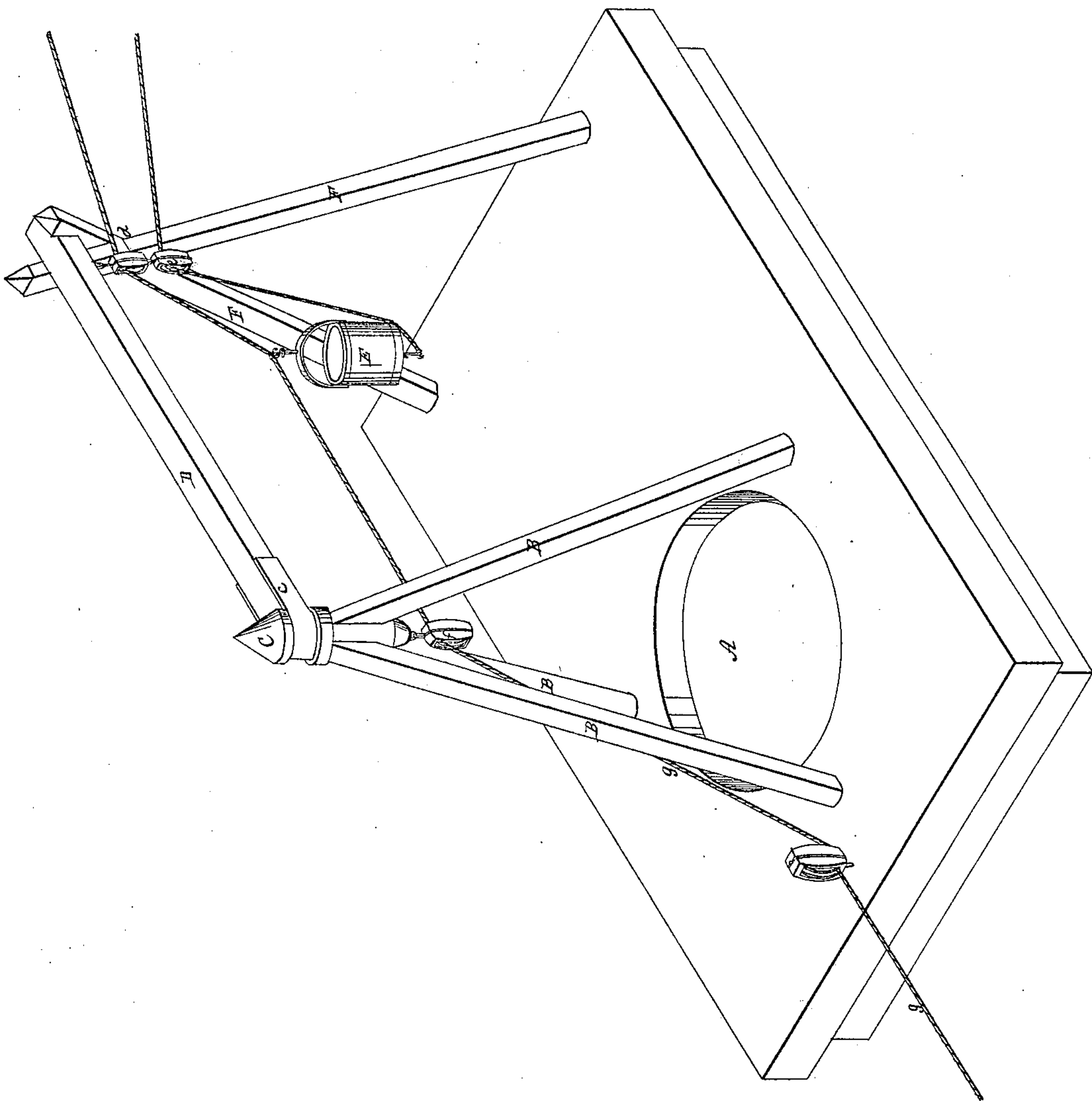


T. A. Granger,
Hay Elevator,
No 26,029, *Patented Nov. 8, 1859.*



Witnesses,
Edw. B. Brown
J. B. Woodruff

Inventor
Thomas A. Granger

UNITED STATES PATENT OFFICE.

T. A. GRANGER, OF WILSON COUNTY, NORTH CAROLINA.

MACHINE FOR HOISTING MARL, &c.

Specification of Letters Patent No. 26,029, dated November 8, 1859.

To all whom it may concern:

Be it known that I, THADDEUS A. GRANGER, of the county of Wilson and State of North Carolina, have invented new and useful Improvements in a Marl-Hoisting Apparatus; and the following is a clear and accurate description of the same, reference being had to the accompanying drawings, making a part of this specification.

10 The nature of my invention consists in the simplified construction and arrangement of the frame work, and the attachment of the pulley blocks, so that the marl can be conducted to any distance, and discharged at

15 any point either in carts or around the pit. To enable others skilled in the art to make my invention, I will proceed to describe its construction and operation.

20 Figure (1) as shown by the sunk place (A,) in the bed piece, is the pit in which the marl is to be hoisted from.

(B, B, B,) are three timbers of any required length to carry the marl to a sufficient height to discharge at a convenient distance from the side of the pit. On the top ends of the timbers (B, B, B,) are tenons which are fitted into corresponding mortises in the cap timber (C) which is made round and has a groove or indentation cut in it above the mortises to receive the timber (D,) which is secured to the cap (C,) by a band or clasp (e) and can be carried around on the swivel joint formed by the combination of the timber (D) and the beam (C) which serves as the support of the pulley blocks (d, and e,) to carry the bucket (E) to a suitable distance to be discharged.

40 F, F, are two timbers framed together and form a truss to support the end of the

timber (D,) and may be carried around with it. Under the cap timber (C) hangs the block (f,) over which the rope (g) passes, which elevates the bucket (E) by the action of a horse or any other power attached to the rope passing down under the pulley block (h). The rope (g) may extend beyond the bail of the bucket (E) and pass up over the pulley (d) which being controlled by the man out of the pit, the marl can be conveyed to any point within the limit of the apparatus and dumped into a cart, or on the surface of the ground around the pit to be removed at pleasure. To the bottom of the bucket (E) is attached a small ring (i) into which a hook (j) having a small rope or cord passing over the pulley (e) to overturn the bucket by the man out of the pit.

The great advantages of my apparatus for raising marl out of the pit which sometimes extends to the depth of thirty feet, is that it can be constructed and put up to operate at a very small expense, not more than one fifth the cost of any other and can be worked to any depth without change, and will raise twice the amount in a given time with one fourth less hands.

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

The construction of the cap timber (C) in combination with the supporting timber (D) which forms the swivel to allow the beam (D) to be moved to any point desired.

THADDEUS A. GRANGER.

Witnesses:

EDW. F. BROWN,
J. B. WOODRUFF.