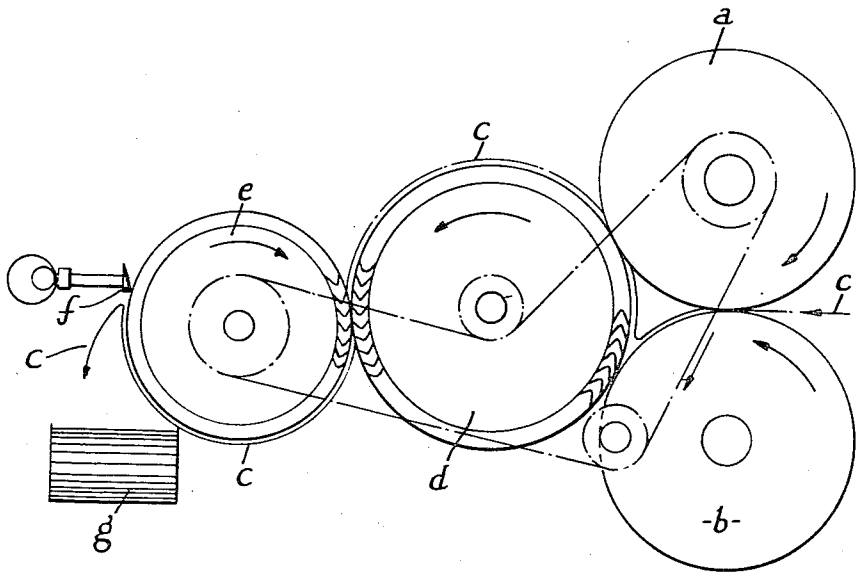
Dec. 18, 1956 H. HOPKINSON 2,774,112

MACHINES FOR TREATING TEXTILE MATERIALS

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MACHINES FOR TREATING TEXTILE MATERIALS

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2 Claims. (Cl. 19—106)

The invention relates to machines for treating textile materials by passing them, in the form of a carded web, between a pair of plain-surfaced pressure rollers.

In such a machine it has been found that there is a tendency for the web, after passing between the pressure rollers, to adhere to the surface of the lower roller and be carried around by it.

The present invention has for its object to provide improved means for stripping the web from the surface of the lower pressure roller and such means are illustrated more or less diagrammatically in the accompanying drawing.

Referring to the drawing, *a* and *b* represent, respectively, the upper and the lower of a plain-surfaced pair of pressure rollers between which a web of carded fibres indicated by the broken line *c* is passed, the direction of rotation of the two rollers being indicated by the arrows thereon.

The invention is characterised by the provision, immediately in rear of the lower pressure roller *b*, of a card-clothed roller *d* rotated at a surface speed greater than that of the lower pressure roller *b* in the same direction as the said roller *b* and so disposed and having the teeth of its card-clothing inclined so as to point in a direction opposite to their direction of rotation as shown, so that the web *c* on the roller *b* is pressed against the surface of the clothing on the roller *d* which acts to detach the web from the surface of the roller *b* and to carry it upwardly and rearwardly. In rear of the roller *d*, which I term the doffer roller, is a second card-clothed roller *e* which I term a stripping roller. This roller *e* is rotated at a surface speed lower than that of the doffer roller *d* in a direction contrary to that of the doffer roller *d* and it has its teeth inclined so as to point in a direction opposite to their direction of rotation, as shown, so that it acts to strip from the doffer roller the web laid upon the teeth of said roller.

The web thus stripped from the doffer roller *d* by the stripper roller *e* is carried around by the latter and is stripped therefrom by a fly comb *f* or equivalent means, to fall on to the lattice sheet *g* of an intermediate cross feed mechanism or to be otherwise disposed of.

Means are known for stripping the web from the lower pressure roller according to which there is employed a card-clothed roller similar to *d* but revolving in the

opposite direction to the bottom pressure roller *b* and having its teeth so inclined as to strip the web from the pressure roller and carry it downwardly from the point of its detachment from the surface of the pressure roller. It has been found in practice that my improved arrangement, in which the web is carried upwardly from the point of its detachment from the surface of the pressure roller is more satisfactory than the known arrangement referred to.

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

1. In a carding engine, the combination of a pair of upper and lower pressure rollers mounted for rotation in relatively opposite directions for passage of a web of fibres between them, a card clothed doffer roller having a side thereof in close proximity to a side of the lower pressure roller and having means for rotating it at a surface speed greater than that of the lower pressure roller and in a direction to carry the web upwardly therefrom, the doffer roller having teeth pointing opposite to their direction of rotation, a card clothed stripper roller having a side thereof in close proximity to a side of the doffer roller and rotating in a direction opposite to the direction of rotation of the doffer roller and at a lower surface speed than that of the doffer roller, the stripper roller having teeth pointing opposite to their direction of rotation to receive between its teeth fibres thrown from the doffer roller and to carry the fibres downwardly and forwardly, and means at the forward side of the stripper roller for removing the web of fibres therefrom.

2. In a carding engine, the combination of a pair of upper and lower plain-surfaced pressure rollers mounted for rotation in relatively opposite directions for passage of a web of fibres between them, a card clothed doffer roller having means for rotating it in the same direction as that of the lower pressure roller and having teeth which at one side of the doffer roller are in close proximity to the surface of the lower pressure roller and moving upwardly in the opposite direction to and at a greater surface speed than that of the lower pressure roller to carry upwardly a web of fibres passing between the pressure rollers, the teeth of the doffer roller being pointed in a direction opposite to the direction of rotation of the doffer, a card clothed stripper roller having a side thereof in close proximity to a side of the doffer roller and having means for rotating it in the opposite direction to that of the doffer roller, the stripper roller having teeth thereon pointing in the direction opposite to its direction of rotation and moving at a lower surface speed than that of the teeth on the doffer roller, and means at the forward side of the stripper roller for removing the web of fibres therefrom.

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