A. C. NELSON.

CHIMNEY FLUE.

APPLICATION FILED JAN. 16, 1917.

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Fig. 1.

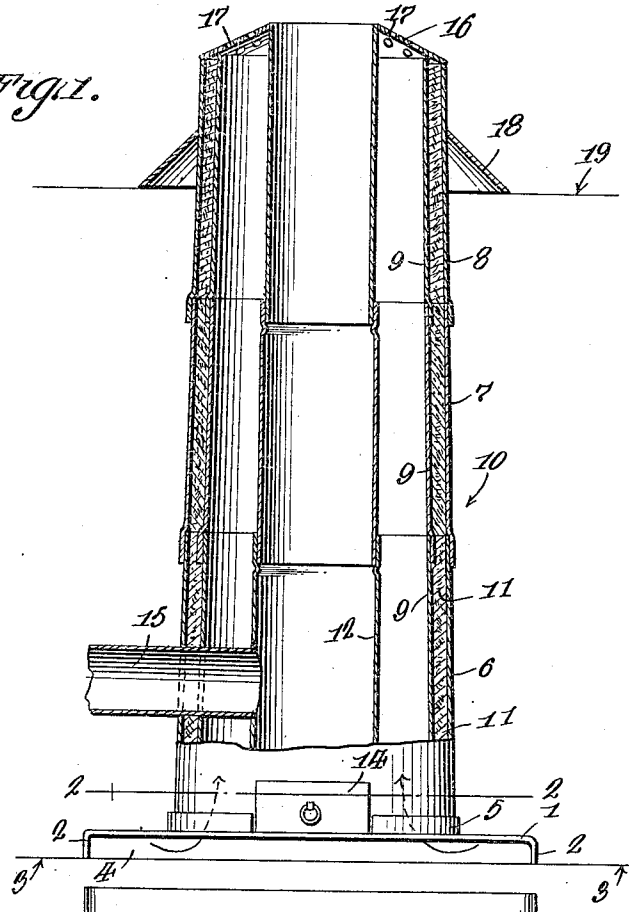
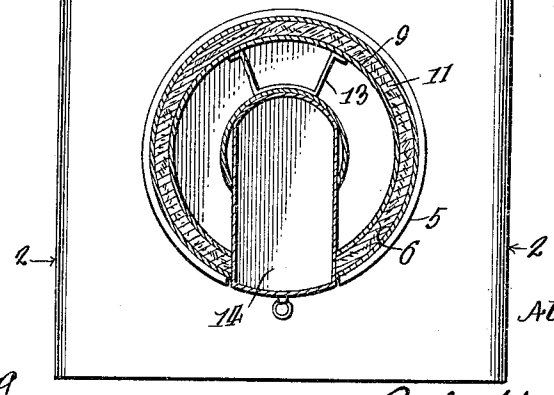


Fig. 2.



WITNESSES

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CHIMNEY-FLUE.

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Application filed January 16, 1917. Serial No. 142,725.

To all whom it may concern:

Be it known that I, ALICE C. NELSON, a citizen of the United States, residing at Tipton, in the county of Moniteau and State of Missouri, have invented certain new and useful Improvements in Chimney-Flues, of which the following is a specification.

My invention relates to improvements in chimney flues, and it consists in the constructions, combinations and arrangements herein described and claimed.

An object of my invention is to provide a chimney flue which is of such a construction that it may readily be assembled or disassembled as is an ordinary stove pipe, the usual brick setting which is both heavy and expensive, being eliminated in the first instance.

Another object of my invention is to provide a chimney flue of such a character and construction whereby the danger of fire from an overheating of the flue, will be entirely obviated.

Other objects and advantages will appear from the following specification, reference being had to the accompanying drawing forming a part thereof, in which:

Figure 1 is a central vertical section of the flue a portion thereof being shown in elevation, and

Fig. 2 is a cross section on the line 2—2 of Fig. 1.

In carrying out my invention I provide a platform 1 formed preferably of cast metal. The platform 1 is provided with downwardly extending flanges 2 at opposite sides thereof, the flanges 2 resting on a portion of the structure 3 of the building in which the flue is installed. By providing the flanges 2 as stated and as shown in Fig. 1, a space 4 is left into which cold air may readily flow in the direction indicated by the arrows, and for a purpose presently to be described.

The platform 1 is also provided with an upwardly extending flange 5 which forms the receptacle for the lower section 6 of the flue 10. Other sections 7 and 8 are fitted over one another and in turn over the lower section 6 in a manner similar to the fitting together of stove pipe sections. The lower section 6, as is also the sections 7 and 8, is provided with a concentric inner section 9. A non-heat conducting material such as asbestos, is packed between the inner and outer sections, the asbestos being indicated as at 11.

Disposed concentrically of the flue sections 9—6, 9—7, etc., is a smoke flue 12. The several smoke flues 12 of the individual flue sections are also to be telescoped over one another as shown in Fig. 1 of the drawing. In practice it may be desirable to provide a spacing member between the smoke flue 12 and the sections of the flue 10 as indicated at 13 in Fig. 2, the purpose of the spacing member 13 being to keep the smoke flue 12 in a central relation with the outer sections of the flue. The area around the smoke flue 12 is thus maintained uniformly. A soot pan 14 is arranged at the bottom of the flue 12 and catches the soot deposited by the smoke entering at the pipe 15.

A cover plate 16 closes the upper end of the air chamber around the smoke flue 12, the plate 16 being perforated as at 17 for the passage of air. A deflector plate 18 is disposed around the upper flue section 18 and is arranged to meet the roof 19 of the building so that water may not enter at the juncture of the roof with the flue.

While it will be readily understood for what purpose the flue is intended, it may be well to state that fires are often caused in buildings by reason of the joints of the smoke flue becoming loosened thus causing an overheating of the adjacent inflammable parts. Indeed the adjacent inflammable parts may ignite merely from an excess of radiant heat from the flue.

In order to obviate the above named dangers, the smoke flue 12 in my case is surrounded by the outer casing which forms an air chamber between the two. Air entering the openings in the platform 1 and flowing out of the apertures 17 at the top, causes a circulation which conveys the radiant heat from the flue 12 to the outer atmosphere. The provision of the non-heat conducting asbestos 11 adds an extra precaution against fire and also adds to the efficiency of the flue.

While the construction of the device as set forth in the foregoing specification and the accompanying drawing is that of a preferred one, obviously modifications and variations may be made without departing from the spirit of the invention or the scope of the claim.

I claim:

In a device of the class described, the combination of a supporting platform, said platform having an upwardly extending annular flange formed thereon, said flange having

a cut-out portion, thus having spaced apart ends, a heat insulating flue carried upon said platform and having its lower end fitting within said flange, thus being held against side displacement upon said platform, a smoke flue positioned centrally within the heat insulating flue, a spacing member secured to the inner portions of said heat insulating flue and bearing upon said smoke flue, thus spanning the distance between said flues, whereby the smoke flue will be held against accidental shifting within said heat insulating flue, and a soot pan passing through said flange and said flues in direct alinement with the spacing member, thus further assisting in holding said smoke flue against shifting within the heat insulating flue.

In testimony whereof I affix my signature in presence of two witnesses.

ALICE C. NELSON.

Witnesses:
H. W. POPPER,
G. H. MEEKER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."