June 5, 1923. 1,457,540

J. F. MATTHEWS

CHIMNEY FOR BUILDINGS OR OTHER STRUCTURES

Filed Jan. 4, 1922 2 Sheets-Sheet 1

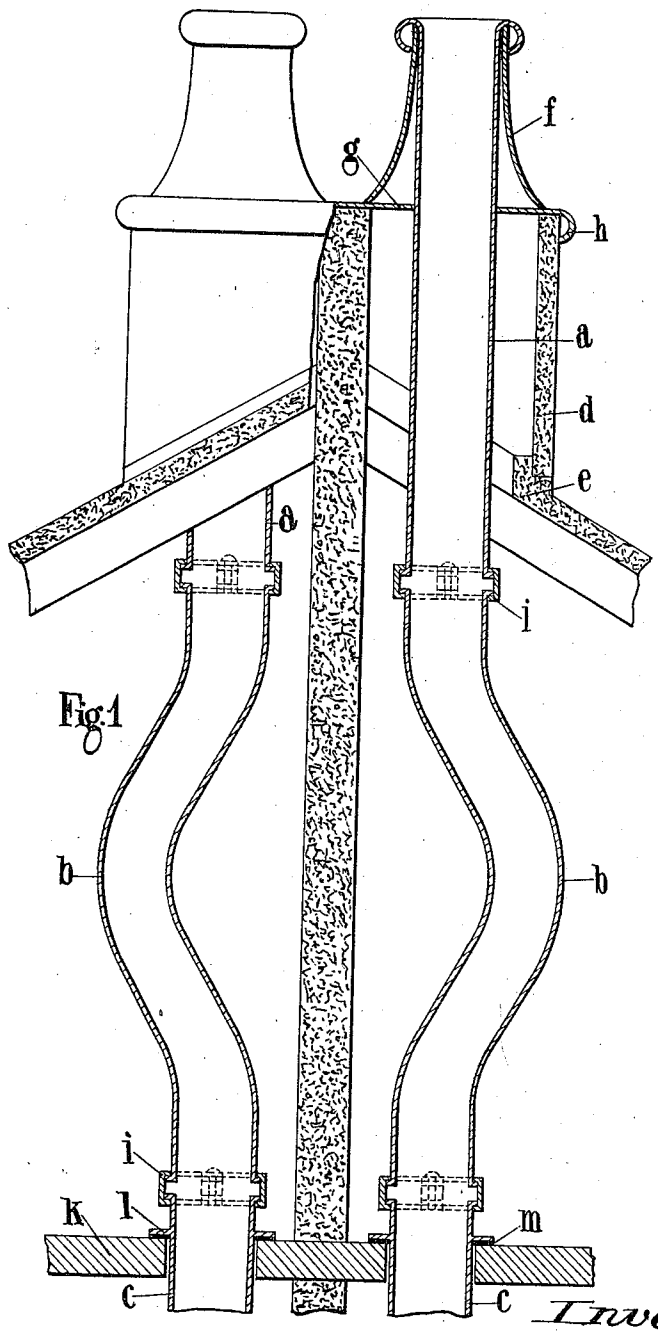


Fig.1

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2 Sheets-Sheet 2

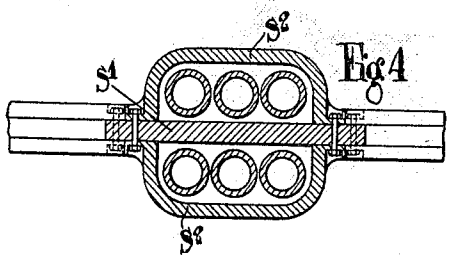


Fig. 4

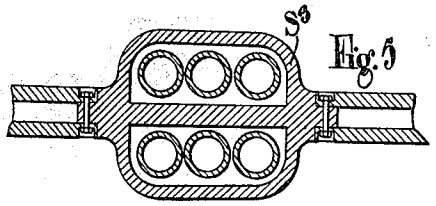


Fig. 5

Fig. 2

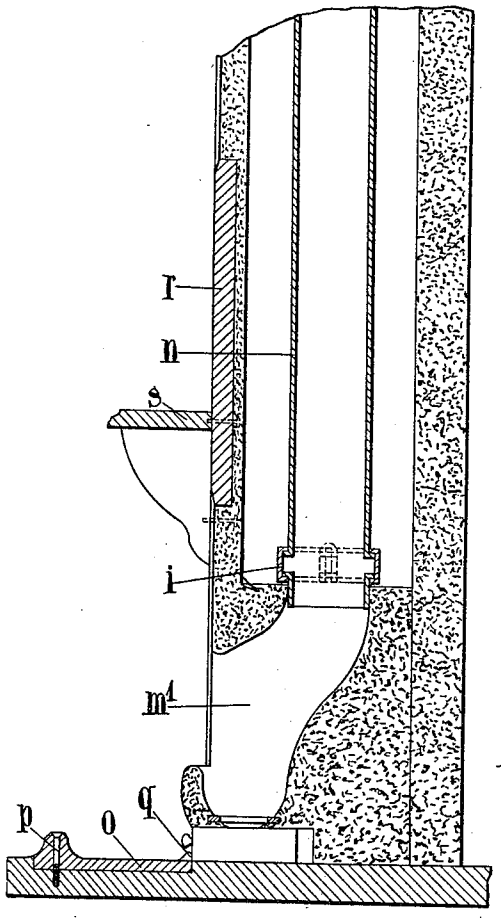
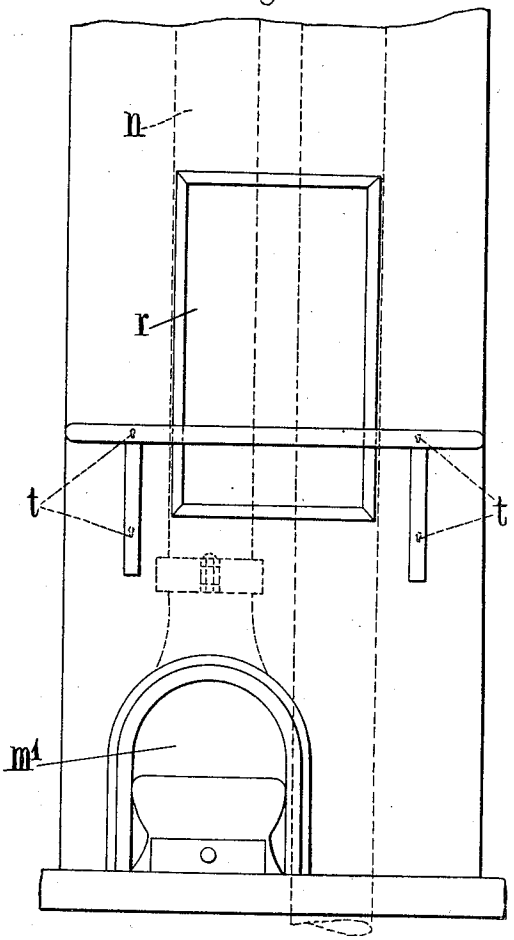


Fig. 3



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UNITED STATES PATENT OFFICE.

JOHN FREDERICK MATTHEWS, OF DOVER, ENGLAND.

CHIMNEY FOR BUILDINGS OR OTHER STRUCTURES.

Application filed January 4, 1922. Serial No. 527,029.

To all whom it may concern:

Be it known that I, JOHN FREDERICK MATTHEWS, a subject of the King of Great Britain and Ireland, and residing at 29 Heathfield Avenue, Dover, in the county of Kent, England, have invented certain new and useful Improvements in or Relating to Chimneys for Buildings or Other Structures, of which the following is a specification.

This invention relates to the construction of houses and other structures of the kind embodying chimneys formed from metal tubular sections adapted to be located in suitable openings or channels left or formed in the building for the purpose.

The object of the present invention is to improve the construction and facilitate the erection of chimneys of the above character, and the invention consists in a building or other structure of the kind referred to in which each chimney is suspended from its upper end.

The invention also consists in a building or other structure of the above character in which intermediate sections of the chimney are suspended from the floor level through which they pass.

The invention also consists in other details and arrangements hereinafter more particularly referred to.

The accompanying drawings illustrate one mode of carrying out the invention.

Figure 1 is a part sectional elevation showing one convenient arrangement of chimneys as devised, for example, in connection with a concrete house.

Figure 2 is a side sectional elevation showing the lower part of the chimney and fireplace, and

Figure 3 is a front elevation of Figure 2.

Figures 4 and 5 are sectional plans showing two modifications of a detail.

In carrying my invention into effect in the manner illustrated I form each of the chimneys of the structure from a series of cast or wrought iron or other metal tubes or sections *a b c*, and these are erected and secured together in openings or channels left or formed in the building for the purpose, it being obvious that the sections may be constructed in any desired situation and subsequently erected in situ.

In one convenient construction when dealing, for example, with concrete houses I provide a concrete chimney-pot *d* which is adapted to be arranged in position upon a suitably prepared rebate *e* formed in the roof of the structure and upon this concrete member *d* I arrange the chimney-pots proper *f* which may also be formed of cast iron or other suitable metal and conveniently integral with a base plate *g* adapted to rest upon the concrete member *d* and being conveniently turned over or flanged as at *h* or otherwise formed to give any desired ornamental appearance and to facilitate the securing of the chimney-pots in position.

The upper section *a* of the chimney may also be flanged or turned over or may otherwise be suitably arranged so that it may be suspended from its upper part, and the succeeding sections of the chimney are secured to one another by means of clips *i* or other means which will allow of the necessary movements of the sections to provide for changes in length due to expansion or contraction owing to variation in temperature conditions.

For the purpose of further supporting the chimney, if this should be found desirable, the intermediate sections passing through the various floor levels *k* may be formed with flanges *l* by means of which they may be supported from the said floor sections, asbestos or other washers *m* being preferably interposed between the chimney sections and the floor sections.

The lowermost section *n* of any particular chimney intended for any particular fireplace *m'* is secured to the said fireplace conveniently by means of a coupling or other device *i*, and the arrangement is preferably such that the fireplace may be inserted bodily into position for securing the chimney section thereto whereupon the hearth member *o*, which is also conveniently formed separately and in one piece, may be inserted into position in a recess in the floor section and secured therein by screws *p* or otherwise, the hearth section being furnished with projections *q* or other means whereby it may position the fireplace and prevent removal of the same after this has once been inserted.

Where it is necessary to obtain access to the chimney sections in situations not otherwise provided for the purpose this may be accomplished by the use of removable panels such as *r* formed of any suitable material and serving to cover up a recess in the wall by means of which the desired access may

be obtained to the chimney, it being evident that any suitable means may be adopted for retaining the said panels in position. In the preferred construction illustrated, however, this is effected by means of the mantelpiece *s*, which is also formed of concrete as a separate part and is secured in front of the panel by means of headed bolts or the like embedded in the mantelpiece section and cooperating with keyhole or like slots *t* formed in the wall member.

Any suitable means may be provided for accommodating the chimney sections as for example, when there is a party wall *s'* (Figure 4) I may provide curved or shaped slabs s^2 bolted or otherwise secured to the wall and preferably extending from floor to ceiling in order to form a support for both and leaving sufficient space for the accommodation of the chimneys.

In an alternative construction shown in Figure 5 I may employ a duplex conduit s^3 for the reception of the chimney sections.

It is to be understood that the foregoing details of construction are given by way of example only as I may modify the number, form and arrangement of chimney sections, the means of securing the same together and the form, shape, and mode of construction and arrangement of fireplaces, all as may be determined by the character of the building to which the invention is to be applied or any particular practical requirements that may have to be fulfilled.

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

1. A building or other structure of the kind referred to in which each metal chimney is supported by suspending it from its upper end, substantially as described.

2. A building or other structure as claimed in claim 1 in which intermediate metal sections of the chimney are suspended from the floor level through which such sections pass, substantially as described.

3. A building or other structure as claimed in claim 2, in which the chimney sections are secured to one another by means of clips or like means providing for expansion and contraction, substantially as described.

4. A building or other structure as claimed in claim 3 in which a removable panel is provided in the wall of the structure for obtaining access to the chimney sections, substantially as described.

5. A building or other structure as claimed in claim 4 in which the panel is combined with a removable mantelpiece adapted to hold the panel in place, substantially as described.

In testimony whereof I have signed my name to this specification.

JOHN FREDERICK MATTHEWS.