

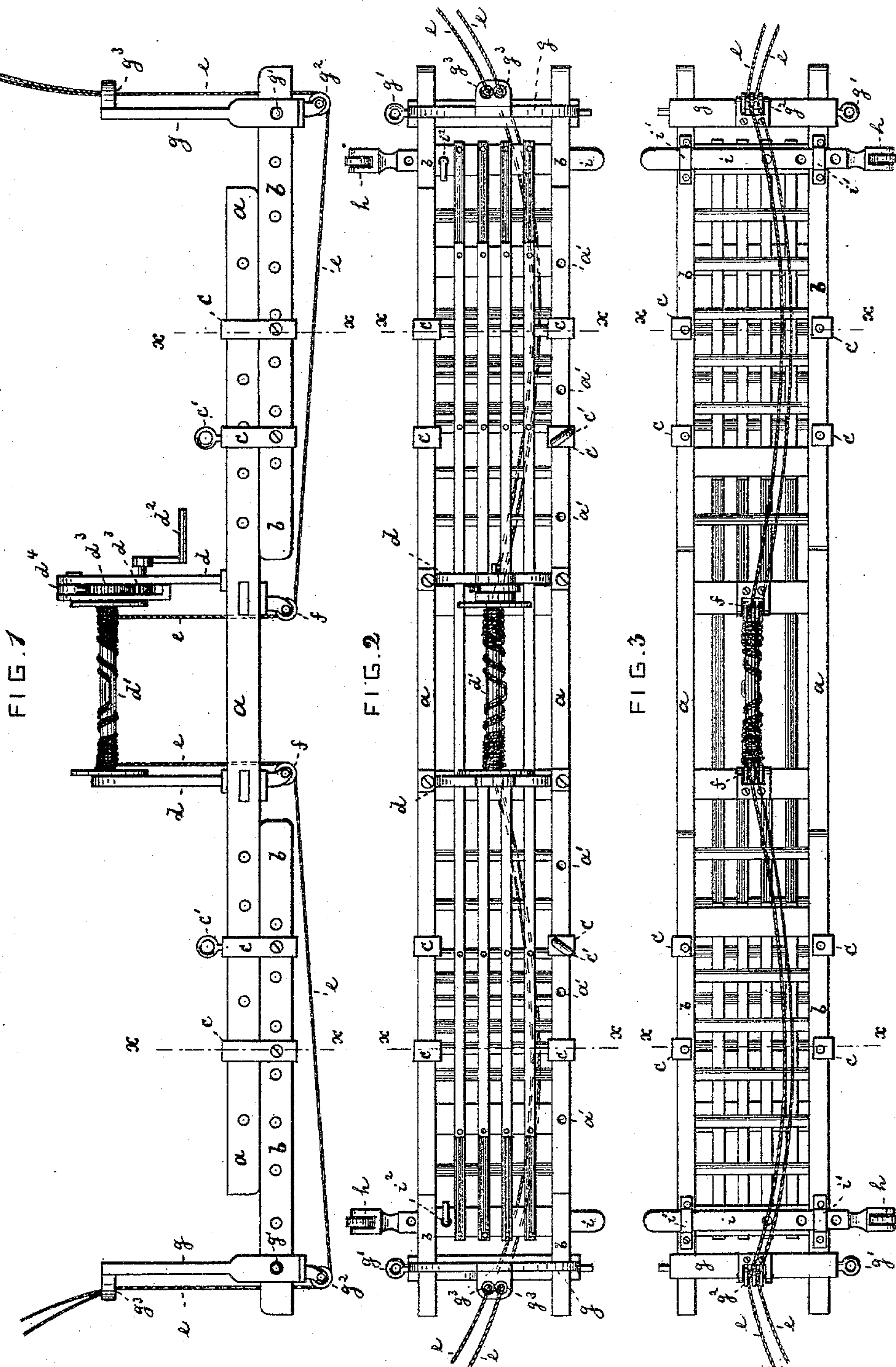
(No Model.)

2 Sheets—Sheet 1.

A. MÜLLER.  
SCAFFOLD.

No. 411,824.

Patented Oct. 1, 1889.



WITNESSES  
*Wm. A. Lowe*  
*Wm. Wagner*

INVENTOR  
*A. Müller*  
*by his attorneys*  
*Roeder & Briesen*

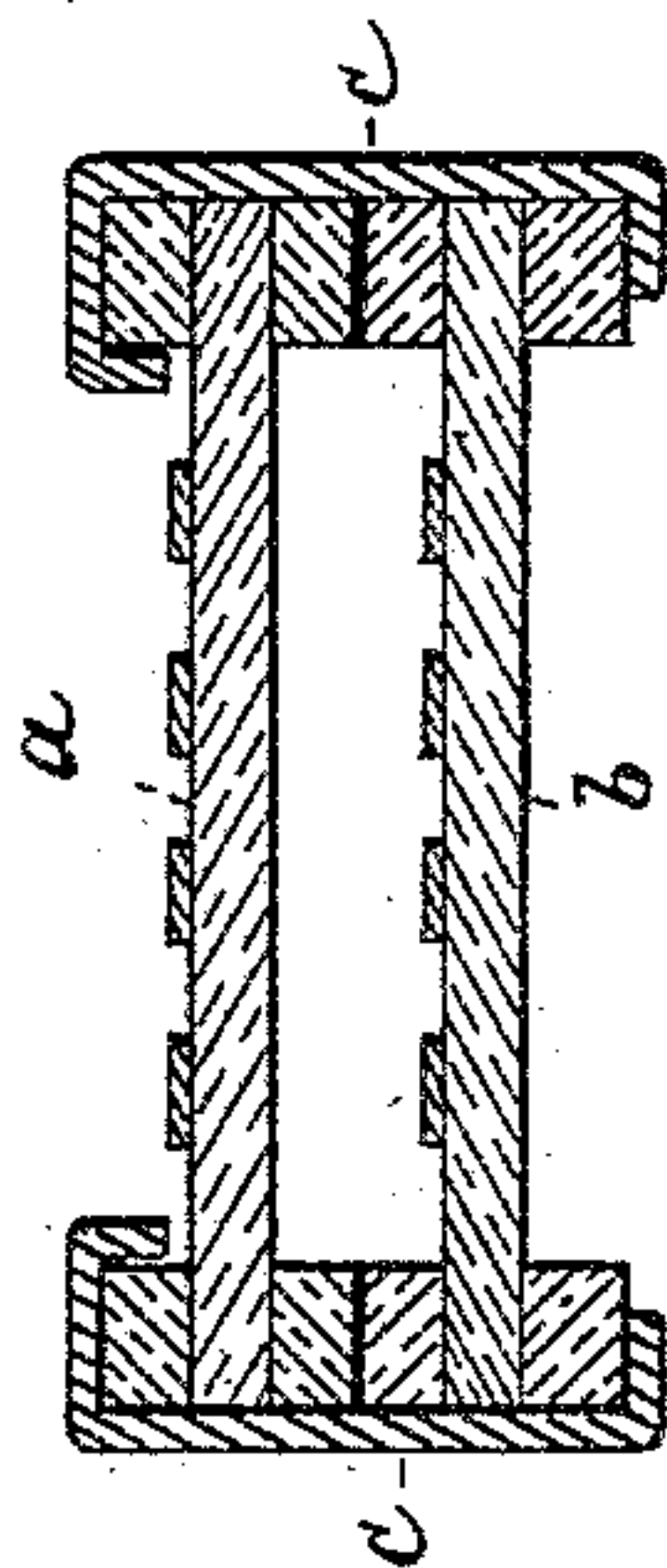
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2 Sheets—Sheet 2.

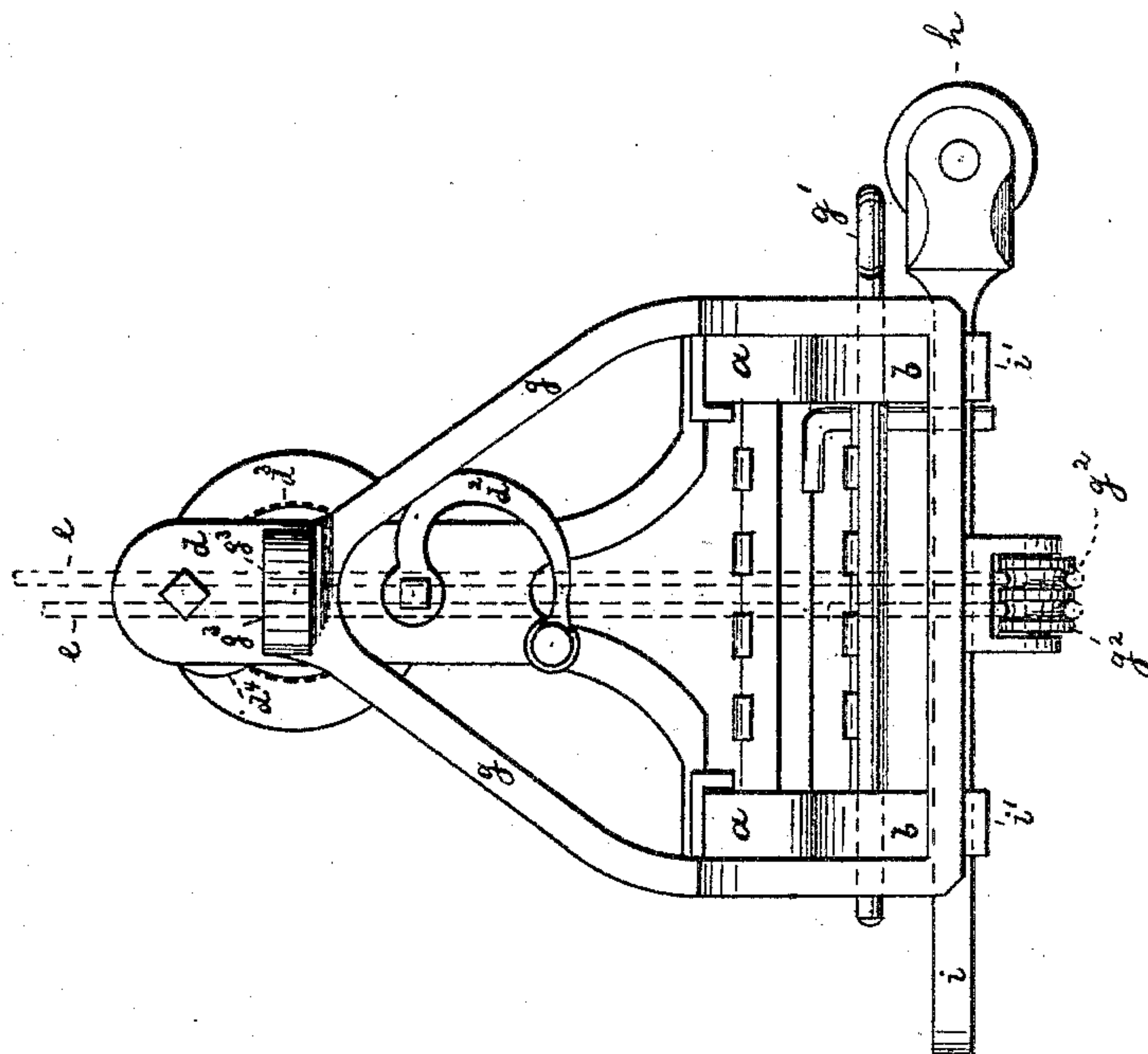
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# UNITED STATES PATENT OFFICE.

AUGUST MÜLLER, OF BROOKLYN, NEW YORK.

## SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 411,824, dated October 1, 1889.

Application filed May 25, 1889. Serial No. 312,148. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUST MÜLLER, of Brooklyn, New York, have invented an Improved Scaffold, of which the following is a specification.

This invention relates to an extensible scaffold that may be raised or lowered by a winch which is secured to the scaffold.

The invention consists in the various features of improvement more fully pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved scaffold. Fig. 2 is a top view thereof; Fig. 3, a bottom view thereof; Fig. 4, an enlarged end elevation; and Fig. 5, an enlarged cross-section on the lines  $x x$ , Figs. 1, 2, and 3.

The letter  $a$  represents the ladder forming the central section of my improved scaffold.  $b b$  are the sliding end sections, secured to the section  $a$  by means of hooks  $c$ , that are secured to the section  $b$  and embrace the upper edge of section  $a$ .

By drawing sections  $b$  out more or less the length of the scaffold may be adjusted. The hooks  $c$  are perforated for the reception of pins  $c'$ , Fig. 2, the shanks of which likewise enter perforations  $a'$  of section  $a$ . Thus the pins serve to interlock the sections  $a b$  when adjusted. From section  $a$  there project upwardly two bearings  $d$  for a winch, the drum  $d'$  of which is operated by a crank  $d^2$ , through intermediate gearing  $d^3$ , engaged by click  $d^4$ . From drum  $d'$  the suspension-ropes  $e$  first pass downward through section  $a$ , and then around pulleys  $f$ , projecting beneath the lower surface of said section. Thence the ropes  $e$  pass centrally beneath section  $a$  and the sections  $b$  until they reach the ends of sections  $b$ . Here sections  $b$  are provided with a metallic frame  $g$ , Fig. 4, bolted to the sections  $b$  by bolts  $g'$ . The frames  $g$  carry pulleys  $g^2$  at their lower face. At their upper ends the frames  $g$  have the perforations  $g^3$ . The ropes  $e$  pass over the pulleys  $g^2$  and thence upward through perforations  $g^3$ , to be finally secured to the scaffold-suspending hooks.

It will be seen that by my construction the ropes  $e$  pass beneath the three sections  $b a b$ , and as the ropes are always held perfectly taut by the weight of the scaffold they serve to brace or strengthen the entire device. This is of course particularly desirable in an extensible sectional scaffold.

In order to keep the scaffold at the proper distance from the house-front, I employ the friction-rollers  $h$ , journaled to perforated bars  $i$ . These bars slide in U-shaped staples  $i'$ , attached to the lower side of sections  $b$ . Above bars  $i$  the sections  $b$  are perforated for the admission of pins  $i^2$ , such pins likewise engaging the perforations of bars  $i$ . Thus the friction-rollers  $h$  may be slid in or out to any desired position, and may then be locked in place. In this way the scaffold may be made to readily clear a cornice or other projection on a house-front.

What I claim is—

1. The combination of a sectional scaffold composed of central section  $a$  and sliding end sections  $b$ , with a winch mounted on section  $a$ , and with the frames  $g$ , secured to sections  $b$ , and with the downwardly-projecting pulleys  $f g^2$ , and a rope  $e$ , passing from the winch first downward, thence around pulleys  $f$ , thence beneath sections  $a b$ , and thence around pulleys  $g^2$ , substantially as specified.

2. The combination of section  $a$ , carrying winch and pulleys  $f$ , with sections  $b$ , hooks  $c$ , and pins  $c'$ , and with the end frames  $g$ , having pulleys  $g^2$  and perforations  $g^3$ , and with rope  $e$ , passing from the winch over pulleys  $f g^2$ , and through perforations  $g^3$ , substantially as specified.

3. The combination of the following elements: a central section  $a$ , adjustable end sections  $b$ , perforated frames  $g$ , secured to sections  $b$  by bolts  $g'$ , pulleys  $f g^2$ , a winch, a rope  $e$ , and friction-rollers  $h$ , secured to adjustable bars  $i$ , substantially as specified.

AUGUST MÜLLER.

Witnesses:

F. V. BRIESEN,  
WM. WAGNER.