

No. 831,994.

PATENTED SEPT. 25, 1906.

F. RUDMAN.  
SCAFFOLD MACHINE.  
APPLICATION FILED NOV. 28, 1905.

3 SHEETS—SHEET 1.

Fig. 2.

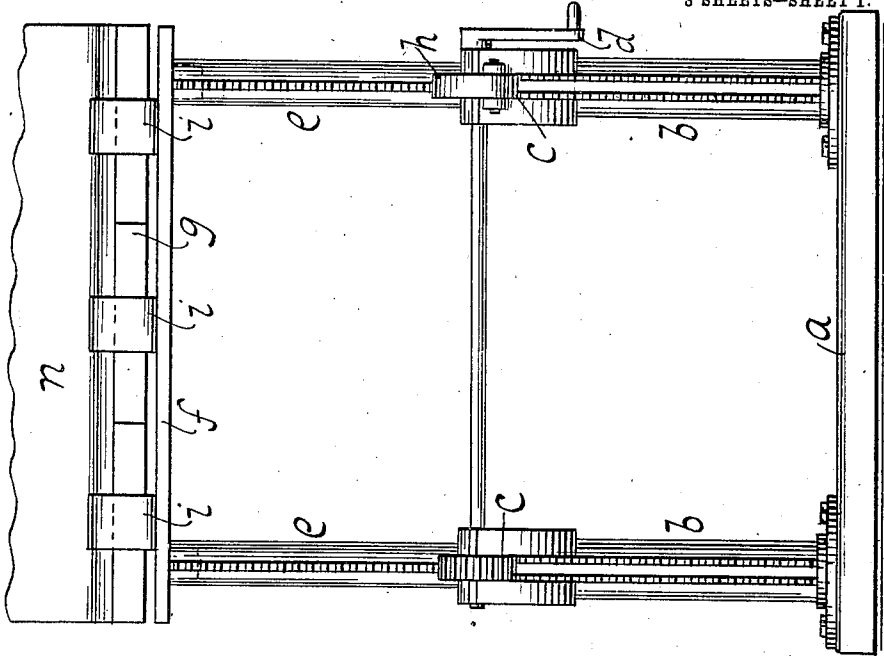
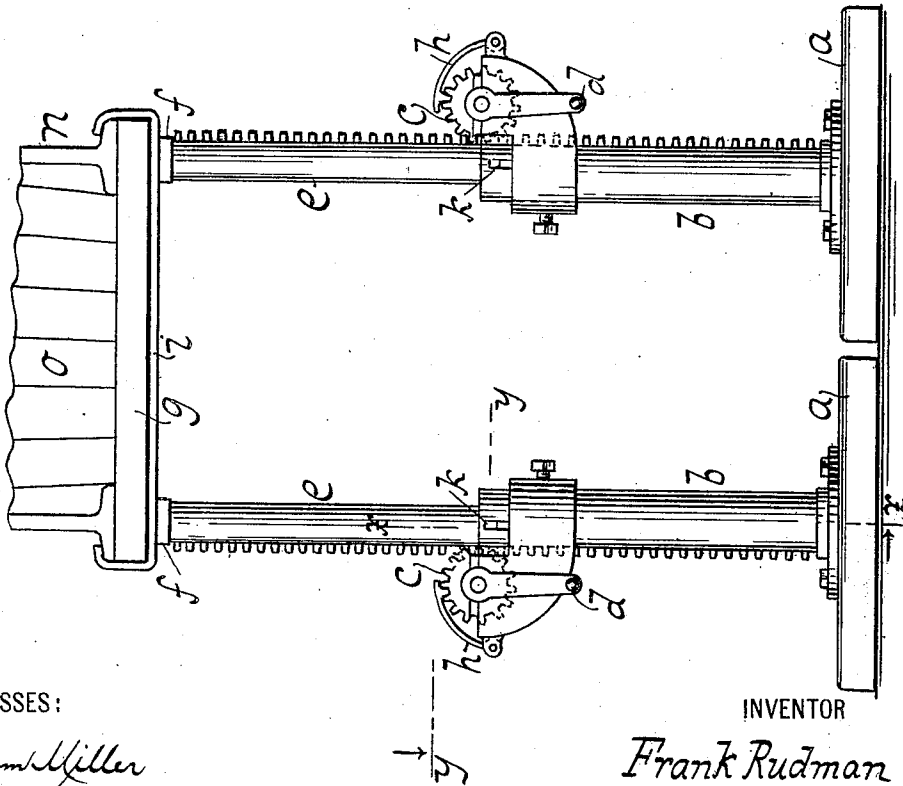


Fig. 1.



WITNESSES:

*William Miller*  
*Edward Wiener*

INVENTOR

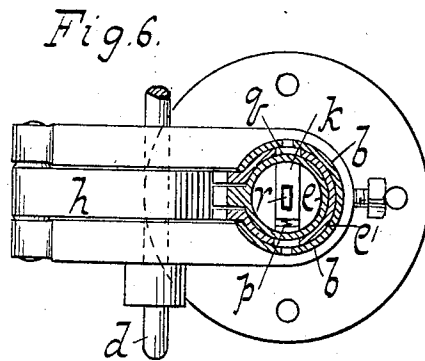
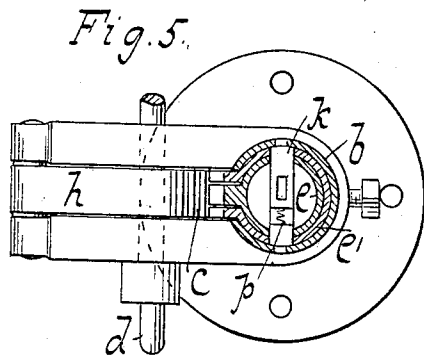
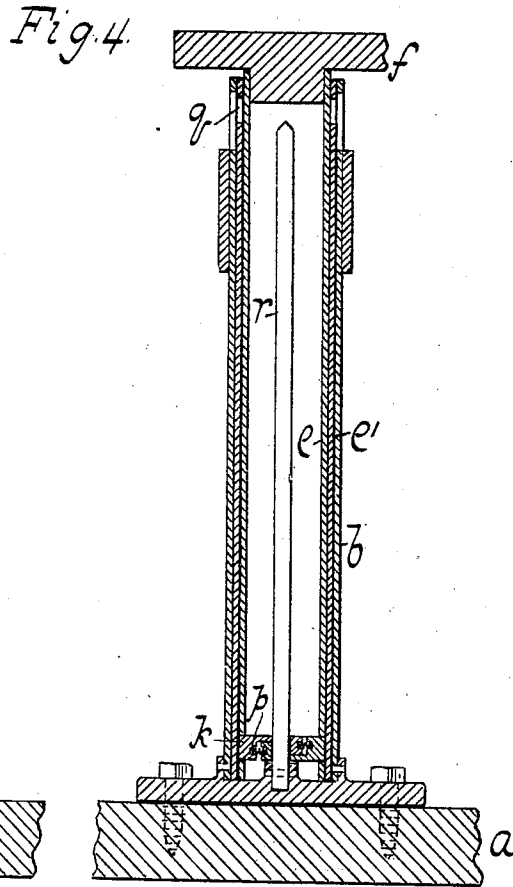
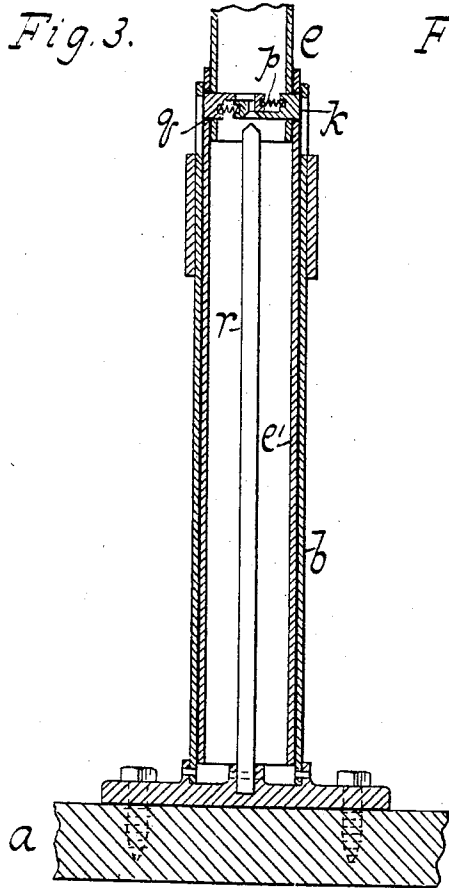
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3 SHEETS—SHEET 3.

Fig. 7.

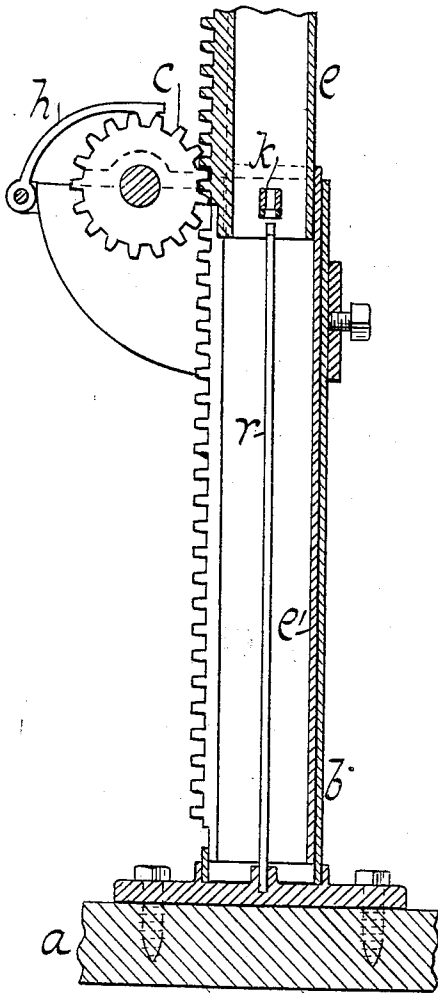
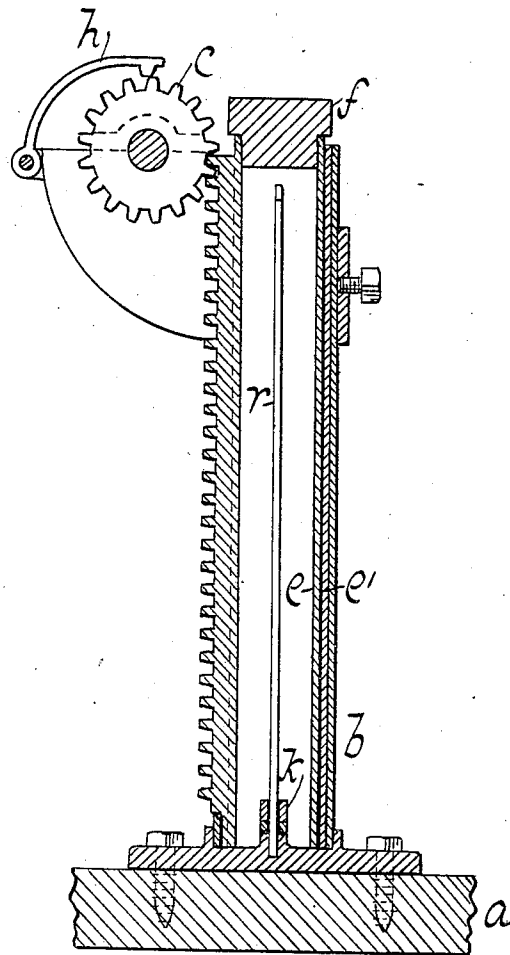


Fig. 8.



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# UNITED STATES PATENT OFFICE.

FRANK RUDMAN, OF NEW YORK, N. Y.

## SCAFFOLD-MACHINE.

No. 831,994.

Specification of Letters Patent.

Patented Sept. 25, 1906.

Application filed November 28, 1905. Serial No. 289,476.

To all whom it may concern:

Be it known that I, FRANK RUDMAN, a citizen of the United States, residing at Manhattan borough, in the county of New York and State of New York, have invented new and useful Improvements in Scaffold-Machines, of which the following is a specification.

This invention is designed to raise and lower a platform of suitable size or dimension.

The support or machine is adapted to carry stringers, usually three in number. On these stringers rest the boards or planks forming the platform.

This invention is set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is an end elevation of a pair of scaffold-machines embodying this invention and applied to use. Fig. 2 is a front elevation of Fig. 1. Fig. 3 is a section along  $x x$ , Fig. 1. Fig. 4 shows posts of Fig. 3 collapsed or telescoped. Fig. 5 is a section along  $y y$ , Fig. 1. Fig. 6 is a view like Fig. 5 with the posts lowered or collapsed. Fig. 7 is a section at right angle to Fig. 3. Fig. 8 is a section at right angle to Fig. 4.

This portable scaffold is used for ceilings, walls, and similar work, and the platform thereof can be raised or lowered to any suitable height.

In the drawings the letter  $a$  designates the base, to which is attached the hollow posts or risers  $b b$ . Each of these posts or risers has securely mounted on the same a gear-wheel  $c$ , having a crank  $d$ , whereby the gear can be rotated. This gear engages the telescoping columns  $e$  and  $e'$ . Two are shown in each hollow post, so that when the gear is actuated each column will be raised in turn out of the hollow post. The upper portion of each column is provided with a head-piece  $f f$ , two being shown, so that planks  $g$  can be laid across the head-pieces, and these planks can form the platform-scaffold.

Stringers  $i$ , such as iron rods, can be laid under the planks and engaged or hooked to flanges or beams  $n$  to support the planks while the parts or stones  $o$  of an arch are taking time to become set. A pawl or dog  $h$  engages the gear  $c$  to hold the columns when elevated. A pair of bases  $a$ , with their columns and head-pieces  $f$ , being placed a suitable distance apart, the planks  $g$  or stringers to support the planks can be laid onto the

head-pieces. The head-pieces  $f$  are removable and have depending parts or lugs sitting into the hollow parts  $e$  to prevent slipping or moving out of place.

When the inner section  $e$  has been raised to its entire extent, it can be fixed to the lower section  $e'$  by suitable means. For example, a cross-pin could be inserted. Automatic locking means are shown in the drawings comprising latches or tongues  $h$ , pressed by springs  $p$  to engage holes or slots  $q$  in tube  $e$  when the tube  $e'$ , carrying the lock, has been raised a suitable height. The releasing-bar  $r$  is fixed to base  $a$  inside the tubes, and when the tube-section  $e$  is raised to carry lock  $k$  clear or above the release the lock snaps or opens to lock the tube-sections to one another. As the tube-sections descend and the lock  $k$  comes to bar  $r$  it is retracted against the action of the springs to unlock or allow one tube to slide or telescope in the other. When the telescoping columns  $e$  and  $e'$  are both lowered to their full extent in column  $b$ , Fig. 8, the gear-wheel  $c$  engages the rack or teeth on the column  $e$ ; but the teeth on column  $e'$  are below or out of reach of this gear-wheel. When the column  $e$  has been raised so that lock  $k$  has passed up out of reach of bar  $r$ , Fig. 7, this lock has connected columns  $e$  and  $e'$ . As the wheel  $c$  continues turning the two columns now rise together, and column  $e'$  is raised to bring its teeth to mesh with gear  $c$ , and the elevation of both columns  $e'$  and  $e$  now takes place. On reversing the rotation of gear  $c$  the column  $e'$  on reaching its lowest position has dropped its teeth below the rack of wheel  $c$ , and lock  $k$  being brought within reach of release  $r$  is freed or opened to disengage the sections  $e'$  and  $e$ . If the risers are raised to bring the stringers and planks to beam  $n$ , the stringers and planks can be connected to the beams. The bricks  $o$  or other blocks or material can be then laid on the planks between the beams to form an arch. The stringers and beams can then be left in place until the arch has set. Meanwhile the machine can be used elsewhere. When the arch has set, the machine can be brought back under the beams and raised to the proper height and the stringers and beams loosened and lowered, with the head-pieces and risers to be removed or taken to another locality for use.

I claim—

1. The combination with hollow posts, of risers made to telescope into one another and

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into said posts, releasable locks for positively connecting each pair of telescoping risers when extended or raised, gear-wheels on the posts, each adapted to raise and lower the risers in its respective post, a crank-shaft for actuating the gears, and pawls on the posts for locking or engaging the gears.

2. A base provided with hollow posts, risers made to respectively telescope into said posts and into one another, and each provided with a rack, a lock for positively securing each riser to the surrounding one as the inner riser is extended, a releasing-bar for the lock, and a gear-wheel for each set of risers and made to successively engage their racks as the risers are extended or raised.

3. A scaffold-machine, comprising a base having hollow posts with releasing-bars therein, hollow telescoping risers in each post, a lock in one riser for positively securing the other riser when extended and which

is released or unlocked by the releasing-bar as the risers slide into one another, racks on the risers, and a gear-wheel for successively engaging the rack on each riser as the latter are extended.

4. A scaffold-machine comprising telescoping tubes, locking-tongues carried by one of the tubes, springs for causing the locking-tongues to engage the other tube, and a releasing-bar fixed in the tubes for engagement with the locking-tongues to actuate the same on the movement of the tube for opening or closing the lock.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FRANK RUDMAN.

Witnesses:

HENRY C. GRUNING,  
W. C. HAUFF.