

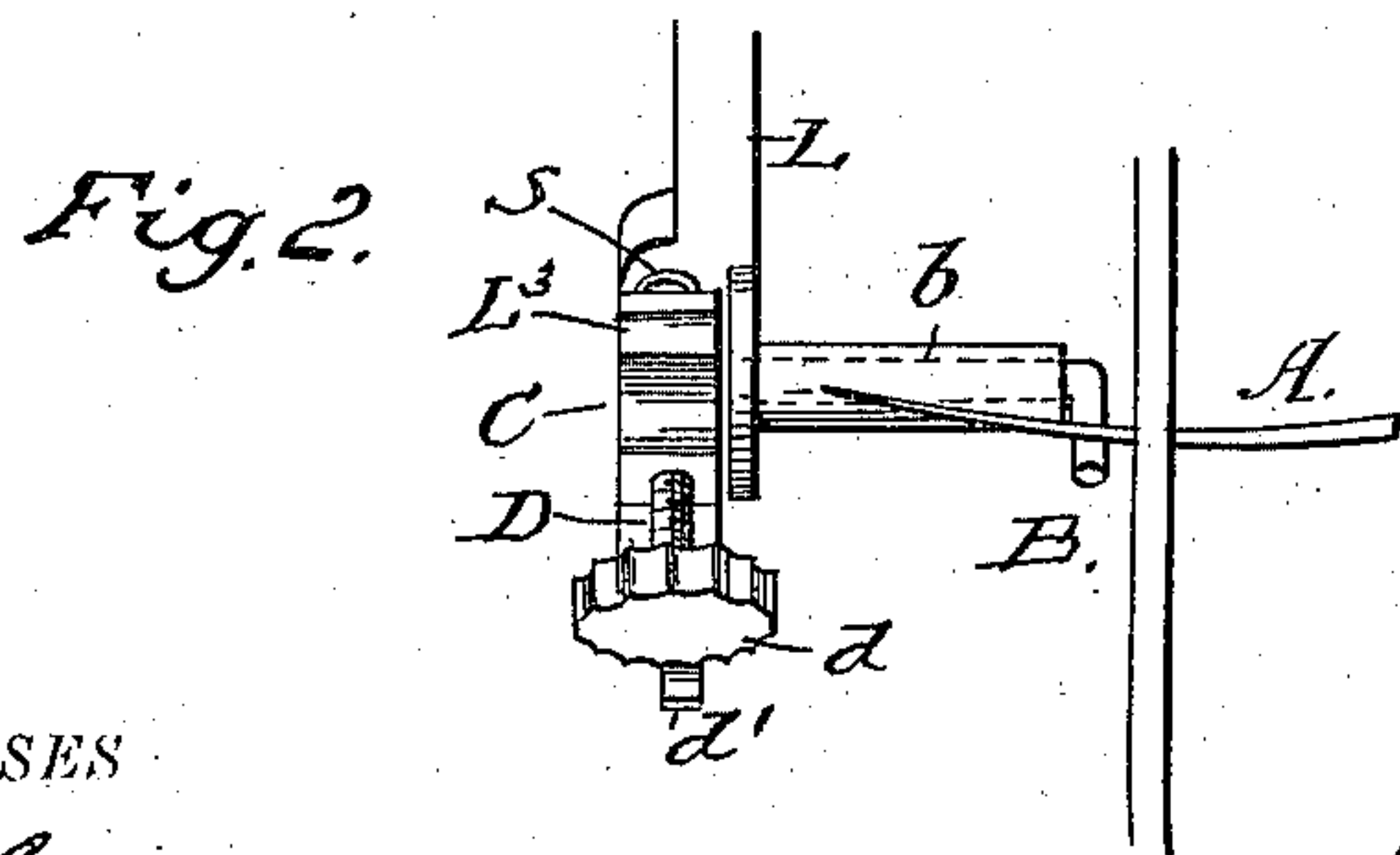
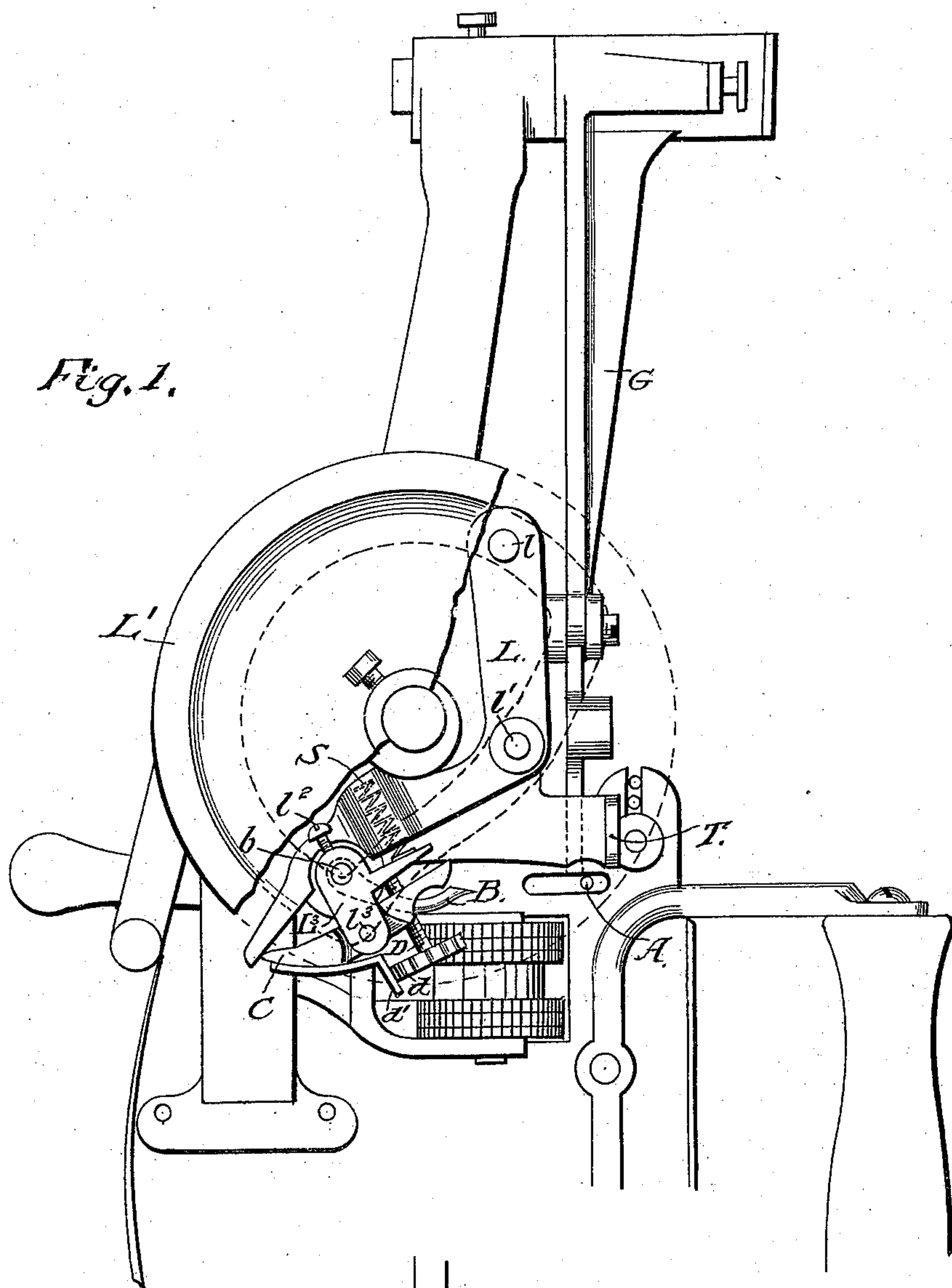
(No Model.)

2 Sheets—Sheet 1.

C. C. VOLBERG.  
CARPET SEWING MACHINE.

No. 547,191.

Patented Oct. 1, 1895.



WITNESSES

*B. H. Locke*  
*Chapman Fowler*

INVENTOR

*Charles C. Volberg*  
*by Dewey & Co*  
*his Attorneys*

(No Model.)

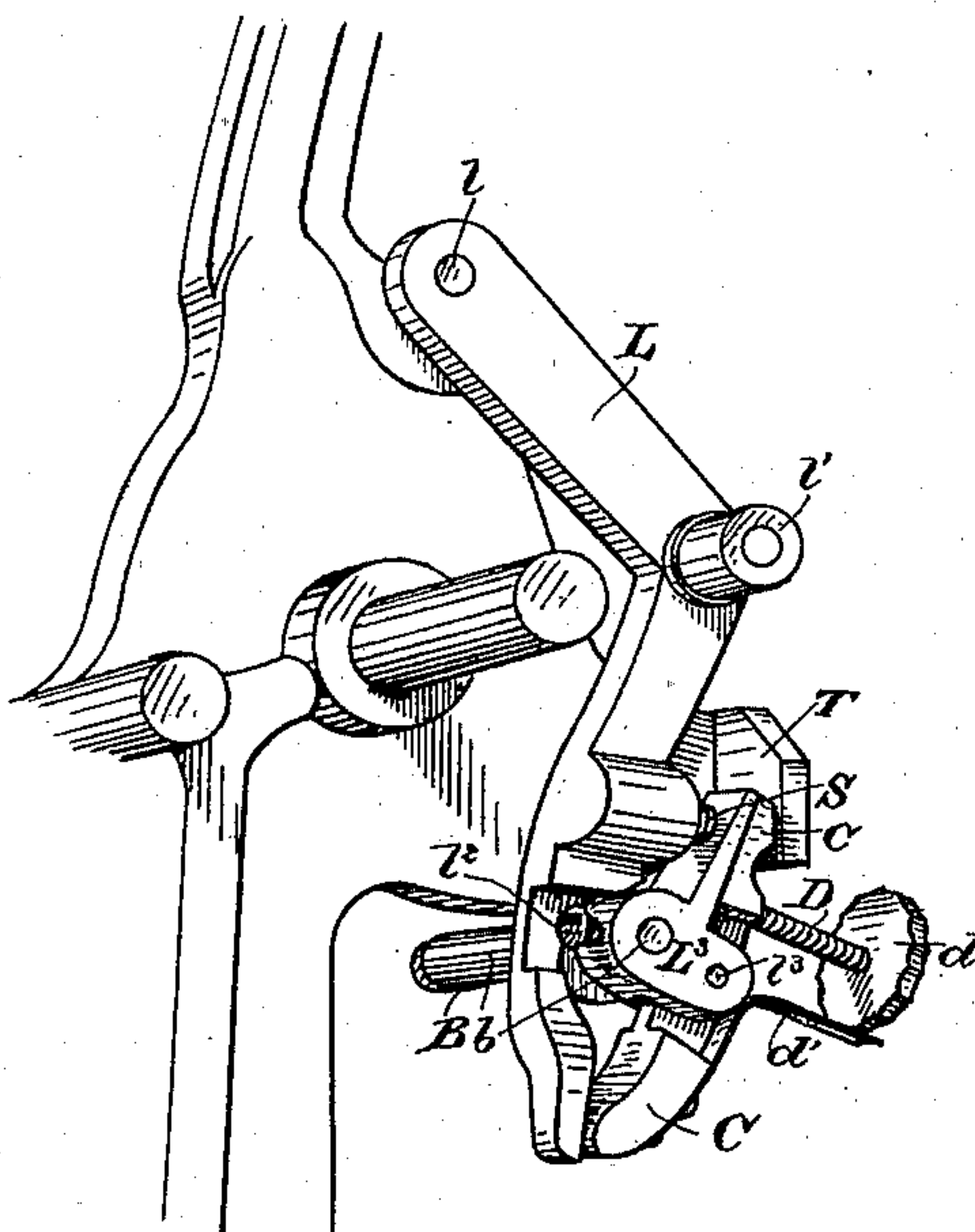
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*Fig. 3.*



Witnesses,

*J. H. Annree*  
*J. F. Aschbeck*

Inventor,  
*Charles C. Volberg*  
*By Dewey & Co.* atty



# UNITED STATES PATENT OFFICE.

CHARLES C. VOLBERG, OF ALAMEDA, CALIFORNIA.

## CARPET-SEWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 547,191, dated October 1, 1895.

Application filed November 17, 1894. Serial No. 529,159. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES CHRISTIAN VOLBERG, a citizen of the United States, residing at Alameda, county of Alameda, State of California, have invented an Improvement in Carpet-Sewing Machines; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to carpet-sewing machines; and it consists of the improved means hereinafter fully described, and specifically claimed, for adjusting the looper.

The carpet-sewing machine to which my improvement is applied is that illustrated and described in Letters Patent of the United States No. 296,744, issued to George Grisell, April 15, 1894. The general arrangement of parts shown in said former patent, though varied somewhat in practice in the manufacture of the machines, has been substantially adhered to in that the necessary adjustments of the looper are still effected from two points of contact by two set-screws, both of which have been necessary in acting upon the finger as heretofore constructed and hinged to effect the double adjustment of the looper—namely, its movement to proper proximity with the needle and its rise up under and beyond the needle. The difficulty of these old means of adjustment, both that shown in the patent and that used in practice, has been the uncertainty and inaccuracy of the regulation due to having to adjust the finger at two points, rendering it possible to adjust one too much and the other too little, and vice versa.

The necessity for adjustment in a carpet-sewing machine is a frequent one, as the needles working through the hard material often become bent, requiring constant watchfulness on the part of the operator to adjust the looper up to the new position of the needle, and thus to avoid dropping of stitches. The object of my invention is to overcome this inaccuracy and uncertainty of adjustment by providing such a construction that I am enabled to dispense with the adjustment of the finger-piece at two points, and so construct and mount it that by the operation of a single set-screw both adjustments will be effected accurately and with facility.

Referring to the accompanying drawings for a more complete explanation of my inven-

tion, Figure 1 represents a side view of a portion of a carpet-sewing machine embodying my invention, showing a portion of the disk L' broken away. Fig. 2 is a detail view showing the relative positions of the needle and looper and also the mounting of the looper in lever L. Fig. 3 is a perspective view of my invention.

It is unnecessary herein to illustrate or to describe the whole carpet-sewing machine, as it will be sufficient to show the parts immediately surrounding the looper, whereby the means for properly adjusting it may be readily understood.

G is the vibrating needle-arm, which carries the needle A.

B is the looper adapted to oscillate across the path of the needle and to pass closely under it and up beyond it.

L' is a disk provided with a groove-cam, which receives a roller-stud l' of a looper-actuating lever L, pivoted at l to a portion of the frame, and having oscillation from the pivot forward and back.

The parts thus described are similar to those in the patent above mentioned and to those in the machine as manufactured.

The bar which is carried by the lower end of the looper-actuating lever L and which I have herein lettered L<sup>3</sup> is set by a screw l<sup>2</sup> fixedly upon the shaft or stem b of the looper B. This bar has approximately the shape of a bell-crank lever and is set at its angle upon the shaft of the looper, said shaft being mounted and adapted to rock in a suitable bearing in the looper-actuating lever L. The upper arm of the bar is acted upon from behind by a spring S, which is housed or seated within a socket in the lever L, and the tendency of said spring is to force the upper arm of the bar L<sup>3</sup> outwardly.

Pivoted at l<sup>3</sup> in the extremity of the lower arm of the bar L<sup>3</sup> is a regulating-lever C, the upper end of which lies face to face with the upright or upper arm of the bar L<sup>3</sup>, and the lower end of which extends downwardly and lies normally in contact with the lower end or extension of the lever L.

A screw D passes through the upper portion of the regulating-lever C and bears against the face of the upright arm of bar L<sup>3</sup>, and the upper end of said regulating-lever is



adapted to come in contact with a fixed part  
 or lug T of the frame of the machine. The  
 set-screw is provided with a head *d*, adapting  
 it to be readily turned, and said head may  
 5 have applied to it a spring *d'*, by the fric-  
 tional contact of which the screw will be held  
 in the position to which it is adjusted. In  
 the initial position of these parts, in which  
 the set-screw D is turned outwardly to its  
 10 limit, so that the spring S forces the upper  
 portions of the bar and of the regulating-le-  
 ver to lie parallel and face to face and the  
 lower end of the regulating-lever to rest in  
 contact with the lower end of the looper-actu-  
 15 ating lever L, the looper-shaft is so turned  
 downwardly that the looper itself is removed  
 to the greatest extent from the plane or path  
 of the needle, and in this position will be in-  
 operative, as it would miss the loop and drop  
 20 the stitch. Now, to set the looper up in as  
 close proximity to the needle as is necessary  
 to render it operative, the set-screw D is  
 turned inwardly, and its inner end bearing  
 against the upright arm of the bar will force  
 25 said bar backwardly against its spring, and  
 thereby raising the looper to proper position  
 under the needle. In this operation the bar  
 moves, rather than the regulating-lever C, be-  
 cause the regulating-lever has a fixed bearing  
 30 between its lower end and the lower end of the  
 lever L, so that the only effect of the screw D is  
 to turn the regulating-lever about its pivot at *b*,  
 thereby raising the looper. This same adjust-  
 ment of the screw, by varying the position of  
 35 the regulating-lever with relation to the oscil-  
 lating lever L and separating the upper end of  
 the regulating-lever therefrom to a greater

degree, alters the time of contact of the upper  
 end of the regulating-lever with the lug T of  
 the frame, thereby regulating the time and 40  
 consequently the propinquity of rise of the  
 looper under and beyond the needle, which  
 rise is effected by the yielding of the regulat-  
 ing-lever and the bar about the pivotal point  
 of their common connection through the shaft 45  
 of the looper with the lever L. Thus a single  
 screw effects both adjustments with accuracy  
 and enables the operator to follow with his  
 looper all the inaccuracies and bendings of  
 the needle during the progress of the work. 50

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

In a carpet sewing machine, the combina-  
 tion, with the frame provided with a fixed lug, 55  
 a reciprocating needle, and a looper actuating  
 lever, of a looper having its shank journaled  
 in said lever, and means for adjusting the  
 looper relative to said needle comprising a  
 two-armed bar fixed to the looper-shaft, a regu- 60  
 lating lever, pivoted to one arm of said bar,  
 having one end normally in contact with an  
 extension of the actuating lever, and its other  
 end in position to contact with said fixed lug,  
 adjusting means carried by said regulating 65  
 lever and cooperating with the other arm of  
 said bar, and means for holding the latter arm  
 in yielding contact with said adjusting means.

In witness whereof I have hereunto set my  
 hand.

CHARLES C. VOLBERG.

Witnesses:

S. H. NOURSE,  
 WM. F. BOOTH.