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GLUE APPLING DEVICE IN GLUING MACHINES

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Drawings Sheet 1
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The present invention relates to a glue applying device in gluing machines, specially but not exclusively in conveying gluing machines.

In the gluing machines known up to date, e.g., in the joint gluers, the strip, e.g. the veneer strip to be glued has previously to be placed into an upright position in order that the edge to be glued may be carefully brought into contact with the glue. After this the strip has to be withdrawn from the glue and to be brought into a horizontal position, upon this action only can it be forwarded into the conveying device to be glued together with other strips. The change of position of the strips and the great necessity for bringing the strip edge into contact with the glue causes a great loss of time.

The glue applying device according to the invention remedies these inconveniences. It has a movable glue carrier. Owing to this feature, turning the strips from their horizontal into their vertical direction and vice versa is avoided. No special care need be taken, in that the strip edges have merely to be struck against the glue carrier. The device according to the invention is not only advantageously used in conveying gluing machines, but in all cases wherein glue must be applied in series to work pieces. The goods to be glued may even be made of other material than wood.

Another object is that the glue carrier or glue applying member moves above and below the conveying plane of the gluing machine.

A further object is that the glue carrier moves into and out of a glue tank.

Still other objects are to provide suitable means for driving said glue carrier, as well as suitable control mechanisms for putting said driving means into and out of operation.

The accompanying drawings illustrate one embodiment of the invention, mounted on a conveying device formed as a joint gluer for wood folio or wood boards. It is to be understood that the present disclosure is by way of illustration only and it is not to be looked upon as restrictive.

Fig. 1 is a longitudinal section of a part of the conveying device, showing the glue applying device from one side.

Fig. 2 is a section taken on line II—II of Fig. 1.

Fig. 3 is a section taken on line III—III of Fig. 1.

Fig. 4 is a section taken on line IV—IV of Fig. 3.
terminals 44 serve the purpose of connecting the line parts of the electric circuit outside the case 32 to the line parts 25 lying inside.

The manner of action of the glue applying device described is as follows:

Be it supposed that the conveying gather on which the illustrated gluing device is mounted is used as a joint gather, e.g. for veneers. The device is at first, in the position shown in Fig. 1. The worker then takes one of the veneer strips lying in stock and places it horizontally on the surface table 41 and pushes it laterally and gently towards the striking plate 42. This latter there by moves, as seen in Fig. 3, to the right. Carrier 33 and with it the switch 30 are, as seen in Fig. 3, turned in an anti-clockwise direction. The electric circuit 25 is thereby closed. The armature 27 held in its outward position by a spring not shown, is attracted by the magnet 28 against the effect of said spring. Bent lever 23 is swung in a clockwise direction (Fig. 5) and releases pawl 23. This, under the influence of spring 21, engages the continuously rotating ratchet wheel 19. Cam disc 17 is thereby carried along in a clockwise direction (Fig. 1) and swings lever 16 in an anti-clockwise direction. The glue carrier moves upwardly, rotating the protecting cover 45 around its hinges 46. So long as the part a-b-c of the cam disc 11 cooperates with the roller 18 the glue applying plate remains at the top and extends beyond the surface on which the goods to be glued are moved. During this period the worker may bring the edge of the veneer strip into contact with the glue applying plate. After the point c it recedes below the plane of the table 41 into the glue tank 3. The worker may forward the veneer strip treated to the conveying device in the same horizontal position in which he removed it from the service table and guided it to the glue applying plate. At the moment when the veneer strip has been put out of contact with the striking plate 42, this and with it the switch 30, under the effect of the spring 35, have returned into the rest position shown in Fig. 3.

The electric circuit has thus been interrupted and the bent lever 23 has returned into the position shown in Figs. 1 and 5. The pawl 23 will, therefore, strike against the leg 24 of the lever 23 and thus disengage the ratchet wheel 18 and strike against the stop 47. The cam disc 17 thus in the position illustrated in Fig. 1, automatically comes to rest and the glue carrier 2 remains below until the worker pushes a new veneer strip towards the striking plate 42, whereupon the cycle described begins anew.

It is understood that neither the constructive shape nor the field of employment of the gluing device is restricted to the embodiment shown. The structural details and arrangements may not only vary within the example shown, but they may also undergo suitable adaptation to the use in other glues.

What I claim is:

1. In a glueing machine, a service table, a glue applying device comprising a glue applying member mounted to reciprocate above and below said service table, an interruptedly driven means in connection with said glue applying member to drive the latter, a control means alternately to release and to stop said interruptedly driven means, a movable, striking member protecting above said service table, said glue applying member and said striking member being relatively arranged whereby the striking member is operated by movement of the workplace in one direc tion and glue is applied to the Workplace by movement against the glue applying member in another direction, and a controller system in relation with said control means and said movable striking member, to be controlled by said movable striking member to operate said control means.

2. In a glueing machine, a service table, a glue applying device comprising a glue applying member mounted to reciprocate above and below said service table, an interruptedly driven means in connection with said glue applying member to drive the latter, an electro-magnetic means alternately to release and to stop said interruptedly driven means, a movable striking member protecting above said service table, an electric circuit including said electro-magnetic means, and a switch in said electric circuit, operable by said movable striking member to control said electro-magnetic means.

3. In a glueing machine, a service table, a glue applying device comprising a glue applying member mounted to reciprocate above and below said service table, an interruptedly driven means in connection with said glue applying member to drive the latter, an electro-magnetic means alternately to release and to stop said interruptedly driven means, a movable striking member protecting above said service table, an electric circuit including said electro-magnetic means, and a pivotally mounted mercury switch in said electric circuit, operable by said movable striking member to control said electro-magnetic means.

4. In a glueing machine, a service table, a glue applying device comprising a glue applying member mounted to reciprocate above and below said service table, a driving shaft, a cam disc loosely mounted on said driving shaft, motion-transmitting means connecting said cam disc with said glue applying member, a ratchet wheel fastened to said driving shaft, a spring-loaded pawl pivoted to said cam disc alternately to engage and disengage said ratchet wheel, an electro-magnetic means to control the engaging and disengaging of said pawl with said ratchet wheel, a pivotally mounted spring-loaded carrier in operative connection with said movable striking member, and a mercury switch in said electric circuit, operable by said movable striking member to control said electro-magnetic means.

5. In a glueing machine, a service table, a glue applying device comprising a glue applying member mounted to reciprocate above and below said service table, a driving shaft, a cam disc loosely mounted on said driving shaft, motion-transmitting means connecting said cam disc with said
glue applying member, a ratchet wheel fastened to said driving shaft, a spring-loaded pawl pivoted to said cam disc alternately to engage and disengage said ratchet wheel, a lever to control the engaging and disengaging of said pawl with said ratchet wheel; an electro-magnetic means in driving connection with said lever, a movable striking member projecting above said service table, an electric circuit including said electro-magnetic means, a pivotally mounted spring-loaded carrier in operative connection with said movable striking member, and a mercury switch in said electric circuit fixed to said carrier to control said electro-magnetic means.

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