

(No Model.)

2 Sheets—Sheet 1.

S. T. JULL.
ICE SHAVING MACHINE.

No. 435,359.

Patented Aug. 26, 1890.

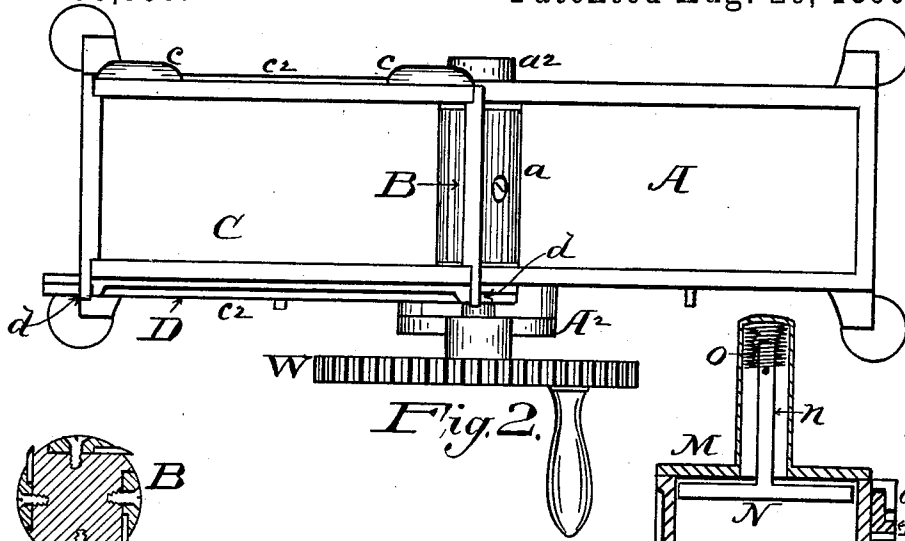


Fig.2.

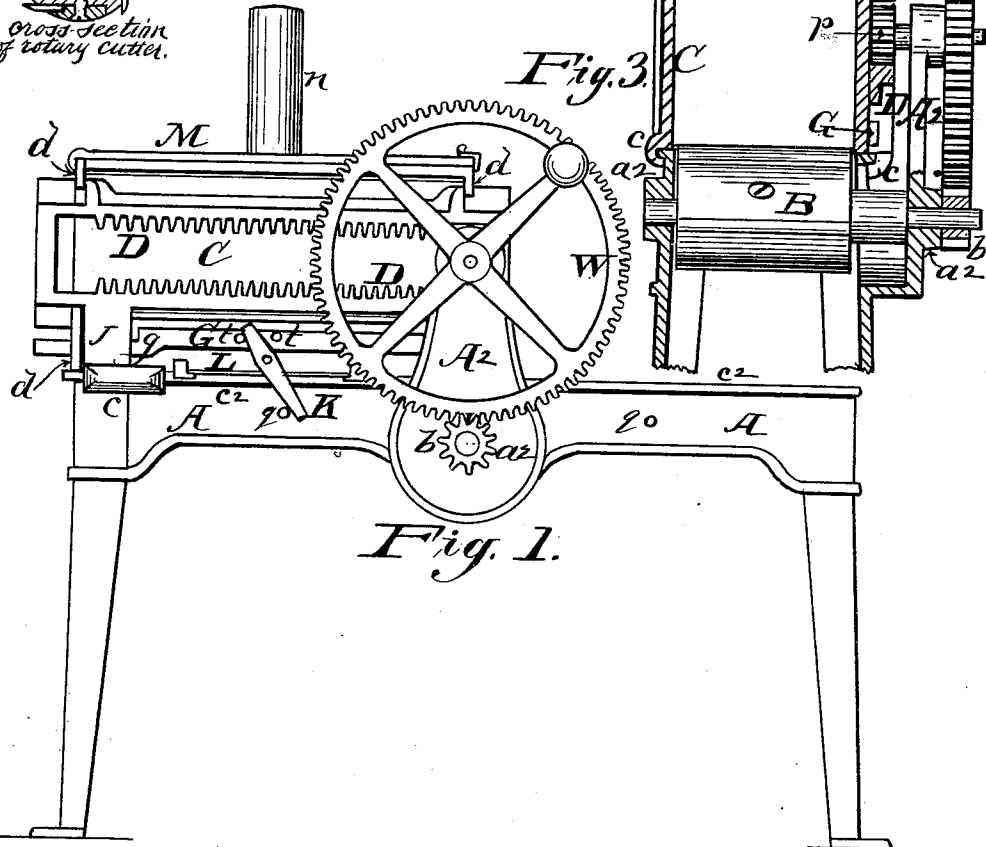


Fig. 1.

Witness,

Geo. B. Tibbitts
E. A. Tibbitts

Inventor,

Samuel T. Full,
by Attorney Geo. W. Tibbitts

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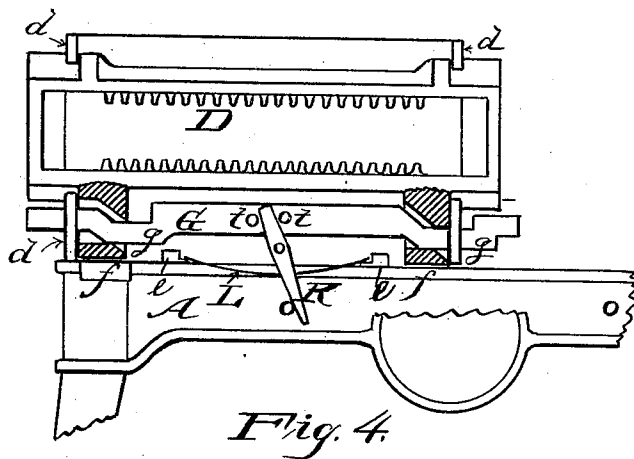


Fig. 4.

Witness,

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By Geo. W. Tibbitts Atty.

UNITED STATES PATENT OFFICE.

SAMUEL T. JULL, OF MEADVILLE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
TO FARNUM T. FISH, OF SAME PLACE.

ICE-SHAVING MACHINE.

SPECIFICATION forming part of Letters Patent No. 435,359, dated August 26, 1890.

Application filed December 26, 1889. Serial No. 334,959. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL T. JULL, a citizen of the United States, residing at Meadville, in the county of Crawford and State of Pennsylvania, have invented certain new and useful Improvements in Ice-Shaving Machines, of which the following is a specification.

This invention relates to machines for shaving ice; and it consists of the novel construction and combination of parts comprising the machine, as hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my new ice-shaving machine. Fig. 2 is a top or plan view of the same. Fig. 3 is a vertical section showing construction of ice-box and rotary cutter-head, together with portions of the mechanism for operating them. Fig. 4 is a detached view of a double rack-bar mechanism designed for use in propelling the ice-holding box back and forth.

A represents a table supported on suitable legs high enough to allow a suitable receptacle to stand under for catching the ice shavings. At one side of the table, at the middle part, is provided a standard A^2 for supporting the driving-wheel W. In the middle part of the table-top is made a wide cross slot or opening a , and in suitable bearings $a^2 a^2$ in the sides of the table is journaled a rotary cutting-roller B, revolving partly in the said slot a . On the end of the shaft of said cutting-roller B is fixed a pinion b , meshing with and driven by the said wheel W. Upon the table is provided a bottomless traversing ice-holding box C, which is one-half the length of the table. To the lower corners of the box are provided grooved lugs $c c$, which fit over side flanges c^2 on the side edges of the table A, and serve as guides to hold the box down in its traversing movements.

The mechanism for operating said traversing ice-box is constructed as follows: D is a double rack-bar or frame fitted to and held by grooved or hooked ears or lugs $d d$ on the side corners of the box C, in which the rack has a little vertical play, for the purpose of shifting the rack to alternately mesh with a pinion p on the short shaft of drive-wheel W,

whereby the revolutions of said wheel and pinion in one direction will impart a reciprocal movement to the ice-box. To the lower side of said rack-frame are provided depending arms $f f$, having diagonal or partially diagonal mortises through them, in which a sliding bar G is fitted to play, having offsets $g g$ working in the said diagonal mortises, by means of which the said rack-frame is raised and lowered. The ends of said sliding bar G are supported in mortises in the lower ears or lugs $d d$ on the lower corners of the box C, and in which said bar slides in the performance of its function.

K is a lever pivoted to the box C below the bar G, with its upper end resting between two pins $t t$ on the bar G, with its lower end extending down by the side of the table A.

L is a spring whose ends are supported on blocks or lugs $l l$ on the box C with its middle post under a shoulder on the inside of the lever. The purpose of this spring is to hold the lever when thrown over. Pins $q q$ are put in the sides of the table at each side of standard A^2 for the purpose of throwing the lever for changing the position of the rack-frame.

The box C is provided with a hinged cover M, having suitable latch. To the middle of the cover is attached a tube, in which the stem of a follower-plate N plays, and is connected with a spring O. The purpose of this is to press downward on the piece of ice in the box and hold it in contact with the cutters. By this mechanism the revolutions of the driving-wheel rapidly impart a reciprocating movement to the ice-holding box while revolving the cutter-roller with greater rapidity and thereby shaving the ice with ease and facility.

Having described my invention, I claim as follows:

1. A machine for shaving ice, comprising a table, a rotary cutter mounted in bearings in sides of said table and rotating in a slot in the middle of the table-top, a driving-gear wheel supported on a standard at side of the table and connected with a pinion on the cutter-shaft, and a reciprocally-traversing ice-holding box on said table over the rotary cutter, substantially as shown and described.

2. The combination, substantially as set

forth, of the pinion *p* on the driving-shaft of
wheel *W*, the double rack-frame *D*, adjustably
held on the box *C* by the hooked lugs *dd*, and
having the arms *ff* provided with diagonal
5 mortises, the sliding bar *G*, having offsets *gg*,
playing in said diagonal mortises and its ends
supported in mortises in the lower lugs *dd*,
a shifting-lever *K*, pivoted to the box, and the
spring *L*, held by lugs *ll* and bearing against
10 a shoulder on said lever, the lower end of said
lever *K* striking against pins *qq* in the move-
ments of the box, thereby moving bar *G* lon-

gitudinally, and thus moving the rack-frame
up and down for alternately changing its con-
nection with the driving-pinion, whereby the 15
ice-box is given a reciprocatory movement
transmitted from a rotary movement of the
driving-wheel, as and for the purpose speci-
fied.

SAMUEL T. JULL.

Witnesses:

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