J. S. LINSLEY.

FIRE PLACE.

No. 186,013. Patented Jan. 9, 1877.

Fig. 2.

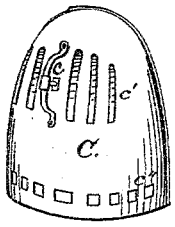


Fig. 4.

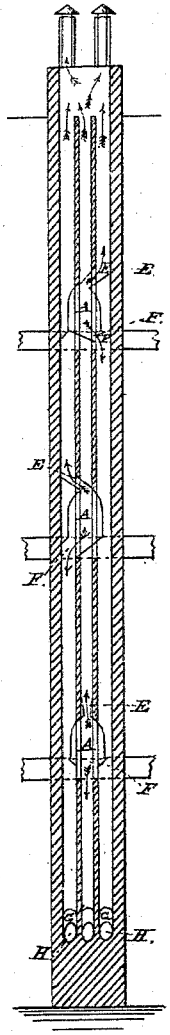


Fig. 1.

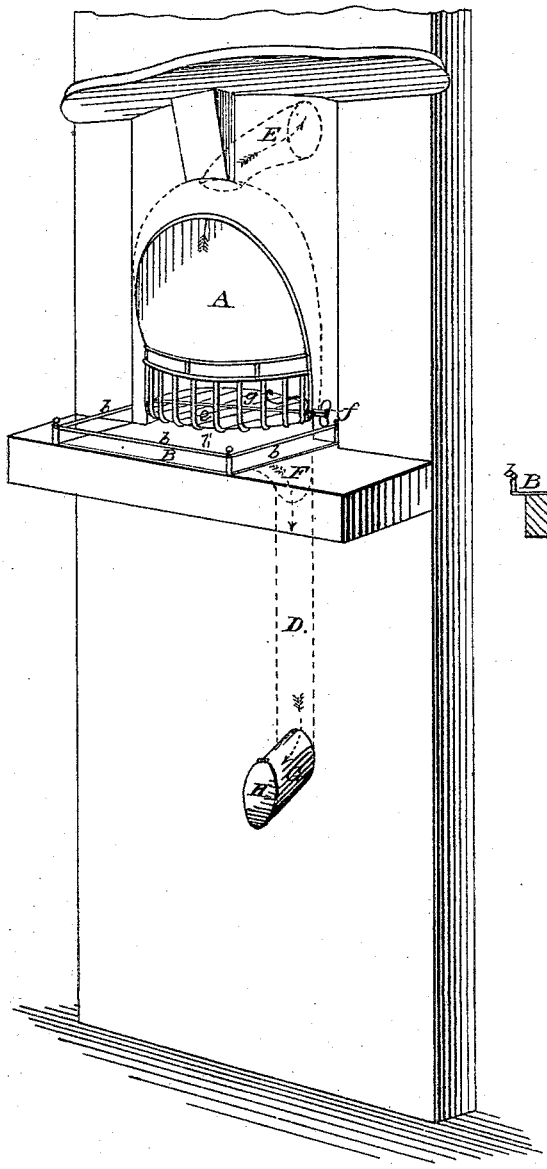
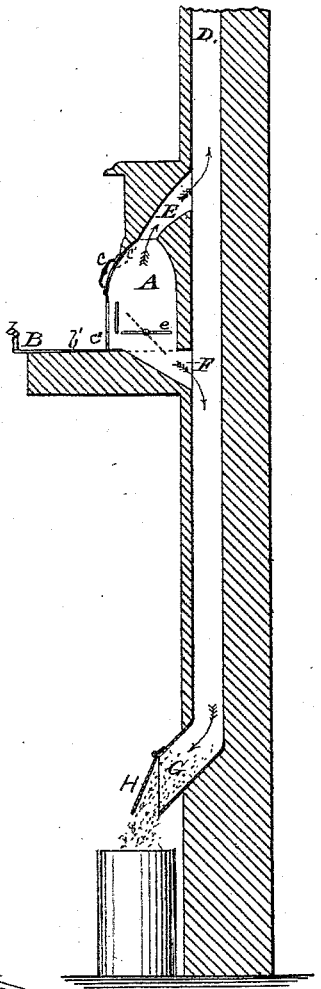


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN S. LINSLEY, OF NEW YORK, N. Y.

IMPROVEMENT IN FIRE-PLACES.

Specification forming part of Letters Patent No. **186,013**, dated January 9, 1877; application filed February 25, 1876.

To all whom it may concern:

Be it known that I, JOHN S. LINSLEY, of the city of New York, county of New York, State of New York, have invented a new and useful Improvement in Fire-Places for Buildings, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 is a perspective view. Fig. 2 is a view of my improved blower. Fig. 3 is a view illustrating the manner in which the blower and flat fender act in removing the ashes. Fig. 4 illustrates a stack of four chimney-flues with their respective fire-places.

The objects of my invention are to facilitate the immediate and thorough removal of ashes from open fire-places in each and every story of a building, and to prevent the fouling of chimneys and apartments from any upward current of air carrying ashes, while in the operation of discharging ashes or cleansing fire-places through such chimney-flues.

These objects are attained by the following means:

First. By a vertical chimney-flue for each fire-place, such flue to extend upward to communicate with the external air, and to be protected from the weather by a roof or ventilator, or otherwise, and to extend downward to communicate with an ash-sifter or other receptacle in the cellar of the building. This chimney-flue communicates with but one fire-place by a smoke-flue above the fire-place, and an ash-flue below the same. A series of such flues can be arranged in a stack for the several stories of a building, to be constructed out of any suitable material, but preferably of concrete blocks, having elliptical or circular perforations with a smooth interior surface, so that when laid they form a strong fire proof chimney with vertical flues, and having a smooth interior surface throughout.

Second. By a fire-place having a grate so constructed as to be shaken or turned for dumping purposes by means of a lever applied to the grate or central bar of the same through a perforation or niche in the side of the fire-place or chimney-jamb, such fire-place to be, preferably, of an elliptical form.

Third. By a flat fender, which serves as a cover to the mouth of the ash-flue, and receives the contents of the grate when the latter is shaken, turned, or dumped. This chute, cover, and fender is to be made of metal, preferably cast-iron, with the front nickel or silver plated.

Fourth. By a blower with upper and lower dampers, for regulating the draft beneath and above the fire. By constructing the blower in this manner, should occasion require, both sets of dampers can be opened, and, in consequence, the fire will be rapidly quickened, and, as it is made to cover the whole fire-place front and fit the fender close by its lower edge, all danger of sparks, &c., flying out into the apartment is guarded against. The blower may be secured to the fire-place front by any convenient means.

Fifth. By means of a valve or gate attached to the lower end of the chimney-flue. The purpose of the valve is to prevent the rush of ashes up the flue caused by the strong upward current, which may be of such force as otherwise to carry fine ashes back to the apartment through the fire-place. This valve may be made of metal, and is secured by a hinge to the upper edge of a pipe or conduit, which terminates the chimney-flue, and is so adjusted as to shut the flue air-tight, remaining shut by its own weight.

The construction and operation of my invention are as follows: A is the fire place, which is preferably an elliptical dome-shaped one, so that a greater quantity of heat shall be thrown into the room. B is the fender, which is provided with a flat bottom, b', and a rail, b, which extends around three of its sides. When the fender B is pushed in, the extension of its flat bottom b' acts as a cover to the ash-flue F. The fire-place A is provided with a smoke-flue, E, and an ash-flue, F, both of which enter into the vertical chimney-flue D. To the bottom of the flue D is secured, at an angle of inclination, a conduit or pipe, G, to which is attached by a hinge-joint a self-acting valve or gate, H. This valve or gate is so constructed that it will fall by its own weight, and thus keep the conduit G always closed, except when the grate is dumped or shaken, and the fall of the ashes, cinders, &c., opens the same. e is the grate, to whose axis or central bar is applied a lever, g, by means

of which the same is dumped or shaken when occasion requires. This lever passes through a niche, *f*, in the side of the fire-place, as shown in Fig. 1. C is the blower, which is constructed with two series of dampers, *c' c''*, the dampers *c'* being designed to give draft above the fire, and the dampers *c''* to give draft below the fire. By the employment of these two series of dampers I am enabled to increase or diminish the amount of draft to a much greater degree than where only the lower series of dampers are used, since I not only can have a draft below the fire but also one above the same, to aid combustion. This blower is provided with the usual handle C.

Method of operation: The blower C is placed so as to cover the fire-place A with the upper and lower dampers closed. This renders the fire-place front nearly or quite air-tight. The lever *g* is applied to the grate *e* through the niche *f*, and by shaking, turning, or dumping the same the ashes or contents of the grate fall upon the fender or ash-flue cover B. Then by taking hold of the fender-rail *b* and sliding the fender outward from the fire-place, the blower acts as a broom or scraper and slides the heap of ashes, &c., from the fender into the open ash-flue beneath, where they fall directly through the chimney-flue against the valve or gate H, opening the same and flowing over a sifter into an ash-box, the valve or gate H immediately closing again as the mass of ashes passes the same, thereby preventing any return of ashes upward through the chimney-flue.

What I claim as new and desire to secure by Letters Patent of the United States, is—

1. In a fire-place, the vertical chimney-flue D, fire-place A, shaking-grate *e*, ash-flue F, and valve or gate H, the whole constructed, combined, and arranged to operate substantially as and for the purposes specified.

2. The combination of the fire-place A, ash-flue F, grate *e*, flat fender B, and blower C, the whole constructed and arranged to operate substantially as described.

3. The blower C, having upper and lower dampers *c' c''*, when constructed and arranged to operate substantially as described, as and for the purpose specified.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

JOHN S. LINSLEY.

Witnesses:

KIMBALL C. ATWOOD,

DE WITT C. LAWRENCE.