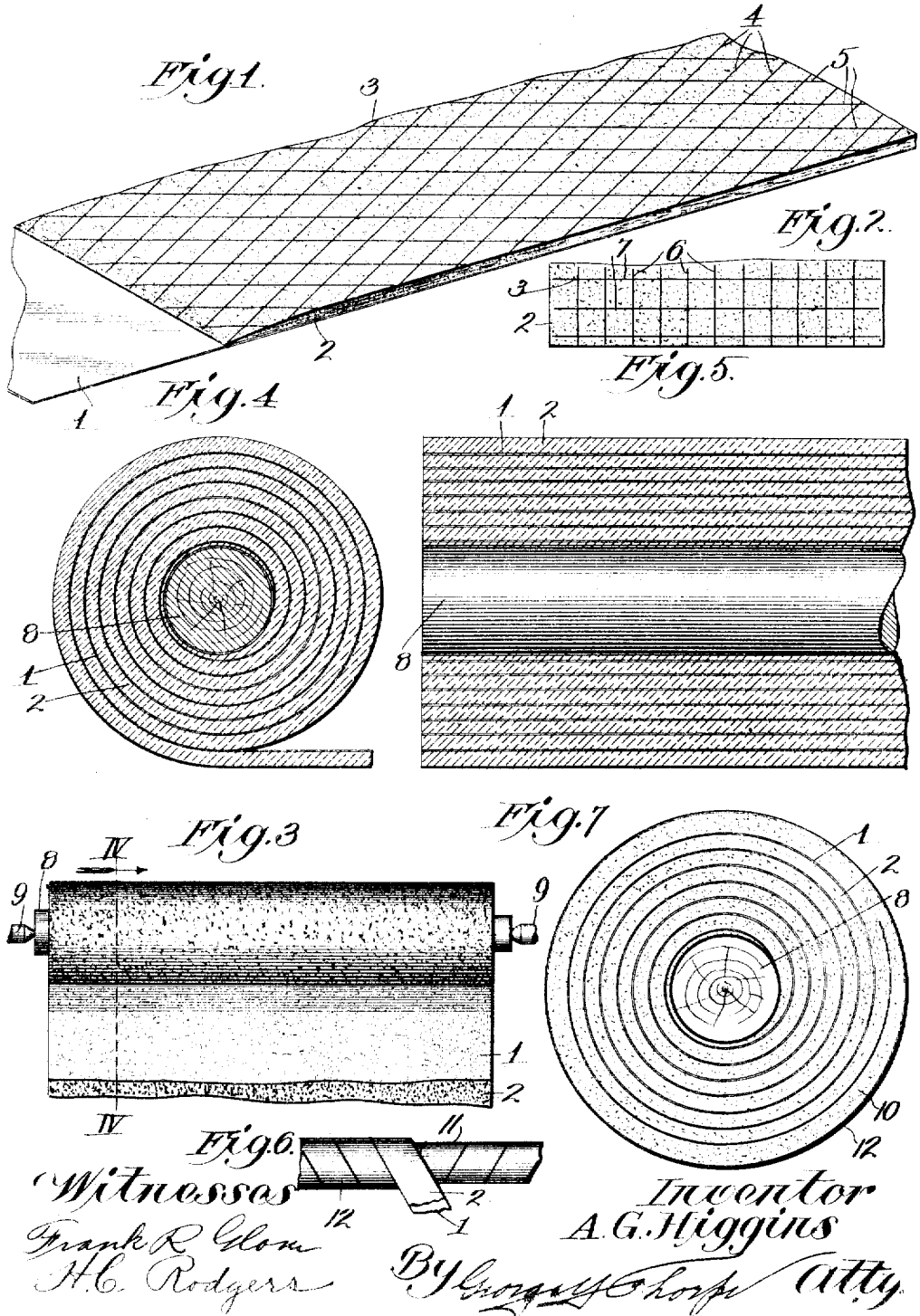


A. G. HIGGINS.
 COLUMN AND METHOD OF MAKING SAME.
 APPLICATION FILED AUG. 1, 1908.

945,949.

Patented Jan. 11, 1910.



UNITED STATES PATENT OFFICE.

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COLUMN AND METHOD OF MAKING SAME.

945,949.

Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed August 1, 1908. Serial No. 446,489.

To all whom it may concern:

Be it known that I, ALBERT G. HIGGINS, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Columns and Method of Making Same, of which the following is a specification.

This invention relates to reinforced plaster or cement columns and to the method and process of making the same, and my object is to produce a strong and durable column expeditiously and economically.

With this object in view the invention consists in certain novel and peculiar features of construction and in the novel method or process of making the columns, and in order that the invention may be fully understood, reference is to be had to the accompanying drawing, in which—

Figure 1, is a perspective view of a part of a flexible web bearing a coating of plaster or equivalent material and a flexible reinforcement, the latter resting upon or being embedded in such material. Fig. 2, is a plan view of the same with the reinforcements extending longitudinally and transversely of the web. Fig. 3, is a plan view showing the coated reinforced web in process of being rolled or wound upon a core mounted in a lathe. Fig. 4, is an enlarged cross section taken on the line IV—IV of Fig. 3. Fig. 5, is an enlarged longitudinal section of a part of the column, and showing also the core therein. Fig. 6, is a plan view showing the method or process of making a column by winding the web spirally thereon. Fig. 7, is an end view of a completed column before the core has been withdrawn therefrom.

In the said drawing, 1 indicates a sheet or web of suitable proportion and of any suitable material, such, for instance, as paper, as shown, or wire gauze, and 2 indicates a coating of plaster or cement upon such web. If it is desired to reinforce the plaster or cement-coated web, and this is particularly desirable where a paper web is employed, a soft or flexible metal reinforcement 3 is placed upon the plaster or cement coating, which reinforcement may be woven wire or may consist of pieces of soft wire arranged diagonally, as shown in Fig. 1, or longitudinally or transversely as shown in Fig. 2, the diagonal wires being numbered 4 and 5 respectively,

and other wires 6 and 7 respectively. This plaster or cement coating is then rolled or wound upon a core 8 of any suitable construction or material.

For very small columns, such as porch and stairway balusters, the coated web whether reinforced or not, may be wound by hand upon the core, the web forming a vehicle for the plaster or cement and a reinforcement for the same when the column is completed and the moisture has evaporated therefrom. For larger columns, I prefer to mount the core in a lathe as indicated at 9, and then by revolving the core, wind the coated web upon it. By either method the column produced is of the type shown in Figs. 4, 5 and 7, and after the column has almost attained the proper diameter, it is given an external coat of plaster or cement so as to bring it to cylindrical form as shown by Fig. 7, or it may be applied to give the column a swelled effect or a tapering form, though it is obvious that these effects may be obtained by the use of properly shaped cores.

The preferred method of applying the coating 10 is to revolve the core and column in the lathe and apply the material by means of a trowel or equivalent tool, it being noticed in this connection and by reference particularly to Figs. 4, 5 and 7, that the inner end of the web is left uncoated a suitable length to completely incase the core in order to prevent the coating coming in contact with the latter and thus making it difficult or impossible to remove the core without injuring the column built upon it.

In Fig. 6, I illustrate the preferred method of making or building posts or other columns intended to support a heavy weight, that is to say, spirally wound columns. In this construction the coated web will be spirally wound on the core in one direction, the web by preference, being a relatively narrow coated and reinforced web of the type shown in Figs. 1 or 2. A second web of like character is then wound upon the first, the convolutions of the second web crossing the first so as to give the column a trussed effect. After the column is completely wound and given the finish coating 10, it can be sawed or cut to the desired length so that its ends shall be smooth and even, and the column as a whole, of uniform thickness and strength at all points. The spiral winding

in opposite directions is indicated by reference characters 11 and 12 respectively, Fig. 6. After the column has received its finish coating, it can be given a supplemental coating 12 of water-proof material, this coating being preferably applied while revolving the column in a lathe.

By equipping the coating with metal reinforcements, as shown in Fig. 2, the transverse reinforcements become longitudinal reinforcements in the column and the longitudinal reinforcements become horizontal band reinforcements, the column being thus strengthened against bulging under compression and against bending and tensile strains.

The diagonal reinforcement shown in Fig. 1, acts as a truss brace for the column by giving it the banding effect and also strengthening it against bending or breaking.

From the above description it will be apparent that I have produced a column embodying the features enumerated, and that I have evolved a novel method of making such column, and it is to be understood that I reserve the right to make such changes in the product and in the method of producing the same as properly fall within the spirit and scope of the appended claims.

Having thus described the invention what I claim as new and desire to secure by Letters Patent, is:—

1. The method herein-described of making columns, the same consisting in first coating a web of flexible material with a material in a plastic condition, a portion of the web at its forward end being left uncoated by said plastic material, then placing on said plastic material a flexible reinforcing material, then winding said flexible web upon a rotating core until the desired diameter is obtained, said uncoated portion of the webbing enveloping said core, then applying a finishing coating or layer to the column thus formed and then withdrawing the core and allowing the plastic mass to harden.

2. A column consisting of a spirally wound web provided with a plastic coating, a second web provided with a plastic coating and wound upon and in a plane intersecting the winding of the first-named web, and a reinforcement of flexible wire netting embedded in each layer of plastic material.

In testimony whereof I affix my signature, in the presence of two witnesses.

ALBERT G. HIGGINS.

Witnesses:

L. B. WHEERITT,
G. Y. THORPE.