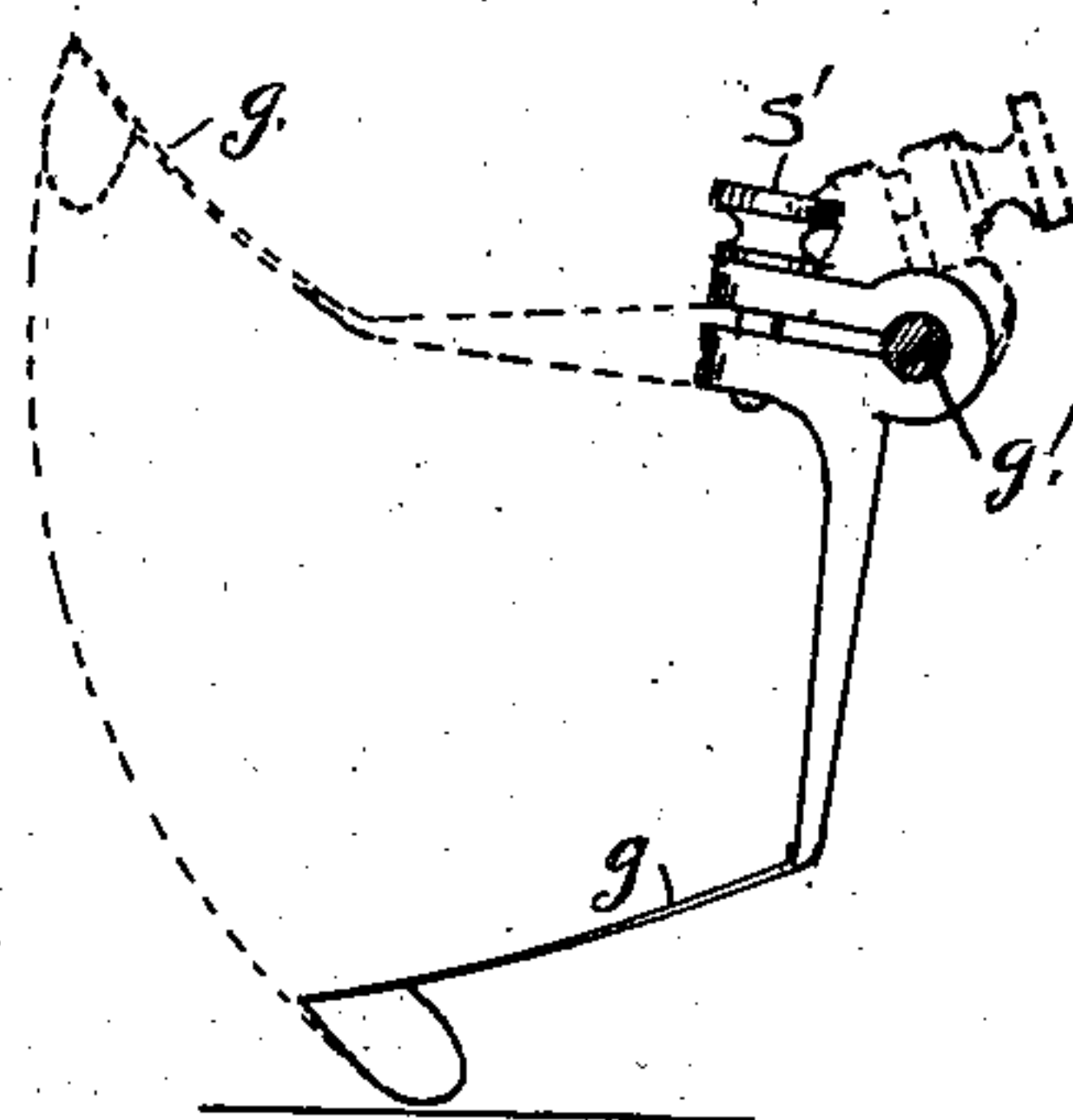
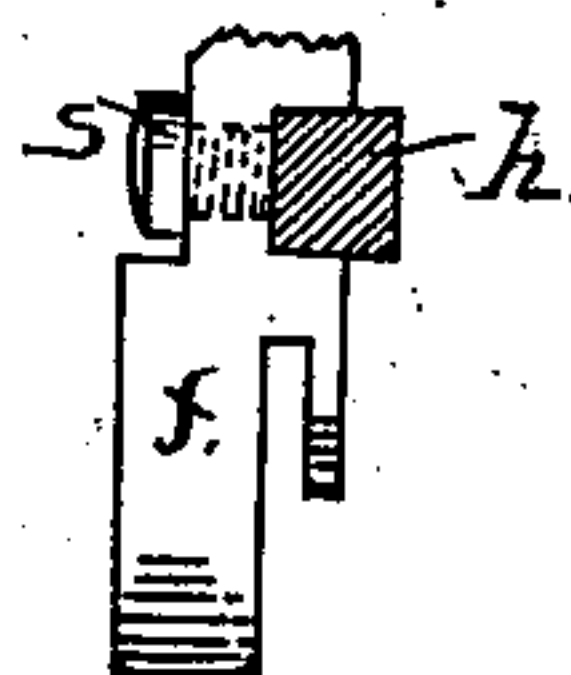
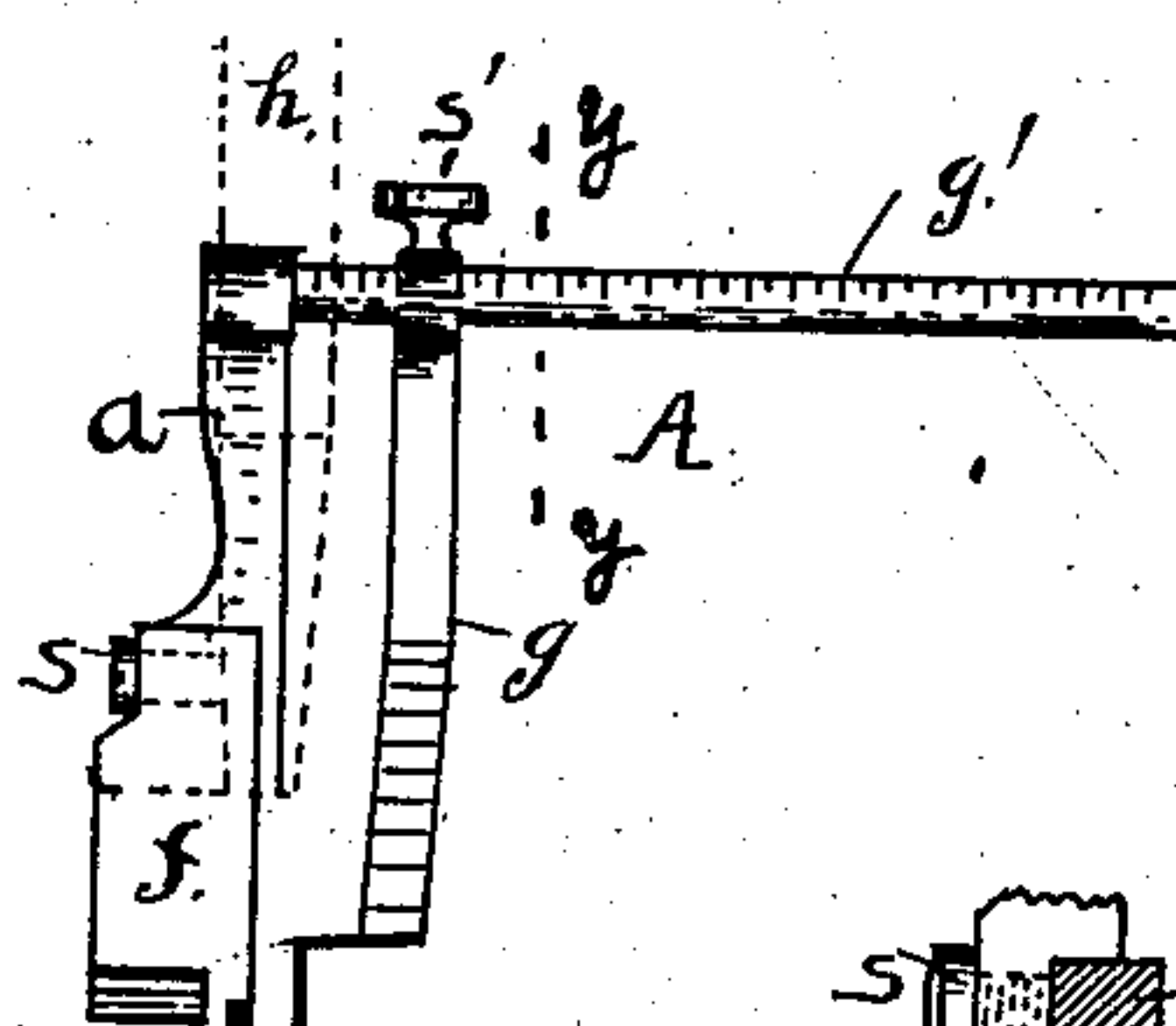
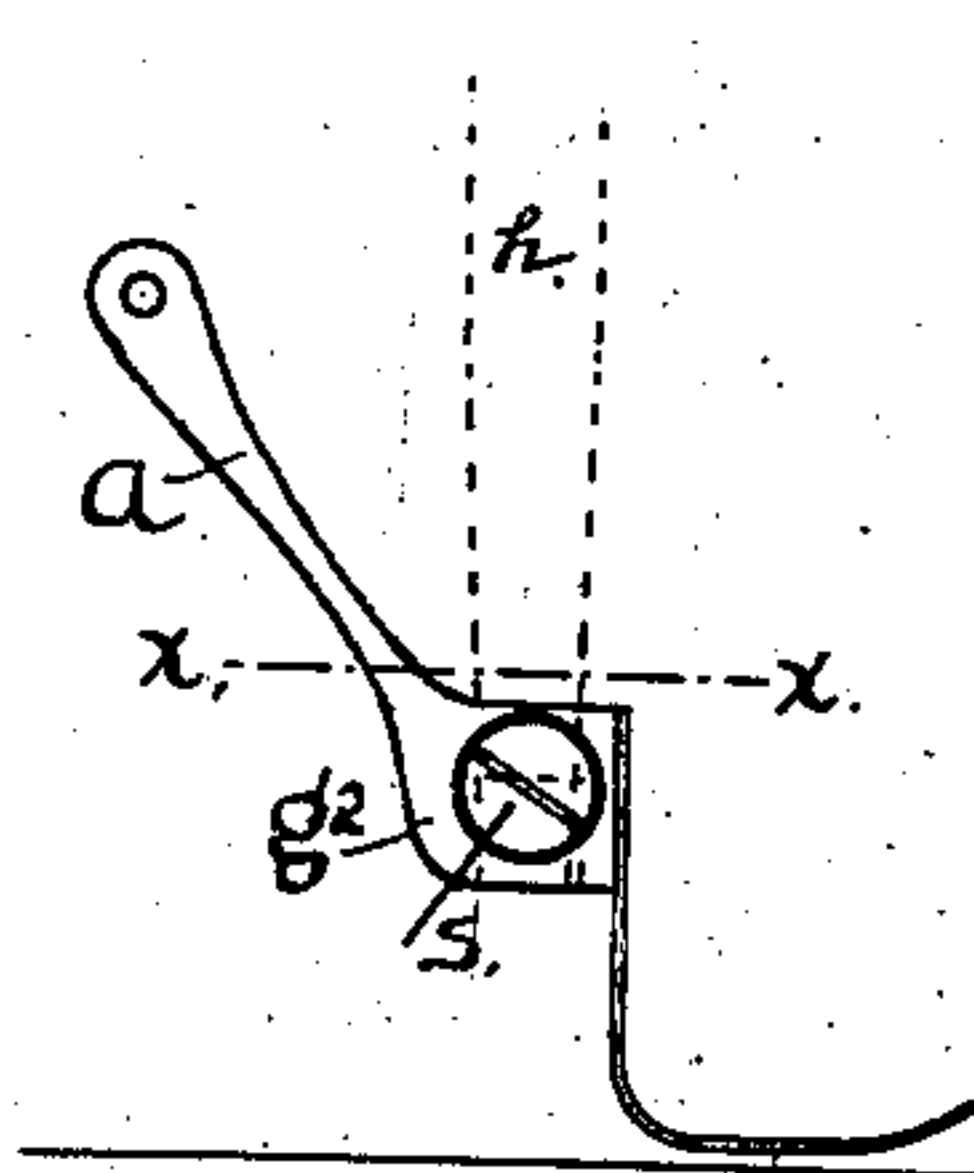
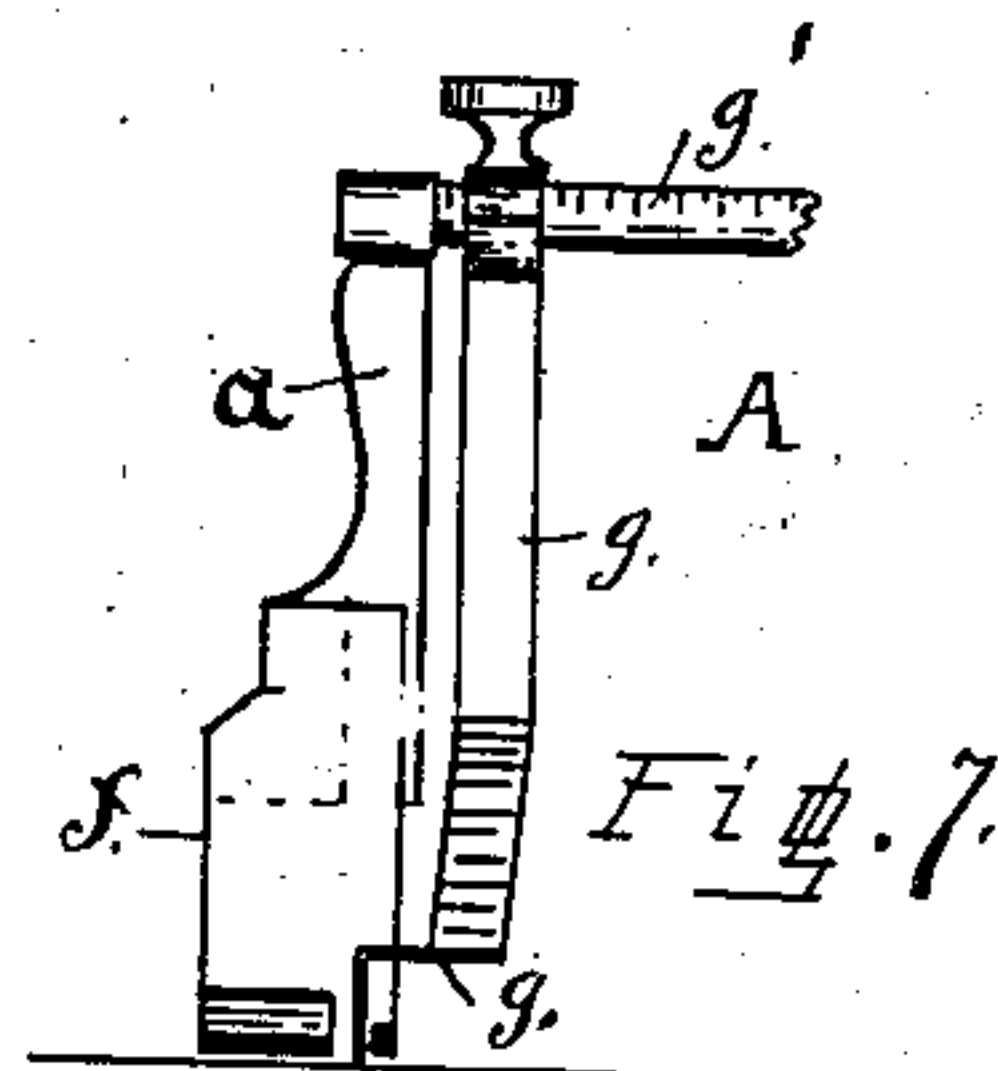
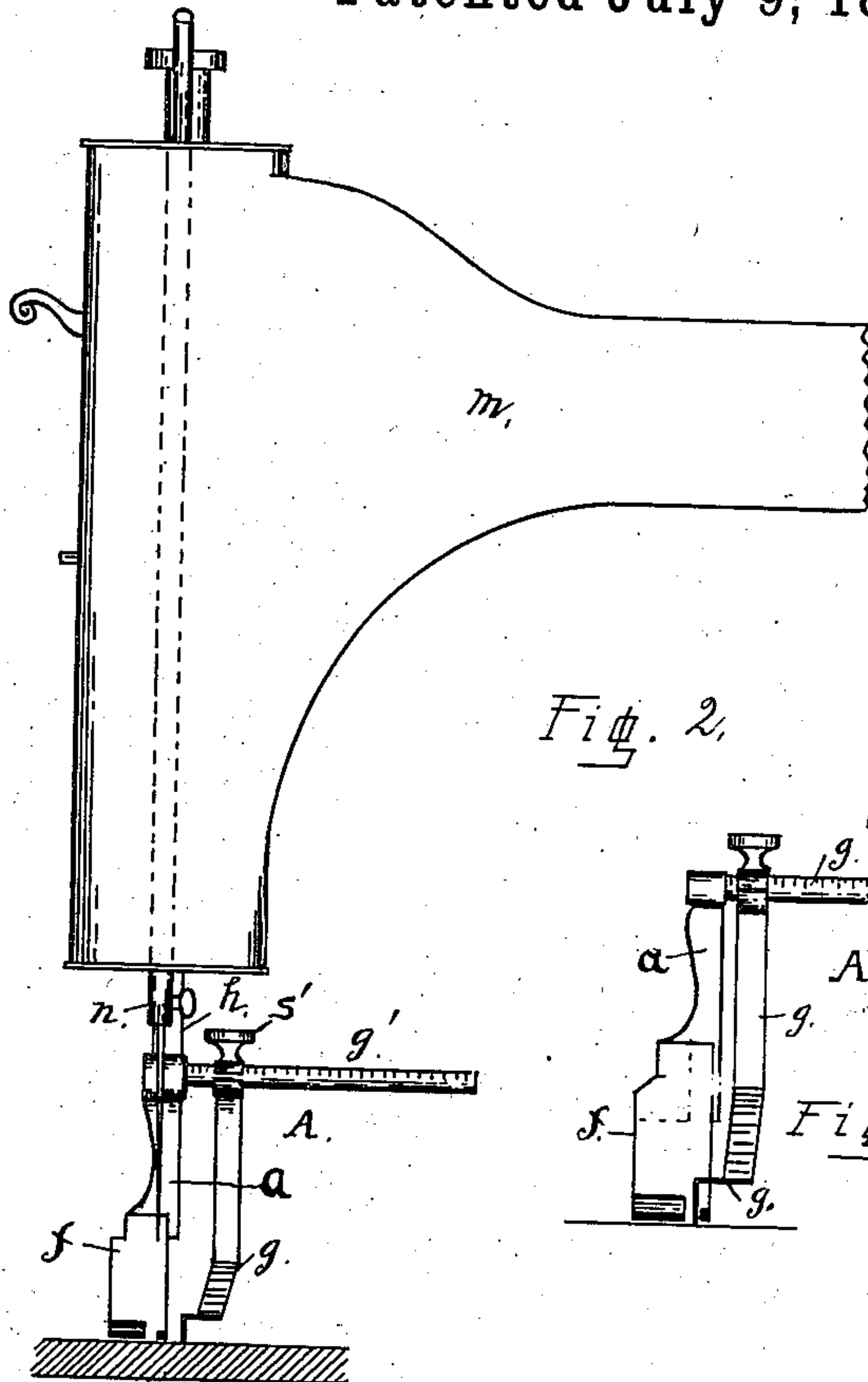
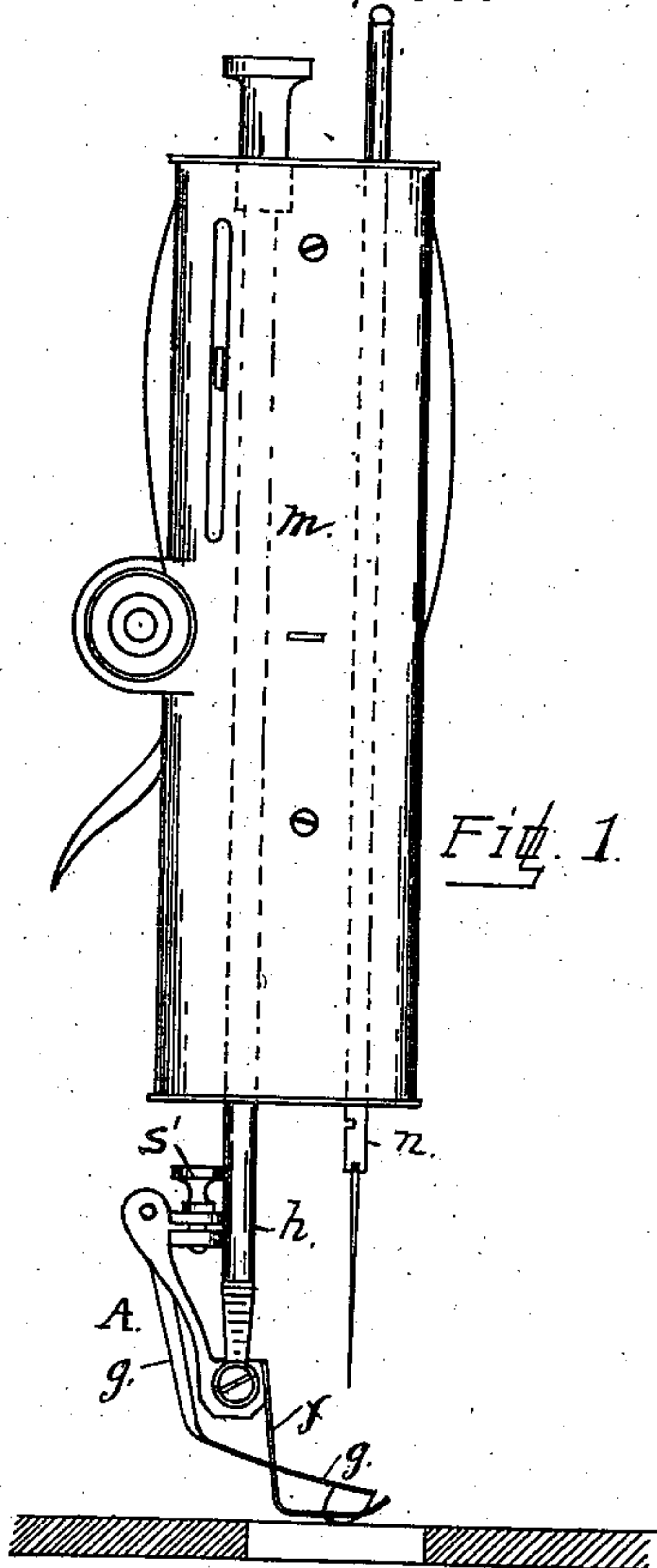


(No Model.)

V. STEY.
SEWING MACHINE ATTACHMENT.

No. 542,290.

Patented July 9, 1895.



Witnesses:

E. R. Chapman,

J. B. Claypool

Fig. 6

Per

Inventor:

Valentine Stey

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Attorney.

UNITED STATES PATENT OFFICE.

VALENTINE STEY, OF YOUNGSTOWN, OHIO.

SEWING-MACHINE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 542,290, dated July 9, 1895.

Application filed March 7, 1894. Serial No. 502,663. (No model.)

To all whom it may concern:

Be it known that I, VALENTINE STEY, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Sewing-Machine Attachments; and I do hereby declare the following to be a full, clear, and exact description of my invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

My invention has for its object a sewing-machine attachment applicable to all approved machines and for all classes of stitched seams and edges, whether in textile fabrics or leather, that, dispensing with the parts combined, is a combined spring presser-foot, gage, and spring-guide, so constructed that in use it automatically and without danger to the needle accommodates itself to all inequalities of surface in the material acted upon, whether abrupt, as at an edge, or curvilinear, as in overlaps, thus enabling the operator to turn corners, running the stitching beyond the angle without using the lift or gib, and which is conveniently adjustable for running stitchings on lines exactly parallel with each other or with the edge and at any space therefrom between one thirty-second of an inch to as great a distance as may be required, my attachment thus presenting a valuable adjunct in sewing-machines generally as a time and labor saver and as a means of better and more accurate work in their use. I accomplish this object by the mechanism hereinafter described, and illustrated in the drawings, in which—

Figure 1 is an elevation view of the forward end of a machine-arm M, carrying my attachment A. Fig. 2 is a side view of same. Fig. 3 is a side view of the presser-foot *f*. Fig. 4 is a front view of my attachment A. Fig. 5 is a vertical section view of the same on the line *y y* of Fig. 4 and showing also in dotted lines the position of the guide when thrown upward not in use. Fig. 6 is a cross-section view of the presser-foot *f* on the line *x x* of Fig. 3; and Fig. 7 is a face view of my attach-

ment A, the gage *g'* broken off, and showing the guide-foot within the needle-slot of the presser-foot.

Similar letters refer to similar parts in all views.

My improved attachment embodies a main arm *a*, from the upper end of which projects a lateral rod *g'*, the elastic presser-foot *f*, secured to the lower end of said main arm, and a guide supported adjustably on said lateral rod *g'* and having its lower part formed of elastic metal, and said elastic part extending first forward, then laterally toward the presser-foot upon a plane higher than the latter and thence downward to the plane of the same.

The detail construction preferred is as follows:

The lateral rod *g'* is scaled in inches and fractions of an inch to a thirty-second, so as to increase its efficiency as a gage-rod, and the lower end of the arm *a* is enlarged, as shown at *g''*, from the forward side of which enlarged portion a thin flat strip of spring metal of greater breadth extends downward, curving forwardly to the horizontal for the presser-foot proper, on which horizontal line it extends for a suitable distance and thence curves upward to a termination, said horizontal and upwardly-curved portion having near the edge that is nearer the guide *g* a slot from the vertical portion to the end for the needle, the narrow portion outside the slot being as long only as the horizontal portion of the presser-foot proper, all of which are integral portions of the whole. The rectangular portion is approximately a cube, having a rectangular slot in its upper side on lines parallel with the gage-rod *g'* and a vertical rectangular slot wider at the bottom than at the top on the side that is nearest the guide *g*. These slots are for a means of readily attaching and detaching the attachment A to the presser-bar, the vertical slot receiving the presser-bar, which at that point is of a form to fit therein, forming a dovetail, so that the attachment A is held vertically thereby, while laterally it is held by the set-screw *s*, that, resting in the horizontal slot, penetrates the presser-bar. I do not limit myself to this means of attaching

my attachment A to the presser-bar, but vary the same to suit the various presser-bars found in the various sewing-machines in use.

The guide *g* has approximately an upper 5 vertical and a lower horizontal portion, the latter being of suitable flat spring-steel, inclining downward on its line forward from the vertical portion. At the forward end appears a cross-strip, projecting suitably beyond 10 the edge upon the side nearer the presser-foot, and thence, with a rearward inclination, turned downward at right angles and rounded forwardly in its lower portion. This constitutes the guide proper, the lower edge of 15 which impinges upon and passes along the fabric on the exact line, whether an edge or a stitching, to which it is adjusted on the gage *g'*. For the purpose of such adjustment the upper end of the vertical portion terminates 20 in a forwardly and rearwardly projecting cap, rearwardly presenting an eye for the gage-rod *g'* and having forwardly a vertical opening threaded in the lower part for the set-screw *s'*, so that, there being a slot in the 25 cap from the forward end to the eye, the part above which is suitably thin and elastic, the eye is clamped or loosened at pleasure. Except the set-screw *s'* the portions of the guide *g* are integral.

30 The mechanism of my attachment will now be understood.

It is to be observed that as the guide-foot of the guide *g* impinges the cloth in the operation of sewing, having a movement describing the arc of a circle, permitted by the spring 35 of the portion of the guide *g* in rear of it, it will always exhibit such a portion below the lower line of the presser-foot as is required by the thickness of the cloth, and that, as the 40 forward portion of the presser-foot proper is curved upward and its horizontal portion is suitably thin and elastic, when in the operation of the machine an abrupt or a curvilinear elevation of the surface of the material 45 being stitched is reached the spring presser-foot, as does the guide-foot or guide proper, accommodates itself thereto, passing over it, so that no lift of the gib, interrupting the work, is required and no danger of breaking the

needle occurs, these being well-known causes 50 of delay and expense in the use of other presser-foot attachments, and that a stitching may be carried without such delay or danger beyond an angle and the direction of the stitching readily changed. 55

It will also be noted that by the use of my attachment A, while the use of the several guides and gages now employed is dispensed with, at a saving of cost in manufacture and 60 of time and use, the operator is enabled to run stitchings on exactly parallel lines and from within one thirty-second of an inch of the edge or selvage of the material, for which purpose the guide-foot has place within the slot of the presser-foot to as great a distance 65 as may be desired.

The fact that the presser-foot proper is of thin material, so that the needle-slot therein is never in shadow, concealing the portion of 70 the stitching within it, as is the case in other presser-feet, is likewise a matter adding to the usefulness of my attachment A. These qualities render my attachment very valuable not only in the art of tailoring, but also 75 in leather-sewing and in upholstering.

What I claim is—

The herein described attachment to sewing machines, consisting of the main arm, an elastic presser foot secured to the lower end 80 thereof, said presser foot having a slot, a rod projecting laterally from the upper end of said arm, and a guide adjustably secured upon said rod, said guide having its lower part 85 formed of elastic metal and said elastic part extending first forward, then laterally toward the presser foot upon a plane higher than the latter and thence downward to the plane of the same, said downwardly extending part of the guide being adapted to be received within 90 said slot in the presser foot, substantially as described.

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

VALENTINE STEY.

Witnesses:

D. L. CARNES,
JOHN KIST.