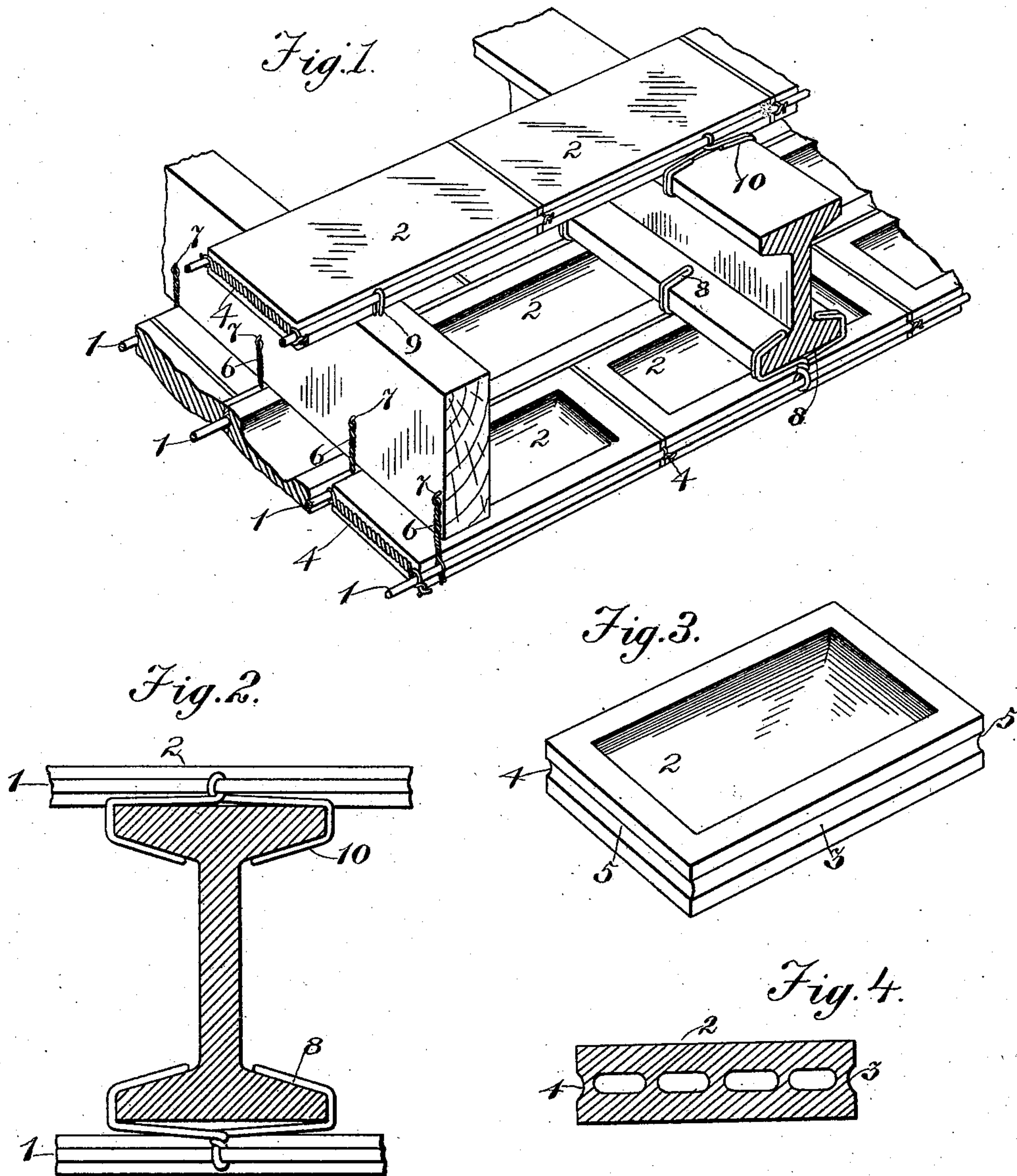


A. DE MARQUIS & E. CERIAT.
FIREPROOF WALL AND CEILING.
APPLICATION FILED DEC. 2, 1907.

915,665.

Patented Mar. 16, 1909.



Witnesses:

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UNITED STATES PATENT OFFICE.

ALBERT DE MARQUIS AND EUGENE CERIAT, OF SAN FRANCISCO, CALIFORNIA.

FIREPROOF WALL AND CEILING.

No. 915,665.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed December 2, 1907. Serial No. 404,758.

To all whom it may concern:

Be it known that we, ALBERT DE MARQUIS and EUGENE CERIAT, citizens of Switzerland, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Fireproof Wall and Ceiling, of which the following is a specification in such full and clear terms as will enable those skilled in the art to construct and use the same.

The object of this invention is to make a wall that will take the plaster of the finish directly, and which will not be liable to be thrown down by violent shocks to the building.

Another feature of the building construction is to produce a brick ceiling that will be securely fastened to the joists of the floor above, and which may be applied either to the common wooden joists or to the channel iron joists used in steel buildings.

A further object of the invention is to produce a wall that will have deadening means between the wall proper and the bricks of the wall and the joists, said means also acting as spacing means for the insertion of the gas, water, and other pipes and wires placed in the modern building without cutting or in any way interfering with the structural parts of the floor.

Another object of the invention is to make a brick that will be specially adapted for the work to be done and which will be easily secured to the joists by means of wires.

Another object of the invention is to produce a brick that will be as light as is consistent with the work to be done in order that there may be no danger of the excessive weight making the supporting wires lose the individual bricks.

In the drawings, in which the same numeral is applied to the same parts throughout, Figure 1 is a perspective view of the system as used for a ceiling and floor, two classes of joists being shown, Fig. 2 is a vertical sectional view of the ceiling, Fig. 3 is a perspective view of one of the bricks, and Fig. 4 shows a section through another form of brick.

In general our invention consists in providing a woven wire fabric of exceedingly large mesh, every aperture whereof shall be of the size of a brick, and in providing in combination with said fabric a brick having a groove around all its four edges whereon rests the four wires limiting said aperture,

said fabric being secured and suspended as detailed below.

The wire fabric is prepared for the ceiling, which we will describe first, by running steel wires of suitable size horizontally and parallel from end to end of a room, and securing their end to any suitable part of the supporting skeleton of the building in any suitable way. Such wires are shown at 1, Figs. 1 and 2. The bricks 2 are made to engage said wires along their opposite edges by means of the grooves 3. As each brick is put in place, cross wires 4 of galvanized iron are twisted and secured to said steel wires, said cross wires being caused to engage the grooves 5 in the transverse ends of the bricks. The fabric thus formed is supported, where the girders are of wood by means of the suspending wires 6 secured to the girders by staples 7; and from steel girders by the hooks 8.

By the above-described construction we are enabled to provide our novel sound deadening means between the ceiling and the parts above. These means consist of the air space left between the top of the ceiling as described and the parts above the same, the suspending wires 6, and the hooks 8 being arranged, if desired, to keep said ceiling out of immediate contact with the girders. Note Fig. 2 where such a space is shown below the girder. We purpose also to increase the deadening effect by means of a layer of sand strewn on the upper surface of said ceiling. Moreover by providing the space described we leave room for the passage of electric wires, gas, water and other pipes placed in modern buildings, and for ventilating pipes and flues.

When the space above the room is covered by the bricks reinforced and sustained in the way described, the edges thereof are sealed with Portland cement.

The floors are similarly constructed of wire fabric and grooved bricks. They are secured to wooden joists by means of staples as shown at 9 Fig. 1, and to steel beams by hooks as shown at 10, and their adjoining edges sealed with Portland cement. Outer and inner walls are similarly constructed of wire fabric and grooved bricks, the parallel steel wires in such cases running either horizontally or vertically, and if desired, the same airspace left between the skeleton supporting structure and the wall faces.

Turning now to the bricks themselves they are made of any suitable size, and consist of a

square or oblong body of suitable thickness having a groove running completely around their four edges. To lighten the weight thereof it is hollowed out as in Fig. 3 or otherwise cut away as by the holes shown in Fig. 4.

Having described our invention what we claim as new and desire to secure by Letters Patent of the United States is as follows, modifications within the scope of the claims being reserved:

1. In a fireproof wall, ceiling, and the like, a structural wall member, a plurality of bricks arranged to form a flat surface, every brick having a channel all around its edges, a series of parallel wires secured to the wall member, and passing through the channels in the side edges of every brick and twisted wires connecting adjacent parallel wires through the end channels of every brick and having their ends secured together around said parallel wires.

2. In a fireproof wall, ceiling, and the like, a structural wall member, a plurality of bricks arranged to form a flat surface, every brick having a channel all around its edges, a series of parallel wires secured to the wall

member and passing through the channels on the sides of every brick, supporting wires attached to the beams and parallel wires, and twisted wires passing around one of the parallel wires and tied around an adjacent parallel wire for securing the ends of every brick.

3. In a ceiling wall and the like, a structural wall member, a series of parallel wires secured to said member by means of twisted wires, a second series of twisted wires secured to one of the parallel wires near the middle of said twisted wire and having its ends twisted together around an adjacent parallel wire, and a plurality of bricks provided with channels on all their edges and having the parallel wires and twisted wires lying in said channels.

In testimony whereof we have set our hands this 25th day of November A. D. 1907, in the presence of the two subscribed witnesses.

ALBERT DE MARQUIS.
EUGENE CERLAT.

Witnesses:

FRANK P. MEDINA,
EDITH W. BURNHAM.