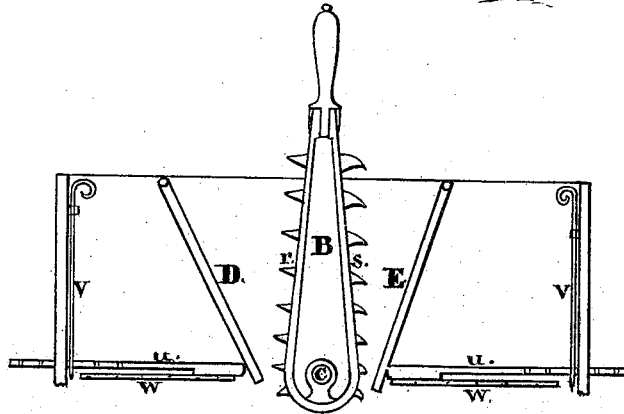
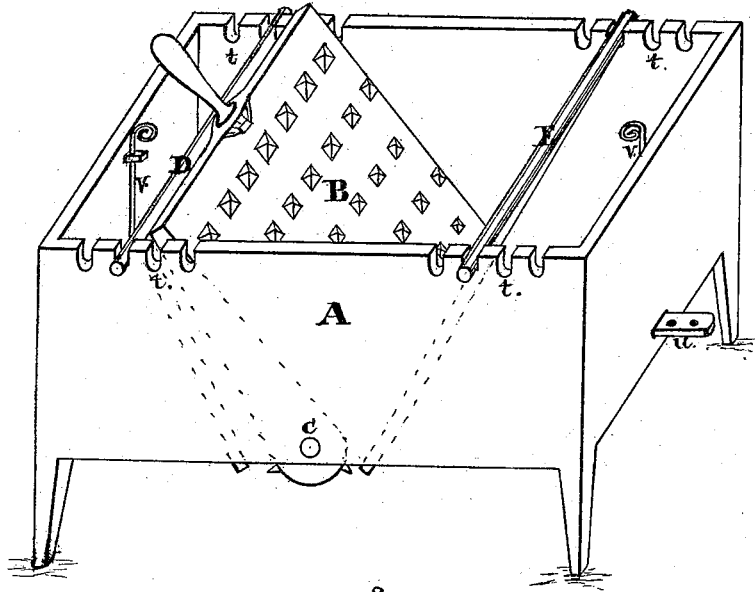


O. B. Kinsey,

Ice Crusher.

No. 111,652.

Patented Feb. 7, 1871.



W. M. Gooding
Edward Colver } *attest.*

Inventor:
Oliver B. Kinsey

United States Patent Office.

OLIVER B. KINSEY, OF NEWARK, NEW JERSEY.

Letters Patent No. 111,652, dated February 7, 1871; antedated January 28, 1871.

IMPROVEMENT IN ICE-CRUSHERS.

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

I, OLIVER B. KINSEY, of the city of Newark, in the county of Essex and State of New Jersey, have made certain Improvements in Ice-Crushers, of which the following is a specification.

The nature of my improvements consist in provision for a gradual and expeditious reduction of blocks of ice by means of combined oscillating and vibratory motion of a two-faced hand-plate, and easily adjustable bearing-plates.

The drawing shows a perspective and a sectional view of the apparatus.

A is a case or frame made of wood or metal, and of any desired capacity.

B is a two-faced oscillating vibratory hand-plate, with projections angular and pointed, as at *r*, or; if so chosen, hooked, as at *s*.

C is the gudgeon of the hand-plate in its bearing in the side of the case or frame.

D and E are bearing-plates, that may be either straight or curved.

These plates are adjustable to any chosen incline by means of the pins on the top ends of the plates, resting in recesses *t* in the upper edges of the case or frame A, and at the lower end resting upon the shifting slides *u* that are held by the pins *v* that impinge against the inside of the case or frame, the slides moving on the cleats *w* on the sides of the case.

Ice is put in on both sides of the hand-plate. Vibrating the plate presses the ice downward as it is crushed, and the oscillating bottom discharges freely all the ice sufficiently disintegrated.

I claim as my improvements—

The case A, oscillating vibratory plate B, and the adjustable plates D and E, constructed and arranged substantially as specified and shown.

OLIVER B. KINSEY.

Witnesses:

W. M. GOODING,
EDWARD COLLIER.