

(No Model.)

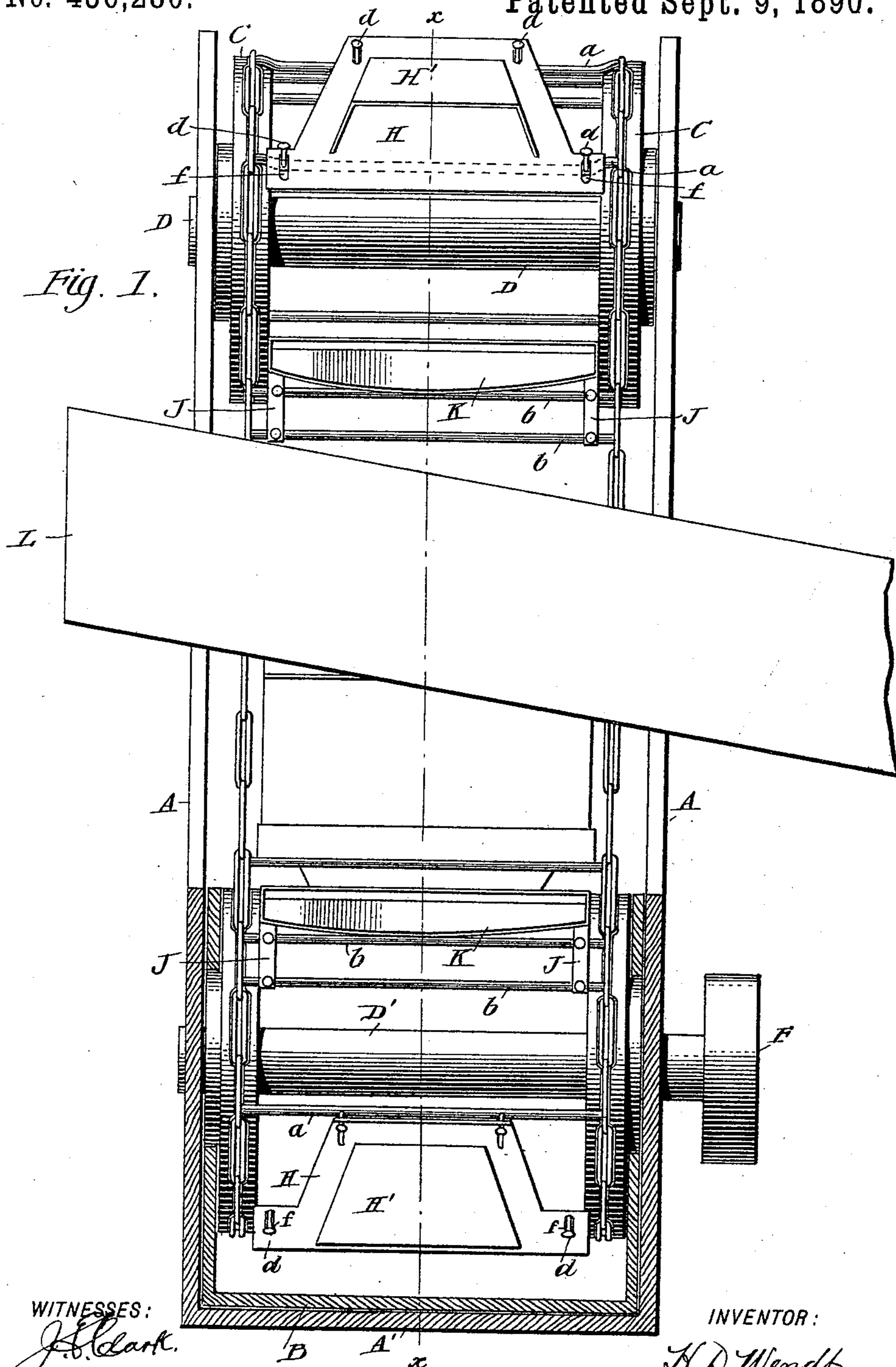
2 Sheets—Sheet 1.

H. D. WENDT.

ASH LIFTER.

No. 436,280.

Patented Sept. 9, 1890.



WITNESSES:

J. A. Clark.
C. Sedgwick

INVENTOR:

H. D. Wendt
Munn & Co.

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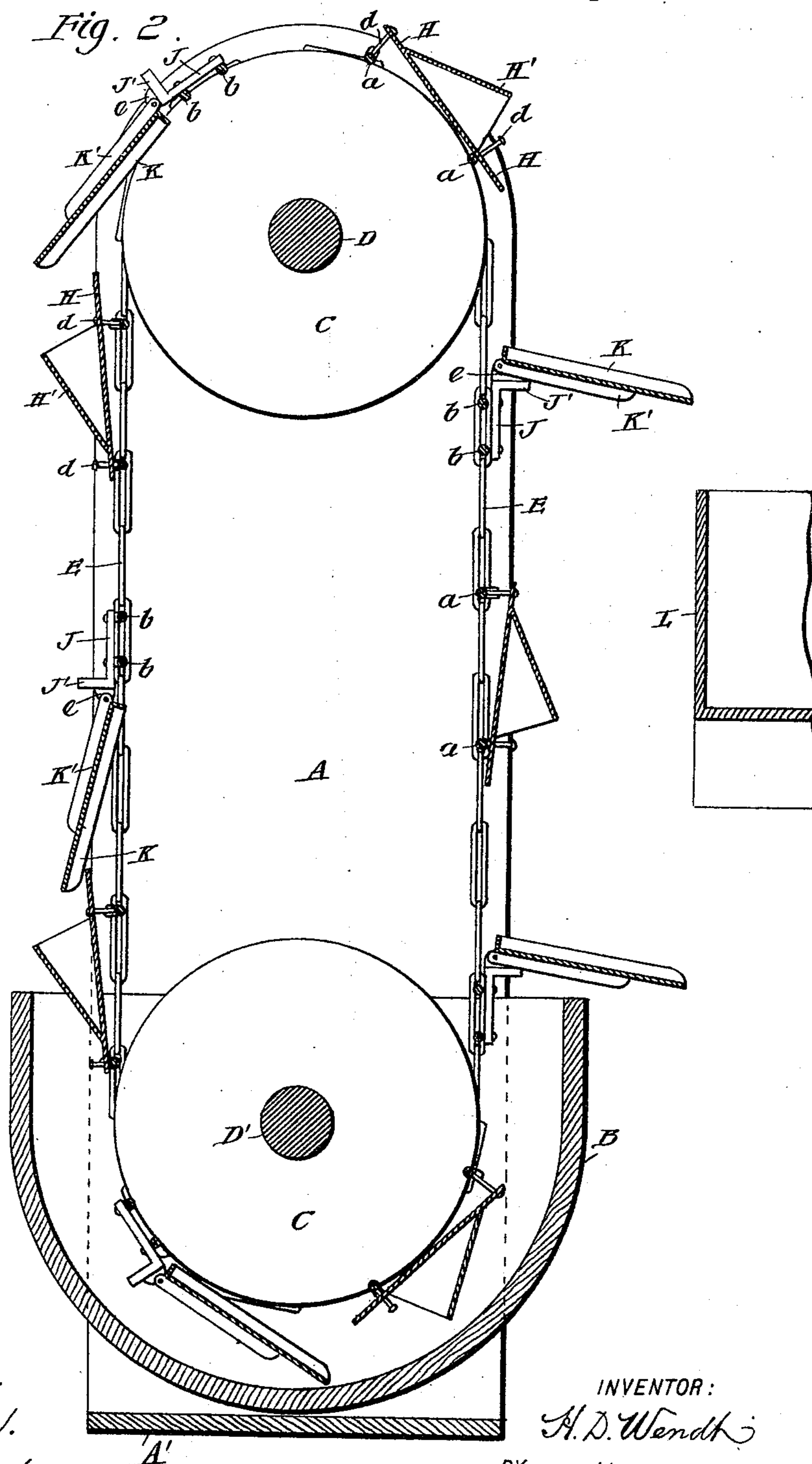
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UNITED STATES PATENT OFFICE.

HENRY D. WENDT, OF NEW YORK, N. Y.

ASH-LIFTER.

SPECIFICATION forming part of Letters Patent No. 436,280, dated September 9, 1890.

Application filed December 27, 1889. Serial No. 335,160. (No model.)

To all whom it may concern:

Be it known that I, HENRY D. WENDT, of New York city, in the county of New York and State of New York, have invented a new and Improved Ash-Lifter, of which the following is a full, clear, and exact description.

My invention is intended chiefly to lift ashes and other refuse from the holds of vessels, although it may be used for other purposes; and the object of my invention is to provide means by which ashes and other refuse may be rapidly lifted from the hold of a vessel and deposited in a suitable receptacle without scattering said refuse over the deck of the vessel.

To this end my invention consists in a vertical frame having a pair of sprocket-wheels arranged at top and bottom thereof, a boat having a rounded bottom at the lower part of said frame, and endless chains carrying lifting-buckets and self-adjusting spouts, which pass over said sprocket-wheels. This construction will be hereinafter fully described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a front elevation of the device, with a portion of the frame and boot broken away to better show the operative parts, and Fig. 2 a vertical section of the same on the line $x x$ of Fig. 1.

The frame of the device consists of the two vertical side pieces A and the flat base A', upon which they rest.

Between the two sides of the frame A and at the bottom part thereof is a semi-cylindrical boot, B, into which the material to be raised is shoveled, and through which the lifting-buckets pass and the diameter of which is such that the lifting-buckets will nearly touch its bottom and sides as they pass through it.

Between the sides A of the frame and near the top and bottom thereof are sprocket-wheels C, having their faces recessed to receive the chains E.

The upper set of wheels C are mounted upon the shaft D, which passes through the sides

of the frame A and has suitable bearings therein, and the lower wheels C are mounted upon the shaft D', which extends through the sides of the frame, and is provided with a pulley F, to which power is applied to run the machine.

The chains E pass over the sprocket-wheels C upon each side of the machine. The links of the chains fit into corresponding recesses in the sprocket-wheels, so that the chains will not slip thereon, and to the chains are attached the bars a , which extend from one chain to the other to support the bucket-plates H, and the bars b , which likewise extend from chain to chain and which support the spout-braces J.

The bucket-plates H, which form the inner side of the buckets H' are considerably longer than the buckets proper, so that the material in the buckets will not be spilled, and are attached to the bars a near the corners of the bucket-plates by the bolts d .

The bolts d should be long enough to allow the bucket-plates H to tilt as they pass over the wheels C, so that they will not be bent out of shape, and the bucket-plates H are provided with slots f , where they are attached to the bolts d , so that they may have a slight movement upon the bolts.

The buckets H', which are of the ordinary elevator-bucket form—wide at the top and tapering toward the bottom—may be attached to the plates H in any suitable manner or may be made integral with said plates.

The braces J, which are bolted to the bars b , consist of a flat strip having a projecting ear e , to which the supports K' of the spouts K are pivoted, and a laterally-extending arm J', upon which the supports K' of spouts K rest when in a horizontal or nearly horizontal position.

The supports K' are attached to the under faces of the spouts K upon each end thereof, and serve as stays therefor.

The buckets H' and spouts K are arranged alternately upon the chains E, so that as the buckets pass over the upper wheels C and are emptied there will be a spout below to receive the deposit and convey it to the chute L, which

is arranged in front of the elevator to receive the material and carry it to a receptacle at the side of the vessel.

To operate the device, it is placed in the
5 hold of the vessel and its upper end will project above the deck. Power is applied to the pulley F and shaft D', which sets the machine in motion, the buckets H' and spouts K traveling over the wheels C at top and bottom of
10 the machine. The material to be raised is shoveled into the boot B, and as the spouts and buckets descend into the boot the under side of a spout K will strike the edge of the boot B, and as the spout is pivotally attached
15 to the chain E, as described, it will be doubled up and pass through the boot in that shape and go up the side of the elevator depending from the brace J. As a bucket H' passes through the boot B, it will be filled with the
20 material therein and go up the side of the elevator full. When a spout K passes over the wheels C at the top of the elevator, it will drop into a nearly horizontal position upon the supporting-arm J', and as the bucket H next
25 the spout passes over said wheels the material in the bucket will be emptied upon the spout K, which is below it, and will slide from the spout into the chute L and be deposited in any desired receptacle.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the brace J, having arm J', of the supports K', pivoted to said brace, and the spout K, carried by the support, substantially as shown and described. 35

2. In an ash-lifter, the combination, with the chains E, adapted to pass over the sprocket-wheels C, of the buckets H', having plates H loosely attached to said chains, and the spouts K, having supports K', and having means, as
40 braces J, with ears e and arm J', for holding said spouts upon the chains, substantially as described.

3. In an ash-lifter, the combination, with
45 the frame A, boot B, sprocket-wheels C, and shafts D and D', of the chains E, adapted to pass over said sprocket-wheels, the buckets H', having plates H loosely attached to said chains, and the spouts K, having supports K',
50 and means, as braces J, with ears e and arm J', for supporting said spouts upon the chains, substantially as described.

HENRY D. WENDT.

Witnesses:

AHIRA B. KELLEY,
JOHN SCOTT.