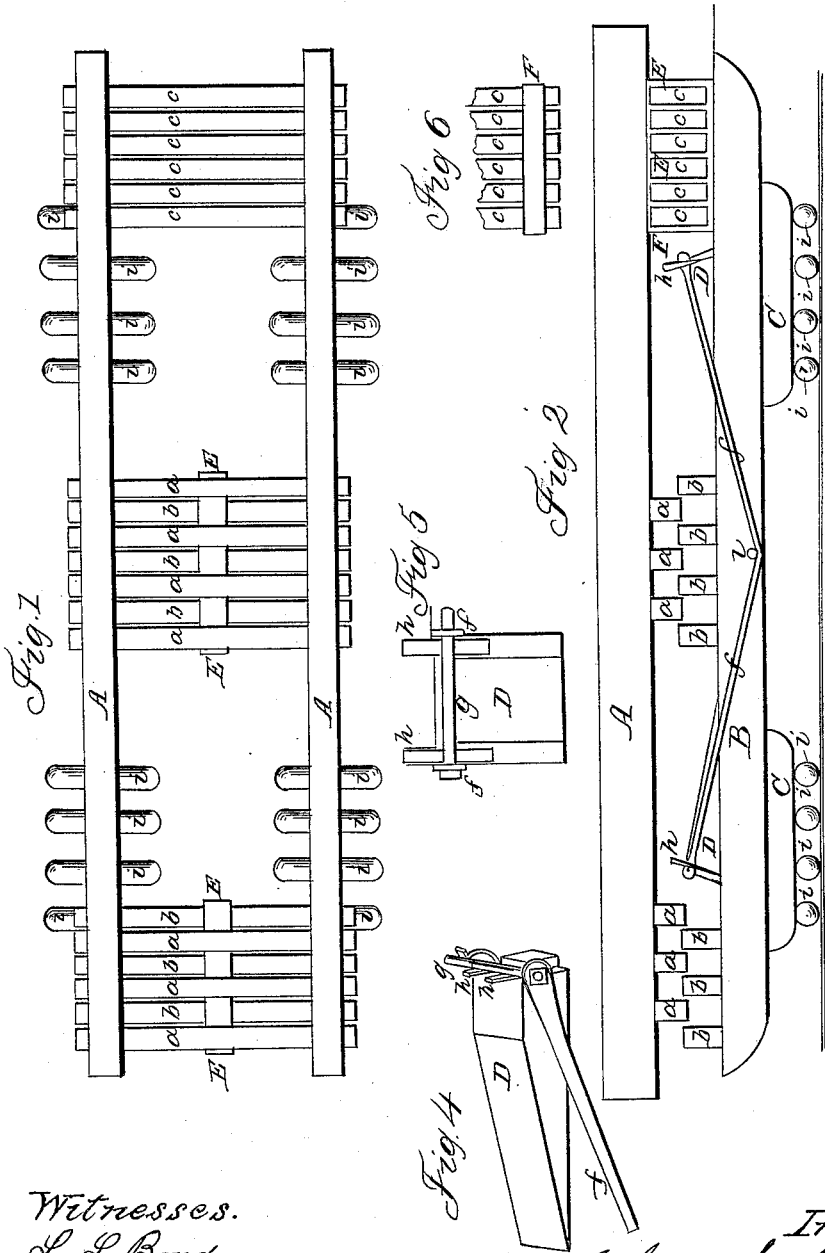


J. S. MCINTIRE.

Truck for Moving Buildings.

No. 50,375.

Patented Oct. 10, 1865.



Witnesses.
L. L. Bond
E. A. West

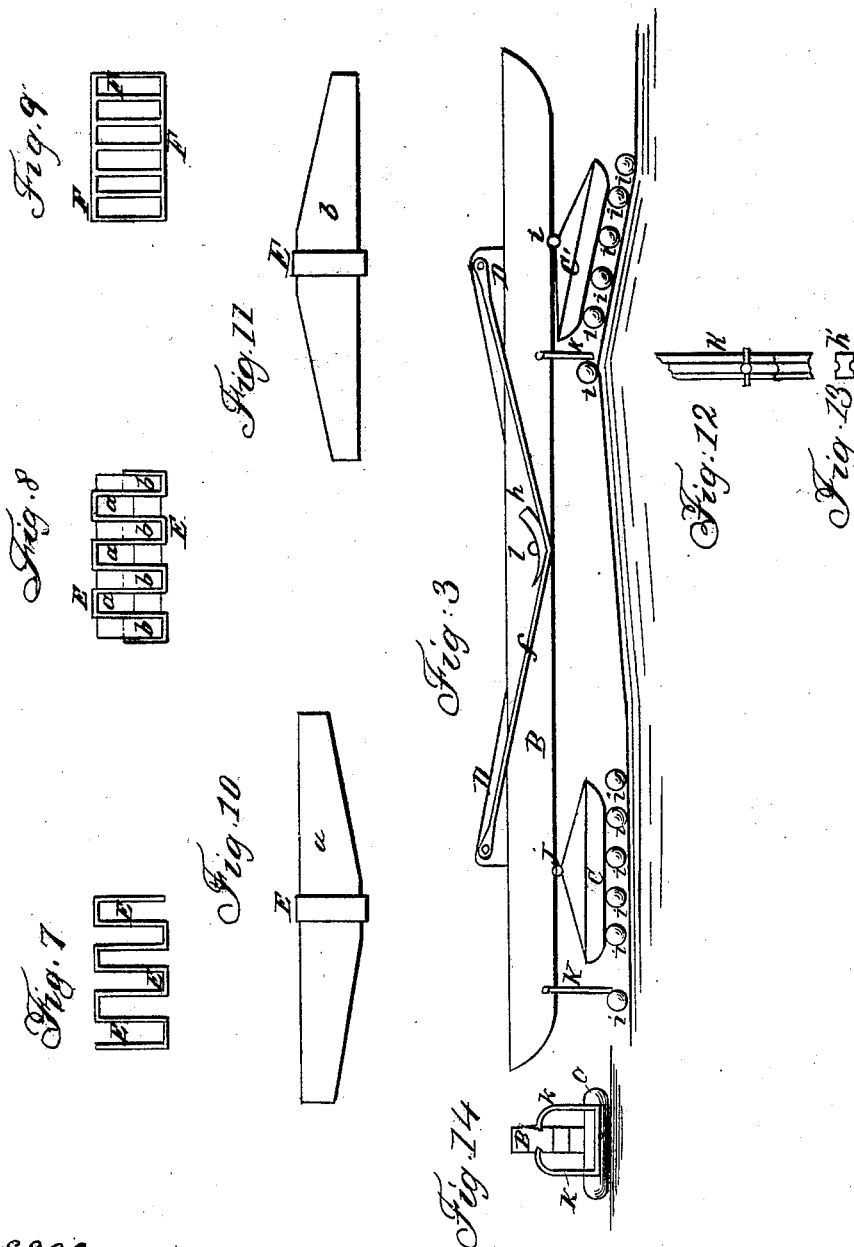
Inventor.
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UNITED STATES PATENT OFFICE.

JOHN S. MCINTIRE, OF CHICAGO, ILLINOIS.

IMPROVED APPARATUS FOR MOVING BUILDINGS.

Specification forming part of Letters Patent No. 50,375, dated October 10, 1865.

To all whom it may concern:

Be it known that I, JOHN S. MCINTIRE, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Apparatus for Moving Buildings; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top view of the apparatus in position; Fig. 2, a side view of the same; Fig. 3, a side view of a shoe or runner with pivoted short shoes; Fig. 4, a perspective view of the support or fastening of the truss or braces detached; Fig. 5, an end view of the same; Fig. 6, a top view of one end of the cross-timbers; Fig. 7, a side view of the supports of the balance-frame; Fig. 8, a cross-section of the balance-frame at the iron support; Fig. 9, a side view of the iron frame placed on the ends of the cross-timbers; Fig. 10, a side view of one of the upper timbers of the balance-frame; Fig. 11, a side view of one of the lower timbers of balance-frame; Fig. 12, a top view of the key by which the truss or brace is tightened at the center; Fig. 13, an end view of the same key, and Fig. 14 a front view of the roller-guide with the roller placed in the rear of the guide.

Like letters refer to similar parts in all of the figures.

The nature and object of my invention in this my second application consists in providing a balance-frame of a house-moving apparatus with a central support which will not weaken the timbers, and which can be varied or shifted in its position, so that if by reason of the chimneys being all on one side, or for other cause, one side of the building should be heavier than the other, such support can be varied from one side or the other from the center and adjusted centrally to the weight as well as to the width of the building to be moved; in making the cross-timber of a number of separate pieces and supporting or fastening them by an iron frame or its equivalent, so that it will be flexible in its application, and so that it can be easily handled and easily placed in position and dispense with the labor of one or two extra men in moving it from place to place and placing it in position, as

three or four men are required for those purposes when it is made of a single piece of timber; in providing the long runners or shoes with shorter ones beneath, which are so constructed or attached as to have an independent movement; and in providing the runners or shoes with guides to aid in placing the rollers in position.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the sills of a building; B, the runners or shoes, which are made in the usual form and of the size and length required by the size of the building; and for ordinary purposes a single piece of timber without support will be sufficient; but for long or heavy buildings I support them with a truss, *f*, or with braces. The blocks D of the truss are fastened to the top of the runners by bolts, spikes, or otherwise, about in the position shown. The rods or braces are placed under the center-pin *l*, and are then tightened by driving the keys *h* between the bolt or cross-rod *g* and the ends of the blocks D, in the form shown at Fig. 2; As shown at Fig. 3, they are tightened by driving the key *h'* under the center-pin *l*. The end fastening and manner of tightening are more fully shown at Figs. 4 and 5. I use the truss when I use additional or short shoes C, which shoes are placed under the runners D, near their ends, as shown at Fig. 2.

The secondary or short shoes C', as shown at Fig. 3, are centrally attached to the primary shoes B by means of the bars or rods *j*, which bars or rods are inserted one half in the shoe B and one half in C', and may be made to extend the width of the shoes, or to extend entirely across from one shoe to the other. They may be made of wood or iron, and of any desired size, and strong enough to attach the capstan-chains to either one or both of them, and may be fastened to one or the other of the shoes C' or B. These shoes C' are beveled off toward each end from a point near the groove for the rod *j*, so as to give a space of about four inches between the end of the shoe C' and the shoe B, and turn on the bar or rod *j*, so as to equalize the weight and distribute it over and upon all of the rollers *i* under such shoes. The rollers *i*, &c., are placed under these additional shoes C. By this means I can move

a building over a transverse obstruction or rise in the ground without straining it in the center and without breaking rollers, and can also more effectually distribute the weight of the building over the entire moving apparatus.

The balance-frames are made of separate pieces *a b*, &c., of timber, cut from twelve to fourteen inches in width and from three to four inches in thickness. These timbers are beveled off from a point near the center toward the end, as shown at Figs. 10 and 11, a little over one-third of the width of the timber, those in the lower part of the balance-frame being beveled on the upper edge and those in the upper part on the lower edge. It will readily be seen that by turning them over these timbers can be used in either the upper or lower part of the balance-frame. These timbers are supported by a chair or socket, *E*, in the center, as shown at Figs. 1, 7, and 8. This chair is made of iron and fitted to receive two or more of the timbers, as may be desired, and two or three of them may be used side by side, if desired. I prefer this chair or its equivalent to a bolt or pin through the center, for the reason that it does not weaken the timbers, and for the further reason that it may be placed to one side or the other of the center, as the weight of the building may require. The timbers can also more readily be taken apart for purposes of transportation, and can more easily be placed in position for use.

The cross-timber *c c*, &c., is made of similar pieces, which are of the same size in their entire length. They are held in position by the iron frame *F*, Figs. 6 and 9. By making it in this form I can make it very strong, and still have it so that it can be easily handled and be flexible in operation. The frame *F* may be a single frame placed at the middle; but I prefer to have one at each end.

At the front end of the shoe *B*, or near the front end, and when secondary shoes are used, then in front of the secondary shoes *C* or *C'*, I suspend a guide, *k*, Figs. 3 and 4, for placing the rollers in proper position, so that any one can place the rollers *i* in place. The rollers can be placed in front of the guide, when it will pass over them; or they may be placed immediately in the rear of the guide. The guide

k in the figure shown is made of iron, and spread so as to be about one-half as wide as the length of the roller. They may, however, be placed high enough to allow the rollers to pass under them, and rigidly attached.

When placed under a building, as shown at Fig. 1, this makes a complete apparatus for moving buildings, as I am enabled by the use of such flexible apparatus to move buildings over rough or uneven surfaces without preparing a track, and with less injury to them by straining and thereby starting the plastering and siding than when moved by the ordinary apparatus. I use a capstan and chain in the ordinary manner in connection with the apparatus.

Having thus fully described my invention, I will state that I do not claim the balance-frames in this application, as I have claimed them in an application heretofore filed; nor do I claim the secondary or short shoes *C'*, except as hereinafter mentioned and claimed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The chair *E*, or its equivalent, of a balance-frame in house-moving apparatus, so constructed as to be moved either way from the actual center and operate as a central support of such balance-frame.

2. The combination of a cross-timber constructed of two or more pieces and supported by a frame or joint with one or more balance-frames in a house-moving apparatus.

3. The shoes *C'*, when constructed and attached to the shoes or runners *B*, substantially as and for the purposes specified.

4. The roller-guide *k*, when attached to a house-moving apparatus.

5. The combination of a flexible cross-timber composed of two or more pieces, *c c*, &c., connected together with a balance-frame, runners *B*, and self-adjusting short shoes or runners *C'*, each of said parts and combinations being constructed and operating substantially as set forth and specified.

JOHN S. McINTIRE.

Witnesses:

L. L. BOND,
E. A. WEST.