N. W. HOFFMAN.

Hoisting-Apparatus.

No. 167,763. Patented Sept. 14, 1875.

Fig. I.

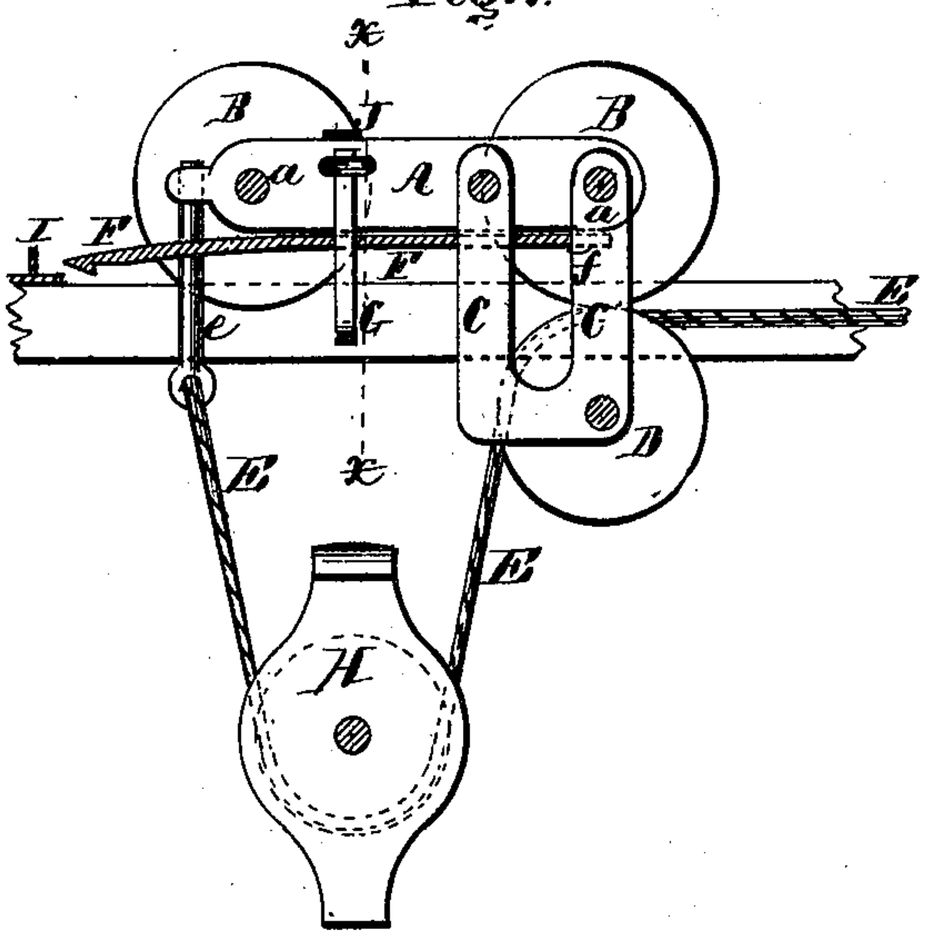


Fig. II.

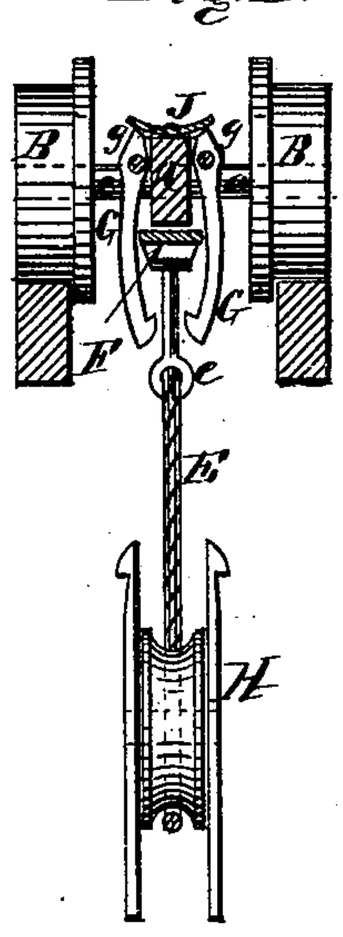


Fig. III

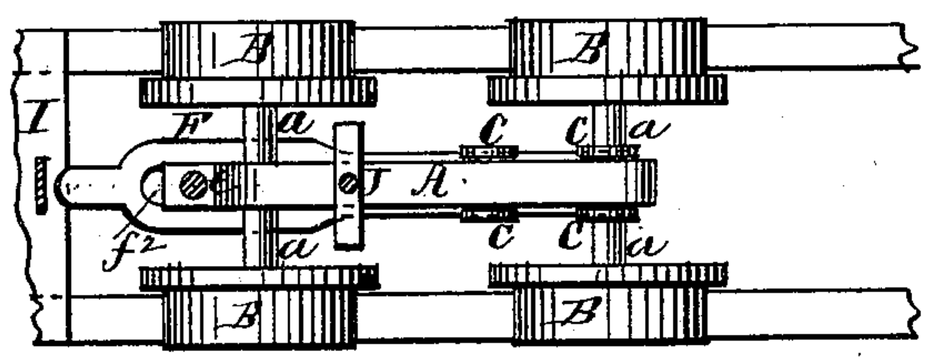
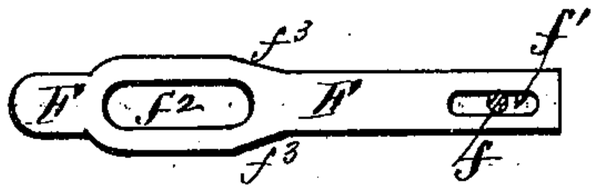


Fig. IV.



Witnesses:
Franklin Barritt.
Richard Gerner

Inventor:
Nicholas W. Hoffman.
Per.
Henry Gerner.
Atty.

UNITED STATES PATENT OFFICE.

NICHOLAS W. HOFFMAN, OF LEBANON, NEW JERSEY, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOSEPH HOFFMAN, OF SAME PLACE.

IMPROVEMENT IN HOISTING APPARATUS.

Specification forming part of Letters Patent No. **167,763**, dated September 14, 1875; application filed March 11, 1875.

To all whom it may concern:

Be it known that I, NICHOLAS W. HOFFMAN, of Lebanon, in the county of Hunterdon and State of New Jersey, have invented a new and useful Improvement in Hoisting Apparatus; and I do hereby declare the following to be a full and clear description thereof.

This invention relates to some improvements in the construction of the traveling carriage or truck used in the apparatus patented by Joseph Hoffman on August 8, 1871, and December 24, 1872, and numbered, respectively, 117,778 and 134,141.

The nature of the improvement will be readily understood by reference to the accompanying drawings, of which—

Figure I is a sectional side elevation of the improved truck in position on its track. Fig. II is a transverse sectional elevation of the same, taken on the line *x x* of Fig. I. Fig. III is a plan of the truck in position as above. Fig. IV is a plan of the latch that holds the truck in position.

The beam or frame A has two axles, *a a*, on which are placed the flanged wheels or sheaves B, as in the machines above alluded to. In the present truck two hangers, C, carry the journals of the sheave D, over which the rope or fall E runs in raising the weight. The latch F, which holds the carriage in position while the weight is being raised, is attached to the bottom side of the beam or frame A by means of the stud *f*, a slot, f^1, in the said latch permitting it to have a slight longitudinal motion, as hereinbelow described. The slot f^2 in the forward end of the latch permits the free passage through it of stud *e*, to which the hoisting-rope is attached, and the sides of the latch by the sides of the slot f^2 are widened out into sloping ways f^3, which strike the hooks G and disengage them from their hold on the sheave H at the proper moment, as the latch is pushed back by coming in contact with the stop I. As soon as the hoisting operation is commenced the tendency of the carriage to draw back will draw it as far in that direction as the latch F will permit, and thus the smaller part of the said latch will be placed between the hooks G and allow them to grasp and hold the sheave H when it shall have been raised up with the next load. The hooks G are pivoted to the sides of the beam or frame A at *g*, and their top ends are formed so as to rest under the spring J, as shown in Fig. II. The spring J is fastened to the top of the beam A, and arranged to press on the hooks G, to hold them together on the sheave H when it is raised between them. When the sheave H is raised up to its full height it will strike the latch F and release it, so as to allow the carriage to run back with its load.

Having thus described my invention, I desire to claim—

1. The combination, with the frame A, spring J, hooks G, and the latch F, provided with sloping ways f^3, of the stop I and sheave H, all constructed and operating substantially as shown and described.

2. The combination, with the frame A, sheave D, rope or fall E, sheave H, and stud *e*, of the spring J, hooks G, sliding latch F, provided with sloping ways f^3, and the stop I, arranged and operating substantially as shown and described.

This specification signed the 27th day of January, 1875.

NICHOLAS W. HOFFMAN.

Witnesses:

ANTON C. CRONDAL,

FRANKLIN BARRITT.