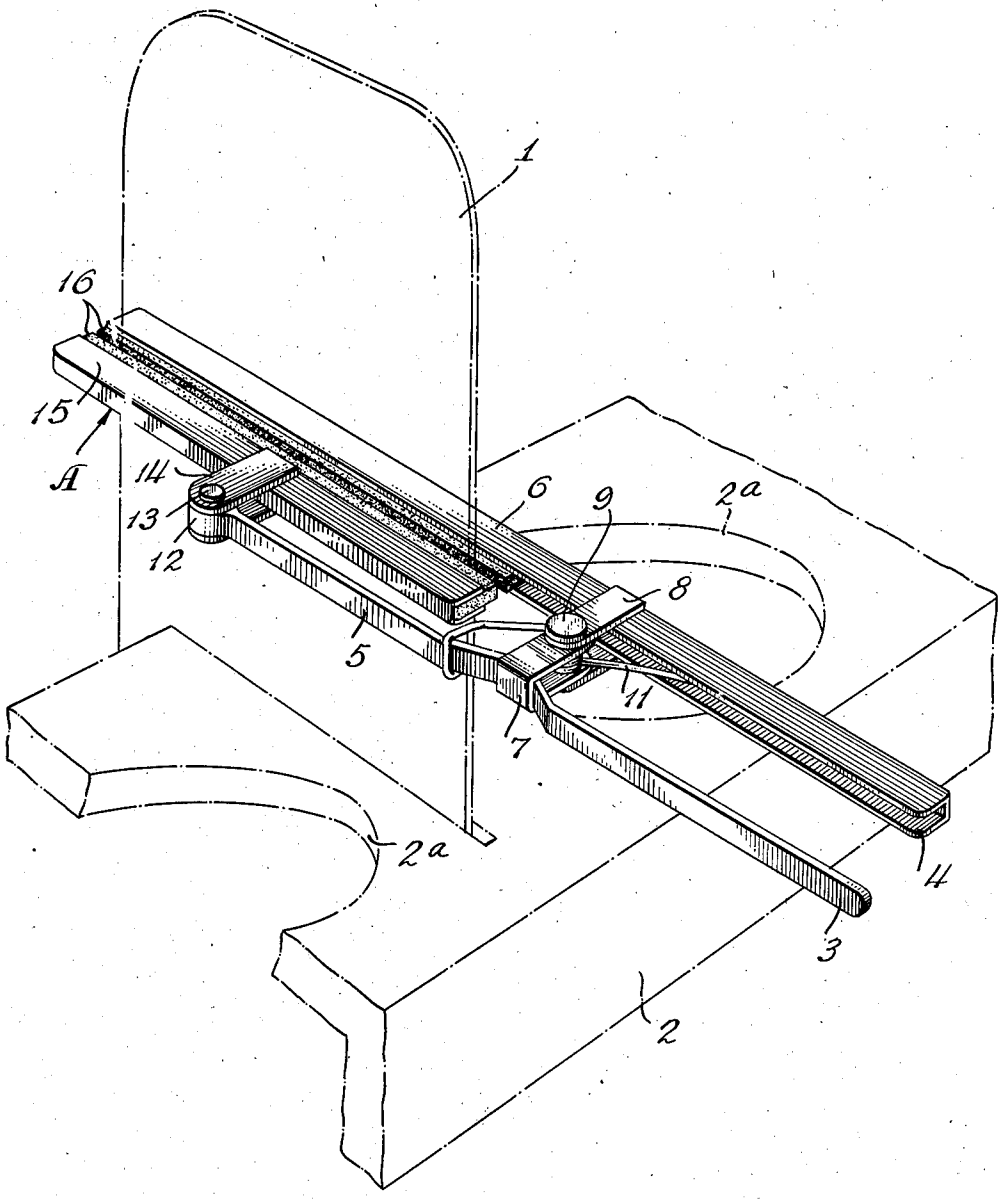
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CLEANING TOOL

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CLEANING TOOL

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This invention relates to a cleaning tool, and relates more particularly to a tool for cleaning separator plates on textile machines.

In modern textile practice, for example, the practice obtaining in spinning machine operation, a plurality of spindles are set in a line across the spinning machine. To conserve space the spindles are placed fairly close together so that in operation the ballooning thread of one spindle would, if not confined, collide with the ballooning thread being wound on the adjacent spindle or spindles. To prevent this separator plates are attached to the spinning machine frame, which plates extend beyond the spindles as is well understood in the art. The separator plates collect lint and dust and must be cleaned at regular intervals, preferably at each change of the bobbin, to prevent the yarn from becoming contaminated by material picked up from the surface of said separator plates.

It is an object of my invention to provide a simple, durable and inexpensive tool for wiping the separator plates.

Another object of my invention is the provision of a tool for simultaneously cleaning both sides of a separator plate, which tool is adapted for semi-automatic operation in cooperation with the traverse rail of a spinning machine.

Other objects of this invention, together with certain details of construction and combinations of parts, will appear from the following detailed description.

In the figure of the drawing the tool of my invention is shown in position on a separator plate of a spinning machine.

Referring to the drawing the cleaning tool of my invention, generally indicated by reference character A, is shown mounted on a separator plate 1 fixed to the frame (not shown) of a spinning machine, the separator plate remaining stationary while the traverse rail 2 having spindle openings 2a reciprocates vertically with respect thereto.

The cleaning tool of my invention comprises two handles 3 and 4 having integral therewith extensions 5 and 6, respectively. The handles 3 and 4 together with their extensions 5 and 6 are held together by means of shackles 7 and 8 attached thereto and joined to each other by means of a pin 9 extending through suitable holes in the free ends of said shackles, the pin 9 acting as a fulcrum. The extensions 5 and 6 are continually urged towards each other by means of a suitable spring 11 coiled about pin 9. The spring 11 should be heavy enough to hold the cleaning tool in any position on the separator plate.

The free end of extension 5 is provided with a bearing member 12 in which is mounted a pin 13. This pin pivotally supports shackle 14 to which is fixed in any suitable manner a trough-shaped member 15 which is adapted to support a wiper blade 16 which may be of felt, rubber or other suitable material. The extension 6 is also trough-shaped to hold a wiper blade 16. The arrangement of the tool is such that the wiper blades 16 held in trough-shaped members 6 and 15 is such that they remain parallel even though separated by the separator plate 1.

My tool may be formed of any suitable material such as aluminum, iron, steel, copper or of a plastic composition.

The operation of my device will be described in connection with a spinning machine wherein the doffing and donning of the bobbins are effected during the operation of the machine. In this case the operator places the cleaning tool or wiper on the separator plate 1 when the traverse rail 2 is at the lowest point of its stroke. As the traverse rail rises it carries along the cleaning tool to the uppermost point of its stroke which is just below the top edge of the separator plate. In this manner all of the lint and dust is cleaned from both sides of the separator plate and the cleaning tool remains at the top of the separator plate until it is removed by the operator and placed in position on another plate.

The device of my invention makes for more satisfactory and economical operating conditions by making it possible for an operator to doff and don a bobbin and at the same time clean the separator adjacent to the spindle operated upon.

It is to be understood that the foregoing detailed description and drawing are given merely by way of illustration and that many variations may be made therein without departing from the spirit of my invention.

Having described my invention, what I desire to secure by Letters Patent is:

1. A cleaning tool comprising a pair of pivoted handles, an integral extension on each of said handles, a wiper blade on one of said handles, said wiper blade being normally fixed in respect to said extension, a shackle mounted on the other of said extensions, a member fixed to said shackle, a wiper blade in said member, and spring means for forcing said wiper blades towards each other.

2. A cleaning tool comprising a pair of pivoted handles, one of said handles being channeled and the other being flat, a wiper blade carried in said channeled handle, a channeled member pivotally mounted on said flat handle, a wiper blade carried in said channeled member and spring means for forcing said wiper blades towards each other.

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