

Patented Feb. 7. 1871.

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NICHOLAS MARTZ, OF LYKENS, PENNSYLVANIA.

Letters Patent No. 111,660, dated February 7, 1871.

IMPROVEMENT IN SCAFFOLDS.

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

To all whom it may concern:

Be it known that I, NICHOLAS MARTZ, of Lykens, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Scaffolding; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing of the same which makes part of this specification, and in which—

Figure 1 represents a vertical longitudinal section of a scaffolding embracing my improvements, and

Figure 2, a view in perspective of one section of the same.

My invention relates to scaffolding used in building, plastering ceilings, and for gathering fruit; and

It consists in the construction of the same so that its several parts may be put together, adjusted to the required height, and braced in a manner to insure both strength and safety, as will hereafter be more fully described.

In the accompanying drawing the scaffolding has two hinged sections, A, upon which the several parts are reared and supported. Each supporting section consists of four legs, united in pairs by ladder-rounds and hinged at their upper ends so as to be opened and closed to lessen or increase their height. Each of these sections carries a vertical rack or ladder, B, which supports and carries the working platform C between them.

The vertical supports B are secured and braced to the hinged sections A in the following manner:

They are placed the desired height vertically between the upper ends of the hinged sections, and a supporting-board, D, is placed upon the corresponding rounds of each pair of legs.

Within a cavity, *a*, in said board a round, *b*, of the vertical support is adjusted, and the latter is clamped in this position by a wedge, E, inserted between the next lower round, *b'*, and those, *c*, of the hinged section, on which the board D rests, as shown in fig. 1.

The vertical sections B are braced laterally by means of wedges F, inserted between their side timbers and the legs of the hinged sections, and also endwise by means of buckled straps G passed around two of the rounds *c* of the hinged legs and through loops *d*, at the lower end of the support, so that the foot of this support being braced on each side, it cannot turn upon its seat *a* so long as the straps are fastened in place.

The working platform C is secured to and between these vertical supports by means of pillow-blocks H, to which platform they are attached by screw-bolts *e*; as shown in fig. 1. These pillow-blocks are provided with upper and lower hooks, *f*, so formed as to hook over two of the rounds *b*, and thus lock them to the vertical supports.

The upper hooks have a sufficient amount of spring to allow them to be sprung over the rounds, so that the pillow-block H can be readily attached to and detached from the rounds when desired.

For the purpose of bracing the working platform C so as to render it stiff, I secure a board, I, to and between the rounds *b* of the vertical support by means of a buckled strap, J, fastened to one end of the brace-board and one of the rounds *b*, while the board resting upon said round extends upward in an inclined position with its end abutting against a cleat, *g*, on the under side of the platform, and thus forms a diagonal brace to the latter; and there being such a brace in opposite directions at each end of the platform, and each brace being carried by the vertical supports of the platform, the latter cannot sag nor have any endwise movement so long as its supports remain braced to the hinged sections.

From the foregoing description it will be seen that the hinged sections A, the vertical ladder-supports B, and the working platform C of the scaffolding admit of being increased and diminished in height relatively to each other and independently of one another, and that each is so braced as to firmly support one another, rendering the structure firm and safe in any position in which it may be placed.

The legs A' of the hinged sections A may be provided with extensible supplemental legs K, having metallic points to take into the ground.

The supplemental legs K are notched on their outer sides, and secured to the hinged legs A' by staples *h*, hinged to the latter, and fitting into said notches in such manner as to clamp the two legs together, as shown in fig. 2 of the drawing.

These supplemental legs K also admit of increasing or diminishing the height of the scaffolding, and also for the purpose of allowing it to be adjusted lower at the side next to the building, so as to cause it to lean inward, and thereby avoid all danger of turning over sidewise by the pressure of the workman against the building. The supplemental legs K are clamped by the upward inclination of the staples so that they cannot become separated, because the greater the weight the tighter they are clamped.

A wedge, L, however, may be driven between these legs to prevent any possible chance for them to become separated, as shown in fig. 2.

The metallic points or feet *i* may be fitted into blocks *j*, when the scaffolding is used in soft ground, to prevent them from sinking too much.

The ends of the platform C are provided with slots *k*, through which the clamping-screws *e* pass, so as to allow the platform to be made longer or shorter, as may be desired.

I have described the diagonal braces I as being secured to the vertical supports, but it is obvious they

may be secured to the rounds of the inner logs of the hinged sections and answer the purpose as well.

The several parts of the scaffolding can be taken apart and put together in a short time.

Having described my improvements,

I claim—

1. The combination of the hinged sections A with the vertical ladder-supports B, the working platform C, and the diagonal braces I, constructed, arranged, and admitting of the adjustment herein shown and described.

2. The vertical supporting-ladder section B, sustained by one of its rounds *b* in a grooved seat, *a*, clamped vertically and laterally by wedges E and F, and endwise by buckled straps G, to the hinged sections A, as herein shown and described.

In testimony whereof I have hereunto signed my name.

NICHOLAS MARTZ.

Witnesses:

SIMON ZERFING,

WILLIAM HOFFMAN.