Nov. 4, 1924. 1,514,360

C. F. YORK

HEATING APPARATUS

Filed May 16, 1923

Fig. 1.

ON LINE 1-1 OF FIG. 2.

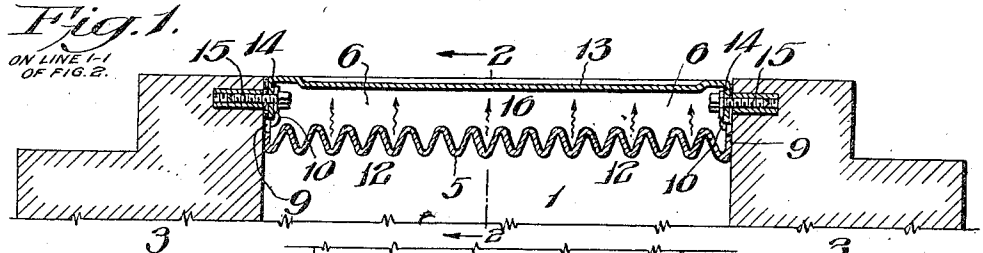


Fig. 3.

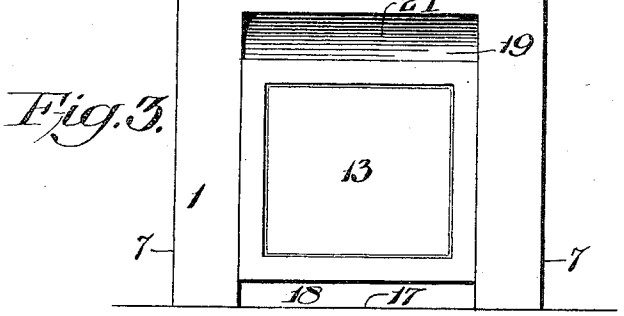


Fig. 2.

ON LINE 2-2 OF FIG. 1

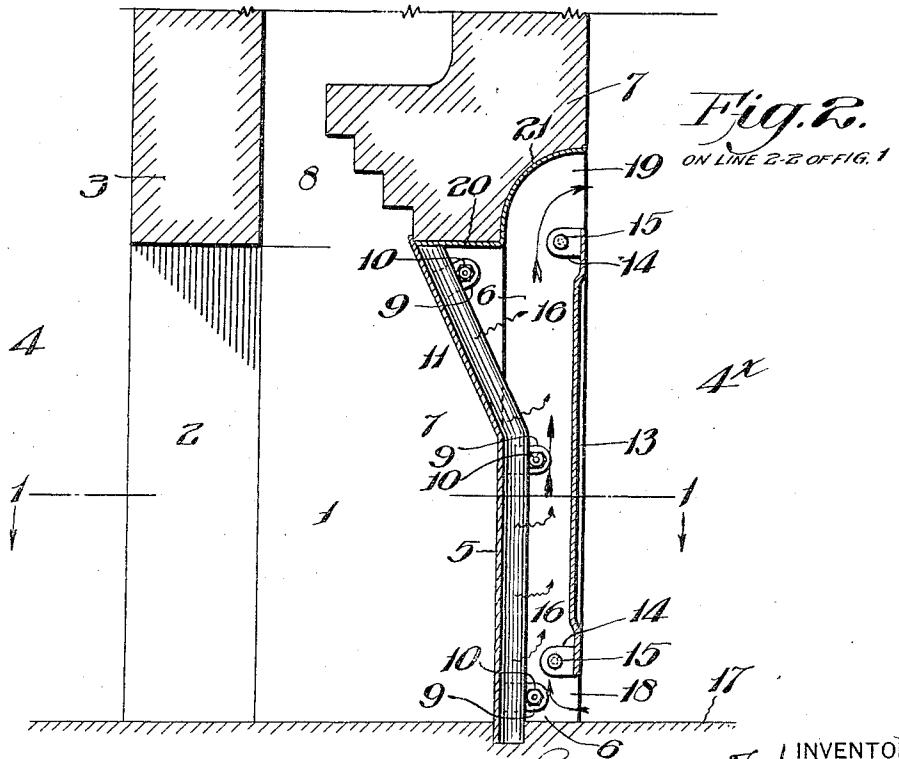
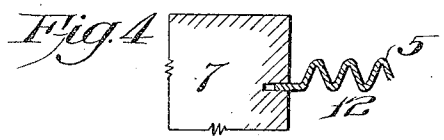


Fig. 4



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UNITED STATES PATENT OFFICE.

CHAUNCEY F. YORK, OF DETROIT, MICHIGAN.

HEATING APPARATUS.

Application filed May 16, 1923. Serial No. 639,288.

To all whom it may concern:

Be it known that I, CHAUNCEY F. YORK, a citizen of the United States, residing at Detroit, in the county of Wayne, State of Michigan, have invented a new and useful Heating Apparatus, of which the following is a specification.

My invention consists of a heating apparatus for a fire place in an apartment whose fireback is adapted to heat an adjoining apartment or room through an opening in the partition between the two apartments, said opening being adapted to contain a radiator plate which with said fireback forms an intermediate chamber adapted to receive the heat of said fire back and communicate the same to said radiator plate and consequently to said adjoining apartment, said radiator plate having at the bottom a passage by which air passes from the adjoining apartment into said chamber so as to commingle in a large volume with the heat in said chamber and forcibly eject the heat from said chamber through a passage at the top of said deflector plate into said apartment, the two passages causing a circulation of the heated air directed into the adjoining apartment, thus effectively and uniformly heating the latter.

The radiator plate also serves as a guard in the adjoining apartment for preventing persons in the latter from contacting with said fireback.

The invention is satisfactorily illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific details shown and described, as long as they are within the scope of the claim.

Figure 1 represents a horizontal section of a heating apparatus embodying my invention in part on line 1—1 Figure 2.

Figure 2 represents a vertical section thereof on line 2—2 Figure 1.

Figure 3 represents a front elevation thereof.

Figure 4 represents a horizontal section of a portion of a modification.

Similar numerals of reference indicate corresponding parts in the figures. Referring to the drawings:—

1 designates a fire place, access thereto being at the opening 2 in the lower portion of the partition 3 of an apartment 4.

5 designates a vertically extending plate, the same forming the fire back of said fire place, and being intermediate of the apartment 4, and an adjoining apartment 4^x, and occupying part of an opening 6 in the lower portion 7 of the partition between the two apartments.

In the partition is the flue 8 for the products of combustion from the fire place 1. The fire back 5 is formed with ears 9, whereby it may be secured to the sides of the portion 7 of the partition by bolts 10, or other suitable means.

The upper portion of said fire back is projected angularly forward as at 11 forming means for deflecting the heat of the fire place through the opening 2 into the apartment 4.

In order to increase the heating surface of said fire back, the same is corrugated as at 12, as most plainly shown in Figure 2, the effect of which is evident.

In the opening 6 is the vertically extending plate 13 which is provided with ears 14 whereby it may be secured to the sides of the portion 7 by bolts 15 or other suitable means, said plate forming a radiator for the heat from the fire back 5.

It will be noticed that the plate 13 comprises the front of the opening 6, but it is set rearward of the fire back 5 and is separated sufficiently therefrom to produce a heat receiving chamber 16, the heat being radiated from said back plate 5, when fire is made in the fire place 1, so as to heat the apartment 4^x.

The plate 13 extends to near the floor 17, so as to leave between the bottom of said plate and said floor, the passage 18 which forms an inlet for air from the adjoining apartment 4^x into the heat receiving chamber 16 and creates a draft in the latter.

The plate 13 extends to near the top wall of the opening 6 so as to leave between the upper end of said plate and the top of said opening the passage 19 which forms an outlet for the hot air from the chamber 16 into the apartment 4^x.

The plate 13 is foreshortened at the top and bottom to form the respective passages 18 and 19. The top wall of the opening 6 has thereon the lining plate 20 a portion of which overhangs the said outlet preferably in curved form forming the deflector 21 which serves to eject the hot air more forcibly from the chamber 16 into the apartment 4^x. The lining 20 closes in

part the top of the heat receiving chamber 6 and covers the bottom of the partition 7 and joins said overhanging deflector 21 which latter covers the remainder of the top of said heat receiving chamber 6 and so heat is ejected laterally at the top of the chamber directly in the apartment $4^{\times}$.

It is evident that the fire in the place 1 heats the fire back 5 when the radiated heat enters the chamber 16, and it is ejected therefrom through the outlet passage 19 into the apartment $4^{\times}$, thus heating the latter, it being evident that a single fire place is adapted to provide the heat for adjoining apartments.

The plates 5 and 13 are readily removable for purposes requiring the same.

In lieu of the ears 9 and 14, and the bolts 10 and 15 for retaining said plates 5 and 13 in position, the terminals of the latter may be set in recesses in the partitions, a form of which is shown for the plate 5 in Figure 4.

It is evident that either of the apartments 4 and $4^{\times}$ may be a hallway or some other room to either of which the device is appliable.

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

A heating apparatus of the character stated consisting of a fire place, a fire back therein, and a radiator plate in an opening rearward of said fire back forming a heat receiving chamber, said opening being in communication with an adjoining apartment, said radiator plate having at the top and bottom thereof an opening in communication with said heat receiving chamber and said adjoining apartment forming respectively at the bottom an air inlet from said adjoining apartment into said receiving chamber, and on top a combined air and heat discharging outlet from said chamber into said apartment.

CHAUNCEY F. YORK.

Witnesses:
JOHN A. WIEDERSHEIM,
N. BUSSINGER.