

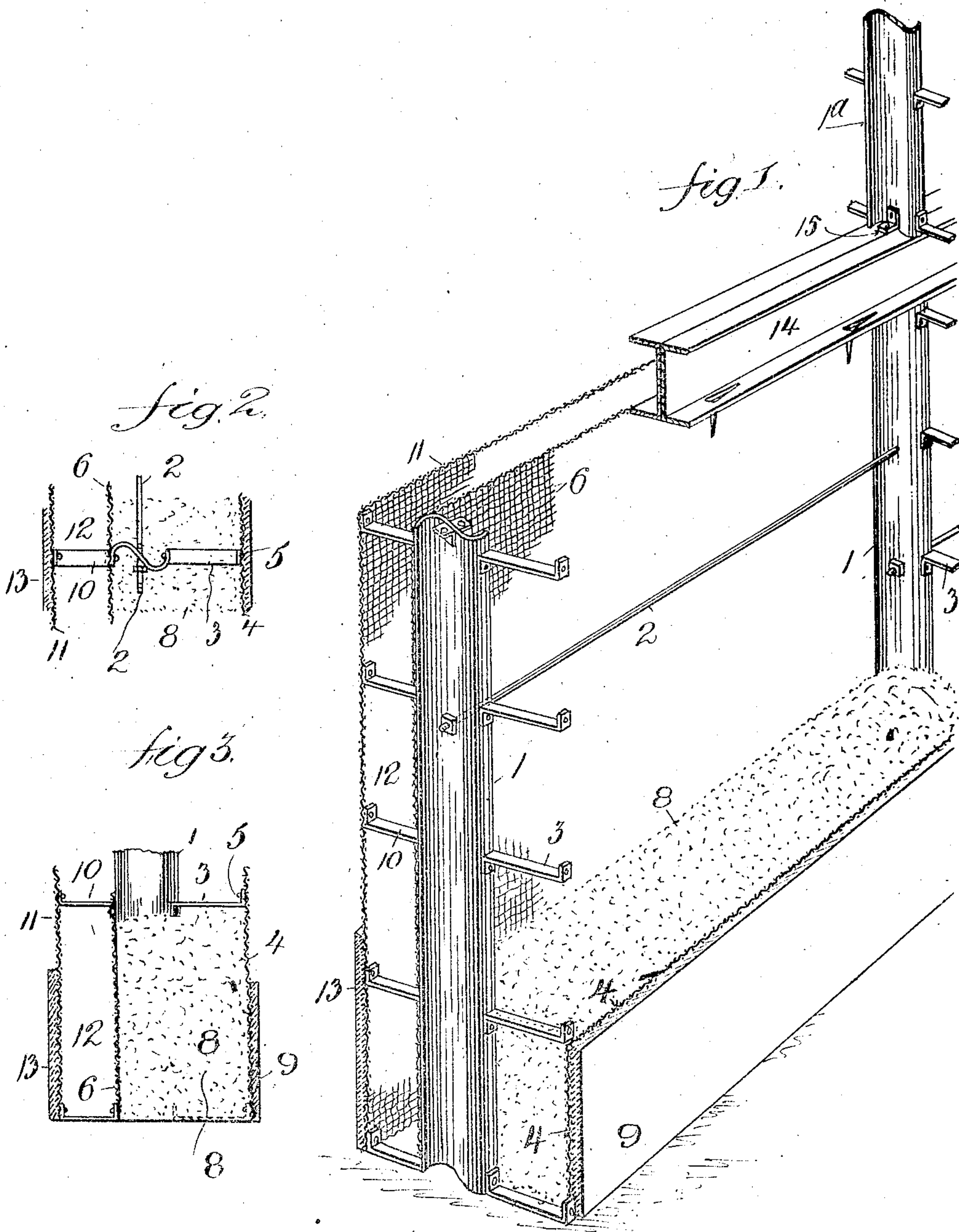
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MONOLITHIC CONSTRUCTION.

APPLICATION FILED FEB. 24, 1909.

951,031.

Patented Mar. 1, 1910.



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# UNITED STATES PATENT OFFICE.

ELI SOBEL, OF NEW YORK, WILLIAM GOLD, OF WOODHAVEN, AND JOSEPH STRETCH,  
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## MONOLITHIC CONSTRUCTION.

951,031.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Application filed February 24, 1909. Serial No. 479,758.

*To all whom it may concern:*

Be it known that we, ELI SOBEL, WILLIAM GOLD, and JOSEPH STRETCH, citizens of the United States, and residents of New York city, county and State of New York, Woodhaven, Queens county, New York, and Freeport, Nassau county, New York, respectively, have invented certain new and useful Improvements in Monolithic Constructions, of which the following is a specification.

The object of our invention is to provide a wall, partition, or the like which shall be fire proof, and at the same time provide an air space for insulating and analogous purposes, which wall or partition shall be relatively cheap to construct and efficient in use.

Our invention comprises the novel details of improvement and combinations of parts that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part hereof, wherein,

Figure 1 is a perspective detail view, partly in section, of a portion of a wall embodying our improvements; Fig. 2 is a horizontal detail section, and Fig. 3 is a vertical detail section.

In the accompanying drawings, in which similar numerals of reference indicate corresponding parts in the several views, the numeral 1 indicates studs or posts which are erected on end at suitable distances apart in line with each other, and are preferably made of metal, the studs shown being substantially S-shape in cross section. The studs may be secured together by means of tie rods or the like 2.

On one side of studs 1 are secured any desired number of spacers 3, preferably of metal, shown having their ends turned up and down, and which may be riveted to studs 1, and at the outer ends of spacers 3 suitable foraminous metal sheets 4 are secured, as by rivets 5, such as wire netting, expanded metal or the like. At the opposite sides or edges of studs 1 foraminous metal 6, such as wire lath, expanded metal or the like is secured. Between the material 4 and 6 is a space which is filled in solid with fire-proof material, such as concrete 8, which, in the example illustrated extends between the adjacent studs 1, and the continuous run of such concrete along corresponding sides of the studs embeds the latter in the concrete. At 9 the outer surface of the foraminous ma-

terial 4 is covered with a suitable finish, such as plaster, concrete or the like, which adheres to material 4 as well as to the concrete 8 by passing through the mesh.

At the sides of studs 1 adjacent the foraminous material 6 are secured spacers 10, which may be similar to spacers 3, and to the outer ends of spacers 10 is secured foraminous material 11, such as wire netting, expanded metal or the like, which, being at a distance from material 6, provides a space 12 that extends along the side of the wall as shown. At 13 is a finishing layer or coating of plaster, concrete or the like, shown applied upon the exterior of material 11, the air space 12 thus being inclosed tightly between the concrete 8 and the finishing material 13.

By means of our improvements the main part of the wall may be solidly built up of concrete, studs and foraminous material, as the concrete will embed the spacers 3 in the continuous wall as well as embedding the studs 1 as before explained, and the air space 12 will serve as an insulator. The concrete portion of the wall may be exterior of the building while the air space may be on the interior thereof, whereby a strong exterior wall is secured, and the interior wall comprising the foraminous material 11 and the plaster or similar material 13 will be supported and braced by the spacers 10.

We have shown the beam 14 resting upon studs 1, to which said beam may be secured, as by cleats 15 shown securing the upper stud 1<sup>a</sup> to said beam. The wall is thus of monolithic construction in its main parts with an air space at one side thereof, which may be co extensive with the wall.

Having now described our invention what we claim is:

1. The combination of a series of studs spaced apart, spacers extending from the same side of said studs, and transversely to the walls, foraminous material secured to said spacers and to the opposite sides of the studs, concrete filled in the space between such material, spacers extending from the same sides of the studs opposite the concrete, and transversely to the walls, foraminous material secured to said spacers, and a layer of suitable material secured to said foraminous material forming an air space between the latter and the concrete.

2. The combination of a series of studs



arranged in line, spacers extending outwardly transversely to the wall from the same side of said studs, foraminous material secured upon said spacers and to the opposite sides of said studs, concrete filled in the space between said material and embedding said studs and spacers therein in a continuous wall, spacers extending transversely of the wall on the same sides of said studs opposite the concrete, foraminous material secured to said spacers at a distance from the concrete, and a layer of suitable material

applied upon said foraminous material forming an air space between the latter and the concrete.

Signed at New York city, in the county of New York, and State of New York, this 20th day of February A. D. 1909.

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