

Aug. 31, 1965

L. S. WATLINGTON

3,203,157

FILTER FOR HAIR DRIERS

Filed Jan. 23, 1963

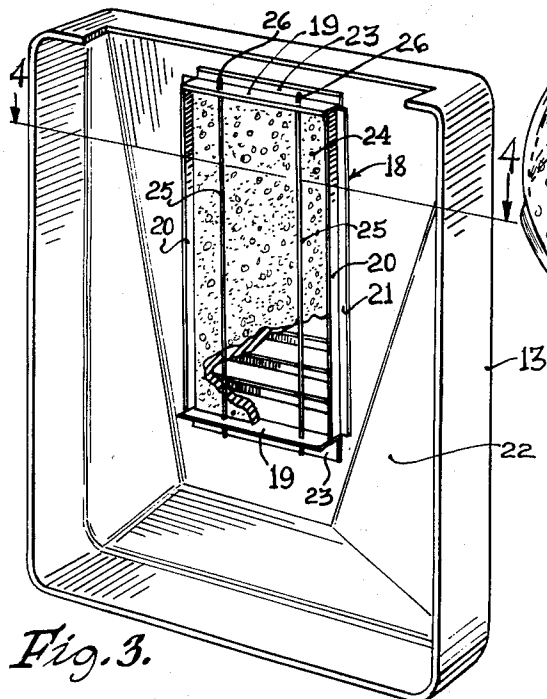


Fig. 3.

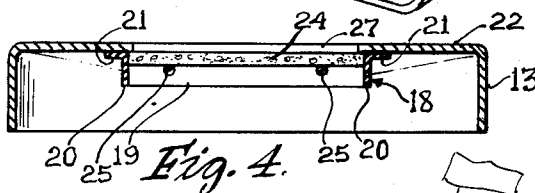


Fig. 4.

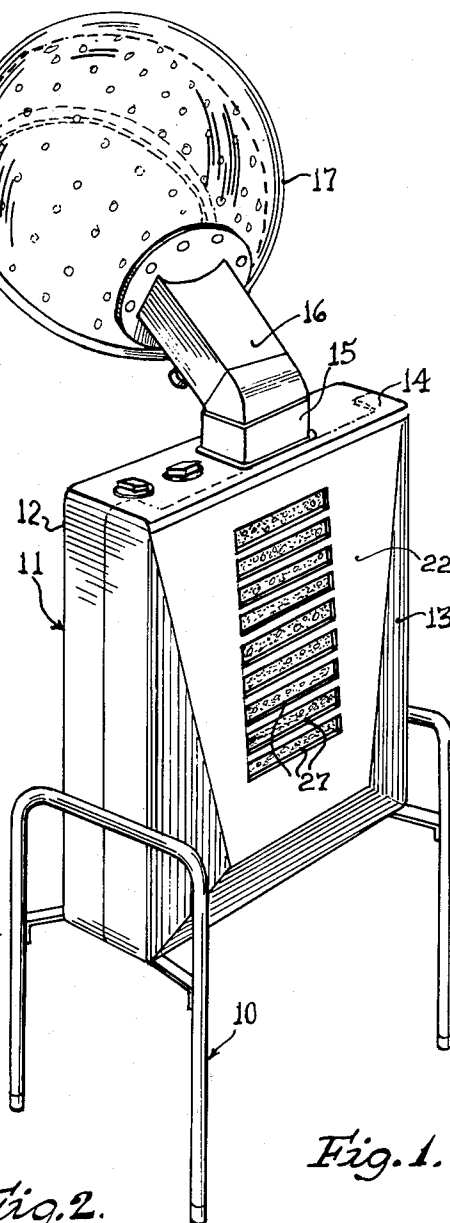


Fig. 1.

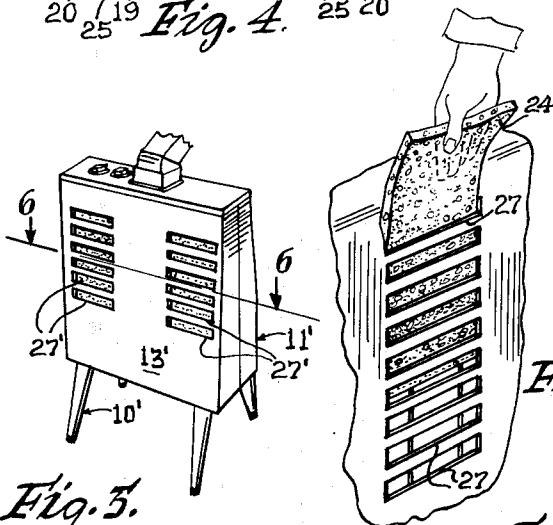


Fig. 5.

Fig. 2.

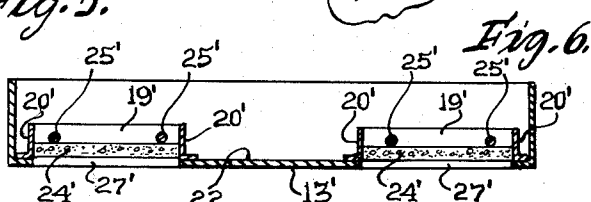


Fig. 6.

INVENTOR.
LEE S. WATLINGTON
BY *Shreed & Shreed*
HIS ATTORNEYS.

1

3,203,157

FILTER FOR HAIR DRIERS

Lee S. Watlington, 1204 N. Linden Ave., Bloomington, Ill.

Filed Jan. 23, 1963, Ser. No. 253,328

1 Claim. (Cl. 55—495)

My invention relates to an improved filter for hair driers. It has for its object the provision of a construction of the character hereinafter described wherein a filter element can be easily and quickly removed.

Filtered air free from dust, lint, pollen and other foreign matter is essentially necessary to proper drying of the hair by a hair drying apparatus. In order to purify the air, by the removal of dust, pollen and other foreign matter, it is necessary to employ one or more filter elements, which are usually made of foam plastic material. Such elements must be frequently cleaned to maintain clean air. This is accomplished by removing the filter element and then washing the same in warm soapy water, after which the element is thoroughly rinsed and, when dried, replaced in the hair drier. The cleaning of the filter elements is often neglected because of the inconvenience and time-consuming operation of removing the filter elements. To encourage the frequent cleaning and washing of the filter elements, this invention has as one of its objects the provision of a structure of such a nature as will facilitate quick removal and replacement of the filter elements, with the minimum degree of effort on the part of the operator.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings showing the preferred form of construction, and in which:

FIG. 1 is a perspective view of a hair drier in which my invention is incorporated;

FIG. 2 is a fragmentary perspective view showing the method of removing the filter element embodied in my invention;

FIG. 3 is a perspective view of a portion of the hair drier showing the interior thereof;

FIG. 4 is a sectional detail view taken substantially on line 4—4 of FIG. 3;

FIG. 5 is a part fragmentary perspective view of a hair drier similar to that shown in FIG. 1, but illustrating a modified form of construction; and

FIG. 6 is a sectional detail view taken substantially on line 6—6 of FIG. 5.

Only so much of the hair drier is illustrated in the drawing as is necessary for an understanding of my invention. In this connection, the hair drier illustrated in the drawing includes a supporting base 10 on which is mounted the cabinet 11 of the drier. This cabinet 11 in the present form includes a front section 12 and a rear section 13 arranged in confronting relation with respect to each other, with the upper end portion of the sections covered by a cover plate 14. Within this cabinet 12 is confined the necessary apparatus for drawing air into the cabinet and expelling the same therefrom. On the cover plate 14 is secured one end portion 15 of an adjustable conduit 16 which supports the hood 17 which is placed over the head of the person whose hair is being dried.

2

The preferred form of construction of my invention includes a frame indicated generally at 18. This frame includes end bars 19 and side bars 20. Each side bar includes a base flange 21 which is secured to the inner surface of the wall 22 of the section 13. Each end bar also includes a laterally extending flange 23 which flanges and bars together define a holder for a filter element 24. To complete the holder there are provided spaced rods 25 secured to the bars 19 by passing the end portions of the rods through suitable openings in said bars and then crimping the end portions as at 26.

The wall 22 has formed therein a plurality of equally spaced apart slots 27. In the present instance, these slots extend horizontally. However, if desirable, the slots may extend vertically. The filter element is of a spongy plastic material and substantially pliable. Forming the filter element of pliable material permits the same to be mounted within the frame by inserting an end portion through the uppermost of the slots 27 and then drawing the same downwardly through said slot until the filter element is positioned within the frame 18 to the rear of the slot 27.

Preferably the area of the filter element is substantially the same as that of the frame so that the peripheral edges of the filter element will slightly overlap the peripheral edges of the slots 27 so as to prevent the passage of any dust, lint, pollen or the like, other than through the filter element.

In FIG. 5 I have illustrated a modified form of construction. This form of construction differs from that shown in FIG. 1 in that there are two filters employed instead of one. Each filter embodied in the form shown in FIG. 5 is otherwise substantially identical to the filter shown in FIG. 1.

As stated before, too frequently the operator of a hair drier is discouraged from removing the filter element for cleansing purposes. It will be apparent from the description herein and by particular reference to FIG. 2 (a fragmentary perspective view showing the method of inserting and withdrawing the filter element) that the filter element can be very quickly and with the minimum degree of effort on the part of the user, removed and replaced within the frame. In view of this, the operator or user of the hair drier will be encouraged to frequently clean the filter element, thereby obtaining the best results by the passage of air therethrough into the hood, which air is substantially cleansed of all impurities, such, for example, dust, lint, pollen and the like.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claim.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

An air filter for a hair drier comprising

- (a) a frame secured to and extending laterally from the inner surface of the wall of the drier,
- (b) said frame comprising end and side flange members extending laterally from said wall,
- (c) elongated rods extending transversely of the frame in spaced relation with respect to each other and se-

3

- cured to opposite end flange members of said frame,
 (d) said wall having a plurality of equally spaced vertically aligned slots formed therein within the area of the frame with said slots extending transversely to and in spaced relation to said elongated rods,
 (e) a pliable filter element having an area substantially the same as that defined by said frame and removably mounted in said frame inwardly of said slots,
 (f) said slots being of a size to receive one end portion of the filter element as it is inserted through the uppermost of said slots and drawn downwardly into said frame between said rods and said wall so as to be removably mounted in said frame.

4

References Cited by the Examiner

UNITED STATES PATENTS

1,491,868	4/24	Kunkel	210—485
1,916,907	7/33	Sargent	55—516 XR
2,527,745	10/50	Lawrence	34—100 XR
2,598,129	5/52	MacFarland	55—279 XR
2,665,501	1/54	Jones	34—99 XR
2,738,592	3/56	Stanley	34—99 XR
2,789,663	4/57	Camp.	
2,846,022	8/58	Hubbard	55—516 XR
3,016,984	1/62	Getzin	55—501 XR

HARRY B. THORNTON, *Primary Examiner.*