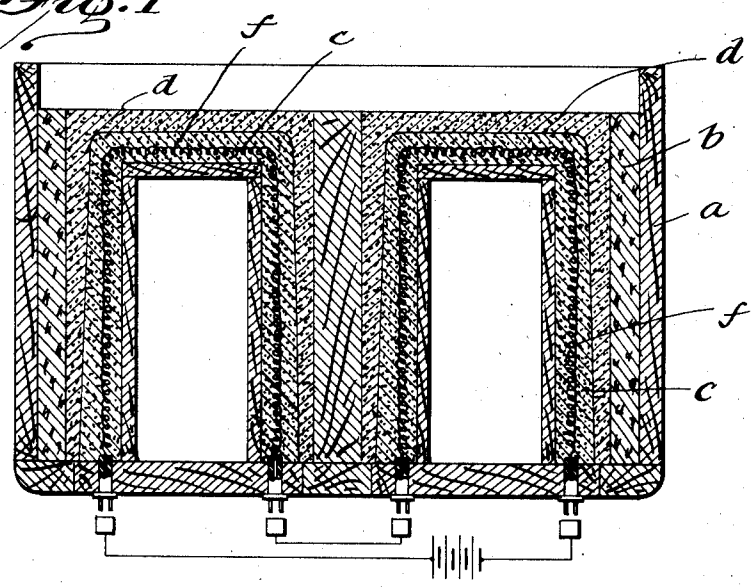
Jan. 17, 1928. 1,656,423

L. G. COPEMAN

METHOD AND APPARATUS FOR ACCELERATING SETTING OF STONE CASTINGS

Filed Feb. 15, 1926

Fig. 1



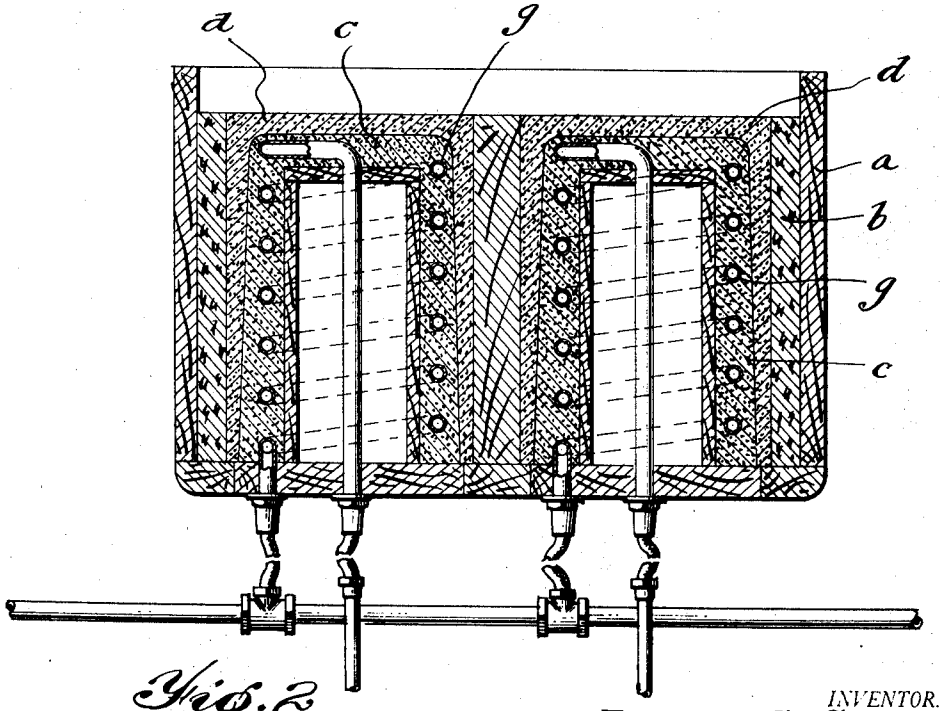


Fig. 2

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UNITED STATES PATENT OFFICE.

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METHOD AND APPARATUS FOR ACCELERATING SETTING OF STONE CASTINGS.

Application filed February 15, 1926. Serial No. 88,343.

This invention relates to the manufacture of molded stone. I have found that a great many useful articles may be made of molded stone, preferably of oxy-chloride cement—such, for instance, as a composition containing dry magnesium oxide powder, and a sand and ground flint aggregate, or combination of both. To this is added enough magnesium chloride in water solution to give a specific gravity of about 26 Baumé, and to make the mix either plastic or so that it will pour. I prefer the mix to pour. I have constructed some very fine refrigerator cabinets in this manner which are described and claimed in detail in my several prior patents, but which need not here be specifically referred to as the invention is not limited to refrigerators or cabinets, but has a wider application.

In molding these refrigerators it has been necessary to facilitate the setting of the stone in the presence of heat and moisture and to this end I have provided steam rooms similar to Turkish bath steam rooms where the temperature runs from 110 to 120 degrees. This facilitates the setting of the cement and the parting of the molds and the cores.

This has achieved the end all right, but it has required the attendance of operators and workmen in the steam rooms at frequent periods, and this has been found very injurious to their health—going and coming in these hot rooms, resulting in frequent weakness and sickness of the workmen. It is the object of the present invention to afford a method of accelerating the setting which entirely eliminates the danger to the health of the workmen, but which makes a very much more economical use of the energy required to effect the acceleration.

In the drawings:

Fig. 1 is a cross section of a refrigerator in process of building.

Fig. 2 is a similar view, showing a modification of the invention.

The refrigerator has an outer shell, preferably of wood, designated *a*. To this is secured a cork board insulating material *b*. There are fitted into the interior of the refrigerator, stone core *c* and between the stone core and the cork board a composition stone material or oxy-chloride cement is poured. This is designated *d*. The refrigerator itself forms the mold and the only additional apparatus is the removable cores. These I provide with an imbedded heating element which, as shown in Fig. 1, is a coil of nickel chromium wire designated *f*, or the cores may be heated by steam, as shown in the steam coil *g* of Fig. 2. This keeps these cores hot and the heat is conveyed into the setting stone by conduction. This furnishes all the heat that is necessary to effectively hasten the setting action.

By "molding apparatus" I intend to refer to the mold sections and core, or any other part that helps in the casting.

What I claim is:

1. The method of casting plastic articles in a molding apparatus, which comprises the pouring of the plastic material in a mold and then heating the same by a heating element permanently embedded directly in one of the members of the molding apparatus.

2. The method of casting a stone casting, which comprises pouring the mix in a mold with a stone core, and then heating the stone core by means of a heating agency imbedded directly in the stone.

3. In a stone casting apparatus, a stone core provided with heating means.

4. In a stone casting apparatus, a stone molding member provided with a heating element imbedded therein.

5. In a stone casting apparatus, a stone core provided with a heating element imbedded therein.

In testimony whereof I have affixed my signature.

LLOYD G. COPEMAN.