

No. 882,206.

PATENTED MAR. 17, 1908.

W. J. MURRAY.

SCAFFOLD.

APPLICATION FILED JUNE 3, 1907.

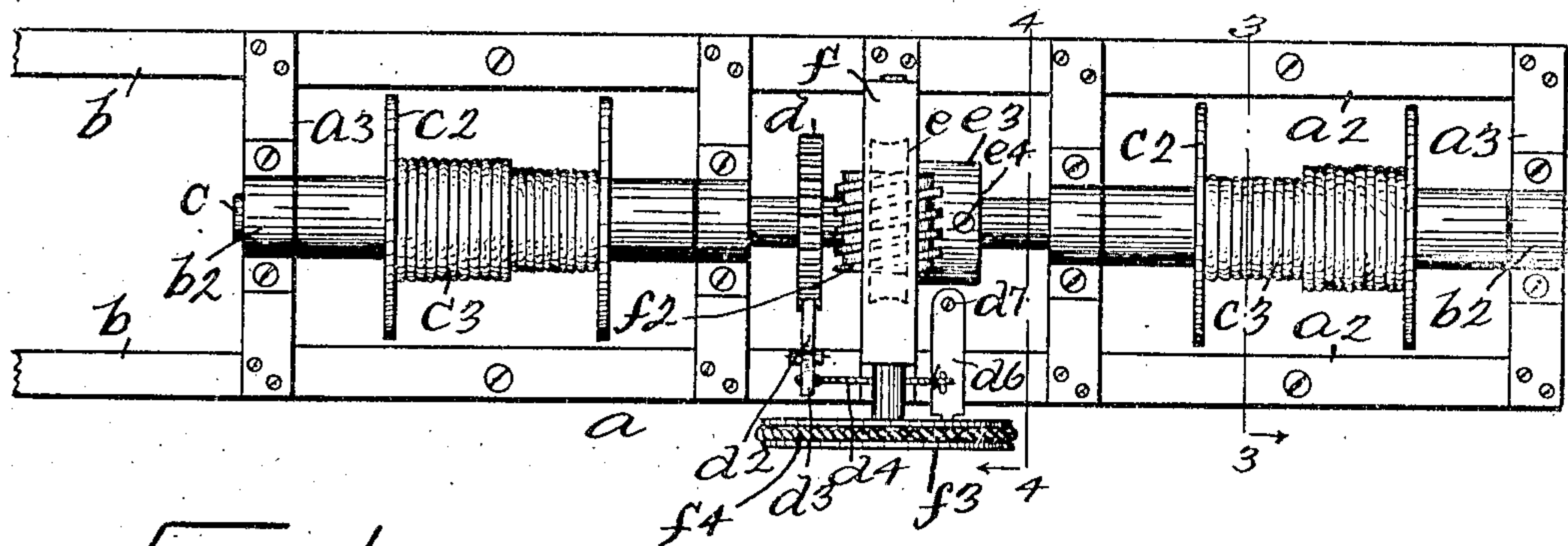


Fig. 1.

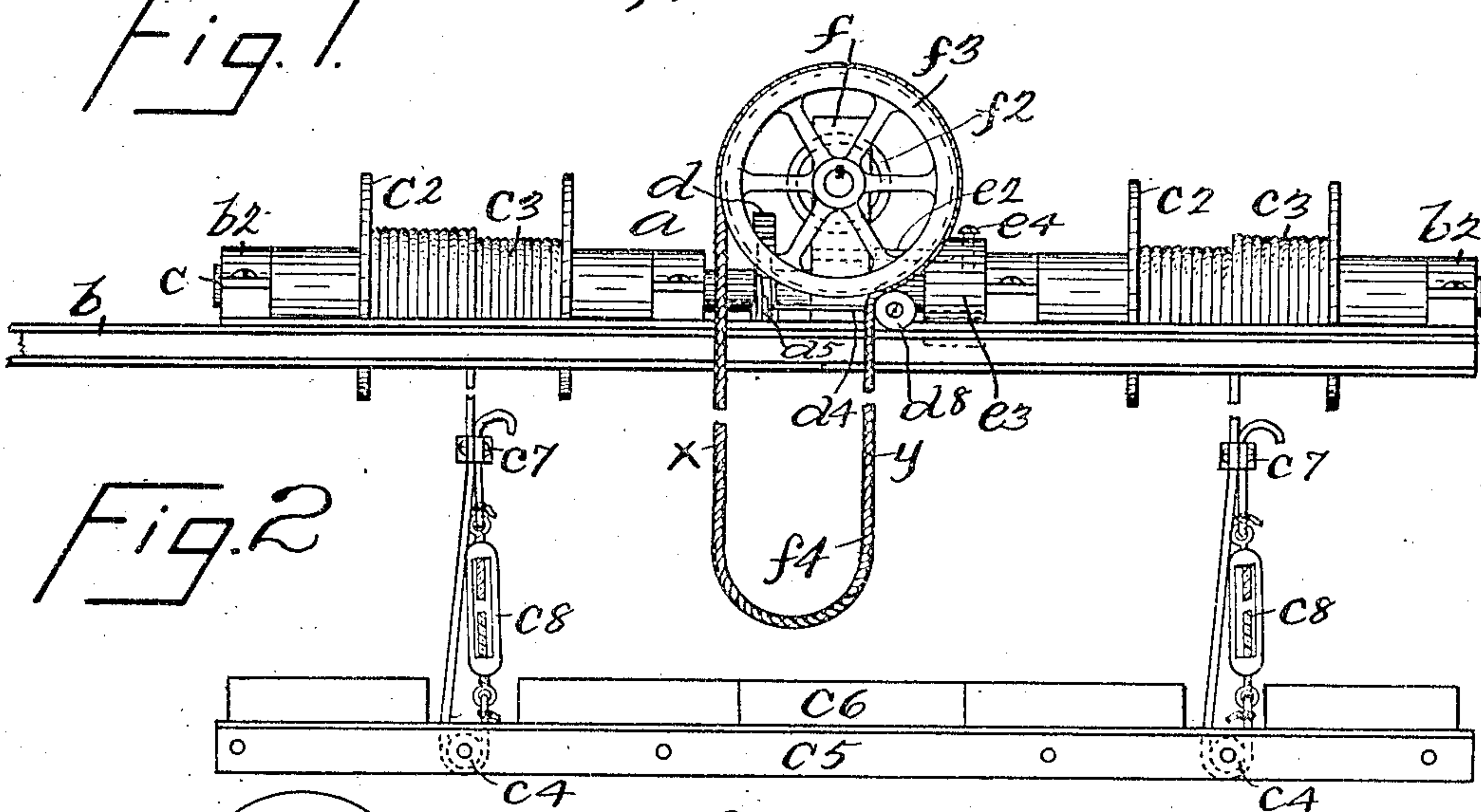


Fig. 2.

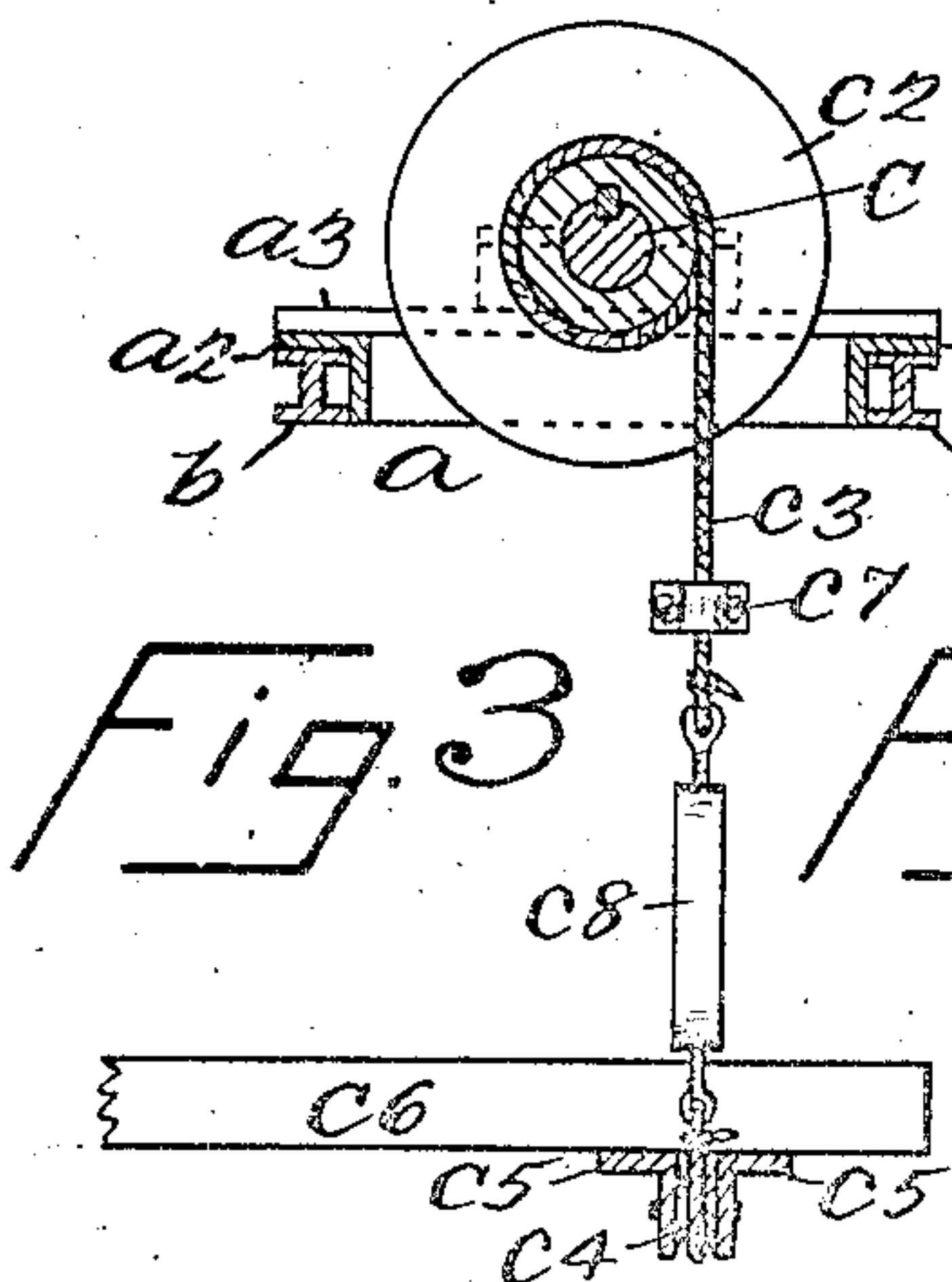
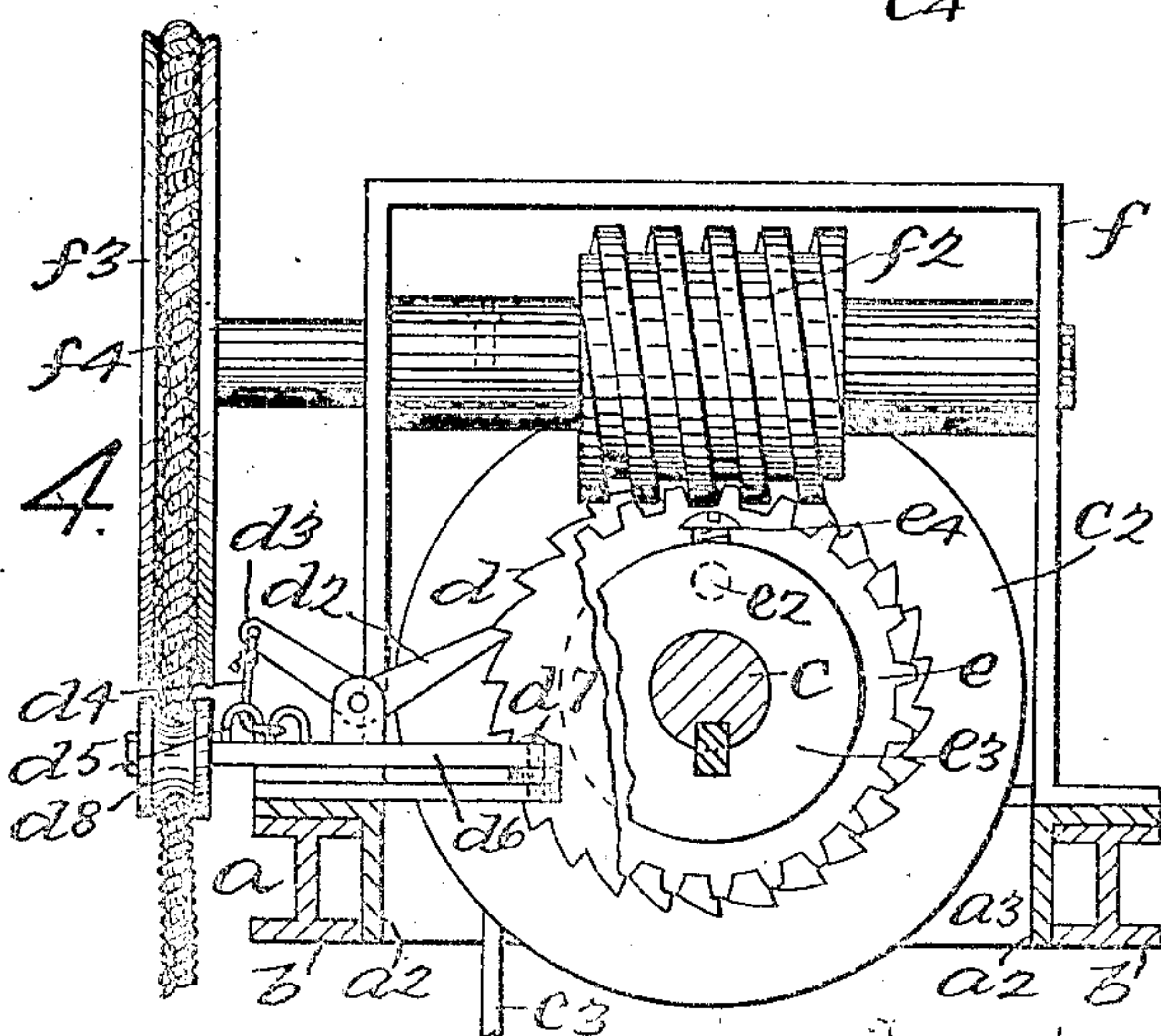


Fig. 3.

Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

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SCAFFOLD.

No. 882,206.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed June 3, 1907. Serial No. 377,081.

To all whom it may concern:

Be it known that I, WILLIAM J. MURRAY, a citizen of the United States of America, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Scaffolds, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to swinging scaffolds and the object thereof is to provide a scaffold of this class which may be raised or lowered from the platform thereof; a further object being to provide such a scaffold which is always securely locked in any position but which permits of unlocking in order to lower the platform and a still further object being to provide means in such a scaffold of adjusting the suspending cables individually to level the platform.

My invention is fully described in the following specification, of which the accompanying drawings form a part, in which the separate parts are designated by the same reference characters in each of the views, and in which:—

Figure 1 is a plan view of the overhead support for one end of my scaffold; Fig. 2 is an end view of the entire scaffold; Fig. 3 is a section taken on the line 3—3 of Fig. 1; and Fig. 4 is an enlarged section taken on the line 4—4 of Fig. 1.

In the drawings forming a part of this application, I have shown a frame *a* composed of angle iron side members *a*² and end members *a*³ and, as clearly shown, the frame *a* rests upon two outriggers *b* projecting from the building to which my scaffold is to be connected.

Mounted in bearings *b*² is a shaft *c* upon which are secured two drums *c*² upon which are wound the supporting cables *c*³ and which pass around, at their lower ends, sheaves *c*⁴ mounted between two transversely arranged angle irons *c*⁵ which form the support for the scaffold planking *c*⁶ and the ends of the cables *c*³ are thence carried upwardly and adjustably secured to the standing part of the cables by means of clamps *c*⁷ and between these clamps and sheaves I provide turn-buckles *c*⁸ by means of which the platform of the scaffold may be leveled.

Secured upon the shaft *c*, adjacent the center thereof, is a ratchet-wheel *d* and pivoted

to the frame *a* and coöperating with the wheel *d* is a pawl *d*² provided with an arm *d*³ and to which is secured a cord *d*⁴ passing through a guide *d*⁵ and thence to a lever *d*⁶ pivoted at *d*⁷ and to which it is secured and the lever *d*⁶ carries a roller or sheave *d*⁸ at its outer end.

Rotatably mounted upon the shaft *c* is a worm-gear *e* into which projects a rod *e*² mounted upon a sliding collar *e*³ keyed to the shaft *c* to prevent rotation thereon and a screw *e*⁴ locks the collar *e*³ in position and it will be seen from this construction that, with the collar in its locked position, rotation thereof also rotates the worm-gear *e* but when the collar is moved away from the worm-gear engagement therewith ceases and the said worm-gear may then rotate independently of the shaft *c*.

Carried in a suitable frame *f* mounted upon the frame *a* is a worm *f*² provided with a pulley *f*³ and over which passes an endless rope *f*⁴ which reaches the platform of the scaffold and by hauling upon one side of the pulley the said platform may be raised and the other or free side of the rope *f*⁴ passes over the roller *d*⁸ which carries the said rope inwardly as shown in Fig. 2.

It will be seen from the foregoing description that when the scaffold is in position if the rope *f*⁴ be hauled upon at that side of the pulley *f*³ marked *x* the platform is raised by means of the worm-gears rotation and consequent rotation of the shaft *c* and drums *c*² and the pawl *d*² locks the scaffold in any desired position, but if strain be placed upon the rope *x* and then strain be placed upon the rope *y* the roller *d*⁸ moving back draws the pawl *d*² away from the ratchet wheel *d* and the platform may then be lowered until the strain upon the rope *y* is removed at which time the pawl again becomes operative upon the ratchet and the platform is again locked.

When rigging or unrigging the scaffold it is desirable to rotate the drums more rapidly than through the medium of the worm and worm-gear and if the collar *e*³ be drawn out of engagement with the worm-gear free rotation of the drums results and much time is saved.

While the pawl *d*² is shown as gravity operated it will be understood that springs may be used to force it into engagement with the ratchet and various other changes in and modifications of the form of construction

shown and described may be made within the scope of the following claims and, with this reservation,

What I claim as new and desire to secure by Letters Patent, is:—

1. A scaffold, comprising overhead drums, a platform, cables dependent from said drums to said platform, means operative from the platform for rotating said drums and thereby moving said platform, locks for said drums and devices operated by said means for unlocking said drums.

2. A scaffold, comprising a platform, overhead drums, locks for said drums, cables on said drums and secured to said platform, drum operating devices operative from said platform, means for making said devices inoperative and means connected with said devices for unlocking said drums.

3. A scaffold, comprising a platform, overhead drums, cables thereon and secured to said platform, a lock for said drums, a worm and worm-gear in operative connection with said drums, an endless rope for rotating said

worm and means operative by said rope for making said lock inoperative.

4. A scaffold, comprising a platform, overhead drums, cables thereon and secured to said platform, a lock for said drums, an endless rope operative from said platform for rotating said drums and means operated by said rope for unlocking said drums.

5. A scaffold, comprising a platform, devices for moving said platform vertically, operating means for said devices and a lock for said devices, said operating means raising said platform when operated in one direction and releasing said lock and lowering said platform when operated in the opposite direction.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 31st day of May 1907.

WILLIAM J. MURRAY.

Witnesses:

ADAM BEE,
H. MOTT LAW.