(No Model.)

J. WENMAEKERS.

ERECTING BUILDINGS.

No. 561,637. Patented June 9, 1896.

Fig: 2.

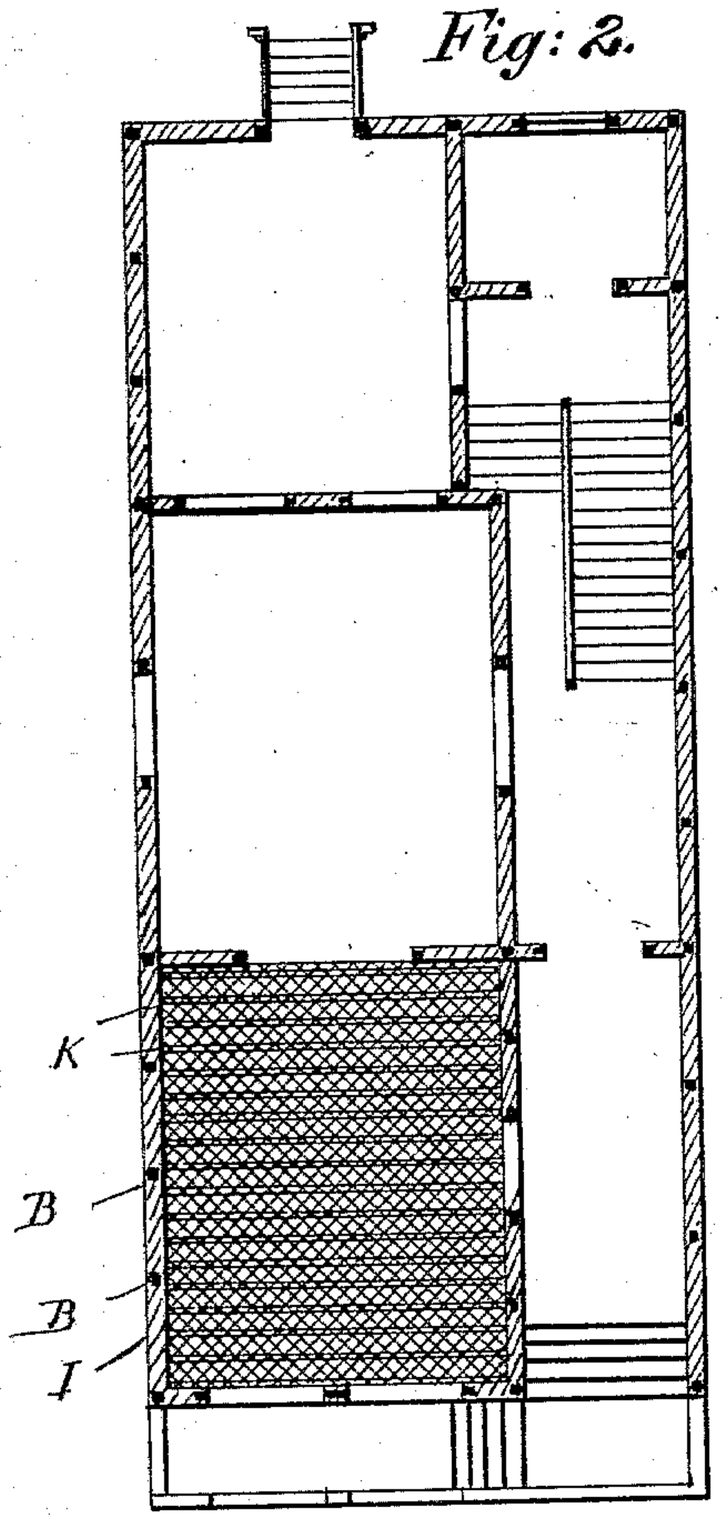


Fig: 1.

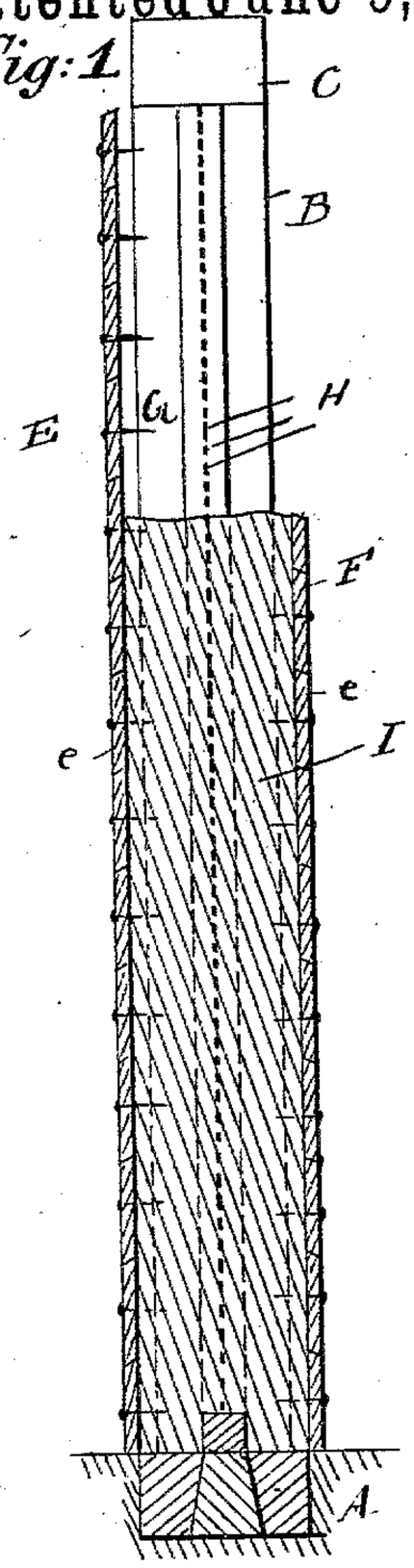
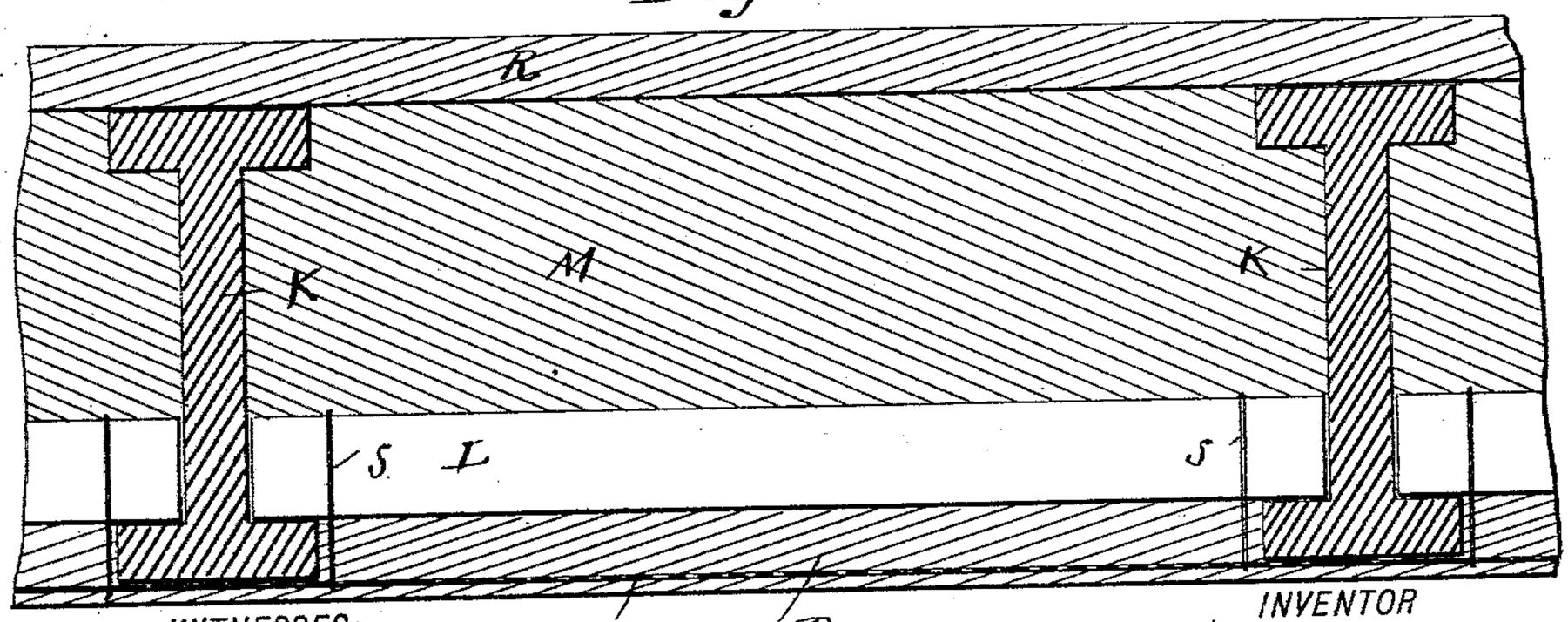


Fig: 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JEROME WENMAEKERS, OF BRUSSELS, BELGIUM.

ERECTING BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 561,637, dated June 9, 1896.

Application filed October 19, 1893. Serial No. 488,588. (No model.) Patented in Belgium July 31, 1893, No. 105,768.

To all whom it may concern:

Be it known that I, JEROME WENMAEKERS, a citizen of Belgium, and a resident of Brussels, Belgium, have invented certain new and useful Improvements in Erecting Buildings, (for which I have obtained a patent in Belgium, No. 105,768, dated July 31, 1893,) of which the following is a specification.

This invention relates to the erection of buildings of all kinds and for various purposes, which buildings are strong and durable, entirely fireproof, and very cheap when compared with buildings erected in the usual manner.

In the accompanying drawings, Figure 1 is a vertical transverse sectional view of a wall in the course of erection according to my invention. Fig. 2 is a sectional plan view of a building made in accordance with my invention. Fig. 3 is an enlarged detail view of part of the floor and ceiling.

Similar letters of reference indicate corresponding parts.

The foundation or base A of the building can be constructed in any well-known manner of brick, stone, or other suitable material. On the base a frame composed of uprights B and horizontal or ceiling-supporting beams C is erected, the thickness of which frame is less than the thickness of the wall to be erected, as is shown in Fig. 2. Then an inner and outer shell E and F are formed of planks *e*, placed on edge one above the other to a height equal to the height of wall to be finished in one operation. Said planks are supported from the uprights or studs B and the proper distance from the same by means of screws G, which are screwed through the planks and into the studs or uprights, as shown in Fig. 1. Wires H are passed horizontally through the uprights or studs B in the longitudinal central plane of the wall a distance of a few inches from each other. The space between the removable inner and outer wooden shells E F is filled with a mortar or concrete that hardens well and is strong, tough, and durable—for example, five parts of clay or loam, two parts of hydraulic lime, two parts of sand, and one part of ordinary trass or volcanic earth. The five parts of clay or loam may be replaced by a mixture of three parts of sand and two parts of fat lime; but I do not confine myself to the use of the mixture herein described, as any good cement may be used. After this mixture has settled for a few days and hardened, the screws G are moved and the planks *e*, forming the shells, are removed, the screw-holes closed, and the surfaces of the wall finished either in imitation of brick or stone work or in any other suitable or desirable manner and the walls carried up another story in the manner described, and so on.

In constructing the floors and ceilings a series of iron or steel bars K are arranged side by side to rest with their ends on the walls or other suitable supports, said bars being about six inches apart. On the bottom of the bars K boards L are rested, and on the same a layer M of suitable cement mortar is spread, which extends to the top edges of the bars K and on the layer M, and over the top edges of the bars K a finishing or floor layer R of Portland or like cement is spread and finished on the surface.

A wire-netting N is secured to the under side of the bars K, preferably by means of wires S, and on the same the plaster P of the ceiling is applied, the surface of which can be finished in any well-known manner. The roof is constructed in substantially the same manner as the floors, but receives a covering of metal or other suitable material.

Buildings constructed in the manner herein described are light, strong, stiff, and durable, as all the parts are thoroughly braced and stiffened against each other and there is no waste material.

The buildings are also fireproof.

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

A combined ceiling and floor, composed of longitudinally-flanged bars, planks supported on the flanges of the bars, a filling placed upon the planks between and extending to the top edges of the bars, a layer of cement applied to the upper surface of the filling, wire-netting secured to the bottom edges of the bars, and a layer of plaster applied to said netting, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JER. WENMAEKERS.

Witnesses:

GREGORY PHELAN,

C. L. S. SPANJARD.