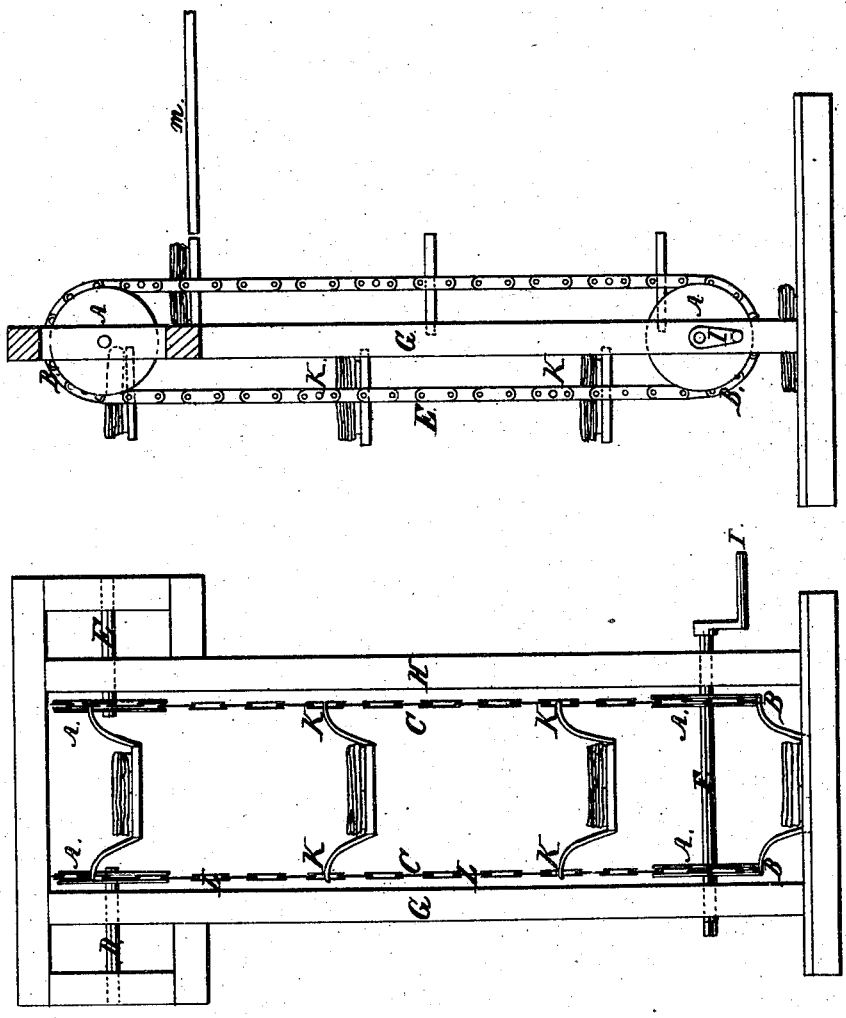
# W. C. Allison,

## Elevator.

No. 7,230. Patented Apr. 2, 1850.



# UNITED STATES PATENT OFFICE.

W. C. ALLISON, OF PHILADELPHIA, PENNSYLVANIA.

## MACHINE FOR HOISTING.

Specification of Letters Patent No. 7,230, dated April 2, 1850.

*To all whom it may concern:*

Be it known that I, WILLIAM C. ALLISON, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful machine for hoisting or taking up or elevating or for letting down or lowering ice, stone, brick, coal, corn, or any heavy material, liquid as well as solid, to, into, or from or out of any height or elevation, which I have designated by the name of "Allison's elevator;" and I do hereby declare that the following is a clear, full, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, viz:

Four wheels or pulleys A, A, A, A, of metal or of wood bound with metal of any convenient size, and two of them being of the same diameter precisely with suitable grooves or channels B, B, &c., in the periphery of each pulley and with points pins or cogs inserted securely in the hollow of each groove at proper distances apart to receive secure and hold in their places two endless chains C, C, with which they are made to revolve upon their respective axes D, E, F. One pair of said pulleys (and the smaller of the two if there be any difference in their diameters) to be secured each upon its own axis D, E, upon upright posts G, H, at any required height above and perpendicularly over the other pair or nearly so. Upon these pulleys the two separate and endless chains C, C, of equal lengths are made to run parallel with each other, each chain being secured upon the peripheries of an upper and a lower pulley by means of the grooves and points or cogs above mentioned. The two lower pulleys being secured upon the same axle F at any required distance asunder and the two upper ones upon separate and independent axles D, E, at the same distance asunder as the lower ones. The axle of the two lower pulleys to be provided at one or both ends with a crank I, or with the necessary gearing for the application of steam or horse or other power, sets of buckets, tubs, platforms or hooks or whatever else may be most suitable for containing, holding or receiving the material or weight to be hoisted or lowered are to be attached by arms or hooks K, K, &c., as shown in the drawing to the chains at equal distances at L, L, &c., so as to hang freely and swing between them, into which buckets or tubs the material or weight to be hoisted or lowered is deposited, power being then applied to the crank a rotary motion will be communicated to the lower pair of pulleys whereby the chains will be set in motion. Through these motion will be communicated to the upper pair of pulleys and the tubs or buckets made to pass up upon the one side of the machine and down upon the other and the material to be hoisted or let down being put into or upon the fixtures provided for the purpose may be hoisted or let down any height not exceeding that of the machine.

To the machine I attach upon either side of it a movable platform *m*, *m*, for holding and receiving the material to be hoisted or let down with a run or way of the necessary length. The one end of the upper one terminating at an easy inclination in the storehouse, vessel or in whatever the material is to be deposited, with an aperture or apertures at the end attached to the machine large enough for the chains, buckets, &c., to pass through freely with guides attached to prevent the buckets striking and to keep them steady.

For ice-houses, store-houses, mills and the like this machine may be permanently attached to or made a part of the building. For a portable machine of the kind there must be a frame work adapted to the purpose.

What I claim as my invention in the above described machine and desire to secure by Letters Patent is—

1. The separate and independent action, each upon its own axis, of the two upper pulleys whereby the buckets or weights are suffered to pass freely between them without let or hindrance.

2. And in combination therewith I claim also the swinging of the buckets or weights between the chains so that they shall always hang downward in whatever position the parts of the chains to which they are attached may be.

WILLIAM C. ALLISON.

Witnesses:

THOMAS CUMMINGS,
ANDREW MILLER.