

(No Model.)

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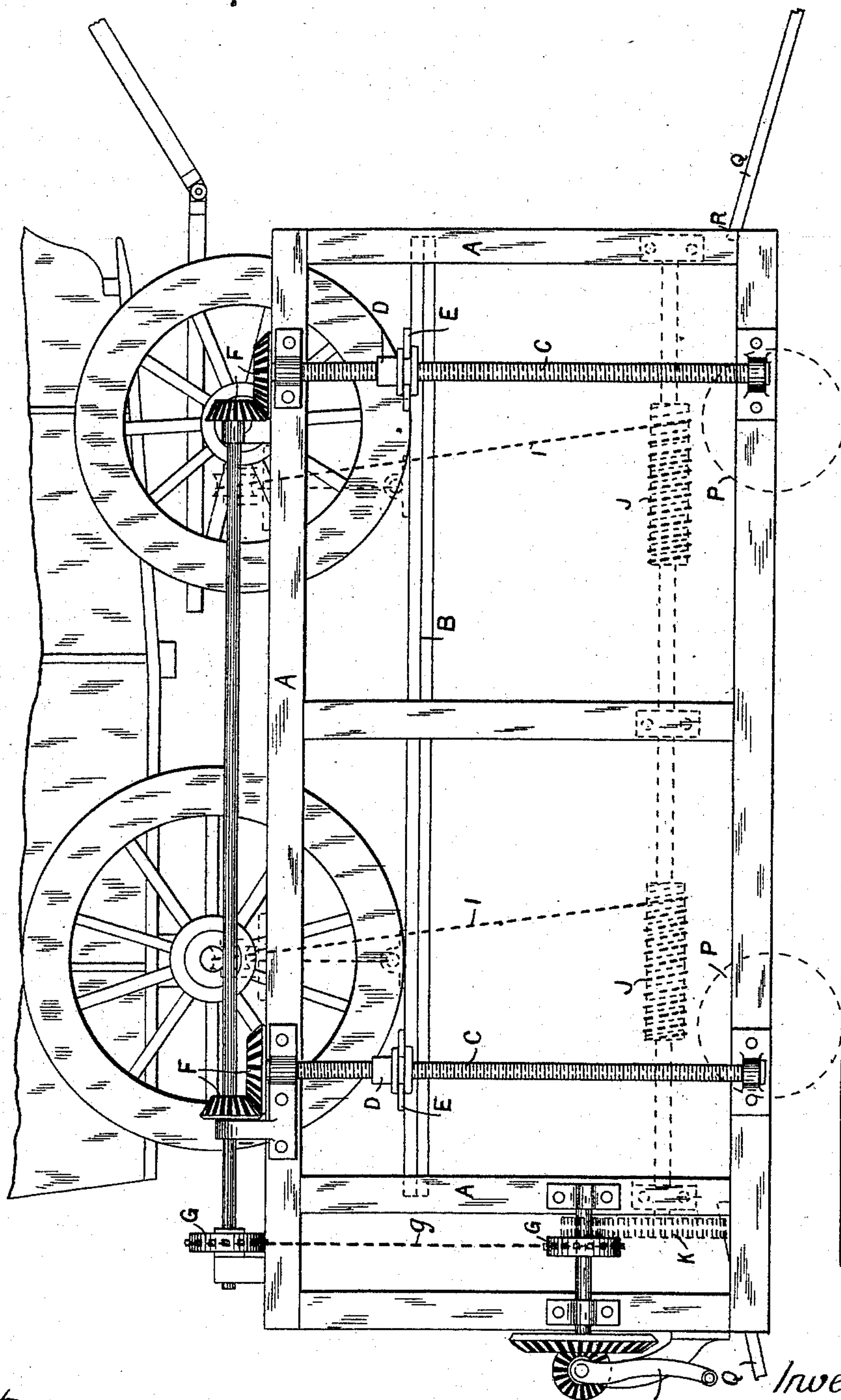
H. A. ECKLEY.

APPARATUS FOR RAISING OR LOWERING HEAVY LOADS.

No. 526,694.

Patented Oct. 2, 1894.

FIG. 1.



Witnesses:
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Chas. B. Burchard

Inventor:
Henry A. Eckley
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(No Model.)

4 Sheets—Sheet 3.

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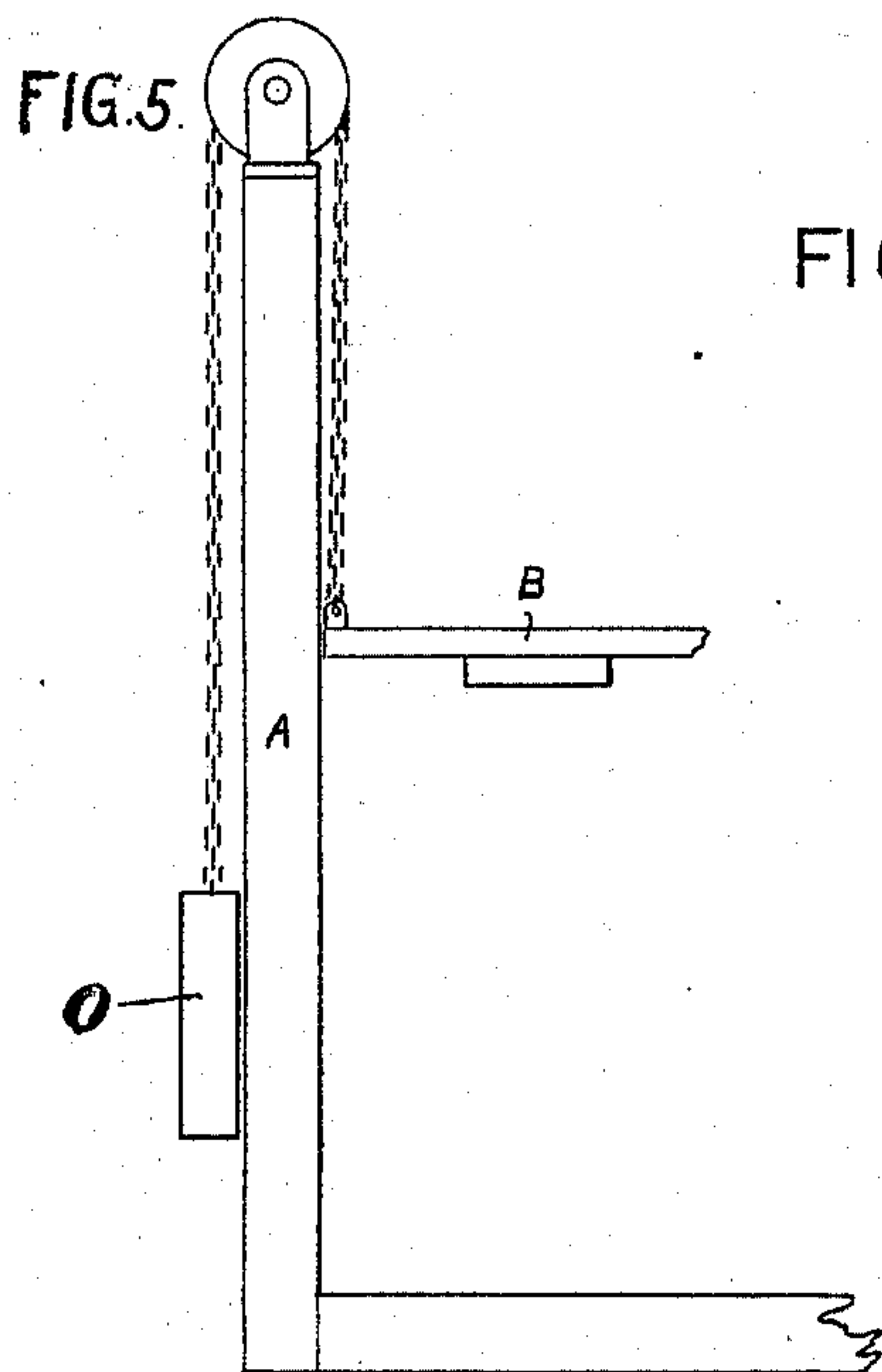
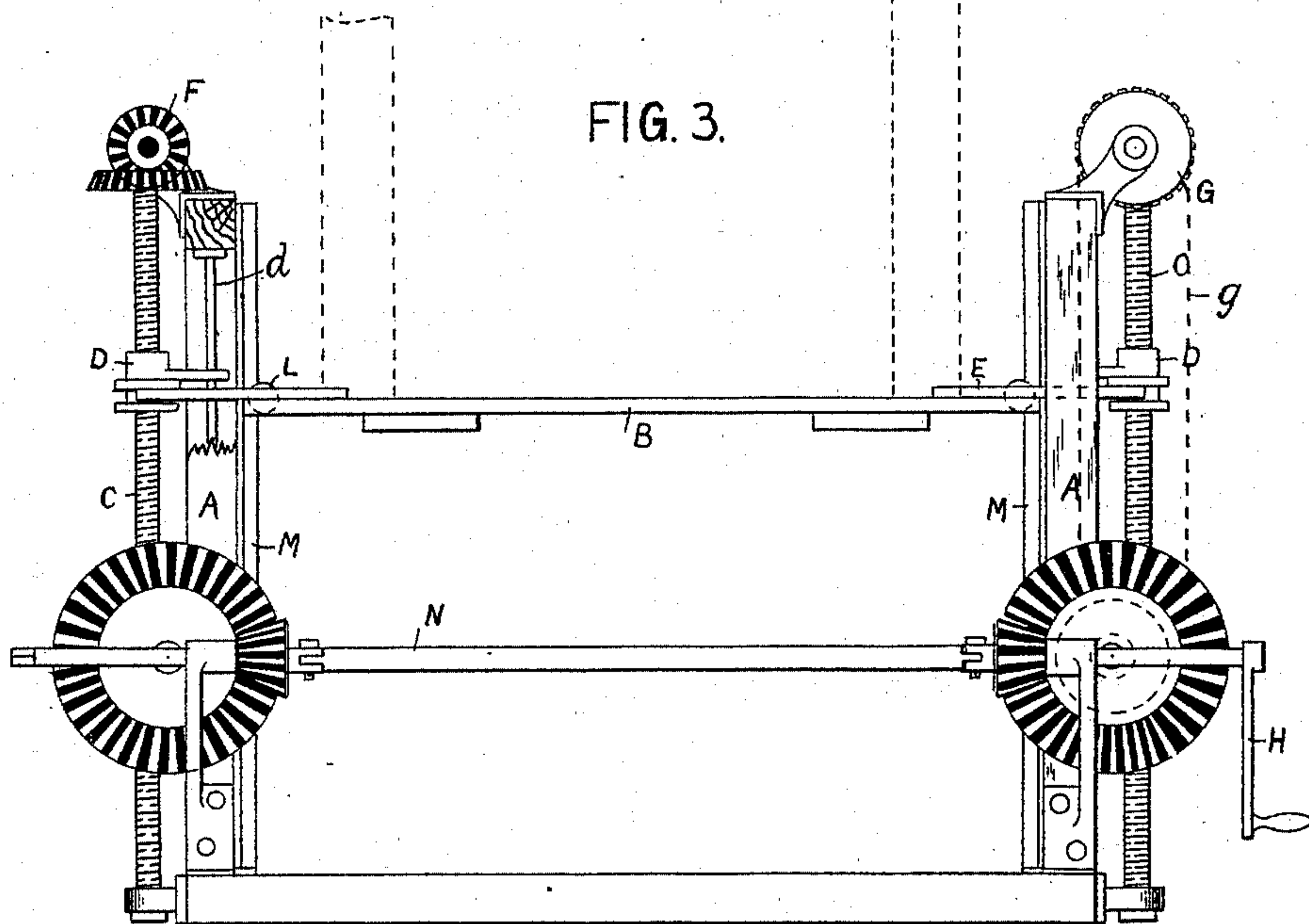
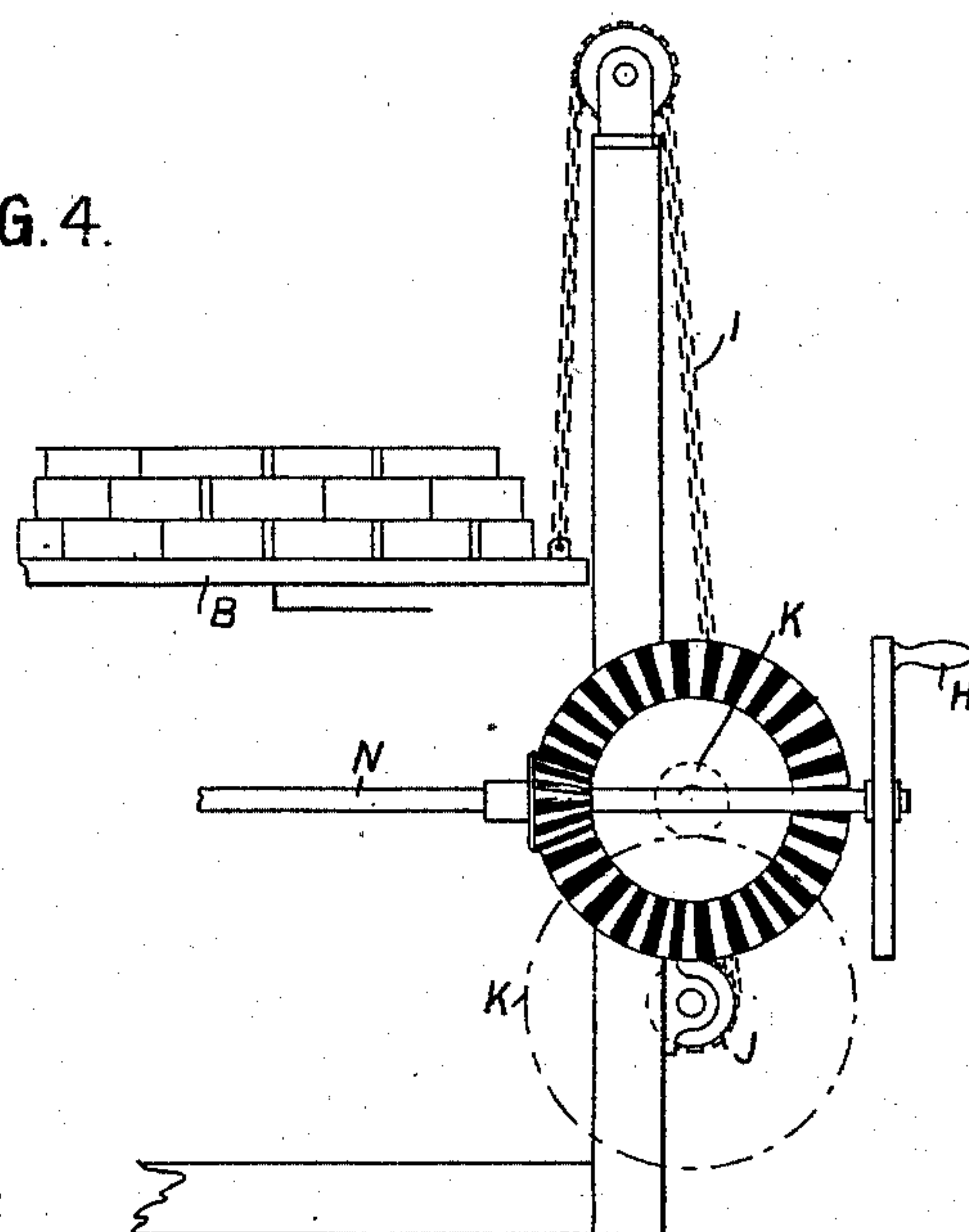


FIG. 4.



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(No Model.)

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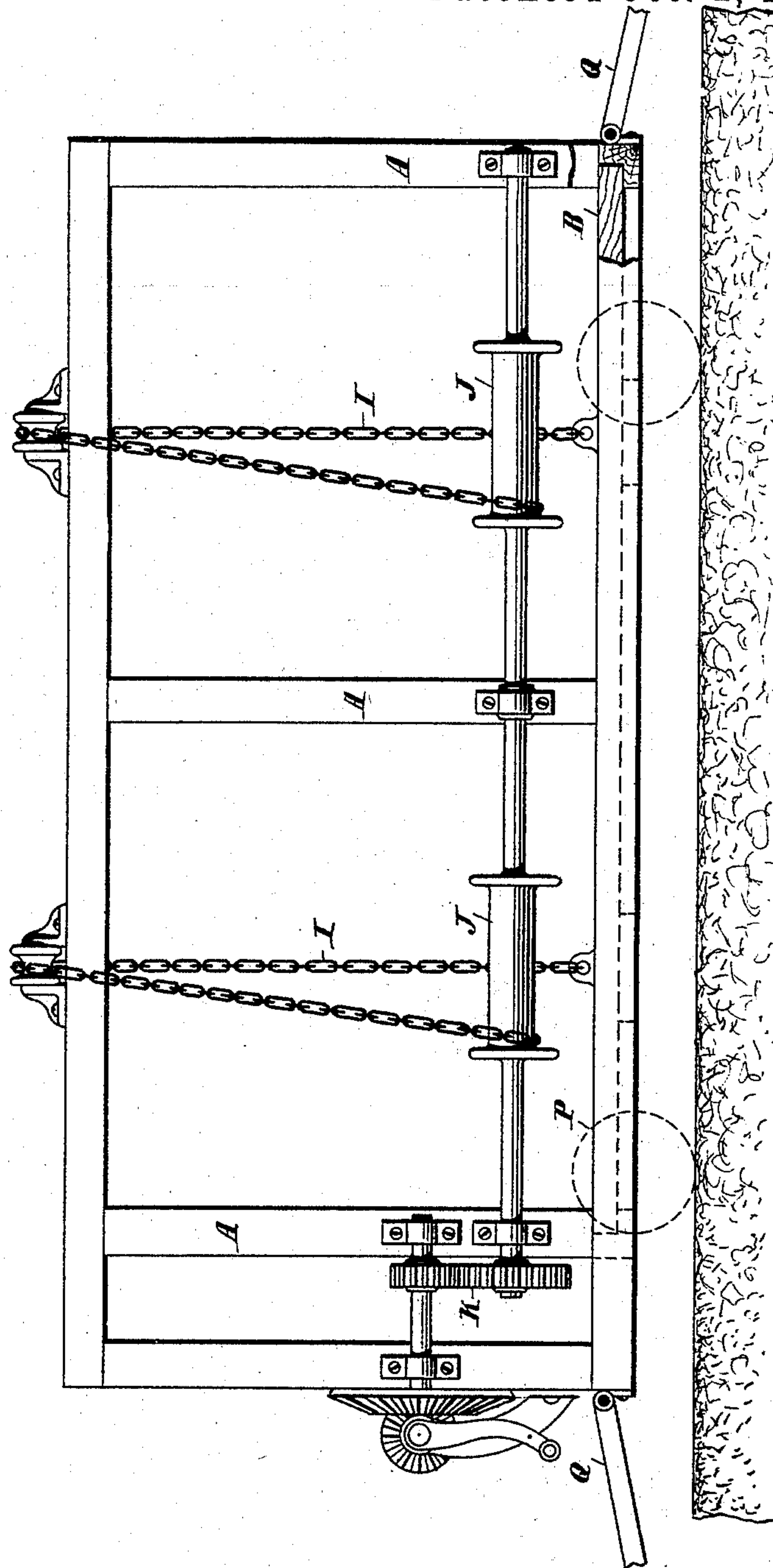
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Fig. 6.



Witnesses
Arthur Ashley
McLong.

Inventor
Henry A. Eckley
by Dodge & Sons Attys.

UNITED STATES PATENT OFFICE.

HENRY ALFRED ECKLEY, OF BROMYARD, ENGLAND.

APPARATUS FOR RAISING OR LOWERING HEAVY LOADS.

SPECIFICATION forming part of Letters Patent No. 526,694, dated October 2, 1894.

Application filed August 23, 1893. Serial No. 483,825. (No model.)

To all whom it may concern:

Be it known that I, HENRY ALFRED ECKLEY, a subject of the Queen of Great Britain, residing at Pencombe, Bromyard, in the county of Hereford, in the Kingdom of England, have invented certain new and useful Improvements in Apparatus for Raising or Lowering Heavy Loads, of which the following is a specification.

This invention has for its object an apparatus especially adapted for raising carts or wagons loaded with hay, corn and the like to the tops of stacks for the purpose of unloading, which can be done by simply throwing the hay or corn down onto the stack instead of raising it up on pitch forks as is usually done, but it will be evident that it can be used for a variety of other purposes, such as filling barns, raising bricks and mortar or stone for building purposes, for loading heavy weights into railway trucks or unloading same, for raising cattle to the same level as the cart or wagon to be loaded for market. In fact it can be employed in nearly every case where a load is required to be raised or lowered.

An important feature in this invention is the portableness of the apparatus. It can be fixed up where desired and be used in barns and other covered places where it would be impossible to get an elevator and by providing it with wheels its removal from place to place will be greatly facilitated.

In the accompanying drawings, Figure 1 is a side elevation of the apparatus; Fig. 2, a plan view; and Fig. 3, an end elevation partly in section. Fig. 4 is an end view of a modification; Fig. 5, a view illustrating how the loads may be counterbalanced by weights, and Fig. 6 is a side elevation showing a modified form of the apparatus.

In the drawings, A A are two upright frames placed sufficiently far apart to allow, say, a wagon to pass between, and B a movable bottom or platform adapted to slide up and down between the aforesaid frames A and on which the weight to be raised or lowered is placed. In the drawings a wagon is shown on the platform. Any well known mechanical device may be employed for raising the said platform but for some purposes I prefer the one shown in the drawings which consists of

four screws C arranged one at each corner in suitable bearings on the frames A, each of these screws having a traveling nut D held from rotation by a vertical rod *d* (Figs. 2 and 3).

E are plates fixed to the platform B, and engaging grooves in the nuts D, which cause the platform to partake of their vertical movement. The screw is rotated, and the nuts with the platform moved vertically by suitable gearing, such as a pair of miter wheels F, sprocket wheels G and chains *g* operated by handle H. This arrangement of raising and lowering the platform by means of screws will however be altogether unsuitable for raising a weight such as bricks and mortar to a considerable height for building purposes. In this case, I raise the platform by means of chains I wound round drums J, the latter rotated from the handle H through gearing K as shown in dotted lines (Fig. 1) and in full lines in Figs. 2 and 4.

L are small grooved rollers pivoted to the platform B, which, in conjunction with rails or T pieces M fixed to the upright frames A, serve to guide the travel of the platform. These however will not be required with the screw arrangement.

To enable one person to raise the platform the gearings are coupled together by a rod N jointed as shown so as to be swung back as shown in dotted lines or removed clear away, if necessary, to allow of a cart for instance being drawn onto the platform at one end and off at the other.

As shown in Fig. 5, weights O may be employed to counterbalance the weight on the platform B. Wheels P (Fig. 1) may also be provided to facilitate the removal from place to place of the apparatus.

The inclined ways Q may, if desired, be hinged at R and when not required raised up against the end of the apparatus and fastened in any convenient manner.

I propose to construct the apparatus of various sizes to suit requirements, the smaller and lighter ones being for railway platforms and cramped positions inside buildings.

I declare that what I claim is—

1. In a hoisting or elevating apparatus, the combination of the portable frame A A open at its ends; ways hinged to the frame at the open ends and adapted to be folded up

against said frame when not in use; a platform mounted within said frame; the ways and the platform forming an unobstructed roadway when the platform is in its lowest position; and means for raising and lowering said platform substantially as described.

2. In a hoisting or elevating apparatus, the combination of the portable frame A A open at its ends; a movable platform mounted within said frame; suitable gearing located upon both sides of the frame for elevating said platform; and a removable shaft extending across the frame to connect both sets of

gearing whereby after the load is on the platform both sets of gearing may be connected. 15

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY ALFRED ECKLEY.

Witnesses:

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14 Church St., Hereford, Clerk to H. C. Beddoe & Son, Solicitors, Hereford.