

H. GINGRAS.
TAPE STICKING AND SHEARING MACHINE.
APPLICATION FILED JAN. 25, 1912.

1,051,215.

Patented Jan. 21, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

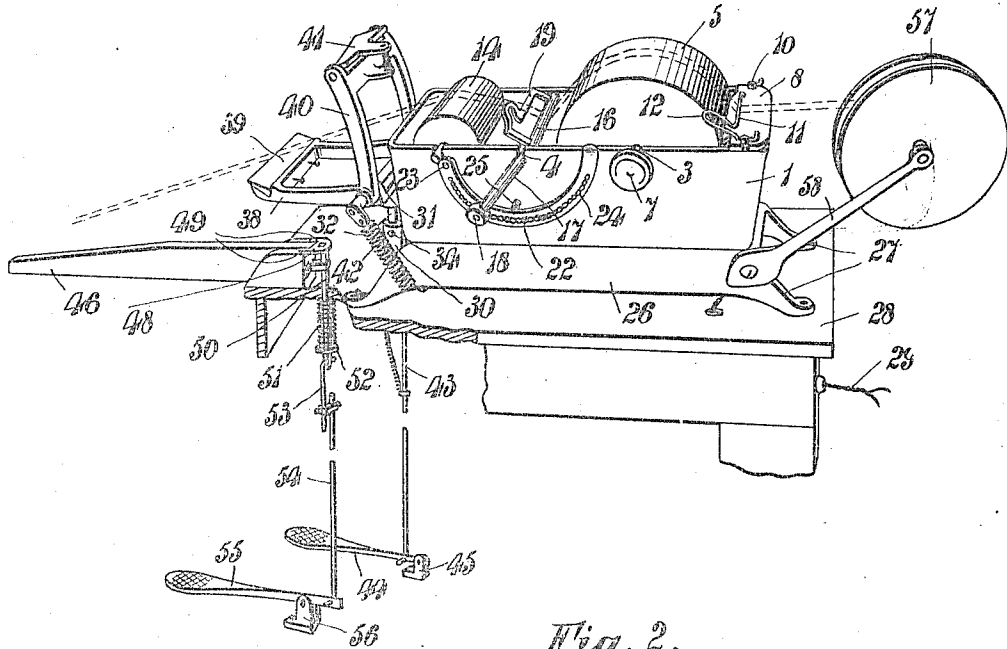
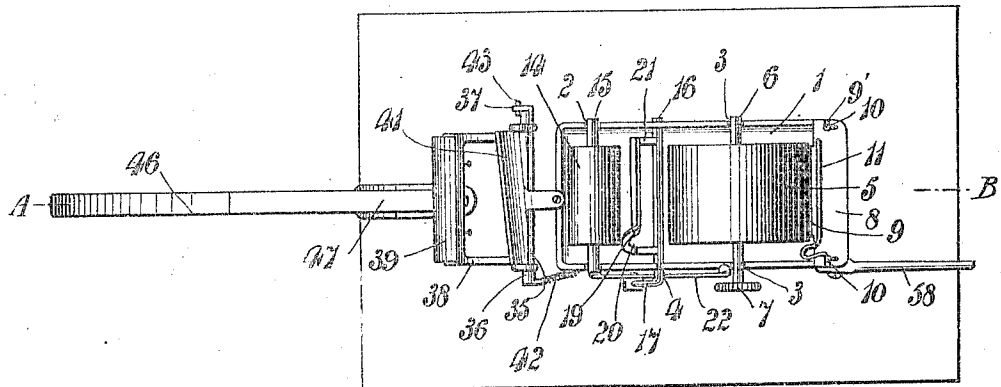


Fig. 2.



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Witnesses

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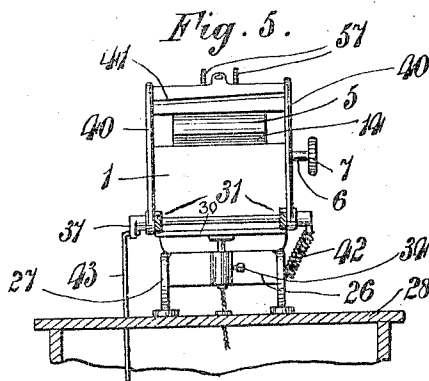
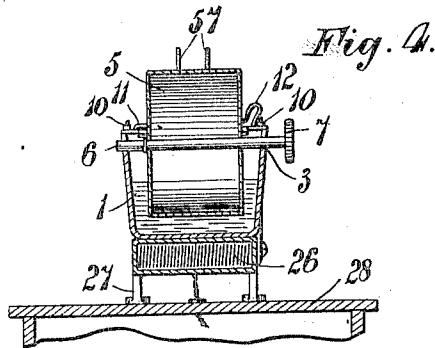
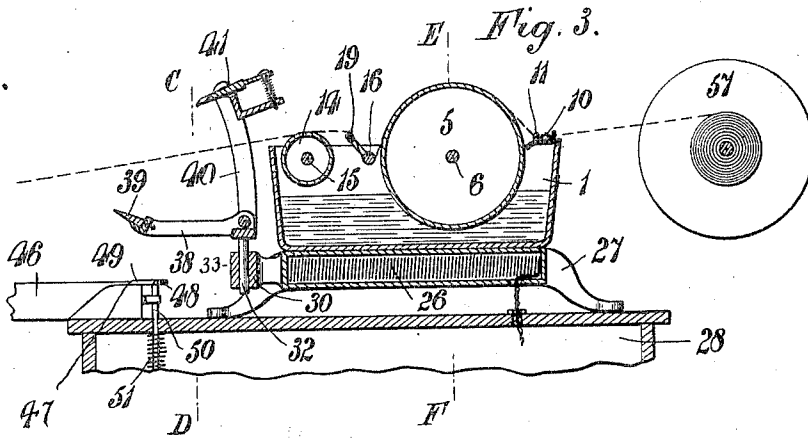
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UNITED STATES PATENT OFFICE.

HENRI GINGRAS, OF ST. HYACINTHE, QUEBEC, CANADA.

TAPE STICKING AND SHEARING MACHINE.

1,051,215.

Specification of Letters Patent.

Patented Jan. 21, 1913.

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To all whom it may concern:

Be it known that I, HENRI GINGRAS, resident of the town of St. Hyacinthe, in the Province of Quebec, in the Dominion of Canada, a subject of the King of Great Britain, have invented certain new and useful Improvements in Tape Sticking and Shearing Machines; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention relates to improvements in tape sticking and shearing machines, as described in the present specification and illustrated in the accompanying drawings that form part of the same.

The invention consists essentially in the novel means employed for applying the adhesive and delivering the correct length of tape to the material supported at one end of the machine.

The objects of the invention are to eliminate the manual labor necessary to prepare the tapes, particularly those tapes used in the manufacture of garments, such as corsets, to devise a machine for the purpose, which will be easy to operate, and generally to provide a machine, simple, cheap and durable in construction.

In the drawings, Figure 1 is a perspective view of the machine, showing the table portion of the stand partially broken away and also the supports. Fig. 2 is a plan view of the machine. Fig. 3 is a longitudinal sectional view on the line A—B in Fig. 2. Fig. 4 is a cross sectional view on the line E—F in Fig. 3. Fig. 5 is a cross sectional view on the line C—D in Fig. 3.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, 1 is the glue or other adhesive receptacle or pot, here shown as of rectangular form and open at the top and having at the upper edge of the sides, the open bearings 2, 3 and 4.

5 is a drum, mounted on the shaft 6, said shaft being journaled in the bearings 3, thus one part of the drum dips into the receptacle 1. 7 is a knurled wheel, secured on one end of the shaft 6 and used for the purpose of manually turning the drum around in the adhesive contained in the receptacle 1, said drum being adjacent to one end of said receptacle. The drum 5 is thus smeared all around with glue and the subsequent operation is by the traction of the tape. 8 is a plate having a downwardly turned lip 9 forming a scraper, said plate

being slotted at 9' at each end thereof and held to the receptacle 1 at one end thereof by the pivot cranks 10, said pivot cranks being secured in the sides of said receptacle and extending upwardly through the slots 9' and turning over the face of the plate and holding it firmly in place. 11 is a horizontal guide rod, secured in the plate 7 at the inner edge thereof and having at one side thereof the loop 12 by means of which the tape may be easily run under the horizontal portion of the rod. 14 is a smaller drum, mounted on the shaft 15, said shaft being journaled in the bearings 2. The drum 14 is quite above the level of the adhesive within the receptacle 1 and therefore has the effect of evening the adhesive on the tape as it passes along and away from the receptacle 1.

16 is a shaft journaled in the bearings 4 and having the crank end 17 extending downwardly and the inwardly extending pin 18 at the bottom end of said crank 17.

19 is a horizontal guide rod in the form of a scraper for the glued surface and also acting as a tension device, having the loop 20 at one end thereof for more easily inserting the tape under the horizontal portion and the off-set ends 21 rigidly secured to the shaft 16.

22 is a segmental rack, at one end secured by the screw 23 to the side of the receptacle 1 and having the arc-shaped row of holes 24 therethrough into any one of which the pin 18 will extend. 25 is a spiral spring secured centrally to the rack 22 and holding the lower portion of the rack away from the side of the receptacle 1 and consequently keeping the pin 18 in place in one of said holes and thereby determining the position of the guide rod 19, consequently regulating the quantity of glue spread. In order to adjust the position of said guide rod, 19, said rack is pushed in against the outward pressure of the spring 25 and the crank swung along said rack and again locked in the particular hole desired, so as to give the proper position to the said guide rod 19, said guide rod being between the smaller drum 14 and the larger drum 5. It will be thus seen that a tape inserted under the guide rod 11 over the drum 5 under the shaft 16 and over scraper 19 and over the smaller drum 14, may be pulled along with ease and at the same time receive a supply of glue on the under surface, which supply will be regulated and evened by the scraper 19 and the smaller drum.

26 is an electric heater, forming the immediate support for the receptacle 1 and having the legs 27 supporting it slightly above the table 28, said legs being firmly
5 screwed to said table.

29 are wires connecting any suitable arrangement of coils, within the heating box 26, with the source of electric current, but it must be understood that any form of
10 heating device will answer the purpose and that this invention is not confined to an electric heater, furthermore, variations may be made in the form of the heater, according to existing conditions.

15 30 is an adjustable bracket supporting the bearings 31 and arranged at the delivery end of the receptacle 1, said bracket standing on the pin portion 32, said pin portion extending through the fixed collar 33 surrounding a corresponding hole in the table and being held to its adjusted position by the set screw 34 extending through said collar.

35 is a shaft journaled in the bearings 31, having at one end the crank 36 and at the other end the crank 37, said cranks pointing in opposite directions.

38 is a frame fixedly secured to the bracket 30 and extending out horizontally therefrom and carrying at the outer end the knife 39, forming one part of the shearing mechanism. 40 is a frame fixedly mounted on the shaft 35 and carrying at its outer end, the knife 41, forming the other member of
35 the shearing mechanism.

42 is a spiral spring, at one end, fixedly secured to the crank 36 and normally holding the frame 40 in its upward position.

43 is a vertical rod at its upper end connected with the crank 37 and at its lower end with the pedal 44, said pedal being pivoted in the bracket 45, therefore, in order to bring the frame 40 to its downward position, the foot is pressed on the pedal 44, which rotates the shaft 35 and brings the knife 41, which has rather a sloping edge, past the knife 39 and as the tape goes through the frame 40 and over the frame 38, it is severed cleanly between said knives.

50 46 is a saddle arm, rigidly secured at its inner end to the top of the table 28 and extending outwardly beyond one end of said table, said arm supporting a corset or other garment on which the band or tape is to be
55 applied, and having the recessed inner end 47.

48 is a clamp having outwardly extending lugs 49 and fitting closely into the recess 47 at the inner end of the saddle arm 46.

60 50 is a rod at its upper end rigidly secured to the clamp 48 and extending downwardly through the table.

51 is a spring mounted on the rod 50 between the under side of the table 28 and the stop 52 at the lower end of said rod.

53 is a link hooked on to the lower end of the rod 50 and adjustably secured to the upper end of the rod 54, said rod 54 at its lower end being secured to the pedal 55, the latter being pivotally secured in the bracket 56, consequently on bringing pressure on the pedal 55, the clamp 48 is moved upwardly and the garment shoved under said clamp, when the pedal is let go, leaving the garment firmly held in position on the saddle
75 arm 46.

57 is a reel on which the tape is wound, said reel being held out at the rear end of the receptacle 1 and supported by the arm 58, the latter being rigidly secured to the
80 heater box 26.

In the operation of this invention, the tape on the said reel is stretched over the drums and under the guides, as explained, and through the shearing mechanism and
85 the garment is placed on the saddle arm as already described. The end of the tape is taken by the operator and pressed to that part of the garment at the far end at the extreme point to which it is intended to extend, the knife is then operated, as explained, when the tape drops the exact length as required, and is applied along the garment over said saddle arm. The adjustment of the shearing mechanism bracket has
95 everything to do with the length of tape required and while it cuts the tape much above said garment, the length of the strip is exactly right, if the machine is properly adjusted, that is to say, by the raising or
100 lowering of the bracket, carrying the knives in their frames.

What I claim is:

In a tape sticking and shearing machine, a glue pot having a plurality of open bearings
105 in the upper edge of the side walls, a main drum journaled in one set of said bearings, a minor drum journaled in another set of said bearings, a shaft carrying a tension rod journaled in another set of said bearings, an
110 arc-shaped rack secured to a side wall of said pot having a plurality of holes there-through, a spring holding the lower portion of said rack away from said side wall, a crank secured to said tension rod shaft having
115 a pin at the lower end thereof engaging said rack within one of said holes, and means for shearing the tape.

Signed at St. Hyacinthe this sixth day of December 1911.

HENRI GINGRAS.

Witnesses:

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WOP GEARD.