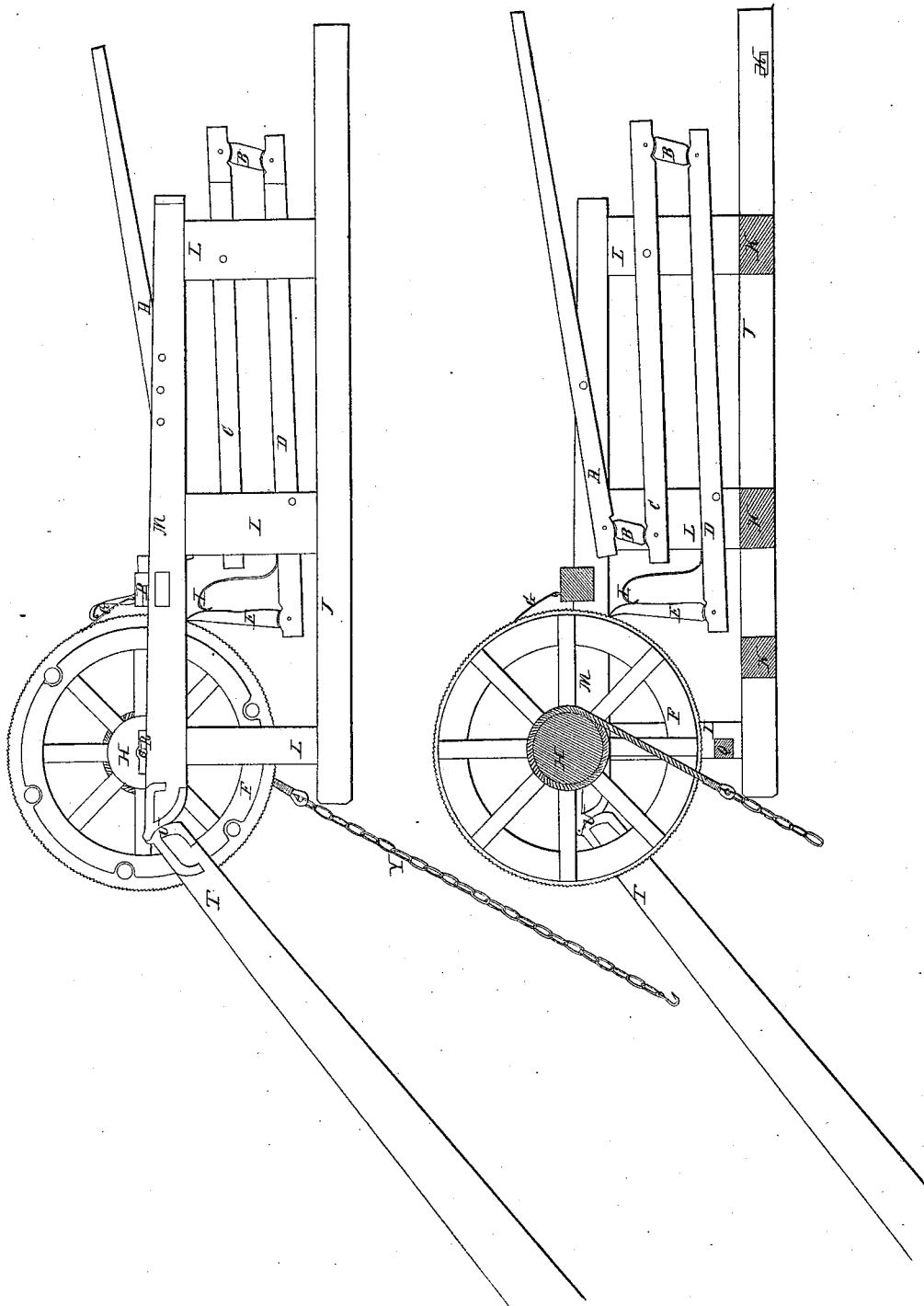


L. & C. Howard,
Stump Elevator,

Sheet 1-2, Sheets.

No. 1,791,

Patented Sept. 14, 1840.

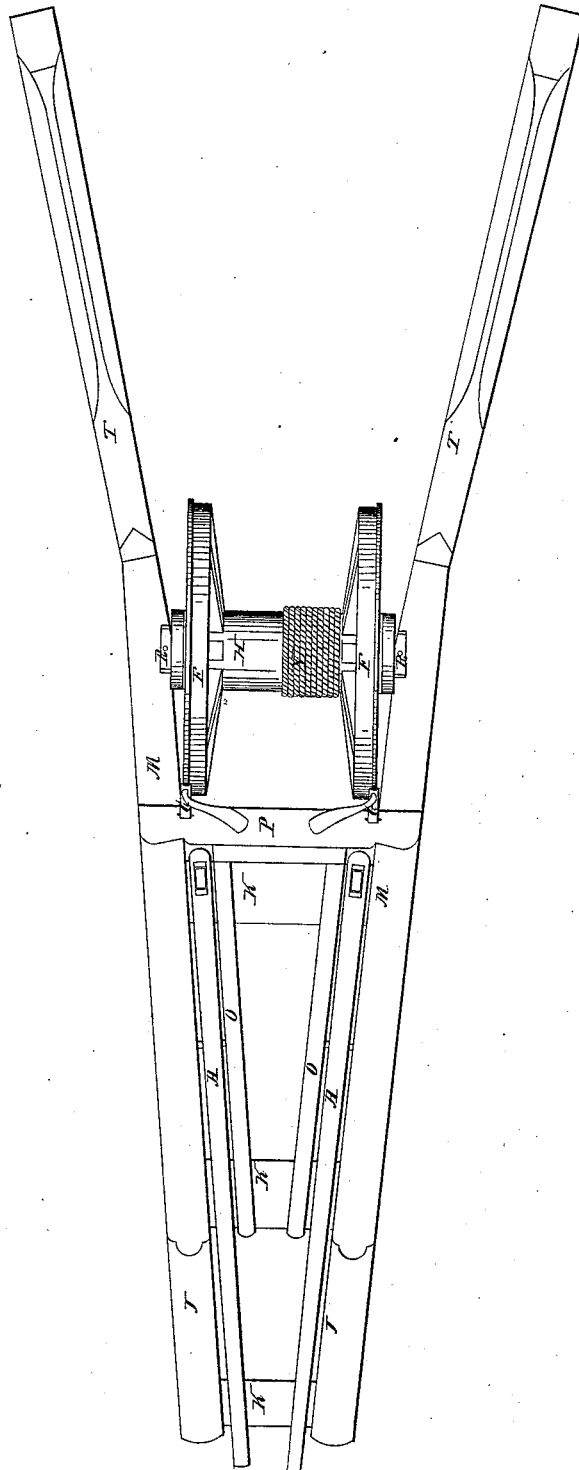


*L. & C. Howard,
Stump Elevator,*

Sheet 2-2 Sheets.

N^o 1,791,

Patented Sept. 14, 1840.



UNITED STATES PATENT OFFICE.

LEWIS HOWARD AND CHARLES HOWARD, OF READING, NEW YORK.

MACHINE FOR EXTRACTING STUMPS.

Specification of Letters Patent No. 1,791, dated September 14, 1840.

To all whom it may concern:

Be it known that we, LEWIS HOWARD and CHARLES HOWARD, of Reading, Steuben county, and State of New York, have invented a new and useful Machine for Extracting Stumps, Removing Buildings, or Hauling Vessels or Boats upon Dry-Docks; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing, making a part of this specification, to wit:

A, A, levers; B, pitmen; C, C, second set levers; D, D, third set levers; E, E, hands; F, F, wheels; G, dogs; H, horizontal shaft; I, I, springs; J, J, sills; K, K, K, K, short or cross sills; L, L, L, side posts; M, M, plates; P, beams or girts which connect the frame at the top; R, R, boxes for gudgeons; S, S, gudgeons; T, T, anchors; U, U, hinges to hang the anchors to the plates.

This machine may be composed and constructed in all or any part of materials of wood iron or pot metal.

The operation is as follows: The power to propel and set into operation this machine is to be applied to the end of levers A, A, which having an up and down or perpendicular motion and being connected by pitmen B, B, to the levers C, C, below and those also being connected by pitmen to levers D, D, produce the same perpendicular motion in all, each set of levers having their necessary purchase. The hands E, E, being fixed at the end of the third set of levers D, D, having the same perpendicular motion and act-

ing directly upon the ragirons firmly attached to the wheels F, F, produce a rotary motion of said wheels. The rope or chain being fastened to the shaft H, at one end and the other end of said rope or chain being fastened to the object to be removed or extracted, at every motion of said levers the said wheels are made to perform their rotary motion through the agency of the said hands and the rope or chain is wound up around said shaft to which the wheels are attached and thus perform the work of removing or extracting the object to which the rope or chain is attached and fastened. The dogs G, are also attached to the said ragirons of said wheels and their duty or work is to hold good and keep every rotary motion of the wheels received from said hands from inverting. The springs I, I, act directly upon the hands to keep them to their place on the ragirons. This machine may be propelled by human animal steam or water power.

What we claim as our invention and desire to secure by Letters Patent is—

The manner in which we have arranged the levers A, A, C C, D D, in connection with the frame of the machine. And their further combination with the hands E, E, wheels F F, anchor T T, and chain Y for extracting the stumps &c all as herein described.

LEWIS HOWARD.
CHARLES HOWARD.

Witnesses:

JOSEPH HOWARD,
WILLIAM DERIEN.