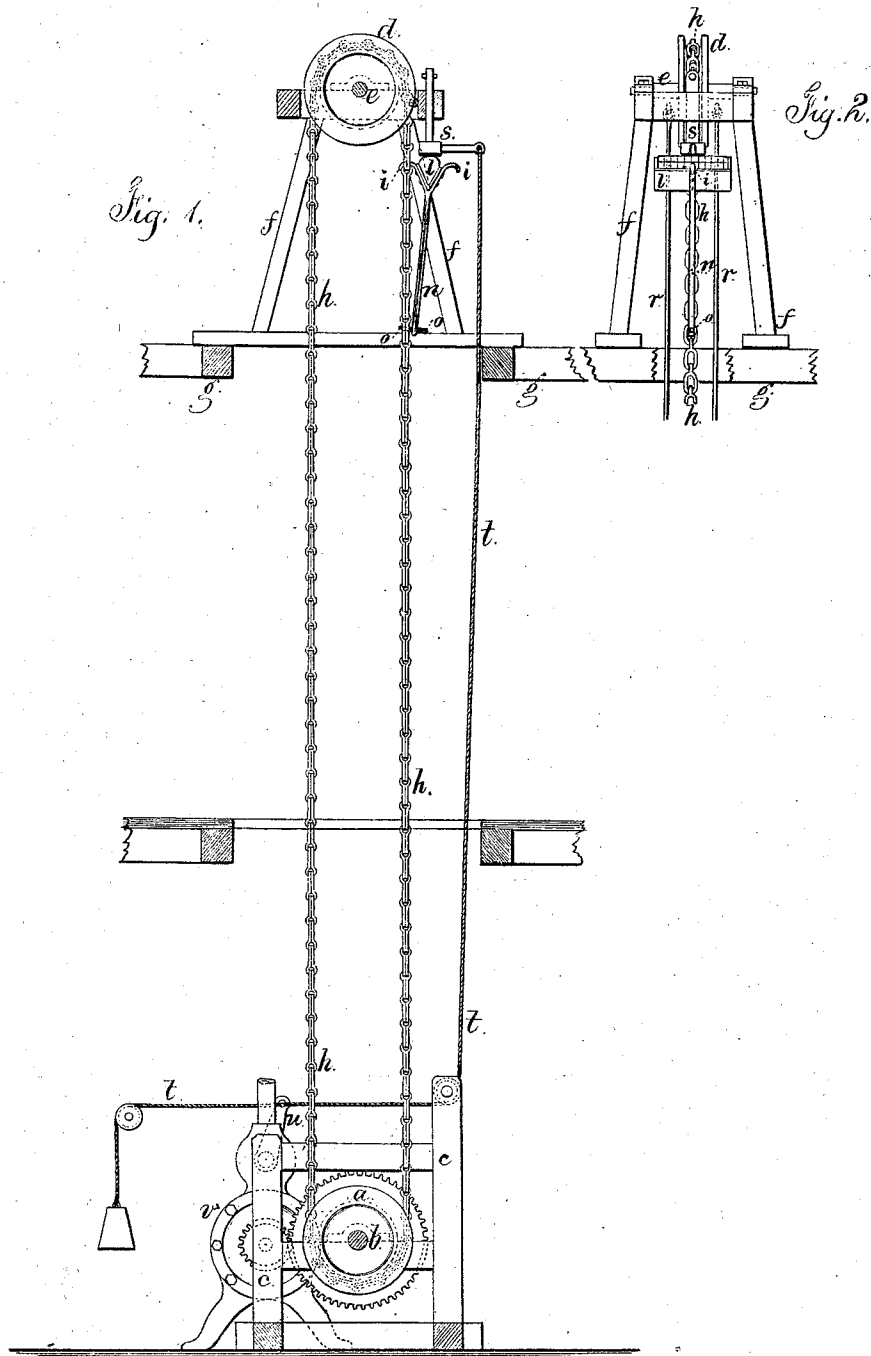


G. W. BROWN.
Hod-Elevating Apparatus.

No. 149,636.

Patented April 14, 1874.



Witnesses
Chas. H. Smith
Harold Perrell

Inventor
George W. Brown
per Lemuel M. Perrell atty

UNITED STATES PATENT OFFICE.

GEORGE W. BROWN, OF NEW YORK, N. Y.

IMPROVEMENT IN HOD-ELEVATING APPARATUS.

Specification forming part of Letters Patent No. **149,636**, dated April 14, 1874; application filed October 7, 1873.

To all whom it may concern:

Be it known that I, GEORGE W. BROWN, of the city and State of New York, have invented an Improvement in Hod-Elevating Apparatus, of which the following is a specification:

In Letters Patent No. 119,305, granted to me, a hod-elevating apparatus is shown, in which there are two hooks at one side of the hod to catch over the links of an elevating-chain, and a fork at the lower end of the shank to steady the same against the chain.

In my present invention I make use of two rods, wire ropes, or ropes, one at each side of the elevating-chain, to prevent the hod swinging around and twisting the chain, or becoming unhooked from that chain. I also make use of hooks at both sides of the hod so that it can be hooked upon the chain or removed therefrom by a man who carries the hod on either the right or left shoulder. I also make use of an alarm that is operated by the hod itself when near the top pulley of the chain, thereby enabling the attendant to stop the movement of the chain until the hod is removed, thus preventing the contents of the hod being spilled by the contact therewith of the pulley or the frame carrying the same. This alarm mechanism may also operate the valve of an engine, or a clutch, to stop the motive power.

In the drawing, Figure 1 is a vertical section of the apparatus complete. Fig. 2 is an elevation of a portion of the apparatus at the upper end.

The lower chain-wheel or pulley *a* is upon a shaft, *b*, that is supported in a suitable frame, *c*, and the upper chain-wheel *d* is upon a shaft, *e*, that is supported by a frame, *f*, that rests upon the upper tier of beams *g*. The chain *h* is made of links so that it can be extended in length, from time to time, as the building progresses. The shaft *b* is revolved by a crank operated by hand or by suitable mechanism. I have represented a rotary engine as the motor, and gearing connecting the same to the shaft *b*. The hod *l* is made with hooks *i* on

both sides, each hook being either single to pass into the links of the chain, or double to hook over the links, and at the bottom of the shank *u* is a double spike, *o*, to enter the chain and guide the shank when the hod is hooked upon the chain with either side to the chain, according to the convenience of the laborers. The ropes or rods *r* are connected to the respective frames at top and bottom. They are to be at each side of the chain *h*, and drawn sufficiently tight to steady the hod as it is drawn up by the chain, thus allowing the chain to be sufficiently loose to work without much strain on the respective pulley-shafts.

It is preferable to employ wire ropes, *r*, sufficiently long to allow of their being drawn up as the apparatus is extended from time to time. In some instances one rope or rod may be used with the chain instead of two.

The alarm is given by the hod moving against a slide or lever, *s*, and giving to it a motion that either rings a bell or moves a tell-tale at the lower end, so that the attendant can stop the further motion of the chain.

I have shown this slide *s* as connected by the rope *t* with the valve-lever *u*, of the engine *v*, so as to stop the same.

What I claim as my invention is—

1. The guide-ropes or rods *r*, in combination with the hod-elevating chain *h*, and actuating mechanism, substantially as set forth.

2. An endless hod-elevating chain or band passing over pulleys at top and bottom, in combination with an alarm or stopping mechanism that receives its motion from the hod itself, substantially as specified.

3. The spikes applied to the shank of a hod to enter a link of the elevating-chain, combined with hooks upon the hod to sustain the weight, as set forth.

Signed by me this 2d day of October, A. D. 1873.

GEORGE W. BROWN.

Witnesses:

GEORGE T. PINCKNEY,
CHAS. H. SMITH.