(No Model.)

C. A. PETERS.

MANUFACTURE OF ARTIFICIAL STONE.

No. 539,190. Patented May 14, 1895.

FIG. 1

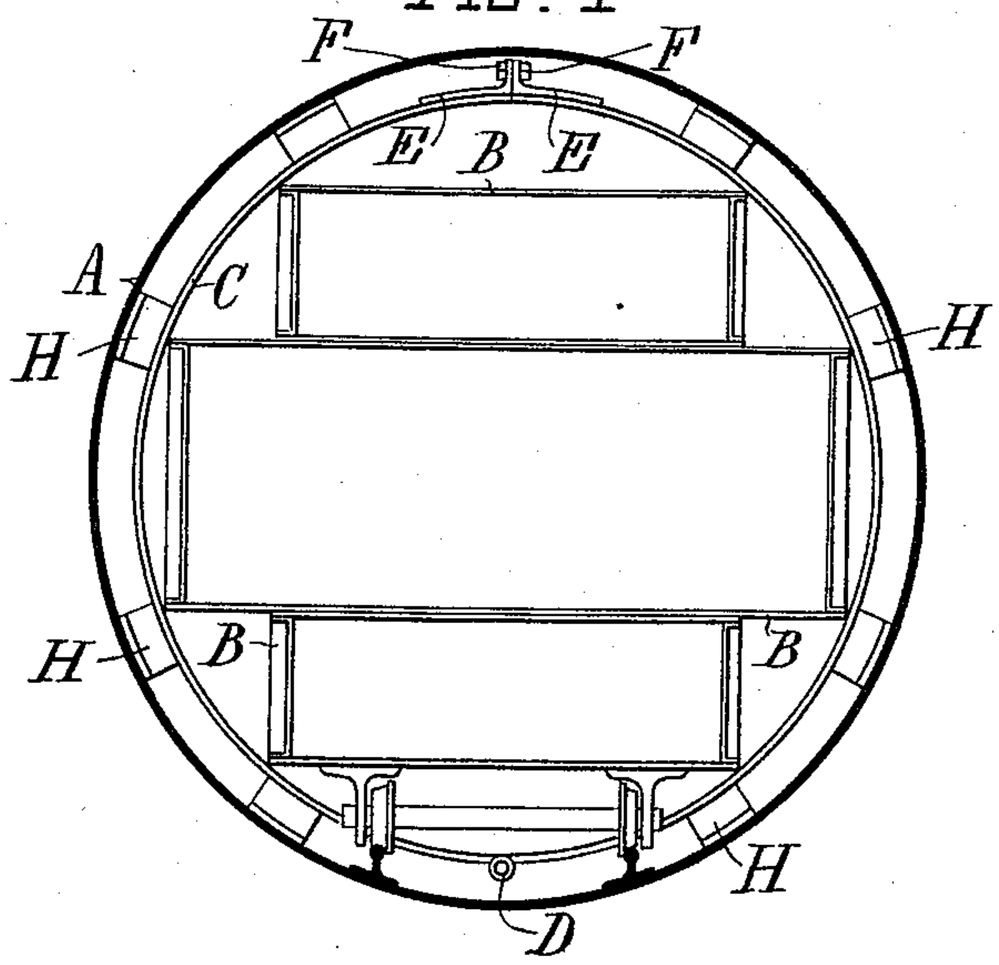
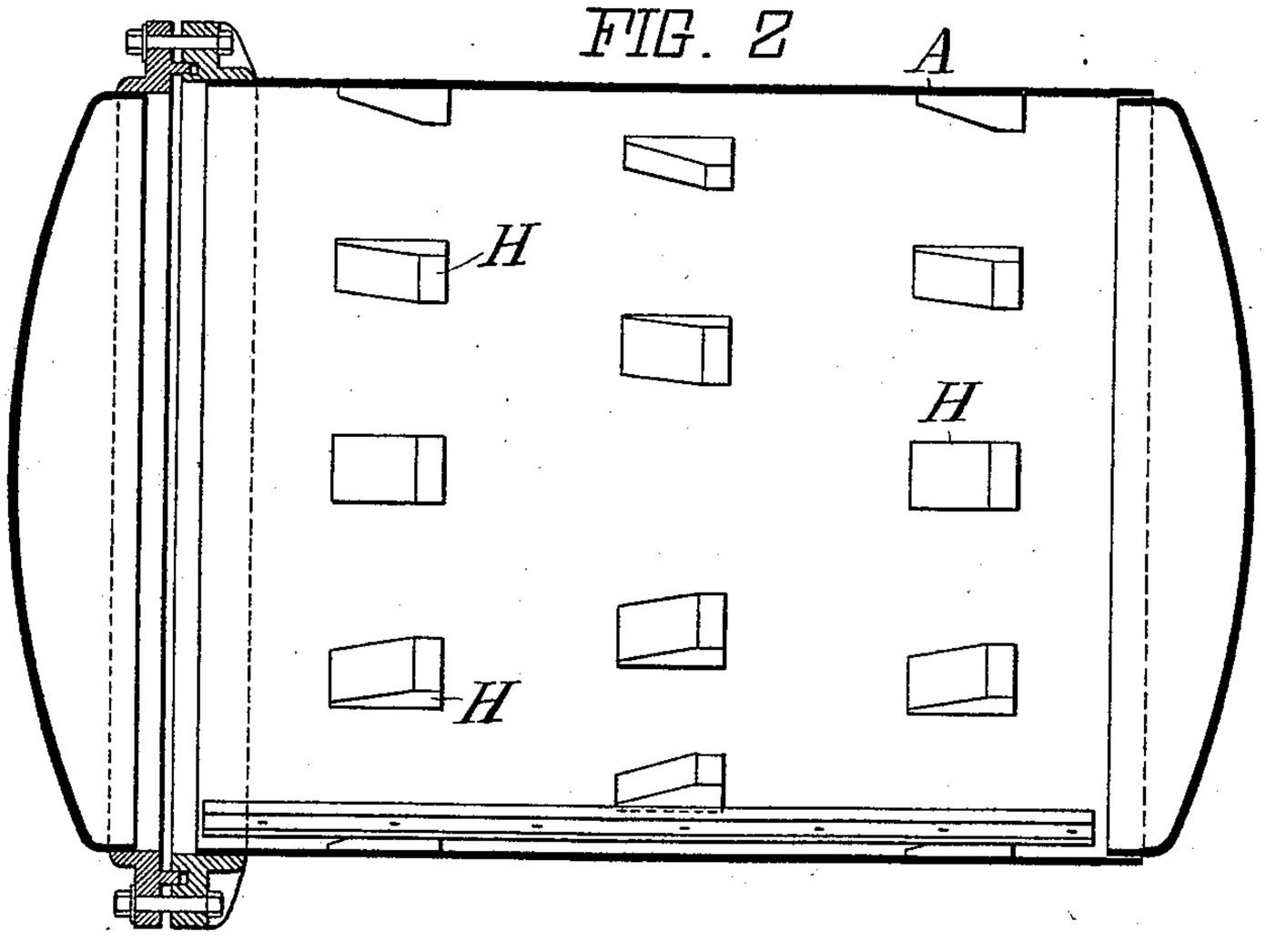


FIG. 2



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES AUGUSTUS PETERS, OF LONDON, ENGLAND.

MANUFACTURE OF ARTIFICIAL STONE.

SPECIFICATION forming part of Letters Patent No. 539,190, dated May 14, 1895.

Application filed August 11, 1894. Serial No. 520,043. (No model.)

To all whom it may concern:

Be it known that I, CHARLES AUGUSTUS PETERS, manufacturer, of 68 Queen Street, Cheapside, in the city of London, England, have invented certain new and useful Improvements in and Connected with the Manufacture of Artificial Stone; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is an end view of the apparatus with the cap removed. Fig 2 shows a section of the outer casing A with the inner chamber in elevation.

This invention relates to the manufacture of artificial stone and to that description of apparatus wherein a steam chamber such as A containing high pressure steam is used in connection with an interior closed chamber B (or chambers) in which mixtures of slaked or caustic lime and sand (or other suitable material such as infusorial earth or kieselguhr) are treated for the purpose of forming artificial stone or like productions by being submitted to the action of high pressure steam or water or both and has for its object the strengthening of such apparatus to such extent that, for the production of a harder quality of stone by employing a greater percentage of lime, such apparatus may be able to withstand the increased expanding action of the lime, and also by such strengthening of the apparatus to allow of stones of considerable length and size being manufactured.

My invention therefore consists in the construction, combination, and arrangement of parts as hereinafter described and specifically claimed.

In apparatus such as before described it has been usual to provide the necessary resistance to expansion of the material used for forming the stone by inclosing the charged mold such as B within a strong casing or cylinder such as A the interior of which is subjected to the action of high pressure steam which being exerted against the outer surface of the molds will resist any bulging or bursting action of the lime, and for stones of certain quality and comparatively small size this has been found sufficient.

In order to enable a greater percentage of lime to be safely used on blocks of stone of great length or size to be made by my invention I provide a band or strap (or bands or straps) of steel or other hard metal, such as C divided into two or more parts and joined when in use by means of a hinge D and flanges E E secured by bolts F F or by means of flanged or other joints only. This band or strap is arranged so as to fit accurately around the mold box or collection of mold boxes or any casing inclosing them or more bands may be used if the mold is of great length.

At certain points on the interior or inner face of the outer casing on chamber A I secure a number of wedge shaped pieces or bands of metal H, H, H, H, so arranged as to engage with the steel or other band or bands placed around the mold boxes when such are dropped or pushed into the outer chamber, and if more than one band is used the bands would be of different thicknesses and the wedges of varied size so that each band would bind against its own set of wedges.

In my drawings I have shown an outer casing or chamber provided with a set of rails on which a trolley carries the mold boxes to be subjected to treatment and I have shown one steel or metal band C only around the set of mold boxes and one set or circle of wedges H H H H on the inner face of the outer casing or chamber A, or a wedge shaped projection or band may extend throughout the inner circumference of the outer chamber A and it will be seen that when the trolley is run into the chamber A the band C will bind against the wedges H, H, H, H, and it will not be necessary to force the band tightly within the wedges as the expansion of the metals will still further tighten the band against the said wedges when the necessary steam is introduced, and consequent heat. On the cooling of the mass and molds the

band will have contracted so that the trolley and boxes may be withdrawn or, if necessary, force may be employed.

Having thus described my invention, I declare that what I claim is—

In an apparatus for the production of artificial stone the combination with a closed chamber containing boxes or molds, of bands or straps such as C placed round the said boxes or molds and wedge shaped metallic plates such as H, H, attached to the inside of the closed chamber as and for the purposes described.

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

CHARLES AUGUSTUS PETERS.

Witnesses:

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