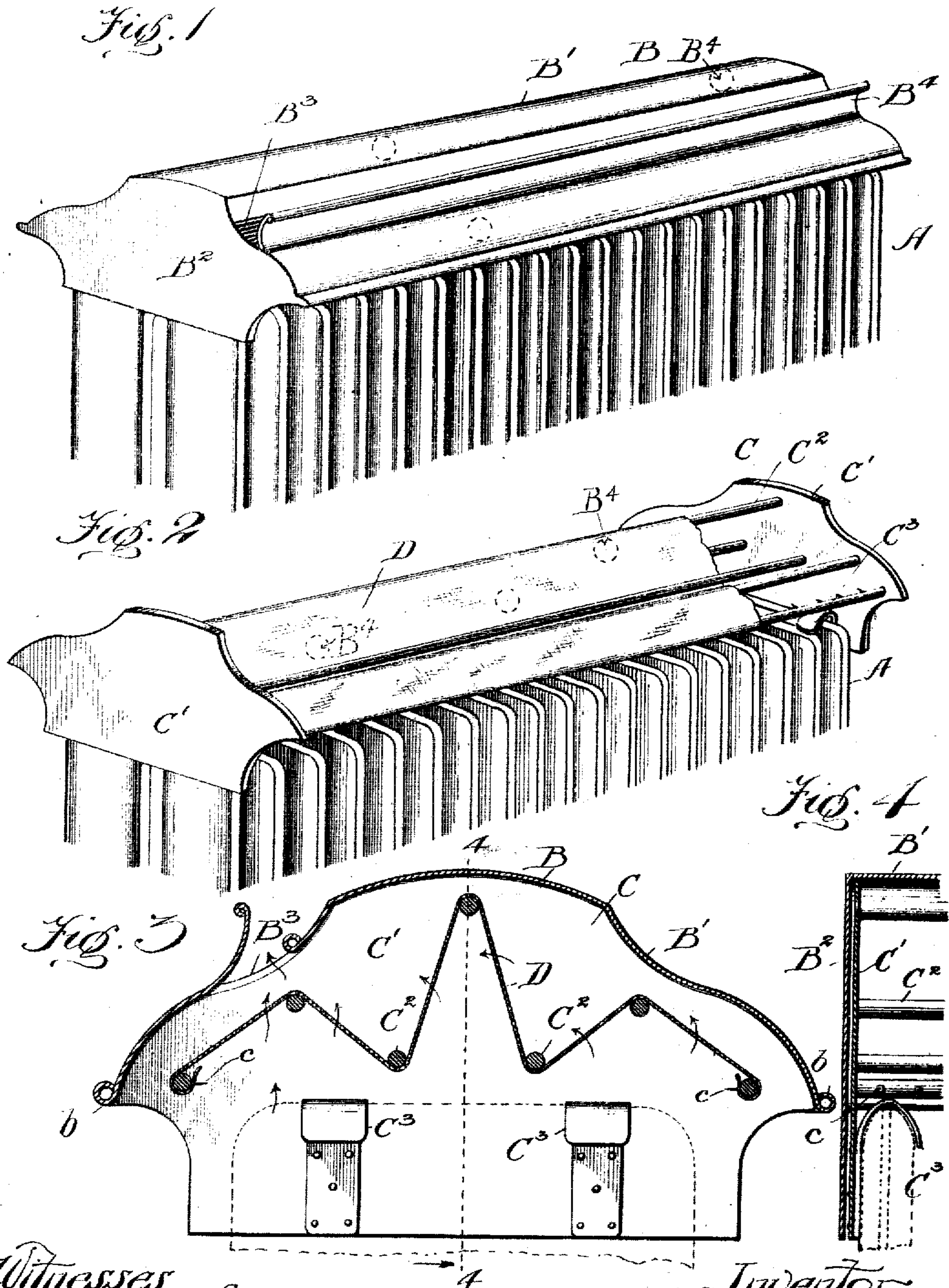


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PATENTED MAR. 6, 1906.

W. J. REYNOLDS.
DUST COLLECTING SHIELD FOR RADIATORS.

APPLICATION FILED APR. 22, 1905.



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UNITED STATES PATENT OFFICE.

WILLIAM J. REYNOLDS, OF CHICAGO, ILLINOIS.

DUST-COLLECTING SHIELD FOR RADIATORS.

No. 814,234.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed April 22, 1905. Serial No. 256,883.

To all whom it may concern:

Be it known that I, WILLIAM J. REYNOLDS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dust-Collecting Shields for Radiators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in dust-shields for heat-radiators, and has for its object to provide a shield which will prevent the accumulation of dust upon the adjacent wall of the room in which the radiator is located, and thereby prevent said wall from becoming discolored, and to also filter the air so it will be thrown back into the room in a purified condition. It is a well-known fact that the air-current created by heat from said radiators causes dust to be drawn from the floor of the room and carried upwardly in said warm air-current, which naturally impinges upon the wall. A portion of the dust will be deposited, therefore, upon the wall above and in the rear of said radiator, while the remaining portion will be thrown back into the room.

It is the purpose of this invention to construct a shield which is provided between the said shield and the radiator with means for arresting dust and foreign substances with which the air-current is charged, and so located that said current must pass there-through, whereby the air will issue from the radiator into the room in a purified condition. The dust-arresting means will be removably mounted in the shield, so that when it becomes fully charged with dust it can be removed and cleansed or another one substituted therefor.

The invention consists in the matters herein illustrated and described, and it will be more particularly pointed out in the claims appended to this specification.

In the drawings, Figure 1 is a perspective view of the upper part of a radiator provided with my improved dust-shield. Fig. 2 is the same view with the hood or cover thereof removed. Fig. 3 is a cross-sectional view of the shield. Fig. 4 is a detail section taken on line 4-4 of Fig. 3, omitting the screens.

In said drawings, B designates as a whole my improved dust-shield, which is adapted

to fit over the top of a radiator A and to extend beyond the same some distance both at the front and at the rear thereof. Between said radiator and the shield is located a suitable screen D, which acts to arrest the dust from the upwardly-directed air-current, so that said current will pass out in the room in a purified condition. Said shield consists and is herein shown of a protecting-hood B', a screen-support C, and the screen D. The screen-support C consists of two end pieces or plates C', which are adapted to have detachable engagement with the opposite ends of the radiator. Said end plates C' are suitably secured rigidly together by means of a plurality of connecting-rods C², which serve as the supports upon which the screen D is mounted. Said rods C² are arranged in zig-zag relation from front to rear of the shield, and the screen D is entwined about the same in the manner shown in Fig. 3, the object of the arrangement herein shown being to provide the greatest possible screen area for a given space. The screen consists of any open fabric, such as loosely-woven cotton cloth or other suitable material through which the air will readily pass and which will act to effectually arrest all forms of foreign matter carried by the ascending air-current.

Any desired means may be provided for detachably securing the screen to the supporting-rods C². As herein shown, the front and rearmost rods are provided on their proximate faces with barbs or points c, which are adapted to pass through the opposite ends or side margins of the screen D and to thereby hold the screen taut upon said supports. Said screen and supporting-arms are removably mounted upon the radiator A, as herein shown, by means of supporting-hooks C³, which are attached to the end plates C' of the supporting-frame and which overhang the opposite end loops of the radiator A. Preferably two of such hooks will be provided on each end, as shown in Fig. 3, which act to balance the shield. Said hooks C³ will be secured to the end plates C' by means of rivets or the like.

As a further and separate improvement the hood B' is shown as made separable from the screen-support. Said hood consists of a hollow casing which covers the screen-support and is attached at its opposite ends to the end walls B². Said end walls B² of the hood, as herein shown, are duplicates of the end plates of the screen-supporting frame and

when the hood is in place upon the radiator said end walls B^2 rest parallel with the end plates C' , as shown in section in the detail view of Fig. 4, whereby said end plates C' are covered by said walls B^2 . Said separable hood is provided for convenience in mounting the screen upon the screen-supports, it being obvious that if the hood were made integral with the plate C of the screen-support frame it would not be so easy to entwine the screen upon the rods C^2 in the manner illustrated herein. I do not wish, therefore, to limit myself to the precise construction illustrated in the drawings. Neither do I wish to be limited to the precise arrangement of the screen D as herein shown, because it will be manifest that such arrangement will be varied to meet the requirements of any changes in the form of the other parts of the shield occasioned by the fancy of the designer or by the necessity of adapting it to various forms of heat-radiators. As a still further and separate improvement and as a means of preventing the air from being deflected under the forward edge of the hood without first passing through the filtering-screen D , I have shown said hood as provided between the opposite edges thereof with a slot B^3 , which may extend, as herein shown, from one end thereof to the other. The warm air-current created by the heat of the radiator will be directed to and through said slot B^3 , as indicated by the arrows in Fig. 3, it being the highest point of escape thereof in said hood, so that none of the heated air will tend to become deflected beneath the forward edge b of the hood. The particular location of the slot B^3 as herein shown is not essential, but may be varied as desired. In order to prevent the screen D from being seen from the front of the radiator after it becomes charged with accumulated foreign matter, and therefore unsightly, the forward edge of the slot B^3 may be carried upwardly above the level of the rear edge thereof, if desired, as shown in Figs. 1 and 3, in the form of a scroll or flange B^4 .

This hood is herein shown and described as applied to a radiator, but it is obviously applicable to other uses—as, for example, to a

hot-air register. In thus using the hood its shape should conform, of course, to any peculiarity of construction of the register, and the slot B^3 may be differently arranged or even dispensed with and a plurality of hot-air perforations used as desired.

What I claim as my invention is as follows:

1. A shield for a radiator comprising a screen-support adapted to rest upon a radiator, a dust-collecting screen secured to said support and a hood removably mounted upon said support and serving as a cover for said screen.

2. A shield for a radiator comprising a screen-support adapted to rest upon a radiator, a dust-collecting screen secured to said support, and a hood removably mounted upon said support and serving as a cover for said screen, said hood having its front and rear edges extending below said screen and having an opening above the latter for the passage of air therethrough.

3. In combination with a radiator, a shield comprising a screen-support having end plates, longitudinally-extending rods connected to said end plates, a dust-collecting screen mounted on said rods, and a removable hood adapted to cover the screen and its supports.

4. A shield adapted to rest upon a radiator, a dust-collecting screen located therein above the radiator, an elongated opening in the front face of the shield above the screen, and an upturned flange along the front margin of the opening.

5. A shield comprising means whereby it may be supported upon or above a radiator, supports for the screen located alternately in different horizontal planes, and an angularly-arranged dust-collecting screen thereon.

In testimony that I claim the foregoing as my invention I affix my signature, in presence of two witnesses, this 19th day of April, A. D. 1905.

WILLIAM J. REYNOLDS.

Witnesses:

TAYLOR E. BROWN,
DOROTHY E. MARION.