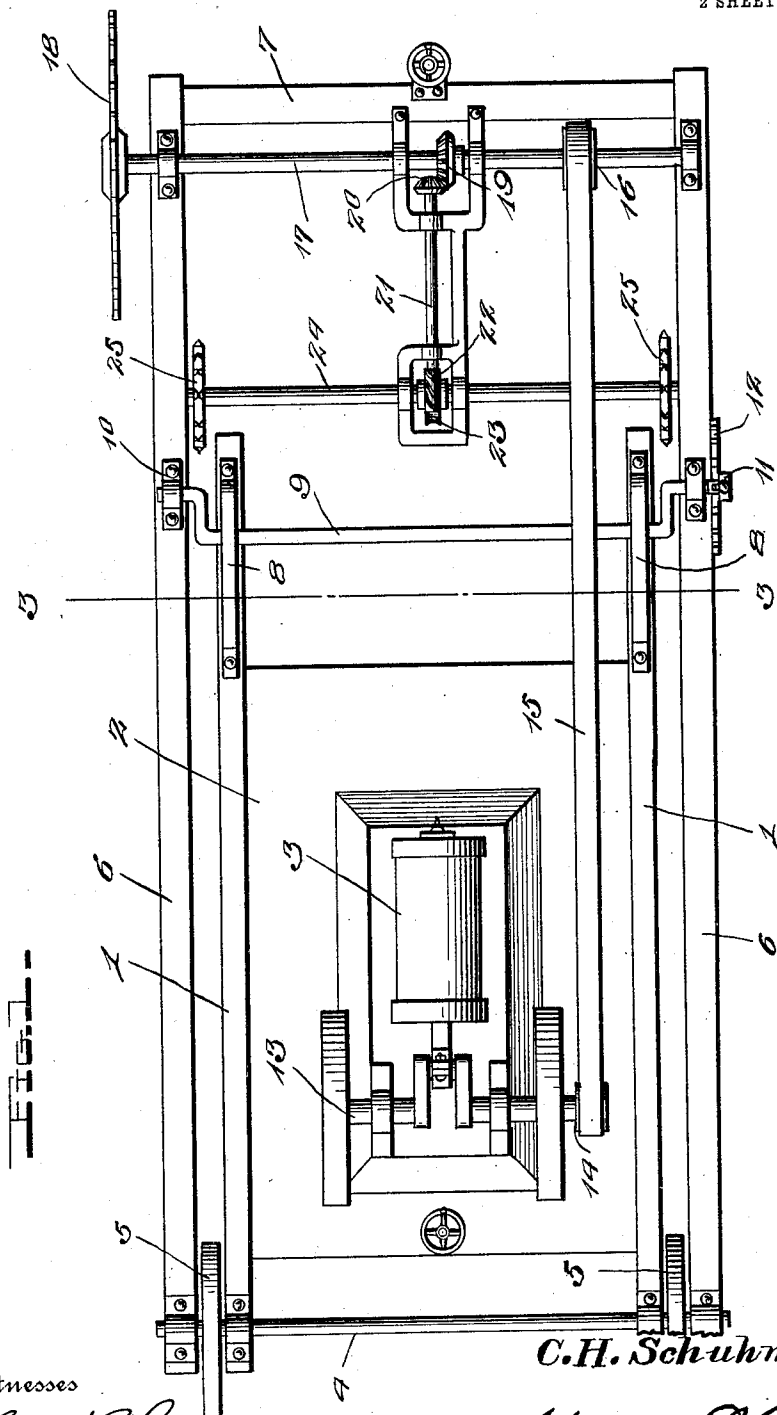


C. H. SCHUHMACHER.
ICE SAWING MACHINE.
APPLICATION FILED MAR. 21, 1912.

Patented Dec. 17, 1912.

2 SHEETS—SHEET 1.

1,047,308.



Witnesses

Chas. R. Greubauer.
G. B. Norton.

By

Watson E. Coleman
Attorney

Inventor

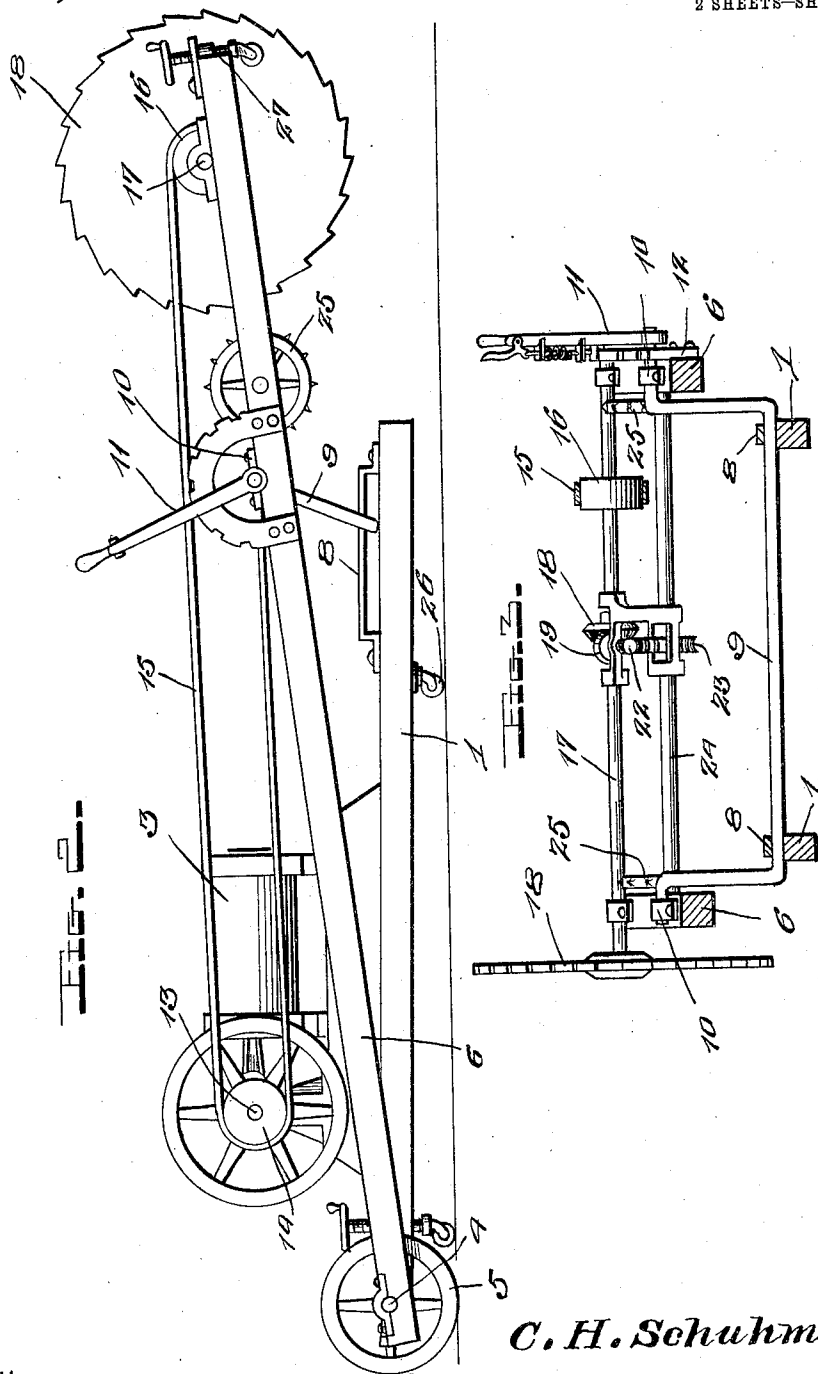
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UNITED STATES PATENT OFFICE.

CARL H. SCHUHMACHER, OF MYRTLE, MINNESOTA.

ICE-SAWING MACHINE.

1,047,308.

Specification of Letters Patent.

Patented Dec. 17, 1912.

Application filed March 21, 1912. Serial No. 685,262.

To all whom it may concern:

Be it known that I, CARL H. SCHUHMACHER, a citizen of the United States, residing at Myrtle, in the county of Freeborn and State of Minnesota, have invented certain new and useful Improvements in Ice-Sawing Machines, of which the following is a specification, reference being had to the accompanying drawings.

This invention comprehends certain new and useful improvements in ice sawing machines, and the invention has for its primary object a simple and efficient construction of apparatus of this character which will propel itself on the surface of the ice and saw the ice as the machine travels along.

The invention also has for its object a simple construction of machine of this character embodying a vertically adjustable frame designed to carry the revoluble saw and a main wheeled frame, the two frames being so connected together that the saw carrying frame may be raised and lowered at will and held either entirely inoperative, or at the required operative elevation. And the invention also aims to generally improve this class of devices and to render them more useful and commercially desirable.

With these and other objects in view, as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing in which,

Figure 1 is a top plan view of an ice sawing machine embodying the improvements of my invention. Fig. 2 is a side elevation thereof with the saw held in an inoperative position, and Fig. 3 is a transverse sectional view, the section being taken upon the line 3—3, of Fig. 1.

Corresponding and like parts are referred to in the following description and designated in the accompanying drawing by like reference characters.

The main frame-work of my improved ice sawing machine embodies longitudinally extending sills 1 that are connected together by a platform 2 upon which an internal combustion engine 3 or other motor is mounted. The front ends of the sills 1 are mounted

upon a transversely extending axle 4, upon which traveling wheels 5 are mounted. On the outer extremities of the axle 4, longitudinally extending beams 6 are pivotally mounted, said beams being connected at one end by a cross bar 7 to form a vertically adjustable saw carrying frame. The sills 1 of the main frame are provided near one end with longitudinally extending guide straps 8 in which a crank rod 9 is mounted for movement, the ends of said rod being journaled in bearings 10 carried by the beams 6 and one of said ends being connected to a hand lever 11 designed for adjustable locking connection with a quadrant 12. By this means, as will be evident, the saw carrying frame may be raised and lowered and held at the required elevation.

The drive shaft 13 of the engine 3 is provided at one end with a pulley 14 over which a belt 15 passes, said belt also passing around a pulley 16 which is secured to a transverse shaft 17 journaled in the saw carrying frame at one end of the beams 6.

18 designates the saw which is mounted on one end of the shaft 17.

Intermediate of its ends, the shaft 17 carries a bevel pinion 19 which meshes with a corresponding pinion 20 on the forward end of a longitudinally extending shaft 21, said shaft being provided at its rear end with a worm 22 which meshes with a worm gear 23 on a transversely extending shaft 24. This shaft 24 is journaled at its ends in bearings carried by the beams 6, and is provided with spur wheels 25 that are designed to engage the surface of the ice so as to propel the machine while the saw is being rapidly rotated to cut the ice.

26 designates a caster wheel designed to support one end of the main frame, and 27 designates adjustable gage wheels that are mounted at one end of the main frame-work and at one end of the saw carrying frame.

From the foregoing description in connection with the accompanying drawing, the operation of my improved ice sawing machine will be apparent.

In the practical use of the machine, the saw carrying frame is lowered so that the spur wheels 25 engage the surface of the ice, and the operation of the engine 3 will cause the shaft 17 to be rapidly rotated so as to operate the saw, while at the same time, the shaft 21 and its worm connection

with the shaft 24, will turn the shaft 24 in a direction to propel the entire apparatus.

While the accompanying drawing illustrates what I believe to be the preferred embodiment of the invention, it is to be understood that the invention is not limited thereto, but that various changes may be made in the construction, arrangement and proportions of the parts without departing from the scope of the invention, as defined in the appended claims.

What I claim is:—

1. An ice sawing machine, including a main wheel supported frame, a vertically adjustable frame connected thereto, a saw carrying shaft journaled in the adjustable frame, a saw carried by said shaft, means mounted on the main frame for rotating said shaft, a propelling shaft journaled on the adjustable frame and driven from the first named shaft, and spur wheels carried by the second named shaft, for the purpose specified.

2. A machine of the character described, including a main frame, a saw carrying frame having a vertically adjustable connection with the main frame, a saw carried

by said frame, spur wheels also carried by said saw carrying frame, and means for simultaneously operating the saw and for rotating said spur wheels.

3. A machine of the character described, including a main frame, a saw carrying frame pivotally connected at one end to the main frame, a crank rod journaled on the saw carrying frame and having a sliding connection with the main frame, means for turning said rod, whereby to raise and lower the saw carrying frame, a transverse shaft journaled on the saw carrying frame, a saw connected to said shaft, a longitudinally extending shaft operatively connected to the first named shaft, another transverse shaft journaled on the saw frame and having a worm and gear connection with the longitudinal shaft, means for rotating the saw carrying shaft, and spur wheels carried by the second named shaft.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

CARL H. SCHUHMACHER.

Witnesses:

E. E. DUNN,
WILL HANSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."