(No Model.)

H. McLAUGHLIN.

SCAFFOLD.

No. 555,260. Patented Feb. 25, 1896.

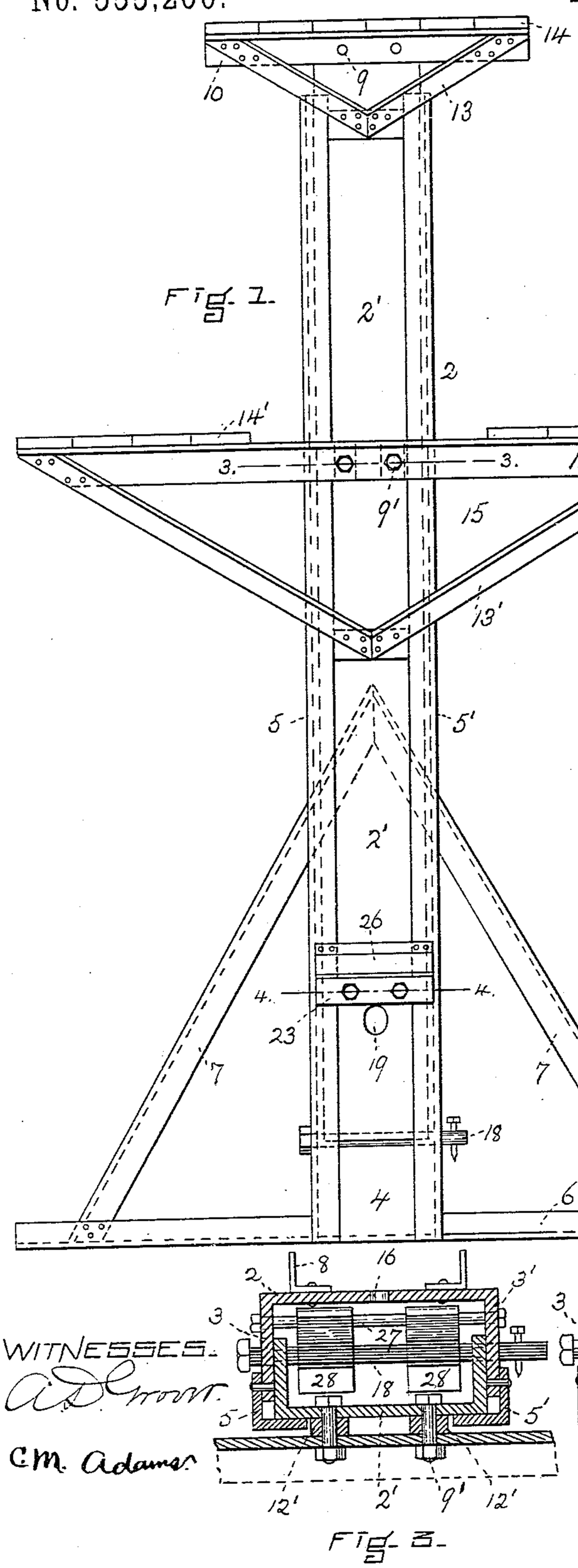

FIG. 1.

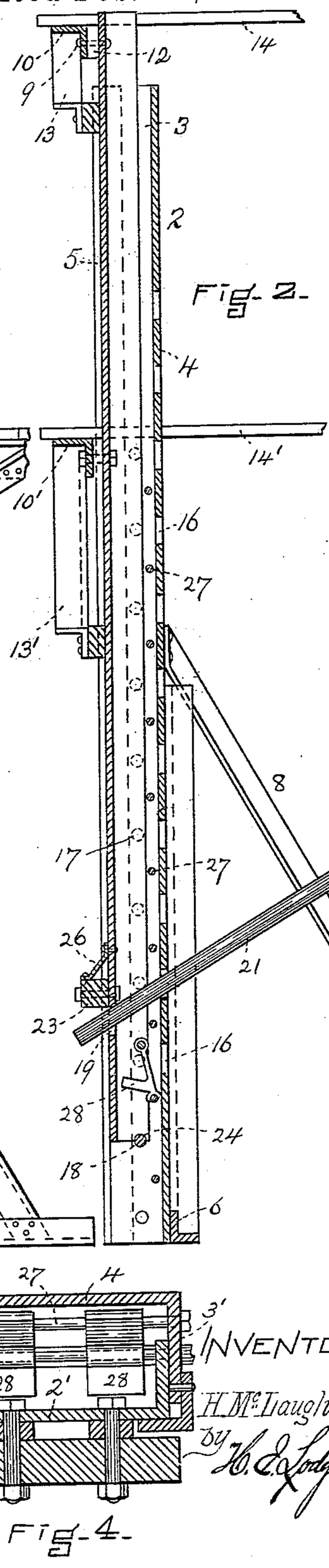

FIG. 2.

FIG. 3.

FIG. 4.

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SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 555,260, dated February 25, 1896.

Application filed September 21, 1895. Serial No. 563,211. (No model.)

To all whom it may concern:

Be it known that I, HEZEKIAH McLAUGHLIN, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Scaffolds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in scaffolds, particularly that class which are arranged to possess initial stability, and which are to be operated independent of the support ordinarily obtained from the walls of the building or other edifice.

My invention is embodied in the general structural formation of the several parts comprising the scaffold, whereby the various members may be easily separated from each other, thus forming a knockdown structure, which not only can be packed up snugly and compactly for transportation from place to place, but is adapted to be moved from story to story. Furthermore, in the adjustment of the bracket or truss which supports the platforms, comprising a telescopic form of post, whereby the platforms may be adjusted in height as the work progresses.

The drawings represent, in Figure 1, a side elevation of a scaffold embodying my invention. Fig. 2 is a vertical central longitudinal section. Fig. 3 is a transverse section on line 3 3 in Fig. 1, and Fig. 4 is a similar section on line 4 4 in Fig. 1.

One of the objects of my invention is to provide a cheap, light scaffold, one that can be readily adjusted, movable either up or down, and one that can be easily dismembered, and hence conveniently conveyed from place to place, or portable from story to story. In the present instance in the construction of the posts shown at 2 and for purposes of economy in construction I propose to employ a well-known form of merchant iron in the shape of channel-beams, which are easily procured of any desired length or cross-section.

The main post, as before premised, comprises a channel-beam about five inches wide and about seven feet in length, and made up of the two sides 3 3′ and the interconnecting web or back 4. This element or channel-beam 2 is to be used as the main support or post on which the entire structure rests. The two sides are equipped with angle-irons 5 5′ by which is confined with the main post a second channel-beam 2′ or telescoping section to which is affixed the platforms. This secondary post is somewhat shorter than the main post and is adapted to slide up and down freely upon the main post, and is capable of variable adjustment and of being locked securely in place, as will be hereinafter described.

The base of each post is provided with a foot in the shape of a transverse beam 6 having diagonals 7 7, by means of which initial stability and great rigidity is imparted to each post, while longitudinal braces 8 serve to maintain the posts vertical and prevent them from swaying. Thus the form of the posts (primary and secondary) when interlocked, as shown in Fig. 3, create a rectangular structure which is best adapted to resist strains and thrusts occasioned by the material which the scaffold is intended to uphold without danger of being weakened or broken down.

Transversely of the telescopic or secondary post and in parallelism with the foot of the main post is securely bolted at 9 a bracket or support 10 in the shape of an angle-bar. This bar is positioned at the upper end of said post 2′, while washers 12 are interposed to prevent said bracket from bearing on the angle-irons 5 when the bracket is firmly bolted to the post. Braces 13 are added to support and stiffen the ends, while the planks 14, which rest on the bar, are adapted to extend to the corresponding part on the next post. The above-described elements co-operate to form the top platform 15 on which stock or building materials may be placed.

Below and similarly constructed is a second platform 15 for the workmen. This latter platform is positioned at such a height that the workman can easily reach the material on the platform above. The bracket 10′ is somewhat longer, but is bolted on in the same manner as the bracket 10 in order to permit of free sliding movement of the post 2′. To provide

for ready adjustment of the platform, either up or down, even when loaded, I have pierced the web of the main post with a series of apertures 16, while longitudinally in the sides of said post are a series of holes 17, the holes in each series corresponding in height in order to receive a transverse removable safety-bolt 18. To enable the platform to be raised or lowered by a single workman with the lever, a row of rods 27 are secured transversely at regular intervals in the main post, but are so disposed that they shall not interfere with the movements of the telescopic portion. Pivotally attached to this latter element are one or more locking devices 28, which act as dogs or stops to automatically engage the rods 27 before mentioned. Thus when the platforms are to be raised or lowered the safety-bolt is removed and the lever may then raise or lower the sliding post with its various members.

It is to be understood that the safety-bolt is used as a precautionary measure to insure the position of the platforms after they have been raised or lowered. Furthermore the telescopic or sliding post 2′ is apertured at 19, said aperture being so positioned (see Fig. 2) that a lever 21, which may be entered through one of the openings 16 and pass through said aperture 19, shall be in an upraised oblique position. Just above this opening 19 is a stout iron plate or lever-block 23, firmly bolted to the sliding post, which may be strengthened by a cross-bar 26. The lower end of the post 2′ is preferably grooved at 24 in order that it may readily engage the safety-bolt.

The operation of adjusting the sliding post and the platform is as follows: As before premised, the end of the sliding post 2′, when resting on the holding-bolt brings the aperture 19 to the position as shown in Fig. 2. The actuating-lever 21 may then be inserted and projected beyond, passing beneath the lever-block 23. The outer end of the lever is then depressed, the fulcrum being the opening 16 in the main post where the lever rests. This act serves to lift the post 2′ and the latter with the platform slides up until the lower end of said post is in position to allow the dog or dogs to engage one of the rods 27. The safety-bolt may now be entered in the next adjacent pair of openings 16 above. The lever is now allowed to rise until the full weight of the platforms is taken by the safety-bolt and dog, when the lever is withdrawn and the operation is complete. These acts as above mentioned are to be successively performed until the scaffold has been elevated the height required. Preferably the lower end of the sliding post is to rest above the holding safety-bolt for convenience in inserting the latter.

What I claim is—

1. In combination, a post for scaffolds composed of two channel-beams, one stationary and one sliding, oppositely disposed and interlocking, a series of openings in the sides of the stationary beam for the reception of a holding-bolt, and fulcrum-points in the back of the stationary beam, substantially as described.

2. The combination with a primary post, two series of holes transversely located in pairs with relation to each other in said post, a row of rods in the primary post, and a removable safety-bolt for insertion in said holes, of a secondary post, a pivotal dog carried by said post, one or more platforms affixed thereupon, and a single aperture, and a lever-block, substantially as specified.

3. In a scaffold a primary post having a plurality of transverse rods, a secondary sliding post, a pivotal dog on said sliding post, and a lever-block likewise on said post, combined with a lifting-lever, a removable safety-bolt, a series of corresponding holes for said bolt in the sides of the primary post, a series of openings as fulcrum-points in the back of the primary post, and an aperture in the sliding post for the insertion of the lever, substantially as described.

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

HEZEKIAH McLAUGHLIN.

Witnesses:
H. E. LODGE,
E. K. BOYNTON.