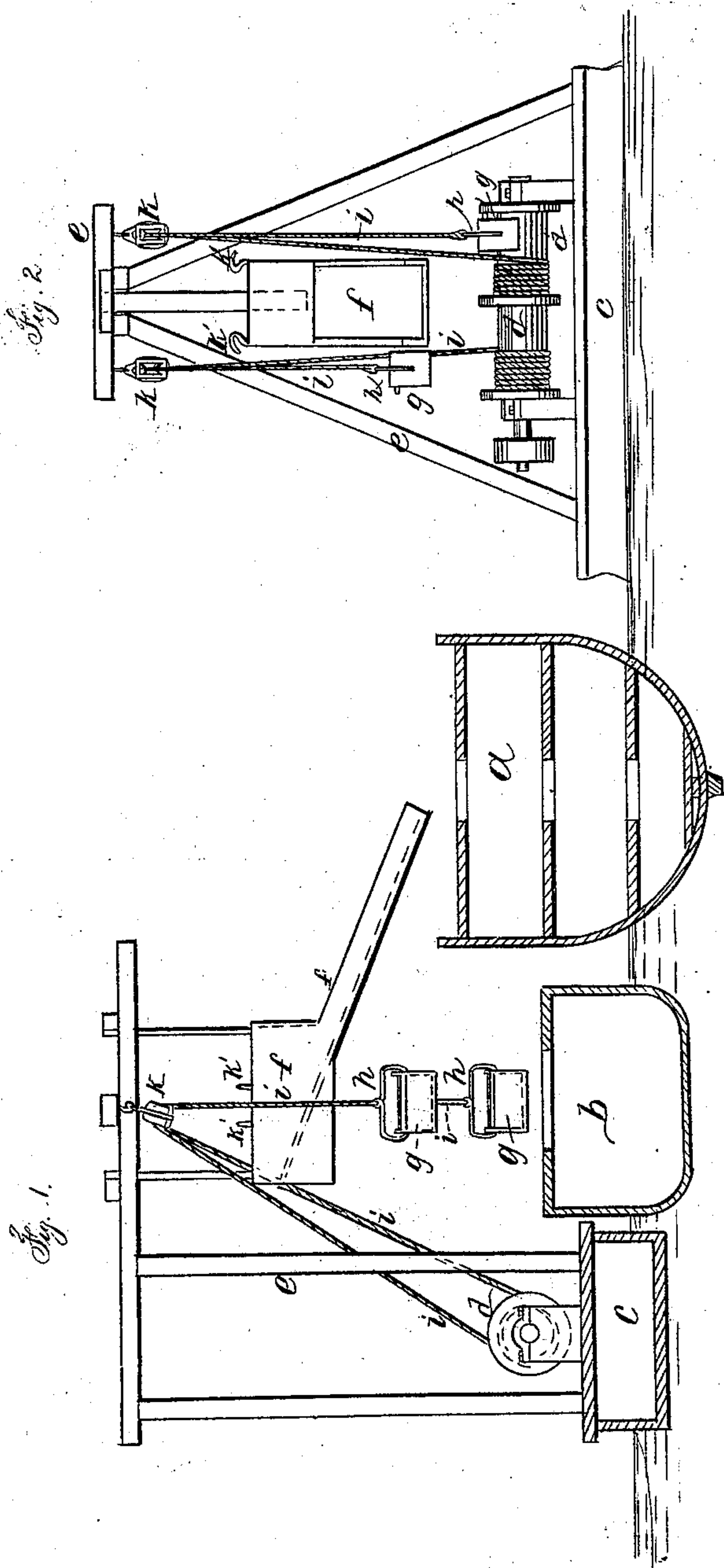


L. S. Chichester,
Coal Elevator.

No. 93676.

Patented Aug. 17. 1869.



Witnesses

Chas. Smith
Geo. Walker

Lewis S. Chichester

United States Patent Office.

LEWIS S. CHICHESTER, OF NEW YORK, N. Y.

Letters Patent No. 93,676, dated August 17, 1869.

IMPROVEMENT IN COAL-ELEVATORS.

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 the city and State of New York, have invented and made a certain new and useful Improvement in Elevators for 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 an elevation of my hoisting-apparatus, showing also the float for the hoister, the canal-boat or barge for the coal, and the vessel into which it is to be delivered in section, and

Figure 2 is an elevation of the hoisting-apparatus at right angles to fig. 1.

Similar marks of reference denote the same parts.

Heretofore difficulty has been experienced in coaling or loading vessels from barges or canal-boats. It has usually been done contiguous to a dock, upon which a horse might walk to hoist the bucket.

A large number of vessels receive their coal when lying at anchor in the harbor or river. This involves the necessity of rigging up, temporarily, a hoisting-apparatus, and using a large number of men or a horse on the vessel to be loaded.

A chain of buckets has been employed, as in the patent of June 27, 1865, reissued November 24, 1868, No. 3,206, to Nichols, Chichester, and Mills. This, however, was not as well adapted to elevating large lumps of coal as a single bucket, to be raised and lowered.

The nature of my present invention consists in combining with a float, a hoisting-apparatus, operating upon a bucket, to elevate the same, and draw up the coal or other material, and tip it into the chute that delivers the said coal into the vessel that is to receive it.

By this apparatus, the transfer of coal and similar material from canal-boats or barges to ships or vessels, can be effected with very great rapidity, as the elevator can be floated from place to place, and is always ready for use, and the canal-boats or barges can be moved out in succession, and others brought into place, so as to avoid the delay now usual in such cases.

In the drawing—

The section *a* illustrates the vessel to receive the coal or other material, and

b, the canal-boat or barge, from which said material is to be taken and transferred to *a*, and

c is a float, of suitable size, that should be fitted with a propeller, to move it from place to place, and an engine, for actuating the same and the hoisting-drums *d d*.

e is a frame-work, rising from the float *c*, and carrying, at a proper height or adjustably, the chute or spout *f*, to convey the coal into the vessel that is to receive it, and

g g are the swinging buckets, suspended by the bails *h* and ropes or chains *i*, that pass over blocks or pulleys *k* to the drums *d*.

These ropes *i* should pass upon the drums *d* in opposite directions, so that one bucket will be lowered as the other one is drawn up; and in order to tip the buckets in the act of hoisting, and cause the contents to run into the chute *f*, I make use of the hooks *l*, on the sides of the chute *f*, taking the edge of the bucket.

By this apparatus, the transfer of coal and other material by a reciprocating bucket or buckets is very greatly facilitated, because the hoisting-mechanism can be moved from place to place, and is independent of the vessel that receives the material and of the boat or barge that brings the same, and therefore the latter can be moved away to admit another boat, without disturbing the relative positions of the hoisting-mechanism, its float, and the vessel receiving the coal.

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

An apparatus for transferring coal, or similar material, from one vessel to another, the same consisting in the frame *e*, supported by the float *c*, and carrying the chute *f*, in combination with the swinging buckets *g*, suspended by the bail *h*, and operated by the rope or chain *i*, and drum *d*, substantially as set forth.

In witness whereof, I have hereunto set my signature, this 25th day of January, 1869.

Witnesses: LEWIS S. CHICHESTER.

CHAS. H. SMITH,

GEO. T. PINCKNEY.