2 Sheets—Sheet 1.

E. J. CREASEY.

Ice-Breaker.

No. 209,463. Patented Oct. 29, 1878.

FIG. 1

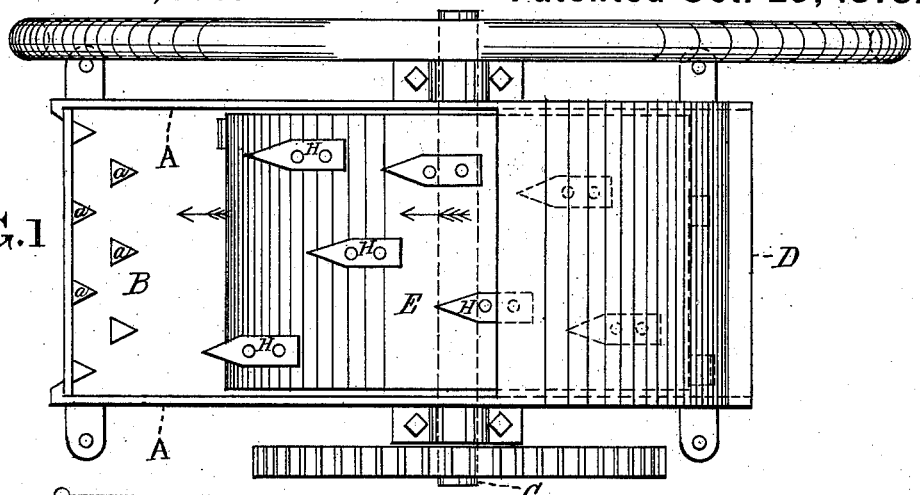
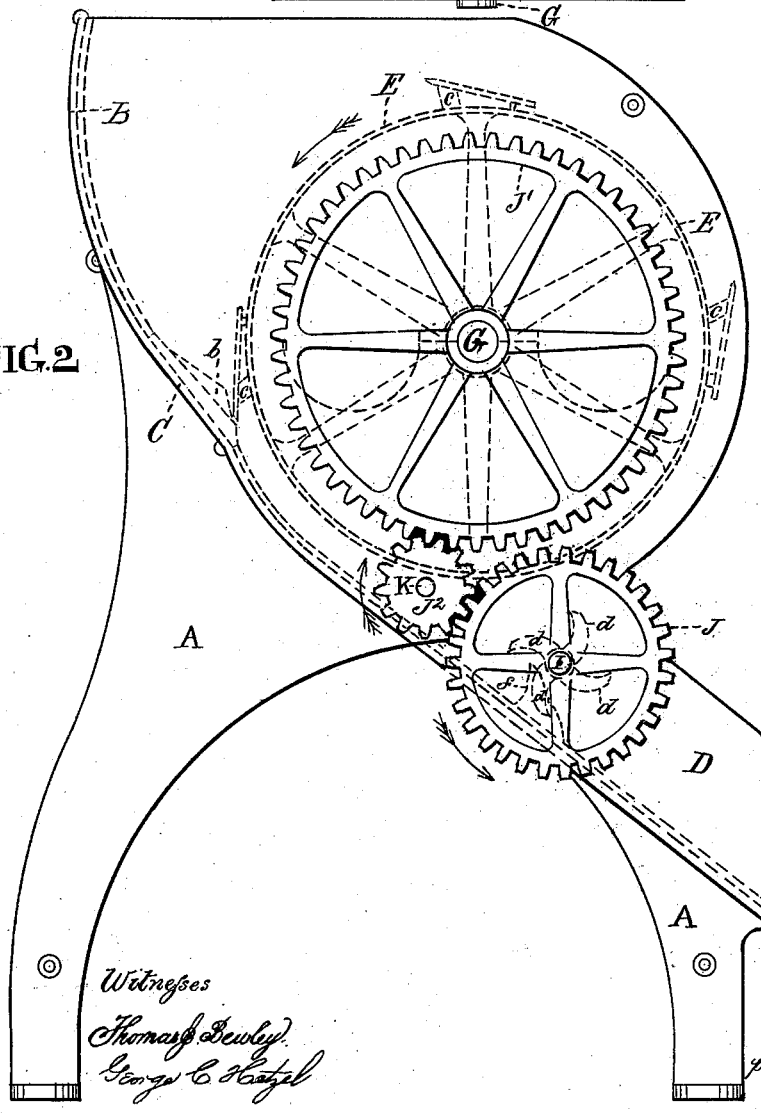


FIG. 2



Witnesses
Thomas J. Dewley.
George C. Hatzel

Inventor.
Edward J. Creasey
per Stephen Ustick Attorney

2 Sheets—Sheet 2.

E. J. CREASEY.

Ice-Breaker.

No. 209,463. Patented Oct. 29, 1878.

FIG. 3

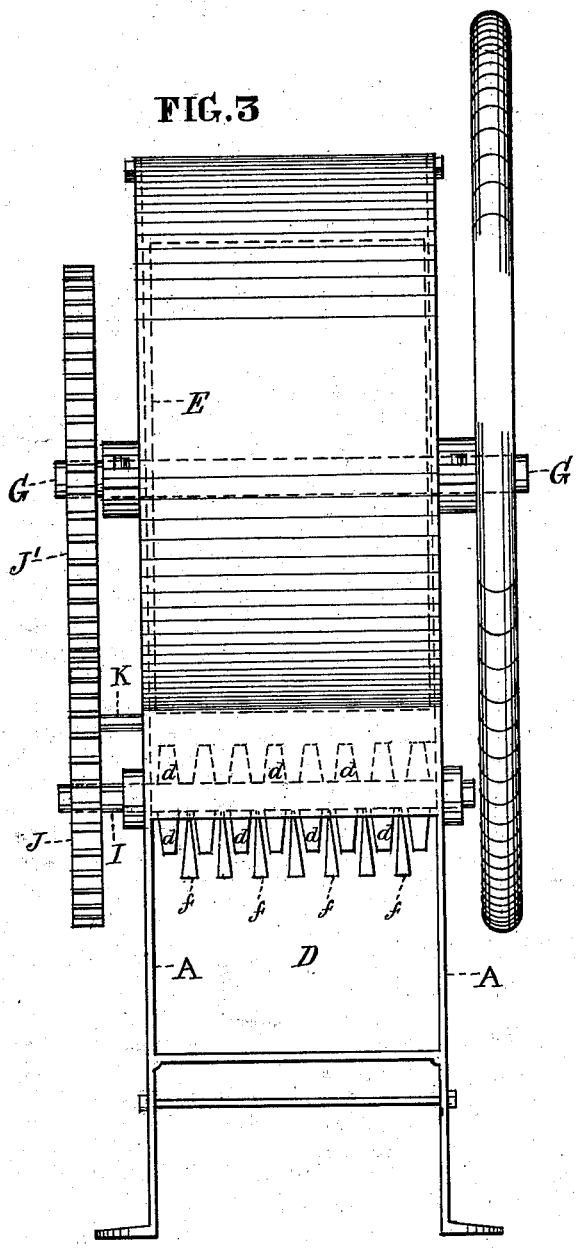


FIG. 4

FIG. 5

Witnesses.

Thomas J. Bewley.

George C. Hazel

Inventor.

Edward J. Creasey.

per Stephen Ustick Attorney.

UNITED STATES PATENT OFFICE.

EDWARD J. CREASEY, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN ICE-BREAKERS.

Specification forming part of Letters Patent No. **209,463**, dated October 29, 1878; application filed August 20, 1878.

To all whom it may concern:

Be it known that I, EDWARD J. CREASEY, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Rotary Ice-Pick, of which the following is a specification:

The object of my invention is the construction of a simple, cheap, and efficient machine for reducing ice to any desirable degree of fineness for freezing ice-cream, packing fish, and for other purposes; and the invention consists of a revolving cylinder provided with detachable cutters, which are seated on inclined blocks arranged on the periphery of the cylinder and confined by means of rivets or screws, as hereinafter described.

In the accompanying drawings, Figure 1 is a plan view of my machine. Fig. 2 is a side elevation of the same. Fig. 3 is an end elevation. Fig. 4 is a perspective view of one of the cast-iron blocks. Fig. 5 is a like view of one of the ribbed cutters.

Like letters of reference in all the figures indicate the same parts.

A A are the housings of the machine. B is the concave end of the hopper which receives the ice to be cut, having diamond-pointed ribs *a* cast on its upper and inner surface. C is a similar plate, which is provided with sharp-ribbed cutters *b* at a point near where the ice leaves the plate B. D is a chute to convey the ice from the machine. E is a revolving cylinder on the shaft G, which is provided with steel cutters H, that are seated on the cast-iron blocks *c*, the cutters and blocks being riveted together on the cylinder or held in place by means of screws or otherwise. The blocks, in addition to holding the cutters, assist in breaking the ice. One of the blocks is shown detached in Fig. 4, and one of the ribbed cutters in Fig. 5.

I is a shaft provided with cutters or breakers *d*, which pass between the cutters *f* on the chute D to reduce the ice to the proper size, and assist its passage down the chute.

The shaft I has a geared connection with the shaft G of the cylinder by means of the gear-wheels J and J^1 on said shafts and the idler-wheel J^2 on the stud-shaft K.

The operation is as follows: The ice is fed into the space between the cylinder E and the concave end B of the hopper, and as the cylinder is revolved in the direction of the arrows it is drawn downward and cut into small pieces and falls down the chute until it comes in contact with the cutters or breakers *f*, and is forced through or between them by the cutters or breakers *d* of the shaft to the end of the chute.

The machine is driven by either hand or motive power.

I claim as my invention—

The revolving cylinder E, having inclined blocks *c* arranged at suitable distances apart on its periphery, and detachable cutters H, seated thereon, and confined to the cylinder and to the intermediate blocks by means of screws or rivets, substantially in the manner and for the purpose set forth.

EDWD. J. CREASEY.

Witnesses:

THOMAS J. BEWLEY,

STEPHEN USTICK.