(No Model.)

O. B. LISTER & H. BATTY.

APPARATUS FOR ACTUATING DABBING BRUSHES FOR COMBING MACHINES.

No. 342,701. Patented May 25, 1886.

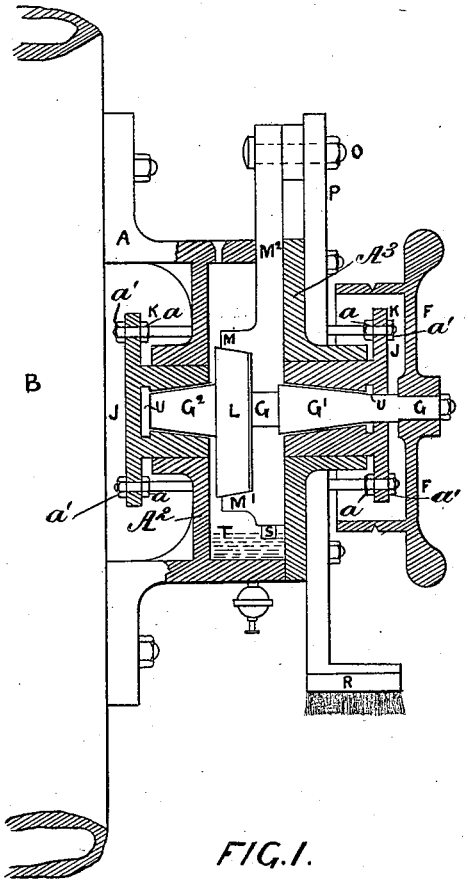

FIG. 1.

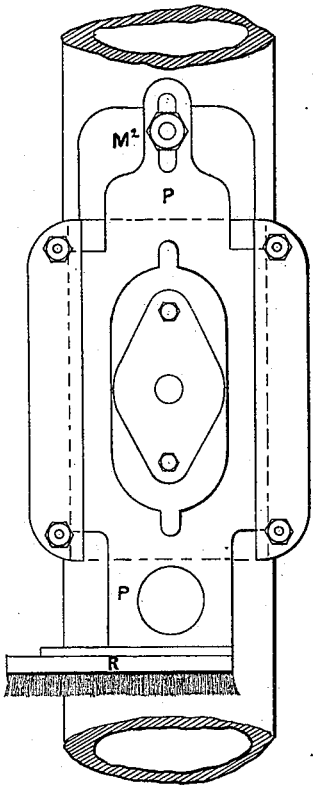

FIG. 2.

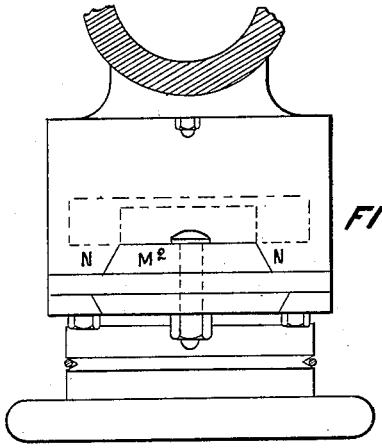

FIG. 3.

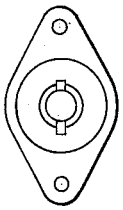

FIG. 4.

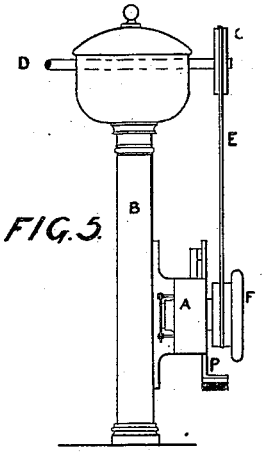

FIG. 5.

Witnesses.
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Atty.

UNITED STATES PATENT OFFICE.

OLIVER BROOK LISTER AND HENRY BATTY, OF DUDLEY HILL, NEAR BRADFORD, COUNTY OF YORK, ENGLAND.

APPARATUS FOR ACTUATING DABBING-BRUSHES FOR COMBING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 342,701, dated May 25, 1886.

Application filed January 18, 1886. Serial No. 188,966. (No model.) Patented in England December 5, 1884, No. 16,013.

To all whom it may concern:

Be it known that we, OLIVER BROOK LISTER and HENRY BATTY, subjects of the Queen of Great Britain and Ireland, and residing at Dudley Hill, near Bradford, in the county of York, England, have invented certain Improvements in Apparatus for Actuating Dabbing-Brushes for Combing-Machines, (for which we have obtained Letters Patent in Great Britain, No. 16,013, dated December 5, 1884,) of which the following is a specification.

The object of our invention is to provide an apparatus for giving the necessary reciprocating motion to the dabbing-brushes of combing-machines in such a manner that the principal working parts are adjustable and self-lubricating.

In carrying out our invention we secure to each pillar, in the center of the small circular combs, a box-bracket, in which is mounted a revolving-shaft having conical journals or bearings, which revolve in adjustable brushes, and to the said shaft is secured an eccentric, the periphery of which is conical and revolves between projections forming part of a vertical sliding plate, to which is attached another sliding plate with the dabbing-brush secured to the foot thereof. By the regulation of the adjustable brushes any "slack" that may develop in the journals or eccentric can be taken up, and by the bottom portion of the first-named slide dipping into oil at each strike the oil is agitated and all the principal parts efficiently lubricated.

In order that our invention may be better understood, we will describe the same more in detail by referring to the accompanying drawings, in which—

Figure 1 represents a portion of a pillar with our improvements applied thereto, some of the parts being represented in section. Fig. 2 is a front view, the driving-pulley being removed in order to more clearly illustrate the same. Fig. 3 is a plan of the parts of Fig. 1. Fig. 4 is an end view of one of the adjustable brushes in which the shaft rotates, and Fig. 5 a side elevation drawn to a reduced scale, showing the manner in which our apparatus is driven.

Our improved apparatus is fitted in the same manner to each center pillar of the small circular combs; but in the following description we have only described the apparatus in connection with one side of the machine.

The box-bracket A is secured to the ordinary center pillar, B, and motion is transmitted from the pulley C, on the top or main driving-shaft, D, by means of band E to the pulley F of the apparatus, which is secured on the shaft G. The journals or bearings G′ and G^2 of this shaft are made conical, tapering in opposite directions, and are mounted in adjustable brushes J, regulated by screws K. These brushes J fit in sockets, as shown, projecting from the face-plates A^2 and A^3 of the boxing A, as shown in Fig. 1, and the screws K, which pass through the flanges of said brushes, and are secured at their inner ends to said face-plates, so that by adjusting the nuts *a* and *a′* or turning the screws therein the brushes will be adjusted in their bearings. On the said shaft is also secured eccentric L, the periphery being conical, tapering in the same direction as journal G′, and fitting between the projections M and M′ of sliding plate M^2, which reciprocates in a vertical direction, guided by the angular slides N, as shown by plan, Fig. 3. This sliding plate is attached by bolt O to the front sliding plate, P, to the foot of which is secured the dabbing-brush R, which reciprocates and dabs or presses the fiber between the teeth of the circular combs.

By the regulation of the brushes J the eccentric L can be adjusted to work between the projections M and M′, and the shaft-bearings G′ and G^2 to revolve freely in the said brushes, and by the projection S, at the bottom of sliding plate M^2 dipping into the oil T at the bottom of the box-bracket it is agitated, causing it to fly about and lubricate the whole of the principal working parts, the oil flowing through the upper channels cut in the brushes J into the recesses U and back through the lower channels into the interior of the box.

What we claim is—

1. The combination, with the box-bracket having face-plates A^2 A^3, of the brushes J, having conical openings and fitting in bearings in said face-plates, the shaft G, having conical bearings G′ G^2 fitting in said brushes, vertical slide M^2, formed with beveled projections

M M′, an eccentric, L, secured to shaft G, and having a conical periphery acting on the beveled faces of projections M M′, and adjusting-screws K, for adjusting brushes J, substantially as described.

2. The combination, with the box-bracket A, of the brushes J, each formed with a conical opening terminating in an enlarged recess at one end, a shaft, G, having conical bearings G′ G², fitting in the conical openings of the brushes, a slide, M², formed with projections M M′, a conical eccentric, L, secured to shaft G and fitting between said projections, and a projection, S, at the lower end of frame M², said frame and eccentric being within the box of the bracket, sliding plate P, connected to slide M², brush R, attached to plate P, and means, substantially as specified, for rotating shaft G, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

OLIVER BROOK LISTER.
HENRY BATTY.

Witnesses:
WM. PREST,
J. WATSON.