

J. DARLING.
Hoisting Machines.

No. 145,727.

Patented Dec. 23, 1873.

Fig. 1.

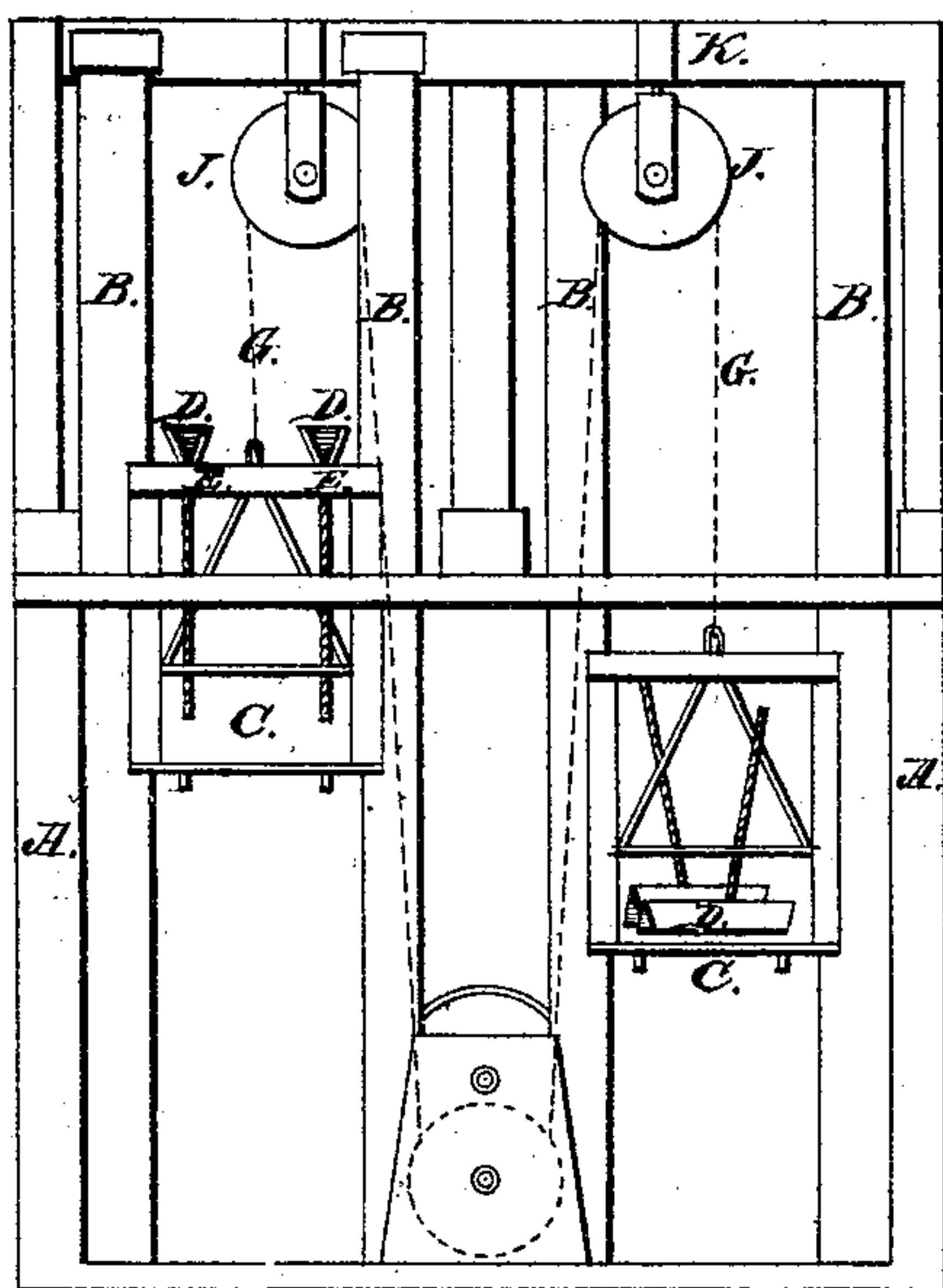


Fig. 3.

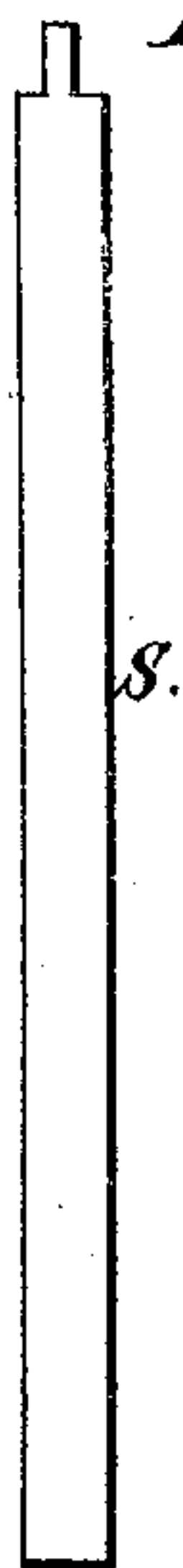


Fig. 2.

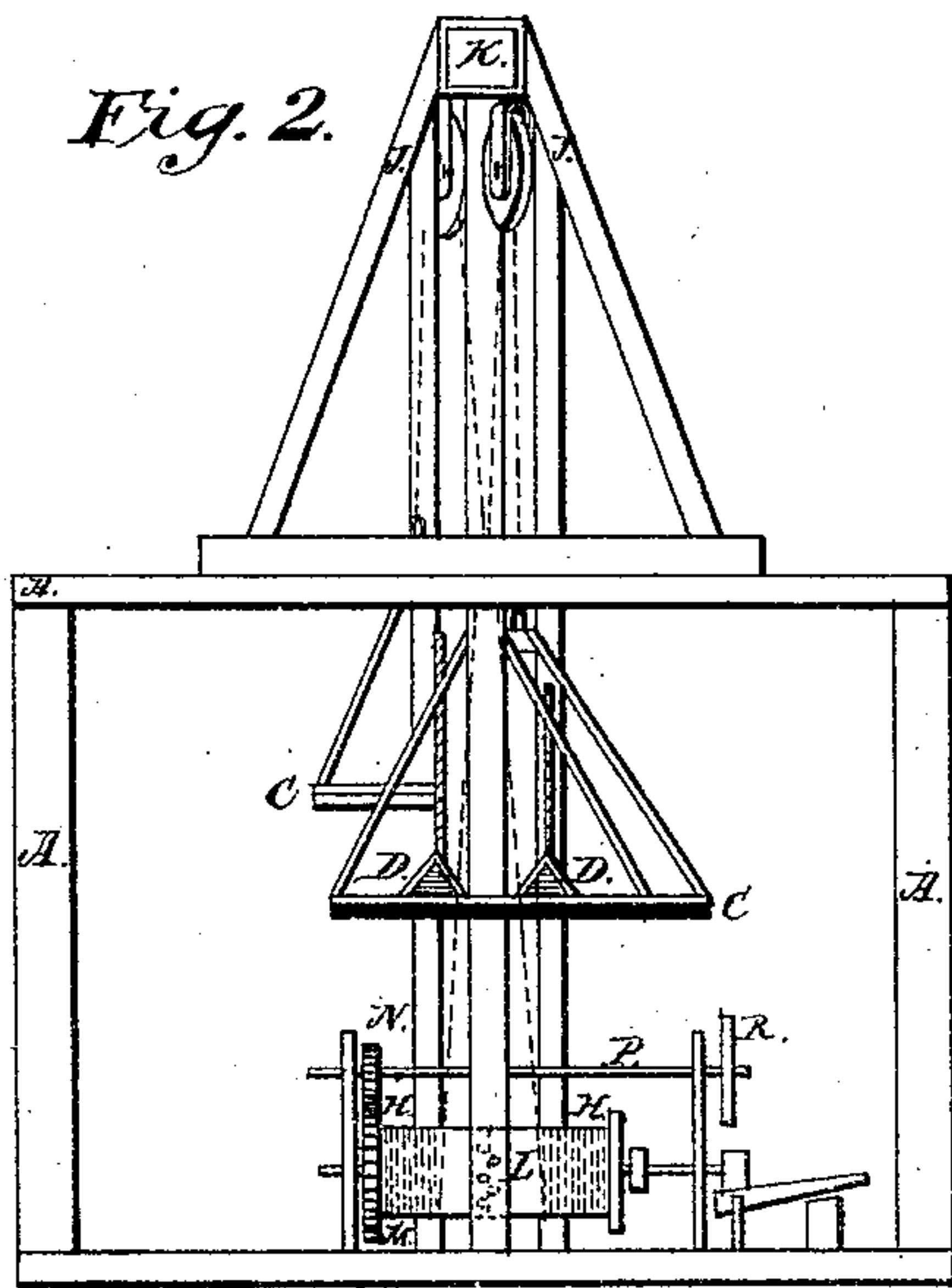


Fig. 4.



Attest
Sam. F. Reigart.

Jas. D. Patten

Inventor

Jeremiah Darling

By his Atty J. F. Reigart

UNITED STATES PATENT OFFICE.

JEREMIAH DARLING, OF CINCINNATI, OHIO.

IMPROVEMENT IN HOISTING-MACHINES.

Specification forming part of Letters Patent No. **145,727**, dated December 23, 1873; application filed October 13, 1873.

To all whom it may concern:

Be it known that I, JEREMIAH DARLING, of the city of Cincinnati, State of Ohio, have invented new and useful Improvements in Hoisting-Machines for elevating materials for building purposes; and I do hereby declare the following to be an exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon making a part of this specification, in which—

Figure 1 represents a front elevation of the machine, exhibiting all its apparatus and devices. Fig. 2 shows a side view of the same. Figs. 3 and 4 are the guide-posts and supporters.

The nature of my invention consists in the construction and arrangement of the double roller in one, with clutches between them, with a nut on the roller-shaft to hold them together for the purpose of lengthening or shortening the ropes in changing the apparatus from story to story; also, the construction of the hod-racks, in combination with the platform, for elevating the hods; also, the arrangement and combination of the guides, in ropes, chains, or pulleys, with the upper beam or post, to support the pulleys that elevate the racks and material. The object of my invention is to hoist bricks, mortar, or any material for building purposes, and to arrange and change the apparatus from story to story with greater ease and facility as the building progresses, saving much labor and time. Any required power may be applied to the main or power shaft in connection with the brake to be applied to the fly-wheel, when the materials reach the required height, so as to stop the operation of the machine or hold it securely when the one rack is up and the other down.

A A A represent the frame-work or sides of the building. B B are four upright guides, between which the platforms C C operate steadily and up and down alternately. D D are hods or receptacles for holding the bricks, mortar, or other materials, and these hods D D rest in two or more notches, E E, forming racks of the cross-beams of the platforms C C,

so as to be quickly and handily removed by the workmen. The platforms C C and racks are raised alternately. While one is moving up the opposite one is lowering and passing down by means of the ropes G G, that are operated by and upon the double roller H H, winding one rope from left to right and the opposite rope from right to left at the same and one revolution of the roller, the roller acting as a windlass, yet winding and unwinding the ropes until one platform has reached its proper height and the other reached the floor; and the upper is unloaded while the lower platform is being supplied with another load. These ropes pass over the two pulleys J J above, that are pivoted to the cross-beam K, for the purpose of elevating and lowering the racks c c containing the hods. The rollers H H revolve on a single shaft, and are divided in their center, and can be adjusted at any time required to lengthen or shorten the ropes by means of the clutches L L in the center, one roller having projecting pins in its end and the other roller apertures for the pins to catch in, forming the clutches or lock. At the end of one roller is a spur-wheel, M, gearing into a pinion, N, above, whose shaft P has a circular lever at its outer end to be used as a brake, R, to stop the machine and secure it firmly when one rack is up and the other down, the shaft P operating as the power-shaft to move the platforms up and down and stop them when required. I also use single posts or supporters S S, of different lengths, with a spike in the lower end, to keep it from slipping. The short one has the spike, and is intended to support the cross-beam K, and the long posts are to lengthen the guide-posts B B as the building progresses.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the double and adjustable clutch, drums H H, hod-racks E E, platforms C C, and guides B B, constructed and operated as herein described.

Witnesses: JEREMIAH DARLING.

BENJ. C. TRUE,
JOHN J. RICKEY.