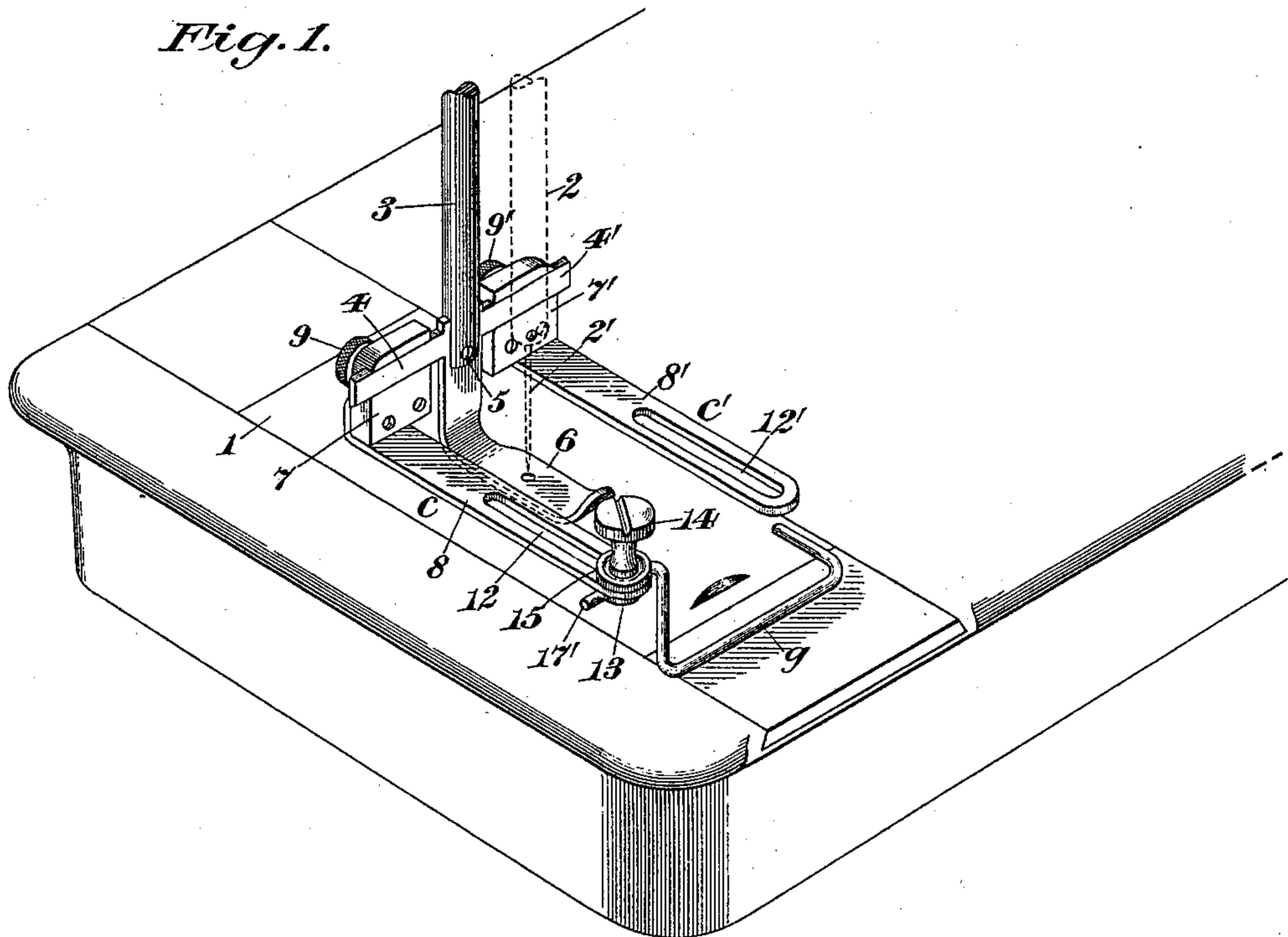


(No Model.)

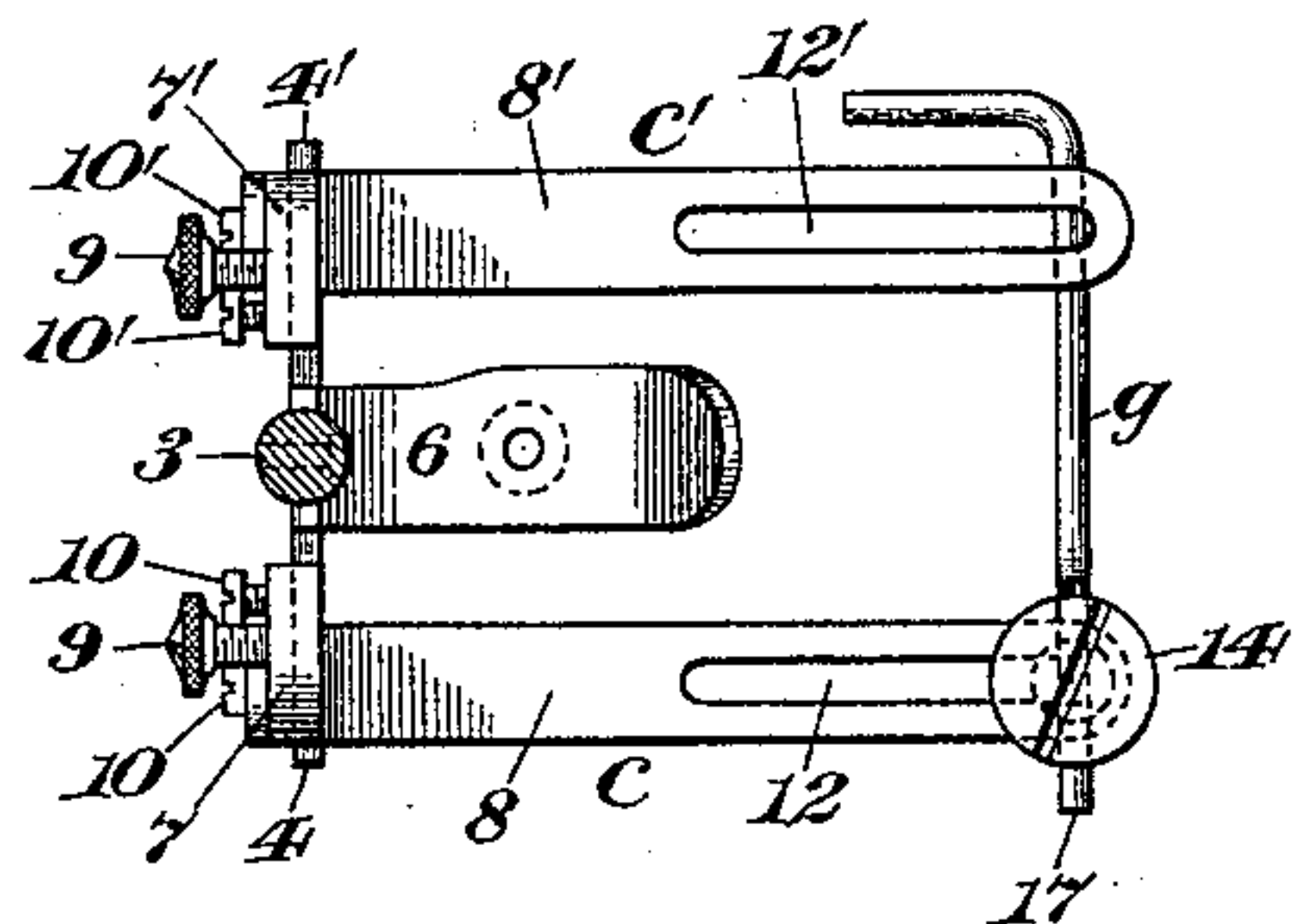
J. W. SIMONS.  
SEWING MACHINE ATTACHMENT.

No. 594,291.

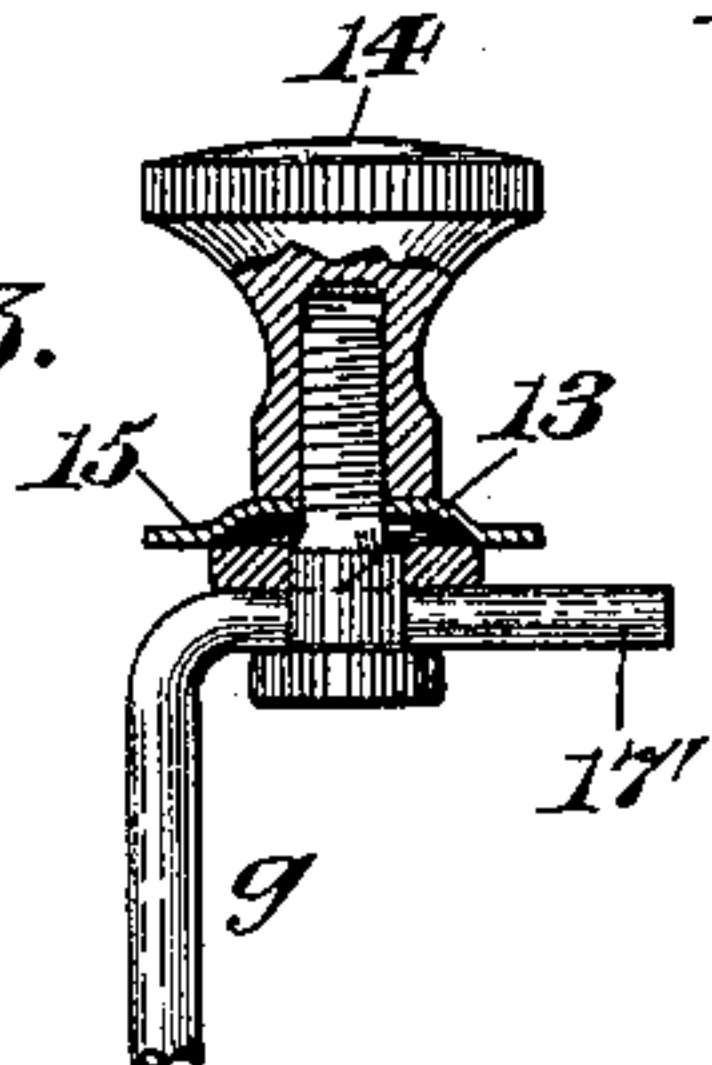
Patented Nov. 23, 1897.



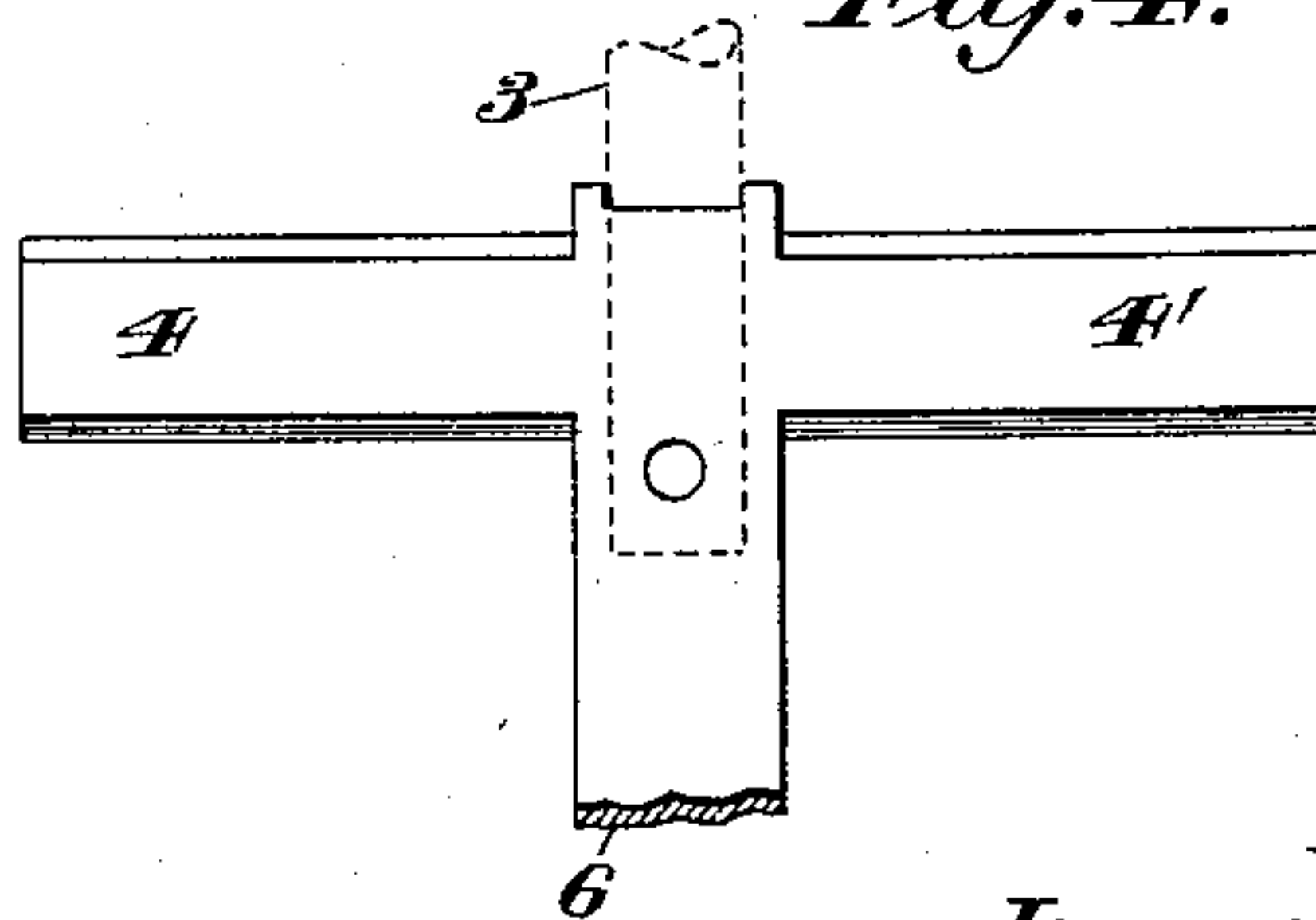
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

JAMES W. SIMONS, OF PORT CHESTER, NEW YORK.

## SEWING-MACHINE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 594,291, dated November 23, 1897.

Application filed November 19, 1896. Serial No. 612,668. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES WALKER SIMONS, a citizen of the United States, residing in Port Chester, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Sewing-Machine Attachments, of which the following is a specification.

This invention relates to attachments for sewing-machines; and it has for its main object the provision of means for so supporting attachments, such as fold-gages, that while they will be held firmly in place when secured in position they may have a wide range of adjustment in several directions, so as to bring them into any desired relation with respect to the fabric which they are intended to control. For the purpose of attaining this end I provide, in connection with an attachment the position of which is to be adjusted, an attachment-supporting member or guide on which the fold-gage or similar device may be adjusted longitudinally thereof and transversely to the paths of movement of the fabric and the needle and held in its adjusted position, and in the preferred form of my invention I mount this member or guide upon the usual presser-bar of the machine and dispose it in parallelism with the throat-plate thereof, so that when the attachment is mounted upon said guide it will be adjustable in a plane substantially parallel with the throat-plate of the machine and if the attachment is a fold-gage will permit the end portion thereof to lie flat upon the fabric traveling over said throat-plate.

Another object of my present improvements is to furnish, in connection with a sewing-machine, a pair of attachment-supporting members, one of which will be carried on the machine, while the other will be carried by the first, both of these members being disposed transversely to each other and to the path of the needle and the attachment being adjustably secured to the latter of said members and preferably movable longitudinally thereof and adjustable transversely thereto, so as to have substantially a universal adjustment adjacent to the point where the attachment engages the fabric.

In the drawings accompanying and forming part of this specification, Figure 1 is a per-

spective view of a portion of a sewing-machine frame, showing my improvements applied thereto. Fig. 2 is a plan of the attachment. Fig. 3 is a sectional detail side elevation illustrating, on an enlarged scale, the clamping device for securing the fold-gage or other attachment to the supporting member or arm on which it is adjustable; and Fig. 4 is an enlarged detail side elevation illustrating supporting arms or guides on which attachments or fold-gages may be secured.

Similar characters designate like parts in all the figures of the drawings.

The attachment illustrated in my present application is especially designed and intended as a means for regulating the adjustment of a fold-gage toward and from the needle in the direction of travel of the fabric across the throat-plate of the sewing-machine and for adjusting said fold-gage toward and from the throat-plate of the machine to maintain said gage in contact with the fabric and to compensate for differences in the thickness of the material; but said attachment may be adjusted also transversely to the direction of movement of the fabric by means of the improved devices embodied in the invention forming the subject-matter of this application.

Although the principal attachment-supporting member may be carried on any suitable portion of the head or frame of the sewing-machine, I deem it advantageous to support it upon the usual presser-bar, which is shown at 3 and is disposed substantially vertically above the face-plate 1 of the frame. This attachment-supporting member, which is represented at 4, may be constructed as a guide or arm projecting transversely from the presser-bar and secured thereto in any suitable manner—as, for instance, by means of a screw 5, passing through one of the arms formed at the bifurcated lower end of the presser-bar and between which arms the guide-arm is held in the present instance. This support or guide may also have formed integral therewith the usual presser-foot 6, through the needle-hole in which the needle 2', carried by a needle-bar, (indicated by dotted lines at 2, Fig. 1,) may operate.

In the drawings of my present application I have illustrated two guide-arms, the second of which is indicated by 4' and is integral



and alined with the first, so as to project from the opposite side of the presser-bar and be disposed transversely thereto and parallel with the throat-plate 1. I do not deem it essential, however, to employ two of these attachment-supports, as it is obvious that only one is needed for the purpose of supporting the fold-gage or similar part; but I deem it advisable to employ two, in order that attachments may be supported at either or both sides of the needle, if desired.

In order to obtain an adjustment of a fold-gage or similar device transversely to the path of the needle without changing the position of said device itself with respect to the part on which it is carried, I prefer to secure such gage or other part to a second attachment-supporting member, which is designated in a general way by *c* and is carried in this case by the member or guide-arm projecting from the presser-bar. This second attachment-supporting member comprises as its essential elements a slide-block 7, supported for movement longitudinally of the guide-arm 4 and adapted to travel therealong, and a long arm 8, fixed to said slide-block and disposed transversely to the attachment-supporting member 4.

For the purpose of maintaining the slide-block against turning relatively to the guide 4 the latter is preferably formed as a key and is adapted to be received in a corresponding keyway in one face of the block 7, so that said guide-arm constitutes an attachment-supporting locking-guide which will hold the arm 8 in a substantially rigid position relatively to the presser-bar. For the purpose of securing the slide-block to the guide on which it is supported I may employ a clamping-screw, such as 9, which will bind against one face of the attachment-supporting arm and wedge the block and the arm together. The arm 8 may be held by the slide-block in any desired manner—as, for example, by means of set-screws 10, passing through corresponding apertures in the block 7. It will be noticed that only one of these screws is intended in this case to engage the arm 8 at any one time, the other being provided to permit the adjustment of such arm nearer to or farther from the presser-foot, as the case may be.

It should be understood that as two pairs of attachment-supporting members are illustrated in the drawings, one pair at each side of the presser-bar, parts of the second pair corresponding to similar ones of the first pair are indicated by similar reference-characters with appropriate prime-marks.

The fold-gage or other attachment which is supported on the arm 8 is intended to be adjustable longitudinally thereof and may be secured thereto in any desirable manner. In this case said arm has a longitudinal slot 12, through which is passed the smooth portion of the shank of a screw, and in a transverse aperture of this shank one end of the attach-

ment is seated. This screw, which is indicated at 13, forms part of a clamping device by means of which the attachment or gage may be locked to the arm 8 when properly adjusted with respect thereto. The other members of said clamping device are a cap-nut 14, adapted to receive the threaded end of the screw 13, and a cap 15 between the inner end of the cap-nut and the upper side of the arm 8, the construction and organization of these parts being such that the fold-gage may be turned slightly in the aperture in the screw 13 to bring the gage a little closer to the work and to the throat-plate or to raise it therefrom while maintaining the main portion of the gage in parallelism and the extreme end thereof substantially in parallelism with the throat-plate and to permit longitudinal adjustment of the arm 17' of the fold-gage *g* in said aperture of the screw to adjust the position of the gage transversely to the line of stitching in the fabric, while when said gage is properly positioned in these two directions it may be adjusted also toward or from the needle in the direction of the stitching and of the path of movement of the fabric by sliding the clamping device longitudinally of the slot 12 and screwing said clamping device and thereby the gage or attachment to the arm 8.

It will be apparent from the foregoing that by means of my improvements I may mount a fold-gage or similar part upon the head or presser-bar of a sewing-machine in such a position that the attachment will be held rigidly with respect to said head or presser-bar and at the same time be capable of adjustment in all directions in which such regulation of the position of the gage or attachment may be necessary, thus permitting a very wide range of adjustment and the employment and perfect control in different positions of a variety of sewing-machine attachments having the same or different functions.

While I have illustrated in the present case only so much of a sewing-machine as is deemed necessary for a clear understanding of my improvements and while it is obvious that any suitable means may be employed for permitting the raising of the presser-bar and the attachment from the machine for inspecting the work, I deem it desirable to employ a knee-rest, such as is used in several types of sewing-machines, operatively connected with the presser-bar in such a manner as to enable the operator to raise and lower the attachment without removing the hands from the material being sewed.

Having described my invention, I claim—

1. The combination, with a sewing-machine having a needle-bar, a presser-bar, and a presser-foot; of an attachment-supporting member carried by said presser-bar above the presser-foot and disposed transversely to the presser-foot and the path of movement of the needle; an arm carried by said member and projecting transversely therefrom and mov-



able therealong transversely to said path of the needle; and a fabric-controlling attachment adjustably secured to the free end of said arm.

5 2. The combination, with a sewing-machine having a needle-bar, a presser-bar, and a presser-foot; of an attachment-supporting member carried by said presser-bar above the  
10 presser-foot and disposed transversely to the path of movement of the needle; an arm carried by said member and projecting transversely therefrom and movable therealong transversely to said path of  
15 the needle; and a fabric-controlling attachment secured to the free end of said arm and adjustable therealong and transversely thereto.

3. The combination, with a sewing-machine having a needle-bar, a presser-bar, and a  
20 presser-foot, of an attachment-supporting member carried by said presser-bar above the presser-foot and disposed transversely to the path of movement of the needle; a longitudi-

nally-slotted transverse arm carried by said member and movable therealong transversely 25 to the path of the needle; and a fabric-controlling attachment secured to said arm and adjustable longitudinally of said slot.

4. The combination, with a sewing-machine having a throat-plate, a presser-bar, and a  
30 presser-foot, of a transverse attachment-supporting member carried by the presser-bar above the presser-foot; a longitudinally-slotted transverse arm carried by, and movable along, said member; a clamp-screw for secur- 35 ing the arm to said member; a fold-gage-clamping device carried by said arm and adjustable longitudinally of said slot; and a fold-gage mounted in said clamping device and adjustable toward and from the throat- 40 plate.

JAMES W. SIMONS.

Witnesses:

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