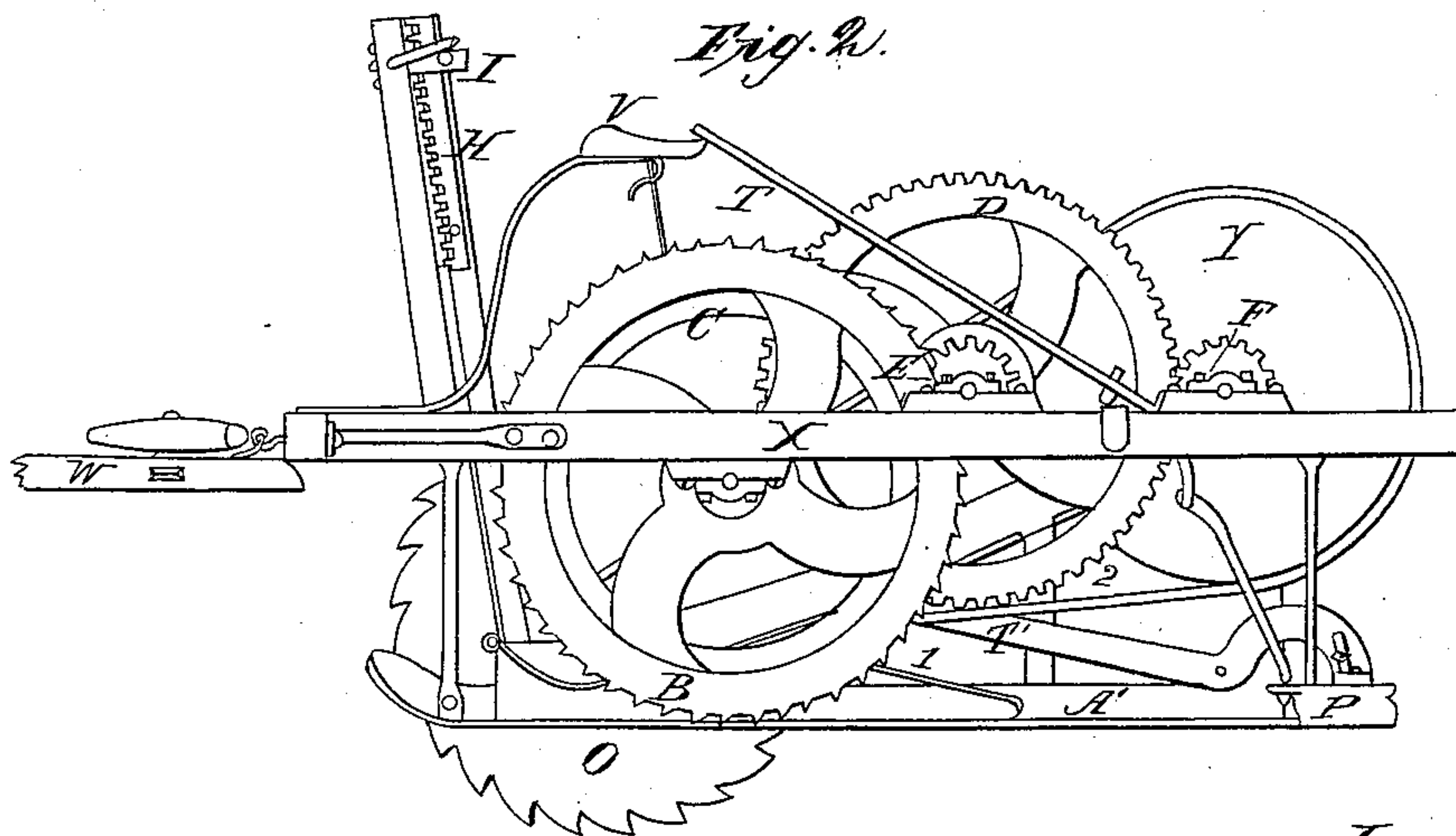
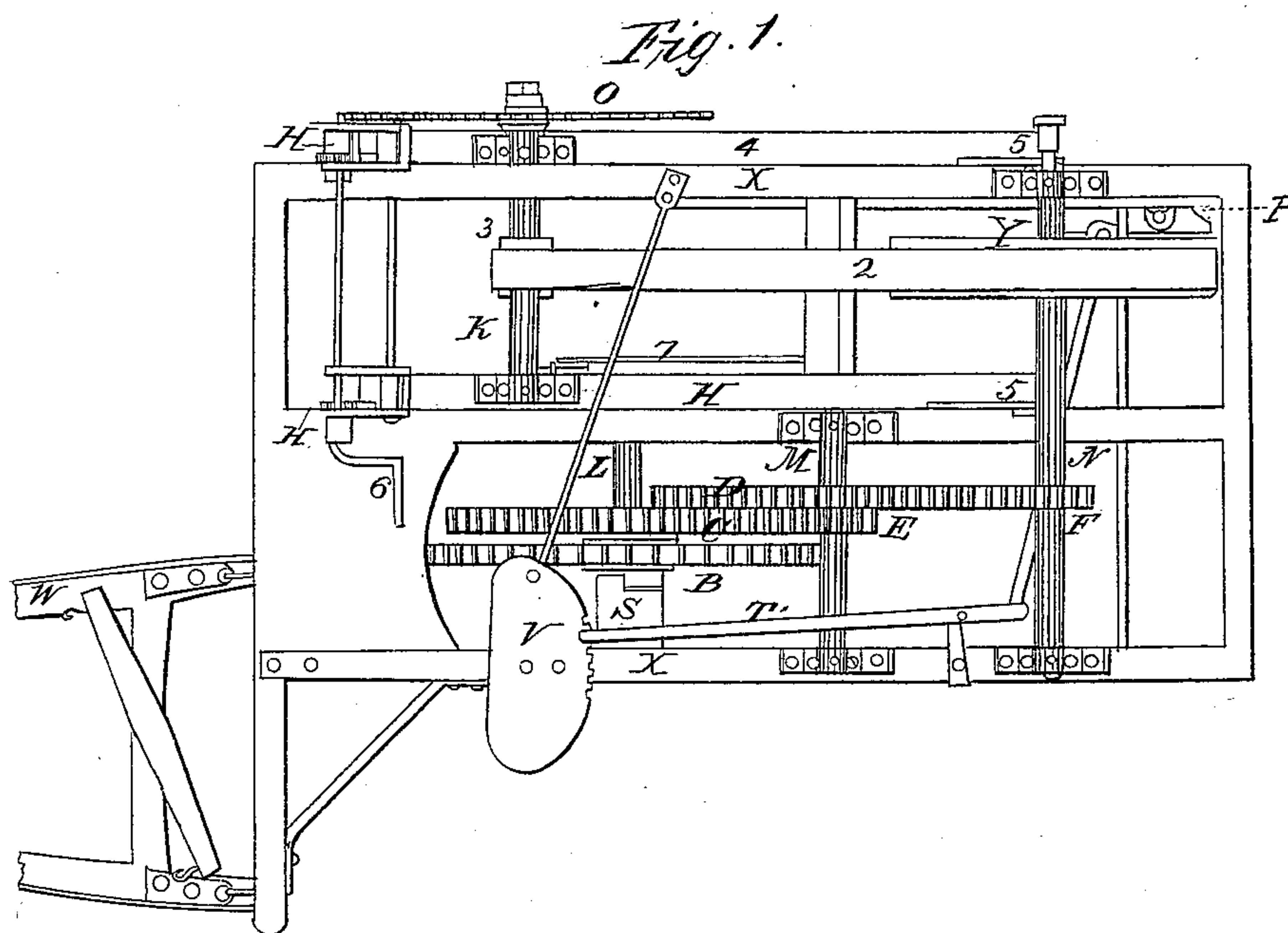


W. F. GORDON.
Ice-Cutting Machine.

No. 70,994.

Patented Nov. 19, 1867.



Witnesses:
Geo. R. Smith
J. H. Sweet

Inventor:
William F. Gordon
by his Attorney
Thos. S. Sprague

United States Patent Office.

WILLIAM F. GORDON, OF DETROIT, MICHIGAN.

Letters Patent No. 70,994, dated November 19, 1867.

IMPROVEMENT IN ICE-CUTTING MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM IT MAY CONCERN:

Be it known that I, WILLIAM F. GORDON, of Detroit, in the county of Wayne, in the State of Michigan, have invented a new and valuable Improvement in Ice-Cutting Machines; and I do declare that the following is an accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification.

Figure 1 is a top view of my invention.

Figure 2 is a side view of the same.

The same letters and figures refer to similar parts in each figure.

In building my machine I make a runner A, upon which I erect a proper frame X. By proper boxes or bearings I attach to the frame X a traction-wheel, B, working upon the shaft L, upon which is placed the gear-wheel C, which meshes into the pinion E upon the shaft M. Upon this shaft M is placed the gear-wheel D, which meshes into the pinion F upon the shaft N. Upon this shaft N is placed the driving-wheel Y, which, being connected by the belt 2 to the pulley 3 upon the shaft K, gives motion to the circular saw O. The shaft K is hung by suitable bearings to the frame 4 4, which is attached to the frame X at 5 5 by a hinge or other suitable device, so as to allow the saw to be raised or lowered at will by means of the ratchet H and crank 6. P is a skate-rudder, attached to the runner A and to the guide-lever T, which extends to the driver's seat V, to enable the driver to govern the direction of the machine. S is a slipping collar, with which to throw the machinery into operation when required. This collar can be governed by a suitable rod extending to a convenient point near the driver's seat. W are the shafts, with which the horse is attached to the machine. 7 is a rod, which marks the ice for the next cut. T is a lever for raising or lowering the skate-rudder P, and is managed by the driver, by means of the line t, which is attached to the lever T' at one end, while the other end is attached near the driver to his seat.

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

The combination and arrangement of the runner A, the traction-wheels B, the gear-wheels C D, pinions E F, the ratchets H H, the shafts K, L, M, N, the circular saw O, the skate-rudder P, the slipping collar S, the guide-lever T, the seat V, the shafts W, the frames X X and 4 4, the driving-wheel Y, belt 2, pulley 3, and the marking-rod 7, all arranged substantially as described and for the purpose designed.

WILLIAM F. GORDON.

Witnesses:

GEO. RUHLANDT,
H. N. SWEENEY