G. W. MARTIN.

SCREEN PICKUP ROLLER.

APPLICATION FILED NOV. 17, 1919.

1,346,550.

Patented July 13, 1920.

2 SHEETS—SHEET 1.

Fig. 1.

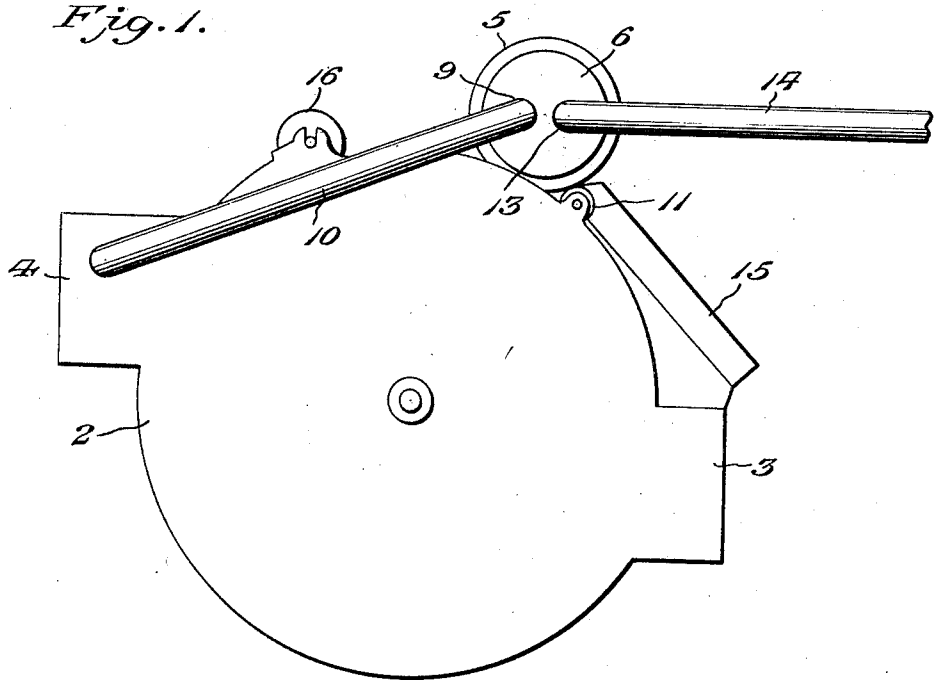
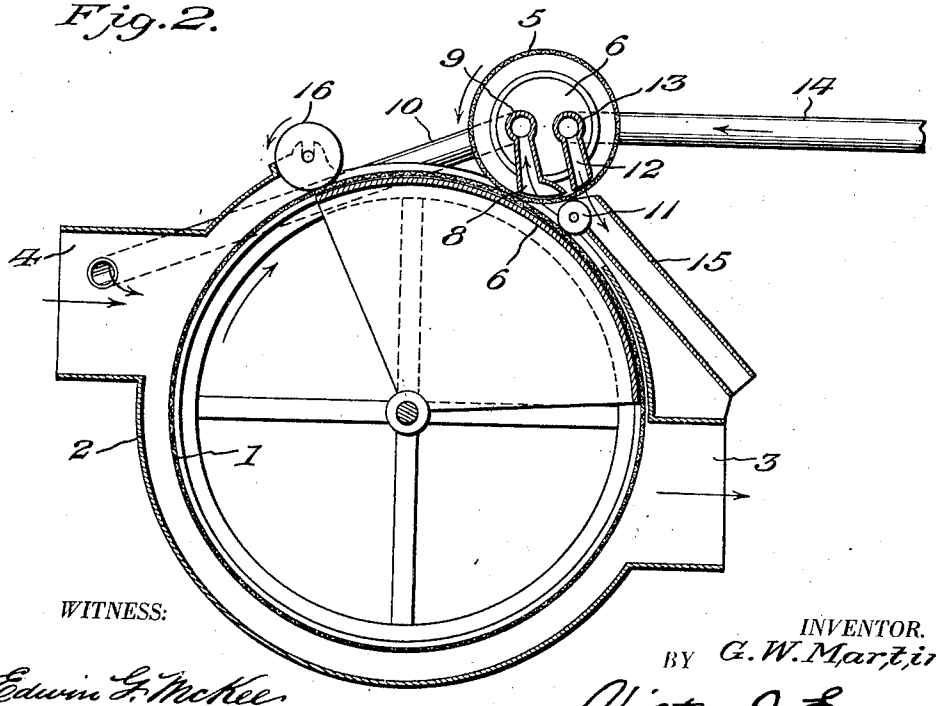


Fig. 2.



WITNESS:

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2 SHEETS—SHEET 2.

Fig. 3.

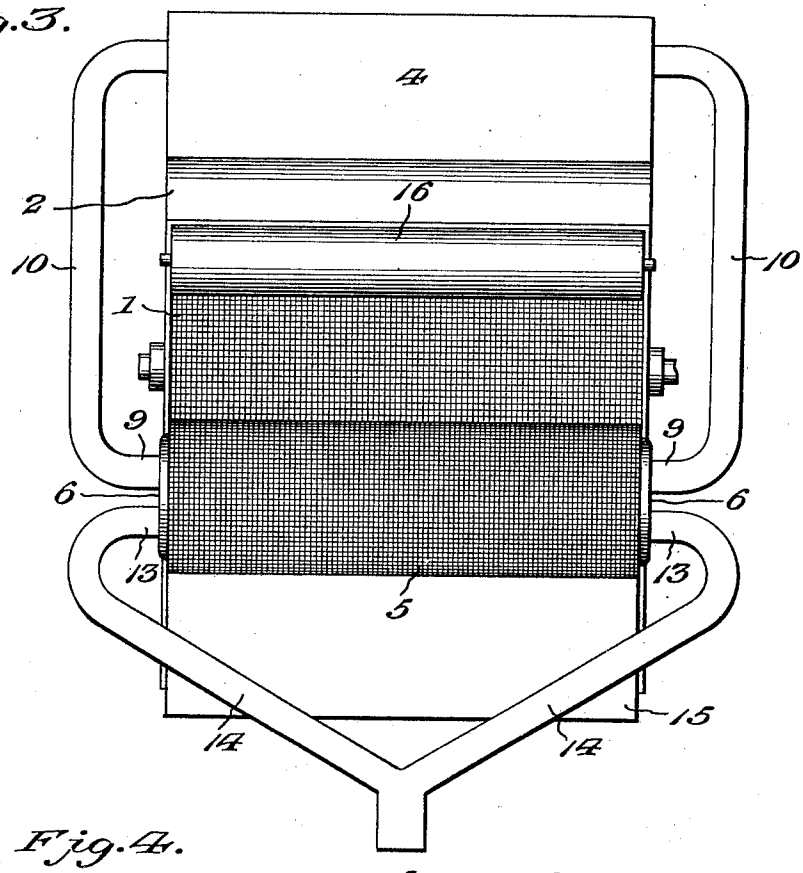


Fig. 4.

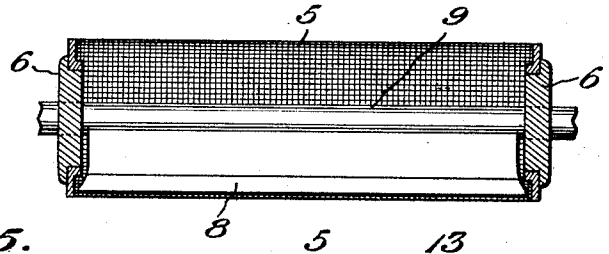
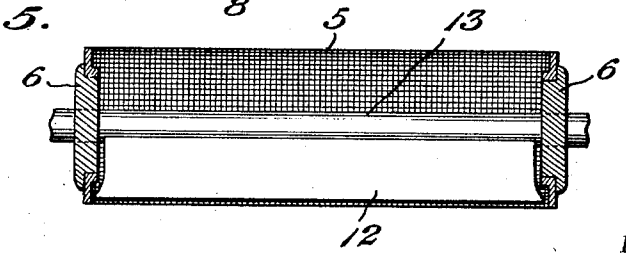


Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE W. MARTIN, OF FORT WORTH, TEXAS.

SCREEN PICKUP-ROLLER.

1,346,550. Specification of Letters Patent. Patented July 13, 1920.

Application filed November 17, 1919. Serial No. 338,557.

To all whom it may concern:

Be it known that I, GEORGE W. MARTIN, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented new and useful Improvements in Screen Pickup-Rollers, of which the following is a specification.

This invention relates to improvements in apparatus for condensing lint, hair and the like, such as described in my Patent #1,299,982, dated April 8th, 1919.

The present invention relates more particularly to the means for removing the lint from the screen cylinder of the apparatus by a screen pickup roller.

Another object of the invention is to provide suction and blast means in conjunction with the pickup roller to suck the lint from the screen roller onto the pickup roller and to discharge it from said pickup roller.

The invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is an end elevation of my invention applied to the condensing apparatus;

Fig. 2 is a cross section thereof;

Fig. 3 is a plan view;

Figs. 4 and 5 are detailed views of the interior construction of the pickup cylinder.

As set forth in the beforementioned patent, the condensing apparatus consists of a screen cylinder 1 located in the housing 2, said housing being provided with the trunk 3 which is connected to a suitable fan and with a trunk 4 which is connected with the linting machines or other source of supply. In this way the air suction will cause the lint to be deposited on the cylinder as the air current passes through the housing and cylinder and as the cylinder rotates the lint will be carried along with it to the pickup roller 5, which is of novel construction and forms part of my improvement. A cutoff 6 is provided for the cylinder 1, as described in the patent, to prevent the suction of air from interfering with the batting operation.

The pickup roller 5 has its circular wall formed of screening and this wall comes in contact with the cylinder, as shown. The pickup roller has its ends rotatably mounted on the stationary end pieces 6 carried by the shaft 7. Within the pickup roller is located a suction nozzle 8 which is provided with an enlarged mouth located adjacent the inner wall of the roller. This nozzle is carried by a tube 9 which is supported in the end pieces 6 and has its ends connected with the pipes 10 which connect with the inlet trunk 4 of the housing. In this way when the fan is in operation, the air will be drawn through the nozzle and the tubes 9 and 10, to the housing. A batting roller 11 is located below the roller 5 and adjacent the mouth of the nozzle so that the material drawn onto the pickup roller by the suction will come in contact with said batting roller. As it passes over said roller said material will be subject to a blast from a nozzle 12 also carried by the end pieces of the pickup roller by means of the tube 13 which has its ends connected with the exhaust of the fan by the pipes 14 so that a current of air will pass through said tubes 13 and 14 and be expelled through the nozzle 12 against the material on the roller 11 and force the same into the chute 15.

I may use a presser roller 16 for pressing the material upon the screen cylinder.

It will be seen that the lint is taken from the screen cylinder by the air suction onto the pickup roller which brings it over the batting roller and then the air blast blows it off of the pickup roller into the chute. Thus the lint is handled by air altogether and the operation is continuous and automatic. Both the suction and blast are secured from the same fan that operates the condenser.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. The combination with a condensing apparatus comprising a housing having inlet and outlet trunks, a screen cylinder rotatably mounted in said housing, and a cutoff for the cylinder, of a pickup roller hav-

ing its circular wall made of screening and engaging the condensing cylinder, a suction nozzle within said roller having its mouth adjacent the inner wall thereof, means for connecting said nozzle with the inlet trunk of the housing, a blast nozzle within the roller and means for supplying a blast of air through said nozzle.

2. In combination with a condensing apparatus, a pickup roller having its circular wall formed of screening, stationary end pieces upon which the roller is rotatably mounted, tubes carried by said end pieces and extending from end to end of the roller, a suction nozzle carried by one tube and a blast nozzle carried by the other tube, said nozzles having their mouths located adjacent the inner wall of the roller, and means for connecting said tubes with the inlet and exhaust of the fan of the apparatus.

In testimony whereof I affix my signature.

GEORGE W. MARTIN.