Sept. 20, 1932. T. A. SUTER 1,878,345

GROOMING TOOL

Filed Aug. 5, 1929

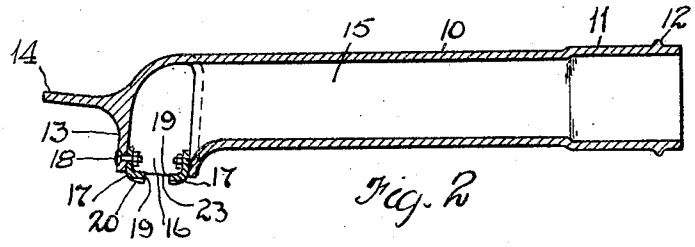


Fig. 2

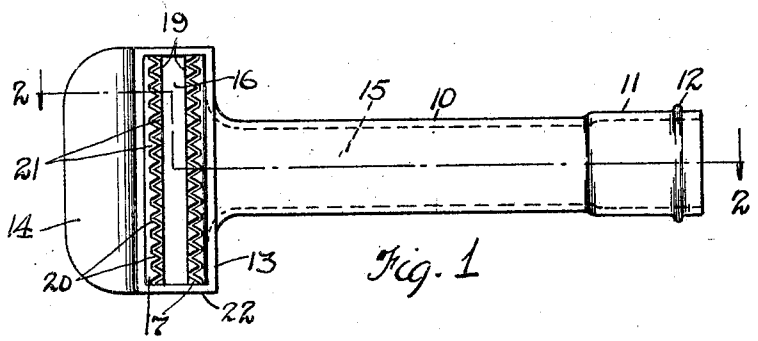


Fig. 1

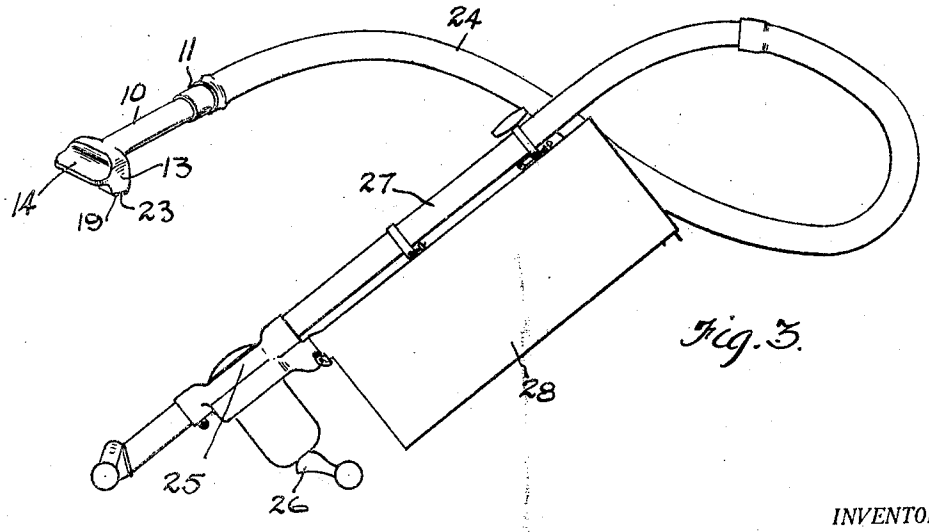


Fig. 3.

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UNITED STATES PATENT OFFICE

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GROOMING TOOL

Application filed August 5, 1929. Serial No. 383,620.

The present invention, relating, as indicated, to grooming tools, has for its primary object the provision of a device whereby the coats of horses and other animals can be rapidly and thoroughly cleaned; this device embodying a tubular handle adapted for connection with a hose in communication with a sub-atmospheric pressure system such as that afforded by a vacuum cleaner and including, in addition to a scraper or blade for removing or breaking up encrustation, a nozzle portion provided with air inlets and combs, the latter being intended for loosening the dirt and laying the hair and the air admitted through such openings functioning to entrain such dirt and convey it through an exhaust opening or into a collecting receptacle.

To the accomplishment of the foregoing and related ends, said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims; the annexed drawing and the following description setting forth in detail certain structure embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawing:—

Fig. 1 is a bottom plan view of a grooming tool embodying the present improvements; Fig. 2 is a sectional view showing further details and constructional features of the tool illustrated in Fig. 1; and Fig. 3 is a view illustrating the manner of using my invention in association with a standard vacuum cleaner of the portable type.

That embodiment of my invention illustrated in the drawing consists of a tubular handle portion 10 which is, or may be, provided with an enlarged connecting end 11 having a bead 12 and which, at its opposite end, terminates in a transverse mouthpiece or nozzle 13, these parts being desirably formed integral and of some such light and substantial material as aluminum, for example. The mouthpiece 13 has a projecting lip or scraper 14 and its hollow interior communicates with the bore 15 of the handle 10, such hollow or cavity and the handle passageway being preferably so shaped as to offer a minimum of resistance to the passing currents of air and to obviate any likelihood of congestion or stoppage by the entrained dust, hair, etc., entering through the slot or opening 16. As clearly shown in Figs. 1 and 2, the slot 16 may be provided with agitators or comb-like strips 17 which are removably held in place by bolts or the like 18 and which have their lower and projecting ends or lips 19 turned inwardly and scored as at 20 in order to form substantially triangular teeth 21, some of such teeth having their apexes and others their bases adjacent the air inlet. Desirably, although not necessarily, the ends 22 of the nozzle 13 are left open to provide openings 23 through which air may pass unobstructedly to entrain dust and hair loosened by the combs 17 and to supplement the relatively smaller volume of air coursing through the scorings 20 for rapidly conveying the removed material away from the animal's coat and into the handle bore 15.

In use, the handle 10, or more exactly speaking, its enlargement or end 11, is telescoped with a suitable hose or tube 24 and the free end of such hose is connected with any suitable source of vacuum or sub-atmospheric pressure, such for example as the vacuum chamber 25 of a cleaner 26. The particular cleaner shown in the drawings has a hollow handle 27 through which the indicated connection may be effected and a dust collecting bag or receptacle 28 into which the discharged air and the dust are directed. When the complete apparatus has been thus arranged, the combs 27 may be placed in contact with the animal's coat or other surface or material to be cleaned and aerated and then slid about systematically to remove all loose hair, litter and dirt, as well as to brush or lay the disheveled hair in somewhat the same manner as is ordinarily done by the two distinct operations of currying and brushing. Any encrustations of mud or the like can be preliminarily broken up by the scraper or blade 14 and then entirely removed by appropriately manipulating the suction nozzle. As previously stated the supplementary air admitted through the end openings 23 has a jet-like ac-

tion which insures that all loosened dirt will be expeditiously carried away even though the quantity of air entering the nozzle through the scorings and under the combs may be at times insufficient to entrain the larger particles and effect their rapid removal.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the structure herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:—

1. A vacuum grooming tool comprising a handle having a bore, a nozzle having a slot in communication with said bore, scraper means projecting in spaced relation with the plane of such slot, and comb means removably secured at the margins of the slot.

2. A vacuum grooming tool comprising a handle having a bore, a nozzle having a slot in communication with such bore, scraper comb means projecting in spaced relation with the plane of such slot, and comb means associated with the slot and having inturned lips provided with exterior angularly disposed grooves.

3. A vacuum grooming tool, comprising a handle having a bore, a nozzle having a slot in communication with such bore, scraper means projecting in spaced relation with the plane of such slot, and agitating combs at the edges of the slot presenting convergent uninterrupted grooves of uniform width throughout, said grooves being arranged to form between them a plurality of triangular shaped projections.

Signed by me, this 29th day of July, 1929.

THEOPHILUS A. SUTER.