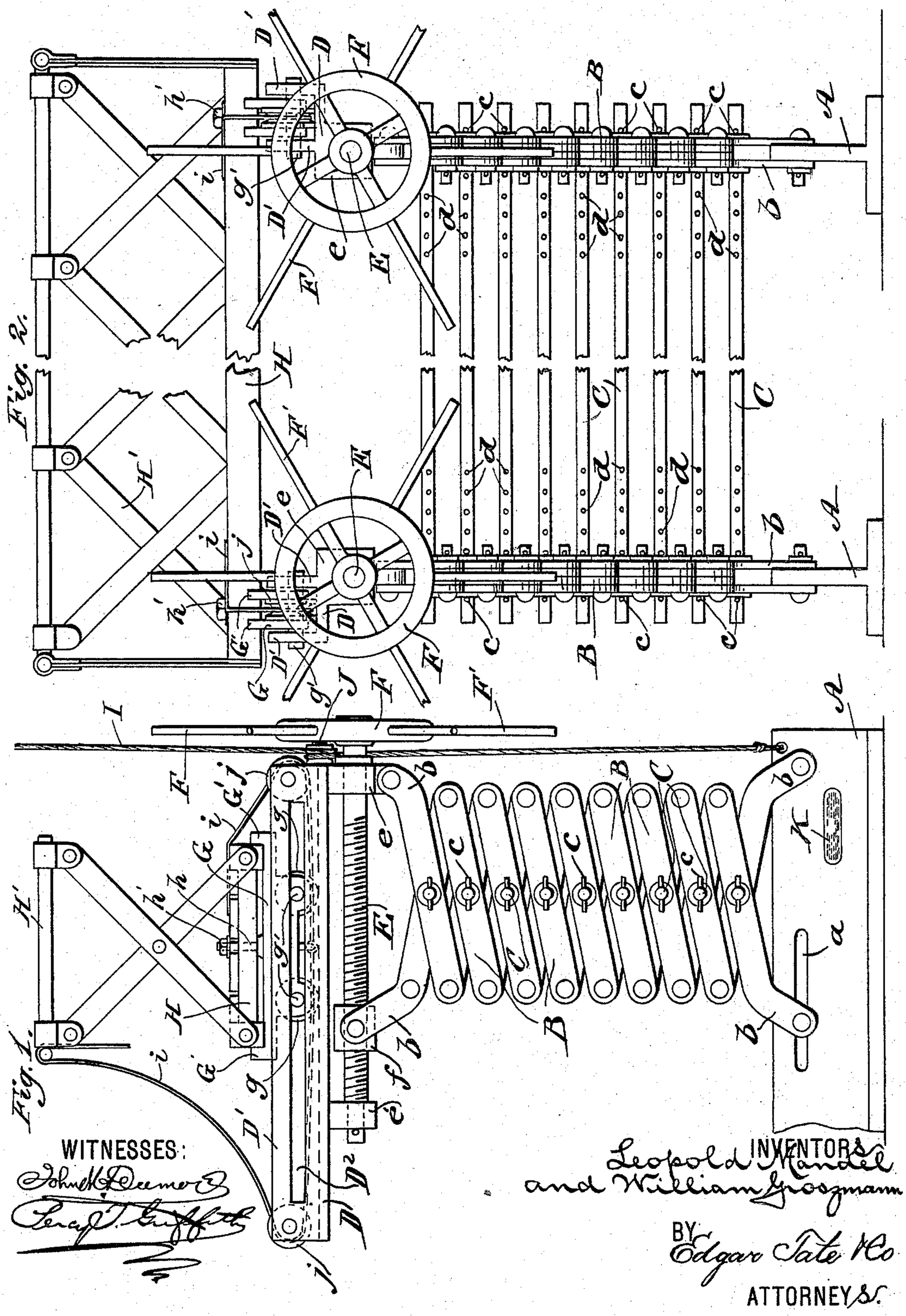
(No Model.)

L. MANDEL & W. GROSZMANN.

ADJUSTABLE SCAFFOLD.

No. 533,178. Patented Jan. 29, 1895.

Fig. 1.



UNITED STATES PATENT OFFICE.

LEOPOLD MANDEL AND WILLIAM GROSZMANN, OF NEW YORK, N. Y.

ADJUSTABLE SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 533,178, dated January 29, 1895.

Application filed May 8, 1894. Serial No. 510,437. (No model.)

To all whom it may concern:

Be it known that we, LEOPOLD MANDEL and WILLIAM GROSZMANN, citizens of the United States, and residents of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Adjustable Scaffolds, of which the following is a specification.

This invention relates to scaffolds for painting, repairing, or performing other work upon buildings, and has for its object to provide such a device as will be readily adjustable in height and with respect to its distance from the wall of the building, and which may be located upon the ground adjacent to the building to be painted and also be readily removable from place to place.

Our invention consists in the novel construction and arrangement of parts hereinafter fully described.

In the accompanying drawings, forming part of this specification, in which like letters of reference designate corresponding parts throughout, Figure 1 is a side elevation of a device embodying our invention, the same being in a substantially lowered position. Fig. 2 is a rear elevation of the same, illustrating the side thereof adjacent to the building when in use.

In the practice of our invention, we construct two horizontal bars of angular or inverted T-shaped metal A, which serve as the supports or base of the device. In the sides of these supports A, near the center, and adjacent to the upper edges thereof, are elongated slots or grooves *a*, in each case of which is mounted one of the arms *b*, of a pair of lazy-tongs B, the opposite arm *b* being pivoted in the rear end of the support A. Intervening the two pairs of lazy-tongs B are a plurality of parallel bars C, which pass through the links of the lazy-tongs serving as their central pivots or pintles. These bars are held to the links by means of pins or keys *c* inserted at each side of the said links, which pass through openings or holes *d* in the said bars C, each bar having a number of these holes therein, to permit of the length of the supporting frame being adjusted by the simple movement of the pins from one hole to another, after the distance between the two supports A has been fixed.

To the rearward arm *b*, at the top of each of the lazy-tongs B, are pivoted the downwardly projecting bearings *e*, of the beams D, which said beams have upon the forward ends thereof similar bearings *e'*, in both of which bearings *e* and *e'* is journaled a rod E, screw-threaded upon its periphery, except where it passes through the said bearings, and having upon the rearward end thereof a wheel F, from the outer circumference of which branch off the supports or handles F', by which the said wheel is turned. The foremost of the upper arms *b* are pivoted to nuts *f*, interiorly screw-threaded and surrounding the rods E, with which they are adapted to engage.

The beams D have projecting upwardly therefrom flanges D', having in the sides thereof grooves D^2. Between these flanges are inserted carriages G, mounted upon the wheels *g*, the axles *g'* of which slide in the grooves D^2. Upon these carriages G is mounted the scaffold H, which may be of any desired construction, and is preferably provided with a railing H', surrounding the front and sides thereof. The flooring of this scaffold H rests between lugs G' upon each end of the carriages G, and the same may be further secured by a bolt *h* extending upwardly from the said carriage between the bars of the scaffold and having upon the top thereof a nut *h'*. The carriages are moved backward and forward by means of the ropes *i*, which are secured to the under side of the said carriage, or to any other portion thereof, and pass around pulleys *j* at each side of the beams D.

For further security we secure the scaffold to the roof of the building by means of ropes I and pulley J.

The operation of the device will be readily apparent from the foregoing description, taken in connection with the accompanying drawings. The base pieces A having been located upon the pavement, or firmly supported upon the ground adjacent to the wall of the building to be painted, the wheels F are turned by means of the handles F', thereby rotating the screw-threaded rods E, which engaging with the nuts *f*, draw the same rearward or toward the said wheels, thereby extending the lazy-tongs B, the lower arm *b* thereof moving rearwardly in the slot *a* as

the nut correspondingly retreats. The rotation of the wheel F is continued until the scaffold has been raised to the desired height, and the said scaffold is thereupon moved by means of the ropes *i* actuating the carriages G, until the said scaffold is in proximity to the wall of the building, or at the desired distance therefrom. As the painting progresses the wheels F may be rotated in the reverse direction and the scaffold thereupon lowered gradually as required until the work has been completed. This reciprocation, or backward and forward adjustment, of the scaffold, is of particular convenience when painting a building provided with projecting fire escapes, or other attachments which it is desirable for the scaffold to clear, or which themselves require to be painted.

It will not be required to vary the distance between the lazy-tongs B, except where the irregularities of the ground, railings upon the lower portion of the building or upon the pavement, or circumstances of the like unusual character, render necessary. This adjustment of the device is very readily attainable, as before stated, by the mere removal of the keys *c*, by moving the bases A toward or away from each other, and reinserting the pins *c* in the proper holes *d*. In so adjusting the distance between the supports it will be necessary to remove the nuts *h'* which secure the scaffold to the carriages G, if such securing nuts are used, but as the bolts *h* pass between the bars or slats of the scaffold, such bolts may be passed through any other portion of the scaffold, and the nuts again secured thereon.

Should it be necessary for the supports and frame of the device to be farther removed from the building than the scaffold itself, this may be accomplished by removing the pivots which secure the lower arms *b* of the lazy-tongs to the supports A, and reversing the position of the whole device, except the said supports, whereby the wheels F will be farthest removed from the building, instead of adjacent thereto, and the forward or projecting portion of the beams D will abut against or adjoin the said building. By this reversal, the supports, the wheels F, and the lazy-tongs, may be several feet away from the wall of the building, while the scaffold is held against the same.

If desired, a spirit level K may be secured in the base A, and the exact horizontal position of the bases fixed.

The advantages resultant from the use of our improved scaffold will be obvious, since there is provided thereby a simple, cheap, readily constructed, and perfectly operating device, which is absolutely free from danger of falling from its position, as with suspended stagings, and which may be adjusted in height, length, and distance from the work to be effected.

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

1. An adjustable scaffold, comprising two or more supports having grooves therein, lazy-tongs pivoted, one end to the said support, and the other in the groove, beams upon the top of the lazy-tongs having bearings depending therefrom, a screw-threaded rod journaled in the said bearings, and having a wheel thereon adapted to rotate the same, one of the upper arms of the lazy-tongs being pivoted to one of the said bearings, and the other carrying a nut engaging with the screw-threaded rod, and carriages sliding in the said beams, adapted to receive the scaffold thereon, and means for adjusting the said carriages, substantially as shown and described.

2. An adjustable scaffold, comprising two or more supports having grooves therein, two or more pairs of lazy-tongs pivoted, one end to the said support and the other in the said groove, bars connecting the said lazy-tongs at the central joints thereof, each of the said bars having a plurality of holes therein and adapted to be secured by pins or keys, beams upon the top of the lazy-tongs having bearings depending therefrom, a screw-threaded rod journaled in the said bearings and having thereon a wheel provided with handles and adapted to rotate the said rod, one of the arms of the lazy-tongs being pivoted to one of the bearings, and the other to a nut interiorly screw-threaded and surrounding the rod, carriages sliding upon the top of the beams and having a scaffold or staging secured thereto, pulleys upon the ends of the beams, and ropes secured to the carriages passing around the said pulleys and adapted to adjust the position of the carriages, substantially as shown and described.

In testimony that we claim the foregoing as our invention we have signed our names, in presence of two witnesses, this 5th day of May, 1894.

LEOPOLD MANDEL.
WILLIAM GROSZMANN.

Witnesses:
PERCY T. GRIFFITH,
M. A. CASSIDY.