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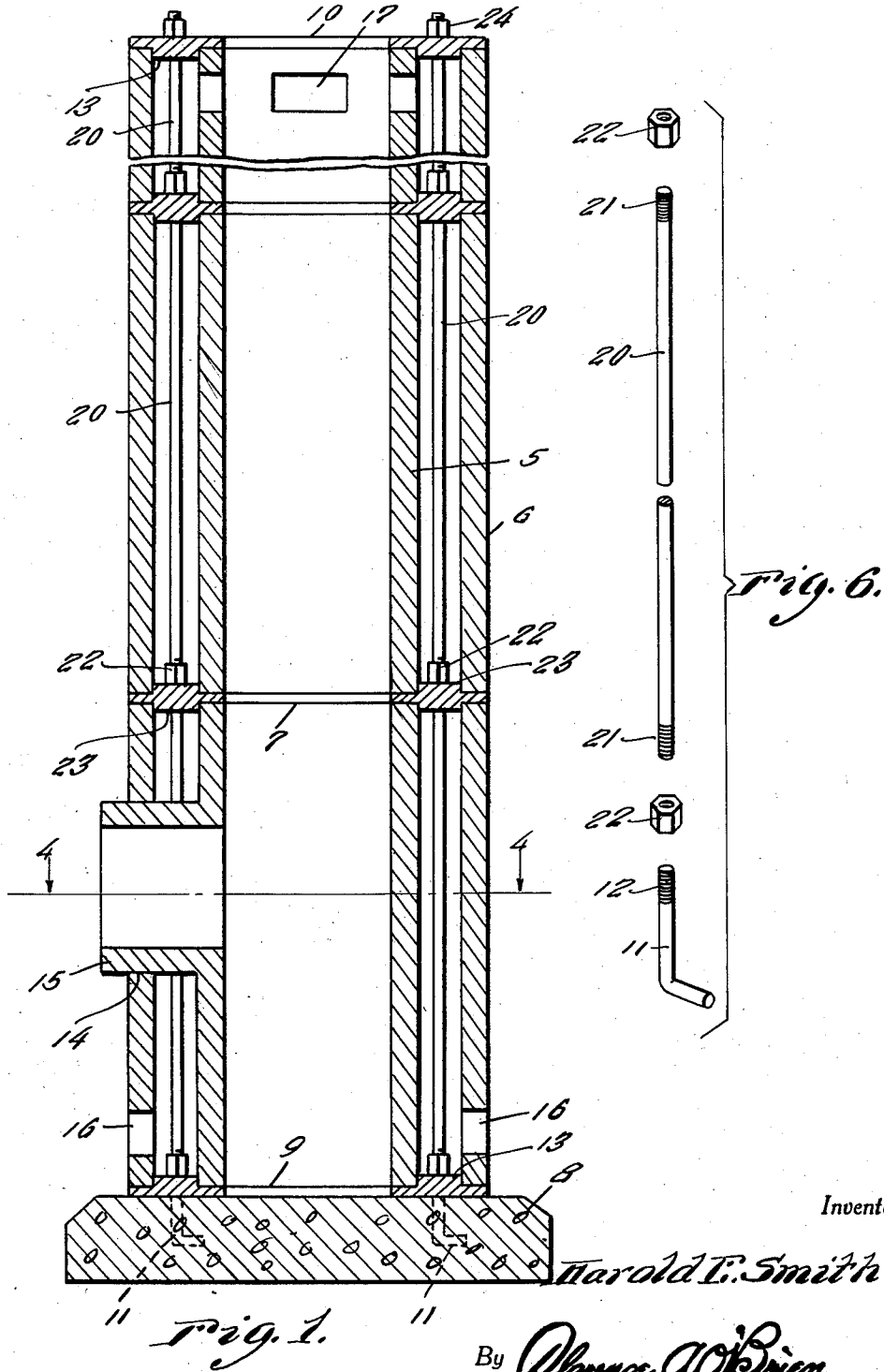
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2,011,018

CHIMNEY CONSTRUCTION

Filed June 18, 1934

2 Sheets-Sheet 1



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Fig. 2.

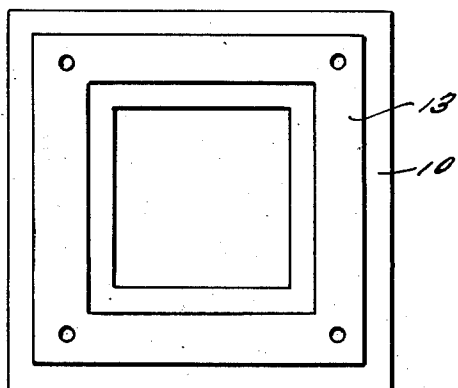


Fig. 3.

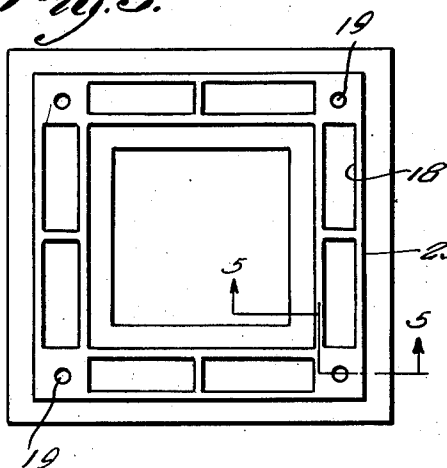


Fig. 5.

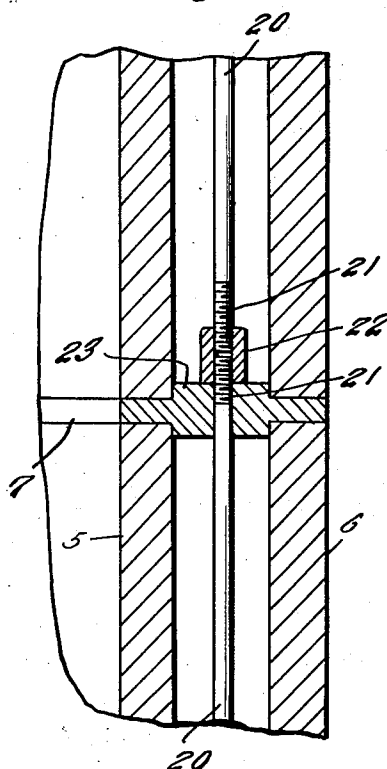
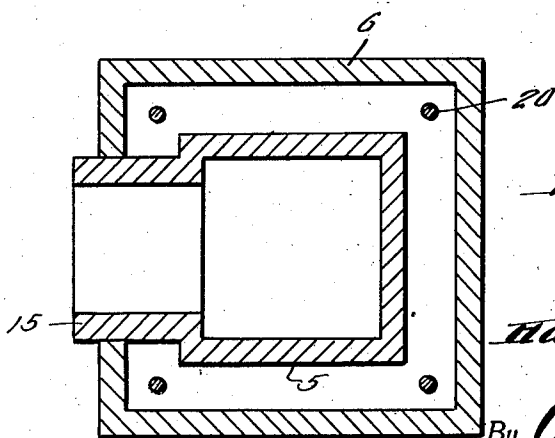


Fig. 4.



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CHIMNEY CONSTRUCTION

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2 Claims. (Cl. 98—58)

This invention appertains to new and useful improvements in chimneys and more particularly to a chimney of air-cooled construction.

The principal object of the present invention is to provide a chimney of hollow wall construction having an air inlet at its bottom and ports at its upper end and inner side, so that a suction is created along the air passageway by the discharge of combusted gases at the top of the chimney to the end that the outside wall of the chimney will always be maintained cool, thus reducing the fire hazard and reducing heat radiation from building walls which is very undesirable in the summertime.

Various important objects and advantages reside in the details of construction and these will become apparent to the reader of the following specification.

In the drawings:

Figure 1 is a vertical sectional view through the chimney.

Figure 2 is a bottom plan view of the top plate.

Figure 3 is a top plan view of one of the separating plates.

Figure 4 is a horizontal sectional view taken substantially on line 4—4 of Figure 1.

Figure 5 is an enlarged vertical fragmentary sectional view taken substantially on line 5—5 of Figure 3.

Figure 6 is a perspective view showing one of the tie rod sections and the lower anchor with the nuts for connecting the same.

Referring to the drawings wherein like numerals designate like parts, it can be seen that the chimney is made up of an inner flue generally referred to by numeral 5 and the outer wall generally referred to by numeral 6 and spaced from the flue while the novel spacing frames are denoted generally by numeral 7.

As is clearly shown in Figure 1, the chimney will probably be built upon a suitable base 8 and upon this will be placed a rectangular plate 9 which is of the same construction as the top plate 10 at the top of the chimney. Numeral 11 represents four L-shaped anchors the upper end portions of which are threaded as at 12 and extend upwardly through the plate 9, this plate 9 being provided on its top side with a relatively broad shoulder 13 which fits upwardly between the flue 5 and outer wall 6. As is clearly shown in Figure 1, the lower section of the wall 6 is provided with an opening 14 therein through which the pipe extension 15 from the flue 5 extends to the furnace or stove. This section of the outer wall 6 is provided with air inlet openings 16, while the up-

permost section of the flue 5 is provided with air outlet openings 17.

Between each section of the chimney is a separating and spacing plate 7 of rectangular shape and provided with the air openings 18 therein, and at the corners with openings 19 therein for receiving the upper ends of the tie rod sections 20, which are provided with threaded ends 21—21 which are connected with each other by elongated nuts 22.

As will be observed in Figures 1 and 5, the frame 7 is provided on its top and bottom sides with rather wide shoulders 23 which fit upwardly and downwardly between adjoining sections of the chimney for definitely spacing the flue and outer wall 5 and 6 respectively laterally.

The uppermost section 20 of the tie rods extends above the top plate 10 and is equipped with a nut 24.

In this manner the entire chimney is built up to any desired height.

In the operation of the chimney, obviously combusted gases are passing upwardly through the flue 5 and will cause a suction by way of the opening 17 and cause a draft of air upwardly through the space between the flue 5 and the outer wall 6, thus cooling the outer wall, the heat being carried off by the updraft of air.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

What is claimed is:

1. A chimney construction comprising a vertical flue, a vertical wall surrounding the flue in spaced relation thereto, an inlet for the flue at the lower portion thereof, said outer wall being provided with air inlet openings adjacent the lower end thereof, air outlet openings in the flue adjacent the top thereof, said flue and outer wall being in sections, frame-like spacers interposed between the said sections, said spacers being provided with shoulders thereon for interposition between the flue and outer wall to maintain the same in definite spaced relation, and tie rods extending vertically between the flue and outer wall and connecting the said frame-like members in a manner to clamp the flue and outer wall sections between the same.

2. A chimney comprising a sectional construction disposed in end to end relation, each section including a single walled chimney block, a single walled flue block the complement of and nested

in spaced relation within the flue block to provide a continuous air chamber in the chimney, a joint plate between the sections formed with an apertured shoulder above and below opposite faces thereof to provide marginal flanges to receive the confronting ends of the flue and chimney blocks of the sections respectively and also to maintain the nested flue and chimney blocks of each section in transverse spaced relation, said apertures in the shoulders registering with the air chamber between the flue and chimney blocks, sectional tie rods extending the length of the chimney and

having separate coupling means to clamp the plates of each section to the succeeding sections, a foundation and a cap plate for the bottom section and the top section respectively, said chimney block formed with openings in the lowermost section, said flue block formed with openings in the uppermost section, an opening in one of the chimney blocks, and a sleeve formed on one of the flue blocks extending through a corresponding opening in the chimney block whereby a stove or furnace is connected with the chimney. 5 10

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