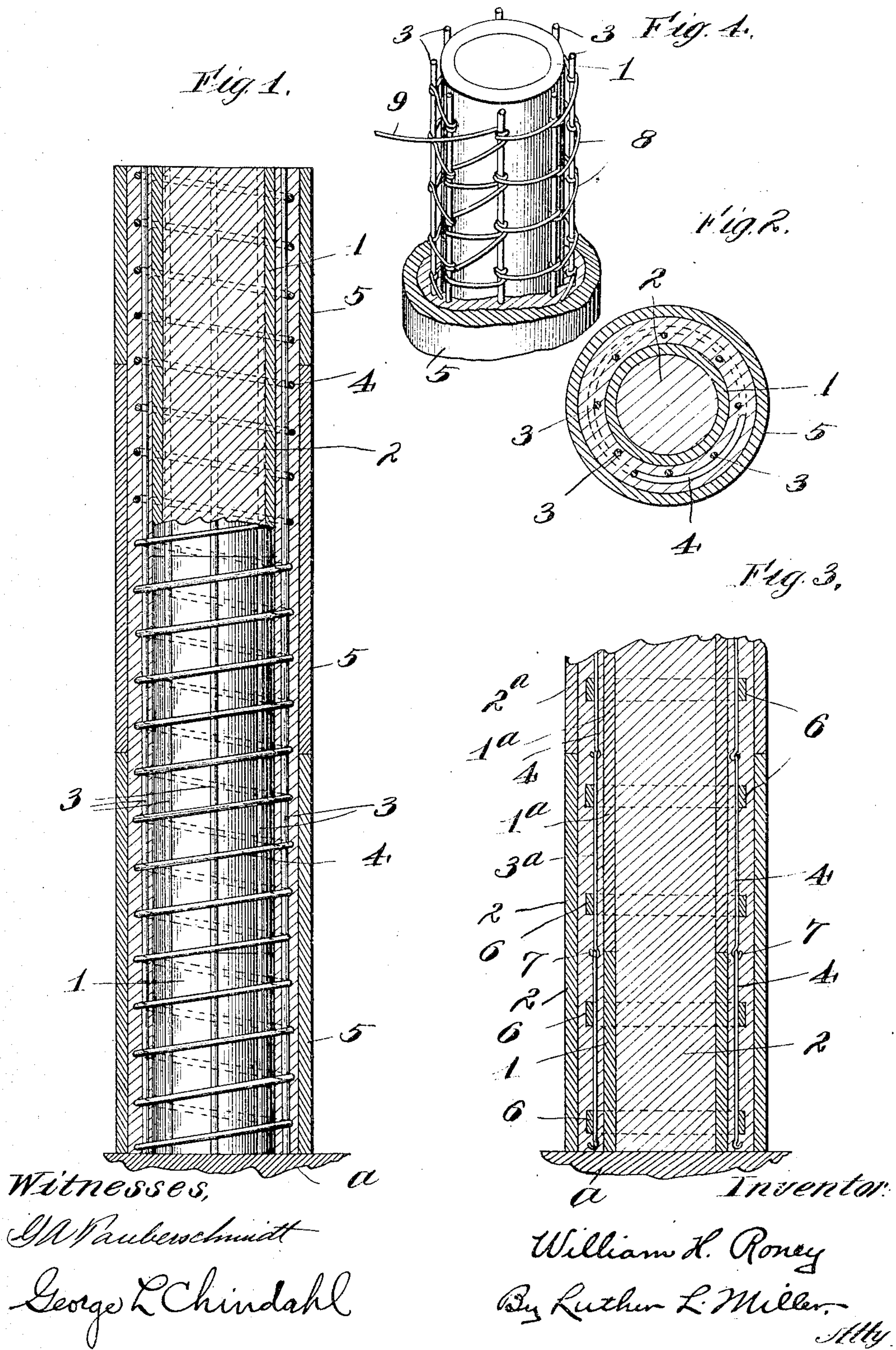


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PATENTED APR. 21, 1908.

W. H. RONEY.
COLUMN.

APPLICATION FILED AUG. 10, 1905.



UNITED STATES PATENT OFFICE.

WILLIAM H. RONEY, OF CHICAGO, ILLINOIS.

COLUMN.

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To all whom it may concern:

Be it known that I, WILLIAM H. RONEY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Columns, of which the following is a specification.

This invention relates to the construction of columns for architectural and other purposes, and one of its objects is the production of an improved column which may be formed in the place it is to occupy, and further one that can be constructed without the use of exterior molds or casings.

Another object of the invention is the production of a column possessing excellent fire-resisting qualities, and therefore not liable to disintegrate under the intense heat of a conflagration.

The invention also refers to an improved means for strengthening or reinforcing such a column.

The invention further refers to various other improvements and features to be hereinafter pointed out.

In the accompanying drawings, Figure 1 is a vertical central section through a column embodying the features of my invention. Fig. 2 is a horizontal section through said column. Fig. 3 is a fragmental vertical central section through a column of somewhat different construction, but embodying the general features of the invention. Fig. 4 is a fragmental perspective view of a column comprising an alternative form of reinforcing.

In carrying out my invention I employ tiles of tubular cross-section and suitable length, placed end to end, building up one or more tiers one within another, and filling the interior of the inner tiles and the spaces between the several tiers of tiles with concrete, cement mortar or other suitable material. The sections of the inner tier or tiers break joints with those of the outer tier and with each other, in order to strengthen the column, and this end is further promoted by placing metallic reinforcing devices between adjacent tiers of tile.

Having thus described my invention in a general way, I will explain the method of constructing a column in accordance therewith. In the forms shown in the drawings, I have employed two vertical tiers of tiles, the smaller tiles being within and concentric with the larger outer tiles.

In constructing the form of column shown in Figs. 1 and 2, I build up an inner tier of ordinary commercial tubular tiles 1, setting the lowermost tile firmly upon the base *a* upon which the column is to be erected, and filling them one after another, as placed, with concrete, cement mortar or other suitable material 2. Metal reinforcing rods 3, of a length substantially equal to that of the column, are then ranged about the inner tier of tiles at suitable intervals. A wire spiral 4 is next slipped over said rods 3, and the erection of an outer tier of tiles 5 commenced, said outer tier surrounding and being substantially concentric with the inner tier. As the outer tier is erected, mortar is placed between the two tiers, embedding the rods 3 and spiral 4 in said mortar.

The spiral 4 may be of a length sufficient for the entire column, or it may be in sections of a length corresponding with the length of the tile-sections. In Fig. 1 the lowermost tile of the inner tier is represented as being about one-half the length of the remaining tiles of the tier, in order that the joints of the inner and outer tiers may not occur in the same horizontal plane, but it will be understood that the same result may be attained by altering the length of any one of the tiles of either tier. The column is reinforced longitudinally by means of the rods 3 and strengthened against bursting strains by the spiral 5.

If desired, sectional reinforcing rods may be used instead of the continuous rods just described, and in Fig. 3 is represented a column comprising such sectional rods. In erecting the column shown in said figure, a tile 1 is first set upon the base *a* and filled with concrete. A tile 2, similar to the tile 1, but of larger diameter, is slipped over said tile 1 and firmly set upon the base *a*. A small quantity of mortar is placed in the space between said tiles, and anchor rods 3^a set upright in said mortar at suitable intervals. A ring or band 6 is then slipped over said anchor rods, and the space between said tiles surrounding the rods 3^a filled with mortar, rings 6 being inserted at regular intervals as the mortar is filled in. A second tile 1^a is placed upon the upper end of the tile 1, anchor rods 3^a connected end to end with those already set by means of interengaging hooks 7 formed upon the ends of said rods, a tile 2^a set upon the tile 2, and said tiles 1^a and 2^a filled with concrete, rings 6 being

added as before. In like manner, other tiles are added to those in place until the column reaches the desired height.

Where reinforcing rods extending the
5 length of the column are used, said rods may be connected together by wire wrappings 8 to form a meshed structure, as shown in Fig. 4, such wrappings being alternative with the spirals and rings illustrated in the other
10 views. The wires 8 may be looped about the rods 3 in any suitable manner and before placing said rods in position. After the meshed structure thus formed is put in place about the inner tier of tiles, the adjacent
15 edges of the structure may be secured together in any suitable way, as by means of the lacing 9.

Composition caps and bases may be provided for the columns, if desired, and said
20 columns ornamented or given a finished appearance in any preferred way.

The use of tubular tiles as a confining casing for the concrete obviates the necessity for the molds now commonly used in forming
25 columns from plastic material. Said tiles also serve to protect the concrete from the heat of any conflagration that may occur in the building of which the column is a part. The tiles, being of burned or fired material, are
30 better adapted to withstand intense heat

than the cement or concrete, and will retain their integrity longer than would unprotected concrete.

I claim as my invention:

1. A column comprising a tubular tier of 35 tiles; a second tubular tier of tiles placed within the tube formed by the first mentioned tier, the tiles of the two tiers being arranged to break joints; a series of vertical rods spaced apart, between said tiers; metal- 40 lic binding means encircling said rods; a filling of concrete for the inner tier; and a filling of mortar for the space between said tiers, said mortar binding said tiers and rods and metallic binding means together. 45

2. A column comprising a tubular tier of tiles; a second tubular tier of tiles placed within the tube formed by the first mentioned tier; a series of vertical rods spaced apart, between said tiers, metallic binding 50 means encircling said rods; a filling of concrete for the inner tier; and a filling of mortar for the space between said tiers, said mortar binding said tiers and rods and metallic binding means together.

WILLIAM H. RONEY.

Witnesses:

H. E. HUGHES,

GEORGE L. CHINDAHL.