H. H. Hunt,

Elevator.

No. 110,238. Patented Dec. 20. 1870.

Fig. 1.

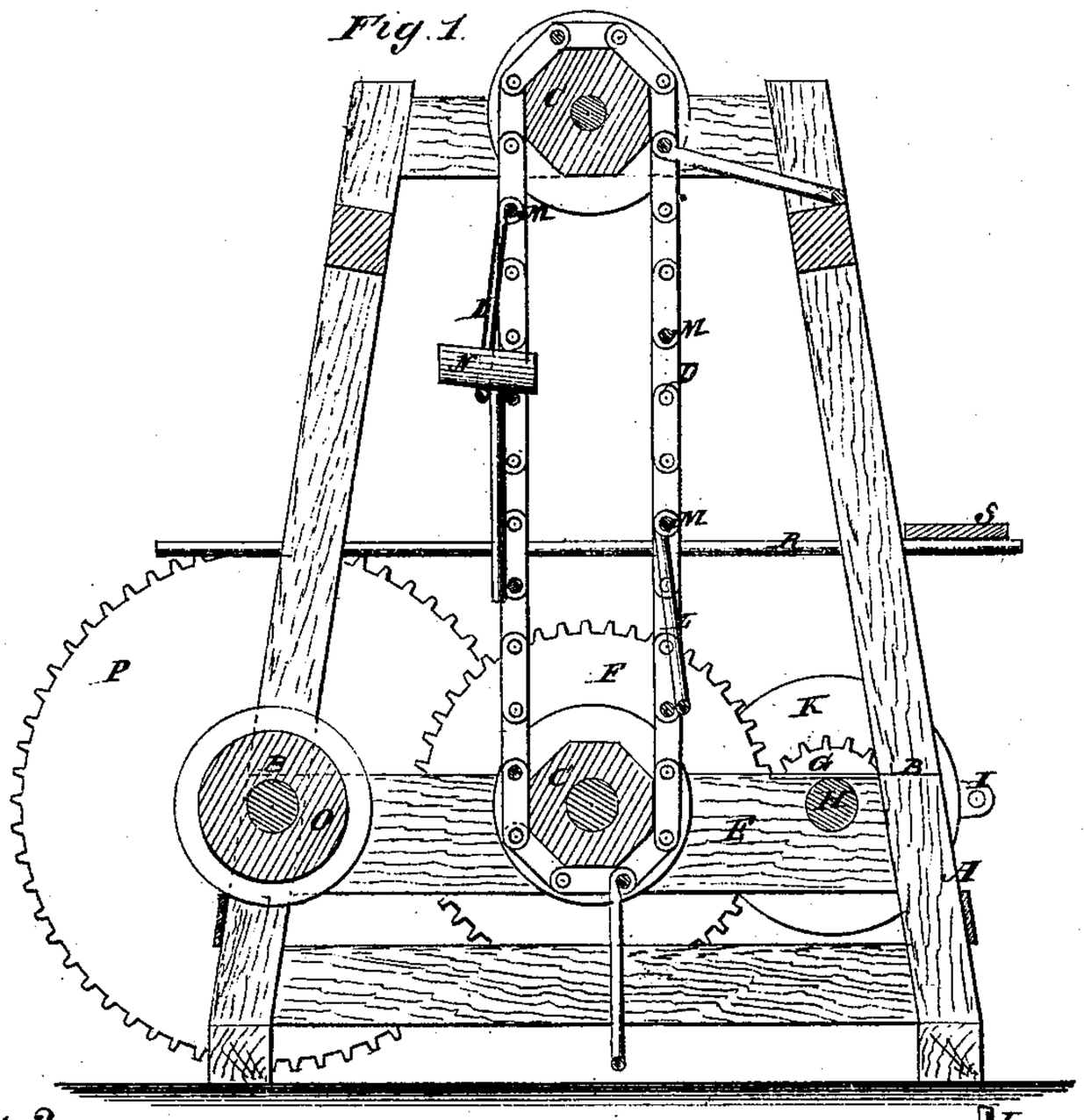
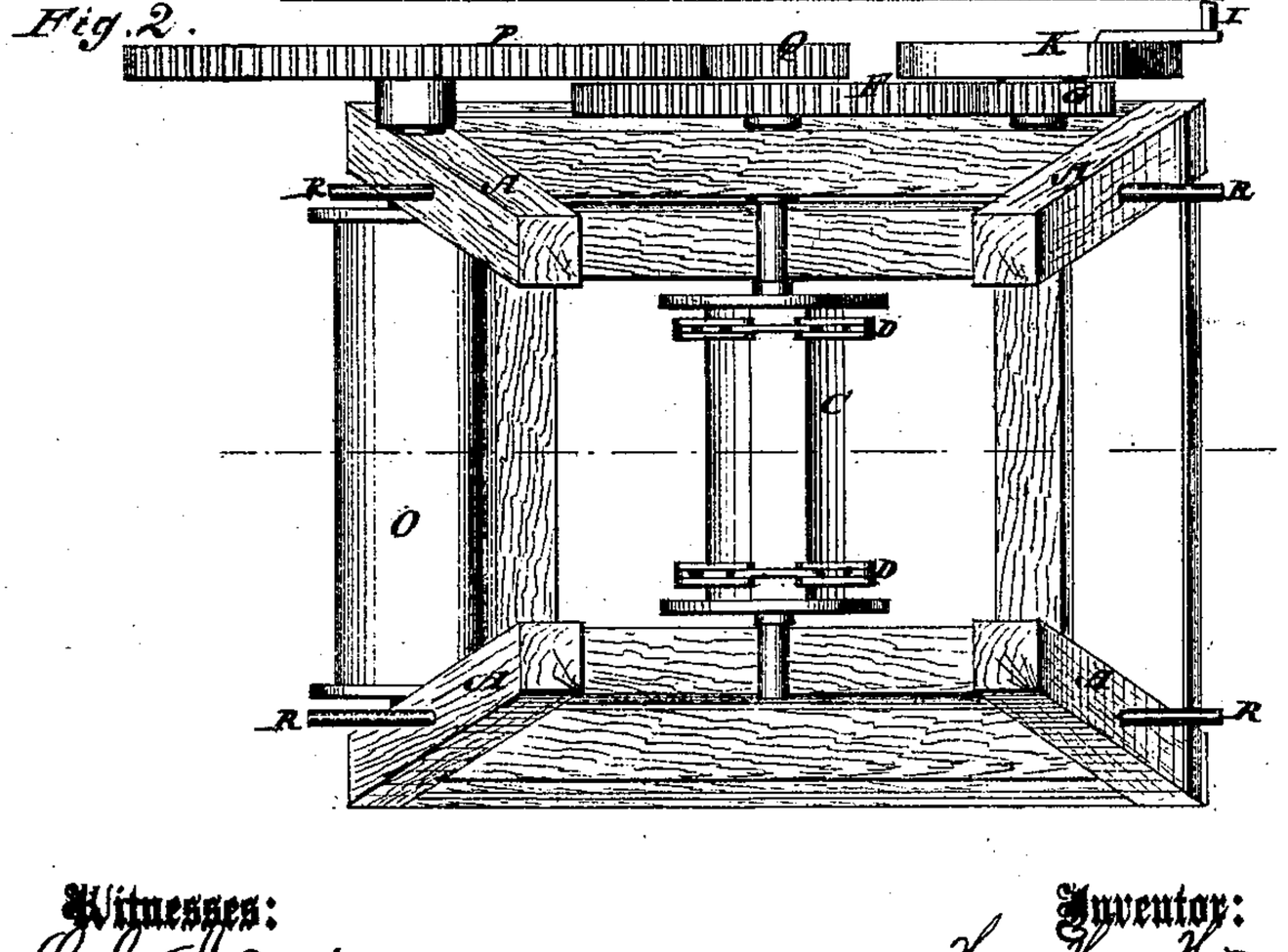


Fig. 2.



Witnesses:
L. S. Mabee
Alex F. Roberts

Inventor:
H. H. Hunt
Per Munn & Co
Attorneys.

UNITED STATES PATENT OFFICE.

HENRY H. HUNT, OF SARATOGA SPRINGS, NEW YORK.

IMPROVEMENT IN HOISTING APPARATUS.

Specification forming part of Letters Patent No. **110,238**, dated December 20, 1870.

To all whom it may concern:

Be it known that I, HENRY H. HUNT, of Saratoga Springs, in the county of Saratoga and State of New York, have invented a new and Improved Hoisting Apparatus; 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 drawings, forming part of this specification.

This invention relates to improvements in hoisting apparatus for hoisting building material to be used in the erection of new buildings; and it consists in a combination, with endless chains working over octagonal rollers and provided with suitable driving-gear for working them either by hand or steam power, of reversible holding-bails adapted for holding the hods containing the material to be elevated either on the ascending or descending side.

It also consists in a combination, with the driving machinery for the chains, of a winding-drum for operating a rope to hoist such heavy material as cannot be taken in the hod, the whole apparatus being arranged on a portable frame adapted to be placed on the outside of the building and designed to be made extensible vertically.

Figure 1 is a sectional view of my improved hoisting apparatus, and Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

A is a portable frame for the support of the operating-gears and the upper and lower octagonal rollers on which the chains work. In this example this frame is made entire and non-extensible, but in practice I prefer to make it separate at or about the lines B for carrying the upper part which supports the upper chain-roller, C, up from time to time by the introduction of successive sections between the two parts as the building rises, the chains D being extended at the same time the lower roller, C′, for the chains is mounted on the beams E. Below the line where the frame is to be divided it is provided with a large driving-wheel, F, which gears with a pinion, I, on the driving-shaft H, which has a hand-crank, I, and pulley K, so that it may be driven either by hand or other power. The rollers C for the chains are octagonal, and the sides are fitted to the lengths of the links of the chain, so that the links always bear upon five sides, thereby insuring the holding of the chains so that they will not slip.

L represents bails or yokes of iron hinged or otherwise jointed to some of the cross-bars M, so as to hang at the outsides of the chains in ascending and descending for supporting the hods N for elevating and lowering them, the said bails swinging over when commencing the downward movement, so as to hang properly to receive the empty hods on the descending sides, and swinging back again when beginning the ascent.

O represents a winding-drum also mounted on the frame A below the place where it is to be divided, and preferably at the outside of the parts, where it may be attached in a way to be readily applied or removed, as occasion may require. This drum is intended for working in a rope to be suitably rigged in pulley-blocks, one on the ground and another upon the building or other support, for hoisting heavy stones or timbers, which are also required to be raised in some cases. This roller is provided with a large gear-wheel, P, which gears with a pinion, Q, on the axle of the lower chain-roller, C′, and is thereby driven by the same apparatus which drives the chains, thus combining in one frame and with one driving apparatus, two efficient machines for hoisting purposes which may be used simultaneously or one at a time.

R represents strong bars or rods, fitted horizontally in holes in the upper posts, so as to be moved laterally to project from either of two opposite sides to hold scaffold-boards S on the ascending and descending sides of the chains for the attendants to walk back and forth between the building and the chain for carrying the loaded and empty hods.

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

The application, in hoisting-machines, to the endless chain D of an automatically-reversible yoke, L, pivoted to a cross-bar, M, and hung on the outside of the chain, as described, for the purpose of enabling the hods to be carried up or down upon the same yokes, and without any manipulation.

The above specification of my invention signed by me this 29th day of April, 1870.

HENRY H. HUNT.

Witnesses:

GEO. W. MABEE,

ALEX. F. ROBERTS.