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APPLIANCE FOR FIREPLACES.

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1,377,108. Patented May 3, 1921.

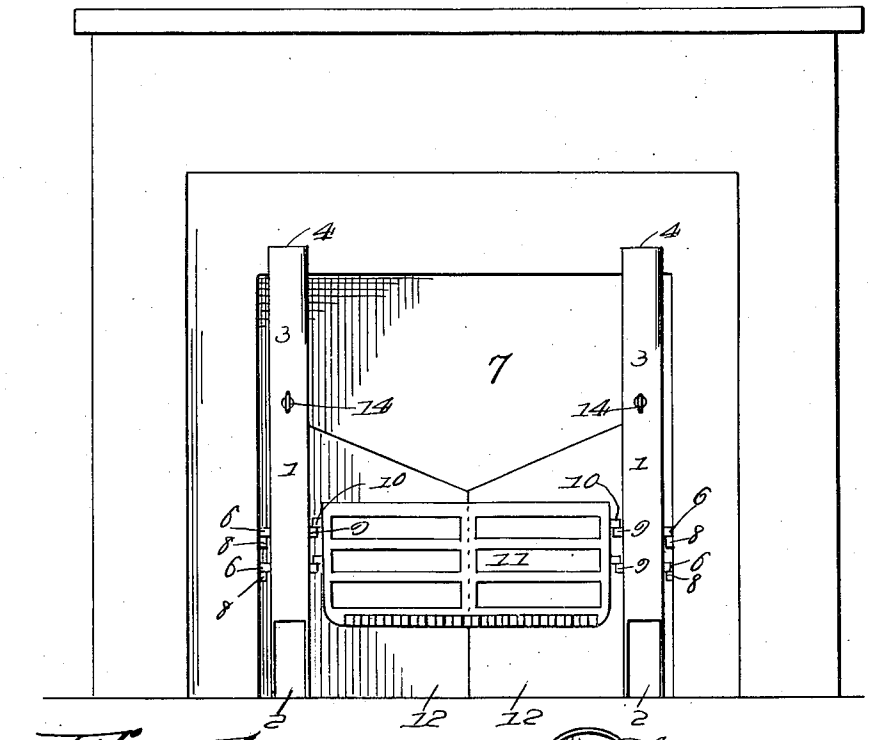


Fig. 1.

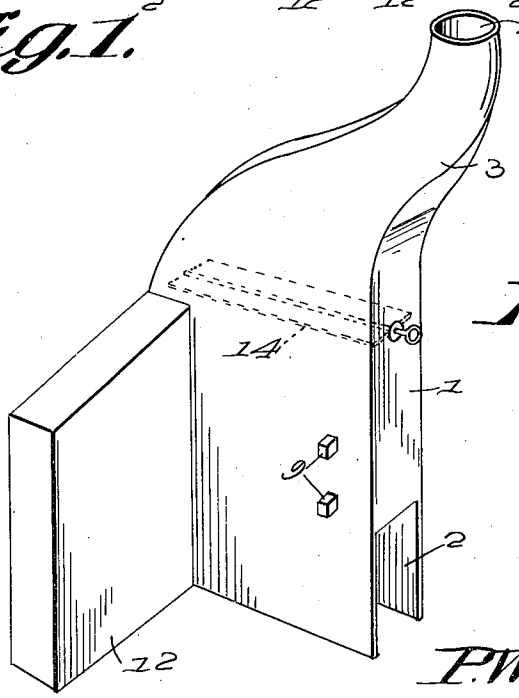


Fig. 2.

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1,377,108. Specification of Letters Patent. Patented May 3, 1921.

Application filed June 7, 1920. Serial No. 387,051.

To all whom it may concern:

Be it known that I, PEYTON W. WILLIAMS, a citizen of the United States of America, residing at Montgomery, in the county of Montgomery and State of Alabama, have invented new and useful Improvements in Appliances for Fireplaces, of which the following is a specification.

The purpose of the invention is to provide an air heating device for use in conjunction with open fire places, whereby a column of air is maintained interposed between the fire and the walls of the fire place, cold air being taken in at approximately the floor level and being returned in a heated condition to the roof in which the fire place is used. To this end, the invention comprises preferably a pair of hollow elements or members adapted for disposition in the fire place and provided with means for supporting a coal grate, if coal is used, the members having floor level intake openings and discharge openings positioned at the top of the fire place and adapted to discharge heated air into the room at this level.

While illustrated and described in a specific embodiment, the invention is not to be restricted to such embodiment. The right is reserved to make such changes or alterations as the actual reduction to practice may suggest, in so far as such changes or alterations are compatible in spirit with the annexed claims.

In the accompanying drawings:—

Figure 1, is a front elevational view of an open fire place equipped with the appliance constituting the invention.

Fig. 2, is a perspective view of one of the elements comprised in the invention.

Adapted for use with any open fire place, but designed particularly for use with those having a coal grate, the invention comprises complementary hollow elements each having a substantially rectangular shaped body 1 and in front wall of which there is provided an air entrance opening 2. The upper end of the body element is contracted into a neck 3 terminating in an upwardly disposed discharge opening 4. On one side the body element is equipped with the lugs 6 by means of which it is secured in the fire place 7 by engagement with the lugs 8 carried on the side walls thereof. The body element is also equipped with the lugs 9 to be engaged by the lugs 10 carried by the grate 11. The two members comprising the invention are disposed respectively on opposite sides of the fire place and through the instrumentality of the lugs 9 support the grate 11.

Each member at the rear is provided with a lateral hollow element 12, these two elements of the two members serving as a back wall for the fire place and against which the heat from the grate may be directed as well as against the inner side walls of the body members.

A great deal of heat is lost in open fire places, as a result of dissipation into the walls of the fire place and as a result of passage up the chimney. The appliance herein described aims to conserve a large quantity of this lost heat. All cool air being near the level of the floor will pass through the intake openings 2 and into the body elements 1 to the lateral extensions 12 of the two members and therein will be heated, rising to pass out of the discharge openings 4 of the two members and returning to the room in a heated condition. The heat that would thus have passed into the walls and up the chimney is returned to the room with the resultant saving of fuel.

That a means for regulation may be had, each body element 1 is provided with a damper 14 operable from the front of the body member. When closed the damper prevents the discharge through the opening 4 and in this way the quantity of air drawn into the appliance from the room and returned in a heated condition, may be determined to suit the conditions or temperature of the room.

The elements comprising the appliance may be made of cast iron or sheet steel or any acceptable material and conditions of manufacture will obviously determine this.

The invention having been described, what is claimed as new and useful is:—

1. The combination with an open fire place, of a removable heating appliance consisting of complemental hollow members each of which is formed with a hollow body portion disposed against the side wall of the fire place, the said body portions being formed with laterally projecting hollow elements disposed against the back wall of the fire place and having contracted discharge mouths projecting forwardly from the fire place and terminating above the top thereof,

the said body elements having substantially floor level intake openings for the purpose specified.

2. The combination with an open fire place, of complemental hollow elements each of which consists of a body element having means for attachment to one side wall of the fire place, the said body element being formed with a hollow laterally projecting element disposed against the back wall of the fire place and abutting end-on the corresponding element of the complemental member, both members having their body elements contracted at their upper ends to provide discharge openings above the plane of the top of the fire place and having substantially floor level intake openings, a grate suspended from the body elements of the two members, and dampers carried in said body elements above the plane of the top of the laterally projecting elements in the manner and for the purpose specified.

In testimony whereof I affix my signature.

PEYTON W. WILLIAMS.