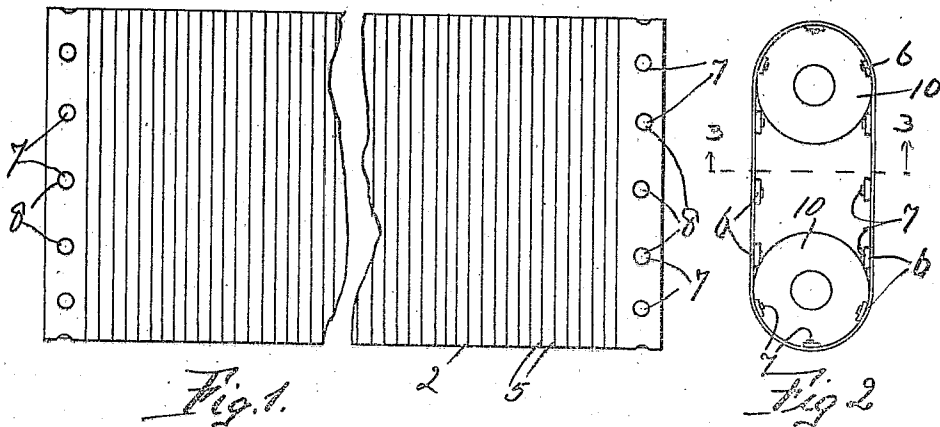
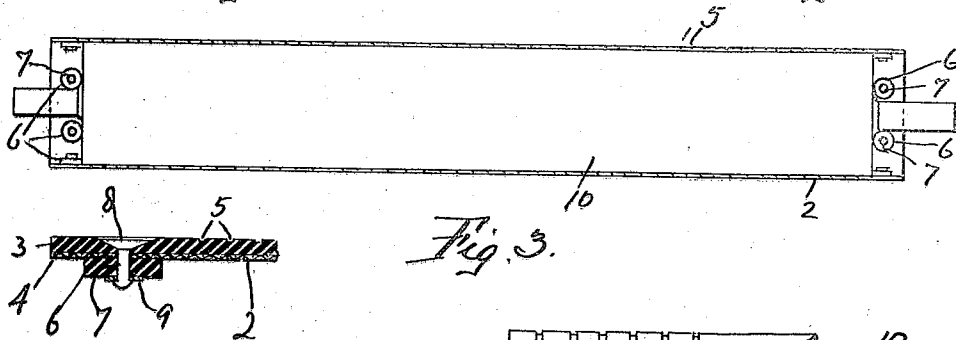
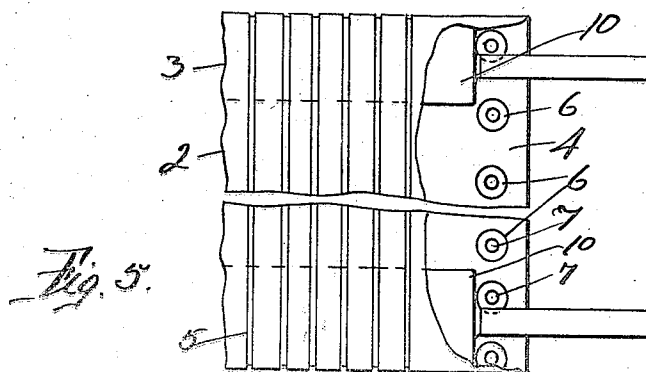


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T. H. HUNTER ET AL.
RUBBING APRON FOR CARDING MACHINES.
FILED NOV. 26, 1921.

1,442,767.



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UNITED STATES PATENT OFFICE.

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RUBBING APRON FOR CARDING MACHINES.

Application filed November 26, 1921. Serial No. 517,961.

To all whom it may concern:

Be it known that we, THOMAS H. HUNTER and GEORGE W. HUNTER, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in a Rubbing Apron for Carding Machines, of which the following is a specification.

Our invention relates to new and useful improvements in a rubbing apron for carding machines, and has for its object to provide a longitudinally grooved belt of soft rubber having a backing of canvas affixed to the inner surface thereof to prevent undue stretching of the apron which will be free of all seams so that the action of the apron is always the same no matter what portion is in contact with the goods.

A further object of our invention is to provide guide buttons suitably attached to an apron adjacent its edges and disposed upon the inner surface thereof to guide or cause the apron to travel true upon the rolls and prevent the accidental displacement of the apron.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains, may understand how to make and use the same, we will describe its construction in detail, referring by numerals to the accompanying drawing forming a part of this application, in which:—

Fig. 1, is a plan or face view of a rubbing apron embodying our invention.

Fig. 2, is an edge view thereof showing it upon two rolls.

Fig. 3, is a transverse sectional view at about the line 3—3 of Fig. 2.

Fig. 4, is an enlarged fragmentary sectional view of the apron in the region of one of the guide buttons.

Fig. 5, is an enlarged fragmentary plan view having a portion broken away to

clearly illustrate the relation of the buttons to the machine rolls.

In carrying out our invention as here embodied, 2 represents the rubbing apron which is molded in the form of a belt from soft rubber to form a facing 3 having a canvas backing 4 affixed to the inner surface of the facing element to prevent undue stretching of the apron and the outer surface of the rubber facing element 3 is grooved longitudinally as indicated at 5 which grooves serve to take hold upon the material being carded so as to more effectually roll said material during the rubbing operation.

Adjacent each edge of the apron and in spaced relation are located the guide buttons 6 of semi-hard rubber which buttons may be of any desirable configuration but are preferably of disc form as here shown. These buttons are disposed upon the inner surface of the apron and are held in any suitable manner but we have found that a convenient means for attaching said buttons is a rivet 7 having a large head 8 which is embedded in the rubber facing element 3 during the time the end of the shank is being set up and the head of this rivet must be drawn below the surface of the facing element as shown in Fig. 4 to prevent contact of the heads of the rivets on one apron with those on another or with the goods being carded and if found desirable a washer 9 may be disposed between the button and the set up portion of the rivet.

The buttons projecting from the inner surface of the apron will engage the rolls of the machine, herein designated by the numeral 10, so as to cause said apron to travel true upon said rolls and prevent accidental sidewise displacement thereof and as the facing element has a continuous surface unbroken by transverse joints the action upon the material being carded is much superior to that of aprons having seams so that much better strands are produced.

Of course we do not wish to be limited to the exact details of construction as herein shown as these may be varied within the limits of the appended claim without de-

parting from the spirit of our invention.

Having thus fully described our invention, what we claim as new and useful is:—

The combination with a rubbing apron, or
5 circular disc-like guide buttons of semi-hard
rubber spaced apart around the inside of the
apron adjacent both edges thereof with one
of their flat faces lying against the inner sur-

face of said apron and a single rivet passing
through the center of the button and said 10
apron.

In testimony whereof, we have hereunto
affixed our signatures.

THOMAS H. HUNTER.
GEORGE W. HUNTER.