Aug. 31, 1937. W. WATERFALL 2,091,344

MEANS FOR STORING WATER

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Fig. 1.

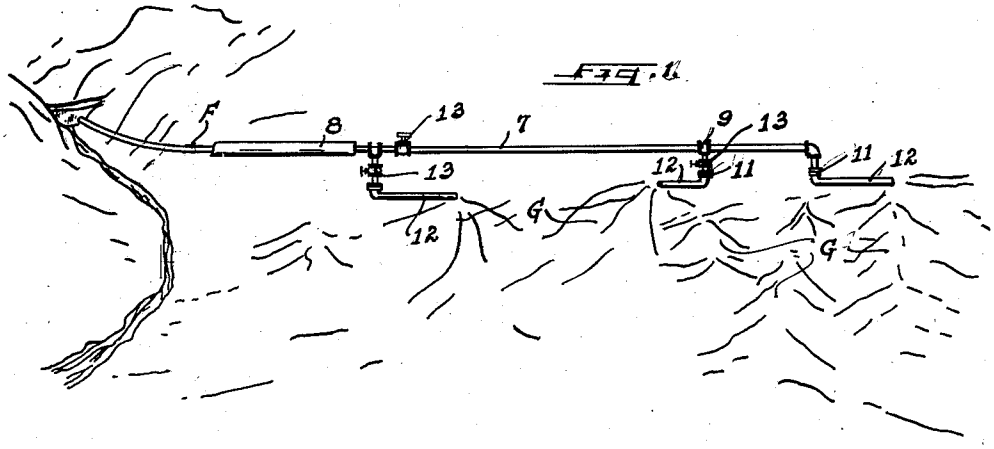
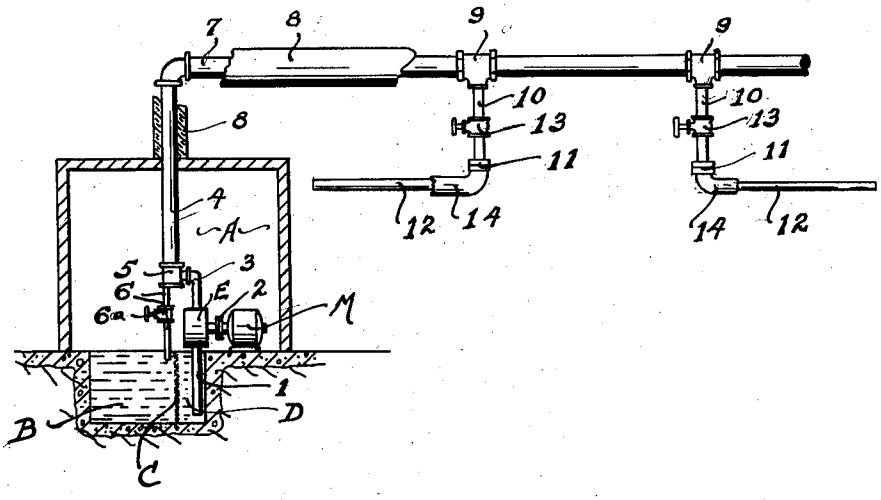


Fig. 2.



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MEANS FOR STORING WATER

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2 Claims. (Cl. 137—78)

My invention relates to the storing of water and has for its object to provide a new and efficient method of storing water in the natural water sheds surrounding a town, which consists of carrying the water out on the north side of hills surrounding the town and there diverting it into several streams which will freeze quickly, thereby making an artificial glacier.

A further object is to provide a method of storing water comprising elevating the water to hill sides during the winter months where it is diverted into several streams flowing slowly over the hill side which will become quickly frozen, thereby building large banks of solid ice which will stay far into the hot months of the summer without melting fast as does the snow laid in the mountains, also providing a sanitary storage of water as germs cannot live in the ice.

A still further object is to provide a pumping and distributing system for pumping water from streams distributing it over hill sides and sloping meadows in the mountains during the winter months where the water will be frozen into solid ice and provide storage of water for the ensuing summer.

These objects I accomplish with the device illustrated in the accompanying drawing in which similar numerals and letters of reference indicate like parts throughout the several views and as described in the specification forming a part of this application and pointed out in the appended claims.

In the drawing in which I have shown the manner of building my invention

Figure 1 is a plan view of the device shown in a stream bed and distributing the flow into the hill side. Dotted lines indicate the use of gravity to divert the water instead of by pumping it.

Figure 2 is a side elevation of the pumping plant and distributing lines.

The purpose of this invention is to utilize water which in the winter months goes to waste and to conserve this water in the form of ice.

In the drawing I have shown the pumping plant as A, mounted over a sump B in which a screen C screens all of the water entering the pumping well D. I then mount a pump E above the well with a pipe 1 extending down into the well D. A motor M drives the pump by direct connection therewith through a flexible connection 2. A pipe 3 carries the water from the pump to a vertical stand pipe 4, in a T-coupling 5. A drain pipe 6 carrying a control valve 6a is connected with the coupling 5 carrying water back into the sump B to provide means for draining the system, to prevent freezing when not in use.

The stand pipe is connected with a distributing pipe 7, which pipe is to be buried in the ground sufficient distance to prevent freezing and is insulated by proper insulation 8 from the roof of the pumping plant A to where it enters the ground.

The pipe is then provided with T-couplings 9 to which distributing pipes 10 are secured. The pipes are then connected to flexible connections 11 and distributing pipes 12 are connected to the connections to distribute the flow of water in any direction around the connections. Valves 13 provide means to shut off any pipe desired. All of the pipes will be insulated as shown at 14 to prevent the flow of any pipe being frozen, making the pipe useless.

In Figure 1 dotted lines F show the method of diverting the water by gravity into the pipe 7.

Having thus described my invention I desire to secure by Letters Patent and claim:

1. In a device for winter storage of water, the combination of a sump in open connection with a stream of water; a screen across said sump; a pump mounted with the suction pipe in said sump; a vertical pipe leading from said pump; a horizontal flow pipe from said vertical pipe; T-couplings in said horizontal pipe; distributing pipes in said T-couplings; manual control valves in said distributing pipes; a return flow draining pipe from the vertical pipe into the sump by which the entire system may be drained when not in use; and insulation over all of said pipes to prevent their freezing when in use, substantially as described.

2. An apparatus for utilizing the forces of nature for storing water comprising, a dam in a stream for storing water; a distributing pipe extending from said dam along a hillside using the force of gravity to fill said pipe from said dam; T-couplings in said pipe; pivotally connected distributing pipes extending from the stem of said T-couplings; valves carried in said distributing pipes to control the flow of water through any pipe desired; and insulation surrounding all of said pipes to prevent freezing during use in cold weather.

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