May 30, 1933. E. J. SCHOLTZ 1,911,851

AIR DUCT REGISTER DRAWER

Filed April 3, 1930

Fig. 1

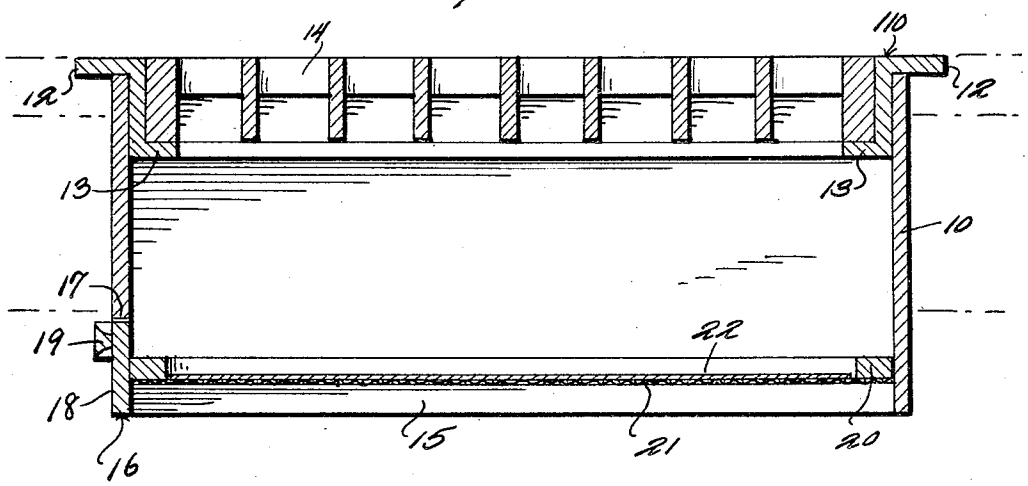
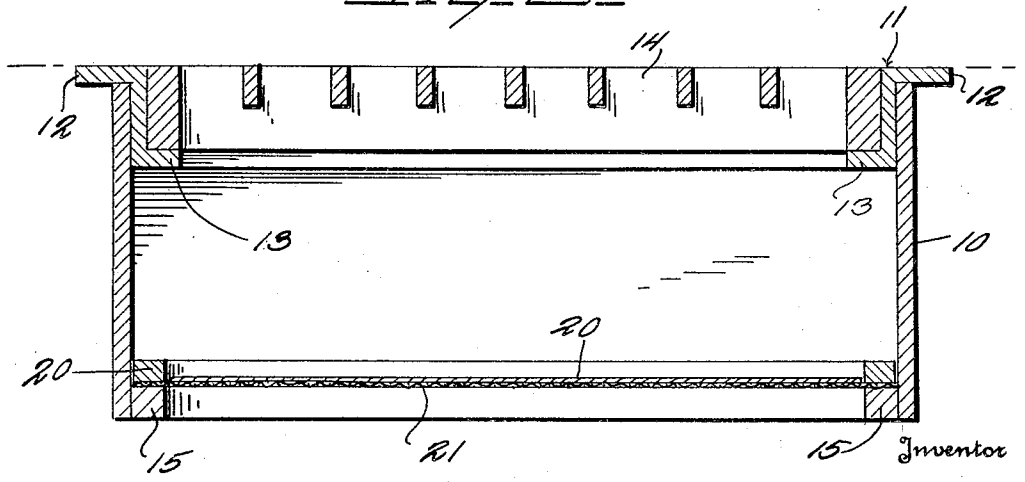


Fig. 2



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UNITED STATES PATENT OFFICE

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AIR DUCT REGISTER DRAWER

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This invention relates to improvements in registers or the like and more particularly to improvements in air duct registers.

An object of this invention is to provide a register of this character which is adapted to be positioned in an air duct leading from a hot air furnace or the like and which is so constructed as to prevent any dirt or the like from dropping into the air duct or upon the top of the furnace.

Another object of this invention is to provide a dirt catcher or receiver in a register, the catcher being removable from the register so that the dirt may be cleaned out at any desired time.

A further object of this invention is to provide a dirt catcher having a screened bottom portion so that the air may freely pass through the duct, the catcher also including a removable solid bottom which may be positioned therein so as to catch any dirt which may drop through the webbing of the register, the solid bottom being positioned in the catcher only during the time that the furnace or the like is not in operation.

The above and various other objects and advantages of this invention will in part be described in and in part be understood from the following detailed description of the present preferred embodiment, the same being illustrated in the accompanying drawing wherein:—

Figure 1 is a longitudinal sectional view of a device constructed according to the preferred embodiment of this invention; and

Figure 2 is a transverse sectional view of this device.

Referring to the drawing wherein like numerals of reference designate corresponding parts throughout the several views, the numeral 10 designates a casing of any desired configuration and size which is adapted to be mounted in an air duct, the air duct leading to a furnace, and the duct may be either the hot air pipe or a cold air pipe.

The casing 10 is provided with a rim or facing 11 which preferably extends outwardly from the outer edge of the casing 10 so as to provide a flange 12, the flange 12 being adapted to rest on a floor or against the wall and may be of any desired construction and of pleasing appearance so as to conform with the architectural scheme of the building in which the casing 10 is adapted to be mounted. The casing 10 is also provided with an inwardly extending flange 13 which is positioned in the casing at a point spaced downwardly from the upper edge thereof, the flange 11 providing a seat for a webbing structure 14 of conventional construction which is adapted to be removably mounted in the casing 10.

The lower end of the casing 10 is provided with an inwardly extending flange or guide 15 and a removable drawer or dirt catching member generally designated as 16 is adapted to be slidably positioned on the flange 15. The casing 10 at one side thereof is provided with a recess 17 and the dirt catching member 16 has a facing or front plate 18 which is adapted to be seated in the recess 17 so as to lie flush with the outer face of the casing when in closed position.

A handle or grasping member 19 is preferably secured to the outer face of the drawer member 16 so as to facilitate removal of the drawer. The drawer or dirt catching member 16 comprises a frame 20 which is secured to the inner face of the outer plate member 18 and a screen 21 is secured to the frame 20 by means of tacks, staples or the like, the screen 21 being of any desired mesh but preferably the mesh of the screen 21 is such as to prevent the passage of dirt or the like into the air duct.

A removable bottom 22 is adapted to be removably positioned in the frame 20 and is adapted to rest upon the screen 21 and when in position will close the air duct and prevent any air from passing therethrough, and at the same time will prevent any dirt or dust from either going into or coming out of the air duct.

In the use of this device, the casing 10 is preferably positioned in the air duct and the recessed portion 17 is preferably positioned below the floor and the beams of the floor so that the drawer 16 can be readily removed from the casing.

During the summer months when the fur-

nace is not in use, the solid plate or bottom 22 is preferably positioned on the screen 21 and the drawer or dirt catcher 16 positioned within the casing 10 and upon the track or guide 15. When it is desired to open the air duct, the drawer 16 may be pulled outwardly of the casing and the solid bottom or plate 22 removed. When the solid bottom 22 has been removed from the dirt catcher, the air may freely circulate in the air duct but any solid particles will be prevented from dropping into the air duct by the screen 21.

When the screen 21 becomes substantially clogged with dirt and dust, the handle 19 may be grasped and the dirt catcher pulled outwardly of the casing 10 and the screen cleaned in any desired manner as by brushing or the like. When the screen 21 has been cleaned, the catcher may be replaced and the air may then again freely circulate in the air duct.

It will, of course, be understood that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claim:

What is claimed is:—

In an air duct register, a casing, a pair of horizontal guides within the casing, a frame slidably engaging the guides, a screen engaging one side of the frame, and an imperforate plate engaging the top of the screen and removably disposed within the frame.

In testimony whereof I hereunto affix my signature.

EDWARD J. SCHOLTZ.