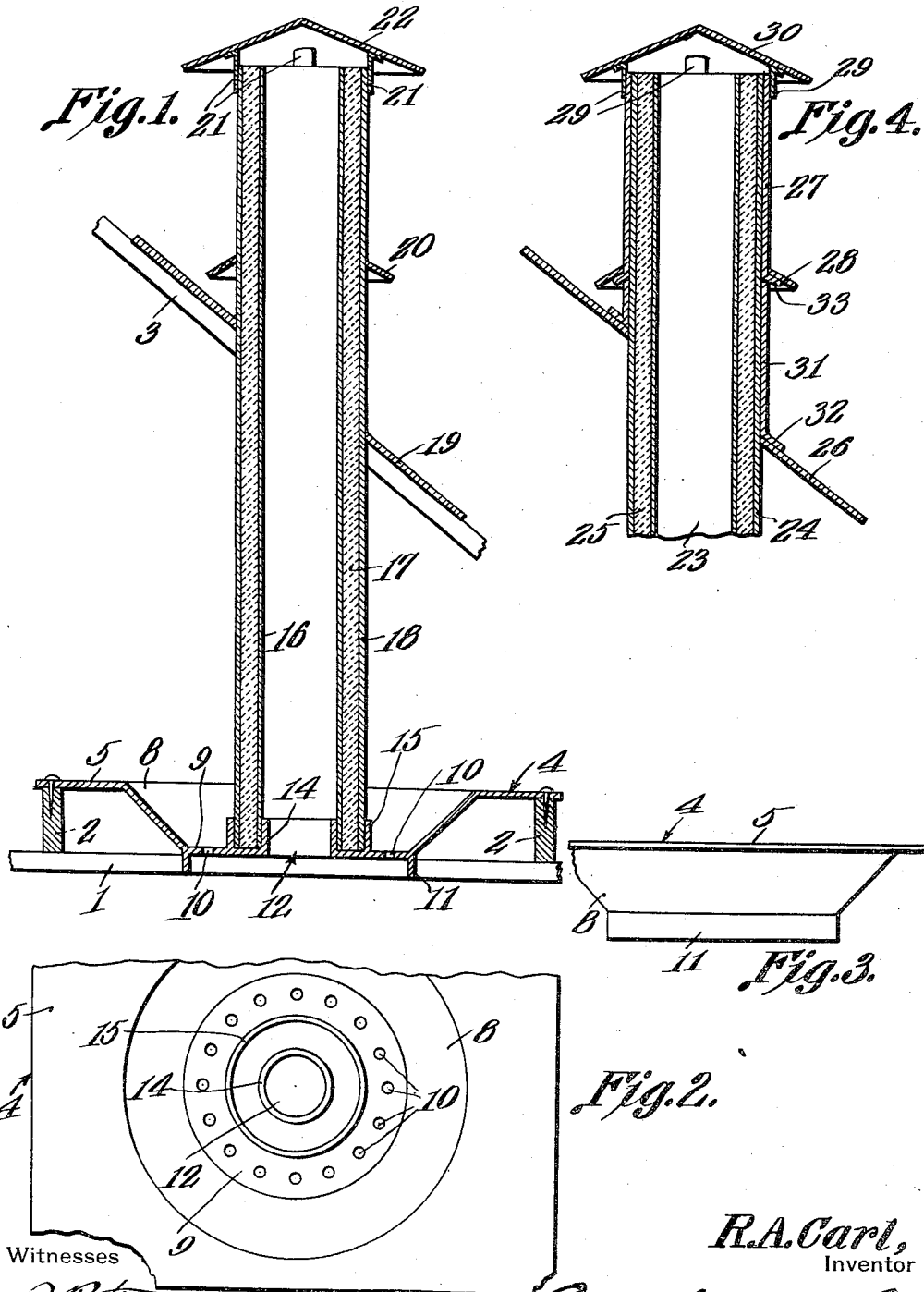


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COMBINATION FLUE.
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1,085,889.

Patented Feb. 3, 1914.



Witnesses

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REINHOLD ADOLPH CARL, OF ELGIN, TEXAS.

COMBINATION-FLUE.

1,085,889.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, REINHOLD ADOLPH CARL, a citizen of the United States, residing at Elgin, in the county of Bastrop and State of Texas, have invented a new and useful Combination-Flue, of which the following is a specification.

One object of the present invention is to provide a flue which will not crack and open, due to settling or to transverse strain.

Another object of the invention is to provide novel means whereby the flue may be supported from the joists of a ceiling, against settling.

Another object of the invention is to provide a member, which at once, will serve as a support for the flue and as a means for finishing off the opening in the ceiling through which the stove-pipe passes.

The invention aims, further, to improve generally and to increase the utility of, devices of that type to which the present invention appertains.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawing:—Figure 1 shows one form of the invention in vertical longitudinal section; Fig. 2 is a top plan of the support, parts being broken away; Fig. 3 is a side elevation of the support; and Fig. 4 is a fragmental vertical longitudinal section showing a modified form of the invention.

In the drawing, the numeral 1 indicates the ceiling of an apartment, supported by joists 2, the numeral 3 indicating a portion of the roof.

In carrying out the invention there is provided a support shown in detail in Figs. 2 and 3, the support being denoted generally by the numeral 4. The support 4 may be of any desired outline, the support in the present instance being shown in the form of a rectangular plate 5 of unequal dimensions. The plate 5 is supported on the joists 2. The plate 5 is provided with a depressed conical portion 8 at the lower end of which is formed a base 9 substantially parallel to the plate 5, the base 9 having a plurality of

ventilating openings 10 therein. At the line of juncture between the base 9 and the conical portion 8 there is formed an annular depending flange 11 which extends through the opening in the ceiling 1 and serves to guard and to finish off the opening. At this point it may be noted that owing to the presence of the ventilating opening 10, the support cannot become overheated, the support preferably although not necessarily, being fashioned from cast iron. In the base 9 there is a central opening 12, at the periphery of which is located an upstanding flange 14, there being another flange 15 upstanding from the base 9, between the flange 14 and the ventilating openings 10. The flanges 14 and 15 are preferably, although not necessarily, of annular form.

The flue proper comprises an inner casing 16 which may be fashioned from thin metal, the primary function of the casing 16 being, merely, to retain the concrete filling 17, until the same has set. An outer jacket 18 is provided, the jacket 18 ordinarily being fashioned from galvanized metal, so as to withstand the weather. The lower ends of the casing 16 and of the jacket 18 are interposed between the flanges 14 and 15 of the support 4, the concrete 17 being tamped between the casing and the jacket. It will be understood, of course, that the casing and the jacket may be extended to any desired length, depending upon the height of the flue or chimney which is to be provided.

Secured in any desired manner to the jacket 18 is an inclined guard plate 19, adapted to rest upon the roof 3. Located above the guard plate 19 and secured by any preferred means to the jacket 18 is a downwardly inclined deflector 20, the function of which is to direct laterally and away from the joint between the guard plate 19 and the jacket 18, any water which may flow downwardly upon the outside of the chimney or flue. To the upper end of the jacket 18 may be secured a plurality of brackets 21, supporting a hood 22.

In that form of the invention which is shown in Fig. 4, the casing is denoted by the numeral 23, the numeral 24 indicating a jacket and the numeral 25 indicating the concrete which is interposed between the casing and the jacket. A guard plate 26 surrounds the jacket 24. A tubular member 31 surrounds the jacket 24 above the guard plate 26, the member 31 having an outstand-

ing flange 32 which rest upon the guard plate. If desired, the flange 32 may be secured to the guard plate 26. The jacket 24 is surrounded by another tubular member 27 having an outstanding flange 33 which rests upon the top of the tubular member 31. A deflector 28 surrounds the tubular member 27 the deflector 28 being supported by a flang 33. The parts 33 and 28 may be secured together if desired. Secured to the upper end of the tubular member 27 are bracket 29, supporting the hood 30. If desired, the hood 30 may be attached directly to the jacket 24 and the deflector 28 may be secured to the jacket 24, Fig. 1 laying ample basis for the construction above described, the tubular member 31 with its flange 32, and discharge plate 26, being retained.

It will be understood readily that the structure shown in Fig. 4 is adapted to be employed in connection with a support of the sort shown in Fig. 1.

The flue hereinbefore described is of a strong construction, and will not crack or open as will a flue which is fashioned from brick. Further, the support is so constructed that a rigid foundation for the flue is provided, a yielding and a consequent distortion of the flue being a practical impossibility. The support is so constituted that there will be ample ventilation about the base of the flue, and consequently the floor and adjacent parts of the building will not be likely to be ignited no matter how great may be the heat within the flue. The flange 14 serves not only to retain the inner casing 16, but, as well, serves as a socket to receive the upper end of the stove-pipe (not shown).

It will be understood readily that the specific form of support shown in Fig. 1 is adapted to be used in connection with that form of the flue structure which is shown in Fig. 4.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, a base plate provided with a depressed truncated conical portion having at its smaller end a depending flange constituting a ceiling sleeve, the conical portion having a flat bottom, constituting a ceiling closure, there being a flue opening in the bottom and spaced flanges upstanding from the bottom, the flanges being concentric with the opening, the inner of said flanges being located adjacent the opening and constituting a pipe collar; and a flue engaging between the last specified flanges; the bottom having an annular series of ventilating openings concentric with the flue opening and located beyond the outer of said flanges and beyond the flue, the base plate being connected with the periphery of the upper end of the conical portion.

2. A combined flue support and ventilating ceiling closure, comprising a base plate, and a depressed, inverted, frusto-conical portion connected at its wider end with the base plate, the smaller end of the frusto-conical portion being provided with a depending flange constituting a ceiling sleeve, and being provided with a flat bottom constituting a ceiling closure, the bottom having a flue opening and being provided with an upstanding flange concentric with the flue opening and constitute a flue holding collar, the bottom being perforated between the depending flange and the upstanding flange to afford ventilation.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

REINHOLD ADOLPH CARL.

Witnesses:

W. H. ENDERS,
W. W. WARD.