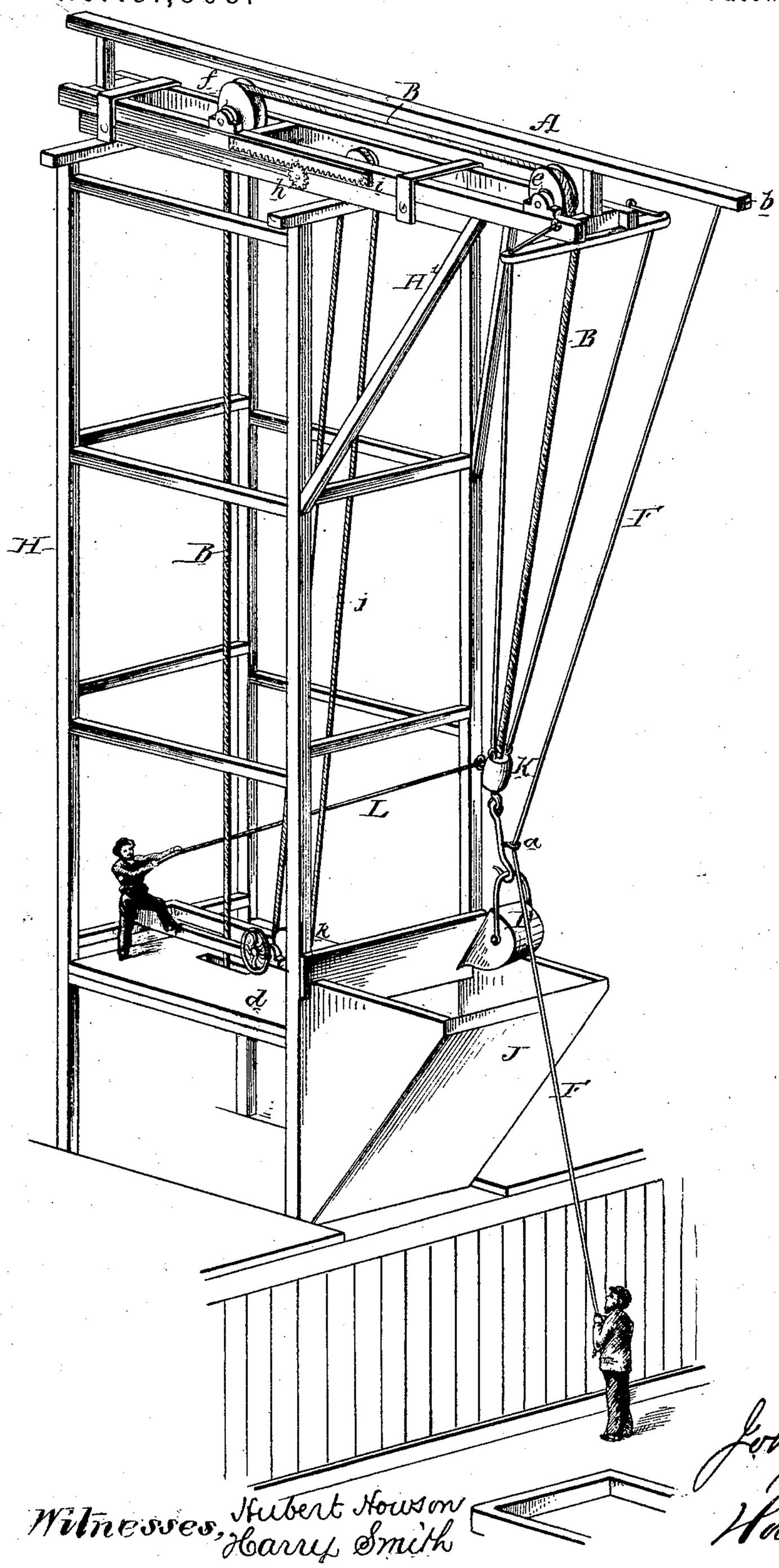
J. FOREMAN.

Apparatus for Loading and Unloading Coal, &c.

No. 151,868. Patented June 9, 1874.



UNITED STATES PATENT OFFICE.

JOHN FOREMAN, OF POTTSTOWN, PENNSYLVANIA.

IMPROVEMENT IN APPARATUS FOR LOADING AND UNLOADING COAL, &c.

Specification forming part of Letters Patent No. **151,868**, dated June 9, 1874; application filed January 29, 1874.

To all whom it may concern:

Be it known that I, JOHN FOREMAN, of Pottstown, Pennsylvania, have invented an Apparatus for Moving and Discharging Cargoes of Coal, &c., of which the following is a specification:

My invention relates to an improvement in the apparatus for moving and discharging cargoes of coal, grain, ore, &c., for which Letters Patent were granted to me on the 6th day of January, 1874, the object of my present improvement being to guide and prevent the swaying of the bucket in its ascent and descent.

I attain this object by providing the hoisting-rope with a hook, having an eye, *a*, at the back, which slides upon a guy-rope, F, secured at its upper end to a projection, *b*, of the jib, which projects outward beyond the front of the chute, the lower end of the said guy-rope being held by an attendant, who thus guides and prevents the swaying of the bucket, all as shown in the perspective view of the accompanying drawing.

The apparatus is, in the present instance, built at the edge of a wharf; and consists of a light open-work structure, H, having at the front an inclined chute, J, partially surrounding which is a platform, *d*, for the attendants, and the hoisting-rope B passes over two sheaves, *e* and *f*, at the top of the apparatus, and extends through a block, K, suspended from the jib A, and provided with a rope, L, or equivalent connection, by means of which it may be drawn inward, as in my aforesaid patent, in order to facilitate the discharge of the contents of the bucket into the chute.

I have found in practice that when the apparatus is of considerable height, necessitating the use of a long hoisting-rope, the bucket is apt to sway when rapidly elevated, so that it will frequently strike the front of the chute and drop a portion of its contents.

To prevent this, I construct the hook at the end of the hoisting-rope from which the bucket is suspended with an eye, *a*, at the back, and through this eye I pass a guy-rope, E, which is held by an attendant who stands on the deck of the boat adjacent to the hatchway, and is thus enabled to guide and prevent all risk of the striking of the bucket against the chute.

The guy-rope F is suspended from a projection, *b*, of the jib, which extends outward considerably beyond the sheave *e* of the hoisting-rope, and beyond the front of the chute, so that it is not absolutely necessary to draw the guy-rope outward, as shown; for, if merely held in a vertical position, the said rope will so guide the bucket as to cause it to clear the chute, and may then be released, in order to permit the said bucket to be drawn inward.

I claim as my invention—

1. The hook on the hoisting-rope, constructed substantially as described, with an eye, *a*, at the back, for the purpose specified.

2. The combination of the hook on the hoisting-rope, its eye *a*, the guy-rope F, and the projection *b* of the jib, extending outward beyond the sheave *e* of the hoisting-rope and beyond the front of the chute, all substantially as and for the purpose specified.

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

JOHN FOREMAN.

Witnesses:
WM. A. STEEL,
HARRY SMITH.