A. P. McGUIRK.

STOVEPIPE AND THIMBLE.

APPLICATION FILED NOV. 30, 1908.

961,519. Patented June 14, 1910.

Fig. 2,

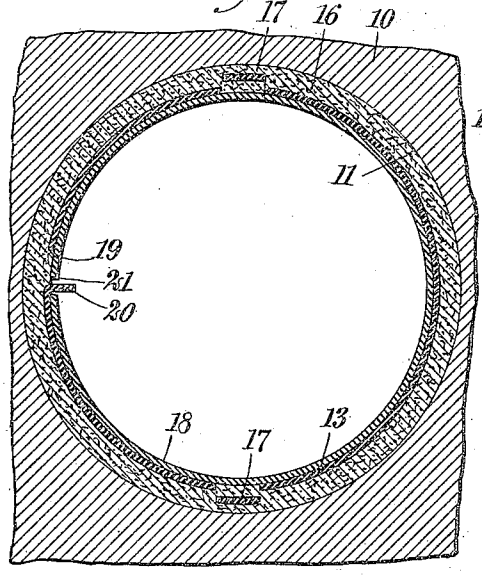


Fig. 1,

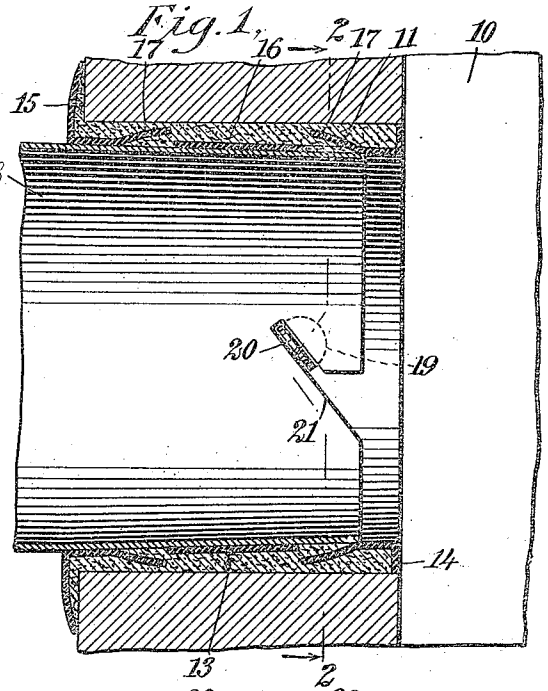


Fig. 3,

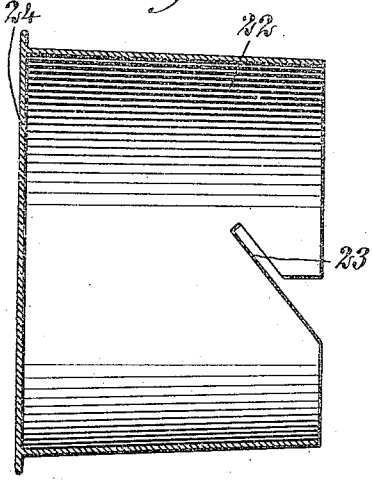


Fig. 4,

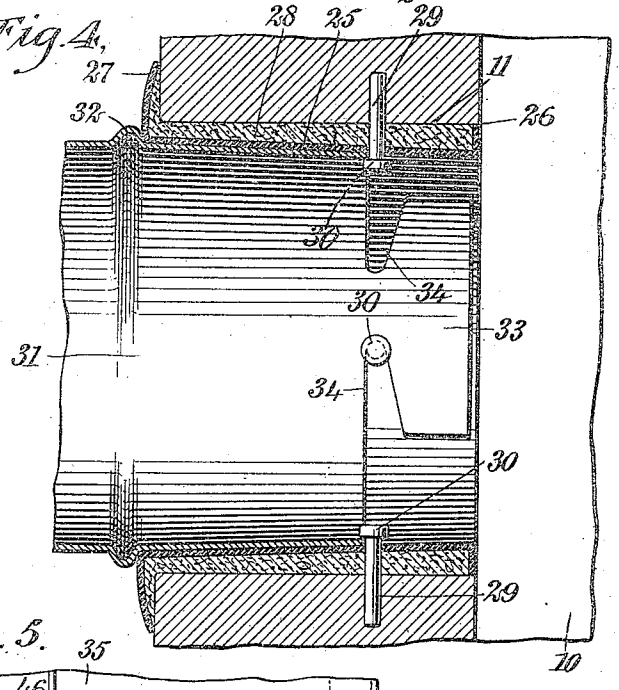
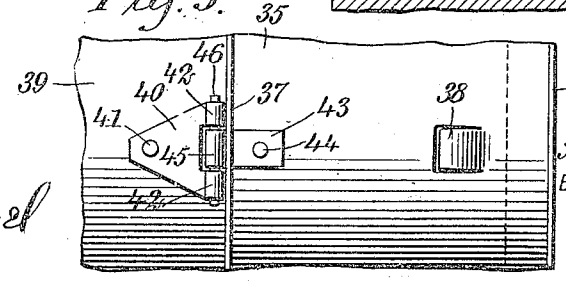


Fig. 5.



WITNESSES

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STOVEPIPE AND THIMBLE.

961,519. Specification of Letters Patent. Patented June 14, 1910.

Application filed November 30, 1908. Serial No. 465,006.

To all whom it may concern:

Be it known that I, AMBROSE P. McGUIRK, a citizen of the United States, and a resident of Davenport, in the county of Scott and State of Iowa, have invented a new and Improved Stovepipe and Thimble, of which the following is a full, clear, and exact description.

This invention relates to stove pipes and thimbles for securing pipe sections in chimney or flue openings, and more particularly to a thimble adapted to be inserted in the flue opening and having outwardly extending end flanges arranged to receive therebetween at the outside of the thimble a layer or coating of cementitious material for securing the thimble in place, the latter having cut away parts forming tongues which are outwardly disposed and are embedded within the cementitious material. The thimble has studs or projections which can be removably engaged in slots or grooves of stove pipe sections to hold the sections securely in the thimble.

An object of the invention is to provide a simple, inexpensive and durable thimble and stove pipe joint for connecting a stove with a chimney or flue, by means of which the joints or connections can be rendered proof against leakage therethrough of smoke or the gases of combustion, and which is so constructed that the parts can be easily assembled and taken apart.

A further object of the invention is to provide a thimble which can be so securely arranged within the flue or chimney opening and in which the end stove pipe section can be removably locked, that all danger of leakage of smoke, soot or gases of combustion through the joint is obviated, and which prevents the transmission of excessive heat from within the chimney to wood-work or other adjacent material at the outside of the chimney, thus preventing the danger of fire.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a longitudinal section of a part of a chimney or flue showing an embodiment of my invention applied thereto; Fig. 2 is a transverse section on the line 2—2 of Fig. 1; Fig. 3 is a longitudinal section of a cap by means of which the flue opening can be closed when the stove pipe is removed; Fig. 4 is a longitudinal section of a part of a chimney or flue showing a modified form of my invention applied thereto; and Fig. 5 is a side elevation of a part of a chimney and a stove pipe section of further modified form.

Before proceeding to a more detailed explanation of my invention, it should be clearly understood that the same is particularly useful for connecting stoves and chimneys or flues where the stoves are set up at points remote from the chimneys and do not communicate directly therewith. In such cases it is customary to insert in the flue opening a thimble into which in turn is inserted the end pipe section of the stove pipe through which the smoke and gases escape from the stove. Unless the joints of the pipe sections and the connection between the pipe and thimble are suitably tight there is considerable danger that smoke, flue gases and soot will escape into the room, with the obvious unpleasant results both as to the comfort and health of the occupants of the room. It is of course undesirable to attach the stove pipe sections to each other and to the thimble permanently, as it is frequently necessary to remove these parts in order to clean them, or if for example, it is desired to remove the stove during the warm season of the year. It is then also necessary to close the flue opening, and this is done by means of a cap which is inserted into the thimble.

I provide a thimble which is so securely mounted in the flue opening that leakage around the thimble is impossible, and which is so constructed that it receives the extremity of the end stove pipe section so securely that leakage between the thimble and the section is obviated. The construction however, permits the end section to be easily inserted and withdrawn without loss of time.

Referring more particularly to the drawings, 11 represents the flue opening of a chimney or flue 10.

I provide a thimble 13 fashioned from sheet metal or other suitable material and preferably slightly tapered. At the inner edge the thimble has an outwardly extending, substantially annular flange 14 ar-

ranged to engage at the inside of the opening 11 near the inner edge of the same. At the outer edge which projects from the opening 11 the thimble has a further outwardly extending flange 15 which is slightly rearwardly disposed to engage at the outside of the chimney around the outer edge of the opening 11. The flange 15 is also annular in form and is somewhat larger than the flange 14. It may be ornamented if so desired, in any suitable manner. A coating or layer 16 of cementitious material such for example as cement, plaster or the like, is located between the flanges 14 and 15 at the outside of the thimble and engages at the inner surface of the opening 11 to hold the thimble securely in place. The cementitious material at the same time acts as a heat insulator, to prevent heat from within the chimney being transmitted to the outside of the same there to ignite woodwork or the like. To increase the insulating property of the same it may have asbestos or similar material incorporated therein. The thimble has a plurality of cut away parts forming tongues 17, which are outwardly disposed and are embedded in the cementitious material as is shown most clearly in Fig. 1, for the obvious purpose of holding the thimble in place. The end stove pipe section is tapered similarly to the thimble and is arranged to be inserted therein so that it fits snugly within the thimble. The latter has a cut away part 19 forming a stud or projection 20 adapted to be engaged by an inclined groove or slot 21 of the pipe section; consequently, if the latter is inserted into the thimble so that the projection 20 engages the groove, a twisting or rotary movement of the pipe section serves to draw it farther into the thimble to jam it tightly in place and to insure a tight joint between the points. The end pipe section 18 can be replaced by a cap 22 having a groove or slot 23 adapted to engage the projection 20 and having the outer end closed by a wall 24 which may be ornamented in any suitable manner.

In Fig. 4 is shown a modified form of my invention, in which the thimble 25 has flanges 26 and 27 similar, respectively to the flanges 14 and 15, and receiving therebetween cementitious material 28. The tongues 17 are dispensed with however, and bolts 29 or the like are inserted through suitable openings in the thimble and are driven into the chimney or flue wall to assist in holding the thimble in place. The ends 30 of the members 29 project inwardly within the thimble and are adapted to be engaged by an end pipe section 31, and thus act as stops to limit the insertion into the thimble of the section. It will be understood that the projection 20 performs a like function for the pipe section 18. The pipe section 31, at a point remote from the edge, has an outwardly disposed bead 32 adapted to engage at the outer rim of the thimble and thus also serves as a stop to limit the insertion of the pipe into the thimble. The latter has at the end a tongue extension 33 which has undercut slots 34, adapted to receive one or the other of the heads 30. Thus, after the pipe section 31 has been inserted into the thimble as far as possible, a rotary movement of the pipe section causes one of the projecting members 29 to be received by one of the slots 34 so that the pipe section cannot be withdrawn without again releasing it by a reverse turning movement.

In the form of my invention shown in Fig. 5, the thimble 35 has flanges 36 and 37, and outwardly disposed tongues 38 adapted to be embedded in the cementitious material. The pipe section 39 which is inserted into the thimble has a bracket 40, secured thereto by a rivet 41 or in any other suitable manner, and provided with spaced sleeves 42. The thimble has a strip 43 secured thereto by a rivet 44, and extending through a suitable opening in the flange 36 so that it presents a sleeve 45 at the outside of the flange 37. The sleeve 45 is received between the sleeves 42 when the pipe section is inserted within the thimble, and the openings in the sleeves are brought to register so that a locking member or pin 46 can be inserted in the sleeves to hold the pipe sections in position.

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

1. A tapered thimble adapted to be located in a flue opening and having at each end an outwardly extending flange, the flange at the inner end of the thimble being of a diameter equal to that of the flue opening and the flange at the outer end being of greater diameter than that of said opening, a layer of cementitious material on the outer surface of the thimble between the flanges thereof and engaging the inner surface of the flue opening and the outer surface of the chimney around said opening, a tapered stove pipe section fitting in the thimble and adapted when forced therein to closely contact therewith to form a tight joint, and means for locking the section in the thimble.

2. A tapered thimble adapted to be inserted in a flue opening and having at its inner end a flange about equal in diameter to the flue opening and at the outer end a flange of greater diameter than said opening, said thimble being provided intermediate of the flanges with outwardly disposed and oppositely projecting tongues, a tapered stove pipe section fitting in the thimble, and interlocking means on the thimble and section for locking the section in the thimble.

3. A tapered thimble adapted to be located in a flue opening and having at each end an

outwardly extending flange, the flange at the inner end of the thimble being of a diameter equal to that of the flue opening and the flange at the outer end being of greater diameter than that of the said opening, said thimble being provided intermediate of the flanges with outwardly disposed and oppositely projecting tongues.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AMBROSE PETER McGUIRK.

Witnesses:
A. W. KINKEAD,
CHAS. A. GREGG.