(No Model.)

T. CUTTER.

ICE CUTTING MACHINE.

No. 523,317. Patented July 17, 1894.

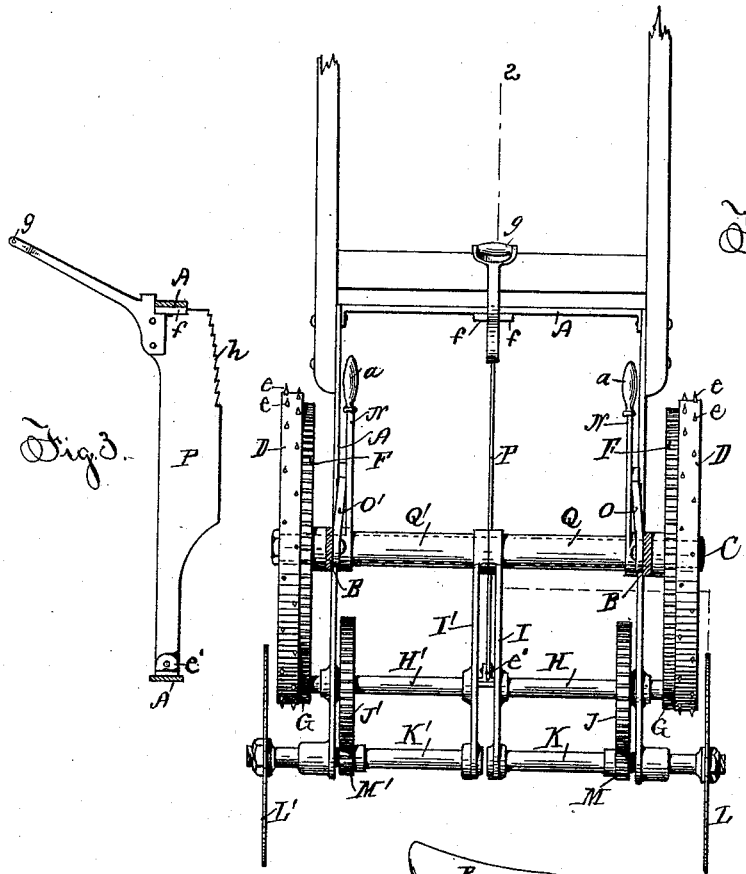

Fig 1.

Fig 3.

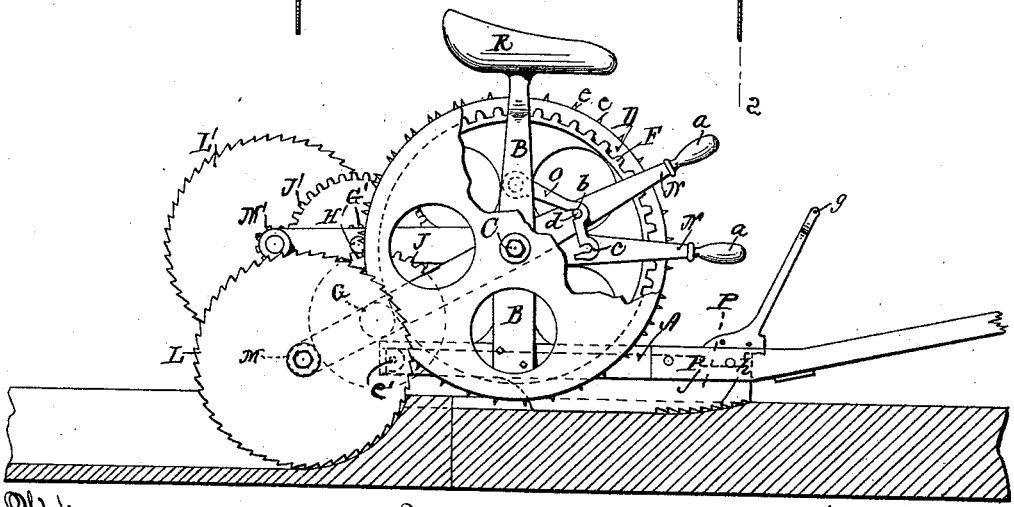

Fig 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

THEOPHILUS CUTTER, OF TAUNTON, MASSACHUSETTS.

ICE-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 523,317, dated July 17, 1894.

Application filed February 16, 1894. Serial No. 500,418. (No model.)

To all whom it may concern:

Be it known that I, THEOPHILUS CUTTER, a citizen of the United States, residing at Taunton, in the State of Massachusetts, have invented a new and useful Improvement in Ice-Cutting Machines, of which the following is a specification.

The object of my invention is to provide a sawing machine adapted to cut the ice with great rapidity and economy, and my invention consists in the improved construction and arrangement of parts as hereinafter fully set forth.

In the accompanying drawings:—Figure 1, represents a top view of the machine, with the seat broken away. Fig. 2, represents a side elevation of the same, and a section of the ice taken in the line 2 2, of Fig. 1, one of the wheels being broken away. Fig. 3, represents a side view of the marking blade or guide.

In the drawings, A represents a horizontal frame, which is preferably made of iron, and provided with the standards B, B which form the supports for the seat R, and also bearings for the shaft C, upon the ends of which are secured the wheels D, D, provided with the projecting spurs *e*, *e*, for engagement with the ice. To the inner sides of the wheels D, D, are secured the gears F, F, which engage with the pinions G, G, secured to the separate shafts H and H′, the said shafts being held in the frames I, I′, which are pivoted to the shaft C, by means of the sleeves Q, Q′, and upon the shafts H, H′, are secured the gears J, J′. At the outer ends of the frames I, I′, are journaled the saw shafts K, K′, upon which are secured the saws L, L′, for cutting the ice, and upon the shafts K, K′, are secured the pinions M, M′, which engage with the gears J, J′, upon the shafts H, H′. The frames I, I′, are each provided with a forwardly projecting arm N having at its outer end a handle *a*, by means of which the frames may be separately operated to raise or lower the saws L, L′, the said frames being held in their elevated position in which the saws are disengaged from the ice, and also in their lower position for the engagement of the saws with the ice, by means of the latches O, O′, which are provided with the holding notches *b* and *c*, the notch *b* being adapted for engagement with the pin *d* to hold the saw in its lower position, and the notch *c* for holding the saw in its elevated position.

To the rear of the frame A, at the point *e*′, is pivoted the marking blade or guide P, which is held at its forward end for up and down movement between the parallel guides *f*, *f*, attached to the forward bar of the frame A, the said blade or guide being provided with a handle *g*, by means of which the said blade may be raised from the ice when desired. The lower edge of the blade or guide P, is provided with the serrations *h*, which serve to form a cutting edge which is adapted to mark the ice for a certain depth as a preparatory guide for the action of the saw.

In operating the machine, one of the frames I, I, is to be raised, while the other is to be held in its lower position, in which the saw is in engagement with the ice, as shown in Fig. 2, and upon the forward movement of the machine, the ice may be cut to a certain depth by means of the saw, the initial guiding groove for holding the saws in proper line, being cut in the ice by means of the blade P. Either one or the other of the saws L or L′ is employed, according to the direction in which the ice is being cut, the other saw being raised from the ice and held by the latch, the blade P forming a suitable guide for either one of the saws.

I claim as my invention—

1. In an ice cutting machine, the combination with the shaft C, the wheels D, D, provided with the projecting spurs *e*, *e*, and gears F, F, of the saw-holding frames I, I′, pivoted to the shaft C by means of the sleeves Q, Q′, the shafts H and H′ provided with the pinions G, G, and the gears J, J′, the shafts K, K′, provided with the pinions M, M′, and the saws L, L′, the handle arms N, N, for raising and lowering the saw holding frames, and means for holding the said frames in their elevated position, substantially as described.

2. In an ice cutting machine, the combination with the shaft C, the wheels D, D, provided with the projecting spurs *e*, *e*, and the gears F. F. of the saw holding frames I, I′,

pivoted to the shaft C by means of the sleeves Q, Q′, the shafts H and H′ provided with the pinions G, G, and the gears J, J′, the shafts K, K′, provided with the pinions M, M′, and the saws L, L′, the handle arms N, N, for raising and lowering the saw holding frames, means for holding the frames in their elevated positions, and the intermediate marking blade or guide P, pivoted at its rear end to the frame of the machine, and provided at its forward end with the handle *g*, substantially as described.

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