

J. R. JOHNSON.
 FORM HOLDER FOR CONCRETE CONSTRUCTION.
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1,048,838.

Patented Dec. 31, 1912.

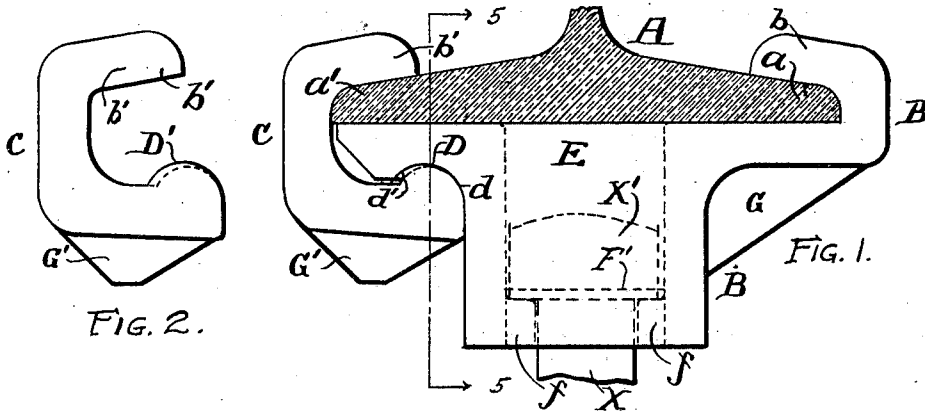


FIG. 2.

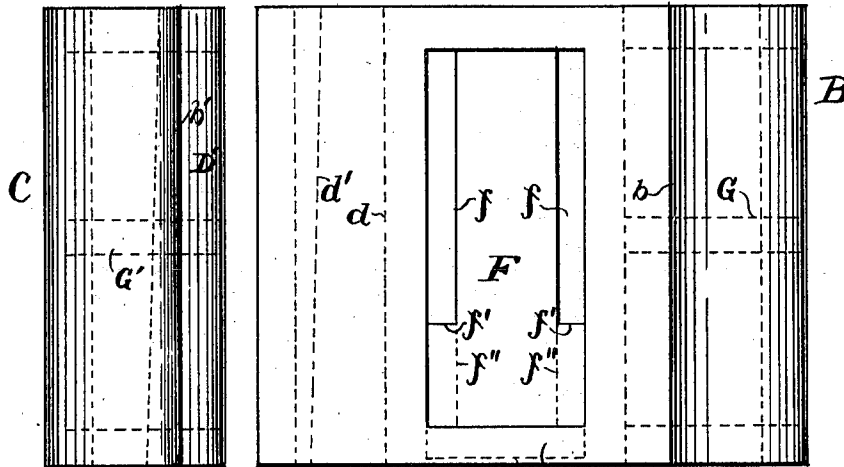


FIG. 3.

FIG. 4.

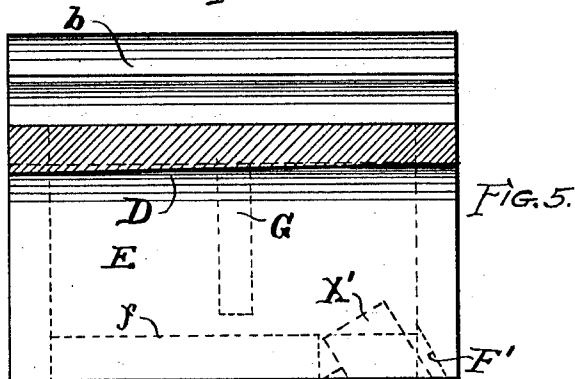


FIG. 5.

WITNESSES:
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FORM-HOLDER FOR CONCRETE CONSTRUCTION.

1,048,838.

Specification of Letters Patent.

Patented Dec. 31, 1912.

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To all whom it may concern:

Be it known that I, JOHN RICHARD JOHNSON, 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 Form-Holders for Concrete Construction, of which the following is a specification.

This invention relates to a device which is attachable to the lower flange of ordinary I beams and from which, by means of bolts, the forms for concrete construction can be supported, while a building is in course of construction. And the object of this invention is to obtain a holder which is attachable to the lower flange of any ordinary I beam, without requiring holes to be drilled in said flange, and by means of which the form or mold which is required in concrete construction will be held rigidly in place.

A further object of the invention is to obtain a device by means of which, when a construction is completed, pipes and other articles may be suspended from I beams which are embedded in concrete or covered by tiles and plaster.

In the drawing Figure 1 is an end elevation of a device embodying this invention, said device being attached to the lower flange of an I beam, said I beam being shown in section. Fig. 2 is an end elevation of a locking member of the device. Fig. 3 is a top plan view of the locking member which is illustrated in Fig. 2. Fig. 4 is a top plan view of the principal or base member of the device, and Fig. 5 is a vertical sectional view of the device removed from the I beam on line 5—5 of Fig. 1 viewed in the direction indicated by the arrows.

Similar letters refer to similar parts throughout the several views.

A is an I beam and *a*, *a'* the lower flanges thereof. B is the base member of this device, and C is the locking member. The member B is provided with the lip *b* which is arranged to engage with one of the flanges of the I beam A, as at *a*, Fig. 1. Base B is also provided with the groove D. The two sides *d*, *d'*, of groove D are not parallel. The base B is also provided with recess E and the groove F opening thereinto. The groove F is formed by ribs *f*, *f*, which are integral with the part B. Recess E is sufficiently wide to receive the head X' of the bolt X and the groove F is sufficiently

large to receive the body of said bolt. When the bolt X is inserted in recess E, the head of said bolt rests on ribs *f*, *f*, see Figs. 1 and 4, and said bolt is supported thereby.

The bolt X may be dropped into place in the recess E with the body thereof in groove F, before the device is attached to the I beam, in the manner hereinafter described, but as it often occurs that a bolt is required to be inserted in place in the device after said device is attached to the I beam I provided for such insertion by extending the ribs *f*, *f*, to lines *f'*, *f'*, only, thereby removing that part or portion of said ribs which is indicated by the broken lines *f''*, *f''*, Fig. 4.

F', Figs. 4 and 5 is the face of one of the end walls of the recess E, (at the lower edge thereof) which is beveled to permit the insertion of bolt X when the ribs *f*, *f*, are sufficiently long to prevent the removal of said bolt when the body thereof is perpendicular.

The locking member C is provided with the lip *b'* which rests on the upper face of side *a'* of the lower flange of I beam A; said locking member is also provided with the rib D' which corresponds in shape with the recess D of part B.

By this construction when the part B is in place on the lower flange of the I beam as illustrated in Fig. 1 of the drawing, the small end of rib D' may be inserted in the large end of the recess D and said locking member C driven into place and thereby the device will be firmly secured to the lower flange of the I beam.

G, G', are strengthening flanges used in the larger sizes of the device.

The bolt X is an ordinary bolt and maintains a concrete form in position in the ordinary way.

It is evident that said form may be secured in place so that the lower face of this device will be in the same plane as the lower face of the concrete in which the I beam is embedded when desired.

Any number of the devices are used which are required.

By the use of this device the concrete forms can be put in place and filled with concrete as fast as the I beams are secured in position.

I claim:

A holder provided with a recess to hold the head of a bolt and a groove to permit

the body part of said bolt to move therein,
the ends of said holder forming the ends of
said recess, and one of said ends beveled to
permit the insertion of said head in said
5 recess when said bolt is inclined from a per-
pendicular and said body part is in said
groove, and said recess and groove arranged

so that said bolt is not removable there-
from when said bolt is in a perpendicular
position.

JOHN RICHARD JOHNSON.

In the presence of—

CHARLES TURNER BROWN,
CORA A. ADAMS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."