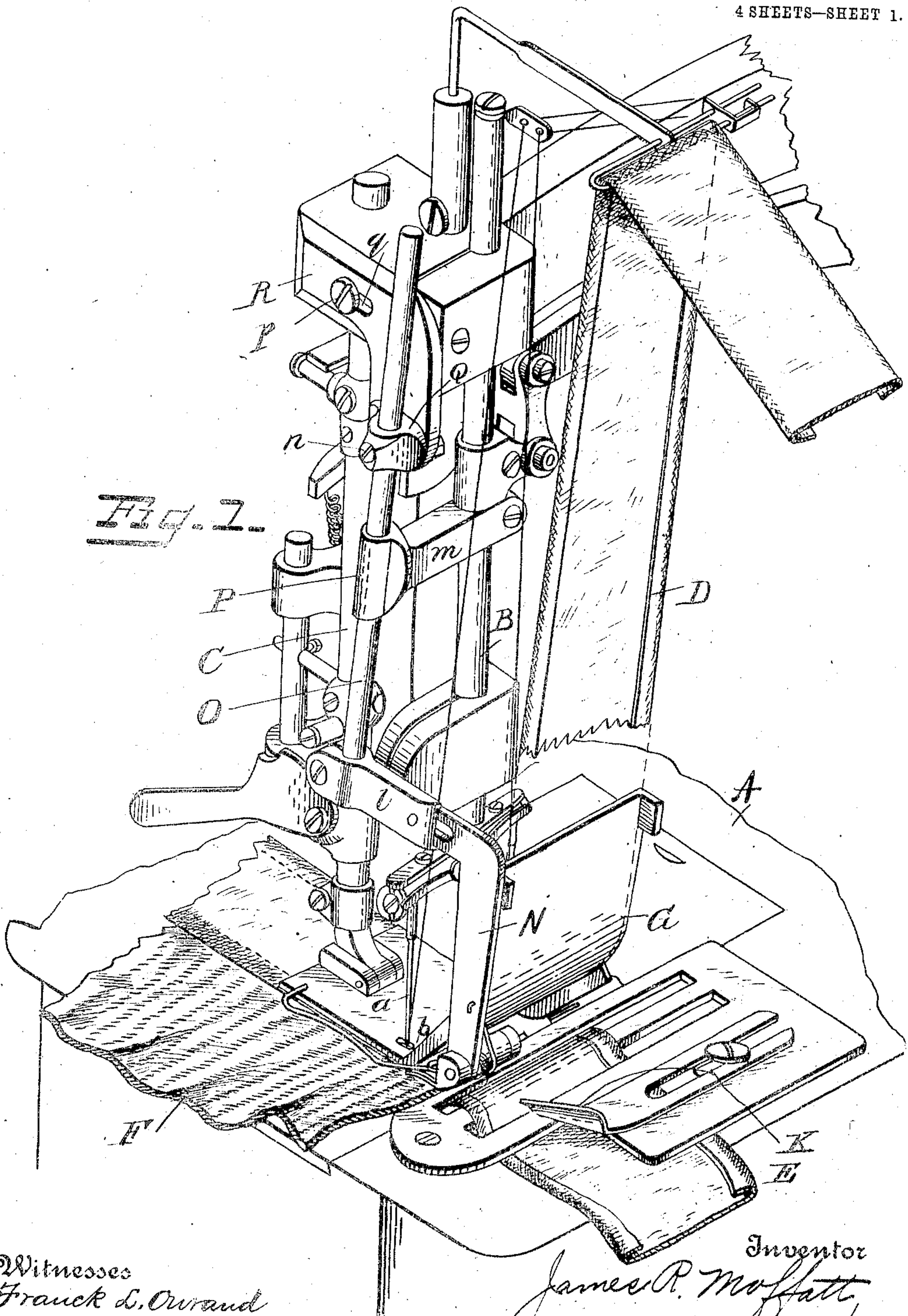


J. R. MOFFATT.
SEWING AND GATHERING MACHINE.
APPLICATION FILED AUG. 31, 1904.

929,686.

Patented Aug. 3, 1909.
4 SHEETS—SHEET 1.



Witnesses
Frank L. Ovrland
Frank H. Burton

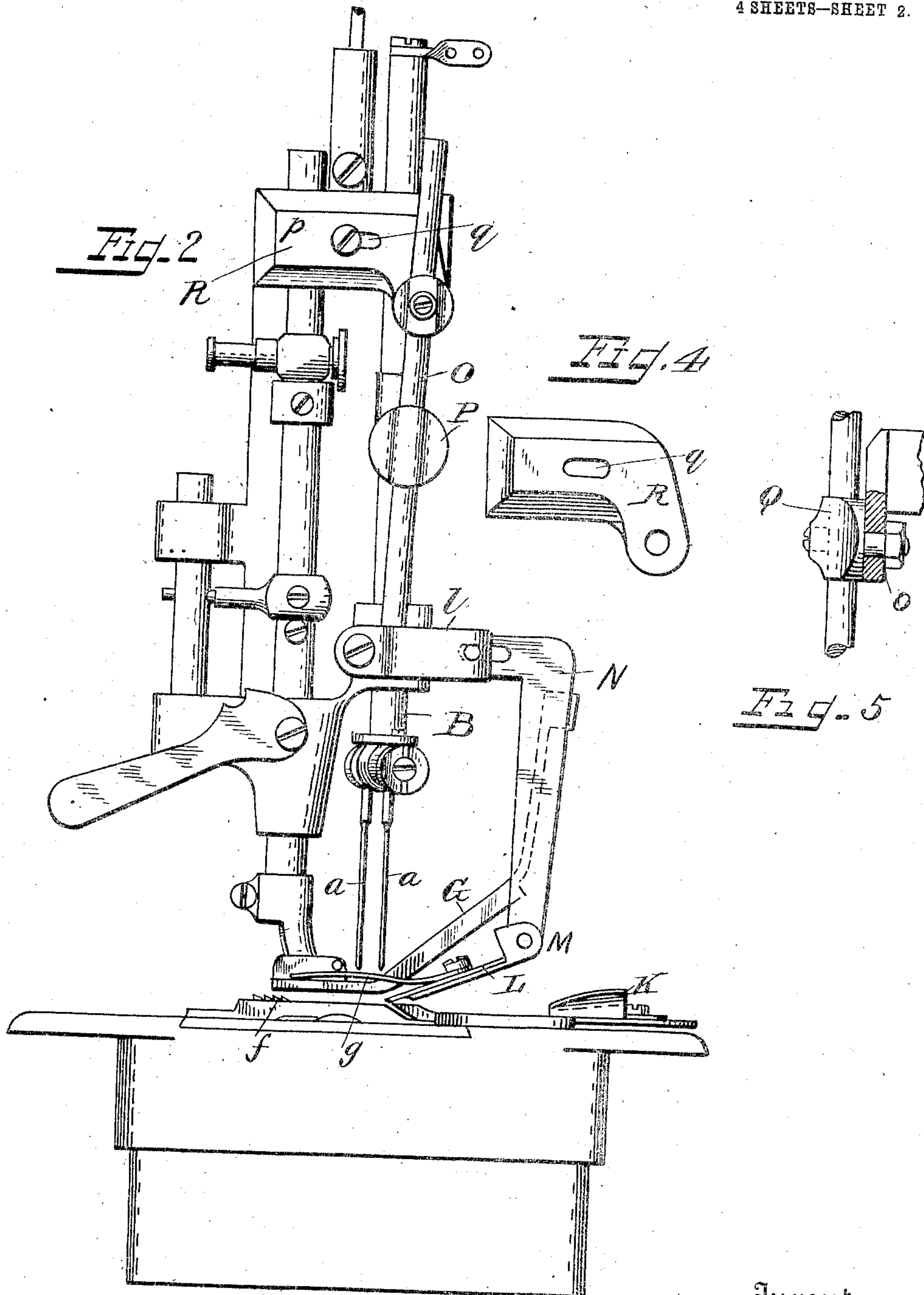
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4 SHEETS—SHEET 2.

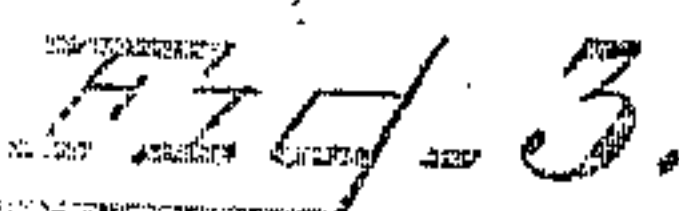


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4 SHEETS—SHEET 3.



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4 SHEETS—SHEET 4.

Fig. 6.

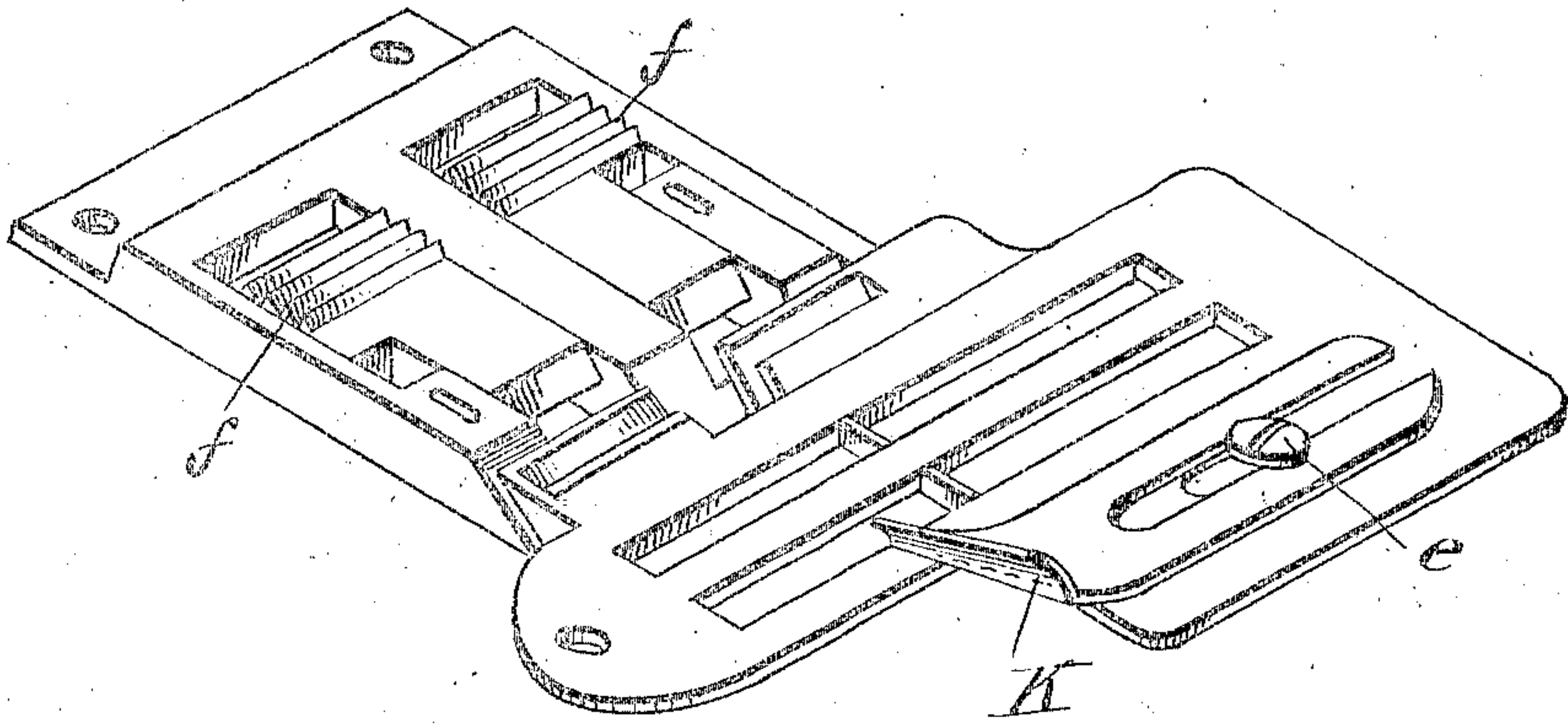


Fig. 7.

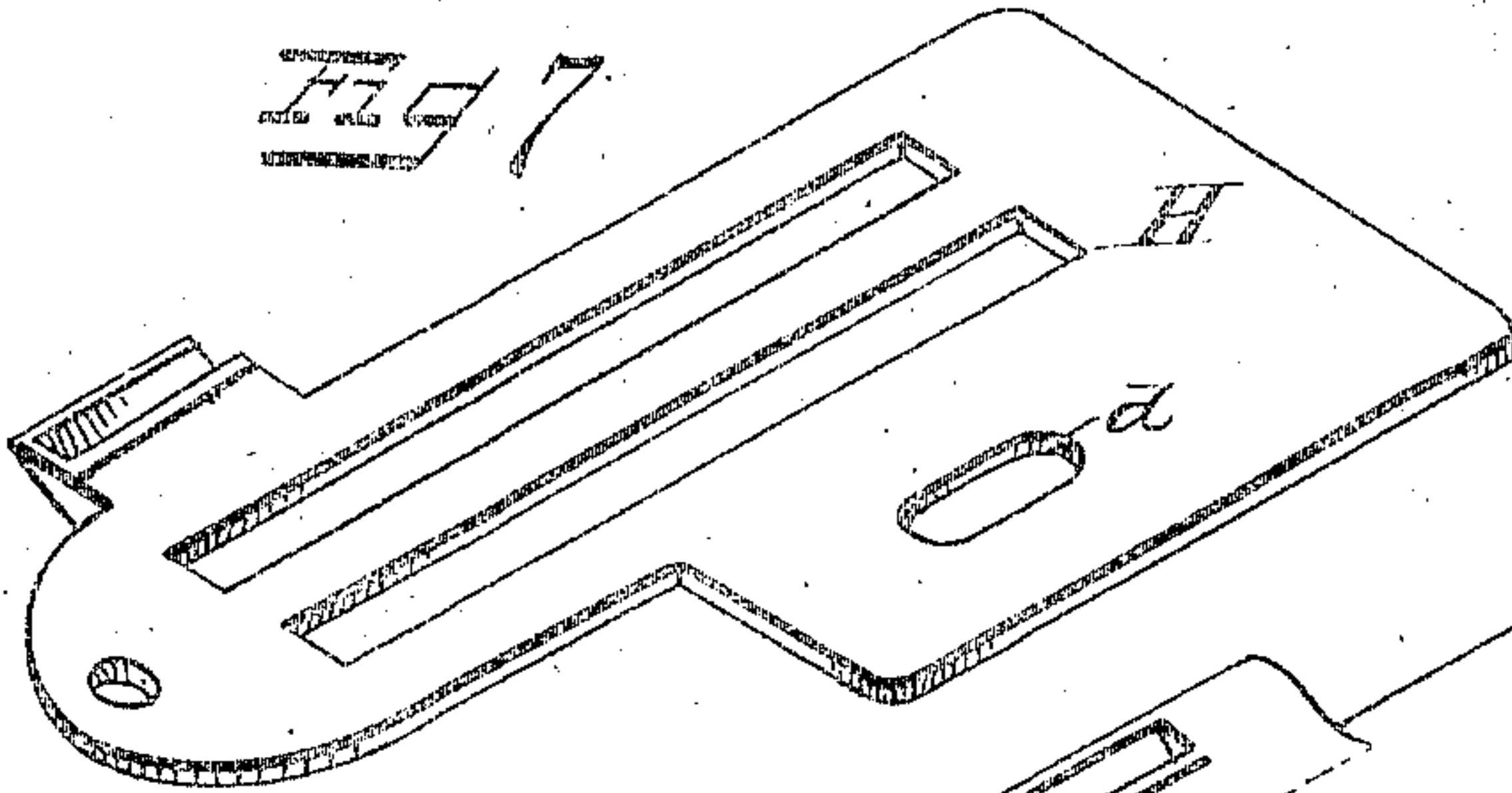


Fig. 8.

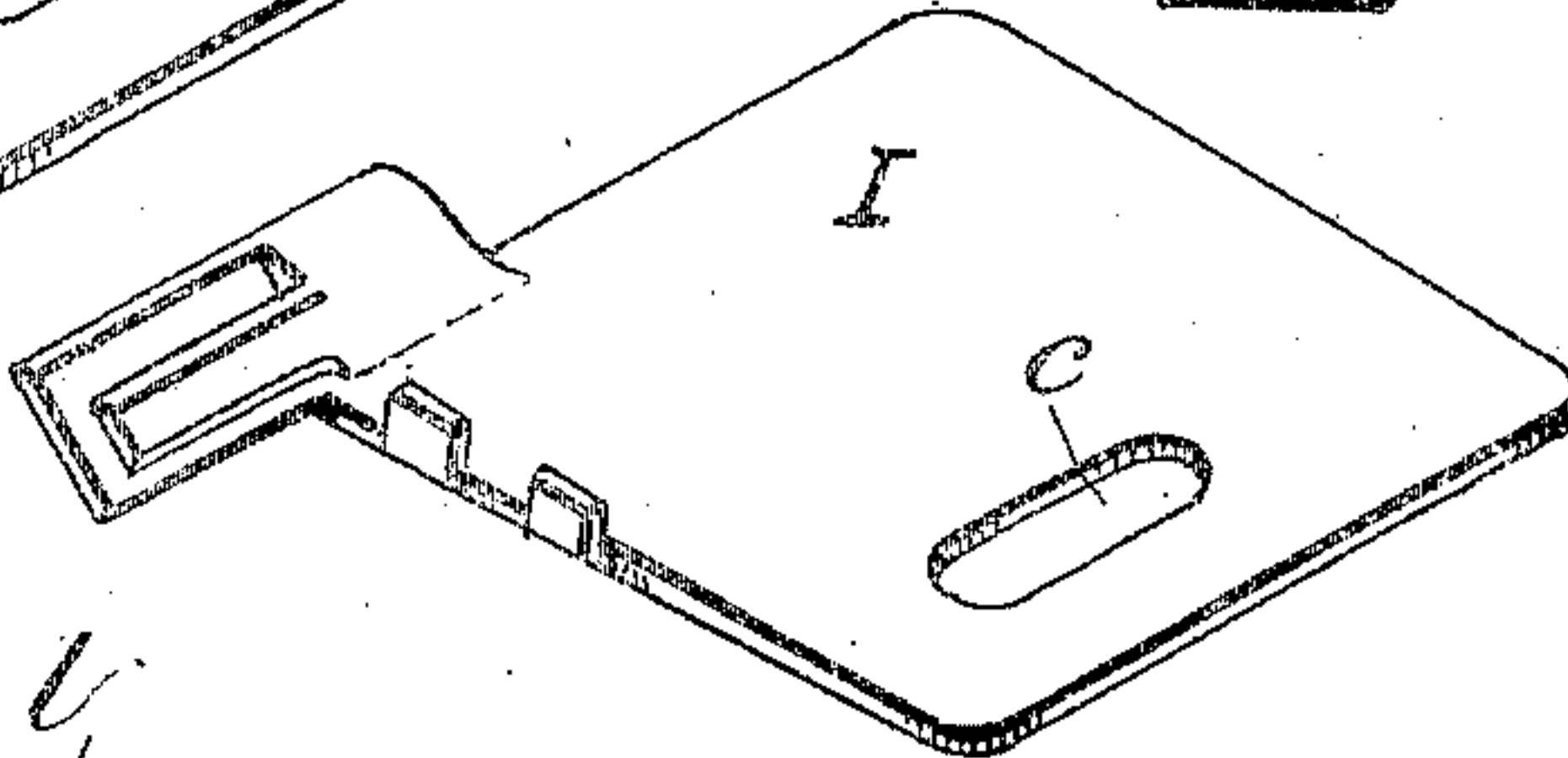


Fig. 9.

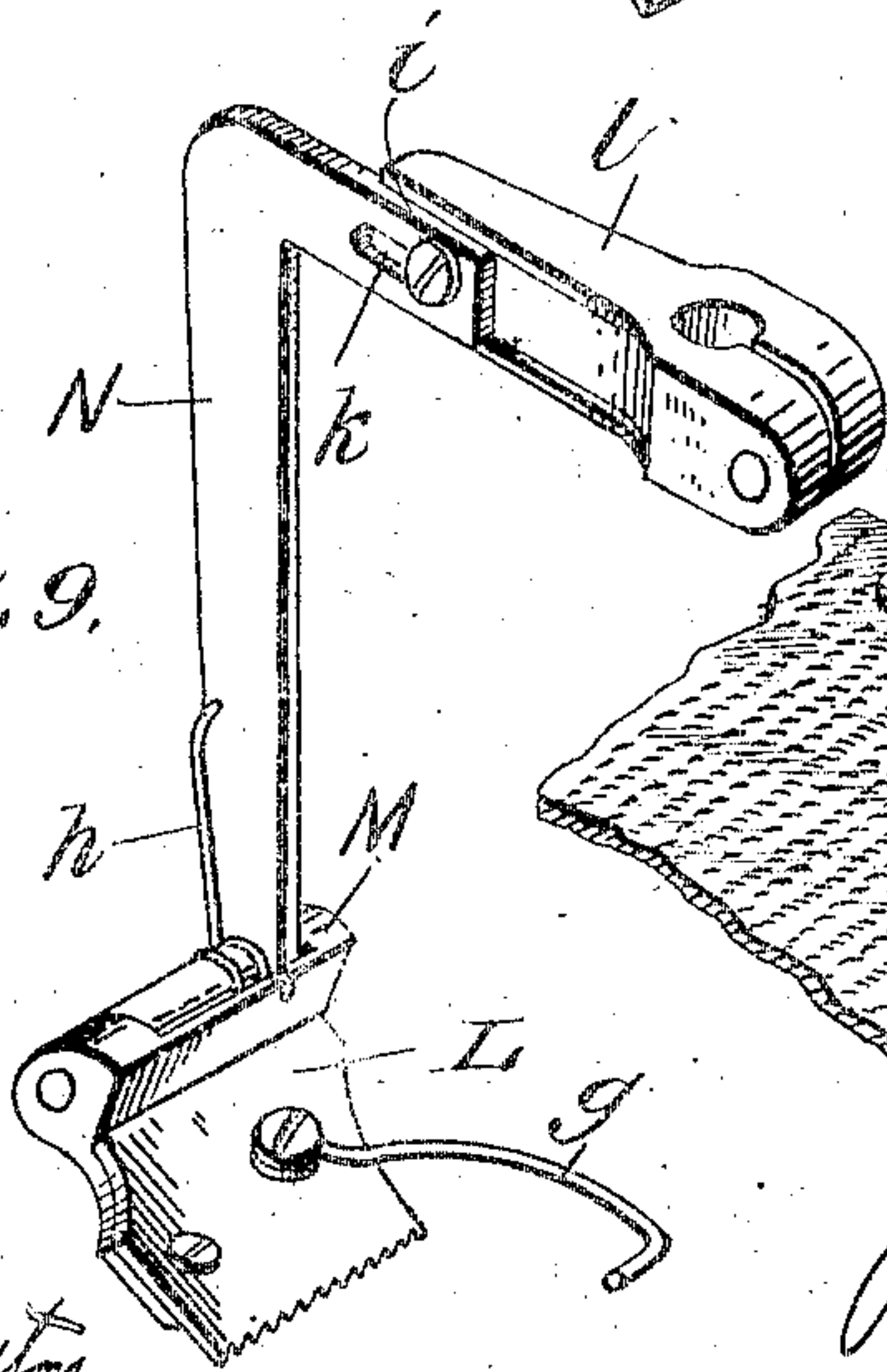
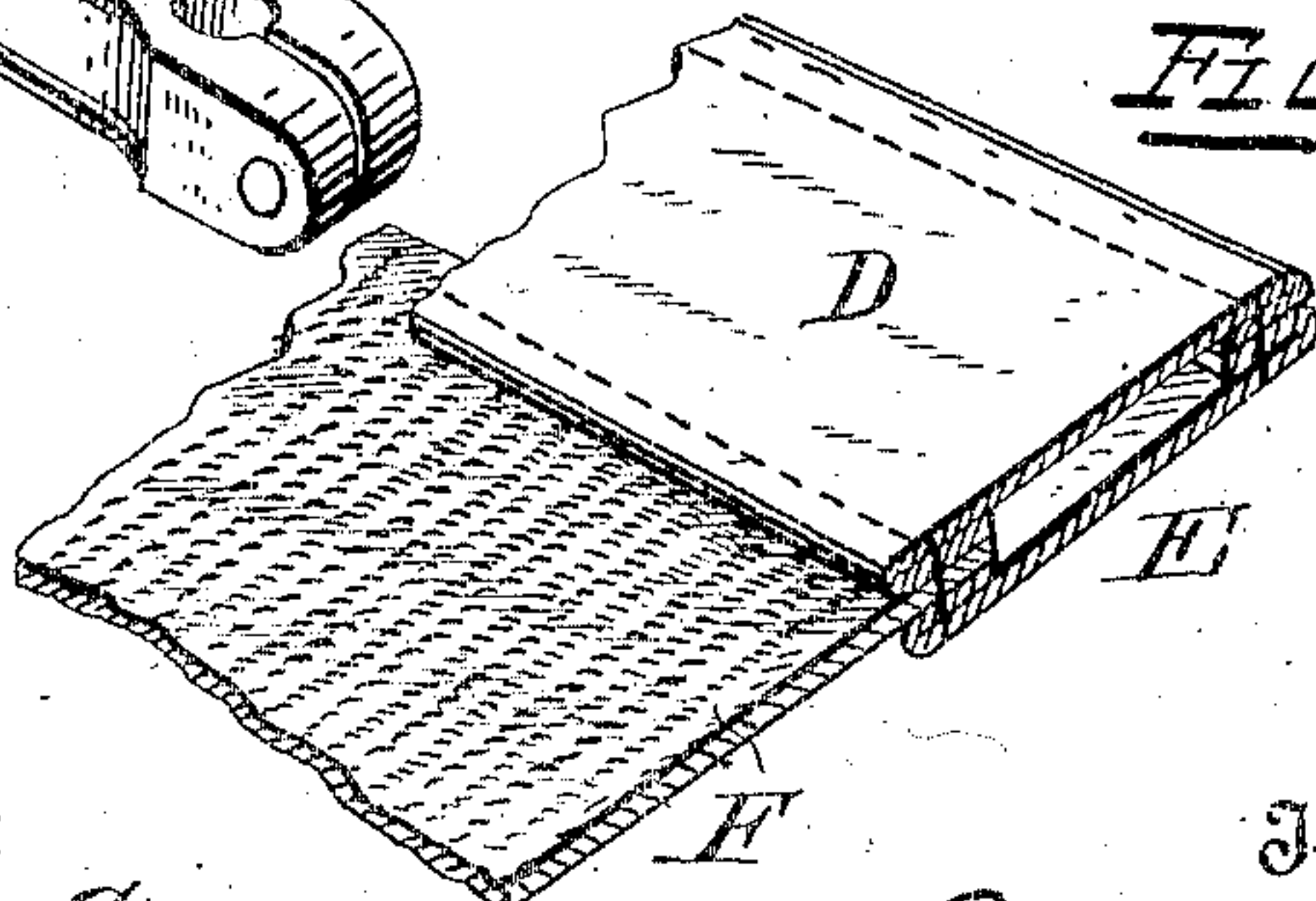


Fig. 10.



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UNITED STATES PATENT OFFICE.

JAMES R. MOFFATT, OF CHICAGO, ILLINOIS, ASSIGNOR TO UNION SPECIAL MACHINE COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

SEWING AND GATHERING MACHINE.

No. 929,686.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed August 31, 1904. Serial No. 222,795.

To all whom it may concern:

Be it known that I, JAMES R. MOFFATT, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Sewing and Gathering Machines, of which the following is a description, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention relates to an improvement in sewing and gathering machines, and particularly to the mechanism for supporting and operating the gatherer or auxiliary feeding device.

The invention is herein shown as applied to a machine for gathering a piece of fabric, which is to be secured between two folded bands, as, for instance, in sewing the bands on knitted drawers.

The invention consists in a novel mechanism for supporting and operating the gathering or auxiliary feeding device, and in the manner of arranging the same in combination with the stitch-forming mechanism and presser foot of a sewing machine.

It also consists in the matters hereinafter described and referred to in the appended claims.

The invention is illustrated in the accompanying drawings, in which,

Figure 1 is a front perspective view of the head of a sewing machine, having my invention applied thereto; Fig. 2 is an end view; Fig. 3 is a perspective view from the opposite quarter from Fig. 1, the guides being omitted; Fig. 4 is a detail view of the adjusting block; Fig. 5 is a detail section, showing the manner of pivoting the bar which supports the gathering or auxiliary feeding device; Fig. 6 represents perspective view of the throat plate feed dogs and lower band guide; Figs. 7 and 8 represent perspective views of the parts of the lower band guide; Fig. 9 is a side view illustrating the manner of adjusting the gathering blade forward and back; and Fig. 10 is a perspective of a piece of fabric sewed on this machine.

This invention has been particularly designed for gathering or feeding in a strip of knit goods between two bands, thus puckering the same, so that when the stitches are passed through the various thicknesses of goods, and the knit goods when sewed be-

tween the bands is without distortion or pucker, and in appearance the same as before it was stitched. The sewing operation and the handling of the knitted material by the operator have a tendency to stretch the elastic material, and to overcome this defect the auxiliary feeding device is employed. It will be understood, however, that while this is, in effect, an auxiliary feeding device, the mechanism which operates the same may be applied for operating a ruffling blade, and I wish to claim the same broadly.

In these drawings, A represents a portion of the cloth plate of a sewing machine, which embodies as its stitch-forming mechanism two needles *a, a*, set at considerable distance apart, and cooperating with complementary stitch-forming mechanism (not shown), to make two rows of stitches. These needles are carried on a suitable needle bar B, and C is the presser bar carrying the presser foot *b*.

As shown this machine is fitted to sew folded bands D, E, to a knitted fabric F, the upper band D being fed from above and guided beneath the presser foot by the extension guide G, thereon. The lower band E is guided in the slots in the guide H, the length of said slots being adjustable to correspond with the width of the band to be sewed, by the plate I shown in Fig. 8, which is adjustable with respect to H by the elongated slots *c, d*, and secured in proper adjustment by the screw *e*, which screw is also utilized to hold in position the adjustable edge guide K for the knitted fabric F.

I do not herein claim the arrangement of the various guides, as these form the subject matter of another application.

The present invention relates especially to the means for feeding or gathering the knitted strip which is to be united to the bands, so that after it has been sewed, the knit goods will not be stretched in the direction of the bands. It will be understood then that this particular feature of the invention is, in effect, an auxiliary feed, acting in conjunction with the regular feed dogs *f, f*, but in advance thereof, and ahead of the needles. It will be also understood that the operating device for this feature may be applied for operating a regular ruffling mechanism.

L represents a toothed plate, attached to a support M, pivoted on the arm, and normally kept in engagement with the fabric

by a spring *h*. The forwardly projecting wire *g* attached to the blade *L* is to raise it vertically as the presser foot is raised above the work plate. The upper end of the arm *N* is adjustably secured by slot and screw *i* and *k*, to the member *l*, clamped upon the lower end of the rod *O*, which rod is set at an incline to the needle bar, but passes through a sleeve *P* pivotally connected to the end of the block *m*, attached to and moving with the needle bar. This rod or bar *O* is clamped by a screw *n* in the opening in the block *Q*, having a stud *o* formed integral with it, and pivoted to the bracket *R*. This bracket is adjustable by set screw and slot *p*, *q*, on the upper lug on the head of the machine. It will be seen that in the operation of the needle bar, the sleeve *P* on the end of the block *m* slides up and down on the rod *O*, but as the latter is set at an inclination, it will be caused to swing on its pivot and thus operate the blade *L*. By adjusting the bracket *R* and the block *m* to accord therewith, it will be seen that the angle of inclination of the bar or rod *O* and therefore the amount of movement of the blade *L* may be varied and by adjusting the arm *N*, the blade may be adjusted nearer to or farther from the needle.

The blade *L* is set in advance of the forward needle with its inner edge about in line with the center of the space between the needles, so that the gathered or puckered strip is not caught by the inner needle, but only by the outer one.

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

1. In a sewing machine the combination with stitch-forming mechanism including a needle bar and means for reciprocating the same, a block or member rigidly secured to said needle bar, a sleeve pivotally connected to said block or member, a bar passing freely through said sleeve or member, a bracket to which said bar is adjustably connected, said connection between said bracket and bar being located relative to the sleeve carried by the needle bar so that said bar is inclined to the axis of the said needle bar and a feeding or gathering device carried by and operated from said bar; substantially as described.

2. In a sewing machine the combination with stitch-forming mechanism including a needle bar and means for reciprocating the same, a block or member rigidly secured to said needle bar, a sleeve pivotally connected to said block or member, a bar passing freely through said sleeve or member, a bracket to which said bar is adjustably connected, said bracket being adjustably connected to the head of the machine, said connection between said bracket and said bar being located relative to the sleeve carried by the needle bar so that said bar is inclined to the axis of the

said needle bar and a feeding or gathering device carried by and operated from said bar; substantially as described.

3. A sewing machine including in combination stitch-forming mechanism comprising a needle bar and means for reciprocating the same, a bracket secured to the head of the machine, a bar pivotally supported by said bracket, said pivotal support being so disposed that said bar is out of parallelism with the needle bar, means carried by said needle bar and freely engaging said first named bar, an arm rigidly secured to the lower end of said bar and a gathering device supported by said arm; substantially as described.

4. A sewing machine including in combination stitch-forming mechanism comprising a needle bar and means for reciprocating the same, a bracket secured to the head of the machine, a bar pivotally supported by said bracket, said pivotal support being so disposed that said bar is out of parallelism with the needle bar, means carried by said needle bar and freely engaging said first named bar, an arm rigidly secured to the lower end of said bar, a second arm adjustably secured to the first named arm and a gathering blade pivoted to said adjustable arm; substantially as described.

5. A sewing machine including in combination stitch-forming mechanism comprising a needle bar and means for reciprocating the same, a bracket secured to the head of the machine, a bar pivotally supported by said bracket, said pivotal support being so disposed that said bar is out of parallelism with the needle bar, means carried by said needle bar and freely engaging said first named bar, an arm rigidly secured to the lower end of said bar a gathering device supported by said arm, and a spring for holding said gathering device in engagement with the material; substantially as described.

6. A sewing machine including in combination a presser-foot, stitch-forming mechanism including a needle bar and means for reciprocating the same, a bracket secured to the head of the machine, a bar pivotally supported by said bracket, said pivotal support being so disposed that said bar is out of parallelism with the needle bar, means carried by said needle bar and freely engaging said first named bar, an arm rigidly secured to the lower end of said bar, a gathering device supported by said arm, a spring for holding said gathering blade in engagement with the material, and an arm attached to the gathering blade and extending over the presser-foot so that said blade is raised with the presser-foot; substantially as described.

7. A sewing machine including in combination two needles, a main feeding mechanism an auxiliary feeding mechanism, guides for the fabric, including an upper

guide for an upper band, an adjustable
guide for the lower band, and an edge guide
for an intermediate fabric located so as to
guide the edge of the fabric between the
5 needles, said auxiliary feeding mechanism
being arranged ahead of one of the needles
only to feed said intermediate fabric.

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

JAMES R. MOFFATT.

Witnesses:

CHESTER McNEIL,
ALBERTA B. CLOTHIER.