J. WIRKUS.

ICE CUTTER.

APPLICATION FILED NOV. 17, 1911.

1,018,597.

Patented Feb. 27, 1912.

2 SHEETS—SHEET 1.

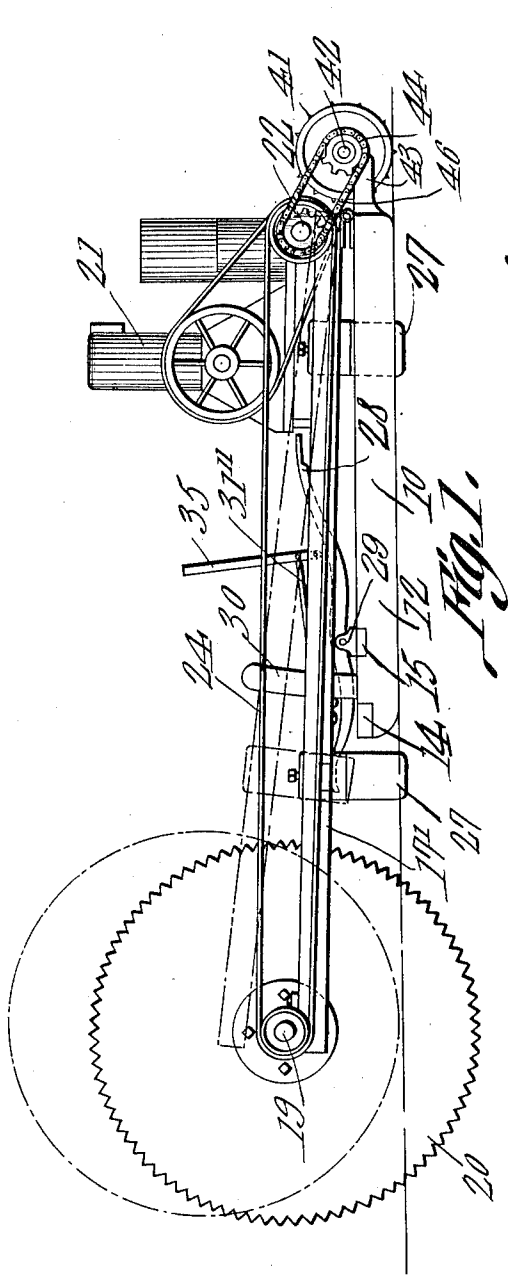

Fig. 1.

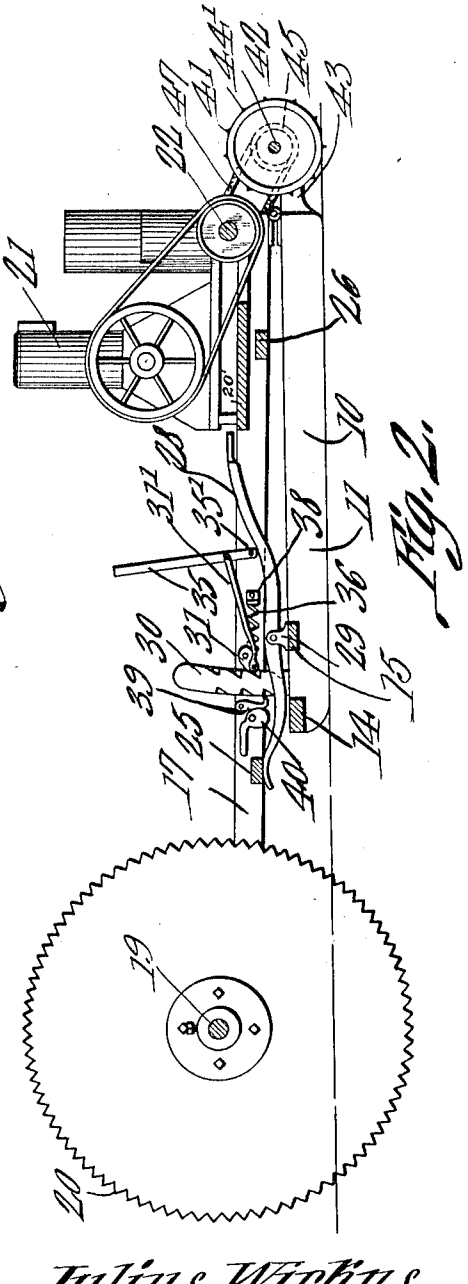

Fig. 2.

Witnesses

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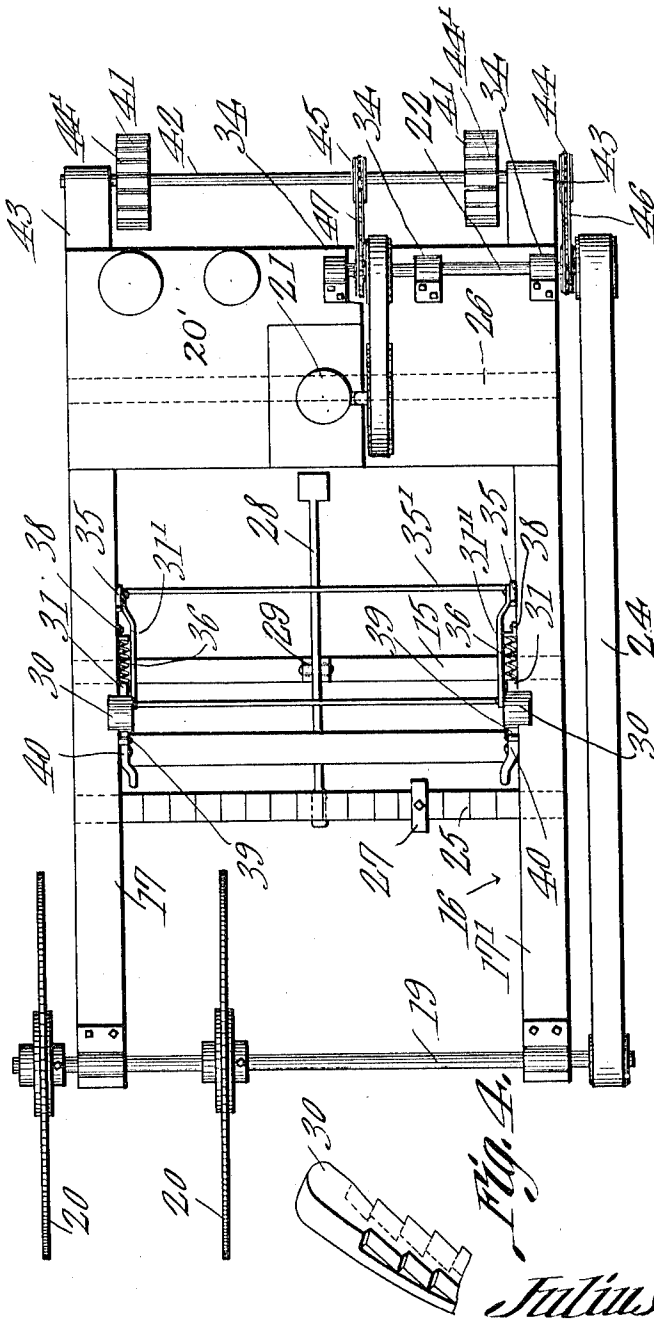

Fig. 3.

Fig. 4.

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UNITED STATES PATENT OFFICE.

JULIUS WIRKUS, OF MINTO, NORTH DAKOTA.

ICE-CUTTER.

1,018,597. Specification of Letters Patent. Patented Feb. 27, 1912.

Application filed November 17, 1911. Serial No. 660,857.

To all whom it may concern:

Be it known that I, JULIUS WIRKUS, a citizen of the United States, residing at Minto, in the county of Walsh and State of North Dakota, have invented a new and useful Ice-Cutter, of which the following is a specification.

This invention relates to an improvement in ice cutters.

The primary object of the invention is to provide a device of this character in which the cutters may be readily adjusted.

In the drawings:—Figure 1 is a side elevation. Fig. 2 is a longitudinal sectional view. Fig. 3 is a top plan view. Fig. 4 is a detail of the rack bar.

In the drawings 10 designates a support which consists of the runners 11 and 12 which carry the transverse bars 14 and 15. To one end of this support is hingedly connected a frame 16 composed of the longitudinal bars 17 and 17′, a shaft 19 being supported by the longitudinal beams adjacent their ends. On the shaft is mounted two or more rotary cutters 20, one of said cutters being arranged upon the portion of the shaft 19 which extends beyond the longitudinal member 17. A platform 20′ is positioned upon the frame and said platform is adapted to support a motor 21 which may be of any suitable construction. The motor 21 drives a shaft 22 which is supported by the bearings 34, a belt 24 transmitting power from said shaft to the shaft 19. The longitudinal bars 17 and 17′ are connected by the gage bars 25 and 26 which support the markers 27, said markers being adjustable on said bars. It will be noted by this construction, that as the machine travels forward, the markers will not only mark the ice, but will prevent the machine from skidding, the tendency of said markers being to maintain the support in a straight path.

The frame is adjustable vertically to regulate the depth of the cut, the raising of the frame being accomplished by the lever 28, which is pivotally supported by the bracket 29 carried by the transversely disposed bar 15. This lever, when forced downwardly contacts with the gage bar 25 forcing the frame upwardly. In order to hold the frame in its adjusted position, the rack bars 30 are secured to the support 10, these bars being engaged by the dogs 31, carried by the frame. These dogs may be brought out of contact with the rack bars by links 31′ and 31″ which are connected to levers 35 supported on the shaft 35′. The bars 30 are curved both of their edges being formed with a rack, the dogs 31 being held in contact with the bars by coiled spring 36, said spring being supported by brackets 38. The racks which are formed on the other edges of the bars 30 are engaged by pawls 39 which are held against movement by cams 40, thus preventing the frame from swinging upward as the cutters are rotated in the other direction.

The many advantages of a machine of this character will be clearly apparent as it will be noted that the cutters may be adjusted in a simple and convenient manner, attention is also called to the fact that the marker 27 serves to prevent the device from skidding as well as to mark the ice for the next cut.

The machine is propelled by the wheels 41 which are mounted on the shaft 42. This shaft is supported by the brackets 43 which are secured to or formed integral with the frame 10, the shaft being provided with sprockets 44 and 45, over which the sprocket chains 46 and 47 pass, said chains being driven by the drive shaft 22. The wheels 42 are formed with teeth 44′ which when the shaft is rotated impart movement to the machine. While this driving mechanism is shown it will be noted that the machine may either be self-propelled or drawn forward in which latter instance the forward extension of the frame would be provided with suitable double-trees for the attachment of the draft animals.

What is claimed is:—

1. In an ice cutter, a support consisting of runners, a frame hingedly connected to said support, a motor supported by said frame, a shaft driven by said motor, cutters mounted upon said shaft, an adjustable connection between said frame and said support, a plurality of gage bars supported by said frame, and a lever pivotally supported by said support, said lever being adapted to contact with one of said gage bars to elevate said frame.

2. In an ice cutter, a support consisting of runners, a frame hingedly connected to said support, a shaft mounted for rotation on said frame, means for driving said shaft, a rack bar extending vertically from said support, a dog carried by said frame and

engaging said rack bar, a plurality of gage bars extending transversely of said frame, a marker adjustably mounted on each of said bars, and a lever pivoted to said support, said lever being adapted to contact with one of said gage bars to elevate said frame.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JULIUS WIRKUS.

Witnesses:
JESSE D. PHELPS,
A. E. McKAY.