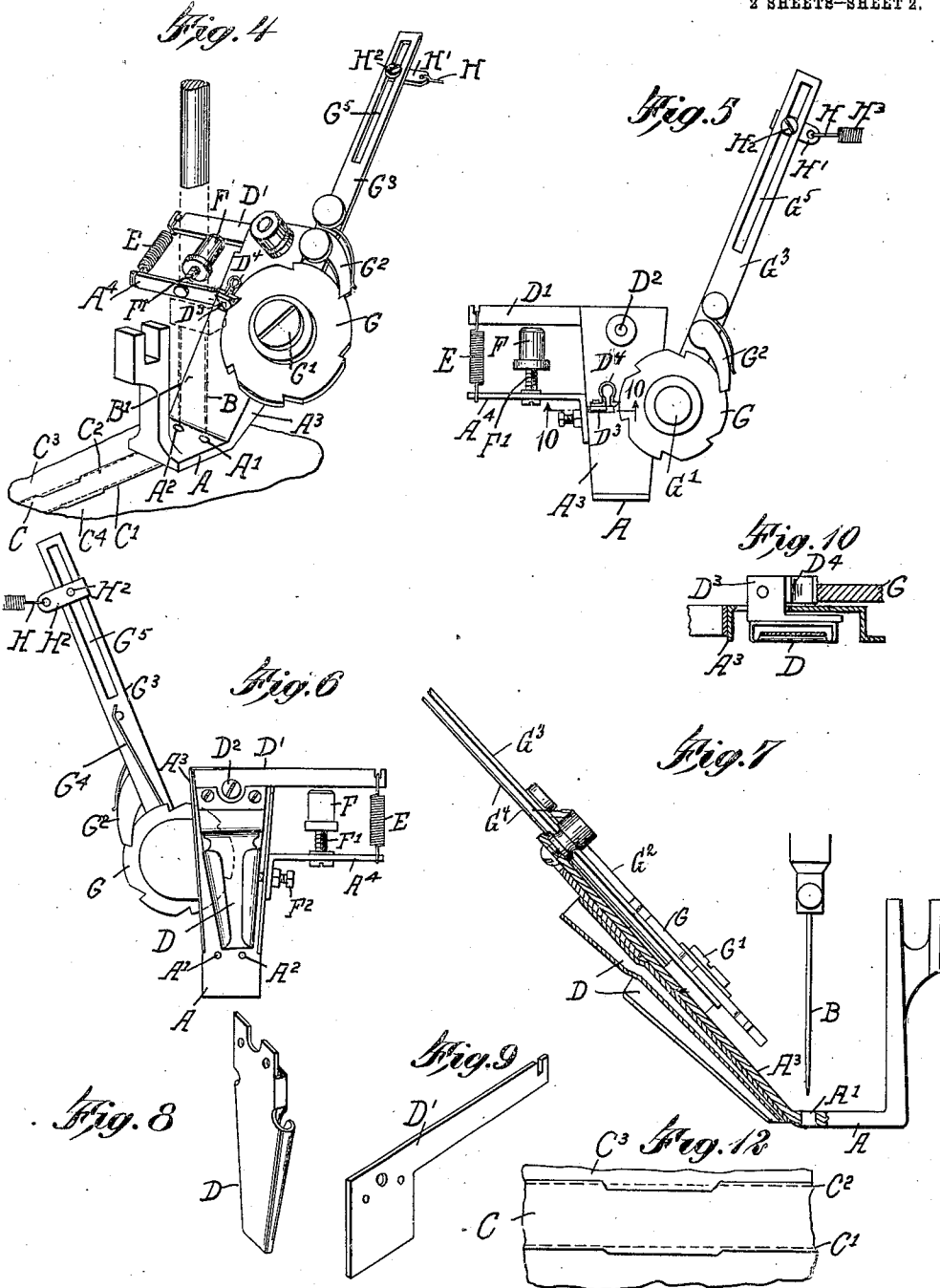


L. ROSENMAN.
 SEWING MACHINE ATTACHMENT.
 APPLICATION FILED SEPT. 24, 1912.

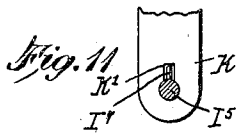
1,071,584.

Patented Aug. 26, 1913.

2 SHEETS—SHEET 2.



WITNESSES
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SEWING-MACHINE ATTACHMENT.

1,071,584.

Specification of Letters Patent.

Patented Aug. 26, 1913.

Application filed September 24, 1912. Serial No. 722,070.

To all whom it may concern:

Be it known that I, LEO ROSENMAN, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Sewing-Machine Attachment, of which the following is a full, clear, and exact description.

The invention relates to sewing machines having two needles for making two parallel rows of stitches, and used, for instance, for sewing a strip of fabric material onto a body fabric with a view to form a stay pocket, such as shown and described in the application for Letters Patent of the United States, No. 709,533, filed by me on July 15, 1912.

The object of the invention is to provide a new and improved sewing machine attachment for moving a portion of the pocket strip to one side so that the corresponding needle misses the said strip portion with a view to provide a side entrance to the pocket for the insertion or removal of a stay.

For the purpose mentioned use is made of a movable scroll or a guide for the fabric strip, and actuating means for periodically shifting the said scroll to move a portion of the strip out of the path of one of the needles.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the attachment as applied to a sewing machine having two needles; Fig. 2 is an enlarged face view of the coupling used for actuating the scroll; Fig. 3 is a side elevation of the same, parts being in section; Fig. 4 is a rear perspective view of the attachment as applied; Fig. 5 is a rear elevation of the same; Fig. 6 is a front face view of the attachment with the scroll in shifted position; Fig. 7 is an enlarged cross section of the same; Fig. 8 is a perspective view of the scroll; Fig. 9 is a similar view of the arm carrying the scroll; Fig. 10 is a sectional plan view of part of the attachment on the line 10—10 of Fig. 5; Fig. 11 is an enlarged cross section of part of the shifting mechanism on the line 11—11 of Fig. 3; and Fig. 12 is a face view of a portion of the pocket showing the entrance opening thereof.

The presser foot A of the sewing machine is provided with two spaced openings A¹ and A² for the passage of the needles B, B' of the sewing machine used for producing two rows of stitches C' and C² on a strip C of fabric material to be sewed onto a body fabric C³ with a view to form a stay pocket, as indicated in Figs. 4 and 12. The strip C passes through a scroll D for doubling up or turning under the side edges of the strip for the two rows of stitches C', C² to engage the doubled-up side portions and sew the same to the body C³. The scroll D is attached to an arm D' fulcrumed at D² on a scroll carrier A³ forming an integral part of the presser foot A and extending upwardly and forwardly in an inclined direction so that the operator can readily pass the strip C through the entrance end of the scroll D, the delivery end of which is adjacent to the needle openings A¹ and A² and normally in alinement therewith, so that the two needles produce two rows of stitches C' and C². When it is desired to form an entrance opening C⁴ to the stay pocket then the scroll D is shifted to one side (see Fig. 6) so that the delivery end of the scroll is out of alinement with the aperture A¹ and consequently the needle B misses the strip C but keeps on sewing on the body C³ until the scroll D returns to normal position, after which the two rows of stitches are continued on the strip C to fasten the latter to the body C³. The portion missed by the needle B on the strip C is not sewed to the body C³ and forms an entrance opening for the stay. The arm D' is pulled by a spring E held on a bracket A⁴ attached to the scroll carrier A³, and on the bracket A⁴ is mounted a screw F' on which screws a stop F for limiting the swinging movement of the arm D' in the direction of the pull of the spring E. A set screw F² screwing in the carrier A³ forms a stop for one side of the scroll D so as to limit the sidewise swinging movement thereof, as will be readily understood by reference to Fig. 6. Thus from the foregoing it will be seen that the stop F limits the swinging movement of the scroll D in one direction and the set screw F² limits the swinging movement of the scroll D in the opposite direction.

The back of the scroll D is provided with a rearwardly-extending lug D³ carrying a spring tooth D⁴ in engagement with the pe-

ripheral face of a ratchet wheel G mounted to turn on a stud G' held on the scroll carrier A³. The ratchet wheel G is periodically turned by the use of a spring-pressed pawl G² fulcrumed on a lever G³ mounted to turn loosely on the stud G' and pressed on by a spring G⁴ to normally hold the lever in an approximately vertical position, as indicated in Figs. 4 and 6. The lever G³ is provided with a slot G⁵ engaged by a clamping bolt H² for adjustably clamping one end H' of a flexible connection H to the said lever G³. The flexible connection H is provided with a spring H³ and extends over a guide pulley H⁴ journaled on the sewing machine table. The terminal of the flexible connection H is attached to a pin I' held adjustable in a radial guideway I² arranged on one face of a coupling member I, preferably in the form of a wheel. The pin I' is secured in place in the guideway I², after the desired adjustment has been made, by a clamping bolt I³. The inner face of the coupling member I is provided on each spoke with a projection I⁴ adapted to be engaged by a pin J' projecting from the outer face of a second or complementary coupling member J in the form of a pulley and having its hub J² journaled in a suitable bracket K attached to the under side of the sewing machine table.

The coupling member I is secured on a shaft I⁵ journaled at one end in the hub J² and journaled at its other end in the bracket K. Between the coupling members I and J is arranged a spring L to normally hold the coupling members I and J out of coupling engagement. The coupling member J is engaged at its peripheral face by a belt N which passes over a pulley N' secured on a longitudinally-extending shaft N² journaled in suitable bearings (not shown), arranged on the frame of the sewing machine, and on the shaft N² is secured a pulley N³ connected by a belt N⁴ with a pulley N⁵ on the driven shaft of the sewing machine, so that when the sewing machine is running a rotary motion is transmitted by the means just mentioned to the coupling member J to rotate the same with the sewing machine. The inner end of the shaft I⁵ is provided with a head I⁶ engaged by one end of a shifting fork O pivotally connected with a transverse lever P fulcrumed on a bracket Q attached to the under side of the sewing machine table. The lever P is guided in a guideway Q' and is provided at its forward end with a depending arm P' on which is adjustably secured a plate P² by a set screw P³. The plate P² is adapted to be engaged by the knee of the operator, so that when the latter exerts pressure on the plate P² toward the right then the shifting fork O exerts a pull on the head I⁶ of the shaft I⁵ so as to move the coupling member I toward

the coupling member J. As the latter rotates with the sewing machine it is evident that one of the lugs I⁴ moves into the path of the pin J' and is carried around by the same whereby a rotary motion is given to the coupling member I. During this rotary motion of the coupling member I a pull is exerted on the flexible connection H which thus imparts a swinging motion to the left to the lever G³, whereby a rotary motion is given to the ratchet wheel G and consequently the tooth D⁴ is moved out of its corresponding notch in the ratchet wheel G. The tooth D⁴ during this movement imparts a lateral swinging movement to the scroll D to move the latter into the position shown in Fig. 6, whereby the delivery end of the scroll D is moved out of alinement with the aperture A' and consequently out of alinement with the needle B, so that the latter misses the strip C for the time being.

The shaft I⁵ is provided with a lug I⁷ (see Fig. 3) normally engaging a recess K' in the bracket K, that is, at the time that the coupling member I is out of engagement with the coupling member J, and when the shaft I⁵ is moved to the right, as previously explained, than the lug I⁷ moves out of engagement with the recess K' to allow the shaft I⁵ and the coupling member I to rotate as above explained. Now the operator after pressing the plate P² to the right immediately releases the pressure against the plate P², but the shaft I⁵ cannot now return to its outermost position as the lug I⁷ now abuts against the outer face of the bracket K, but when the shaft I⁵ has completed a revolution and the lug I⁷ moves in register with the recess K' then the spring L shifts the coupling member I to the left and with it the shaft I⁵ so that the lug I⁷ reenters the recess K' and further rotation of the coupling member I ceases, it being understood that at this time the lug I⁴ has moved out of engagement with the pin J'. The several parts are so arranged that the scroll D is held in the shifted position shown in Fig. 6 until the desired number of stitches have missed the strip C to form an opening for the pocket (see Fig. 12).

It is understood that the coupling member I is in its normal dormant position at the time the pin I' is uppermost and during half of the revolution given to the coupling member I, a pull is exerted on the flexible connection H to impart a swinging motion to the lever G³ as described, to shift the scroll D to one side, but during the remaining half revolution of the coupling member I the pull of the flexible connection H is released to allow the lever G³ to return to its normal vertical position by the connection of the spring G⁴. From the foregoing it will be seen that during the half revolution of the coupling member I the scroll D is

held in shifted position, that is, during the time the lever G^3 turns the ratchet wheel G . During this time the tooth D^4 bears on the peripheral face of the ratchet wheel G to hold the scroll D in the shifted position, and when the tooth D^4 finally snaps into the next following notch of the ratchet wheel G then the scroll D returns to normal position. The lever G^3 now returns to its normal dormant position with the pawl G^2 gliding over the back of a corresponding tooth of the ratchet wheel G . The ratchet wheel G is provided with spaced notches for the engagement of the tooth D^4 and the pawl G^2 , it being understood that during the time the tooth D^4 passes from one end to the other it travels over the peripheral face of the ratchet wheel G , to hold the scroll D in the shifted position. By the operator shifting the flexible connection H on the lever G^3 and shifting the pin I' in the guideway I^2 it is possible to impart the desired motion to the scroll D to accurately time the attachment according to the number of stitches desired to miss the strip C for forming the entrance to the stay pocket.

The operation is as follows: When the several parts of the attachment are in normal position then the free or delivery end of the scroll D is in alinement with both needles B and B' and the apertures A' and A^2 , and consequently the two rows of stitches C' and C^2 are formed for sewing the strip C to the body C^3 , the strip C being passed through the scroll D in the usual manner. When the desired point is reached for forming the side opening to the stay pocket, the operator pushes the plate P^2 to the right to move the coupling member I into coupling engagement with the continually rotating coupling member J so that a rotary motion is given to the coupling member I by the coupling member J and a pull is exerted on the flexible connection H to swing the lever G^3 to the left. In doing so the ratchet wheel G is turned, whereby a swinging motion to the right is given to the scroll D to move the delivery end thereof out of register with the aperture A' and the needle B , and consequently the latter does not touch the strip C but simply continues a row of stitches on the body C^3 , as indicated in Fig. 12. After the desired number of stitches have missed the strip C the scroll D returns to its normal position owing to the tooth D^4 dropping into the next notch of the ratchet wheel G and the pull exerted on the arm D' by the spring E .

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

1. A sewing machine attachment comprising a movable scroll for guiding a fabric strip to a sewing machine needle, means for

normally holding the scroll in alinement with the needle, a tooth on the scroll, a ratchet wheel having spaced peripheral notches, the said tooth engaging one of said notches when the scroll is in normal position, and means for turning the ratchet wheel to shift the scroll out of alinement with the needle to cause the needle to miss the fabric strip guided by the scroll.

2. A sewing machine attachment comprising a scroll carrier, a scroll pivoted on the scroll carrier for guiding a fabric strip to a sewing machine needle, means for normally holding the scroll with its delivery end in alinement with the needle, a ratchet wheel mounted to turn, a spring tooth on the back of said scroll and in engagement with the peripheral face of said ratchet wheel, and manually controlled means for turning said ratchet wheel to move the said tooth and impart a swinging movement to the scroll to move the delivering end of the scroll out of alinement with the needle.

3. A sewing machine attachment, comprising a presser foot, a scroll carrier carried by the presser foot, a scroll pivoted on the scroll carrier and having its delivery end adjacent a sewing machine needle, a pawl and ratchet mechanism for imparting a swinging motion to the said scroll, and actuating means for actuating the said pawl and ratchet mechanism.

4. A sewing machine attachment, comprising a scroll carrier, a scroll pivoted thereon and having its delivery end adjacent a sewing machine needle, a tooth on the scroll, a ratchet wheel mounted to turn on the said carrier and engaged by the said tooth, a lever carrying a pawl engaging the said ratchet wheel, and manually-controlled actuating means connected with the said lever to actuate the same.

5. A sewing machine attachment, comprising a scroll carrier, a scroll movable on the said carrier and having its delivery end adjacent a sewing machine needle, a coupling having one member connected with the said scroll for imparting a swinging motion to the same, the other coupling member being driven from the sewing machine, and manually-controlled means for moving the said coupling members into engagement.

6. A sewing machine attachment, comprising a scroll carrier, a scroll movable on the said carrier and having its delivery end adapted to move into or out of alinement with a sewing machine needle, a pawl and ratchet mechanism for imparting movement to the said scroll, a coupling having two coupling members, of which one is connected with the said pawl and ratchet mechanism, means for driving the other coupling member from a rotatable part of the sewing machine, means for normally holding the

said coupling members out of engagement, and manually-controlled means for moving the said coupling members into engagement.

7. A sewing machine attachment, comprising a scroll carrier, a scroll movable on the said carrier and having its delivery end adapted to move into or out of alinement with a sewing machine needle, a pawl and ratchet mechanism for imparting movement to the said scroll, a coupling having two rotary coupling members, an adjustable pin on one of the coupling members and connected with the said pawl and ratchet mechanism, means for driving the other coupling member from a rotatable part of the sewing machine, a spring for normally holding the coupling members out of coupling engagement, and manually-controlled means connected with the first-named coupling member for moving the latter into engagement with the other coupling member.

8. A sewing machine attachment, comprising a scroll carrier, a scroll movable on the said carrier and having its delivery end adapted to move into or out of alinement with a sewing machine needle, a pawl and ratchet mechanism for imparting movement to the said scroll, a coupling having two rotary coupling members, an adjustable pin on one of the coupling members and connected with the said pawl and ratchet mechanism, means for driving the other coupling member from a rotatable part of the sewing machine, a spring for normally holding the coupling members out of coupling engagement, manually-controlled means connected with the first-named coupling member for moving the latter into engagement with the other coupling member, and means for holding the coupling members in engagement during one revolution.

9. A sewing machine attachment, comprising a scroll carrier, an arm fulcrumed on the scroll carrier, a scroll connected with said arm, means for imparting a periodical swinging motion to the scroll, a bracket attached to the scroll carrier, a spring held on the said bracket and connected with the said arm, and an adjustable stop carried by said bracket for engaging the said arm to limit the swinging motion of the said scroll in one direction.

10. A sewing machine attachment, comprising a presser foot, a scroll carrier on the presser foot, a scroll having an arm pivoted on the said carrier, means for imparting a periodical swinging motion to the scroll, a bracket attached to the scroll carrier, a spring held on the said bracket and connected with the said arm, a screw mounted on said bracket, an adjustable stop screwing on

the said screw and adapted to engage the said arm to limit the swinging motion of the said scroll in one direction, and an adjustable stop for limiting the swinging motion of the said scroll in the opposite direction.

11. A sewing machine attachment, comprising a presser foot having an integral scroll carrier and provided with spaced apertures for two sewing machine needles to pass through, a scroll mounted to swing on the said scroll carrier and having its delivery end adjacent to and normally in alinement with the said apertures, and means for imparting a swinging motion to the said scroll to move the delivery end of the scroll out of alinement with one of the said apertures.

12. In a sewing machine attachment, a pivoted scroll for guiding a fabric strip to a sewing machine needle, mechanism for imparting a swinging motion to the said scroll to shift the same out of alinement with the needle, a coupling having two coupling members, a flexible connection between one of said coupling members and the said mechanism, the other coupling member being driven from the sewing machine, and manually controlled means for moving the said coupling members into engagement.

13. A sewing machine attachment, comprising a scroll carrier, a scroll movable on the said carrier and having its delivery end adjacent the sewing machine needles, a ratchet wheel mounted to turn on the said carrier, means on the scroll for engagement by the ratchet wheel to move the scroll, a lever carrying a pawl engaging the ratchet wheel, manually controlled actuating means, and a flexible connection between the said actuating means and the said lever.

14. In a sewing machine attachment, a pivoted scroll for guiding a fabric strip to a sewing machine needle, a tooth on the scroll, a ratchet wheel engaged by the tooth for shifting the scroll out of alinement with the needle, a coupling having two members, means for actuating the ratchet wheel from one of said coupling members, means for driving the other coupling member from the driven shaft of the sewing machine, and manually controlled means for moving the first mentioned coupling member into engagement with the other coupling member.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEO ROSENMAN.

Witnesses:

THEO. G. HOSTER,
PHILIP D. ROLLHAUS.