

No. 683,499.

Patented Oct. 1, 1901.

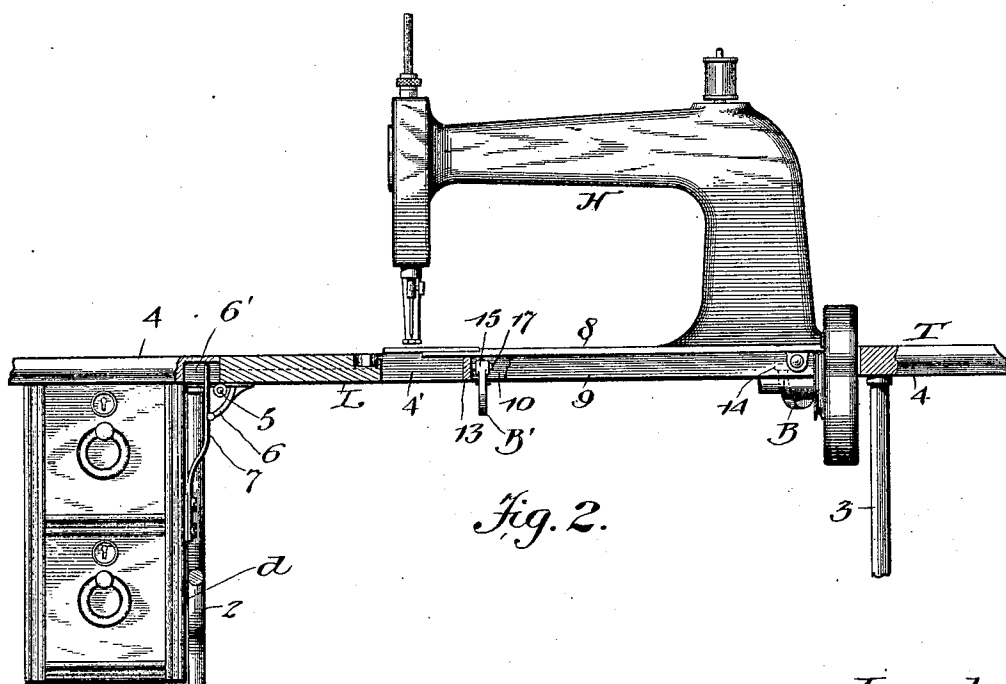
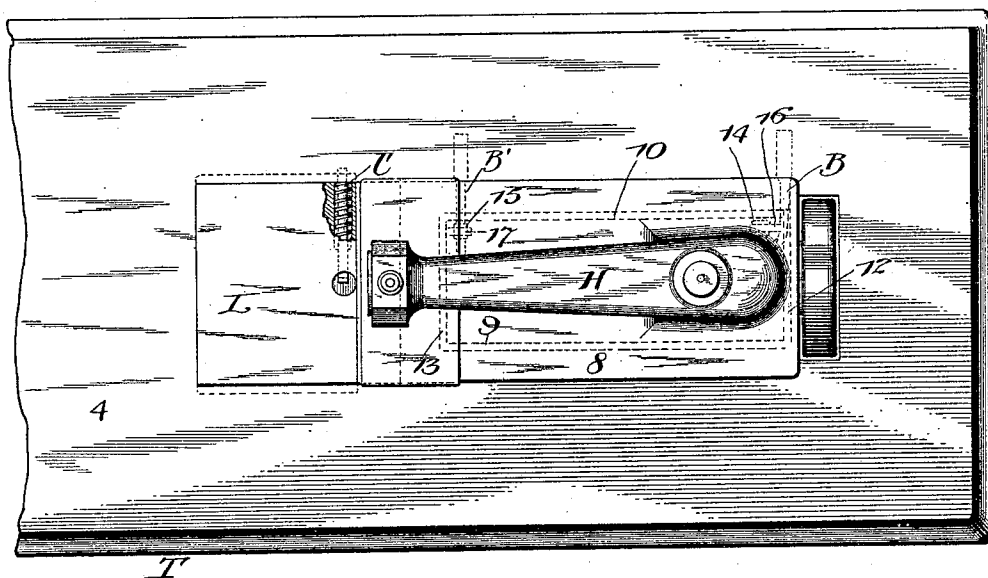
H. P. RICHARDS.
SEWING MACHINE TABLE.

(Application filed Jan. 5, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



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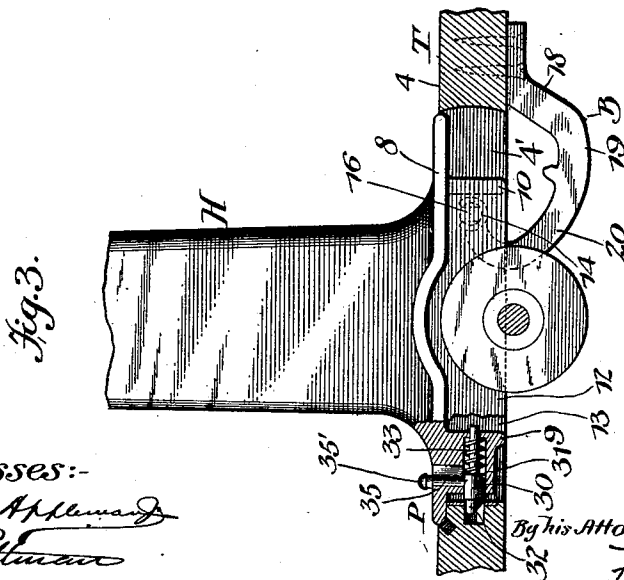
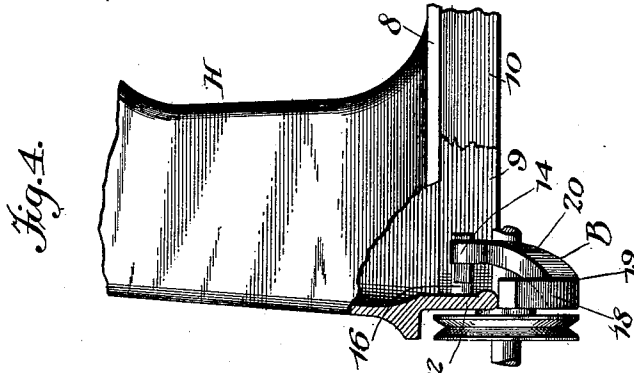
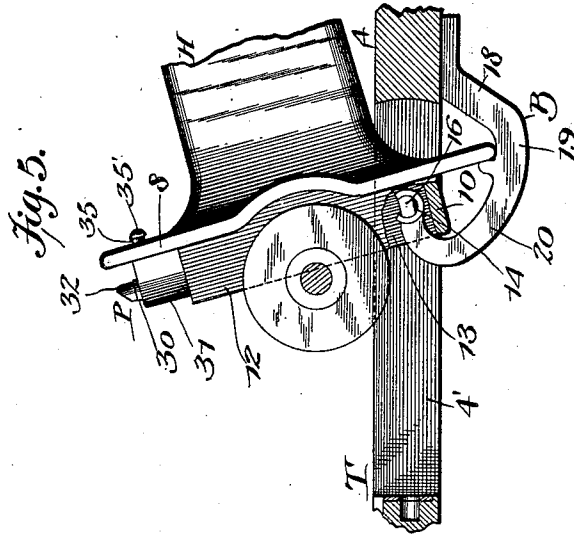
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(Application filed Jan. 5, 1900.)

(No Model.)

2 Sheets—Sheet 2.



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SEWING-MACHINE TABLE.

SPECIFICATION forming part of Letters Patent No. 683,499, dated October 1, 1901.

Original application filed April 15, 1898, Serial No. 677,728. Divided and this application filed January 5, 1900. Serial No. 431. (No model.)

To all whom it may concern:

Be it known that I, HUBERT P. RICHARDS, a citizen of the United States, residing in New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Sewing-Machine Tables, of which the following is a specification.

This invention relates to sewing-machines, and more particularly to an improved organization in which the sewing-machine head is supported on the table for tilting movement, the object of the invention being to provide an improved connection between such table and head.

A further object of the invention is to provide, in connection with a sewing-machine table having an opening for the head of the machine, a bracket secured at its rear end to the table and having at the forward end thereof a particircular hinge member or socket disposed within said opening and a sewing-machine head having a slabbed or particircular pintle seated in said socket and forming in connection therewith a separable hinge-joint.

In the drawings accompanying and forming part of this specification, Figure 1 is a plan view of a portion of a sewing-machine embodying my present improvements. Fig. 2 is a front elevation, partially in section, of a portion of a sewing-machine such as is illustrated in Fig. 1. Fig. 3 is an end view, partially in section, illustrating the improved means for supporting the head for tiltable movement. Fig. 4 is a rear elevation thereof, partially in section. Fig. 5 is a view similar to Fig. 3, showing the head of the machine tilted back to an inspecting position. Similar characters of reference designate like parts in all the figures of the drawings.

The present improvement comprises a table (designated in a general way by T) and a sewing-machine head, (designated in a general way by H,) said head and table having an improved connection to permit the tilting of the head relatively to said table. This improved table comprises in the preferred form thereof, (shown in part in the accompanying drawings) two table-supporting

uprights 2 and 3, of some suitable construction, and a table-top 4, having an elongated opening 4' for the head of the machine, which opening is shown of a length somewhat greater than the length of the bed-plate 8 of the sewing-machine head and extends somewhat in advance of the needle-bar end of said head, as is shown most clearly in Figs. 1 and 2 of the drawings. By extending the opening 4 for the sewing-machine head somewhat beyond the fabric-supporting end of the bed-plate of said head certain parts of the looper mechanism and feed mechanism may be readily inspected without tilting the sewing-machine head backward, and this further facilitates the easy handling of certain kinds of work during the operation of sewing—as, for instance, such work as could not be conveniently supported upon that portion of the table-top contiguous to the fabric supporting and feeding end of the sewing-machine head while being operated upon.

For the purpose of bridging the opening between the fabric-supporting end of the bed-plate of the sewing-machine and the opposite edge of the table-top I have provided a drop-leaf L, the particular construction of which forms the subject-matter of a separate application, Serial No. 34,257, filed October 25, 1900. Therefore only a general description thereof is deemed necessary herein. This leaf is shown at 5 hinged to the edge of said table, (see Fig. 2,) and which drop-leaf is provided with a spring-actuated detent or latch 7' for normally engaging the table and holding the drop-leaf in its elevated or horizontal position. This drop-leaf is shown provided near the hinged edge thereof with a depending arm 6, the outer free end of which bears against a leaf-lifting spring 7, secured at one end to some suitable fixture forming part of the table, it being shown herein fixed to the end wall of a drawer-cabinet d, depending from the table-top 4. This arm 6 and the spring 7 are so constructed and are so disposed relatively to each other that when the leaf L is in a vertical position said spring will tend to retain the leaf in this position, but will when said leaf is moved to a position slightly at one side its vertical position exert

an upward thrust upon the arm 6 and lift said leaf to its normal position, as will be readily understood by reference to said Fig. 2. To permit the leaf to be dropped, a recess 6' is provided in the table-top 4 for the entrance of the free end of the arm 6, the upper end of the spring also projecting into such recess, whereby the two members 6 and 7 are in permanent engagement.

The head H of the sewing-machine, which head may be of any suitable general construction, is shown embodying a bed-plate 8, having depending front and rear flanges 9 and 10 and end flanges 12 and 13, which meet at their ends and form a hollow and bottomless casing for that portion of the stitch-forming mechanism disposed below the bed-plate H. The sewing-machine head will in practice be provided with stitch-forming mechanism, which may be of any suitable construction and organization. Only a portion of this mechanism is shown in the accompanying drawings, for the reason that it is inessential to the present invention.

As a means for tiltably or pivotally supporting the sewing-machine head at a point remote from the rear edge of the bed-plate thereof in such manner as to permit the ready removal and replacement of said head I have provided, in connection with the table T, preferably two head-supporting brackets (designated in a general way by B and B') provided at the forward ends thereof with particircular or transversely-slotted hinge members or bearings 14 and 15, respectively, and I have provided, in connection with the end flanges 12 and 13 of the sewing-machine head, two inwardly-projecting slabbed or particircular pintles 16 and 17, adapted to be slipped into operative position within the hinge members or bearings 14 and 15, the construction and organization of said pintles and bearings being such that when the head of the machine is in the position shown in Fig. 3 it may readily be disengaged from its supports by lifting the same upward, which will draw the pintles out of the bearings through the slots thereof, as will be readily understood by reference to Figs. 3 and 5 of the drawings.

It will be seen by reference to Figs. 3 and 5 that the pintles are cut away or slabbed on their front and rear faces; that the hinge member or bearing of each of the brackets, as B, has a portion of its upper wall cut away to form a slot to permit the entrance of said pintles; that when the sewing-machine head is in the position shown in Fig. 3 the lower circular face of each pindle has a cooperative bearing engagement with the inner circular wall of the bearing, and, further, that when the sewing-machine head is tilted backward to a position shown in Fig. 5 both curved faces of the pindle cooperate with opposing interior portions of the bearing and lock

the head against removal when in this position.

Each bracket in the preferred form thereof shown in the accompanying drawings has downwardly, forwardly, and upwardly extending portions, (designated by 18, 19, and 20, respectively,) the latter of which terminates within the opening 4 in the table-top considerably in advance of the rearward edge thereof and the former of which has a rearwardly-extended bar whereby the same may be secured to the table, preferably by screws. (Shown in dotted lines.)

By reference to Figs. 3 and 5 it will be seen that the sewing-machine head is hinged or pivotally supported somewhat remote from the rear edge of the bed-plate, so that when said head is tilted to an inspecting position (shown in said Fig. 5) the rear edge of said bed-plate will extend considerably below the pivotal point of said head, and as a means for limiting the tilting movement of said head and for holding the same when in a tilted position out of contact with the rear portion of the table I have provided, in connection with each head-supporting bracket, a stop-abutment 19', which is shown formed on the intermediate or forwardly-extended portion 19 of said bracket at a point substantially midway between but considerably below and in the rear of the pivotal point of said head, said abutment being disposed in the path of movement of the rear portion of the bed-plate 8.

As a means for locking the sewing-machine head in its working or normal position I have provided a locking device, (designated in a general way by P,) which locking device, in the preferred form thereof shown in the accompanying drawings, comprises a spring-actuated bolt 30, supported for reciprocatory movements in a bearing 31, formed in a boss on the front flange of the bed-plate and having a conical locking portion or head 32, adapted to closely fit a socket formed in the face of the table-top 4, as will be readily understood by reference to Fig. 3 of the drawings, a spiral spring 33, bearing at one end against the headed end of the bolt and at its opposite end against the rear wall of the bearing, forcing the conical portion of the head into said socket and holding the sewing-machine head against any accidental vibratory movement, and as a means for shifting the bolt to an inoperative position and for locking the same in this position I have provided a bolt-actuator, which is shown herein as a vertically-disposed pin 35, fixed at its lower end to the headed end of the bolt and extending through a vertical slot in the bed-plate, the outer end of said pin being furnished with a head or thumb-piece 35', whereby said pin and bolt may be manipulated. The slot through which this pin extends will in practice preferably be of such form that the pin may be turned to a posi-

tion whereby the wall of said slot will hold the same in either of its adjusted positions, so that the bolt may be locked in an advanced or retracted position.

5 Having described my invention, I claim—

1. The combination, with a sewing-machine table having an opening for the head, of a bracket secured at one end to said table and having its opposite end terminated within the
10 table-opening remote from the rear edge thereof and also having a stop-abutment intermediate its ends, and a sewing-machine head pivotally supported at a point remote from its rear edge on said bracket, the construction and organization being such that
15 on the tilting of said head backward the rear edge of said head will extend considerably below its pivotal point and engage the stop-abutment of said bracket, which limits the tilting movement thereof.

2. The combination, with a sewing-machine table having an opening for the head of the machine, of a bracket secured at one end to the table and having a transversely-slotted
25 hinge member or socket at the other end thereof located within said opening; and a sewing-machine head having a slabbbed or parti-circular pintle seated in said socket and forming in connection therewith, a separable
30 hinge-joint whereby said head may be tilted to an inspecting position, and whereby the removal and replacement of said head relatively to the supporting-bracket are facilitated.

3. The combination, with a sewing-machine table having an opening for the head of the machine, of a bracket secured at one end to the table and having a transversely-slotted
40 hinge member or socket at the other end thereof located within said opening, and also having a stop intermediate its ends; and a sewing-machine head having a slabbbed or parti-circular pintle seated in said socket and forming in connection therewith, a separable
45 hinge-joint whereby said head may be tilted to an inspecting position, and whereby the removal and replacement of said head relatively to the supporting-bracket are facilitated, the organization being such that on
50 the tilting of the head the edge thereof will be engaged by said stop, and the tilting movement of said head limited.

4. The combination, with a sewing-machine table having an opening for the head of the machine, of a bracket secured at its rear end
55 to the under side of said table, and having an upwardly and rearwardly extending part provided at its end with a transversely-slotted hinge member or socket located within
60 said opening; and a sewing-machine head having a slabbbed or parti-circular pintle seated in said socket and forming in connection therewith a separable hinge-joint, whereby said head may be tilted to an inspecting position.

65 5. The combination, with a sewing-machine

table having an opening in the top thereof, of a sewing-machine head having a bed-plate provided with a depending flange; a bracket
70 secured to said table and having one end thereof connected with said head below said bed-plate and at the inner side of said flange to permit the tilting movement of said head, said bracket having a stop-face intermediate
75 its ends for engaging the edge of said head and limiting the movement thereof.

6. The combination, with a sewing-machine table having an opening in the top thereof, of a sewing-machine head having a bed-plate; one or more brackets secured to said table and
80 having a pivotal and separable connection with said bed-plate to permit the tilting of said head; and a stop-face carried by one of said brackets for engaging the edge of said bed-plate to limit the tilting of said head.

7. The combination, with a sewing-machine table having an opening in the top thereof, of a sewing-machine head having a bed-plate; one or more brackets secured to said table and
90 having a pivotal and separable connection with said bed-plate below the same and forwardly of the rear edge thereof to permit the tilting of said head; a stop-face carried by one of said brackets for engaging the edge of said bed-plate to limit the tilting of said head; and means for locking said head in its working position.

8. The combination, with a sewing-machine table having an opening in the top thereof, of a sewing-machine head having a bed-plate; one or more brackets secured to said table and
100 having a pivotal and separable connection with said bed-plate below the same and forwardly of the rear edge thereof to permit the tilting of one of said heads; and means carried by said brackets for engaging the rear
105 edge of said head to limit the tilting movement thereof.

9. The combination, with a sewing-machine table having an opening for the head of a machine, of a bracket secured at one end to the table and having at its other end, and located
110 within said opening, one member of a hinge, and a sewing-machine head carrying the other member of said hinge, one of said members comprising a transversely-slotted hinge member or socket, and the other comprising a
115 slabbbed or parti-circular pintle seated in said socket and forming in connection therewith a separable hinge-joint whereby said head may be tilted to an inspecting position, and whereby the removal and replacement of said head relatively to the supporting-bracket are facilitated.

10. The combination, with a sewing-machine table having an opening for the head of a machine, of an arm or bracket secured at
125 its rear end to the table and having its forward end terminating within said opening remote from the rear edge thereof; and a sewing-machine head pivotally supported relatively remote from and in front of its rear
130

edge on the forward end of said arm for tilt-
able movement upwardly and backwardly
and in such manner that when the head is in
its normal position its rear edge will be above
5 and in the rear of its pivotal point, but when
it is in its tilted position its rear edge will ex-
tend considerably below and still be in the

rear of its pivotal point, whereby a more per-
fect balancing of the head is obtained.

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