Oct. 7, 1924. 1,511,060

F. MILLER

LOADING MACHINE

Filed Feb. 28, 1923 2 Sheets-Sheet 1

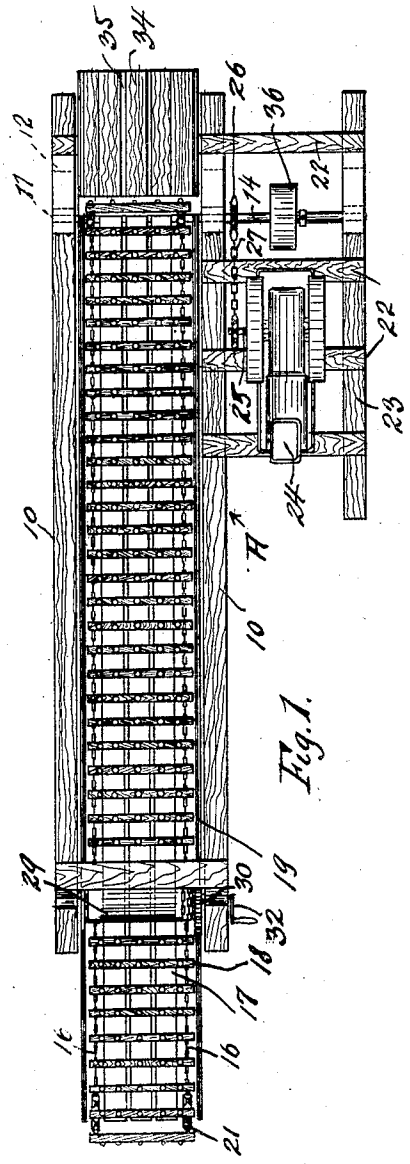


Fig. 1.

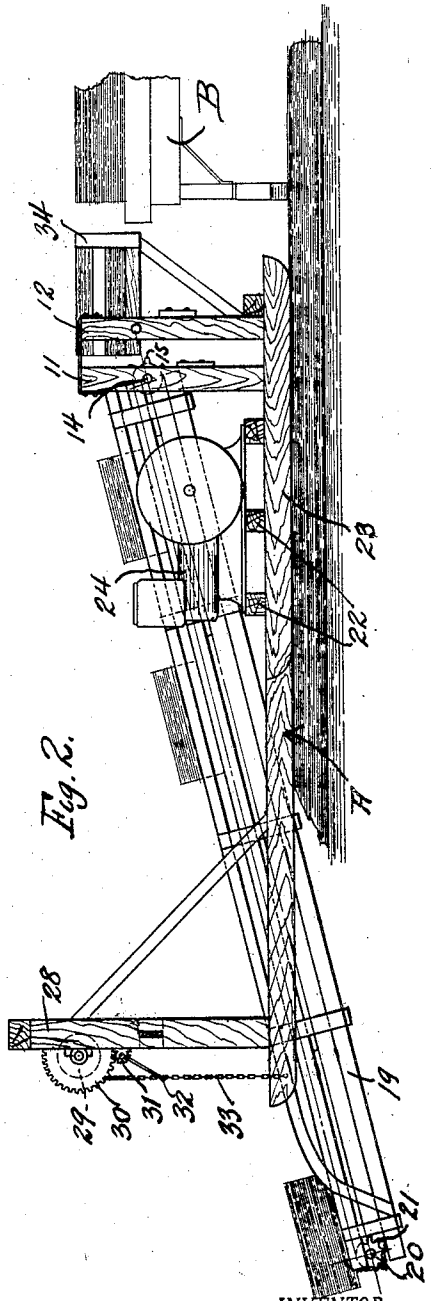


Fig. 2.

INVENTOR.
FRED MILLER
BY
Frank O. Parker
ATTORNEYS.

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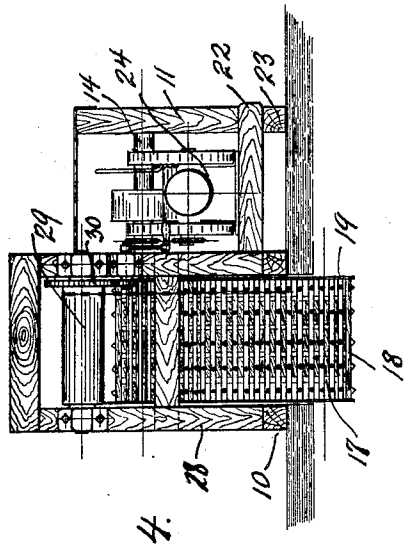


Fig. 4.

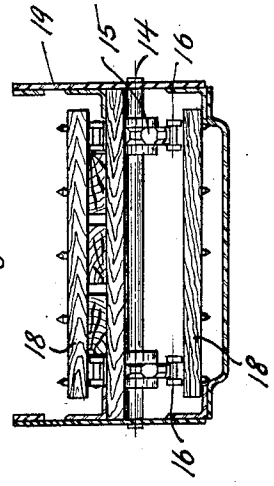


Fig. 5.

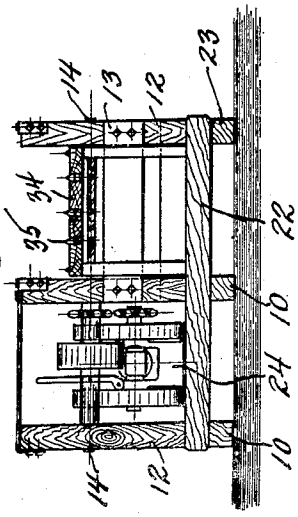


Fig. 3.

INVENTOR.
FRED MILLER.
BY
ATTORNEYS.

Patented Oct. 7, 1924. 1,511,060

UNITED STATES PATENT OFFICE.

FRED MILLER, OF GREEN BAY, WISCONSIN.

LOADING MACHINE.

Application filed February 28, 1923. Serial No. 621,308.

To all whom it may concern:

Be it known that I, FRED MILLER, a citizen of the United States, residing at Green Bay, in the county of Brown and State of Wisconsin, have invented certain new and useful Improvements in Loading Machines, of which the following is a specification.

The invention relates to a loading machine, and more particularly to the class of ice loaders.

The primary object of the invention is the provision of a machine of this character, wherein the supporting frame thereof is formed with runners, so that the machine in its entirety can be moved upon the ice surface of a river, pond or other body of water, whereby the said machine can be conveniently positioned for the best available service.

Another object of the invention is the provision of a machine of this character, wherein the portable body of the same carries a conveyor which is swung from a horizontal axis so that the free end thereof can be brought to the proper position to give the requisite inclination to said conveyor for the removal of ice blocks from a slot cut in the ice surface of a body of water, the blocks be elevated or conveyed by said conveyor to a point of discharge from the machine.

A further object of the invention is the provision of a machine of this character, wherein the conveyor belt or apron is driven from a suitable motor carried by an auxiliary runner on the main body of the machine, the latter being of novel construction to render it simple in operation, strong, durable, reliable and efficient in purpose, and inexpensive in manufacture.

With these and other objects in view the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereunto appended.

In the accompanying drawings:

Figure 1, is a top plan view of the machine constructed in accordance with the invention.

Figure 2, is a side elevation thereof.

Figure 3, is a rear end elevation.

Figure 4, is a front elevation.

Figure 5, is an enlarged transverse sectional view through the conveyor.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings, in detail, A, designates generally the main frame of the machine, and includes a pair of spaced parallel runners 10, which are of the same length, and from the rear end portions of these runners are suitably mounted vertical twin uprights or standards 11 12, having cross braces 13, which serve to make rigid said uprights or standards.

In the forward pair of uprights or standards 11, is journaled a horizontally disposed shaft 14, carrying sprocket wheels 15, for engagement with the driven chains 16, of the endless conveyor belt or apron 17, having the usual spurred cross slats 18, the conveyor belt or apron being spanned in a conveyor frame 19, swingingly supported at its inner end by the shaft 14, while at the outer end of this frame is an idle shaft 20, having sprocket wheels 21, over which are trained the chains 16, and in this manner the conveyor belt or apron 17, is supported.

At the rear end portion of the main frame A, and extending lateral from one runner 10, are spaced horizontal sills 22, to which is fastened an auxiliary runner 23, and on these sills 22, is carried a suitable gasoline engine 24, having its power shaft 25, connected through the medium of sprocket gears 26, and a chain 27, with the shaft 14, so that when the engine is active power therefrom will be transported to the conveyor belt or apron 17, and in this manner the machine operated.

Near the forward end of the main frame A, and rising above the same is a windlass support 28, having journaled thereon a windlass 29, the latter carrying a gear 30, meshing with a pinion 31, manually actuated by a crank 32, and in this manner the said windlass 29, can be turned. On the windlass 29 is coiled a chain 33, having its free end connected with the conveyor frame 19, whereby the said conveyor frame at its forward free end can be raised and lowered to the desired point.

Mounted between the rear twin uprights or standards 12, on the main frame is a load receiving stand or table 34, adapted to receive material from the conveyor belt or

apron 17, when the latter is in operation. The bottom of the stand or table 34 has fitted therein ridges 35, arranged longitudinally of the machine and in spaced parallelism with each other to support the material.

From the stand or table 34, the material is picked off onto a sled or other vehicle to be transported to the desired locality. In Figure 2, of the drawings there is shown a fragmentary portion of a sled A, for receiving the material thereon from the stand or table.

In the operation of the machine, the runner frame A, is moved manually to the desired place on the ice surface of a body of water, and after cutting a slot in the ice, the conveyor frame 19, is adjusted, so that the free end of the same is lowered into the water, thereupon on cutting the blocks of ice, these blocks are gathered onto the conveyor belt or apron 17, which has previously be set in motion and driven by the motor or engine 24, and such block of ice will be raised to the stand or table 34, and received thereon for the subsequent delivery onto a sled B, as will be clearly apparent.

The shaft 14, has fitted thereon a fly wheel 36, as usual.

What is claimed is:

A machine of the character described, comprising a main frame having runners, pairs of uprights rising from the rear end of the main frame, a conveyor frame swingingly mounted between the forward pair of uprights and having an endless conveyor, an auxiliary runner frame extending laterally from the main frame at its rear end, a motor on the auxiliary frame, connections between the motor and conveyor for driving the latter, means near the forward end of the main frame for raising and lowering the conveyor frame, and a stand mounted between the rear pair of uprights for receiving material from the conveyor.

In testimony whereof I affix my signature.

FRED MILLER.