Mar. 3, 1925. 1,528,430

J. JOSTEN ET AL

VACUUM ATTACHMENT FOR HAIR CUTTING SHEARS

Filed Dec. 21, 1923

Fig. 1.

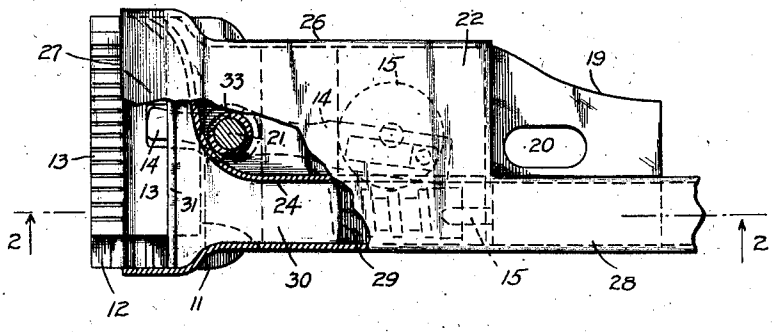


Fig. 2.

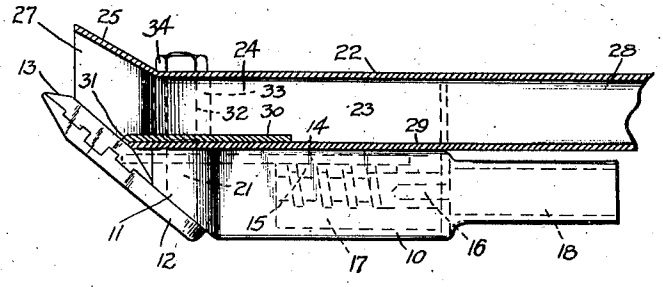
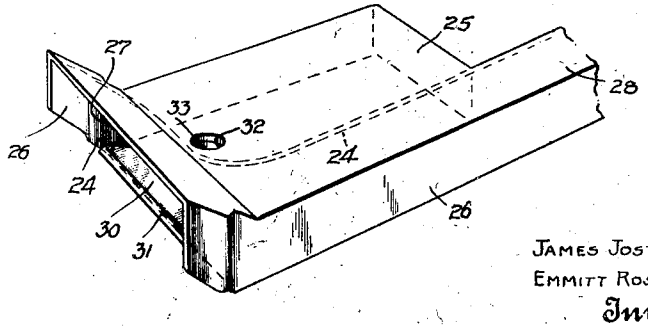


Fig. 3.



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By their Attorney

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UNITED STATES PATENT OFFICE.

JAMES JOSTEN AND EMMETT ROSS, OF ATHENS, OHIO.

VACUUM ATTACHMENT FOR HAIR-CUTTING SHEARS.

Application filed December 21, 1923. Serial No. 681,941.

To all whom it may concern:

Be it known that we, JAMES JOSTEN and EMMETT ROSS, citizens of the United States of America, residing at Athens, county of Athens, State of Ohio, have invented new and useful Improvements in Vacuum Attachments for Hair-Cutting Shears, of which the following is a specification.

Our invention relates to a vacuum hair removing and collecting attachment for power operated hair clipping shears.

The principal object of the invention is to provide a vacuum attachment of this character, which may be removably connected to the type of clipping machines used in barber shops, and which is applicable for collecting and removing the cut hair directly from the cutting edge of the shears.

The invention is illustrated in the accompanying drawings in which, Figure 1 is a plan view partly in section of a clipping machine showing our improved vacuum attachment applied thereto; Figure 2 is a substantially longitudinal sectional view of the attachment, taken on lines 2—2 of Figure 1; and Figure 3 is a perspective view of the vacuum attachment disconnected from the clippers.

Referring to the drawings, and particularly to the type of power clipping machine to which the invention is attached, 10 denotes a flat grip portion having its forward end slightly widened and provided with an inclined toe portion 11 to receive a serrated plate 12 and a reciprocating serrated knife 13, the latter being operated by a pitman connection 14 with a crank 15, which receives its rotary motion from one end of a flexible power shaft 16. The operating mechanism comprising the pitman 14, crank 15 and end of shaft 16, is housed in a chamber 17 in the grip portion 10, as illustrated in Figure 2, and the shaft 16 enters the chamber 17 through a tubular stem 18 having a web connection 19 with the adjacent end wall of the portion 10, the web being provided with an opening 20 to receive a hook for hanging purposes.

Generally, the pitman 14 is a pivoted member mounted to oscillate about a pin or stud 21, which projects upwardly from the bottom of the chamber 17 closely adjacent the inclined end thereof. The upper end of the stud 21 is threaded to receive a nut which is adjustable against a knife plate to hold the knife 13 in sliding engagement with the under serrated plate 12.

According to the present invention the knife plate is removed and the vacuum attachment substituted therefor. The attachment comprises a box like frame 22 containing a vacuum chamber 23 and shaped to conform with the lateral dimensions of the grip portion 10 of the clippers, so as to afford a better gripping surface for the operator. The vacuum chamber 23 extends along the edge of the frame 22 overlying the shaft 16 in the portion 10, and is formed by an upright partition 24, which, as it approaches the cutting edge of the shears, curves towards the opposite side of the frame where it joins the side wall thereof at a point just short of the forward end. In order to conform to the upwardly inclined position of the cutting edge the top wall 25 and side walls 26 of the frame 22 are also offset to a position parallel with the knife 13. In this manner the open end of the vacuum chamber 23 is arranged over the cutting edge at a point corresponding to the plane of the back wall of the serrations in the plate 12 and knife 13, the open end of the chamber 23, hereinafter, being referred to as the mouth 27. A tubular connection 28 is made with the rearward extension of the vacuum chamber 23, the connection being adapted to form a sufficient vacuum in the chamber to draw the cut hair from the path of the clipper into the mouth 27.

The bottom wall 29 of the frame 22 stops short of the upwardly inclined portion leading to the mouth 27, and a knife holding plate 30, shown particularly in Figure 2, is superimposed over the bottom wall so that a downwardly inclined flange 31 of the plate is brought to bear against the knife 13. The complete atachment, as previously stated, is removably attached to the clippers through its connection with the stud 21, which is received in a bore 32 formed by aligned openings in the bottom and top walls of the frame 22 and a tubular collar 33 disposed between the two walls.

In the operation of the device, the frame 22 is placed upon the clippers so that the stud 21 projects through the bore 32 to receive a nut 34 which is adjustable against the frame 22 to cause the latter and the flange 31 of the knife plate 30 to bear lightly against the knife 13. When in ad-

justed position the mount 27 should be disposed just back of the serrations of the knife so as to bring the full drawing action from the vacuum chamber 23 directly in the path of the cut hair from the shears. The entire instrument may be readily grasped about the grip portion 10 and frame 22 and operated in the usual manner with the exception that it will not be necessary to comb the cut hair from the trimmed hair nor will any of the cut hair fall to the floor and require collecting, as experienced in present day methods.

No apparatus has been either illustrated or described for causing formation of a vacuum in the vacuum chamber 23, but it will be understood that any of the well known systems may be employed for this purpose.

What we claim and desire to secure by Letters Patent is:—

In combination, a clipper shears and means for operating the same, comprising a hollow rectangularly shaped grip portion having an upwardly inclined forward edge, said forward edge being projected outwardly beyond the sides of said grip portion; serrated knife plate fixed to said inclined edge, a reciprocating serrated knife movable over said plate, a stud carried by the grip portion projecting therethrough and above the same to receive the knife operating means, and a detachable hair collecting and removing attachment for the shears, comprising a rectangularly shaped portion corresponding to the grip portion of said shears and having openings to receive said stud therethrough, said frame being superposed on said grip portion and being provided with a vacuum chamber having its walls flared outwardly to include the projected portion of the inclined edge of the grip portion, the flared portion of the vacuum chamber terminating in a mouth piece disposed over and in advance of the cutting edge of said knife, the upper wall of said mouth piece being inclined and the lower edge thereof comprising a plate having an opening aligned with the said openings in the frame, a sleeve embracing said stud and disposed between the said latter plate and the opposite upper wall of the frame, and means adjustable over said stud and against said upper wall for holding the attachments and the clipper shears together.

In testimony whereof we have affixed our signatures.

JAMES JOSTEN.
EMMETT ROSS.