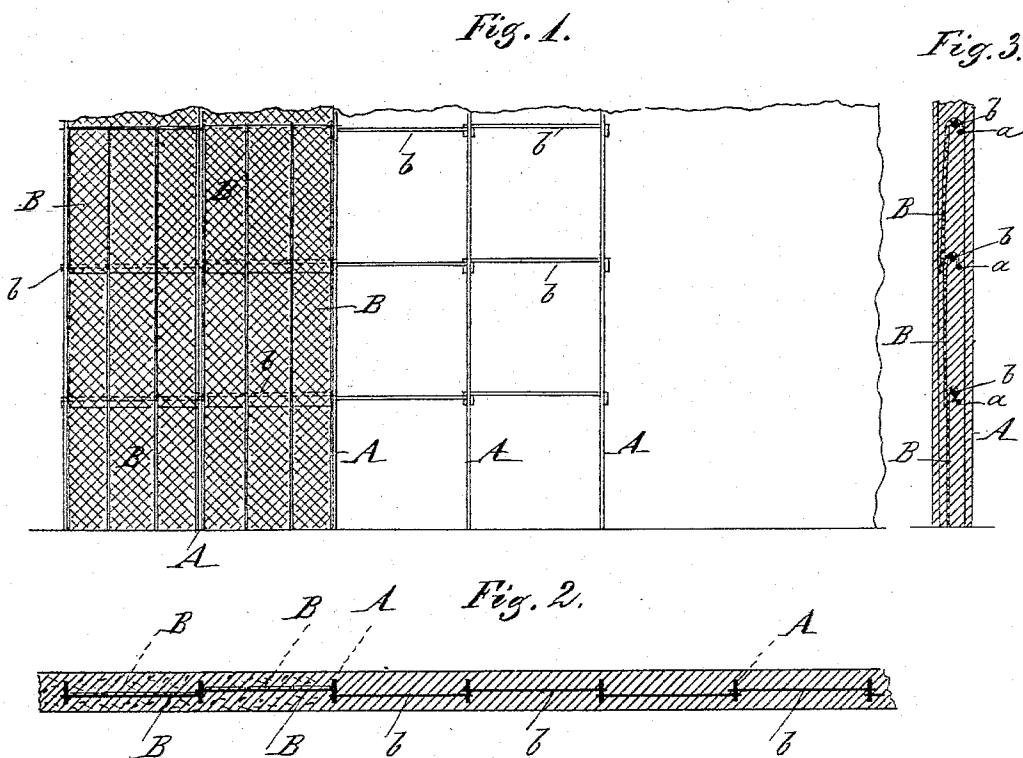


(No Model.)

C. F. W. DOEHRING.
FIREPROOF WALL.

No. 532,038.

Patented Jan. 8, 1895.



WITNESSES:

W. J. G. G. G.
E. Klahn.

INVENTOR

Charles F. W. Doehring

BY

Charles Kay

ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLES F. W. DOEHRING, OF NEW YORK, N. Y., ASSIGNOR TO THE
DOEHRING & VAN FIRE PROOFING COMPANY, OF SAME PLACE.

FIREPROOF WALL.

SPECIFICATION forming part of Letters Patent No. 532,038, dated January 8, 1895.

Application filed September 29, 1894. Serial No. 524,535. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. W. DOEHRING, a citizen of Germany, and a resident of New York, in the county and State of New York, have invented certain new and useful Improvements in Fireproof Walls, of which the following is a specification.

My invention has reference to improvements in fire-proof walls and consists in the hereinafter described and claimed construction of such walls in which the spaces between the metallic uprights are filled with plates or sheets of burnt clay or wire netting which are covered with mortar or plaster and suspended from wires or rods, attached to the said uprights, and finally covered with a filling coated according to the required thickness of the wall.

The object of my invention is to simplify the present methods of producing fire-proof walls by employing intermediate sheets of meshy wire work, which, as experience has proved, have no satisfactory results, as these methods afford a considerable increase of work and cost.

In the accompanying drawings, Figure 1 represents a front view of a fire-proof wall (partly in sections) according to my invention, and Figs. 2 and 3 are respectively a horizontal and a vertical section of the same.

Similar letters of reference indicate corresponding parts.

A in the drawings represents metallic uprights of any desired cross-section, which are provided with perforations *a*, through which wires or thin metal rods *b* are drawn and so fastened therein that one continuous piece of wire or metal rod is always located between two uprights, as clearly shown in Fig. 2. The fastening of these wires or rods on the uprights may be performed in any desired way, but I prefer to simply bend the ends of the same over, as indicated in Fig. 1. This method of attaching transverse wires or rods to the uprights is preferred to the manner of drawing the wires through the entire series of uprights, as that method requires the greatest attention to stretch the wires so that they reliably resist the weight of the plates or sheets to be suspended therefrom.

B are thin sheets of burnt clay, wire-net-

ting, or any other fire-proof material which have one edge bent over, so as to form a hook-shaped portion, by means of which these thin sheets or plates are attached to the transverse wires or rods *b*, so that they fill the spaces between the uprights A. I do not limit myself to this special manner of suspending the sheets or plates B, as any other method of attaching the same to the transverse wires or rods *b* may be applied. After the plates or sheets B are suspended from the transverse wires or rods, as said before, they are on both sides covered with a suitable mortar or plaster, and the mortar or plaster coverings are repeated until the spaces between the uprights are filled with the same, and thereby a fire-proof wall is produced in a very simple and reliable manner. In most cases it will be preferred to cover these clay or wire netting sheets or plates with mortar or plaster before they are suspended from the transverse wires or rods, and then the additional layers of mortar or plaster are applied to both sides of the same, until the required thickness of the wall is obtained.

To strengthen and increase the joining capacity of the mortar or plaster, it is intermingled with small pieces of wire. This mortar or plaster is described and claimed in my application for a patent for ceilings filed September 14, 1894, Serial No. 523,021.

It is evident that by the method described fire-proof walls are obtained in a very simple way and at considerably low expenses.

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

1. An improved fire-proof wall composed of a series of metallic uprights, having transverse wires or thin metal rods intermediately attached thereto so that squares by the said uprights and wires or rods are formed separate and individual sheets of wire-netting or burnt clay, one or more for each square suspended in the said squares from the intermediate wires or rods, and a coating of mortar or plaster covering the uprights, wires or rods, and suspended wire-netting or clay sheets, substantially as set forth.

2. The combination of metallic uprights having perforations, with transverse wires or

metal rods drawn through the said perforations and fastened therein, so that separate pieces of wires or rods are held between two uprights, wire netting or burnt clay sheets or
5 plates covered with layers of mortar or plaster and suspended from the said transverse wires or rods, and a filling coating of mortar or plaster, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 20th day of September, 1894.

CHARLES F. W. DOEHRING.

Witnesses:

CHARLES KARP,
VAL. J. FARTH.