

L. S. CHICHESTER.
COAL HOISTING APPARATUS.

2 Sheets—Sheet 1.

No. 100,259.

Patented Mar. 1, 1870.

Fig. 2.

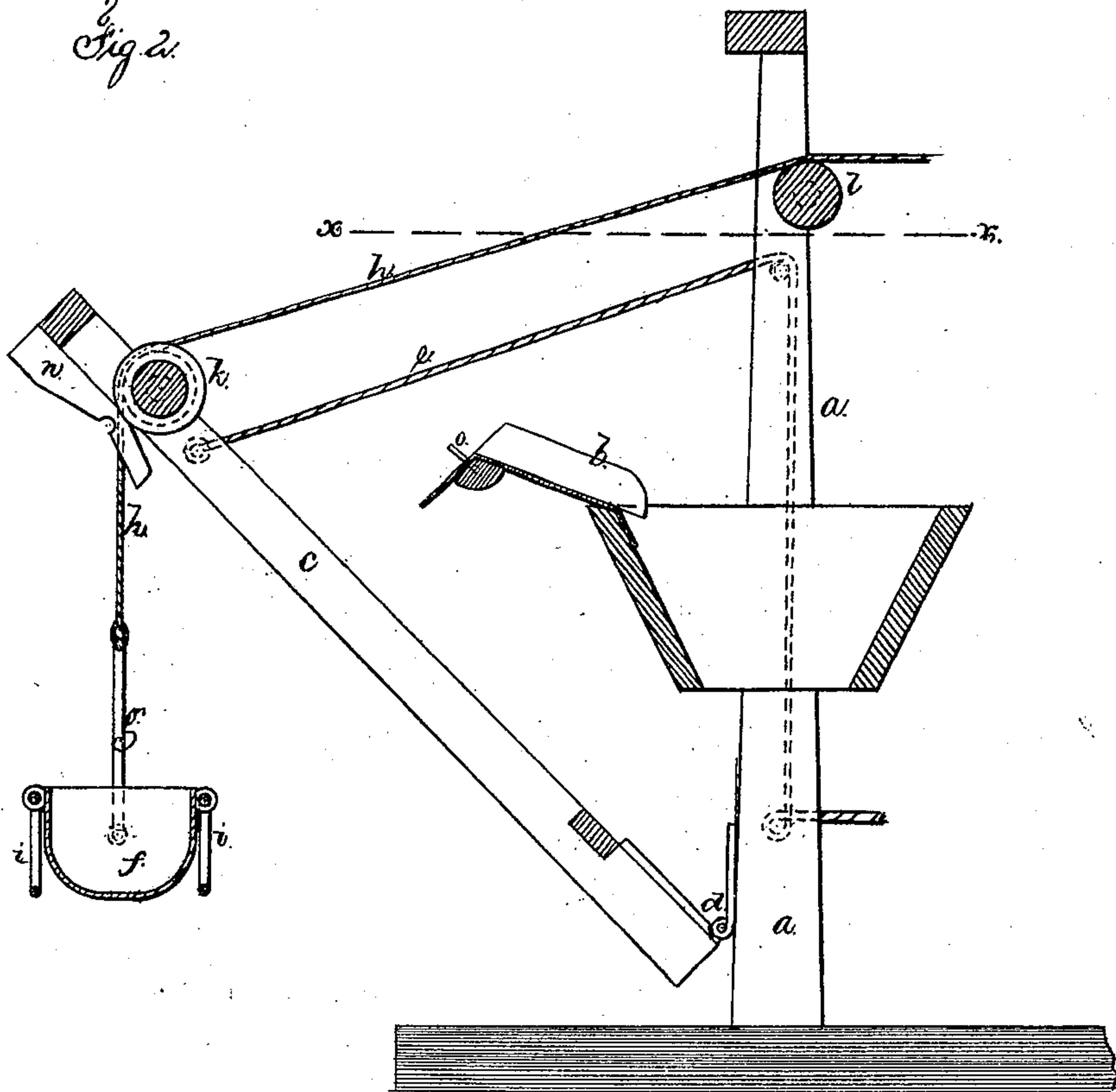
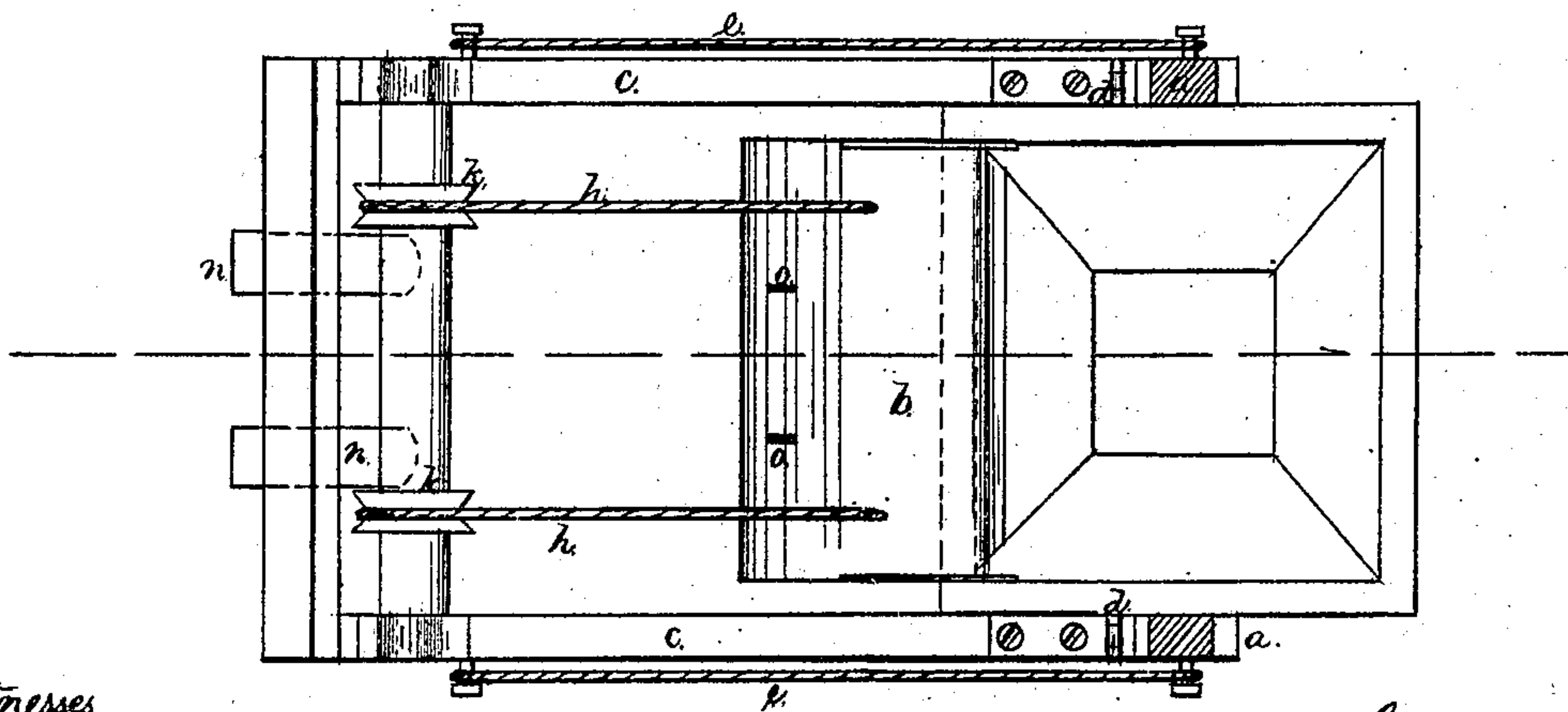


Fig. 1



Witnesses,

Geo. D. Warner
Geo. T. Pinckney

Louis S. Chichester

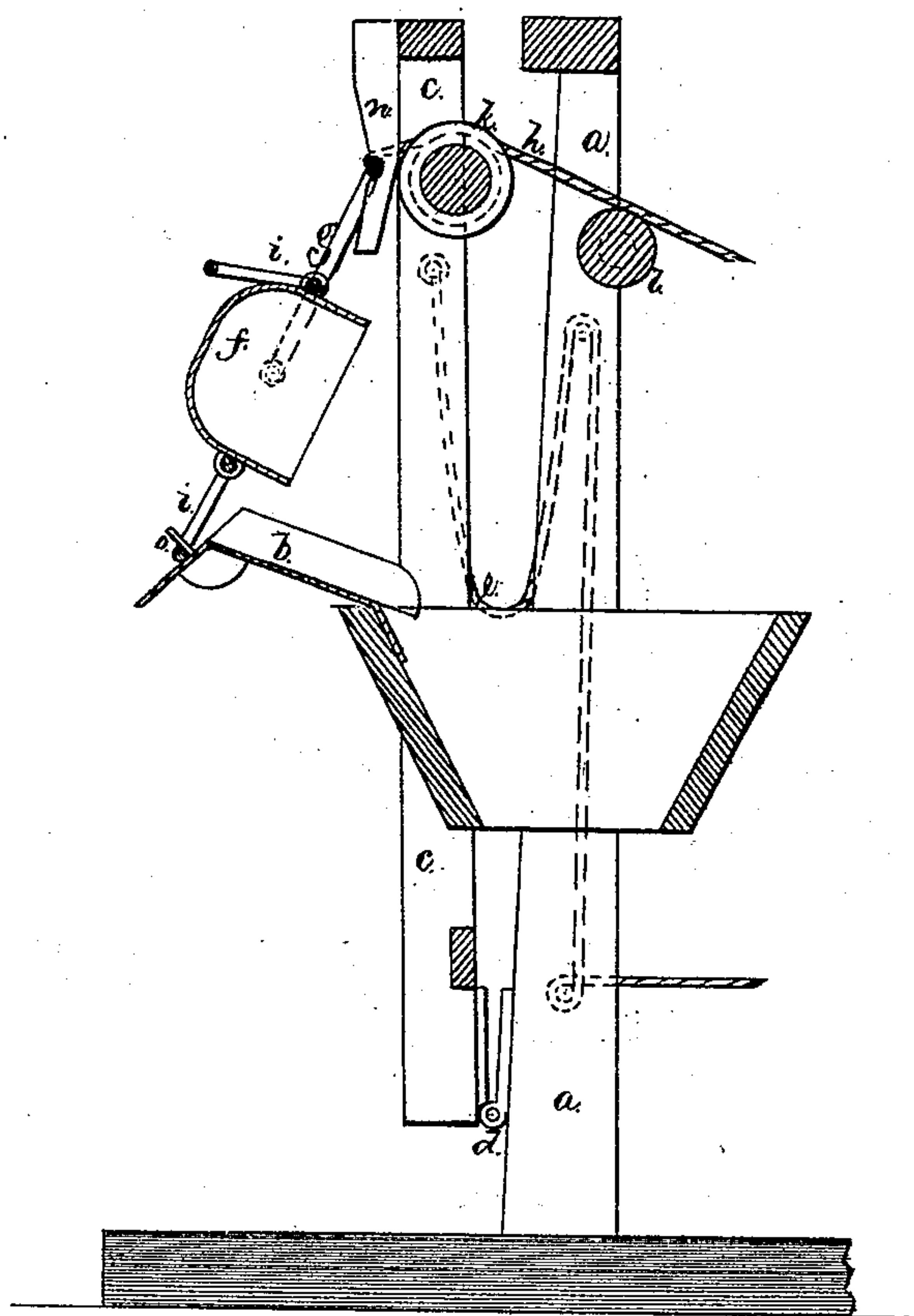
L. S. CHICHESTER.
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Fig. 3.



Witnesses,

Geo. W. Walker
Geo. T. Prickney

Lewis S. Chichester

United States Patent Office.

LEWIS S. CHICHESTER, OF BROOKLYN, NEW YORK.

Letters Patent No. 100,259, dated March 1, 1870; antedated February 19, 1870.

IMPROVEMENT IN COAL-HOISTING APPARATUS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LEWIS S. CHICHESTER, of Brooklyn, in the county of Kings, and State of New York, have invented and made a new and useful Improvement in Apparatus for Hoisting Coal, &c.; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawing making part of this specification, wherein—

Figure 1 is a plan of said hoisting apparatus below the line *xx*;

Figure 2 is a section of the same with the bucket in a position to be lowered or raised; and

Figure 3 shows the apparatus in the position assumed when the bucket is being emptied.

Similar marks of reference denote the same parts.

In hoisting coal and other materials in a bucket, it is frequently difficult to swing the bucket to the point required for dumping, and generally the bucket has to be turned over by hand.

My invention consists in an inclined frame with stops for the bucket, and hoisting pulleys, combined with a stationary frame and chute, in such a manner that after the bucket has been drawn up the inclined frame is swung in, and in the act of so doing the bucket is inverted to empty its contents. The reverse movement carries the bucket out and then allows it to be lowered into the hold of a vessel or other place, from which the coal or other materials are taken.

In the drawing *a* is a stationary frame carrying the chute *b*, and *c* is a swinging frame, hinged at *d* to the frame *a*, so that it can stand at any desired inclination, as in fig. 2, or said frame can be drawn up to the frame *a*, as in fig. 3.

The rope or chain *e* is employed between *a* and *c* to prevent the frame *c* swinging out too far, and to regulate the position where the bucket will descend, thus accommodating the position of the hold of the vessel or hatchway through which the bucket passes.

The bucket *f* is made with a bail, *g*, from the angles of which the ropes or chains *h* pass over the grooved rollers or sheaves *k k*, in the frame *c*, and

over the roller *l*, in the frame *a*, to any suitable power, such as an engine or a horse, the ropes or chains *h* being united so as to be drawn upon at the same speed.

The bucket *f* also has handles, *i i*, depending from its sides. These serve to tip the bucket, as hereafter stated, and also enable the attendants to move the bucket from place to place while introducing into said bucket the material to be elevated.

By the use of the two ropes or chains *h*, the bucket will be drawn bodily up, and the straight top part of the bail *g* comes up into and against the notches of the stops *n*, on the frame *c*, and the further movement causes the frame *c* and bucket to swing toward the frame *a*, in doing which the handle *i* comes into contact with hooks *o o*, placed at the side of the chute *b*, and causes the bucket to be tipped, as shown in fig. 3, and its contents emptied into the chute *b*.

The stops *n* support the bail *g* of the bucket sufficiently to cause its weight to aid in throwing the frame *c* out again, so that the bucket will descend in the proper position. If the stops *n* were not used, the bucket would descend into the chute instead of the frame *c*, and bucket swinging out when the rope or chain *h* is slackened.

This device is reliable, and renders it unnecessary to tip the buckets by hand.

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

The bucket *f*, provided with the handles *i*, in combination with the bail *g*, stops *n*, swinging frame *c*, and pulley *k*, the parts being arranged and operating substantially as set forth.

Also, the stops *n*, upon the swinging frame *c*, in combination with the hoisting rope or chain *h*, bail *g*, and bucket *f*, as and for the purposes specified.

In witness whereof I have hereunto set my signature this 2d day of August, A. D. 1869.

LEWIS S. CHICHESTER.

Witnesses:

GEO. D. WALKER,
GEO. T. PINCKNEY.