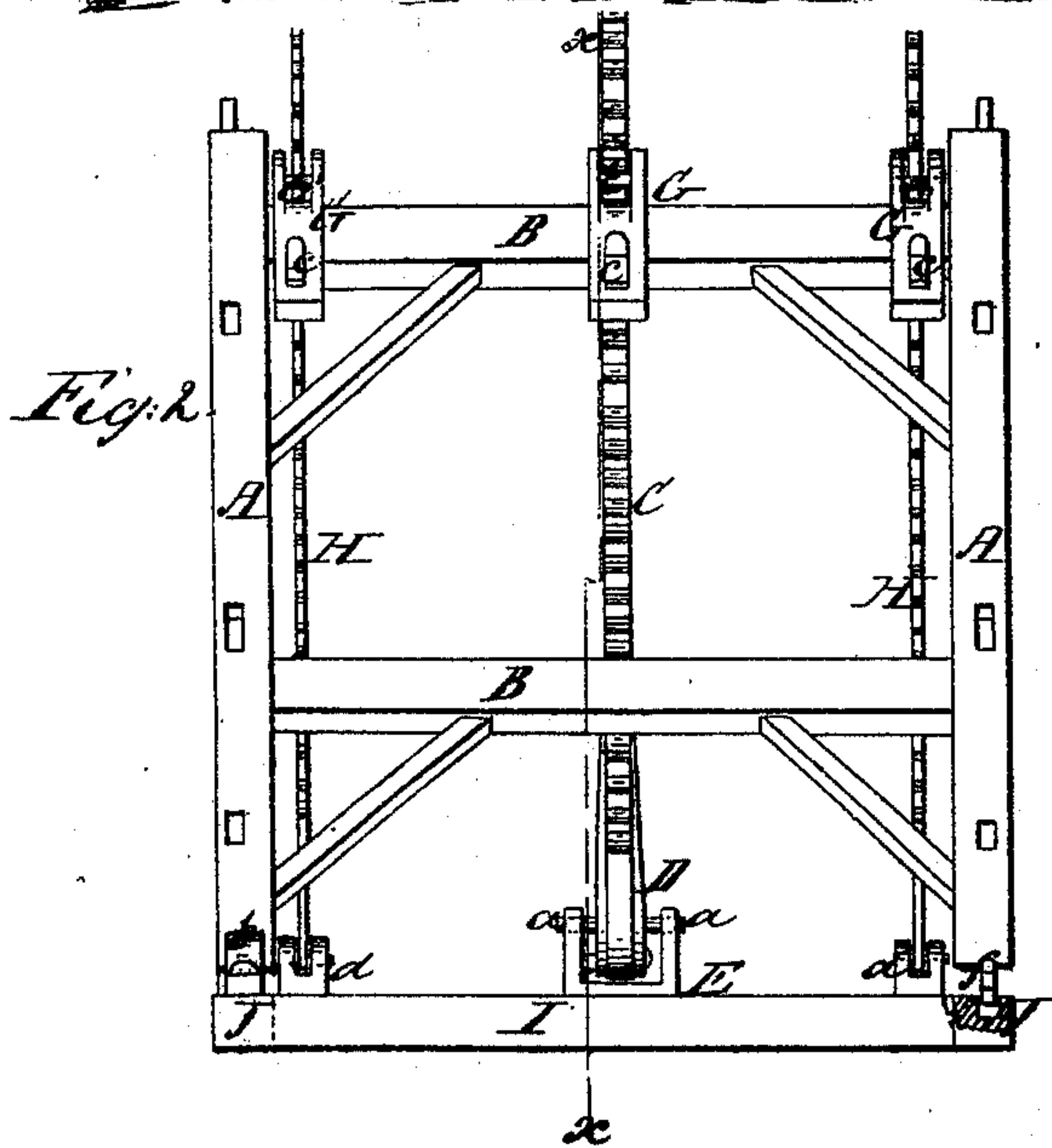
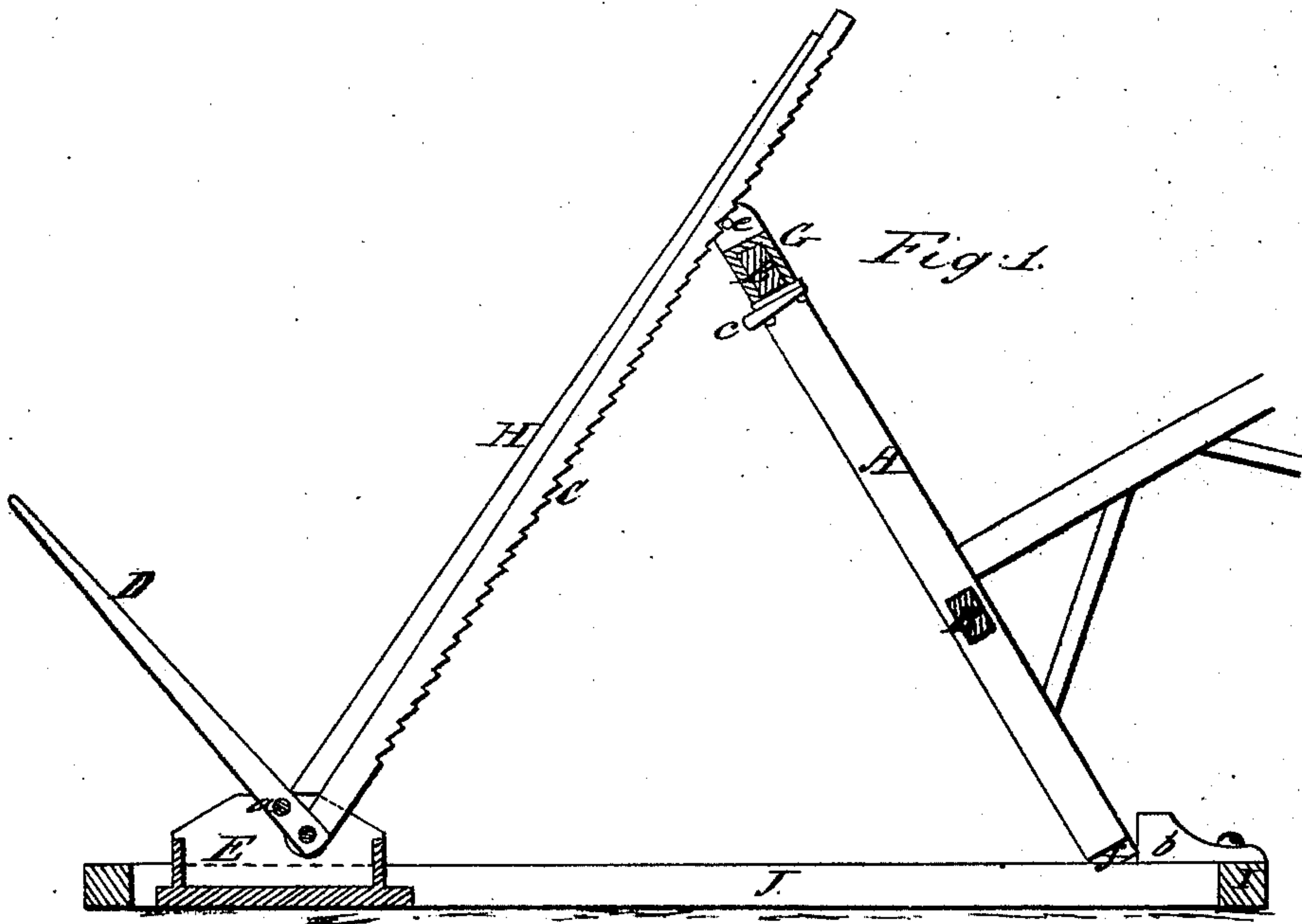


J. W. Clover & W. B. & B. E. Orner.

Scaffold.

N^o 80,346.

Patented Jul. 28, 1868.



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J. W. GLOVER, WILLIAM B. ORNER, AND B. E. ORNER, OF MARTINSVILLE,
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Letters Patent No. 80,346, dated July 28, 1868.

IMPROVEMENT IN SCAFFOLDING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, J. W. GLOVER, WILLIAM B. ORNER, and B. E. ORNER, of Martinsville, in the county of Morgan, and State of Indiana, have invented a new and useful Improvement in Shores for Raising House-Frames; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of the specification, in which—

Figure 1 is a sectional side view of our invention, the section being taken through the line *x x*, fig. 2.

Figure 2 is a front view of the invention.

Similar letters of reference indicate corresponding parts.

The object of this invention is to accomplish the raising of house-frames with a small number of persons.

It consists of two or more toothed shores, in combination with saddles, to be set on the upper tie-beams of the "bents," so called, and which accomplish the raising of the bents by the reciprocating action of the shores, all of which, together with other devices perfecting the whole, is hereinafter fully set forth.

In the accompanying sheet of drawings, A A B B is a "bent," (the end or side frame of a house when driven together for raising,) being raised by our devices.

On the upper tie-beam B are metallic saddle-plates G G G, two or more, the lower ends of which pass below the said beam, and are slotted to receive the keys *c c c*, by means of which the saddle-plates are affixed to the beam.

The upper parts of each saddle are formed with lugs, in which a horizontal pin, *e*, is affixed, for the notches in the shores to catch upon.

The shores are two or three in number, and are operated in two ways. When very heavy frames or bents are to be raised, the modification shown in the drawing is used. It consists of two racks or notched shores H H, the lower ends of which are pivoted to blocks *d d*, as shown, allowing the notched edges of the shores to rest against the pins *e e* of the saddles.

The middle or ratchet-shore C is similarly provided with serratures or notches, which rest against the pin *e* of the middle saddle.

A hand-lever, D, is pivoted to the lower end of the ratchet-shore, in any suitable manner, and is also provided with trunnion-arms *a a*, which have bearings in the pillow-block E. This block is affixed to the ground by stakes or other means.

When the bent is to be raised, its tenons *f f* are placed in front of the mortises of the floor-frame I J J, and prevented from slipping beyond the said mortises by blocks *b*.

The bent lying upon the floor-frame is raised by hand-spikes until the lowest notches of the three shores catch upon their respective saddle-pins. The lever D is then vibrated, thus actuating the ratchet-shore with a reciprocating motion, which lifts the bent through a short angular space at each vibration of the lever. As the bent is thus lifted, the notches of the shores H H catch upon their respective pins, and thus serve as props to the bent, holding it from backward movement while the ratchet-shore C is being drawn downward to obtain another hold.

The bent is thus raised by the power of one or two men, and, when it attains a vertical position, the tenons slip into the mortises, and the shores and saddles are removed to another bent.

When the frame of a small house is to be raised, the lateral shores H H may be dispensed with, and two ratchet-shores similar to the middle shore C may be used, both working counter to each other.

A modification of our invention may be made by providing the saddles with ratchet-pinions, and forming the teeth of the shores to engage therewith, the ratchet-pawl of the pinions being so arranged that the downward movement of the shore or shores would rotate the pinions, while, at the upward movement of the shores, the pinions would be held from rotation by their pawls, and thus the bent would be raised at each upward movement of the shores.

In practice, the pillow-block E may be of wood or cast iron. The saddles should be of cast or wrought iron, and are easily shifted from one bent to another.

The blocks *d d* may be of wood, and are affixed to the floor-frame by nails or screws, or to the ground by pins or stakes.

This invention is also applicable for raising trestle-work, bridge-framing, or other similar structures.

Having thus described our invention, we claim as new, and desire to secure by Letters Patent—

The employment of ratchet-shores, saddles, and levers as a device or devices for raising the frames of houses, all substantially as shown and described.

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Witnesses:

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