

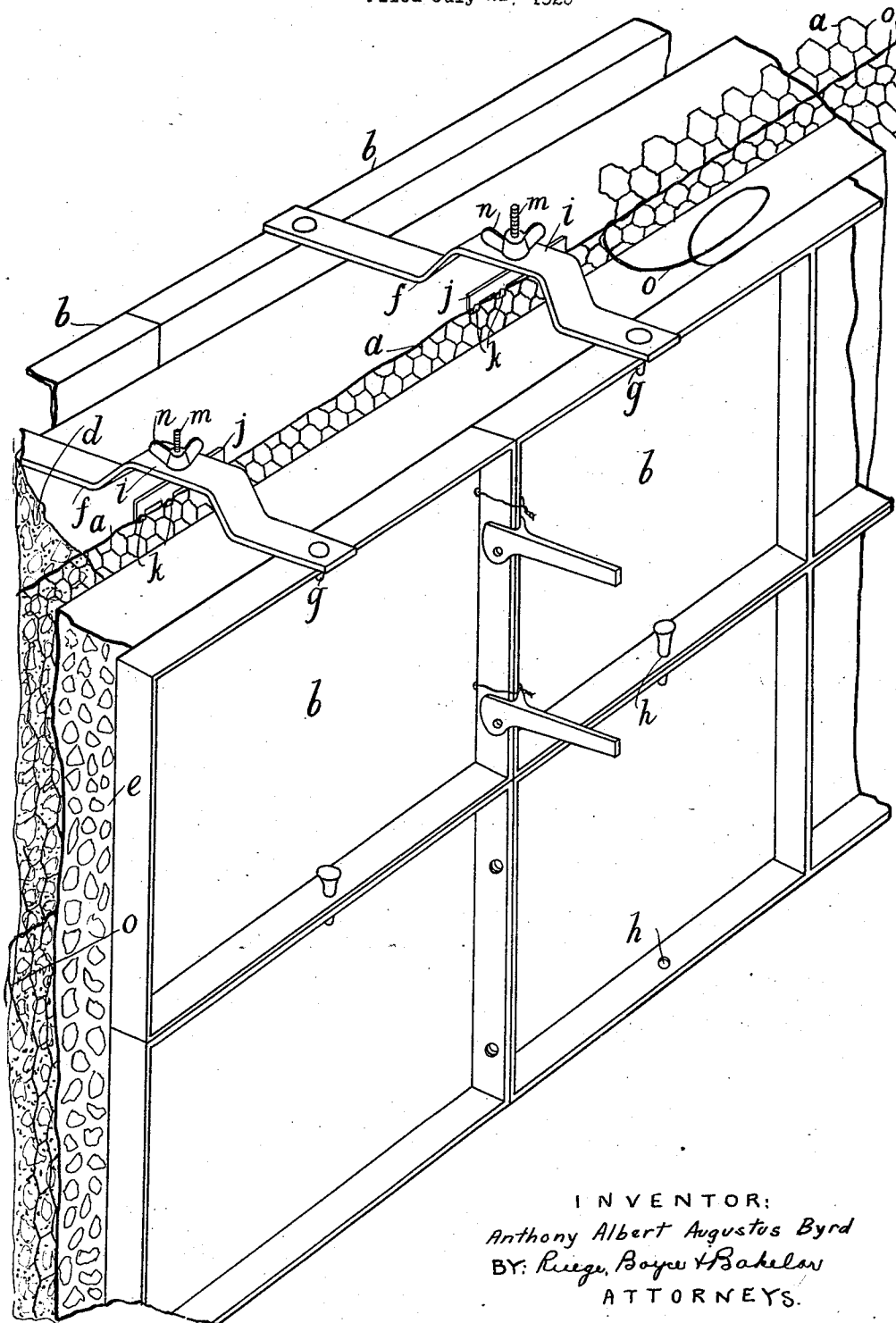
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MONOLITHIC CONCRETE BUILDING CONSTRUCTION

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This invention relates to monolithic concrete building construction and more particularly to that type of such construction in which movable forms or shuttering are employed made of metal, timber or other suitable material such being used to form a wall by setting up the forms or shutters the required distance apart and filling in the interior with poured concrete.

10 The object of the present invention is to provide means whereby in the construction of walls for houses, for example, the wall will be non-absorbent externally and absorbent, so as to retain heat, internally, and moreover so that the two materials, that is the absorbent and non-absorbent materials, of which the wall is formed will be firmly bonded together in the one operation.

15 With this object according to the invention wire netting, lathing or other similar foraminous material is so placed and held in position between the forms or shutters that the non-absorbent material, preferably cementitious concrete, may be poured on one side of the netting and the absorbent material on the other side thereof, the interstices in the netting permitting the two materials to unite or bond together and thus forming a solid wall.

20 Presuming the application of my invention to that form of construction referred to above in which metallic forms are employed, it being usual to hold these forms apart at the distance required to obtain a wall of the correct depth by spreaders or spacing bars which lie across the top flanges of the forms and are suitably attached thereto, these spacing bars are utilized for keeping the netting aforesaid in its correct position relatively to the forms and taut by fixing a hook or the like into each spacing bar to which the top edge of the netting may be attached.

25 In the accompanying drawing is illustrated a fragmentary perspective view of a monolithic wall construction wherein the preferred form of metallic plates or forms are employed.

30 Referring to the said drawing the wire netting *a* which is firstly secured to the raft or foundation of the intended structure by staples at frequent intervals is turned up into the vertical position and the metallic plates or forms *b* placed at the required distance on either side thereof to form the

spaces for the reception of absorbent and non-absorbent cementitious concrete *d* and *e* which constitutes the wall. The forms *b* are retained in their correct positions relatively with the netting *a* by the spreaders or spacing bars *f* which are provided with depending pins *g* on their underside that drop into holes *h* in the forms *b* in the usual manner. The spreaders *f* may be extended at their ends and be provided with two or more depending pins so as to afford a ready means of varying the thickness of the composite wall to be constructed. The spreader *f* is also provided with an arch or bridge *i* from which depends the plate or bar *j* that carries hooks *k* which engage with the meshes of the top edge of the wire netting *a* and by means of the threaded stem *m* which is integral with the bar *j* and the fly nut *n* the netting is evenly stretched and maintained taut in the vertical position while the respective mixtures are poured to form the absorbent and non-absorbent structure or composite wall.

35 As will be observed the top of wire netting *a* projects above the finished course so that the next sheet may be fixed thereto and in order to secure a satisfactory connection of the two sheets which will withstand the tension applied by the hooks *k* a wire *o* is threaded through the top and bottom edges of the wire netting which secures them rigidly together so that the necessary tension may be satisfactorily applied without distortion of the fabric.

40 It will be observed that the structure when the successive courses have been formed contains a continuous insertion of netting from bottom to top which materially assists in its integration and prevents cracking of the interior or exterior elements of the structure.

What I claim is:—

45 A mold for concrete wall construction, comprising in combination, a pair of exterior forms, removable spreaders engaging said forms and adapted to retain them in vertical parallel relation, each of said spreaders being provided intermediate the forms with an offset bridge portion extending in a horizontal plane above the top edges of the forms, a bar depending from each of said bridge portions and having a threaded stem passing through its bridge portion, a wing nut engaging said stem

thereby to adjust the height of the bar, each of said bars having a plurality of hooks, and a sheet of foraminous material secured at its lower edge midway between said forms and engaging said hooks at its upper edge thereby to place said sheet under tension with its upper edge at a higher level than the edges of the forms, said foraminous material forming a partition dividing the space between the forms into a pair of chambers for the reception of concrete mixtures of different grades. 10

In testimony whereof I affix my signature.

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