N. POWELL.

ADJUSTABLE SCAFFOLD AND LADDER.

APPLICATION FILED MAR. 15, 1920.

1,357,185. **Patented Oct. 26, 1920.**

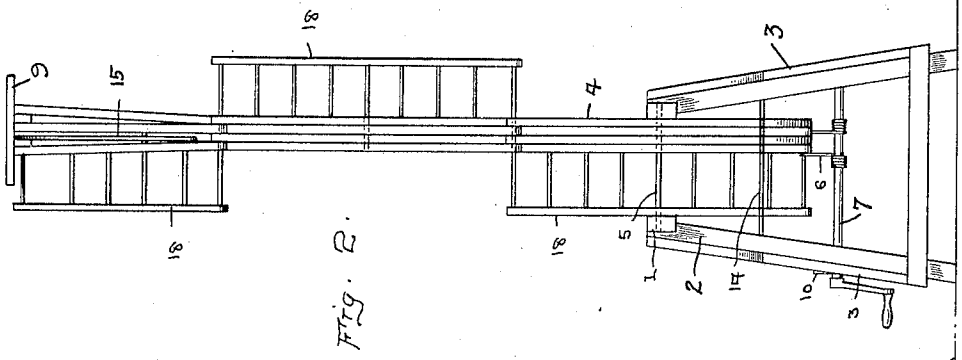


Fig. 2.

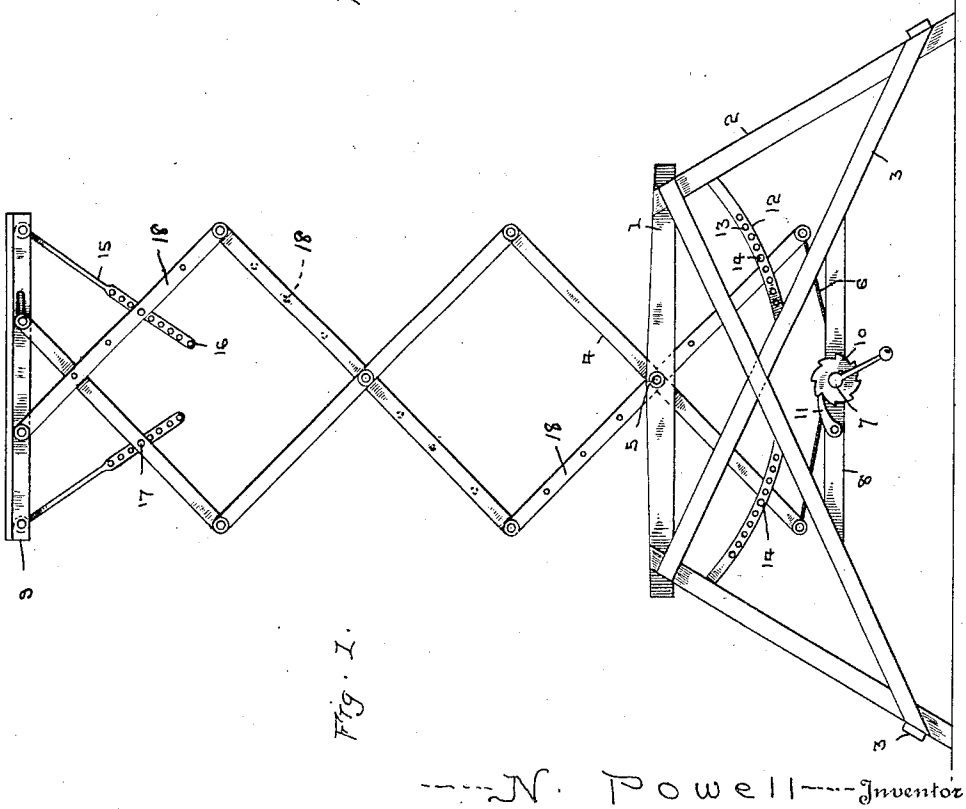


Fig. 1.

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UNITED STATES PATENT OFFICE.

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ADJUSTABLE SCAFFOLD AND LADDER.

1,357,185. Specification of Letters Patent. Patented Oct. 26, 1920.

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To all whom it may concern:

Be it known that I, NEAL POWELL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Adjustable Scaffolds and Ladders; 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.

My invention relates to new and useful improvements in a combined adjustable scaffold and ladder, and one object is to provide a device of this kind which can be quickly raised and lowered to any desired position.

A further object is to provide a suitable supporting frame for the parts of the combined scaffold and ladder, and provide means thereon for operating parts to raise or lower the same.

A further object is to provide a suitable platform at the upper end of the scaffold, and means for holding the same in fixed position.

A further object is to provide means for positively retaining the scaffold in its elevated position.

With the foregoing and other objects in view, which will be apparent as the description proceeds, the invention resides in the construction and arrangement of parts hereinafter described and claimed, it being understood that changes can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is a side elevation of the combined scaffold and ladder in its elevated position, and

Fig. 2 is an edge elevation thereof.

The supporting frame comprises a pair of side bars 1 supported by legs 2, said legs being reinforced by means of brace members 3. The side bars, legs and brace members form a support for the combined scaffold and ladder proper, the scaffold portion comprising a plurality of crossed bars 4, said bars being preferably arranged in pairs and in crossed lazy-tong relation. All of said cross members are pivotally secured together at their longitudinal centers by laterally projecting rods 5 and have their ends pivotally secured to the ends of the next succeeding pairs of cross bars by similar rods.

The lower set of cross bars are pivoted at their center upon the lowermost rod 5, which rod extends transversely of the scaffold and has its ends seated in bearings in the side bars 1, and the extreme lower ends of said lower set of cross bars have cables 6 attached thereto, which cables are in turn secured to and adapted to be wound upon a drum 7 carried by supporting bars 8 of the supporting member.

By this construction, it will be seen that when the cables are wound on the drum, the lower ends of the lowermost cross bars will be drawn toward each other and in view of the toggle action of the lazy-tong construction, the platform 9 attached to the uppermost set of bars will be elevated to any suitable height.

The cross bars are held in their extended positions against casual collapsing by means of a ratchet 10 and dog 11 and are positively held against collapsing by providing straps 12 and attaching the same to parts of the supporting member, said straps having a plurality of coöperating apertures 13 therethrough through which are introduced rods 14, the lower ends of the lowermost cross bars directing outward pressure against said rods when properly engaged with the straps. The platform 9 is held against tilting action by attaching at each end thereof brace rods 15, the lower ends of which are provided with a plurality of apertures 16 so that said lower ends can be adjustably secured by introducing a pin or the like 17 through the upper pair of cross bars and one of the apertures in the brace rod.

In order to gain ready access to the platform when it is in its elevated position, I provide ladders 18 alternately on the opposite sides of the cross bars, said ladders being in staggered relation with each other and inclined in opposite directions to the full height of the scaffold. The stiles of the ladders engage the pivot rods 5 which project laterally from the bars 4, so that said rods serve as end and intermediate rungs for the ladders, as well as bracing such ladders. All of said ladders fold downwardly into compact form when the platform is lowered.

This device is primarily adapted for use in cleaning windows, walls, ceilings and the like, but may be used for any purpose and when used for painting the interior or exterior of a building, two of the scaffolds may be employed and set up at a distance

from each other, a plank or other device (not shown) being disposed across the two platforms on which the painters are to work.

In this form of device, it will be seen that a very strong and durable form of scaffold will be provided and one that can be quickly raised or lowered, and it will likewise be seen that by providing the latter in connection with the scaffold, ready access may be had to the platform without the use of an extra ladder.

It will also be seen that when the device in its elevated position and the rods introduced through the openings in the straps as shown, it will be impossible for the scaffold to collapse, and further that when the scaffold is collapsed or in its lowered position, it can be readily stored away in view of the small amount of space which it will occupy.

Having thus described the invention, what is claimed as new is:—

An adjustable scaffold and ladder structure comprising a supporting frame, a lazy-tong scaffold composed of sets of crossed bars and rods pivotally connecting said bars at their ends and points where they cross, said rods projecting laterally from said bars and the lowermost of the rods connecting the crossing points being carried by the supporting frame, ladders built in staggered relation alternately on opposite sides of certain of said bars, said ladders having their stiles engaging said rods so that said rods serve as end and intermediate rungs and braces for said ladders, a platform mounted on the uppermost bars to be raised and lowered thereby, and operative means connecting said supporting frame and lowermost bars for raising and lowering said scaffold.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

NEAL POWELL.

Witnesses:
THOMASH THRASH,
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