No. 637,519. Patented Nov. 21, 1899.

I. A. MERTINS.

DUST ARRESTER FOR HOT AIR REGISTERS.

(Application filed June 14, 1899.)

(No Model.)

Fig. 1.

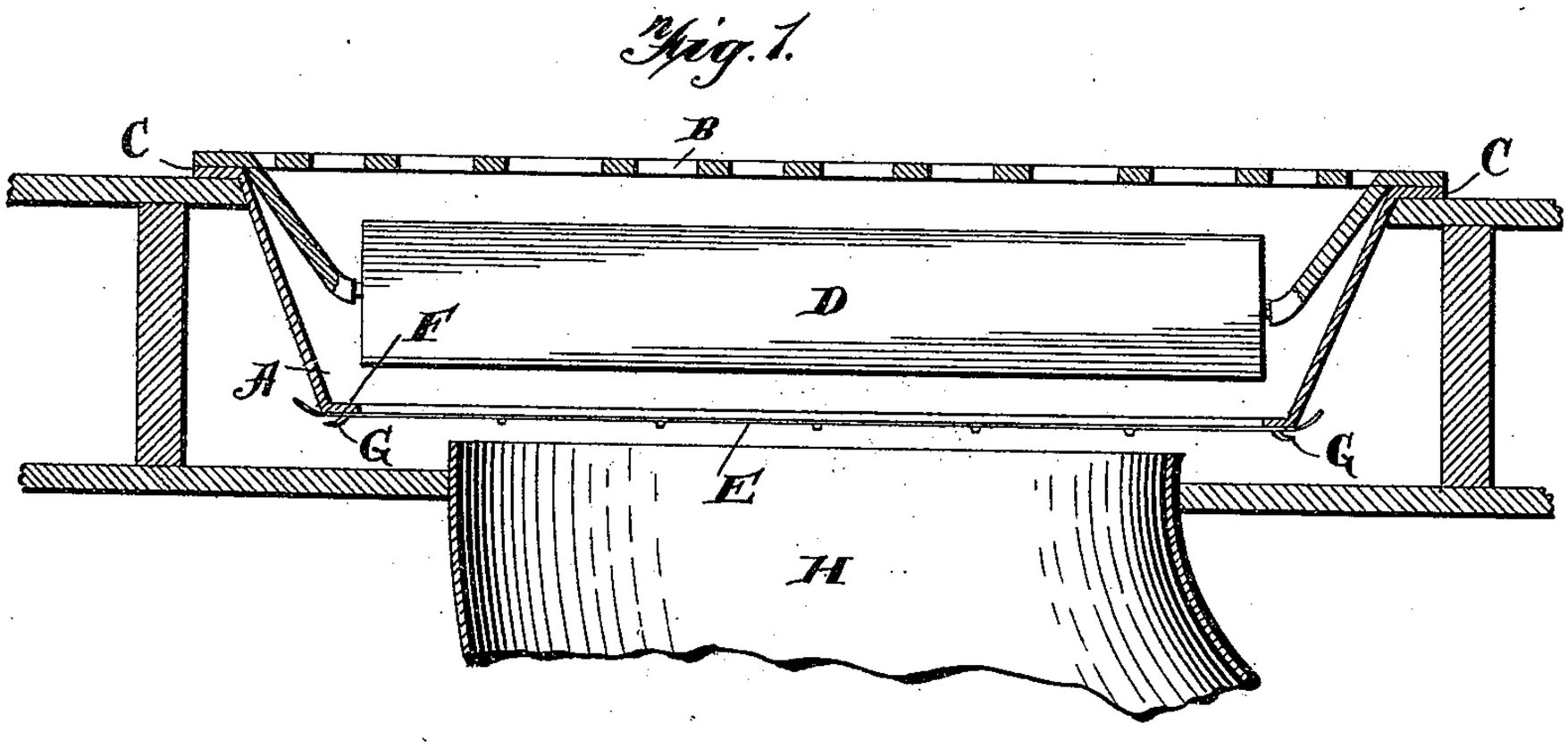
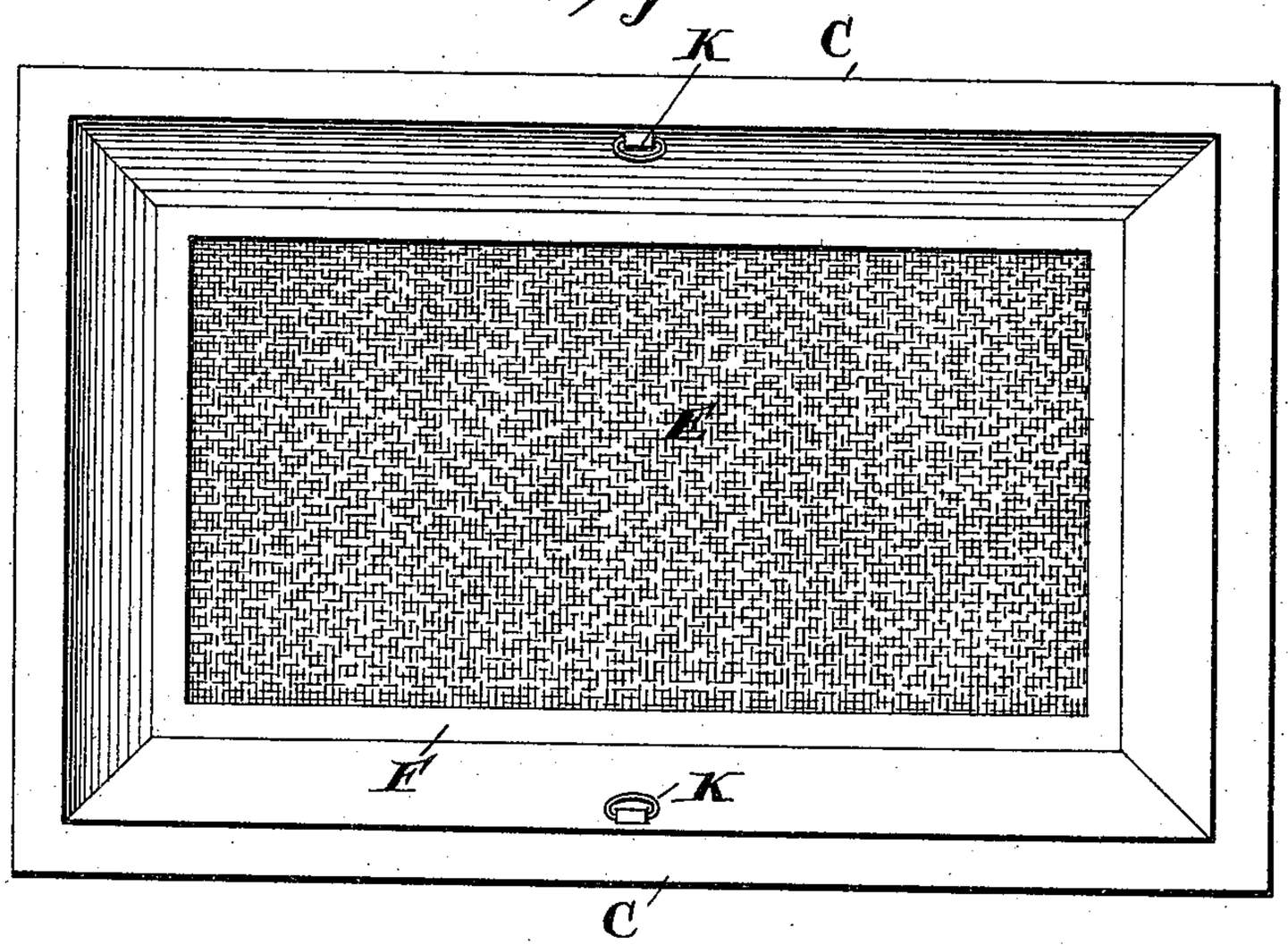


Fig. 2.



Witnesses
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DUST-ARRESTER FOR HOT-AIR REGISTERS.

SPECIFICATION forming part of Letters Patent No. 637,519, dated November 21, 1899.

Application filed June 14, 1899. Serial No. 720,590. (No model.)

To all whom it may concern:

Be it known that I, IDA A. MERTINS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Dust-Arrester for Hot-Air Registers, of which the following is a specification.

This invention relates to dust-arresters for hot-air registers, and has for its object to provide a device which will effectually prevent all dust and soot with which the currents of air from furnaces are laden from passing through the register and into the rooms.

It is a well-known fact that in houses which are heated by hot-air furnaces a large amount of dust and soot is brought into the rooms through the hot-air registers, and this dust being distributed through the rooms by the air-currents is very injurious to the carpets, walls, curtains, &c., upon which it collects.

My invention for arresting the dust is shown in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 shows a sectional view of my invention applied to the opening in the floor or wall over the hot-air pipe and containing the register, which is also shown in section. Fig. 2 shows a top plan view of the device with the register removed.

The main part of the device consists in the open pan-shaped casing A, which is made of the proper shape and size to fit the opening in the floor or wall over the end of the hot-air pipe and to contain the hot-air register B. In the present instance the casing is shown rectangular in shape and is provided with a projecting flange C all around its upper edge, which is substantially the same size as the register. The sides of the casing are shown as preferably slightly inclined inwardly and extend to a sufficient depth to clear the edges of the register-shutters D when the latter are open, as shown in Fig. 1. Across the open bottom of the pan or casing is a dust-arresting screen E, which is secured to the lower inwardly-projecting flanges F by means of hooks G or in any other convenient manner. The screen is usually made of cheese-cloth, which can be easily removed and cleaned at any time.

H denotes the end of the hot-air pipe which terminates below the cloth screen.

The casing may be provided with small handles, such as K, by which it may be easily lifted out of the opening after the register is removed.

The casing is made of ordinary sheet metal and forms a secure support for the cloth screen.

When the parts are in position, as shown in Fig. 1, the hot air from the pipe will pass through the cloth screen before reaching the register and all particles of soot and dust will be caught thereon.

There is practically a tight joint at the flange C between the register-flange and the edge of the flooring, so that all dust is prevented from entering the register from the hot-air pipe and the hot air can only enter the register through the cloth screen. The hot air being thus purified, the carpets, draperies, walls, &c., of the rooms are protected and the injurious effects of the dust obviated.

The device is very simple, inexpensive, and easily made to fit any register.

What I claim is—

1. A dust-arrester for hot-air registers comprising a pan-shaped metal casing having imperforate sides and an open bottom, an upper flange C extending outwardly and adapted to be secured between the register-flange and the floor, a lower flange F extending inwardly below the register, and a cloth screen secured over the lower flange and the open bottom of the casing substantially as described.

2. A dust-arrester for hot-air registers consisting of a metal casing surrounding the register, the upper outwardly-projecting flange adapted to be secured between the register-flange and the floor, the sides of the casing connected to the upper flange and extending below the register, the said sides of the casing being imperforate and provided with an open bottom, and a cloth screen secured over the open bottom below the register whereby all of the hot air passes through the cloth screen, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

IDA A. MERTINS.

Witnesses:
CHARLES F. ELSNER,
FLORENCE E. NEUMAN.