

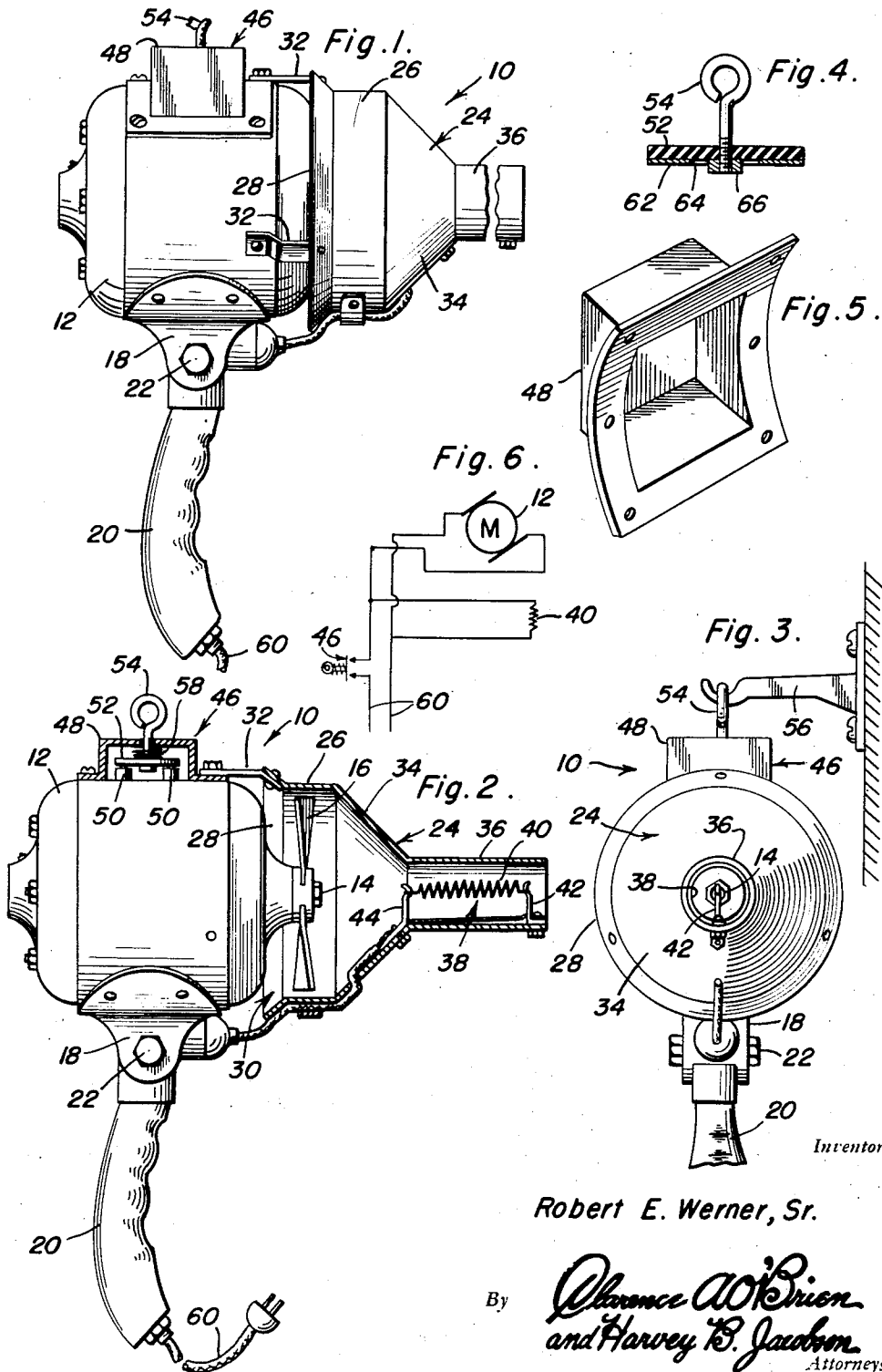
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SPECTACLE DEFROSTER

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SPECTACLE DEFROSTER

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1

This invention relates to new and useful improvements and structural refinements in defrosters, and the principal object of the invention is to provide a device of the character herein described, which may be conveniently and effectively employed for the defrosting of spectacles, eyeglasses, and the like, when they become coated with mist upon entering a warm room from cold, outside atmosphere.

This object is achieved by the provision of the instant defroster which is of a portable nature and is well adapted to be suspended from a suitable hanger adjacent the entrance to a dwelling, an important feature of the invention residing in the provision of an electrically actuated blower fan which is adapted to deliver a current of air through a duct containing an electric heating element, so that the current of air is heated and discharged from the device on the glasses or spectacles which are to be defrosted.

Another feature of the invention resides in the provision of an automatic switch for controlling the operation of the blower fan as well as of the heating element, this being so arranged that the apparatus is automatically energized when it is removed from its suspension hanger, and conversely, energization of the apparatus ceases as soon as it is applied to its support.

Some of the advantages of the invention reside in its simplicity of construction, in its convenient and efficient operation, and in its adaptability to economical manufacture.

With the above more important objects and features in view and such other objects and features as may become apparent as the specification proceeds, the invention consists essentially of the arrangement and construction of parts as illustrated in the accompanying drawings, in which:

Figure 1 is a side elevational view of the invention;

Figure 2 is a side elevational view, similar to that shown in Figure 1, but illustrating the invention as being partially broken away so as to reveal its construction;

Figure 3 is a front end view of the subject shown in Figure 1;

Figure 4 is a cross sectional detail of a suspension hook and switch bar used in the invention;

Figure 5 is a perspective view of the switch housing, and;

Figure 6 is a wiring diagram of the electrical components of the invention.

Like characters of reference are employed to

2

designate like parts in the specification and throughout the several views.

Referring now to the accompanying drawings in detail, the invention consists of a device for defrosting spectacles, eyeglasses, etc., this device being designated generally by the reference character 10 and embodying in its construction a suitable electric motor 12 including an armature 14 on which is mounted a blower fan 16.

The underside of the motor 12 is equipped, in turn, with a suitable bracket 18 carrying a convenient handle 20 which is secured to the bracket 18 by a single screw 22 so that the position of the handle relative to the motor may be adjusted as desired.

What may be referred to as a shroud 24 encloses the fan 16 and consists of a substantially cylindrical body portion 26 which as a flared open end 28 spaced outwardly from the motor 12 so as to afford an air inlet passage 30 for the shroud. A plurality of suitable brackets 32 secure the flared portion 28 of the shroud to the motor 12, and the remaining end of the shroud body 26 is provided with a frusto-conical neck 34 which, in turn, is equipped with a longitudinally extending, tubular duct 36 which affords an air outlet passage 38 for the shroud.

A helical heating element 40 extends longitudinally in the passage 38 wherein it is supported at the end thereof by a pair of brackets 42, 44, from which it will be apparent that when the motor 12 and the element 40 are energized, a current of air will be drawn by the fan 16 through the inlet passage 30, through the shroud 24 and will be discharged through the outlet passage 38, during which stage the air current will become heated by the element 40 so that it may be effectively employed for spectacle defrosting purposes after it leaves the duct 36.

The device also embodies in its construction an automatic switch assembly 46 including a suitable housing 48 which is mounted on the motor 12, while a pair of mutually insulated contact points 50 are provided within the housing 48 and are adapted to be "bridged" or electrically connected together by a transverse switch bar 52.

The bar 52 is secured to the inner end portion of a suspension hook or eye 54 which is slidable and projects upwardly from the housing 48, whereby the entire apparatus may be conveniently suspended from a suitable hanger 56 when the device is not in use (see Figure 3). However, a compression spring 58 is provided on the hook 54 between the inner surface of the housing 48 and the bar 52, whereby the bar is urged

in contact with the points 50 as soon as the apparatus is removed from the hanger 56, thus automatically closing the circuit through the switch and actuating the motor 12 as well as the element 40.

Needless to say, when the device is applied to the hanger, the weight thereof is sufficient to compress the spring 56 and separate the bar 52 from the points 50.

As is best illustrated in the wiring diagram shown in Figure 6, the motor 12 and the element 40 are connected in parallel relation between the leads of a suitable extension cord 60.

The switch bar 52 is preferably constructed from insulating material and has secured to the underside thereof a metallic strip 62 (see Figure 4) for bridging the contact points 50, a center portion of the strip 62 being provided with an aperture or opening 64 to accommodate a nut 66 which is also secured to the underside of the bar 52 to facilitate attachment of the hook 54 to the latter.

It is believed that the advantages and use of the invention will be clearly apparent from the foregoing disclosure and accordingly, further description thereof at this point is deemed unnecessary.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

Having described the invention, what is claimed as new is:

1. In a portable device for defrosting spectacles, an electric motor including an armature shaft, a handle secured to the motor, a shroud comprising a cylindrical body, spaced brackets securing the cylindrical body in spaced relation to the motor, said shaft projecting into the cylindrical body and having a fan thereon, a frusto-conical neck on the cylindrical body remote from the motor, a tubular duct extending from the minor end of the neck, an electrical heating element within and extending longitudinally of the tubular duct, a pair of electric leads with the motor and the heating element arranged in electrical parallel therebetween, a normally closed

electric switch operatively disposed in one of said leads and secured to the motor, and a common means carried by the motor and operatively connected to the switch for suspending the motor from an overhead support and also for opening the switch when the motor is so suspended.

2. In a portable device for defrosting spectacles, an electric motor including an armature shaft, a handle secured to the motor, a shroud comprising a cylindrical body, spaced brackets securing the cylindrical body in spaced relation to the motor, said shaft projecting into the cylindrical body and having a fan thereon, a frusto-conical neck on the cylindrical body remote from the motor, a tubular duct extending from the minor end of the neck, an electrical heating element within and extending longitudinally of the tubular duct, a pair of electric leads extending through the handle and terminating at one end in a male plug, said motor and the heating element being arranged in electrical parallel between the leads, an electric switch operatively associated with one of said leads comprising a housing secured to the top of the motor, a vertically disposed motor suspension member slidably projecting into said housing, a movable contact bar fixed to the inner end of the member, a pair of fixed contacts disposed below and in the travel path of the movable contact, a coiled compression spring embracing the member and seated between the top wall of the housing and the contact bar yieldingly urging the bar towards the fixed contacts to bridge the latter, said spring having a strength less than the weight of the entire device, whereby the switch is opened when the device is supported by the suspension member and closed when not supported by the latter.

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