No. 870,780. PATENTED NOV. 12, 1907.

W. C. HAYS.

CHIMNEY CONSTRUCTION.

APPLICATION FILED MAY 10, 1906.

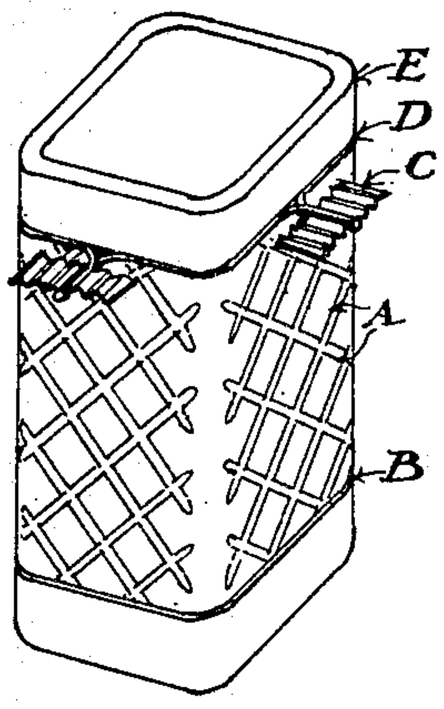


Fig. 3

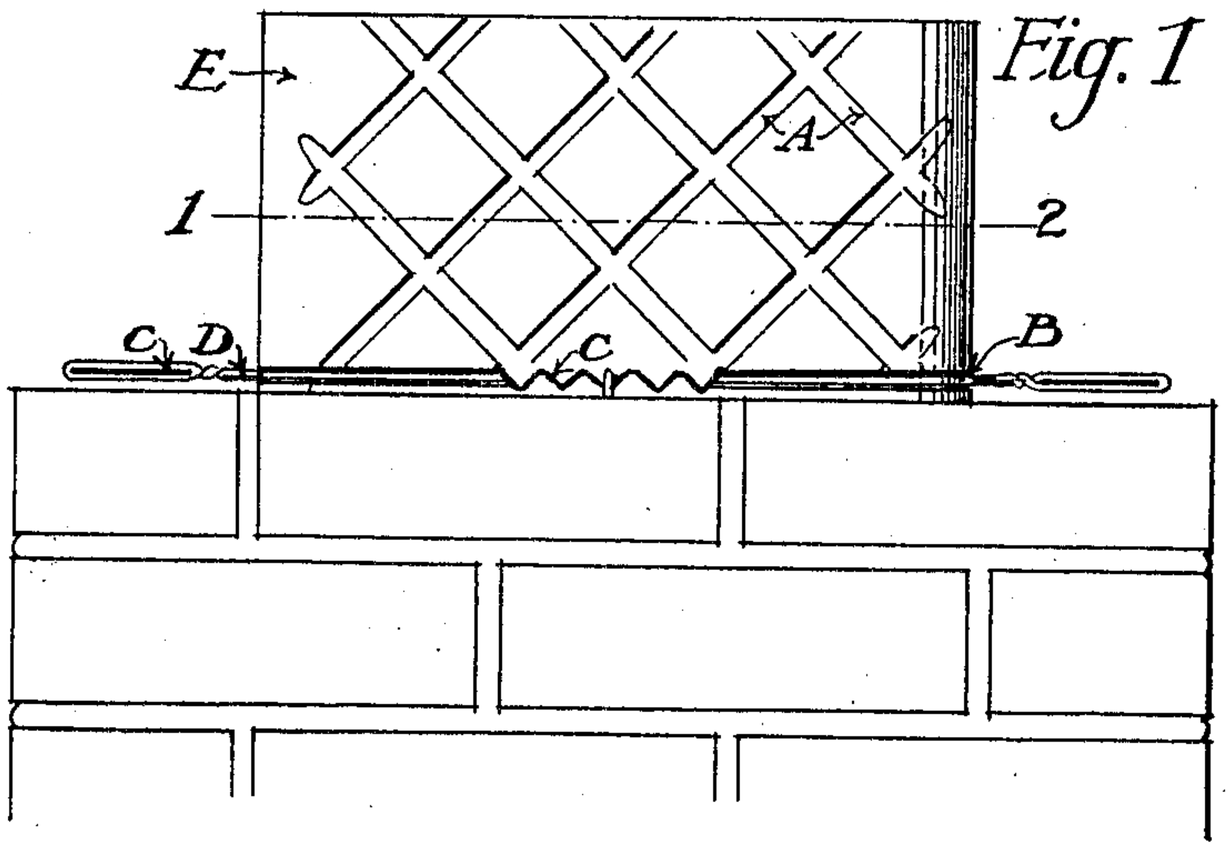
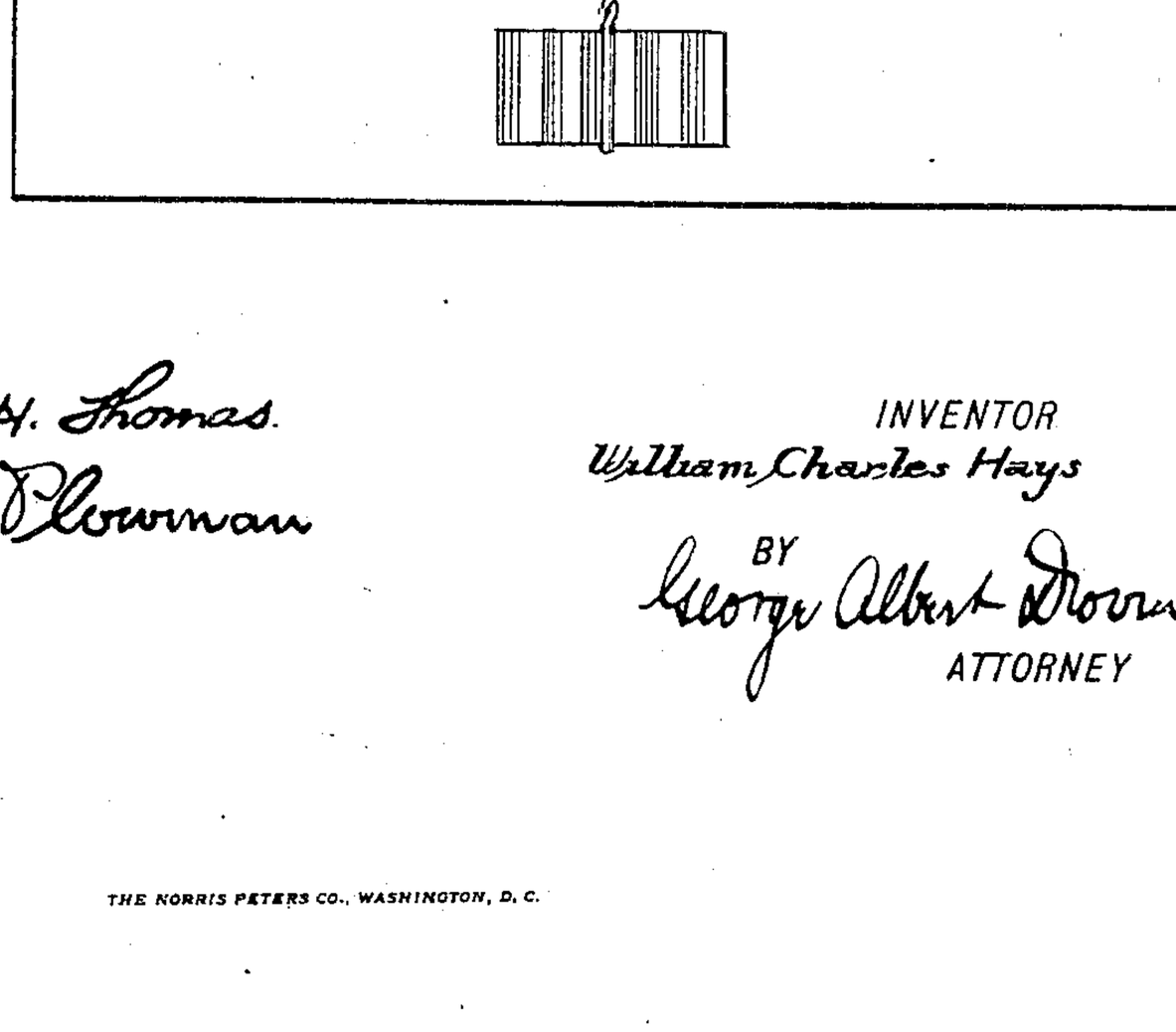


Fig. 1

Fig. 2.



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CHIMNEY CONSTRUCTION.

No. 870,780. Specification of Letters Patent. Patented Nov. 12, 1907.

Application filed May 10, 1906. Serial No. 316,071.

To all whom it may concern:

Be it known that I, WILLIAM CHARLES HAYS, a citizen of the United States, residing at Berkeley, in the county of Alameda and State of California, have invented a new and useful Device for the Terra-Cotta Flue-Linings of Chimneys, of which the following is a specification.

My invention relates to improvements in terra cotta flue linings and it has for its object to provide means for more securely binding the lining to the surrounding structure so as to minimize the danger of wreckage and collapsing of chimneys or other structures by reason of earth-quakes, fires or cyclones. I attain these objects by the devices illustrated in the accompanying drawing, in which—

Figure 1, is a vertical elevation showing a portion of a flue lining projecting above a portion of the surrounding brickwork or masonry; Fig. 2, is a top view of a chimney with a section 1—2 through the terra cotta lining and showing the metal bonding device; Fig. 3, is a portion of flue lining shown in perspective in which the direction and arrangement of groovings is typical only, these directions and arrangements being subject to change.

Similar letters refer to similar parts throughout the several views.

Each section of terra cotta lining has grooves or corrugations "A" of such size, direction and arrangement as shall give the most substantial and strongest lateral bond or hold to the mortar. At the top or bottom (or both) of each section of flue lining is the groove "B" extending completely around the section to afford sufficient hold for wiring on the metal locking device "C".

The locking devices C consist of small plates which in the construction shown are represented as being corrugated, which plates are adapted to be held in loops formed at intervals in the wires D, which are located in the grooves B, which extend around the flue lining E. These plates are illustrated as being arranged in horizontal planes and are adapted to project or extend into the joints of brick-work or masonry which may surround the flue lining.

It is to be understood that the locking device C is shown in the drawings as a type only and that its construction and arrangement may be varied to suit different sizes and arrangements of flue linings.

I am aware that prior to my invention patented chimneys have been made with terra cotta flue linings fastened in iron envelops with air space between; also that smooth surfaced terra cotta flue linings are regularly on the market. I therefore do not claim the terra cotta flue lining broadly; but

What I do claim as my invention and desire to secure by Letters Patent, are—

1. A bonding or locking device of metal to be formed of small flat metal plates secured by stiff twisted wires, which clutch the plates and extend around the terra cotta flue lining, which plates are adapted to extend horizontally at suitable heights into the joints of brick work or masonry which surrounds the flue lining.

2. In combination, a flue lining, a wire extending around the said lining, locking devices connected at intervals to the said wire, the said locking devices being adapted to extend into the joints of brick-work or masonry which may surround the said lining.

3. In combination, a flue lining, a wire extending around the said lining, the said wire being provided with loops at intervals therein, locking devices consisting of plates secured in the said loops, the said plates and loops projecting outwardly from the said flue lining and being adapted to engage the brick-work or masonry which may surround the said flue lining.

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

WILLIAM CHARLES HAYS.

Witnesses:
J. H. THOMAS,
GEO. T. PLOWMAN.