

(No Model.)

J. & J. E. RUTHERFORD.
DEFLECTOR.

No. 561,134.

Patented June 2, 1896.

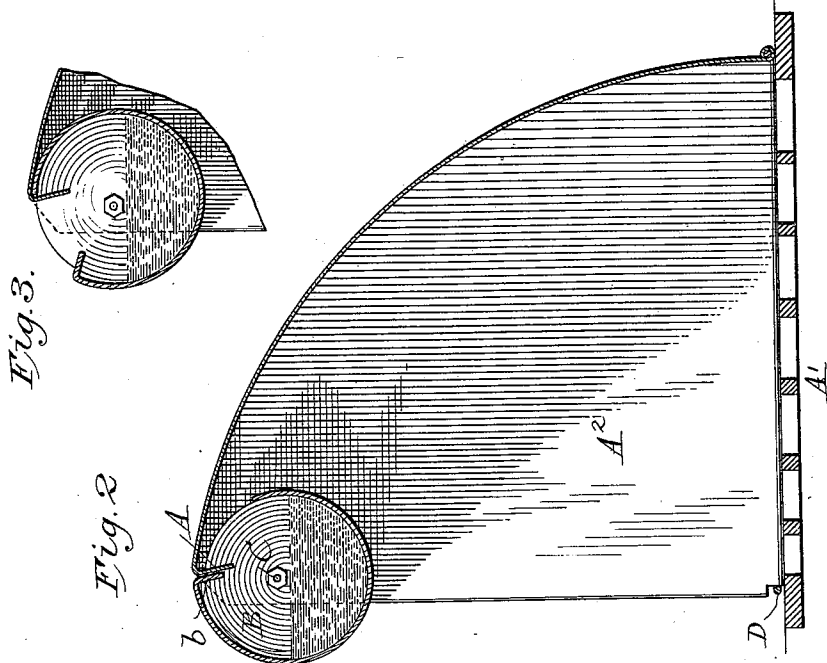


Fig. 3.

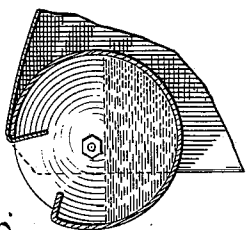
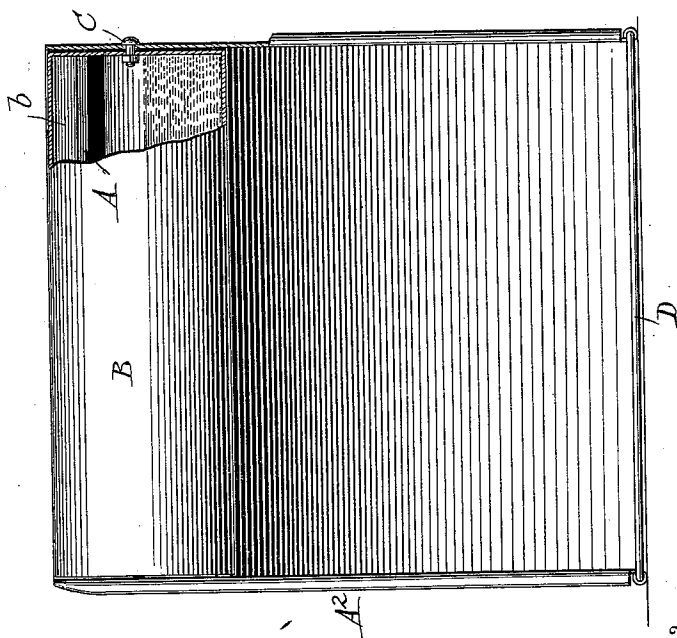


Fig. 1.



Witnesses
Edmund P. Conigworth
M. H. Colahan.

Inventors
James Rutherford
Joseph E. Rutherford
By Chas. Colahan
Their Attorney

UNITED STATES PATENT OFFICE.

JAMES RUTHERFORD AND JOSEPH E. RUTHERFORD, OF AKRON, OHIO.

DEFLECTOR.

SPECIFICATION forming part of Letters Patent No. 561,134, dated June 2, 1896.

Application filed December 2, 1895. Serial No. 570,776. (No model.)

To all whom it may concern:

Be it known that we, JAMES RUTHERFORD and JOSEPH E. RUTHERFORD, citizens of the United States, and residents of the city of Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Deflectors for Use as an Attachment to Registers and Radiators, of which the following is a specification.

In the drawings, Figure 1 represents a front view; Fig. 2, a side view with all parts of the same in their normal place or position in ordinary use. Fig. 3 shows a sectional side view of the cylinder, partly open, for cleaning and filling with water.

A represents the downwardly-projecting flange; $A^2 A^2$, the sides of the deflector; B, the revolving cylinder; b , its inwardly-projecting flange; C, its supporting journal bearings or pivots; D, the removable holding-rod.

Our invention consists in a vertical downwardly-projecting flange A, secured to the top at the front of the deflector, combined with the revolving dust-receiving cylinder or water-reservoir B, that is secured under the downwardly-projecting flange at the top, the flange projecting downwardly within the cylinder in order to direct downwardly into the cylinder the hot air and its dust and impurities that rise within the deflector. This cylinder is also provided at its outer edge with an inwardly-projecting flange b to retain its contents and cooperate with the downwardly-projecting flange of the deflector when closed up against the same and prevent the escape of dust. The downwardly-projecting flange of the deflector extends at the ends within the cylinder-reservoir and permits the free rotation of said cylinder, which is pivoted near the center at each end, upon which pivots C, secured at the side of the deflector, it may be rotated to open and close it for the purpose of cleaning or placing water in it.

We have provided the bottom of the deflector with a removable rod or wire D, that holds the sides firmly in position when placed over the register or radiator, and may be detached and removed for convenience in packing and shipping. The cylinder is also made removable for this purpose.

In operation the deflector is placed in the usual well-known manner over the register or radiator, and the cylinder attached thereto

may be partly filled with water and then rotated to close it at the top and to bring in contact the flanges of each, and the hot air rising within contains more or less smoke or dust, and it passes upwardly within the deflector and is brought in contact with the vertical flange at the top thereof, that directs it downwardly, when the dust and foreign substances are arrested and deposited within the cylinder and the air cleansed of its impurities; and our invention of the rotating cylinder makes it very convenient and useful for the purpose of cleaning it and placing water within, which requires to be done often to secure the best results, and it is unnecessary to remove the deflector to clean or fill the cylinder, as it can be readily done at any time, as it is in its ordinary place.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a register attachment, the combination of a shield adapted to receive air from a register, a depending flange attached to the upper end of the shield, and a rotatable reservoir attached to the shield beneath the flange and adapted to receive the impurities carried by the air-current.

2. The combination of the deflector provided with the dependent vertical flange secured at the front of the top thereof and extending within the rotating cylinder or water-reservoir, with the rotating cylinder attached beneath and operating substantially as set forth and described.

3. In a hot-air deflector, the combination of the shield, a flange A attached to and depending from the top thereof, a reservoir supported on the deflector beneath the flange A, the flange b attached to the reservoir, and the pivots C for supporting the reservoir.

4. In a deflector for registers or radiators the combination of the removable rotating cylinder secured to the top of the deflector and the removable rod or wire D secured to the sides at the bottom thereof as and for the purposes specified.

JAMES RUTHERFORD.
JOSEPH E. RUTHERFORD.

Witnesses:

JOHN L. KOLB,
T. W. WAKEMAN.