

(No Model.)

W. DEARBORN.
WOOL BIRRING MACHINE.

No. 390,949.

Patented Oct. 9, 1888.

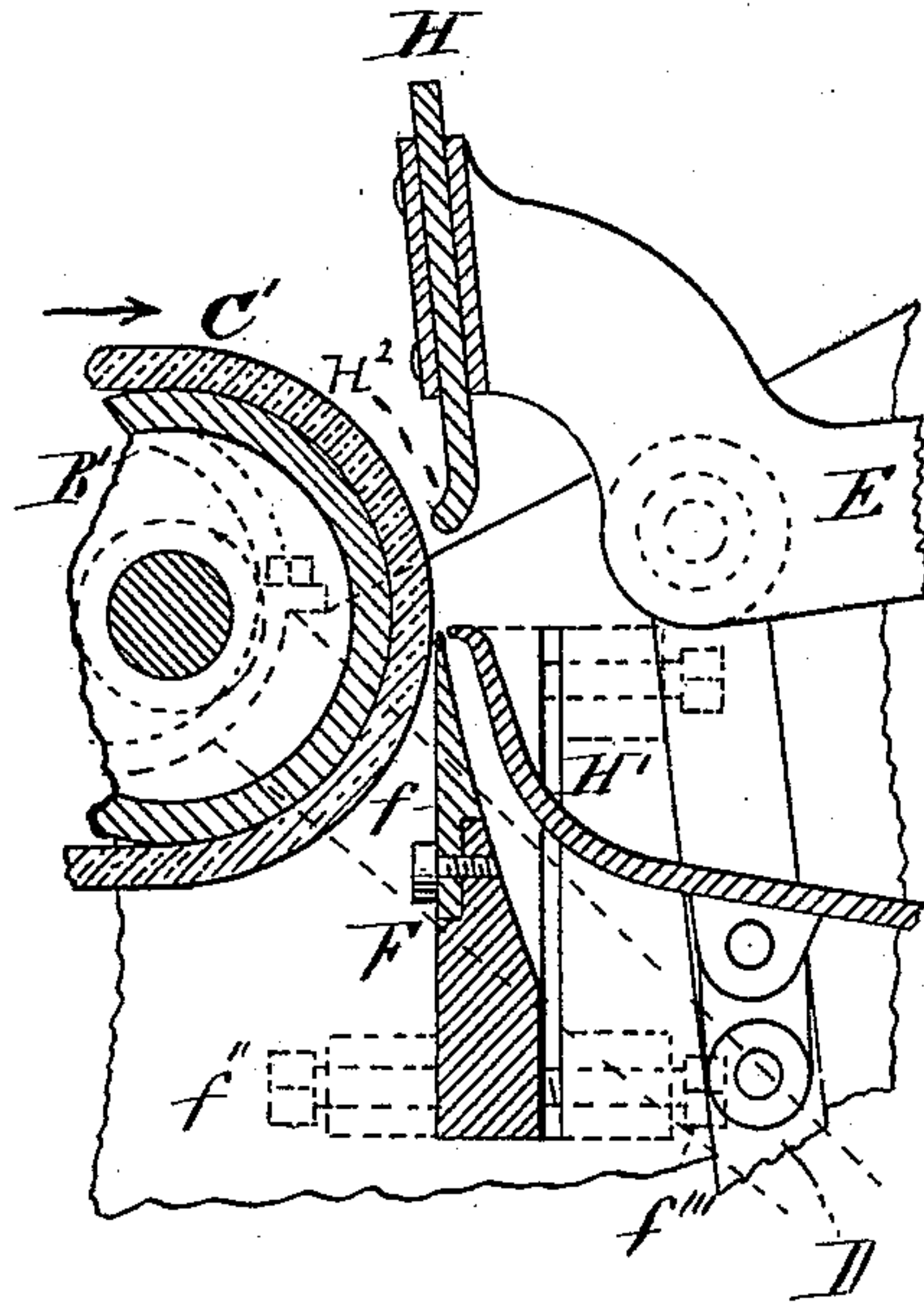


Fig. 1.

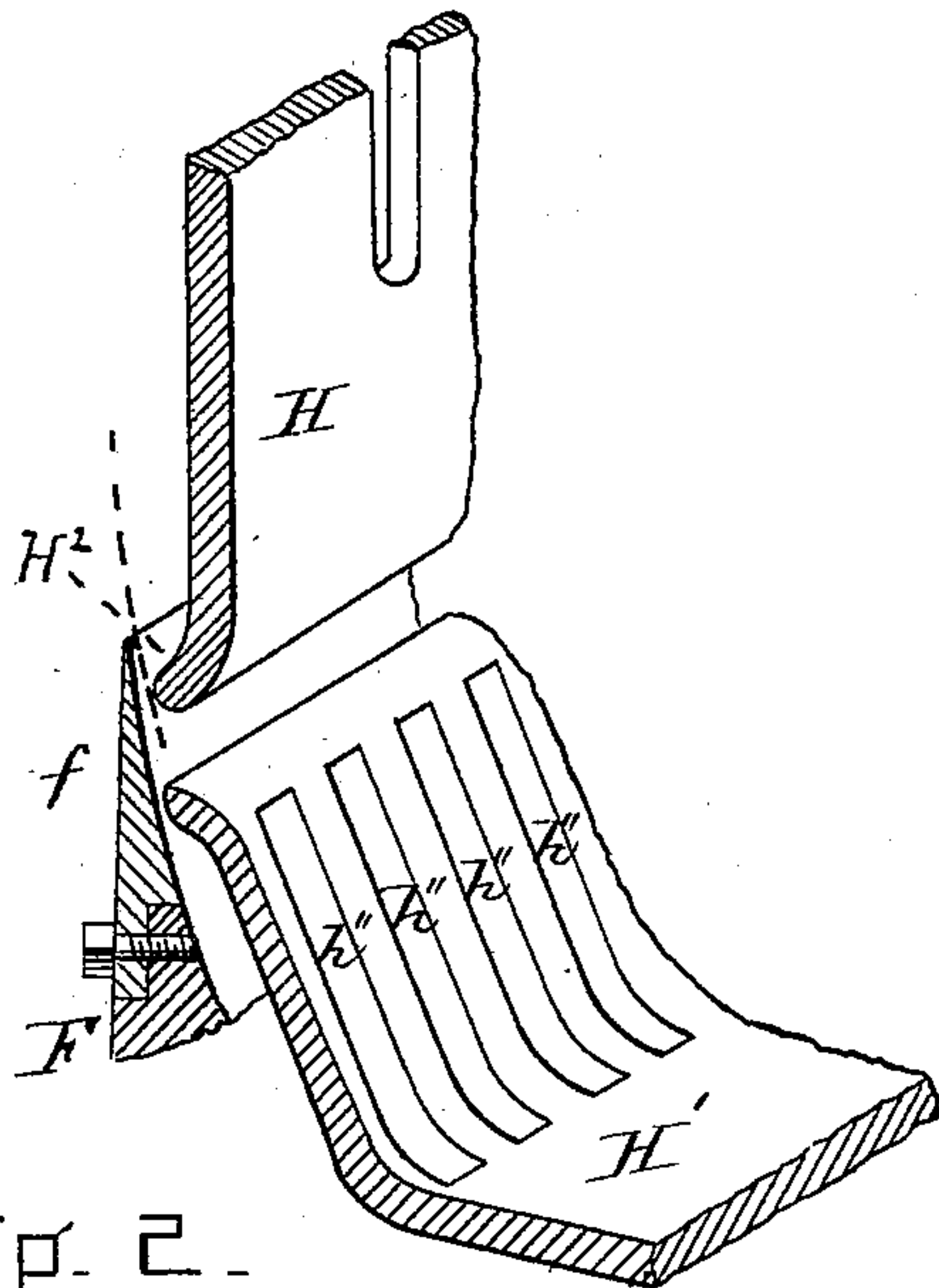


Fig. 2.

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WOOL-BURRING MACHINE.

SPECIFICATION forming part of Letters Patent No. 390,949, dated October 9, 1888.

Original application filed January 27, 1887, Serial No. 225,627. Divided and this application filed February 20, 1888. Serial No. 264,586. (No model.)

To all whom it may concern:

Be it known that I, WYMAN DEARBORN, of Boston, in the county of Suffolk and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Wool-Burring Machines, of which the following is a full, exact, and clear description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

This application is a subdivision of the application filed January 27, 1887, Serial No. 225,627, in which application most of the details of the machine are explained and claimed so far as they are common to the two forms of vibrating doffers or clearers, which are required to be used in burring wool according as the burrs are of one sort or another; and in said application the clearers employed for small burrs are claimed. The general mechanism adopted for burring wool by this method is the mechanism employed for what is usually known as the "roller-gin" in cotton; and the mechanism which I have preferred to employ is the sub-type of roller-gin, in which the armament of the roll is a belt, rather than an armament attached directly to the surface of the roll. It has been found by experience that the best form of belt to be employed in burring wool is a multiplied belt of canvas and india-rubber, the canvas of which is of the sort and size known as "twelve-ounce hose-duck." This size of duck is a size which is not so well suited for ginning cotton as a coarser grade or one having a less number of threads to the inch than is usual, and is what is called "twelve-ounce hose-duck."

In the application referred to the sort of clearers which are described and claimed are clearers with serrated edges employed to take out the burrs which are more or less common in California wool. For the large burr—such as the cockle-burr—a different form of clearer is desirable.

The drawings in this application correspond to a considerable degree with the drawings of the other application, Figures 5 and 6, and the lettering of the drawings is also similar.

Fig. 1 represents in section the working detail of a wool-burring machine upon this plan,

and Fig. 2 represents in perspective a portion of these working-tools.

In the drawings, B' is one of the rollers on which the belt is mounted, which serves to feed and hold the wool to the action of the burr-removing devices. This belt is marked C', and it is moved by the revolution of the roller B' downward past the edge of the presser-bar F f. This presser-bar is a knife-edge presser-bar made in two pieces, detachable from each other, as shown, of which the working-edge f is of steel, preferably case-hardened, and the body F is of iron. It will be noticed that the straight side of the presser-bar is placed at about a tangent to the circle in which the surface of the belt is revolved, and that the beveled side is inclined to this tangent.

The clearers are actuated in a nearly straight line past the edge of the presser-bar by means of the clearer-arms E, on which the upper one is mounted, and by the connecting-rod D, upon which the lower one is mounted, and which is attached to these clearer-arms. The upper clearer is marked H. The lower clearer is marked H', and is slotted, as shown in Fig. 2, at h'', in order to allow the burrs to drop through. The clearer H is bent backward at H², toward the position of the moving belt, at an angle of about thirty degrees with its body, as shown in Fig. 1 and in Fig. 2. The lower end of this clearer is formed like a wire or with a blunt and rounded edge, and the lower clearer, H', is also bent at a somewhat larger angle toward the moving belt, and is formed upon its edge into a rounded working-edge. The presser-bar has its edge nearly, but not quite, sharp, not sufficient to be a cutting-edge, but about as sharp as an edge-tool which has not been ground. It requires to be a thin smooth edge, as distinguished from a sharp cutting-edge, and should be hardened.

It will be seen that by bending the edge of the upper clearer backward or toward the roll a recess is formed above the working-edge, which is maintained during the full stroke of the clearer, and provides a space into which the wool shall expand when the clearer is riding on the presser-bar, thereby preventing the wool from springing the working-edge of the clearer from the presser-bar, and pro-

viding a continuous contact of its narrow working-edge with the presser-bar, whereby the burrs are pressed out of the wool. The pressure of the clearer above the working-edge against the presser-bar is also thus prevented, which permits the passage of the wool through the machine while the clearer is in contact with the presser-bar without retarding it or injuring its staple.

10 Having thus described the modification of my invention, which I desire to claim in the present case, what I claim as my invention, and desire to secure by Letters Patent, is as follows:

15 1. The round-edged clearer H, having a straight body and a rounded working-edge bent backward therefrom at an angle of about thirty degrees with the body, whereby a recess is formed above the working-edge of the clearer, substantially as and for the purposes described.

2. The combination of a roller, B', adapted to be revolved downward upon its front side, which roller is armed with a multiply surface of rubber duck of about the fineness of twelve-ounce hose-duck, a blunt chisel-edge presser-bar which presents its edge adjacent to said duck-covering and has its straight side toward the roller, and a clearer, H, which clearer is formed with a straight body and a curvature from front to back adjacent to its working-edge at about thirty degrees angle with the body, and with a rounded working edge, which clearer is adapted to be vibrated up and down past and adjacent to the point of nearest approach to the presser-bar and the armament of the roller, all substantially as described.

WYMAN DEARBORN.

In presence of—

F. F. RAYMOND, 2d,
E. P. SMALL.