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F. P. ALTMAN ET AL

1,726,792

REGISTER

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FIG. I

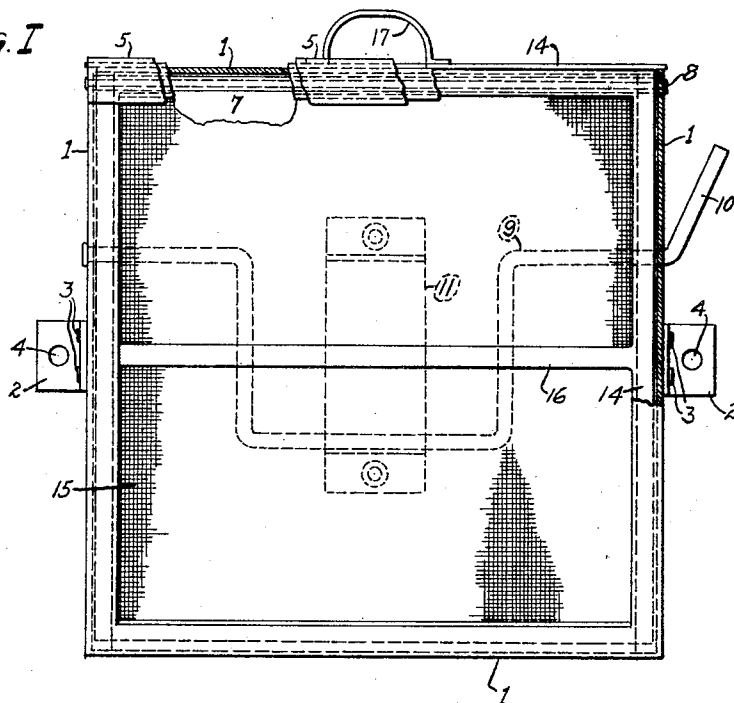


FIG. II

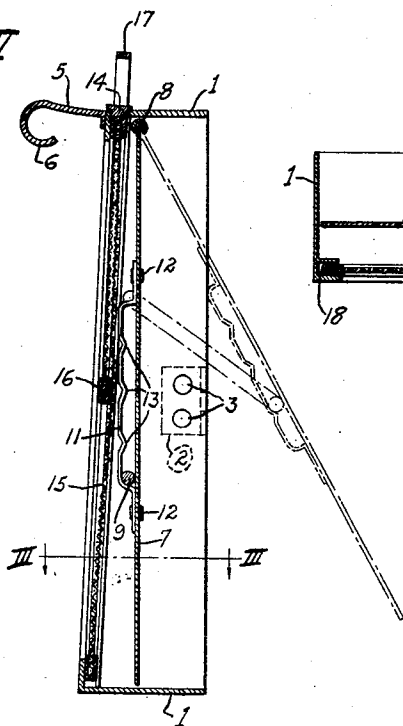
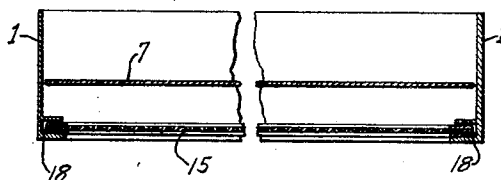


FIG. III



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REGISTER.

Application filed November 24, 1926. Serial No. 150,482.

Our invention relates to a new and useful improvement in registers for the outlet end of pipes leading from a hot air furnace, and consists principally in providing a screen to substantially arrest any dust passing through said hot air pipe and prevent its entry into the room or space with which said hot air pipe connects.

Another advantage is a dust cowl, or hood, designed for catching any dust that may pass through said screen and be carried upwardly by the current of air. Another advantage is the provision of a door which may be fully closed or fully opened, or adjusted to intervening positions between the fully opened and fully closed positions, for controlling the inlet of air through said register from said hot air pipe. Another advantage is the provision of a slidable screen holder whereby said screen may be readily taken out, the dust shaken off, and the screen easily and quickly replaced in the register.

With the foregoing and other objects in view, the invention comprises the novel construction, combination and arrangement of parts hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown the preferred embodiment of the invention. However, it is to be understood that the invention comprehends changes, variations and modifications which come within the scope of the claims hereunto appended.

Fig. I is a front elevation of our device, partly in section and with parts in dotted lines.

Fig. II is a cross-sectional view of our device with the door for controlling the passage of air through the screen being shown in closed position in full lines and in open position in dotted lines.

Fig. III is a view taken along the line III—III, Fig. II.

In the drawings 1 designates a register frame to which are attached at each side lugs 2, preferably by rivets 3. The lugs 2 are perforated as at 4, whereby said register frame may be secured adjacent the opening into the hot air pipe (not shown). 5 is a cowl at the upper side of the register frame 1 and extending forwardly as shown clearly in Fig. II. The cowl is bent to provide a dust chamber 6. 7 is a door secured to the register frame by a hinge pin 8. This door is

adapted to occupy practically all of the inside space of the register frame 1. The door 7 is operable by a wire member 9, which is mounted in perforations in each side of the register frame 1, as shown in Fig. I. 10 is a handle on said wire member 9 by which the door 7 is operated.

11 is a plate secured to the central portion of the door 7 by rivets 12. This plate has a series of indentations 13 for holding a bent portion of the wire member 9 in position when the desired adjustment of the door 7 has been made. 14 is a screen frame slightly smaller than the register frame 1. In this screen frame is secured a single layer of screen wire 15, which screen wire 15 is doubled on itself at its upper portion and extending about halfway down, and the free end of this double screen wire 15 is secured in a U-shaped member 16 which is preferably an integral part of the screen frame 14. The purpose of this is to supply a double screen at the upper half portion of the register.

17 designates a handle secured to the upper central section of the screen frame 14 whereby said screen frame may be manipulated. 18 are slideways provided in the register frame 1 at its front portion whereby the screen frame 14 is accommodated, and which permits said screen frame 14 to be slidably connected with the register frame 1.

In the operation of our device the register frame 1 is secured in position at the outlet end of the hot air pipe and preferably secured by screws through the lugs 2. The amount of air passing through the register is governed by the door 7, which is operable to adjusted position through the handle 10 on the wire member 9. Most of the dust passing through the screen 15 is caught in the dust trap 6 of the cowl 5.

When the screen 15 becomes clogged with dust the screen frame 14 is removed from its sliding contact with the register frame 1 by the handle 17 and the dust removed from said screen, whereupon said screen is replaced in position in the slideways 18 of the register frame 1. By virtue of the double screen at the upper half of the register frame 1 dust has to pass through two screen sections in order to enter the room or space with which the hot air pipe is in contact.

It will be noted that where the hot air pipe leads into the wall of the room to be heated

the depth of the frame 1 is sufficient to bring the register sufficiently away from the wall to prevent any marring of the wallpaper by any dust that may escape through the screen 5 15 or the dust trap 6.

We claim:

1. A register comprising a frame, a slide-way at each side of said frame, a screen frame adapted to be located in said slideways 10 in said frame, a section of screen material the full length and width of said screen frame, said screen material being bent over and downwardly upon itself approximately half of the height of said screen frame, and means 15 for securing the end of such bent over section

in position with respect to said screen frame, substantially as described.

2. A register comprising a frame, a slide-way at each side of said frame, a screen frame adapted to be located in said slideways in 20 said frame, a section of screen material, the full length and width of said screen frame, said screen material being bent over and downwardly upon itself, and means for securing the end of such bent over section in 25 position with respect to said screen frame.

In testimony that we claim the foregoing we hereunto affix our signatures.

FRANK P. ALTMAN.

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