

J. T. MARTIN.
Apparatus for Cutting Ice.

No. 205,970.

Patented July 16, 1878.

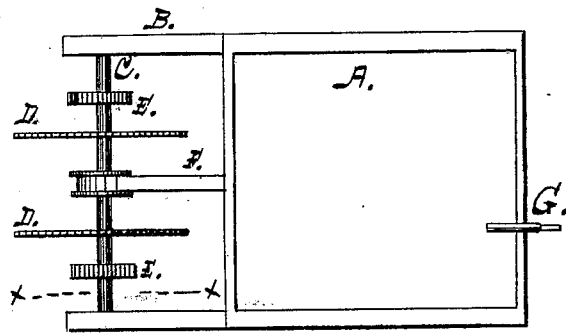


Fig. 1.

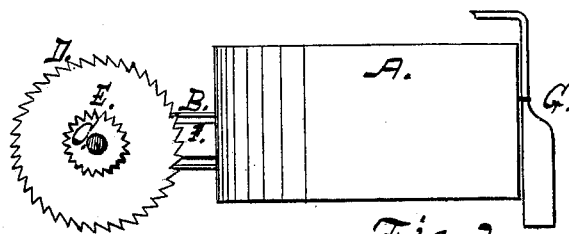


Fig. 2.

Witness
Joseph H. Cross
John H. Ross

Inventor
Joseph T. Martin
By Horace Harris Atty

UNITED STATES PATENT OFFICE.

JOSEPH T. MARTIN, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN APPARATUS FOR CUTTING ICE.

Specification forming part of Letters Patent No. **205,970**, dated July 16, 1878; application filed April 11, 1878.

To all whom it may concern:

Be it known that I, JOSEPH T. MARTIN, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Ice-Cutters, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a plan view, and Fig. 2 a longitudinal section on the line of *x*.

The object of my invention is to more rapidly cut ice in the ice-fields in preparation for harvesting the same, which I do by means of a boat, A, made to move on the surface of the ice; or, indeed, it may move in the water, but ordinarily the former.

The boat is propelled by an engine placed within it; and to the front of the boat is attached a frame, B, in which a shaft, C, is made to revolve, and on this shaft is hung one or more circular saws, D—perhaps usually two—for cutting the ice; and on the same shaft are hung two or more propeller-wheels, E, made with sharp teeth to catch in the ice, and in their revolution to set the boat forward and keep the ice-cutters up to their work.

The motion is communicated to the shaft C from the boat by the connecting-belt F; or the same may be done by a gear or crank.

At the rear end of the boat is a rudder, G, made to extend below the boat into the water, where it is drawn along, having the blade entering into the kerf made in the ice by the saw; and this rudder is used to steady and guide

the motion of the boat and the cutters. In this way one or more long strips of ice may be cut from the field at a rapid rate, to be readily marked up into blocks for storing, and very much of time and expense be saved in harvesting ice.

I do not claim, broadly, an ice-boat having engaging toothed wheels to catch into the ice. Neither do I claim a boat with saws hung to a frame in front of it, for these are not new, the latter having been used in an ice-breaking boat for removing ice obstructions. But an ice-cutter having the saws and propellers on one shaft and rudder, one or more fitted to operate in the saw-kerf, to prepare ice for harvesting, is believed to be new, and it adds an important machine for the gathering of ice. Therefore,

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

1. The cutters D and propellers E on the same shaft, working in the frame B, secured to the front of the boat A, by which propellers the boat is moved forward, substantially as and for the purpose specified.

2. The combination of cutters D and propellers E, on the same shaft, with the boat A and rudder G, substantially as and for the purpose set forth.

JOSEPH T. MARTIN.

Witnesses:

HORACE HARRIS,
ABEL HENNING.