(No Model.)

D. B. MURDOCH.

FIREPLACE.

No. 257,369. Patented May 2, 1882.

Fig: 1.

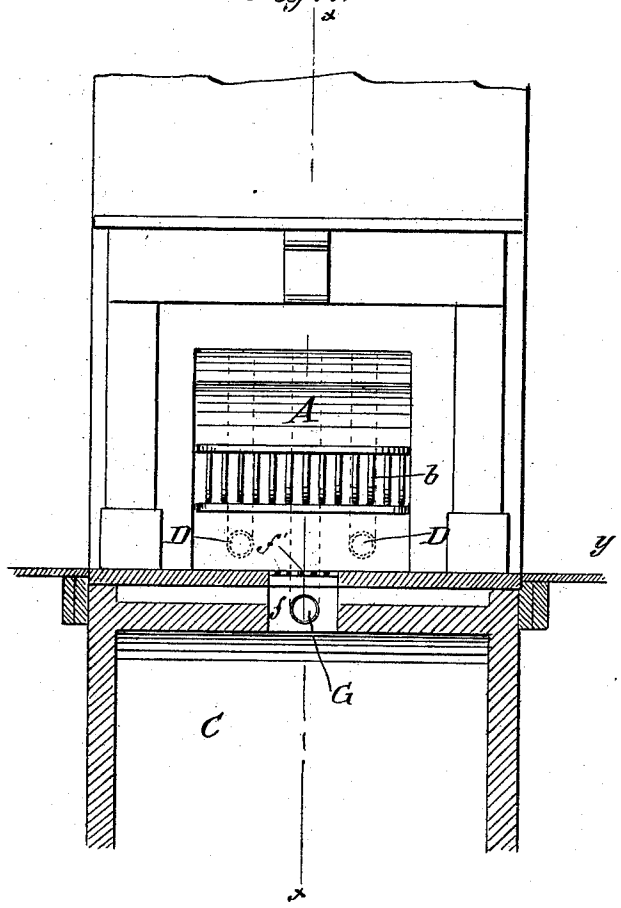


Fig: 2.

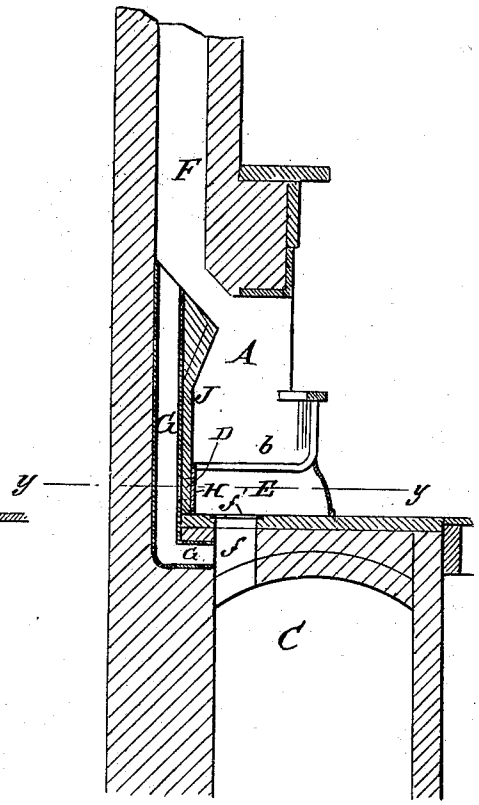


Fig: 3.

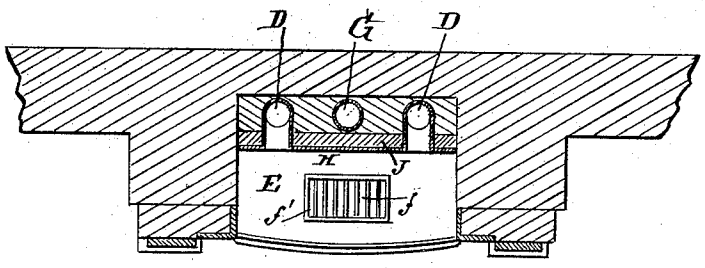
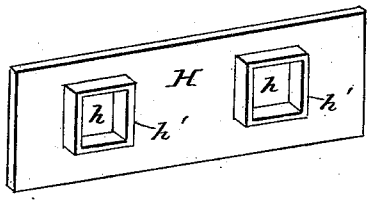


Fig: 4.



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DAVID B. MURDOCH, OF PITTSBURG, PENNSYLVANIA.

FIRE-PLACE.

SPECIFICATION forming part of Letters Patent No. 257,369, dated May 2, 1882.

Application filed February 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, DAVID B. MURDOCH, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented new and useful Improvements in Fire-Places, of which the following is a full, clear, and exact description.

My invention relates to the construction of fire-places; and it has for its principal object such construction of the fire-place that all escape of dust from the fire-place into the room will be prevented.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of my improved fire-place, the ash-pit being shown in section. Fig. 2 is a sectional elevation of the same, taken on the line *x x* of Fig. 1. Fig. 3 is a sectional plan view taken on the line *y y* of Fig. 2, and Fig. 4 is a perspective view of the back plate.

A represents the fire-place, having the ordinary fuel-grates, *b*.

C represents the ash-pit below the fire-place; D D, the dust-flues leading from the space E below the fuel-grates up into the chimney F; and G represents the flue leading from the passage *f*, through which the ashes pass to the ash-pit, up into the chimney. This passage *f* is covered with the grating *f'*, as shown in Figs. 1, 2, and 3.

H represents the metal plate, which is set in the fire-place below the fuel-grates *b*, and forms the back of the space E, as shown clearly in Figs. 2 and 3. This plate is preferably made with the two square openings *h h*, and is formed or provided with the rims or flanges *h' h'* upon the back of the plate, as clearly shown in Fig. 4. These flanges are of sufficient length to reach through the tile J, which forms the main back of the fire-place, so that when the plate is in place the flues D D, which are preferably of sheet metal, may be inserted from above the tile and fitted upon the flanges.

It will be understood that I do not limit myself to metal flues, as flues or pipes of clay may be used instead; or the flues may be built in solid masonry; but for putting my dust-flues in old fire-places the metal flues are preferred; nor do I confine myself to the employment of two dust-flues, as one, two, three, or more may be put in, according to the size of the fire-place and as may be found most expedient.

The flue G serves to collect and carry away all dust from the ash-pit C and passage *f*, as the ashes drop from the fuel-grate and space E, and the dust-flues D D cause a draft through the space E, which draws the dust from the space E into and up through the said flues, thus effectually preventing its escape into the room. The ash-pit C below the fire-place, and the passage *f*, leading thereto, serve to keep the space E at all times entirely free of ashes, so that the flues D D will at no time be clogged thereby and their action interfered with. In case the dust-flues are applied to fire-places which have no ash-pit below, care must be taken to keep the space E comparatively free from any large body of ashes, and the entrances to the dust unobstructed. By this construction the annoyance due to the escape of fine ashes and dust from the fire-place into the room is entirely overcome, and the dust-flues can be applied to both old and new fire-places at a very small expense.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with the fire-place back, of the flues D and the plates H, having openings *h* and flanges *h'*, adapted to extend through the tile J, as shown and described.

DAVID BRYSON MURDOCH.

Witnesses:

JAS. YOUNG,

JAS. R. MURDOCH.