Jan. 16, 1934. H. WALKER 1,943,707

COMBING MACHINE

Filed March 21, 1932

FIG. 1.

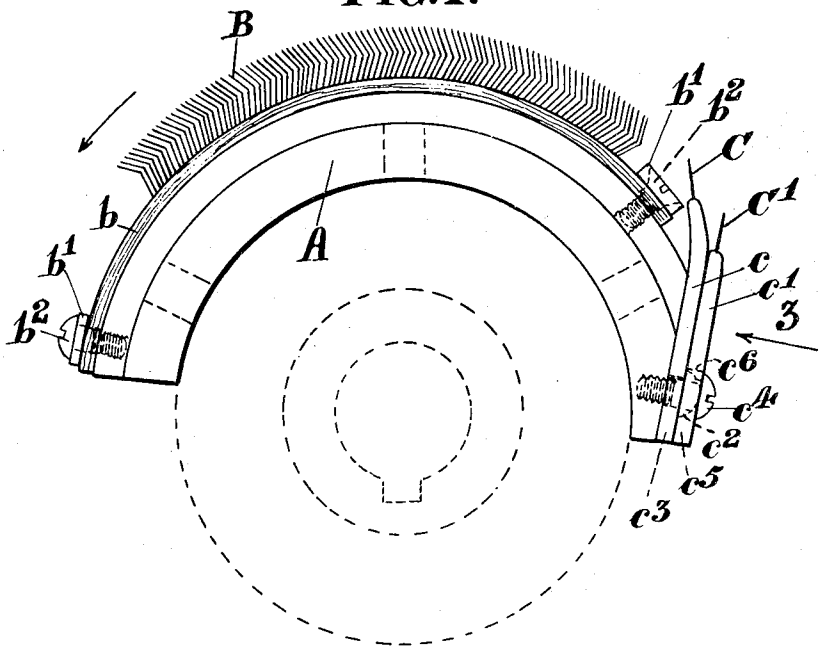


FIG. 2.

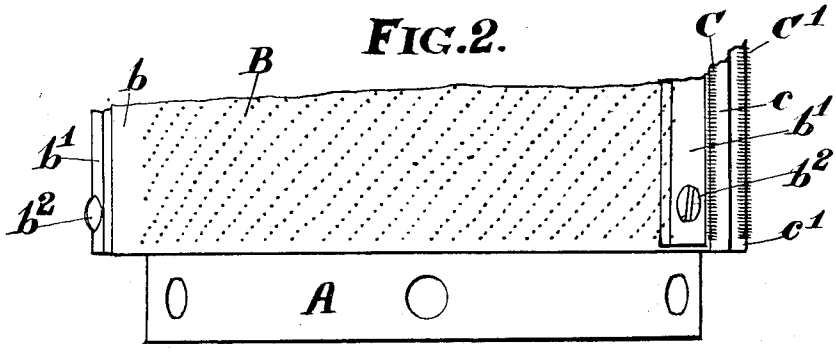
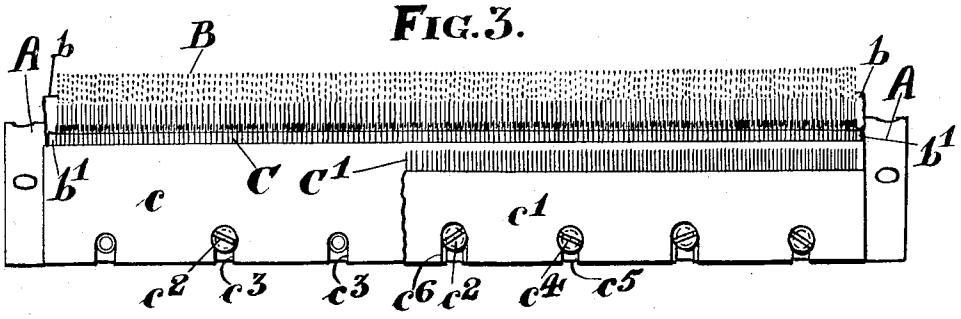


FIG. 3.



INVENTOR.

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UNITED STATES PATENT OFFICE

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COMBING MACHINE

Hubert Walker, Scholes, England

Application March 21, 1932, Serial No. 600,338, and in Great Britain January 30, 1932

1 Claim. (Cl. 19—116)

This invention relates to a Heilmann or other like combing machine often referred to as a "French" combing machine in which a fringe of textile fibres that projects beyond the retaining jaws of a nipper is combed and the noil extracted by being subjected to the action of a toothed drum segment to which a rotary or oscillatory motion is imparted. Heretofore this toothed drum segment has been made by fixing rows of inclined pins directly in the drum segment, or by fixing such pins in metal bars which are themselves fixed in or to the segment. This method of construction is expensive and in the event of any of the pins becoming broken or damaged, the operation of removing the broken or damaged pins and replacing them with new ones occupies considerable time and skilled labour and is consequently costly.

The present invention has for its object to introduce an improved method of applying pins to the drum which will be inexpensive, more reliable, easily renewed and give a longer life.

According to this invention the drum segment is covered wholly or partly with a form of card clothing, the teeth of which are formed with hardened and tempered conical needle points with or without knee bend passed through a flexible foundation in the form of fillets or sheets, the ends of the foundation or fillets being clamped to the drum segment by plates and screws. For combing certain classes of material one or more rows of finishing pins may be mounted at the rear end of the segment for use in combination with the teeth or pins of the card clothing. In one arrangement two pinned plates may be secured to the back end of the segment, the inner or intermediate plate being bent or cranked so that its pins are evenly spaced between the last row of pins of the card clothing and the pins of the outer plate. The inner plate is secured to the segment by screws which pass through open slots in such plate and the outer plate is secured to the segment by screws which pass through open slots in the outer and inner plates, the outer plate being formed with wide open slots for the passage of the screw heads that secure the inner plate.

In the accompanying drawing:—

Fig. 1 is an end elavation of a drum segment constructed in accordance with this invention.

Fig. 2 is an elevation of part of the drum segment, and

Fig. 3 is an end view looking in the direction of the arrow 3 in Fig. 1.

In the example shown the drum segment A is covered with card clothing B, the teeth of which are passed through a flexible foundation b in the form of fillets or sheet secured at the ends to the drum segment A by plates b^1 and screws b^2. C, C^1 indicate two rows of finishing pins which are fixed in plates c, c^1. The inner or intermediate plate c is bent at the top so that its pins C are conveniently spaced between the teeth B of the card clothing and the pins C. The inner plate c is secured to the segment by screws c^2 which pass through open slots c^3 in such plate and the outer plate c^1 is secured to the segment by screws c^4 which pass through open slots c^5, c^3 in the outer and inner plates, the outer plates being formed with wide open slots c^6 for the passage of the screw heads c^2 that secure the inner plate c.

A wire brush may be used in conjunction with the drum segment in place of the ordinary type of brush.

What I claim as my invention and desire to secure by Letters Patent in the United States is:—

In a combing machine, a drum segment carrying a form of card clothing, a pair of plates secured to said segment rearwardly of said card clothing, each of said plates carrying a row of finishing pins, the inner one of said plates being secured to said segment by screws which pass through open slots in said plate and the outer plate being secured to said segment by screws which pass through open slots in both plates, said outer plate being formed with wide open slots for the free passage therethrough of the screw heads which secure the inner plate.

HUBERT WALKER.