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HANDLE FOR WINDOW MOUNTED APPLIANCE

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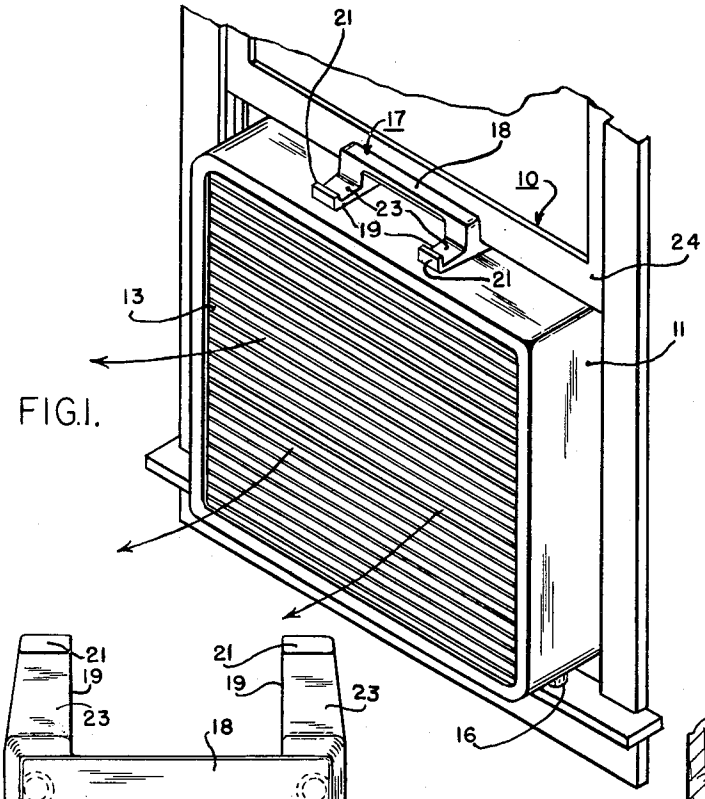


FIG.1.

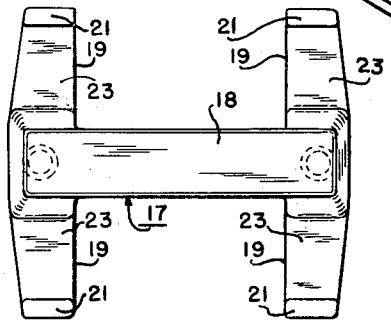


FIG.3.

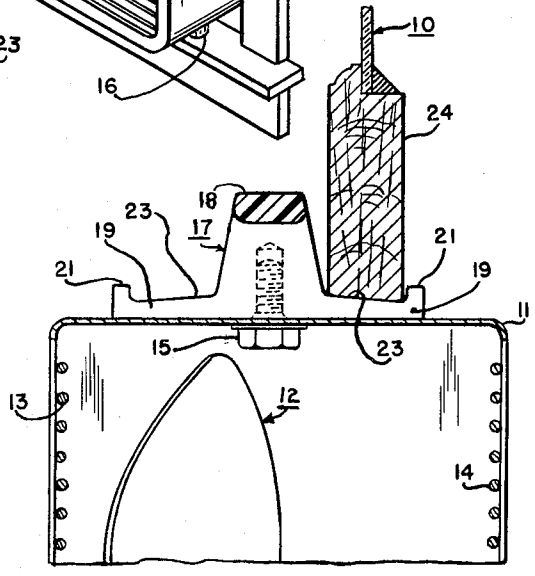


FIG.2.

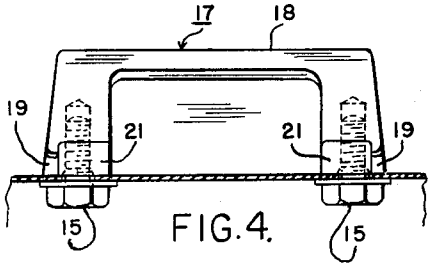


FIG.4.

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HANDLE FOR WINDOW MOUNTED APPLIANCE

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5 Claims. (Cl. 98—94)

This invention relates to window mounted appliances, more particularly to fan apparatus mountable in a window frame, and has for an object to provide improved apparatus of this kind.

In portable fans, or other appliances, adapted to be mounted in an open window, it is desirable that the entire assembly be quickly and securely mountable, as well as readily removable, in order that the assembly may be moved either from one window to another, or to a floor position. This feature appeals to users who prefer, for example, one versatile fan to be used in a number of locations, and also to users who prefer not to construct a permanent frame for mounting the apparatus only during the warm seasons.

Where a window mounted fan of the electrically reversible type is employed, it is only necessary to provide means for securely mounting the fan in but one position because the unit is capable of either exhausting or taking in air in response to actuation by an electrical selector switch. But in a low-cost unit, having a uni-directional motor, it is desirable that the entire fan assembly be capable of removal, reversal from front to rear, and remounting so that reversal of air flow direction can be effected.

Accordingly, it is an object of this invention to render an economically produced fan adaptable to being securely mounted in an open window, as well as for use on a floor as a free air circulating fan, and also to provide means by which the fan can be readily reversed from front to rear in order to reverse the direction of air flow.

In accordance with this invention, these features of secure but readily removable window mounting, portability and low cost are provided by a unique and novel handle structure mounted on the fan casing or housing.

The carrying handle is equipped with integrally formed lugs, spaced horizontally from the handle grip portion and extending upwardly from the base portion of the handle to define saddle portions for receiving a movable sash member of a double-hung window.

The foregoing and other objects are effected by the invention as will be apparent from the following description and claims taken in connection with the accompanying drawings, forming a part of this application, in which:

Fig. 1 is a perspective view of a fan constructed in accordance with this invention and mounted in a window.

Fig. 2 is a fragmentary sectional view of the upper portion of the fan shown in Fig. 1;

Fig. 3 is a plan view of the handle employed in the fan shown in Fig. 1; and

Fig. 4 is an elevational view of the handle of Fig. 3.

Referring to the drawings in detail, the invention is applied to a portable ventilating fan, commonly known as the "suitcase" type, shown in Figs. 1 and 2 positioned in an opened, double-hung window **10** for taking in outside air. As in prior art structures, the fan proper is comprised of a housing **11** which supports a bladed, motor-driven, fan rotor, generally indicated at **12**, for

forcing air through the open window **10**. Suitable guards **13** and **14**, of open-work construction, respectively define front and rear walls of the housing **11** and serve to prevent inadvertent contact with the rotating blades.

Conventionally supporting the fan in vertical position on a window sill are a plurality of rubber feet **16** which project downwardly from the housing **11**. The feet **16** are effective in reducing noise resulting from vibration and also in preventing scuffing of the window sill.

Secured, as by screws **15**, to the upper central portion of the housing **11** is an improved handle **17** which permits the fan to be carried conveniently from one location to another, and which provides hereinafter-described means for retaining the fan in the window.

The handle **17** is preferably molded from a ductile plastic material of high impact strength and is comprised of an inverted-U-shaped grip portion **18**, integrally formed with a base **19**, all being formed as a unit. The base **19** is comprised of a pair of spaced, transversely extending footings, one at each end of the grip portion **18**, and has integral lugs **21** extending upwardly therefrom on both sides of the grip portion **18** and in horizontally spaced relationship therewith. By spacing each lug **21** the thickness of a window sash from the grip portion **18** the handle **17** is provided with depressions or saddles **23** in which a portion of a movable, lower sash member **24** of the window **10** can be received for retaining the fan in the window opening (see Fig. 2). The vertically extending portions of the grip portion **18** may also be considered as upwardly extending parts of the footings **19**, since they form parts of the saddles **23** in which a portion of the sash member may be received for retaining the fan in the window opening.

Since the fan to which this invention is applied is equipped with a uni-directional motor, it is possible to force air through the window **10** in but one direction with respect to the housing **11**. In order to reverse the direction of air flow it is therefore necessary to reverse the position of the housing **11** from front to rear. To facilitate reversal, a saddle **23** is formed in the handle base **19**, at both the front and the rear sides of the grip portion **18**, so that the user can keep one hand on the grip portion **18** and the other hand on the sash member **24** while positioning the fan. Thus, the grip portion **18** is conveniently disposed interiorly of the sash member **24**, regardless of the direction of mounting of the fan, and readily accessible to steady the fan while the sash member **24** is lifted therefrom. Where reversal of the housing position is unnecessary, as in fans equipped with electrical reversible motors, only one saddle **23**, disposed exteriorly of the grip portion **18**, is required to adapt the fan for window mounting in accordance with the teachings of this invention.

As has been previously pointed out, one of the principal features of this invention is the ease and simplicity with which a portable appliance may be mounted in a window as compared to prior art structures. Previously, it has been proposed to form shoulders or saddles in the casing for cooperation with a window sash to retain an appliance in an open window, but such an approach greatly increases the cost and complexity of the casing. It has also been proposed in prior art structures to provide movable, spaced-apart members which extend upwardly from the casing and are adjustable to receive the thickness of a window sash between them for holding the apparatus. But the handle of this invention has advantages over these prior arrangements in that it can be unitarily molded, has no moving parts, and is simply secured to the housing **11**. Thus, a new and desirable feature can be added inexpensively to window-mounted, portable appliances.

To mount the fan in the window **10** the user merely

opens the window by raising the lower sash member **24**, lifts the fan by the handle **17**, and rests the fan **16** on the window sill so that the saddle **23**, on the exterior side of the handle **17**, receives and engages the sash member **24** when the latter is lowered. By this arrangement the fan is retained in the open window with substantial security and can be readily removed by reversing the previously described procedure for mounting the fan.

It is to be understood that this invention can be practiced by applying the handle to other window-mounted appliances, including portable room air conditioners and the like.

While the invention has been shown in but one form, it will be obvious to those skilled in the art that it is not so limited, but is susceptible of various changes and modifications without departing from the spirit thereof.

What is claimed is:

1. An improved handle for a portable, window mounted appliance having a housing to which said handle is secured, said handle comprising a base, a grip portion connected to the upper surface of said base, and a lug extending upwardly from said base in spaced relation to said grip portion and defining with said grip portion a saddle for the reception of a portion of a window sash member.

2. A portable, window mounted appliance comprising a housing and air translating apparatus within the housing, said housing including top and bottom walls, and an improved carrying handle secured to the top wall of the housing, said handle having a base and a grip portion, said base having at least one upwardly extending lug horizontally spaced from said grip portion, the arrangement being such that said handle is adapted to receive and engage a lower portion of a window sash member between said lug and said grip portion.

3. An integrally molded handle for a portable appliance which renders said appliance securely mountable in an open window, said handle including a base comprising spaced footings, and an inverted-U-shaped grip portion supported on said base and having its lower ends terminating respectively in said footings, each of said footings extending transversely from at least one side of said grip portion and having at least one upwardly extending lug formed thereon in spaced relation to said grip portion whereby a saddle is formed adjacent said lug in the upper surface of said footing for the reception of a portion of a window sash member.

4. A handle, rigidly secured to an upper portion of a portable, window mounted appliance and including an inverted-U-shaped grip portion, a base for said handle comprising spaced footings formed at the ends of said grip portion and extending transversely therefrom, and upwardly extending lugs formed at the outer ends of said footings in spaced relation to said grip portion for defining a pair of saddles in the upper surface of said footings at each side of said grip portion for the reception of a portion of a movable window sash member.

5. A portable window mounted appliance including a housing mountable in an open window having a vertically movable sash member, and a unitary molded handle secured to a top wall of said housing; said handle including a horizontally elongated grip portion the axis of which extends parallel to the longitudinal extent of the top wall and also parallel to the plane of the window in the normal position of the appliance mounted in the window, said handle also having a pair of spaced footings one formed at each end of said horizontal grip portion, each of said footings having upwardly extending projections spaced from each other transversely of the grip portion and defining a saddle in the upper surface of the footing for the reception of a portion of said movable sash member.

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