

A. A. DAVIS.

Improvement in Lifting Jacks.

No. 120,864.

Patented Nov. 14, 1871.

Fig. 1.

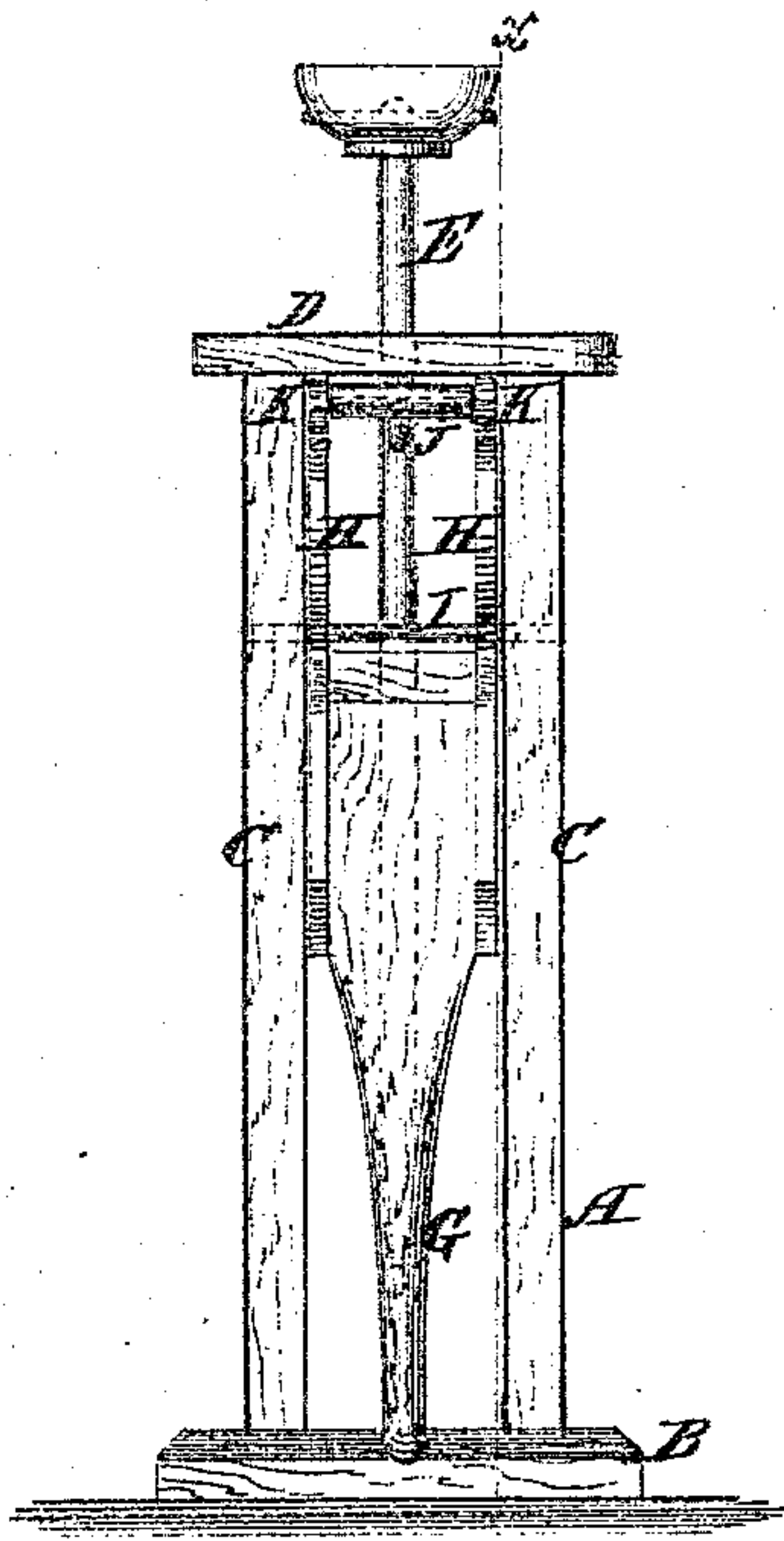
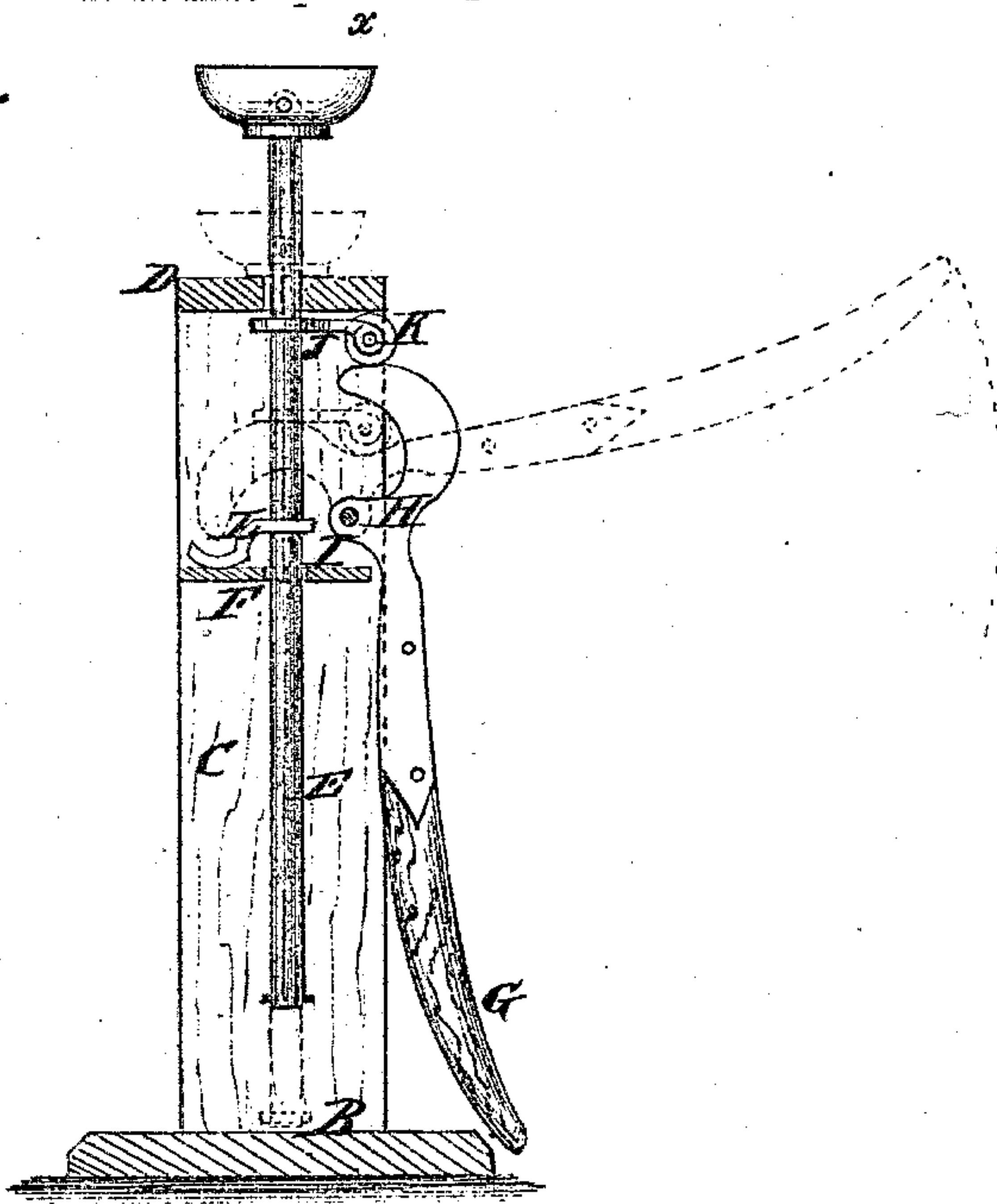


Fig. 2.



WITNESSES:

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ARTHUR A. DAVIS, OF CLARK'S GREEN, PENNSYLVANIA.

IMPROVEMENT IN LIFTING-JACKS.

Specification forming part of Letters Patent No. 120,864, dated November 14, 1871.

To all whom it may concern:

Be it known that I, ARTHUR A. DAVIS, of Clark's Green, in the county of Luzerne and State of Pennsylvania, have invented a new and useful Improvement in Lifting-Jacks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to a new and useful improvement in jacks for lifting carriages, wagons, and other vehicles and articles; and consists in the construction, arrangement, and combination of parts hereinafter described.

In the accompanying drawing, Figure 1 represents a front elevation. Fig. 2 is a vertical section of Fig. 1 taken on the line *x x*.

Similar letters of reference indicate corresponding parts.

A is the stand attached to a base, B, formed of two uprights, C C, of wood or iron, connected by a cap, D; or it may be made of a slotted tube of iron. E is the lifting-bar, which is guided by the cap D or its equivalent and by the stationary plate F. G is the lever which, in lifting, is worked up and down the same as a pump-brake. Attached to each side of the lever is a cam-plate, H. The fulcrum of the lever is a pin passing through the cam-plates H and the stand A at the point I. J is a catch through which the lifting-bar passes. The catch projects toward the lever, as seen in Fig. 2, and is provided with a friction-roll, K, for each cam-plate on the lever in contact with which the cams work. The tendency of the catch to tilt as power is applied, when the lever is lowered, produces friction sufficient to prevent the catch from slipping on the bar. The bar is, consequently, raised by pressing down the lever. L is a holding-catch through

which the lifting-bar passes. This catch-plate rests on the stationary plate F and bears against the bar at all times with sufficient force to make it catch and hold the bar when the latter is loaded or has a downward tendency. When the lever G is raised the upper catch J drops by its own gravity, and the friction-rolls follow the cams, as indicated in dotted lines in Fig. 2.

When it is desired to drop or lower the lifting-bar quickly the lever is raised higher than is required in lifting, when the end of the lever between the cams strikes a lug on the upper catch and releases the catch from the friction with the bar, and at the same time the toes of the cams strike the outer end of the lower catch-plate and releases that catch from the bar, when the bar, of course, drops by its own gravity.

The lifting-bar may be lowered more gradually by disengaging the upper and lower catches alternately and entering the lever downward.

I do not limit or confine myself to the precise form or arrangement of any of the parts herein described, as they may be varied in many ways without departing from my invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The friction-catch J and rolls K K, substantially as and for the purposes described.
2. The cams H H, in combination with the lever G, catch J, and friction-rolls K K, as and for the purposes described.
3. The holding-catch L, substantially as and for the purposes described, in combination with cams H H and plate F, as set forth.
4. The lifting-bar E, in combination with the friction-catch J and cams H H, as and for the purposes described.

ARTHUR A. DAVIS.

Witnesses:

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(79)