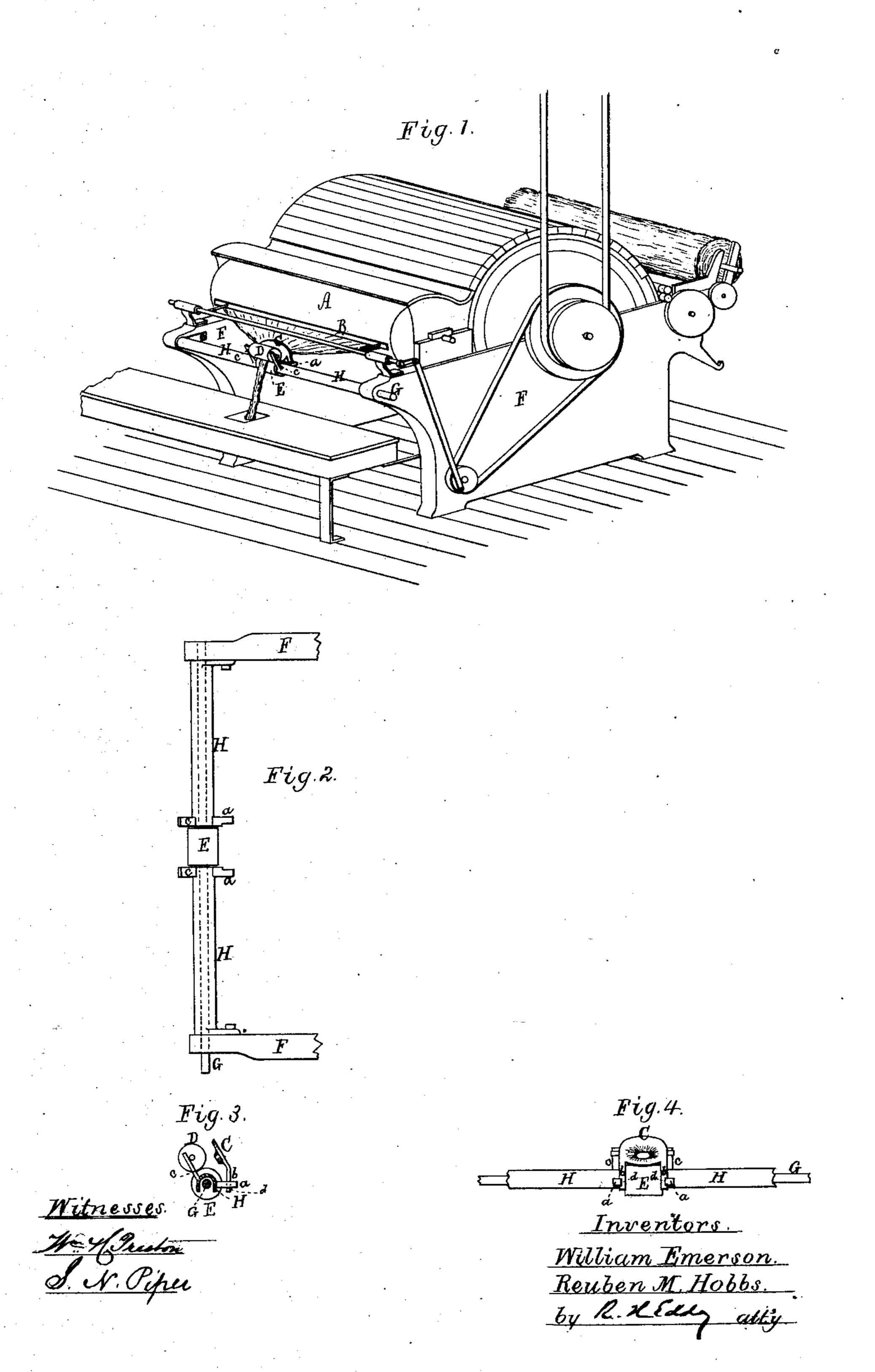
(No Model.)

## W. EMERSON & R. M. HOBBS.

CARDING ENGINE.

No. 244,743.

Patented July 26, 1881.



## United States Patent Office.

WILLIAM EMERSON, OF SACO, AND REUBEN M. HOBBS, OF BIDDEFORD, ME.

## CARDING-ENGINE.

SPECIFICATION forming part of Letters Patent No. 244,743, dated July 26, 1881.

Application filed April 25, 1881. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM EMERSON, of Saco, and REUBEN M. Hobbs, of Biddeford, of the county of York, of the State of Maine, have invented a new and useful Improvement in Carding Engines; and we do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

ro Figure 1 is a view, in perspective, of a carding-machine with our invention. Fig. 2 is a top view of the lower delivery-roll and the guards applied to its shaft and the frame of the machine. Fig. 3 is a transverse section of one of the guards, and showing the trumpet and delivery-rolls in end view. Fig. 4 is a rear elevation of the trumpet and guards.

Our invention, the nature of which is defined in the claim hereinafter made, is to support the trumpet and upper delivery-roll, and to cover the shaft of the lower delivery-roll, in manner to prevent the sliver or fibrous material combed from the doffer from catching upon and being wound about the said shaft. The invention is also to obtain between the said shaft and doffer a free open space for the discharge of fibrous or other matters raised from wool in its passage from the doffer to the trumpet.

In Fig. 1 of the said drawings, A denotes the doffer, B the comb, C the trumpet, D and E the delivery-rolls, and F the frame, of the carding-engine.

The shaft of the lower roller, E, is repre-

35 sented at G in the drawings.

In carrying out our invention we extend over the shaft G, from the roll E to the next adjacent sides of the frame F, two rigid guards, H H, each being a plate bent or curved transversely, as shown in Fig. 3. These guards, at their outer ends, we fasten firmly to the sides

of the frame F. There extends back from each guard, at its inner end, an ear, a, to enter a notch, d, in one of two short legs, b b, extending down from the trumpet, in manner as 45 represented in Figs. 3 and 4, the said ears and notched legs serving, with the guards, to support the trumpet in position. Furthermore, from each guard H there extends upward, in a somewhat inclined position, as shown, a short 50 arm, c. The journals of the upper delivery-roller rest against the said inclined arms c, each of such journals being arranged with respect to its sustaining-arm, in manner as shown in Fig. 3.

From the above it will be seen that not only is the shaft of the lower delivery-roller covered by the guards, so as to prevent the wool from the doffer catching and being wound upon such shaft, but that the trumpet and upper 60 feed-roller are supported by the guards and by the ears, arms, and legs, as hereinbefore described, and that there is between the guards and the doffer a clear space for the discharge of waste matters shaken or separated from 65 the wool in its passage from the doffer to the trumpet.

We claim—

In a carding engine or machine, in combination with the frame F, trumpet C, and the 70 delivery-rolls D and E in front thereof, and with the shaft G of the lower of said rolls, the two stationary guards H H, arranged as represented, with the said shaft G and its roll E, and secured to the frame F, and provided with 75 means, essentially as described, for supporting the trumpet and upper roll.

WM. EMERSON. REUBEN M. HOBBS.

Witnesses:

R. W. EATON, CHAS. W. BANKS.