April 28, 1936. R. H. BRADWELL 2,038,923

MACHINE FOR PRODUCING TUFTED ARTICLES

Filed Dec. 4, 1935 4 Sheets-Sheet 1

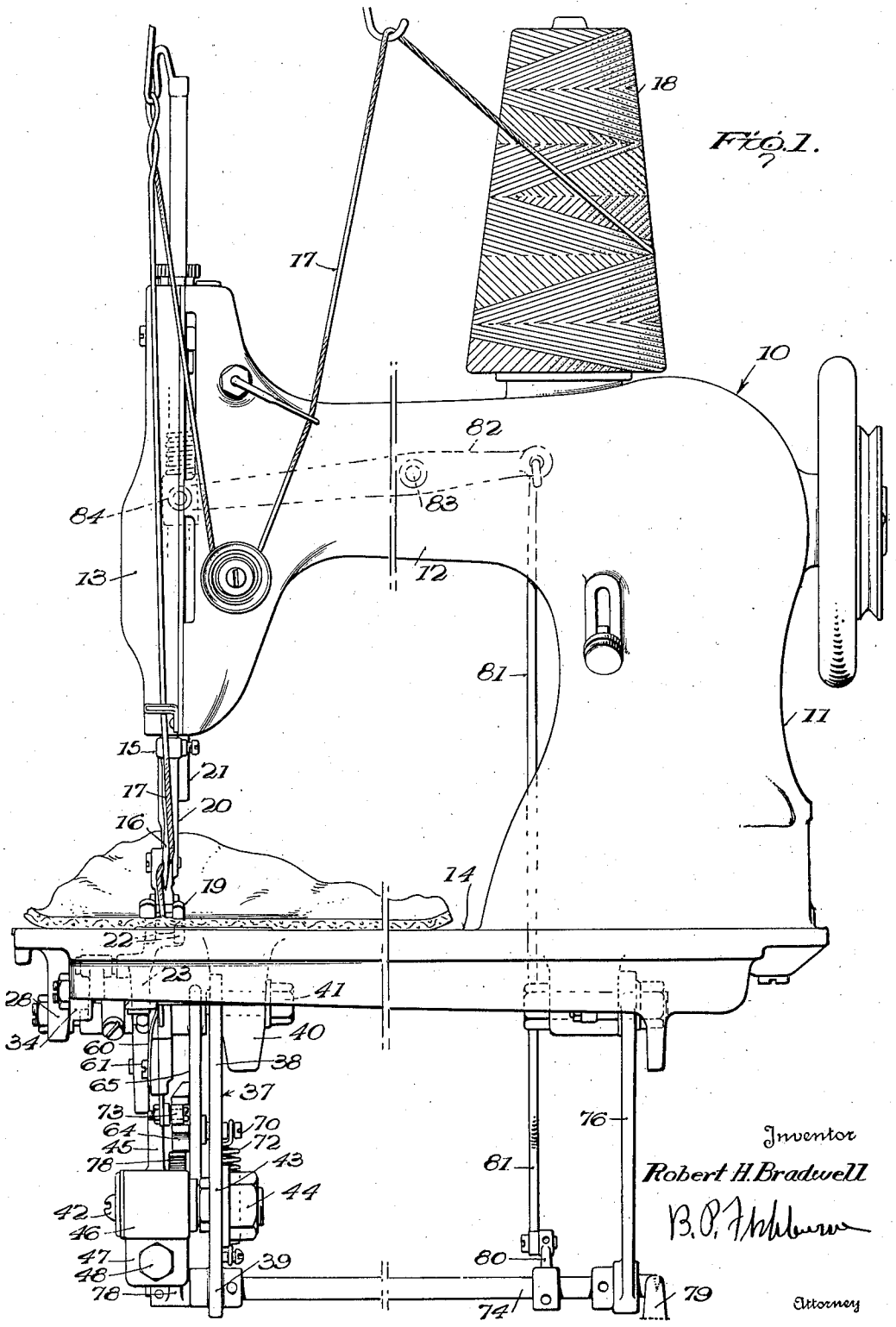


FIG. 1.

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MACHINE FOR PRODUCING TUFTED ARTICLES

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FIG. 2.

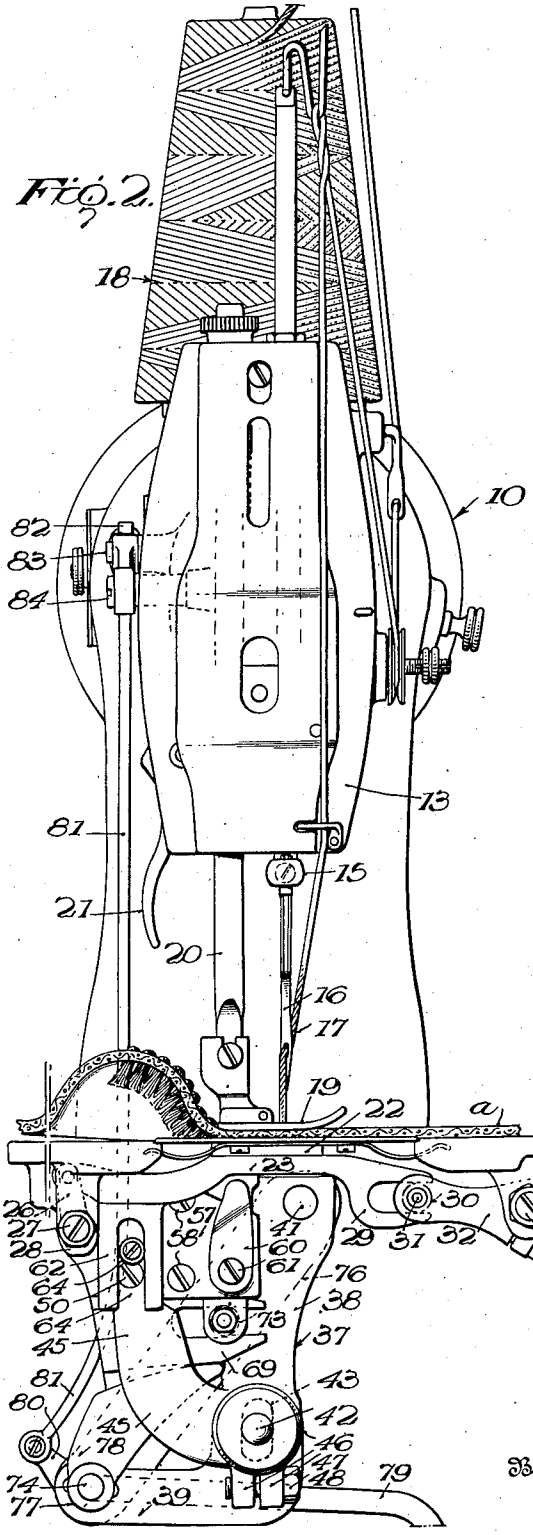


FIG. 5.

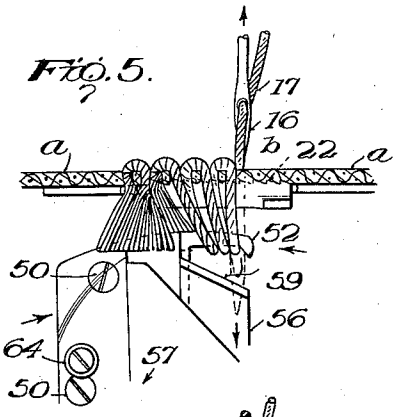


FIG. 6.

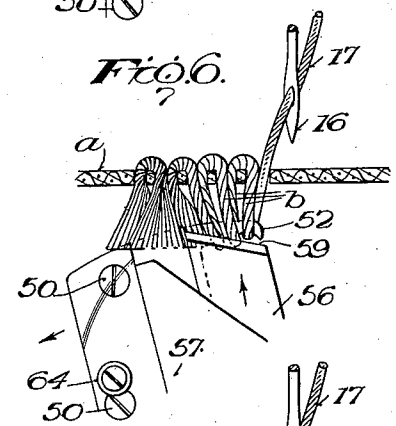
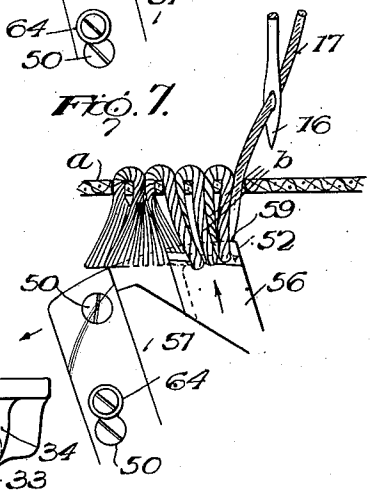


FIG. 7.



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MACHINE FOR PRODUCING TUFTED ARTICLES

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Fig. 3.

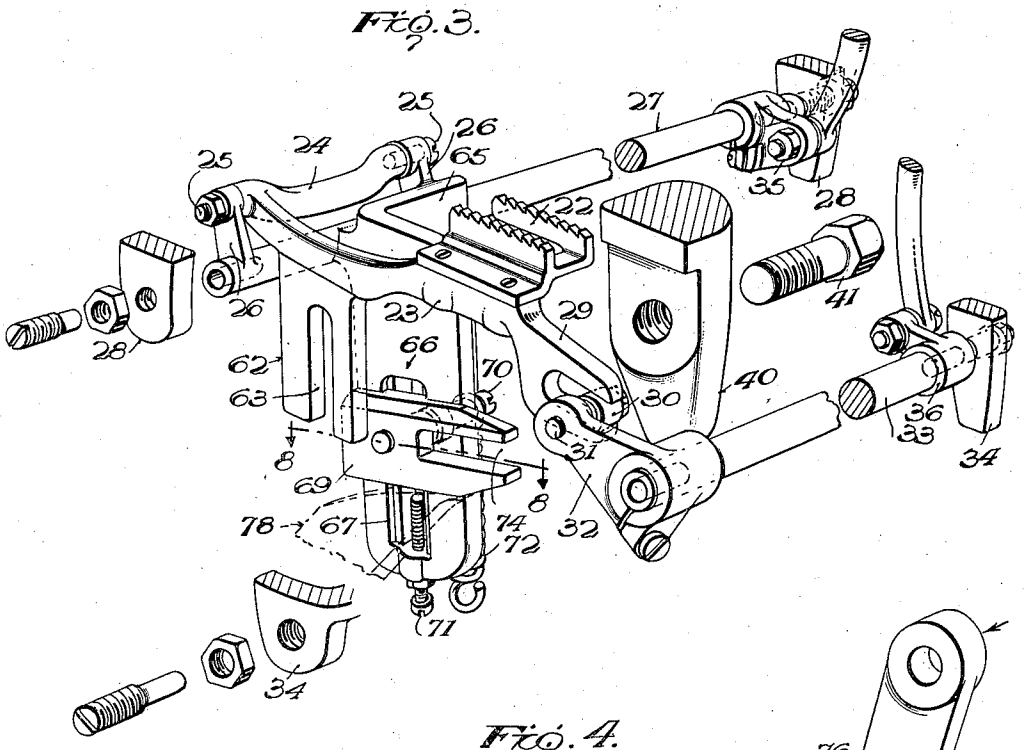
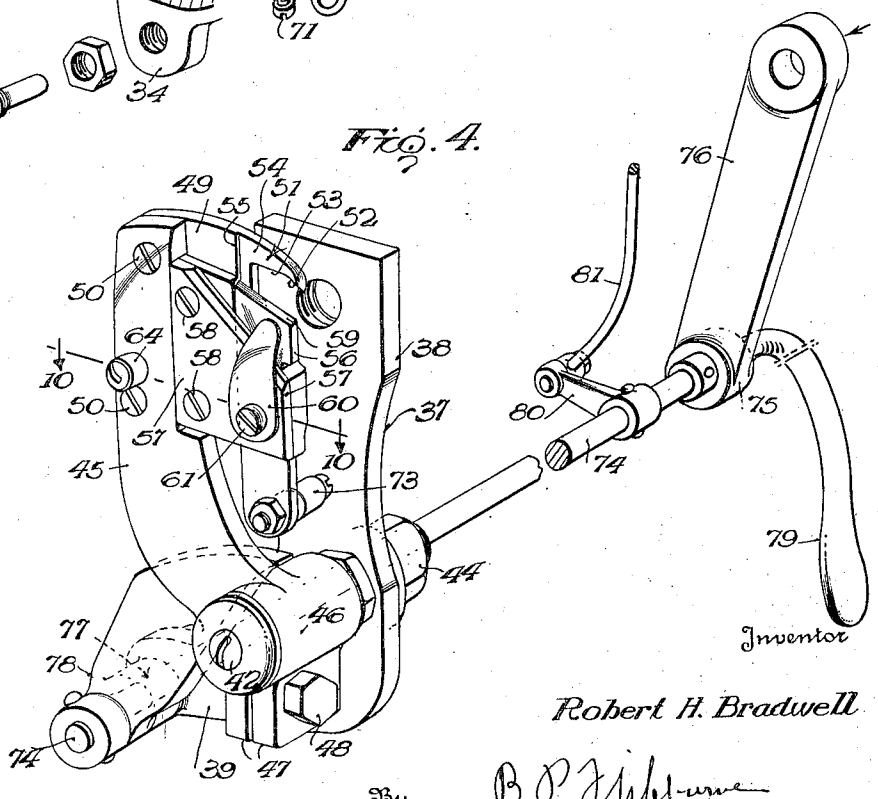


Fig. 4.



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Fig. 8.

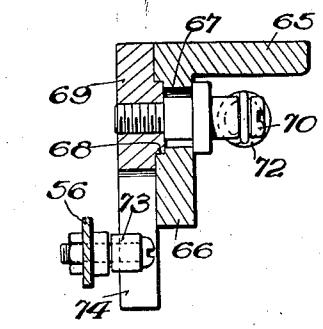


Fig. 9.

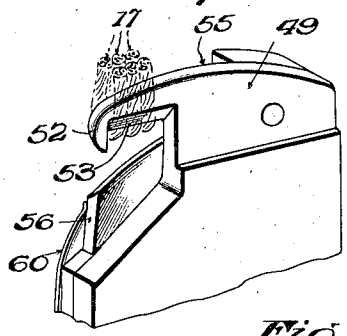


Fig. 10.

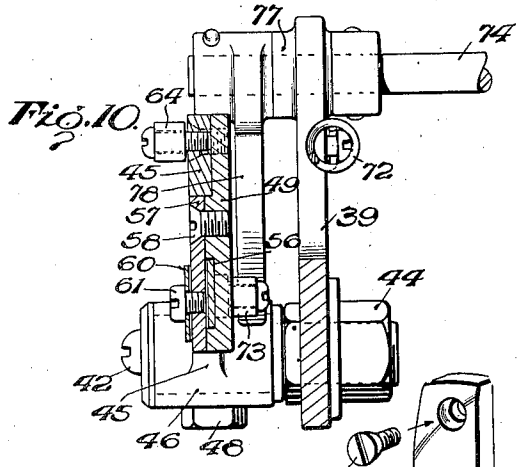


Fig. 12.

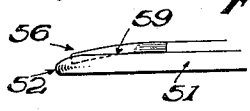
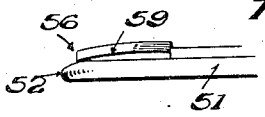


Fig. 13.



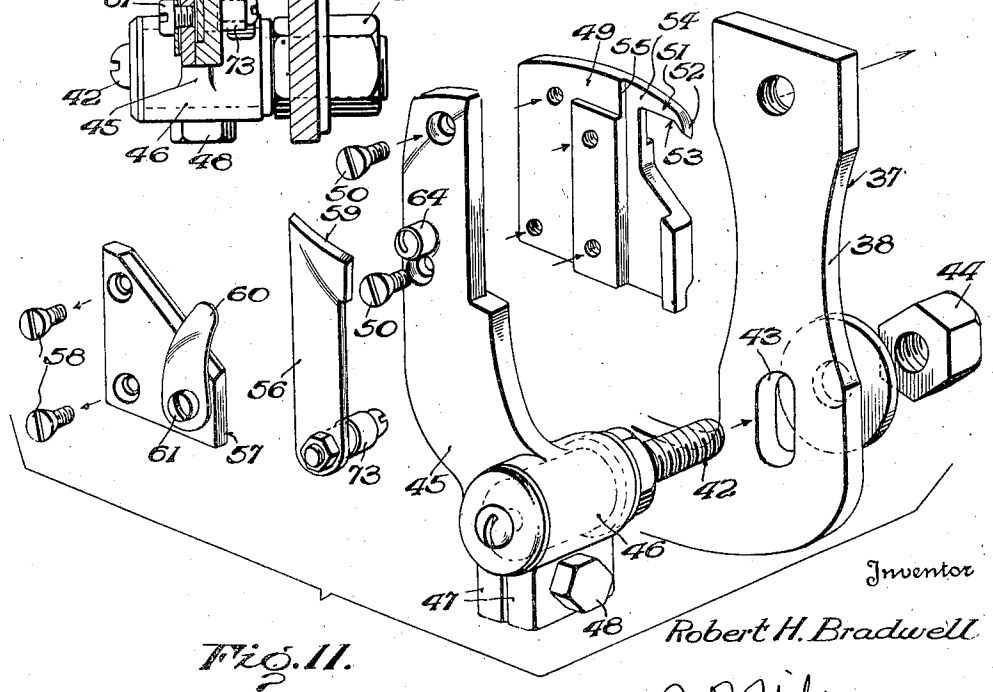


Fig. 11.

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Patented Apr. 28, 1936

2,038,923

UNITED STATES PATENT OFFICE

2,038,923

MACHINE FOR PRODUCING TUFTED ARTICLES

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Application December 4, 1935, Serial No. 52,906

21 Claims. (Cl. 112—79)

My invention relates to a machine for producing tufted articles, such as bath mats, bedspreads, and other articles.

An important object of the invention is to provide mechanism in the nature of an attachment for coaction with the stitching means of an ordinary sewing machine, for producing the loops and cutting such loops, for producing the finished pile.

A further object of the invention is to provide means having a normal action during each cycle of operation, to cut the loop or loops only partly, so that the last loop will remain upon the hook when the needle rises, and which has an abnormal action during each cycle of operation, which may be effected when the end of the line of stitching is reached, to completely cut all of the loop or loops upon the hook, so that the fabric may be quickly and conveniently removed from the machine.

A further object of the invention is to provide means of the above mentioned character, which is of simplified construction, compact, and formed of few parts.

A further object of the invention is to provide means of the above mentioned character wherein a reciprocating blade is mounted upon a common oscillating support with the hook, so that the blade oscillates in unison with the hook but reciprocates with relation thereto.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this application, and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a side elevation of a sewing machine, with apparatus embodying my invention applied thereto,

Figure 2 is a front end elevation of the same,

Figure 3 is an exploded perspective view of the feed dog and associated elements,

Figure 4 is a perspective view of the hook and reciprocating blade and associated elements,

Figure 5 is a side elevation of the hook and reciprocating blade, showing the hook in the loop receiving projected position, and the blade in the lowered position,

Figure 6 is a similar view, showing the hook oscillated to the retracted position and the blade moved upwardly to the end of its normal stroke for cutting only some of the loops upon the hook,

Figure 7 is a similar view, with the parts in the same position, except that the blade has been moved upwardly to an abnormal position beyond its normal cutting stroke so that it cuts all of the loop or loops upon the hook,

Figure 8 is a transverse section taken on line 8—8 of Figure 3,

Figure 9 is a perspective view of the hook and associated elements, parts broken away,

Figure 10 is a transverse section taken on line 10—10 of Figure 4,

Figure 11 is an exploded perspective view of the pivoted supporting arm, hook, cutter, and associated elements,

Figure 12 is a plan view of the hook and blade, showing the blade in the lower position,

Figure 13 is a similar view showing the blade raised.

In the drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 10 designates a sewing machine, as a whole, of any well known or preferred type, such as the ordinary Singer sewing machine. This sewing machine comprises a stock 11, arm 12 and head 13. The stock 11 is mounted upon the flat base 14. The head 13 is provided with the usual vertical reciprocating needle bar 15, carrying a needle 16, having the usual eye for receiving the tufting thread 17. This tufting thread is fed from a cone spool 18, and any suitable form of tension means may be used in connection with the tufting thread. The sewing machine embodies the usual means to reciprocate the needle. The sewing machine further embodies the usual presser foot 19, carried by a reciprocating presser bar 20, which may be raised by a finger engaging lever 21, or by other means to be later described. The sewing machine further comprises work feeding means, to advance the work from the operator, including dogs 22 operating through a suitable opening in the base 14, and these dogs are rigidly mounted upon a rigid dog support link or bar 23. At one end, the link 23 is rigidly connected with a transverse head 24, pivotally connected at 25, with cranks 26, in turn rigidly mounted upon a rock shaft 27, extending longitudinally of and beneath the base 14, and held by suitable stationary bearings 28. At its opposite end, the link 23 is provided with a fork 29, receiving a roller 30, pivotally mounted at 31 upon a crank 32, in turn rigidly mounted upon a rock shaft 33. This rock shaft is arranged beneath the base 14 and extends longitudinally thereof in spaced parallel relation to rock shaft 27, and is supported by stationary bearings 34. The rock shafts 27 and 33 are provided adjacent the stock 11 with cranks 35 and 36, respectively, and the usual mechanism is mounted within the stock 11 to swing these cranks and turn the rock shafts 27 and 33. It might be stated at this point that the movement of the rock shaft 27 serves to move the dog carrying link 23 longitudinally, while the movement of the rock shaft 33 serves to raise and lower the same. The foregoing description is that of the ordinary sewing machine, such as a Singer sewing machine.

The attachment embodies a stationary L-shaped bracket 37, having a vertical arm 38 and a horizontal arm 39. At its upper end, the vertical arm 38 is rigidly clamped to a lug 40, integral with the base 14, by means of a bolt 41. This lug was formerly used as a bearing for the shuttle or bobbin shaft, which mechanism is now removed. The bracket 37 is held stationary, as stated, and this bracket has a pin or pivot element 42, rigidly attached thereto. The vertical arm 38 is provided with an elongated slot 43, receiving one end of the pin 42 so that the pin may be adjusted longitudinally of the arm 38 and the pin carries a nut 44, whereby the pin is clamped to the arm in adjustment at the selected elevation. The numeral 45 designates an upstanding oscillating arm or supporting member, pivotally mounted at its lower end upon the pin 42, and for this purpose, the arm 45 is provided at its lower end with a split bearing sleeve 46, carrying depending knuckles 47, adjustably connected by a set-screw 48. The purpose of the adjustable split bearing is to take up any wear between the same and the pin 42. Arranged upon one side of the oscillating arm 45, and adjacent to its upper end, is a plate 49, rigidly attached thereto by screws 50 or the like. The plate 49 may be separated from the oscillating arm 45 for the purpose of repair or the like. Preferably formed integral with the plate 49 is a loop receiving hook 51, which is generally straight, has a down turned bill 52 at its free edge, and a preferably straight inner or lower edge 53. The rear face 54 of the hook is flat, while the edge 53 is preferably blunt or rounded. Upon the same side with the face 54, the plate 49 has a vertically or longitudinally extending groove 55, receiving a reciprocating blade 56, held in place by a companion plate 57, detachably and rigidly secured to the plate 49 by screws 58 or the like. The blade 56 is provided at its upper end with a vertically inclined transverse cutting edge 59, and this cutting edge is bevelled from the flat face 54. Particular attention is called to the fact that the blade 56 is sufficiently wide to extend throughout the entire length of the hook 51, so that it is capable of cutting all loop or loops held thereon, upon the abnormal stroke of the blade, as will be described. The groove 55 is preferably slightly deeper than the thickness of the blade 56 so that there may be some slight lateral play, and the blade 56 is urged toward the bottom wall of the groove so that it will have firm engagement with the edge 53 of the hook, by means of a spring 60, attached to the plate 57, by means of a set-screw 61, as shown. The blade 56 is preferably twisted slightly upon its longitudinal axis throughout its upper portion only, so that its cutting edge is inclined in a direction longitudinally of the edge 53 of the hook. This slight twist causes the edge 59 to have a proper shearing action with the edge 53, and effectively cut the tufting thread.

The feed dog link or bar 23 carries a depending arm 62, rigidly attached thereto. The arm 62 is welded to the link 23, when the original link is used. The arm 62 has a longitudinal slot 63, receiving therein a roller 64, rotatably mounted upon the oscillating arm 45, upon one side thereof, and near and spaced from its upper end. The function of the arm 62 and its connection with the oscillating arm 45, is to oscillate the arm 45.

Rigidly connected with the rock shaft 27, by welding or the like, is a depending arm or crank 65, preferably in the form of an angle iron, and having one web 66 arranged near and upon one side of the link 23, and between the stationary bracket 37 and the oscillating arm 45. The crank 65 turns with the rock shaft 27 and the web 66 is provided in its lower end with a longitudinal slot 67, slidably receiving a rib 68 of a sliding plate or block 69. The plate or block 69 is held in position upon the web 66 by a set screw 70, and the plate or block is at all times capable of moving longitudinally of the web 66. The downward movement of the plate or block 69 is limited by an adjustable screw 71, and the plate or block 69 is moved downwardly by a retractile coil spring 72 having its upper end attached to the set screw 70 and its lower end attached to the horizontal arm 39 of the bracket 37. The blade 56 has a roller 73 secured to its lower end, and this roller operates within a slot 74, formed in the plate or block 69. The plate or block 69 oscillates with the crank 65 and this movement of the plate or block reciprocates the blade 56, for its normal stroke.

Means are provided to move the blade 56 upwardly beyond its normal stroke, and this means is preferably manually operated and independent of the operation of the crank 65. The manually operated means comprises a rock shaft 74, journalled in a bearing 75 carried by a stationary arm 76, and a bearing 77, carried by the horizontal arm 39 of the stationary bracket 37. Adjacent to the bearing 77, the rock shaft 74 is provided with a cam 78, rigidly secured thereto, and this cam is arranged beneath the plate or block 69, and is normally slightly spaced from the same and has no connection with the plate or block but is adapted to be swung upwardly to contact with the plate or block 69 and shift the same upwardly beyond its normal stroke, so that the blade 56 will be moved upwardly beyond its normal stroke for cutting all of the loop or loops upon the hook 51, as will be more fully explained. The rock shaft 74 is provided with a crank 79, which may be operated by the knee.

Since the blade 56 is raised when the presser foot is in the elevated position, it is desirable that the blade and presser foot be simultaneously raised, and to accomplish this, the rock shaft 74 has a crank 80, rigidly secured thereto, pivotally connected with a link 81, extending upwardly for pivotal connection with a lever 82, pivotally supported between its ends at 83, and suitably connected at 84 with the presser foot bar 20.

The bracket 37 extends transversely of the base 14 near and upon one side of the path of travel of the needle, and the oscillating arm 45 is therefore supported to swing transversely of the path of travel of the needle, in suitably close relation thereto.

The operation of the machine is as follows:

The several elements are so timed in operation that when the needle 16 moves downwardly to penetrate the fabric *a*, placed upon the top of the base 14 and projected a short distance below the base, the oscillating arm 45 starts upon its inward swinging movement, and by the time the needle has reached the end of its down stroke and shortly after it has just started upwardly, to provide slack in the loop, the hook 54 has travelled across the path of travel of the needle and has entered the loop *b*. As soon as the needle starts upon its up-stroke the oscillating arm 45 and hook 54 are swung laterally in an outward direction from the path of travel of the needle and do not swing inwardly until the needle again approaches its lowered position. The loop which has been formed upon the hook 51 is held behind the bill 52 and when the hook swings outwardly from the path of travel of the needle, the hook

carries the loop with it and the dog 22 also moves outwardly or away from the operator and carries the fabric *a* with it, so that both loop and fabric are fed from the operator. When the oscillating arm 45 again swings inwardly toward the path of travel of the needle and toward the operator, the loop previously caught on the hook remains in the forward or feeding position, while the hook slides through the loop so that there will be room for the next loop to be caught on the hook. In this manner a number of loops are caught on the hook, a new loop being caught on the hook upon each down stroke of the needle. As shown in Figures 5, 6, and 7, a number of the loops *b* have been produced by the needle 16 carrying the tufting thread 17 through the fabric *a*, the loops projecting below the fabric in suitable lengths, while the upper ends of the loops above the fabric are in contact therewith.

In order that the pile may be formed and additional loops continuously fed upon the hook, the previously formed loops upon the hook must be cut in proper sequence. The normal cutting action occurs when the presser foot is down and the needle is elevated. After the last loop has been transferred upon the hook and the needle starts upon its upward movement, the oscillating arm 45 and hook 51 swing laterally from the path of travel of the needle or operator and at the same time the crank 65 swings toward the operator, and plate or block 69 begins to rise. By the time the hook 51 has been swung to the end of its outward movement with respect to the path of travel of the needle, the blade 56 has moved upwardly to the end of its normal stroke. Figure 5 shows three loops accumulated upon the hook, with the blade 56 in the lowered position. Figure 7 shows the hook oscillated to the opened or forward position with respect to the path of travel of the needle and the blade 56 moved upwardly to the end of its normal stroke. In this position, the blade 56 will completely cut the leading loop *b*, and may partly cut the intermediate loop *b*, but the trailing loop is not cut in whole or part. In the next cycle of operation, the hook 51 again swings inwardly across the path of travel of the descending needle, and another trailing loop is caught, and the cutting action repeated when the hook swings forwardly from the path of travel of the needle. It is thus seen that the blade 56 has a reciprocatory movement of a normal stroke, and this stroke is purposely regulated so that one or more loops will always remain upon the hook, and the last or trailing loop must always remain upon the hook, upon the up-stroke of the needle, if the stitching is to be continued.

When the end of the stitching is reached, it is necessary to cut all loops upon the hook, to remove the fabric from the machine. To accomplish this, the operator stops the sewing machine, and with the needle elevated, crank 79 is moved upwardly, which turns rock shaft 74 in a direction to swing cam 78 upwardly so that this cam contacts with plate or block 69, and shifts it upwardly with relation to the crank 65. This separate manually operated means will now shift the blade 56 upwardly to a position substantially past the normal up-stroke of the blade 56. The normal up-stroke of the blade is shown in Figure 6, while the abnormal stroke of the blade is shown in Figure 7. Upon the abnormal up-stroke of the blade, Figure 7, all loop or loops upon the hook are cut, and hence the fabric may be readily separated from the machine. This may be accomplished, since the presser foot was raised when the cam 78 was turned.

It is thus seen that the cutting means provided, has a normal cutting action for each cycle of operation, for cutting only a part of the loop or loops upon the hook, and an abnormal cutting action for each cycle of operation, to cut all of the loop or loops upon the hook. The normal cutting action is effected automatically during the stitching operation, while the abnormal cutting action is preferably effected manually, while the stitching mechanism is at rest.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to, without departing from the spirit of my invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. In a machine for producing a tufted article, stitching mechanism including a reciprocatory needle to carry the tufting thread through a fabric and produce loops longitudinally of the direction of feeding movement of the work, and a hook movable across the path of travel of the needle to receive the loops thereon, the free end of the hook extending toward the trailing end of the work, a blade bodily movable with the hook and also having a rectilineal reciprocatory movement toward and from the hook, and means to effect such rectilineal reciprocatory movement of the blade.

2. In a machine for producing a tufted article, stitching mechanism including a reciprocatory needle to carry the tufting thread through a fabric and produce loops, a hook movable across the path of travel of the needle to receive the loops thereon, a blade movable with the hook and having reciprocatory movements with relation thereto and normally capable of normal and abnormal strokes toward the hook, means to move the blade for its normal stroke toward the hook to sever the loops for producing tufts and leave at least one unsevered loop upon the hook, and means to move the blade for its abnormal stroke toward the hook and beyond the normal stroke to sever all loop or loops upon the hook and free the work from the hook.

3. In a machine for producing a tufted article, stitching mechanism including a reciprocatory needle to carry the tufting thread through a fabric and produce loops, a hook, a pivoted member carrying the hook to move the same across the path of travel of the needle to receive the loops thereon, a blade mounted upon the pivoted member with the hook to swing with the hook and also reciprocating with relation to the hook, said blade normally having normal and abnormal strokes toward the hook, means to move the blade for its normal stroke for severing action with the loops to produce tufts and leave at least one unsevered loop upon the hook, and manually operated means to move the blade for its abnormal stroke toward the hook and beyond the normal stroke for severing all loop or loops upon the hook to free the work from the hook.

4. A tufting attachment for a sewing machine including a reciprocatory needle to carry the tufting thread through a fabric and produce loops, said attachment comprising a hook to receive the loops thereon, cutting means normally having a normal operation in one cycle

for severing action with the loops to produce tufts and leave at least one unsevered loop upon the hook and also normally having an abnormal operation in one cycle for severing all loop or loops upon the hook to free the work from the hook, means to effect the normal cycle of operation of the cutting means, and means to effect the abnormal cycle of operation of the cutting means.

5. A tufting attachment for a sewing machine including a reciprocating needle to carry the tufting thread through a fabric and produce loops, said attachment comprising a hook to receive the loops thereon, cutting means for severing action with the loops upon the hook and including a cutting element normally having a normal stroke for severing action with the loops to produce tufts and leave at least one unsevered loop upon the hook and also normally having an abnormal stroke for severing all loop or loops upon the hook to free the work from the hook, means for effecting the normal stroke of the cutting element, and means for effecting the abnormal stroke of the cutting element.

6. A tufting mechanism for use in connection with a sewing machine having a reciprocatory needle, said mechanism comprising a movable hook to receive the loops thereon, a cutting element for coaction with the hook and capable of normal and abnormal movements toward the hook without adjustment, means normally operating to move the cutting element the normal distance toward the hook to sever the loops for producing tufts and leave at least one unsevered loop upon the hook, and independently actuated means normally operating to move the cutting element the abnormal distance toward the hook to sever all loop or loops upon the hook and free the work from the hook.

7. A tufting mechanism for use with a sewing machine having a reciprocatory needle, said mechanism comprising a movable hook to receive the loops thereon, a cutting element for coaction with the hook, automatic means to move the cutting element a normal distance toward the hook and manually operated means normally operating to move the cutting element toward the hook and beyond such normal distance.

8. A machine for producing tufted articles, comprising stitching mechanism including a reciprocatory needle to carry the tufting thread through a fabric and produce loops, an oscillating supporting member movable longitudinally of the direction of feeding movement of the work, a hook carried by the supporting member and movable thereby longitudinally of the work feeding movement and across the path of travel of the needle to receive the loops thereon, a blade bodily mounted upon the oscillating supporting member to oscillate with the hook and also capable of rectilineal reciprocatory movement with relation to the oscillating supporting member and thereby being shiftable toward and from the hook, means to move the blade toward the hook for a normal distance to sever the loops and produce tufts and leave at least one unsevered loop upon the hook, and means to move the blade for an abnormal distance toward the hook to sever all loop or loops upon the hook and free the work from the hook.

9. Tufting mechanism for use in connection with a sewing machine having a reciprocatory needle to carry the tufting thread through a fabric and produce loops, said mechanism comprising an oscillating supporting member, a hook carried thereby for receiving the loops thereon, a rectilineal reciprocatory blade mounted upon the oscillating supporting member to oscillate with the hook and permanently shiftable toward the hook for normal and abnormal distances, means to effect the movement of the blade toward the hook for the normal distance, and also to effect the movement of the blade toward the hook beyond such normal distance.

10. Tufting mechanism for use in connection with a sewing machine having a reciprocating needle to carry the tufting thread through a fabric and produce loops, said mechanism comprising an oscillating supporting member, a hook carried by the supporting member for receiving the loops thereon, a movable blade carried by the supporting member to oscillate with the hook, a swinging member, an element carried by the swinging member and movable with relation to the swinging member toward the blade and having a connection with the blade, and means separate from the swinging member for shifting said element toward the blade for moving the blade toward the hook.

11. Tufting mechanism for use in connection with a sewing machine having a reciprocating needle to carry the tufting thread through a fabric and produce loops, comprising an oscillating supporting member, a hook carried by the supporting member for receiving the loops thereon, a reciprocating blade slidably mounted upon the supporting member for movement toward and from the hook, a swinging member arranged near the supporting member, a plate mounted upon the swinging member and shiftable longitudinally of the same and having connection with the blade, a spring to move the plate downwardly upon the swinging member, and a cam to engage the plate and shift the same upwardly upon the swinging member.

12. Tufting mechanism for use in connection with a sewing machine having a reciprocatory needle to carry the tufting thread through a fabric and produce loops, comprising an oscillating supporting member, a hook rigidly secured to the supporting member to receive the loops thereon, a blade slidably mounted upon the supporting member to oscillate with the hook and shiftable longitudinally of the supporting member toward and from the hook, a swinging member, an element slidably mounted upon the swinging member and movable longitudinally of the same and connected with the blade, an adjustable element to limit the downward movement of the slidable element upon the swinging member, a spring to draw the slidable element downwardly, and a cam to engage the slidable element and shift it upwardly with relation to the swinging member.

13. In a machine for making tufted articles, stitching mechanism including a reciprocatory needle, a feed dog to advance the work, a link to move the feed dog, spaced rock shafts, cranks carried by the rock shafts and connected with the link, a stationary support, an oscillating member carried by the stationary support, means connecting the oscillating member and link, a hook carried by the oscillating member and movable across the path of travel of the needle to receive loops thereon, a reciprocating blade mounted upon the oscillating member and movable toward and from the hook, an arm rigidly connected with one rock shaft, connecting means between the arm and blade so that the swinging movement of the arm reciprocates the blade.

14. In a machine for making tufted articles, stitching mechanism including a reciprocating needle, a feed dog to advance the work, a link to move the feed dog, spaced rock shafts, operating connecting means between the rock shafts and link, an oscillating member connected with the link to be moved thereby, a stationary support arranged near the oscillating member and carrying the same, a hook carried by the oscillating member and movable across the path of travel of the needle to receive loops thereon, a reciprocating blade mounted upon the oscillating member and movable toward and from the hook, an arm rigidly connected with one rock shaft, an element connected with the blade to move it and adjustably mounted upon the arm to move with it and in relation thereto, and means to move the element with relation to the arm.

15. In a machine for making tufted articles wherein the work is fed in one direction, a supporting member movable longitudinally of the feeding movement of the work, a hook secured to the supporting member for movement therewith longitudinally of the work feeding movement to receive the loops thereon and having a loop engaging edge, the free end of the hook extending toward the trailing end of the work so that the loops accumulate on the hook, and a blade mounted upon the supporting member and having a rectilineal reciprocatory movement with relation to the supporting member and hook, the blade having a cutting edge extending throughout substantially the entire length of the loop engaging edge of the hook, and means to move the blade for a normal distance toward the hook to sever the loops and produce tufts and leave at least one unsevered loop upon the hook and to also move the blade for an abnormal distance toward the hook to sever all loop or loops thereon.

16. In a machine for making tufted articles wherein the work is fed in one direction, a supporting member movable longitudinally of the feeding movement of the work, a hook secured to the supporting member for movement therewith longitudinally of the work feeding movement to receive the loops thereon, a blade mounted upon the supporting member and having a rectilineal reciprocatory movement with relation to the supporting member and hook, the blade having a vertically inclined cutting edge for coaction with the loop engaging edge of the hook, said cutting edge being also horizontally inclined and extending throughout substantially the entire length of said loop engaging edge and means to move the blade for a normal distance toward the hook to sever the loops for producing tufts and leave at least one unsevered loop upon the hook and to also move the blade for an abnormal distance toward the hook to sever all loop or loops thereon.

17. In means for making tufted articles, a supporting member, a hook rigidly secured to the supporting member and having a loop engaging edge, a reciprocating blade slidably mounted upon the supporting member and capable of limited lateral movement with relation thereto, the blade having a vertically inclined cutting edge, that portion of the blade adjacent to the cutting edge being longitudinally twisted so that the cutting edge is also horizontally inclined, the blade being arranged to slidably engage with the side of the hook, and yielding means to press the blade toward the hook.

18. In a machine for making tufted articles, stitching mechanism including a reciprocatory needle to carry the tufting thread through a fabric and produce loops, a supporting member movable in a direction longitudinally of the feeding movement of the work, a generally horizontal hook secured to the supporting member and extending longitudinally of the work feeding movement, said hook being provided near its free end with a bill to hold the loops upon the hook and also provided with a loop engaging edge, a blade mounted upon the supporting member to have a rectilineal reciprocatory movement with relation thereto and having a cutting edge so arranged and of such a length that the cutting edge extends throughout the entire length of the loop engaging edge of the hook when the cutting edge is brought to a position adjacent to the loop engaging edge, means to move the blade for a normal distance toward the hook to sever the loops for producing tufts and leave at least one unsevered loop upon the hook, and means to positively shift the blade toward the hook a sufficient distance beyond the normal distance to cause the cutting edge to pass adjacent to the loop engaging edge throughout the entire length of the loop engaging edge and thereby sever all loop or loops on the hook at any position upon the loop engaging edge.

19. In a machine for producing tufted articles, stitching mechanism including a reciprocatory needle to carry the tufting thread through the fabric and produce loops, a hook movable across the path of travel of the needle to receive loops thereon, cutting means for coaction with the hook, automatic means to actuate the cutting means so that the cutting means severs the loops for producing tufts and leaves at least one unsevered loop on the hook, and manually operated means for actuating the cutting means so that such cutting means severs all loop or loops upon the hook to free the work from the hook.

20. In a machine for producing tufted articles, stitching mechanism including a reciprocatory needle to carry the tufting thread through the fabric and produce loops, a hook movable across the path of travel of the needle to receive the loops thereon, cutting means for coaction with the hook and normally adapted for severing the loops to produce tufts and leaving at least one unsevered loop upon the hook and also normally adapted for severing all loop or loops upon the hook to free the work from the hook, means for actuating the cutting means so that the cutting means severs the loops for producing tufts and leaves at least one unsevered loop on the hook, and separate means for actuating the cutting means so that such cutting means severs all loop or loops upon the hook to free the work from the hook.

21. In a machine for producing a tufted article, stitching mechanism including a reciprocatory needle to carry the tufting thread through a fabric and produce loops, a hook movable across the path of travel of the needle to receive the loops thereon, a blade for coaction with the hook and having normal and abnormal strokes with relation thereto, means including parts for giving the blade its normal stroke, and means including parts other than those for giving said blade its normal stroke, for giving said blade its abnormal stroke.

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