

No. 736,199.

PATENTED AUG. 11, 1903.

S. BORTON.
OVEREDGE SEWING MACHINE.

APPLICATION FILED JULY 25, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

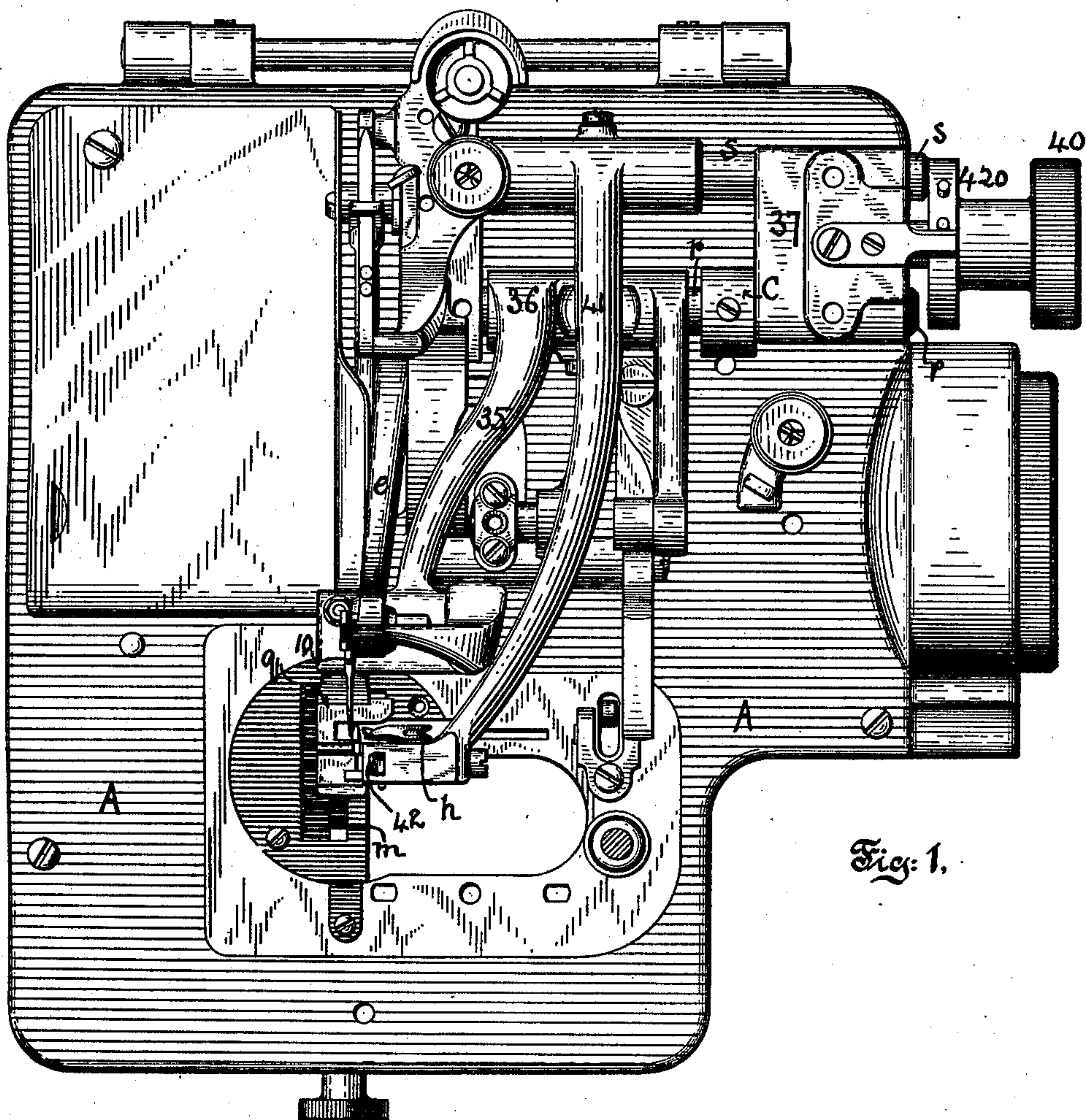


Fig: 1.

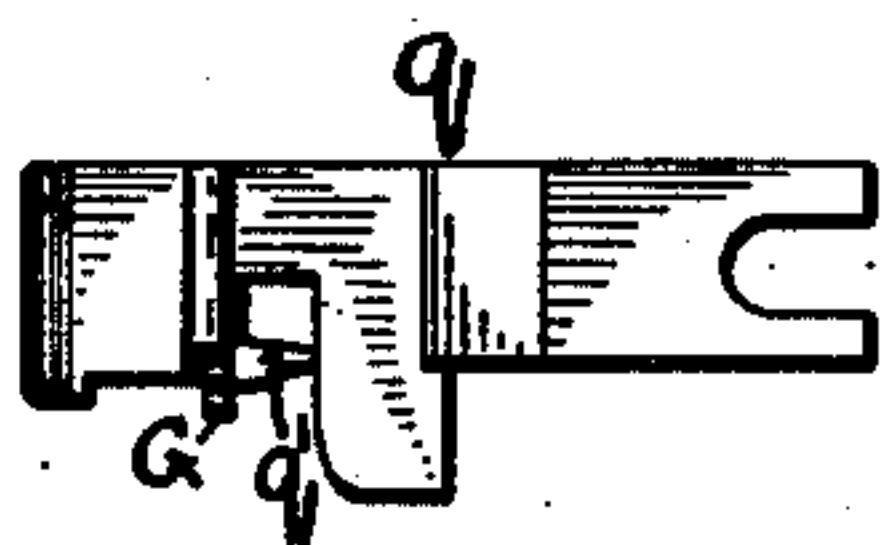


Fig: 2.

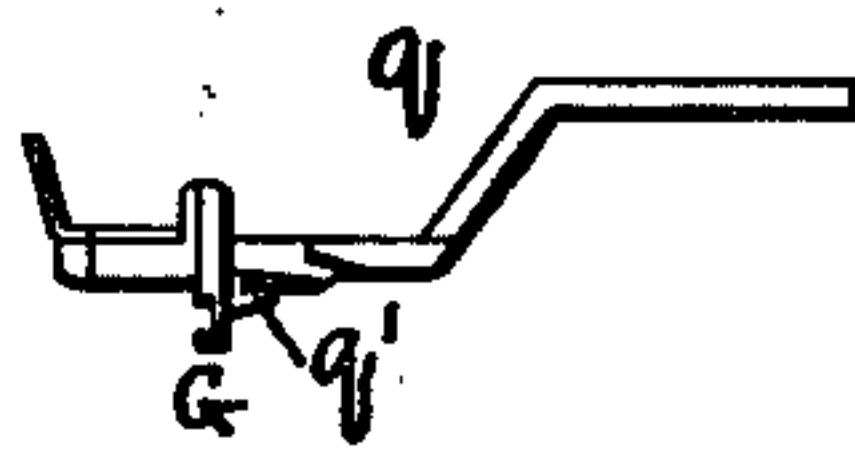


Fig: 3.



Fig: 4.

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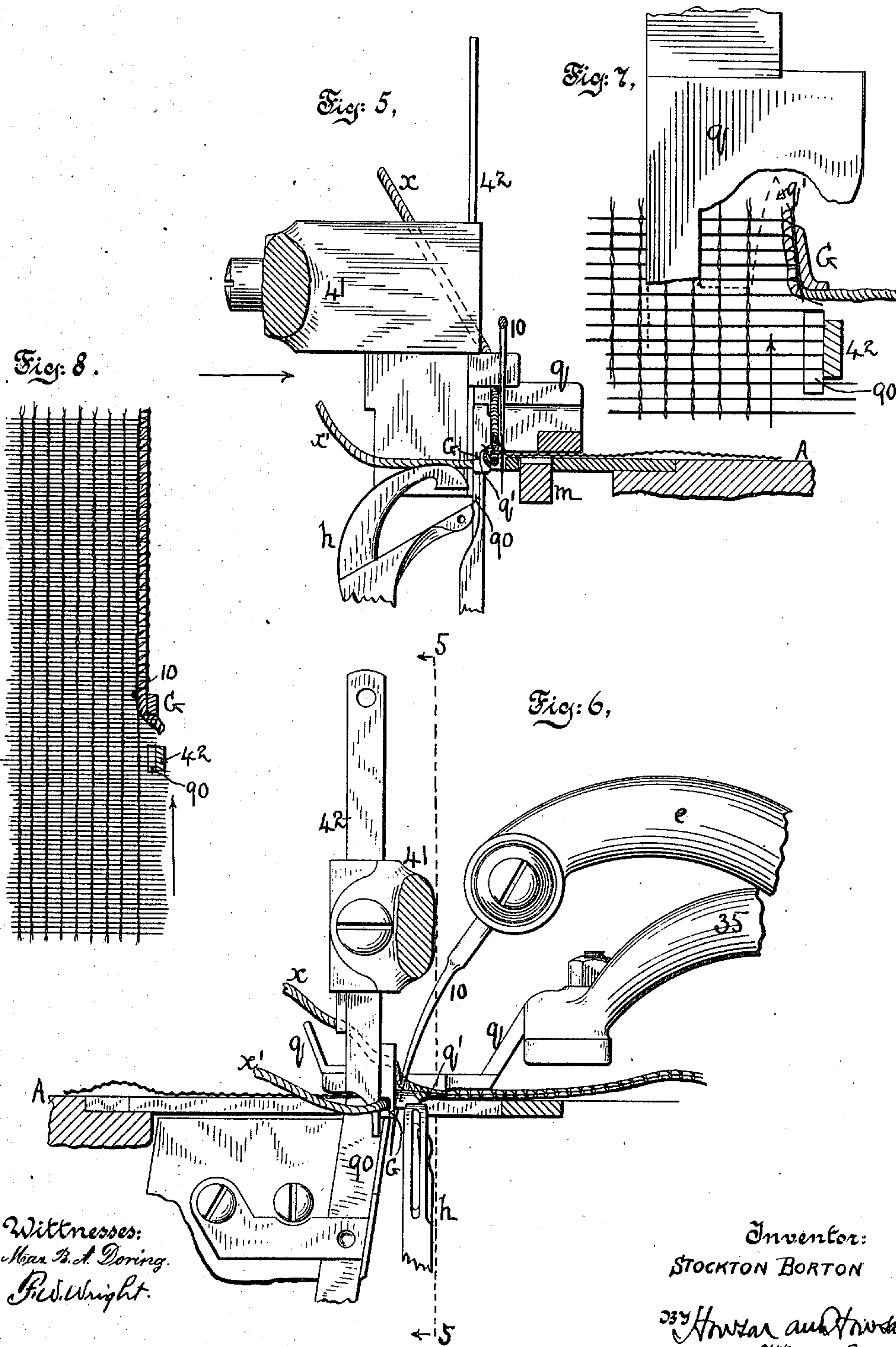
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UNITED STATES PATENT OFFICE.

STOCKTON BORTON, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO
WILLCOX AND GIBBS SEWING MACHINE COMPANY, OF NEW YORK,
N. Y., A CORPORATION OF NEW YORK.

OVEREDGE SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 736,199, dated August 11, 1903.

Application filed July 25, 1902. Serial No. 116,980. (No model.)

To all whom it may concern:

Be it known that I, STOCKTON BORTON, a citizen of the United States of America, residing in Providence, in the county of Providence and State of Rhode Island, have invented Improvements in Sewing-Machines, of which the following is a specification.

The object of my invention is to construct a sewing-machine for making automatically and with speed and economy an edging on lace, haircloth, or other open-work goods, such as to wholly prevent the appearance of "whiskers" on the finished edge of the goods and at the same time insure the secure attachment of the edging to the goods.

In carrying out my present invention I use overseam or other overedge stitching and preferably employ cords to produce an edging embodying the invention forming the subject of my Letters Patent No. 556,300, dated March 10, 1896, and in making edging of the patented construction I employ the combination of mechanism forming the subject of my Letters Patent No. 561,043, dated May 26, 1896. Although I prefer to employ cords in making edgings on the machine of my present invention, I do not wish to limit myself thereto.

By the term "whiskers" I intend to designate the ends of the threads of the lace, haircloth, or other open-work goods which project beyond the cut edge of the goods and which have heretofore been liable to protrude between and beyond the overseaming-stitches and the cords laid thereon. According to my present invention I provide means for brushing back and laying on each other (and, if desired, bending or folding under or over the edge of the goods) these cut ends of the threads or whiskers as the goods are fed through the machine. This brushing device may be a simple edge-guide which is placed between the needle and the trimmer, as I will describe.

In the accompanying drawings, Figure 1 is a plan view of one form of overseam sewing-machine in which my invention may be employed. Figs. 2, 3, and 4 are detached views in plan, edge, and inverted plan of a form of presser-foot which may be employed in carrying out my invention. Fig. 5 is a sectional

view of a part of the machine, drawn to an enlarged scale, on the line 5 5, Fig. 6. Fig. 6 is a view looking in the direction of the arrow, Fig. 5. Fig. 7 is a view, on a still larger scale, of parts to illustrate my invention; and Fig. 8 is a view of a piece of haircloth or like open fabric in process of being edged.

I do not wish to restrict myself to the use of any particular construction of overedge sewing and trimming mechanism for the purpose of carrying out my invention; but I prefer to employ the overseaming and trimming machine for which patents were granted to myself and Charles H. Willcox April 5, 1892, Nos. 472,094 and 472,095. So much of the machine of said patents as is necessary to an understanding of my present invention is illustrated in the drawings. Thus A represents the bed-plate, *e* the needle-bar carrying the needle 10, and *h* is the looper. The presser-foot *q* is carried by a presser-bar 35, which is attached to or in one piece with a sleeve 36, secured to the shaft *r*, Fig. 1. Parallel with this shaft *r* is a shaft *s*, carrying the vibrating arm 41, in the outer end of which is mounted the upper shear-blade 42 of the trimming device, the lower blade 90 being adjustably fixed in the frame, Figs. 5 and 6.

The presser-foot *q* has in addition to the usual chaining-finger *q'* a downwardly-projecting piece G underneath. A somewhat similar piece was employed in the machine of my Patent No. 561,043 as an eye for the lower cord to be fed to the under side of the edging, and I may employ this piece in part for a similar purpose here if I use such under cord in the edging; but I provide this piece G in the present instance for another purpose—namely, to serve as an edge-guide to bend or brush back the projecting ends of the whiskers or ends of the threads cut by the trimming device and before the goods reach the overedging devices in being fed through the machine. The cord-guiding notch in the piece G is best illustrated in the side view of the presser-foot, Fig. 3, but the edge-guiding part of the piece G is best illustrated in the enlarged view, Fig. 7. The goods being fed by the feed-dog *m*, Figs. 1 and 5, through the

machine in the direction of the arrows, Figs. 7 and 8, the edge will first be trimmed by the shearing action of the blades 42 and 90, Fig. 7, and then the projecting cut ends or
 5 whiskers will be brushed back onto each other in the direction of the line of feed, and while in this condition the overedge-stitch-forming devices will apply the overedge-stitches around these brushed-back whiskers,
 10 and so not only prevent their protruding through and between the overedge-stitches, but also more securely hold the overedge-stitching in place on the edge of the goods whether cords such as $x x'$ be used or not.
 15 It will be seen that the important feature is that not only shall the edge-guide G be located between the trimmer and the stitch-forming mechanism in the direction of the feed, Fig. 6, but that the edge-guide G shall
 20 lie between the trimming-line and the sewing-line, Figs, 5, 7, and 8. In order to insure that this edge-guide G shall always lie in a certain relation to the needle 10 and between the latter and the trimmer in the direction at
 25 right angles to the feed, I make the presser-arm 35 36, which carries this guide, non-adjustable by affixing to the shaft r , Fig. 1, a collar C, which bears against the housing 37 and keeps the shaft r and the parts carried
 30 by it always as far to the left as possible. By this means the adjusting thumb-screw 40 has its flange 420 bearing only against the

end of the shaft s to laterally adjust the trimmer only.

It will be understood that by suitably shaping the inner guiding edge of the guide G the whiskers may be not merely brushed back, but may be turned, folded, or bent under or over, as thought desirable.

I claim as my invention—

1. The combination of overedge sewing mechanism and trimmer mechanism with means between the trimmer and needle for bending back in the direction of the line of feed the cut ends of the threads of open-work goods, whereby the overseaming may be formed over and inclose these bent ends, substantially as described.

2. The combination of overedge sewing mechanism and trimmer mechanism with means between the trimmer and needle for bending back in the direction of the line of feed the cut ends of the threads of open-work goods, and means for laying a cord over said cut and bent ends, whereby the overseaming may be formed over and inclose the cord and bent ends, substantially as described.

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

STOCKTON BORTON.

Witnesses:

JOHN F. CRUNSHAW,
 WALTER R. DROWNE.