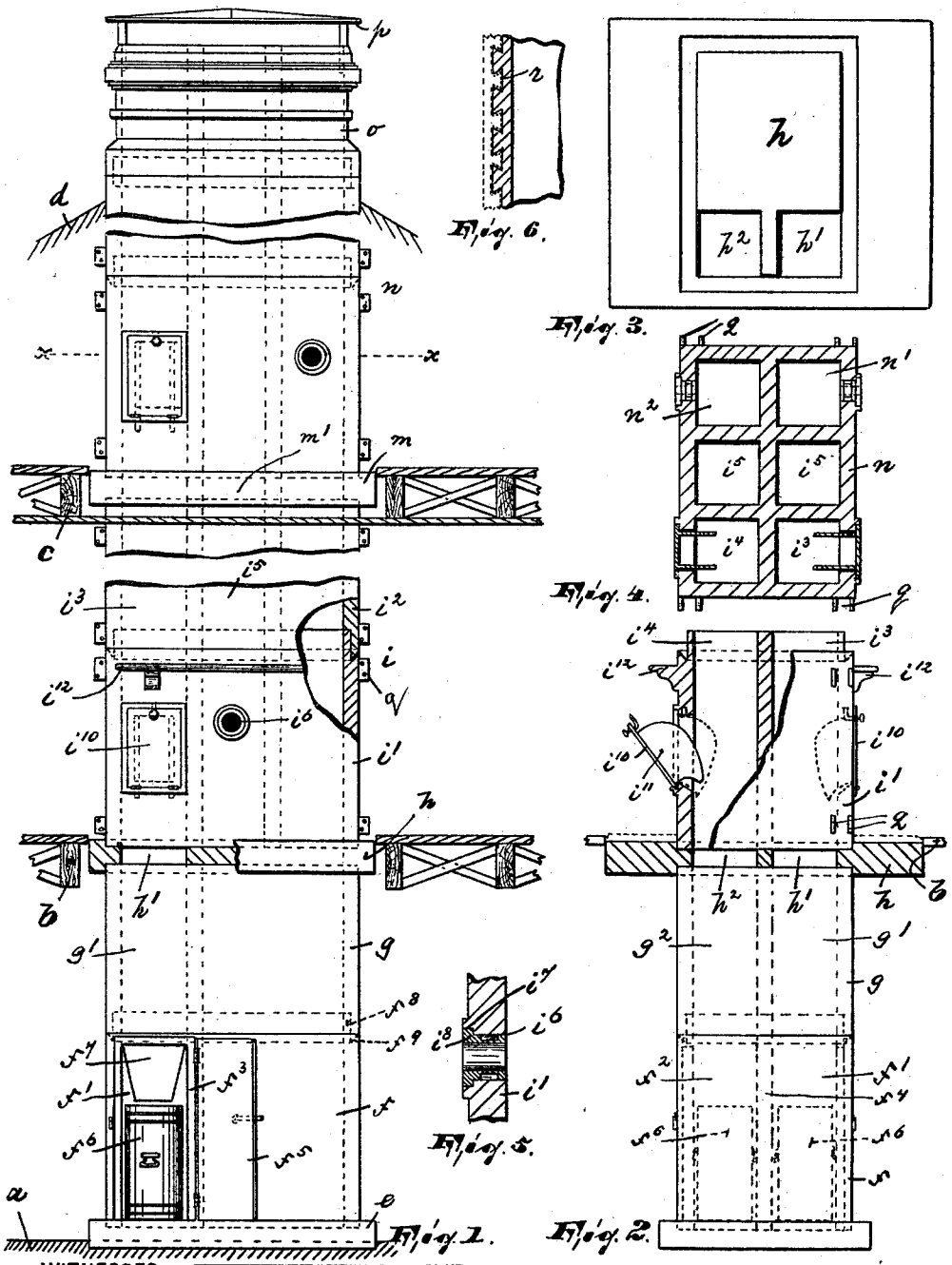
No. 619,251. Patented Feb. 7, 1899.

C. S. DOREMUS.

FIREPROOF SECTIONAL CHIMNEY OR STACK.

(Application filed Mar. 5, 1898.)

(No Model.)



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CHRISTOPHER S. DOREMUS, OF PEQUANNOCK, NEW JERSEY, ASSIGNOR OF ONE-HALF TO GEORGE R. FRENCH, OF SAME PLACE.

FIREPROOF SECTIONAL CHIMNEY OR STACK.

SPECIFICATION forming part of Letters Patent No. 619,251, dated February 7, 1899.

Application filed March 5, 1898. Serial No. 672,649. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER S. DOREMUS, a citizen of the United States, residing in Pequannock, county of Morris, and State of New Jersey, have invented certain new and useful Improvements in Fireproof Sectional Chimneys or Stacks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my present invention is to provide a sectional fireproof chimney, preferably metallic and designed for dwellings or private houses, but which chimney can also be made applicable for factories, mills, &c., or, if desired, can be used as an independent smoke-stack, the chimney being of simple, strong, and durable construction, efficient in operation, and can be quickly put up and occupies less space than an ordinary chimney of the same capacity and requirements.

The invention consists in the improved sectional fireproof chimney, in the means for connecting its independent sections, and in the combination and arrangement of the various parts, substantially as will be hereinafter more fully described and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several views, Figure 1 is a front elevation of my improved chimney, partly in section and designed for a two-story basement dwelling; Fig. 2, a side elevation of the lower portion of Fig. 1; Fig. 3, a top plan view of a certain intervening hearth-plate corresponding to the hearth-plate of the first floor; Fig. 4, a sectional view on the line $x\ x$ of Fig. 1; Fig. 5, an enlarged detail view of a certain stovepipe receiver or thimble; and Fig. 6 an enlarged detail view of a portion of one of the sections of the chimney, illustrating the means for keying mortar or other non-conductive material to said section when desired or necessary.

The chimney illustrated in the drawings, as heretofore stated, is designed for a two-story basement dwelling and is placed in such a manner that it can be made use of from the apartments on either or both sides thereof.

In said drawings, a represents the basement-floor, b and c the floors for the first and second stories, respectively, and d the roof of the building.

On the basement-floor is arranged in any desired manner (preferably embedded therein) a substantially rectangular-shaped bed or foundation-plate e, provided near its outer edge with a groove or recess, in which is arranged the correspondingly-shaped section f of the chimney and which section contains the flues or ash-chutes f' f^2 formed by the partitions f^3 and f^4. Each of said flues is provided with a door f^5, which can be opened for conveniently inserting an ash can or receptacle f^6, fitting snugly in its respective flue and preferably communicating with and below a hopper f^7, arranged in and secured to the top portion of the section f. The top portion of said section f is provided with a flange f^8 and adjoining tapering groove f^9, adapted to receive the correspondingly-shaped lower portion of the intermediate section g, which is likewise provided with flues g' g^2 in alinement with the flues f' and f^2. On the top portion of the last-mentioned section g, which latter extends to about the first-floor line, is placed the hearth-plate h, which for that purpose is provided on its under side with a groove corresponding in shape and dimensions to the groove in the bed or foundation-plate e and is further provided with openings h' and h^2 in alinement with the flues g' and g^2. Within a groove in the top portion of said hearth-plate h is set the section i, preferably consisting of two (or more) sections i' i^2, jointed together in a manner similar to that described in connection with the sections f and g. Said section i, besides containing the flues or ash-chutes i^3 i^4, contains additional flues i^5 i^5, each provided with a hole or aperture i^6 for the reception of a stovepipe or reducing-thimble.

It must be remarked that at the present time there are three standard sizes of stovepipes, and to accommodate either one of said sizes the aperture i^6 is provided with an annular groove i^7, adapted to receive the largest

size stovepipe, while the aperture itself is adapted to receive the medium size, and the thimble i^8, which is adapted to fit tightly in said aperture and its annular groove, is designed to receive the smallest size stovepipe, as will be manifest. Each of the flues i^3 i^4 is provided with a door i^{10}, hinged at its bottom and having on each side protector-plates i^{11}. Said door, which naturally is constructed to close tightly the opening in its respective flue, permits the dumping of the ashes from the first-floor stoves into the ash-can, while the dust and smaller particles of the ashes are drawn up the chimney by the strong draft produced within the flue by opening said door.

If desired, a mantel i^{12} can be cast integral with its respective section, as illustrated in Figs. 1 and 2 of the drawings.

The section i extends to about the floor-line of the second story and supports the hearth-plate m, constructed substantially in the same manner as the hearth-plate h and having additional passages m' m' for the flues i^5 i^5. Said hearth-plate serves as a foundation for the section n, substantially the same in construction as the section i and penetrating the roof d and carrying the top or cap o. It must be remarked that the said section n, besides the flues in alinement with the flues i^3 i^4 i^5 i^5 of the lower section i, contains additional flues n' n^2 for the stoves in the second story.

The top or cap o is provided with a number of partitions forming flues or passages communicating with the flues and ash-chutes in the section n and is jointed thereto in a manner similar to the joint heretofore described in connection with the sections f and g.

On the top of the cap o is mounted in any desired manner a hood p, as clearly illustrated in Fig. 1 of the drawings.

At or near the top and bottom portion of each section and on opposite sides thereof are arranged and cast integral therewith projecting lugs q, adapted to receive the studding of the partitions to thus strengthen the same and at the same time act as braces for said chimney.

The chimney may be painted or otherwise decorated, or, if desired, can be surrounded by a layer of mortar or other non-conductive material, such as asbestos or cement. For that purpose the outer surfaces of the sections constituting the chimney are provided with a series of grooves or corrugations, (preferably dovetailed,) which latter permit of the mortar being securely keyed to said section.

If desired, the flanges and tapering grooves of the various sections may be coated with asphaltum or other similar substances to insure a more perfect joint, through which no sparks or flames can possibly escape.

I do not intend to limit myself to the precise construction shown and described, as various alterations can be made without changing the scope of my invention; but

What I claim as new, and desire to secure by Letters Patent, is—

1. A chimney consisting of a bottom or basement section provided with one or more ash-chutes and of an intermediate section g in alinement therewith, a hearth-plate removably secured to the top of said intermediate section and having openings in alinement with the ash-chutes, and one or more independent sections and intermediate hearth-plates removably secured on the hearth-plate on the intermediate section, each of said independent sections being penetrated by one or more ash-chutes communicating with the ash-chutes of the bottom and intermediate section, and also by one or more flues, each having an aperture for the reception of a stovepipe, substantially as and for the purposes described.

2. A chimney consisting of a bottom or basement section provided with one or more ash-chutes and of an intermediate section g in alinement therewith, a hearth-plate removably secured to the top of said intermediate bottom section and having openings in alinement with the ash-chutes, one or more independent sections and intermediate hearth-plates removably secured on the hearth-plate on the intermediate section, each of said independent sections being penetrated by one or more ash-chutes communicating with the ash-chutes of the bottom and intermediate section, and also by one or more flues, each having an aperture for the reception of a stovepipe and a cap removably secured to the top section and penetrated by a series of passages in alinement with the ash-chutes and flues in the said top section, substantially as and for the purposes described.

3. A chimney consisting of a bottom or basement section provided with one or more ash-chutes and of an intermediate section g in alinement therewith, a hearth-plate removably secured to the top of said intermediate section and having openings in alinement with the ash-chutes, one or more independent sections and intermediate hearth-plates removably secured on the hearth-plate on the intermediate section, each of said independent sections being penetrated by one or more ash-chutes communicating with the ash-chutes of the bottom and intermediate sections, and also by one or more flues, each having an aperture for the reception of a stovepipe, and a door arranged in each of the ash-chutes, substantially as and for the purposes described.

4. A chimney consisting of a bottom or basement section provided with one or more ash-chutes and of an intermediate section g in alinement therewith, a hearth-plate removably secured to the top of said intermediate section and having openings in alinement with the ash-chutes, one or more independent sections and intermediate hearth-plates removably secured on the hearth-plate on the intermediate section, each of said independent sections being penetrated by one or more ash-

chutes communicating with the ash-chutes of the bottom and intermediate sections, and also by one or more flues, each having an aperture for the reception of a stovepipe, a cap removably secured to the top section and penetrated by a series of passages in alinement with the ash-chutes and flues in the said top section, and a door in each of the ash-chutes, substantially as and for the purposes described.

5. A chimney, consisting of a base or foundation-plate provided near its outer edge with a groove or recess, a bottom section arranged in said groove or recess and provided with one or more ash-chutes, an intermediate section on said bottom section and in alinement therewith, a hearth-plate removably secured to the top of said intermediate section and having openings in alinement with the ash-chutes, and one or more independent sections and intermediate hearth-plates removably secured on the hearth-plate on the intermediate section, each of said independent sections being penetrated by one or more ash-chutes communicating with the ash-chutes of the bottom and intermediate section, and also by one or more flues, each having an aperture for the reception of a stovepipe, substantially as and for the purposes described.

6. A chimney, consisting of a base or foundation-plate provided near its outer edge with a groove or recess, a bottom section arranged in said groove or recess and provided with one or more ash-chutes, an intermediate section on said bottom section and in alinement therewith, a hearth-plate removably secured to the top of said intermediate section and having openings in alinement with the ash-chutes, one or more independent sections and intermediate hearth-plates removably secured on the hearth-plate on the intermediate section, each of said independent sections being penetrated by one or more ash-chutes communicating with the ash-chutes of the bottom and intermediate sections, and also by one or more flues, each having an aperture for the reception of a stovepipe, and a cap removably secured to the top section and penetrated by a series of passages in alinement with the ash-chutes and flues in the said top section, substantially as and for the purposes described.

7. A chimney, consisting of a base or foundation-plate provided near its outer edge with a groove or recess, a bottom section arranged in said groove or recess and provided with one or more ash-chutes, an intermediate section on said bottom section and in alinement therewith, a hearth-plate removably secured to the top of said intermediate section and having openings in alinement with the ash-chutes, one or more independent sections and intermediate hearth-plates removably secured on the hearth-plate on the intermediate section, each of said independent sections being penetrated by one or more ash-chutes communicating with the ash-chutes of the bottom and intermediate section, and also by one or more flues, each having an aperture for the reception of a stovepipe, a cap removably secured to the top section and penetrated by a series of passages in alinement with the ash-chutes and flues in the said top section, and a door in each of the ash-chutes, substantially as and for the purposes described.

8. A chimney provided with an aperture communicating with the flue and provided in its front or outer portion with an annular groove concentrically arranged with said aperture, in combination with a reducing-thimble conforming in shape to said aperture and adjoining annular groove and removably arranged therein, substantially as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of February, 1898.

C. S. DOREMUS.

Witnesses:
WM. D. BELL,
GEO. R. FRENCH.