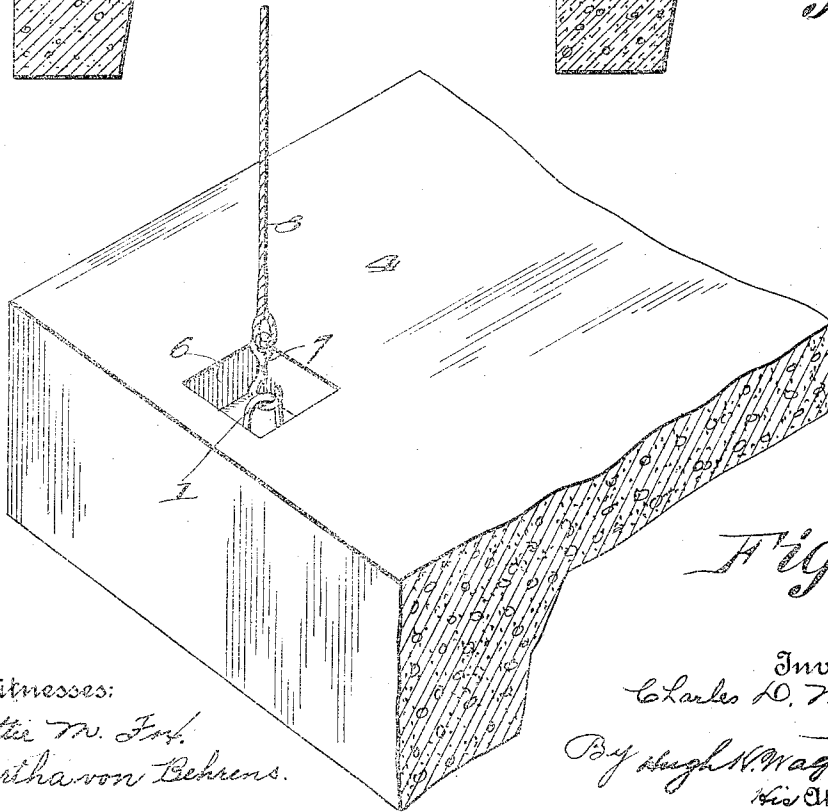
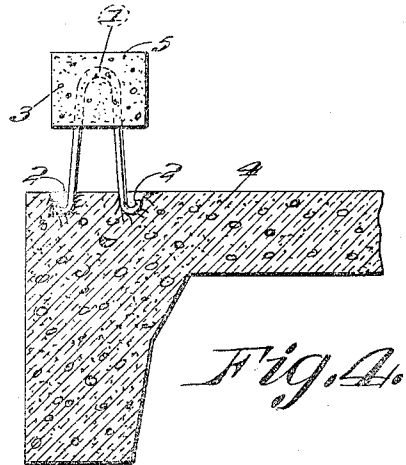
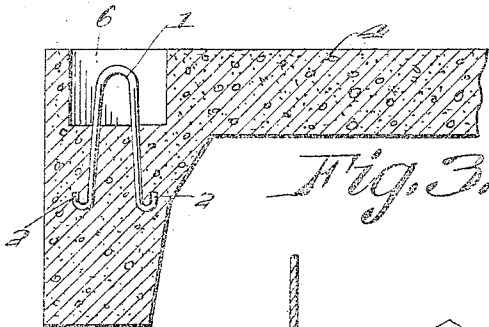
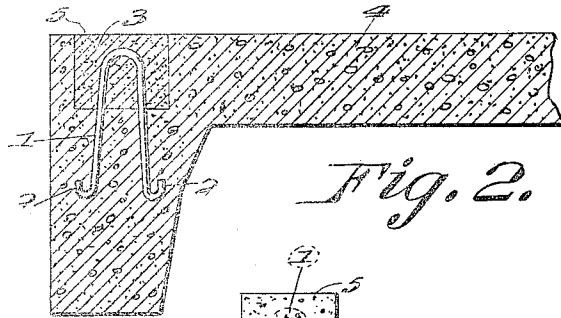
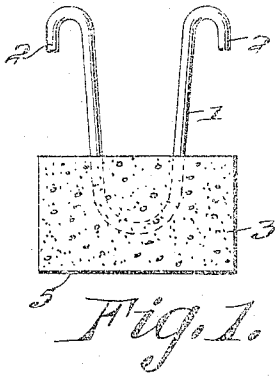


C. D. MORLEY.
METHOD OF ATTACHING HOISTING HOOKS.
APPLICATION FILED JUNE 19, 1911.

1,045,587.

Patented Nov. 26, 1912.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES D. MORLEY, OF ST. LOUIS, MISSOURI, ASSIGNOR TO UNIT CONSTRUCTION COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF DELAWARE.

METHOD OF ATTACHING HOISTING-HOOKS.

1,045,587.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed June 19, 1911. Serial No. 634,094.

To all whom it may concern:

Be it known that I, CHARLES D. MORLEY, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have
5 invented certain new and useful Improvements in Methods of Attaching Hoisting-Hooks, of which the following is a specification.

This invention relates to a method of attaching hoisting stirrups to concrete units.

The object of the invention is to provide an improved, simple and novel method of attaching stirrups to concrete units.

In the drawings; Figure 1, is a side elevation of a block of soft material having the stirrup embedded therein, Fig. 2, is a horizontal section taken through a concrete unit, showing the block and stirrup carried thereby, embedded in a concrete unit, Fig. 3, is
20 a similar view showing the block of soft material removed, Fig. 4, is a horizontal section of a concrete unit, illustrating the mode in which the stirrup and the block of soft material is inserted in the unit prior
25 to hardening of the latter, and, Fig. 5, is a view in perspective showing the manner in which the hook of a hoisting cable, engages the stirrup to effect raising of the concrete unit.

30 The stirrup designated 1 in the drawings, is preferably of U-shape, having the ends of its legs bent or curved to form anchors 2.

3 indicates a block of soft material, preferably a mixture of one part of sand and
35 eight parts of cement, with water added in sufficient quantity to make the mixture plastic, the block being molded about the base of the stirrup so as to allow portions of the legs and the anchoring ends 2 thereof, to be
40 exposed, and to project from the upper face of the block 3. Block 3 is then permitted to harden with the base end of the stirrup embedded therein.

The concrete unit 4 which may be a slab, column, beam, girder, or other element of a building structure, is molded, and while still plastic, the anchoring ends 2, and the exposed portions of the legs of the stirrup 1 are forced downwardly into the material
45 of the unit 4, Fig. 4, illustrating the stir-

rup legs at the inception of the act of being forced into the concrete unit 4, for which purpose the block 3, of soft material is inverted as depicted in said Fig. 4.

The stirrup legs and the block 3, of soft
55 material, are forced in the concrete unit 4, until the base end 5, of the block 3, extends or lies flush with the top face of the concrete unit 4, as clearly depicted in Fig. 2, and after the concrete unit 4, has become
60 set, or sufficiently hardened, the soft material is picked away, or otherwise removed to expose the loop of the stirrup, the space in the concrete unit previously occupied by the
65 block 3, forming a pocket 6, for the reception of a lifting hook 7, borne by a hoisting cable 8, or other elevating or lifting appliance.

After the unit has been lifted in place, and, as part of the finishing of the building,
70 the pockets 6, that held the blocks 3, can be filled with hard material, for instance, such as is of the same character of which the unit is made.

I do not wish to be limited to the form of
75 stirrup illustrated, since any form of stirrup suitable for the purpose may be utilized, that is to say any stirrup may be employed which is capable of being firmly anchored in the concrete unit, and which has an eye,
80 loop, or equivalent part for engagement with the hook of a lifting or hoisting appliance, the stirrup illustrated in the drawings, being an example of one which is capable of
85 use in carrying out the present invention.

What is claimed is:—

The method of attaching hoisting elements having distinct hook-engaging and anchoring portions to concrete units, which consists in embedding the hook-engaging
90 portion of the hoisting element in a solid block of relatively soft cementitious material; permitting said block to set and then inverting said block and hoisting element and forcing the same bodily into the
95 concrete unit after the latter has been molded and while it is still in a plastic state, to embed said block and the anchoring portion of the hoisting element in said unit until the
100 then outer face of said block is substantially

flush with the adjacent face of said unit;
and finally removing the material, of which
said block is constructed after said unit has
hardened, to expose the hook-engaging por-
5 tion of said hoisting element and to produce
a pocket in said unit wherein said portion is
wholly disposed.

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

CHARLES D. MORLEY.

Witnesses:

WM. A. CHESTNUT,
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