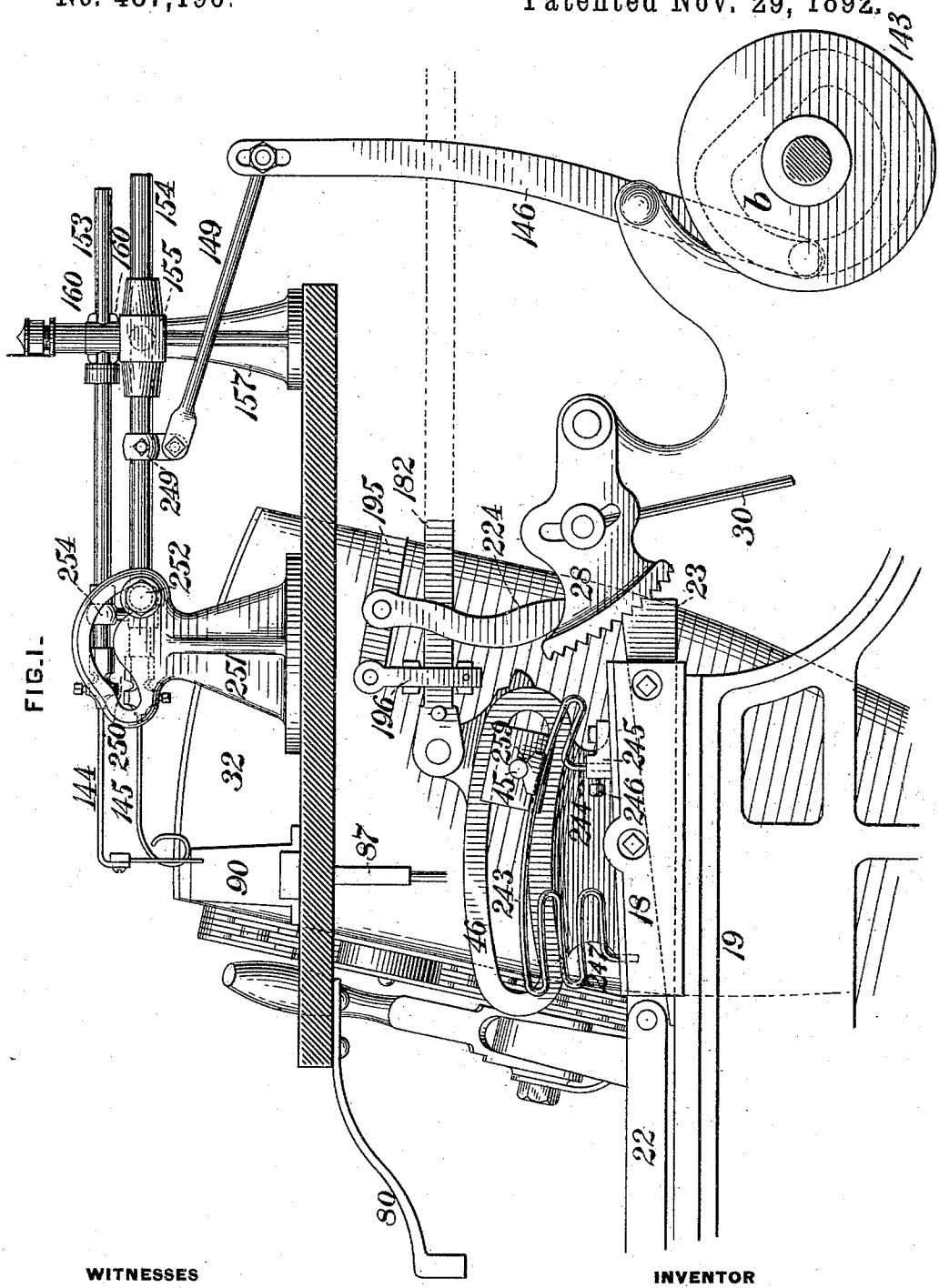

FIG. 1.

WITNESSES

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FIG. 2.

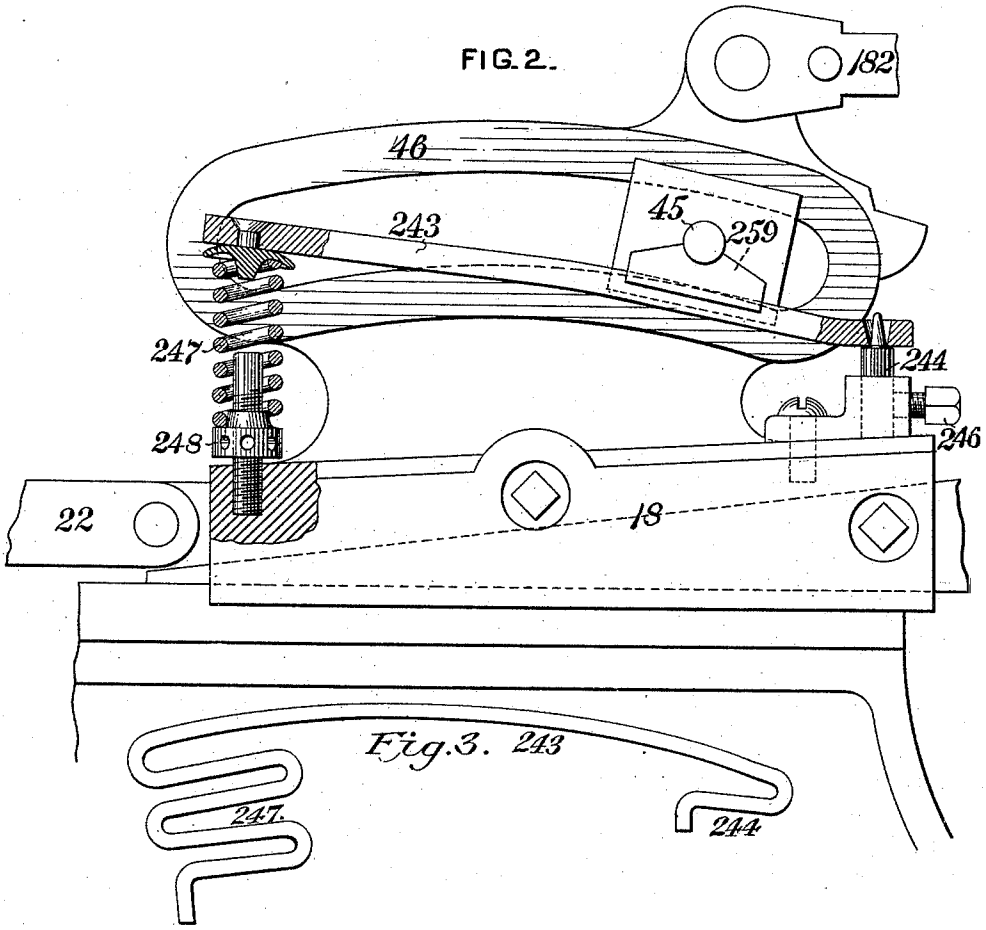

Fig. 3. 243

WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE F. McCOMBS, OF ALLEGHENY, ASSIGNOR TO THE HAND STITCH BROOM SEWING MACHINE COMPANY, LIMITED, OF PITTSBURG, PENNSYLVANIA.

BROOM-SEWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 487,196, dated November 29, 1892.

Application filed February 23, 1892. Serial No. 422,530. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. McCOMBS, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Broom-Sewing Machines, of which improvements the following is a specification.

The invention described herein relates to certain improvements in that class of broom-sewing machines which are shown, described, and claimed in Letters Patent No. 208,407, granted to me September 24, 1878; No. 238,140, granted to myself and Charles Rogers February 22, 1881; No. 338,999, granted to me March 30, 1886, and No. 407,741, granted to me July 23, 1889.

My present invention relates more particularly to certain improvements whereby the movements of the broom-clamp may be rendered more uniform with reference to insuring regularity in the length of the stitches.

In the accompanying drawings, forming a part of this specification, Figure 1 is a view in elevation of the portions of a broom-sewing machine to which my improvements are applied. Fig. 2 is a detail view, on an enlarged scale, of a portion of the devices connected to and controlling the broom-clamp and showing a modified construction of the slide, and Fig. 3 is a detail view of the form of brake controlling the broom-vises shown in Fig. 1.

As the machine to which my present improvements are to be applied is constructed and operated in all essential particulars in the manner fully described and shown in Letters Patent Nos. 338,999 and 407,741, hereinbefore referred to, no specific illustration and description of the machine are necessary herein, except in so far as may be required for a clear understanding of my improvements. As described in said Letters Patent, the broom-vise (only one jaw 32 of which is shown) is pivotally supported at its lower end, and, as shown in said patents and in Fig. 1 of the drawings, has at the beginning of the sewing operation an inclination to the right. The vise is shifted from this position by an intermittingly-operated rod 182 to a vertical position and then to an inclination to the left. As the upper portion of the clamp or vise is quite heavy and is not counterbalanced, it will have a tendency to move too rapidly to the left after it has passed a vertical position. In order to check this movement of the vise, a slide 243 is so arranged on the carriage 18 as to bear against the under side of a shoe 259, having a pivotal bearing against the bolt 45, which is attached to the vise and projects through the slot in the quadrant 46. As shown in Fig. 1, this slide has its right-hand end so bent as to form a supporting-pin 244, which is adjustably held in the socket 245 on the carriage 18 by a set-screw 246. At its opposite end the slide is supported by a spring 247, which is supported at its lower end by the carriage 18.

As shown in Fig. 1, the pin 244 and spring 247 are formed integral with the slide; but, if preferred, they may be formed independently thereof, as shown in Fig. 2. The pin 244 is so adjusted in its socket and the spring 247 is made of such a length or so adjusted by the screw 248, as shown in Fig. 2, that the slide will bear but lightly against the under side of the shoe 259 or a projection on the vise, as the vise moves from its right hand to its vertical position, the pressure gradually increasing as the vise approaches its vertical position. As the vise is moved to the left the pressure of the slide against the shoe will increase proportionally with the distance the vise moves from the vertical position. This resilient brake will prevent any movement of the vise, except when actuated by the rod 182. Indeed the spring may be so adjusted that a greater force will be required to move the vise after it has passed a vertical position than is necessary to move it to a vertical position.

I claim herein as my invention—

1. In a broom-sewing machine, the combination of a pivotally-mounted reciprocating broom vise or clamp and a brake operative on said broom vise or clamp independent of the reciprocating mechanism thereof for controlling the movements of the vise, substantially as set forth.

2. In a broom-sewing machine, the combination of a pivotally-mounted broom vise or

clamp and movable past a vertical plane passing through the pivotal point thereof, and a spring-actuated brake adapted to have an increasing frictional bearing on the broom-vise as the latter moves forward from a vertical position, substantially as set forth.

3. In a broom-sewing machine, the combination of a pivotally-mounted broom vise or clamp, a slide having a flexible support at one end and a spring-support at the opposite end and adapted to bear against the vise or a projection therefrom, substantially as set forth.

In testimony whereof I have hereunto set my hand.

GEORGE F. McCOMBS.

Witnesses:
DARWIN S. WALCOTT,
R. H. WHITTLESEY.