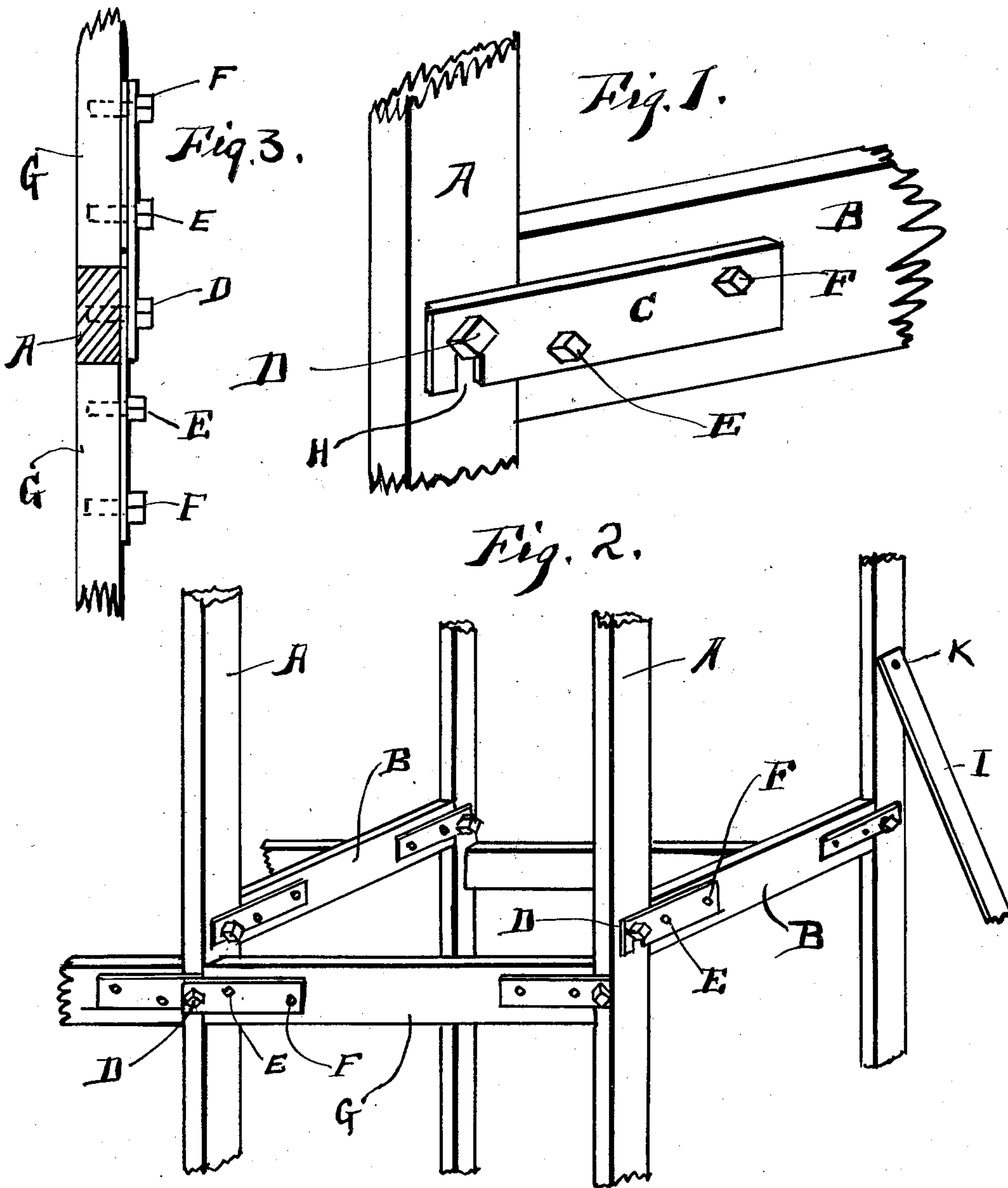


No. 744,194.

PATENTED NOV. 17, 1903.

W. HARRISON.
KNOCKDOWN SCAFFOLDING.
APPLICATION FILED MAY 25, 1903.

NO MODEL.



WITNESSES, *William Harrison* INVENTOR,
Harry J Perkins
Charles M. Wilson BY his ATTORNEY.
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UNITED STATES PATENT OFFICE.

WILLIAM HARRISON, OF GRAND RAPIDS, MICHIGAN.

KNOCKDOWN SCAFFOLDING.

SPECIFICATION forming part of Letters Patent No. 744,194, dated November 17, 1903.

Application filed May 25, 1903. Serial No. 158,733. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HARRISON, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented new and useful Improvements in Knockdown Scaffolding, of which the following is a specification.

This invention relates to a new and useful knockdown scaffolding to be used wherever temporary scaffolding is required for building purposes and the like.

The invention consists in combining with upright rectangular posts longitudinal and transverse bars provided with notched plates, whereby the scaffolding will stand firmly and rigidly in place when set up and which can be readily taken down for the purpose of transportation.

The objects of my invention are, first, to furnish a removable scaffolding which can be set up quickly and readily and which can be readily taken down and removed; second, to furnish a scaffolding that when erected will stand rigidly and without swaying and have sufficient strength for all practical purposes; third, to furnish a knockdown scaffolding which can be extended or contracted at pleasure. These objects I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows a perspective view, on an enlarged scale, of a corner-post, one of the transverse bars attached thereto. Fig. 2 shows a perspective view of a series of vertical posts and longitudinal and horizontal bars secured together in accordance with my invention. Fig. 3 shows a horizontal section of one of the vertical posts, together with a plan view of a portion of two of the longitudinal bars, the bars being secured to the post by means of metallic plates and bolts, as hereinafter described.

A shows a series of vertically-extending posts rectangular in cross-section. These posts may be of any suitable size; but I prefer to make them two by four inches in cross-section.

B B, &c., show the horizontally-extending bars, which engage with the vertical posts. G G show the longitudinally-extending bars, which engage with the said vertical posts in the manner hereinafter described.

C C show metallic plates, each metallic plate being secured by bolts or other suitable means to the end of either of the horizontally or longitudinally extending bars, the plates applied to the longitudinal bars and the horizontal bars being similarly constructed.

E and F denote bolts for attaching the plates to the longitudinal or horizontal bars, and any number of these bolts may be employed, as occasion requires. Each of the plates C extends beyond the end of the member or bar to which it is attached, and in the part of the plate which projects is provided with a notch H, which receives the neck of the bolt D, as shown in Fig. 1. The bolt D is secured to the vertical post and projects a sufficient distance beyond, as above stated, to allow the plate C, by means of the notch H, to engage with the bolt back of the head of the bolt.

In extending the scaffolding the plates E overlap each other, as shown in Fig. 3, and the bolt at this point extends a sufficient distance beyond the upright A to allow the notched ends of the plates to engage with the bolt D beneath the head of the same. The ends of the side pieces fit close against the flat perpendicular sides of the uprights, thus forming a brace, as it were, and giving rigidity to the structure, and the structure when set up and bound together by means of the plates and bolts is very firm and secure, and the scaffolding may be quickly taken down and may be easily set up for use.

It will be noted that the square ends of the horizontal members and the longitudinal members, bearing, as they do, against the perpendicular surface of the vertical bars, will prevent the structure from tilting or swaying.

In order to give greater rigidity against lateral motion, I provide braces, one of which is shown by I, each of which braces is pivoted to an upright by the pivot K, as shown in Fig. 2. Thus this pivoted brace is adapted when not in use to fold in close contact to the upright to which it is attached.

A scaffolding so constructed can be extended longitudinally to any required distance and can be readily adapted to any purpose where a temporary scaffolding is required.

Having thus described my invention, what I claim to have invented, and desire to secure by Letters Patent, is—

1. A knockdown scaffolding comprising a plurality of vertically-extending members, each of which is rectangular in cross-section, a plurality of longitudinally-extending members having their ends abutting against one side of the vertical members, a plurality of horizontally-extending members having their ends abutting against another side of said vertical members, bolts carried by and projecting from the vertical members, a plurality of notched plates secured to said longitudinal members and adapted to engage with certain of said bolts for detachably and rigidly connecting said longitudinal members to said vertical members, and a plurality of notched plates secured to said horizontally-extending members and adapted to engage the other of said bolts for detachably and rigidly securing said horizontally-extending members to said vertically-extending members.

2. A knockdown scaffolding comprising a plurality of vertically-extending members, each of which is rectangular in cross-section, a plurality of longitudinally-extending members having their ends abutting against one side of the vertical members, a plurality of horizontally-extending members having their ends abutting against another side of said vertical members, headed bolts carried by and projecting from the vertical members, a plurality of notched plates secured to said longitudinal members and adapted to engage with certain of said bolts at the back of the heads thereof for detachably and rigidly connecting said longitudinal members to said vertical members, and a plurality of notched plates secured to said horizontally-extending members and adapted to engage the other of said bolts at the back of the heads thereof for detachably and rigidly securing said horizontally-extending members to said vertically-extending members.

3. A knockdown scaffolding comprising a plurality of vertically-extending members, each of which is rectangular in cross-section, a plurality of longitudinally-extending members having their ends abutting against one

side of the vertical members, a plurality of horizontally-extending members having their ends abutting against another side of said vertical members, bolts carried and projecting from the vertical members, a plurality of notched plates secured to said longitudinal members and adapted to engage with certain of said bolts for detachably and rigidly connecting said longitudinal members to said vertical members, a plurality of notched plates secured to said horizontally-extending members and adapted to engage the other of said bolts for detachably and rigidly securing said horizontally-extending members to said vertically-extending members, and a plurality of foldable brace members pivotally connected to said vertical members.

4. A knockdown scaffolding comprising a plurality of vertically-extending members, each of which is rectangular in cross-section, a plurality of longitudinally-extending members having their ends abutting against one side of the vertical members, a plurality of horizontally-extending members having their ends abutting against another side of said vertical members, headed bolts carried by and projecting from the vertical members, a plurality of notched plates secured to said longitudinal members and adapted to engage with certain of said bolts at the back of the heads thereof for detachably and rigidly securing said longitudinal members to said vertical members, a plurality of notched plates secured to said horizontally-extending members and adapted to engage the other of said bolts at the back of the heads thereof for detachably and rigidly securing said horizontally-extending members to said vertically-extending members, and a plurality of foldable brace members pivotally connected to said vertical members.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM HARRISON.

Witnesses:

MARY S. TOOKER,
CLARA HAMILTON.