(No Model.)

G. STADTMILLER.

ICE SAWING MACHINE.

No. 343,739. Patented June 15, 1886.

Fig. 1.

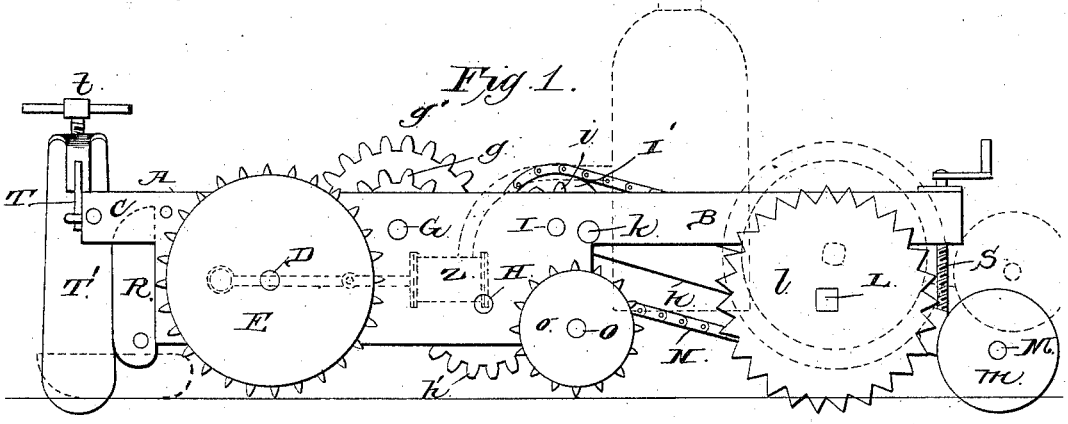


Fig. 2.

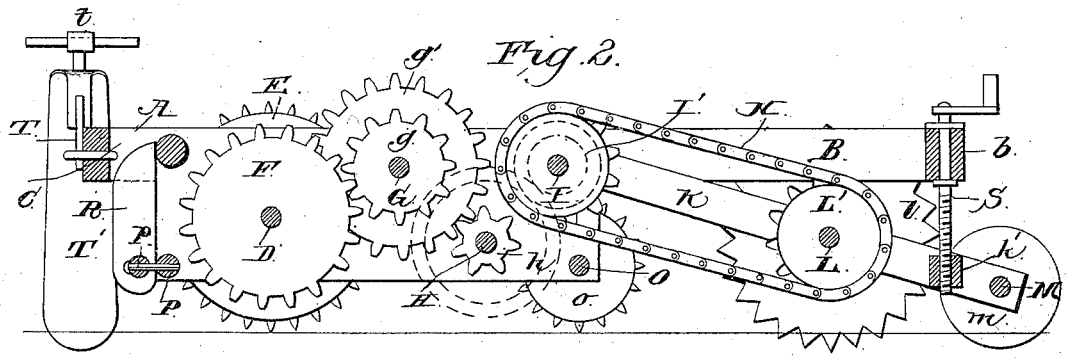
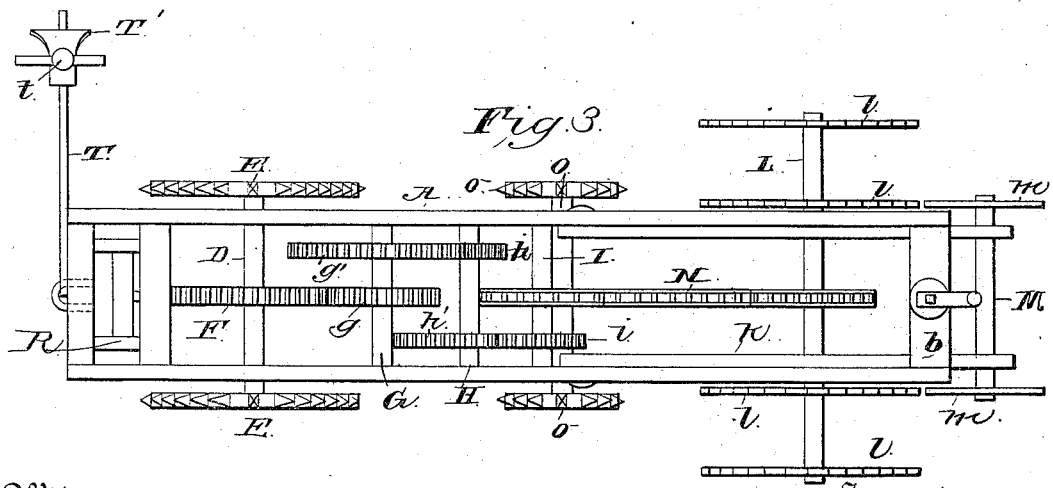


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE STADTMILLER, OF LATROBE, PENNSYLVANIA.

ICE-SAWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 343,739, dated June 15, 1886.

Application filed December 31, 1885. Serial No. 187,210. (No model.)

To all whom it may concern:

Be it known that I, GEORGE STADTMILLER, a citizen of the United States, residing at Latrobe, in the county of Westmoreland and State of Pennsylvania, have invented a new and useful Improvement in Ice-Sawing Machines, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in ice-sawing machines; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a side elevation of my invention. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a top plan view.

A represents the main frame, which is provided with the parallel rearwardly-extending beams B, and with front projections, C, which extend a slight distance in front of the frame.

D represents the main shaft, which is journaled in the main frame, near the front end thereof, and to the ends of this shaft are secured the driving-wheels E, the peripheries of which are toothed, to engage with the ice. A spur-wheel, F, is secured near the center of the shaft D.

G, H, and I represent shafts, which are journaled in the frame A, as shown. The shaft G has a pinion, *g*, that meshes with the spur-wheel F, and has also a spur-wheel, *g'*. On the shaft H is fixed a pinion, *h*, that meshes with the wheel *g'*, and the said shaft H has also a gear-wheel, *h'*, that meshes with a pinion, *i*, on the shaft I.

K represents a saw-frame, that is pivoted to the frame A, as at *k*. The rear outer end of the saw-frame is thus free to be raised or lowered. The saw-frame is composed of two beams connected by a cross-bar, *k'*. A similar bar, *b*, connects the rear ends of the beams B.

Journaled at about the center of the saw-frame is a saw-arbor, L, and journaled at the rear end of the saw-frame is a shaft, M, to which are secured a number of circular disks, *m*. A number of circular saws, *l*, are secured to the arbor L, and to the center of the arbor is secured a sprocket-wheel, L'. A sprocket-wheel, I', is secured to the shaft I, and an endless sprocket-chain, N, connects the wheels L' and I'. The disks *m* run in rear of and in line with the saws, in the kerfs cut by the saws, to assist guiding and prevent machine from sliding.

Near the rear end of the frame A is journaled a shaft, O, having toothed supporting-wheels *o*, that bear upon the ice and support the rear end of the frame. In the front end of the frame A, at its lower side, is journaled a rock-shaft, P. A pin, *p*, depends from the center of this shaft, and on the said pin is pivoted the rear end of a sled-bob, R. This sled-bob, when the machine is in operation, is turned up against the front end of the frame A, out of contact with the ice, as shown in Figs. 1 and 3; but when it is desired to turn the machine upon the ice the sled-bob is turned down, so as to bear upon the ice and raise the driving-wheels therefrom and support the front end of the machine.

An elevating-screw, S, works through the cross-bar *b*, and is swiveled to the cross-bar *b*, by means of which the saws and disks may be raised or lowered, and the saws caused to cut kerfs of any desired depth.

On the front end of the machine is hinged a bar, T, on which slides a gage-runner, T', the lower edge of which runs in the adjacent kerf previously cut by the saws, so as to guide the machine parallel therewith. This gage-runner has a set screw, *t*, by means of which it may by clamped to the bar at any desired adjustment.

As the machine is drawn along on the ice, the motion of the driving-wheels is communicated through the train of gearing and the sprocket-wheels and chain previously described to the gang of saws, causing the latter to cut the ice into strips, as will be very readily understood.

As shown at Fig. 1, I provide a steam-engine, L, for operating the machine; but, if preferred, the engine may be dispensed with, and the machine drawn along and operated by horses instead.

Having thus described my invention, I claim—

1. The combination, in an ice-sawing machine, of the frame A, having the supporting-wheels at its front and rear ends, the rock-shaft P in the front end of the frame, the pin

p, depending from the said rock-shaft, and the sled-bob R, having its rear end pivoted on the said pin, for the purposes set forth, substantially as described.

2. The combination, in an ice-sawing machine, of the frame A, the bar T, pivoted or hinged to the front end of the frame and free to swing to either side of the same, and the gage-runner T′ on the said bar and adjustable laterally thereon, and having the set-screw *t*, to clamp the gage-runner to the bar at any desired adjustment, substantially as described.

3. In an ice-cutting machine, the pivoted frame K, carrying the circular saws *l*, and the circular disks *m* in rear of the saws, for the purpose set forth, means for raising or lowering the free end of the pivoted frame, and means for rotating the circular saws, substantially as described.

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

GEORGE STADTMILLER.

Witnesses:

JOHN QUINBROAN,

JOHN OVERLY.