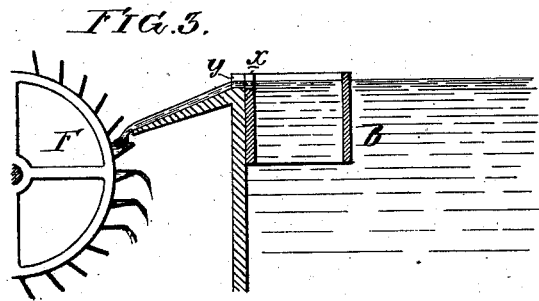
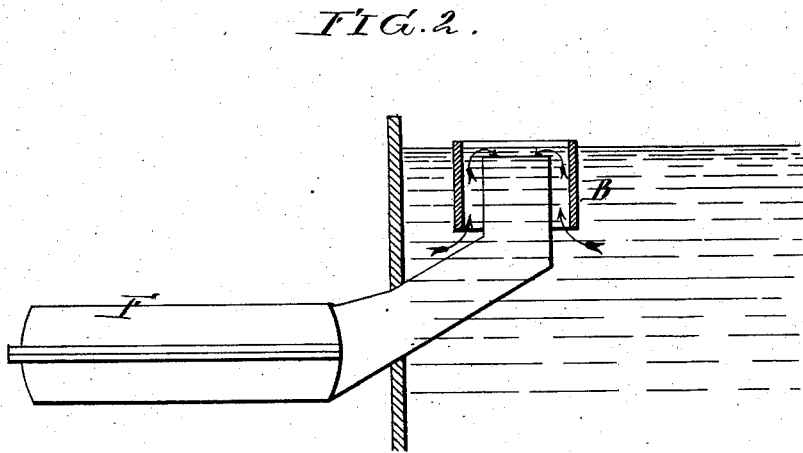
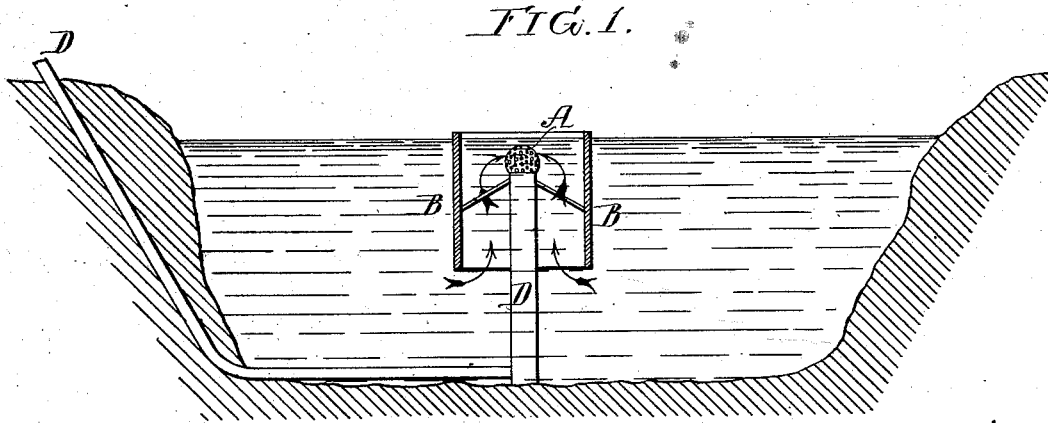


L. H. BEEBE.

Preventing the Obstruction of Water Channels.

No. 165,059.

Patented June 29, 1875.



Witnesses, Hubert Howson
Thomas McLean

Lewis H. Beebe
By his attys
Howson & Howson

UNITED STATES PATENT OFFICE.

LEWIS H. BEEBE, OF HUDSON, MICHIGAN.

IMPROVEMENT IN PREVENTING THE OBSTRUCTION OF WATER-CHANNELS.

Specification forming part of Letters Patent No. **165,059**, dated June 29, 1875; application filed December 7, 1874.

To all whom it may concern:

Be it known that I, LEWIS H. BEEBE, of Hudson, Lenawee county, Michigan, have invented certain Improvements in Preventing the Obstruction of Water-Channels, of which the following is a specification:

The object of my invention is to prevent the clogging by ice, &c., of the channels through which water is drawn by pumping-engines, or directed to water-wheels, &c.; and this object I attain in the manner shown in the accompanying drawing, in which—

Figure 1 is a view of my invention as applied to the strainer of a pipe, through which water is drawn by a pumping-engine; and Figs. 2 and 3, views of my invention as applied to the channels for directing water to water-wheels.

My present invention is an improvement upon that for which Letters Patent were allowed to me on the 19th day of September, 1874. Said invention consisted in applying above the strainer a platform or plate, so as to prevent the direct flow of cold surface water to the same.

My present improvement consists in the application to the strainer A, attached to the end of the pipe D, of a box or casing, B, which surrounds the strainer, and extends considerably below the same and above the surface of the water in the basin or reservoir. The box or casing is open at the top, as shown, the constant and rapid flow of water within the casing being sufficient to prevent any forma-

tion of ice about the strainer. The water being drawn from a considerable distance beneath the surface, and passing up inside of the casing B to the strainer A, no ice can gain access to the latter.

It will be evident that by properly arranging the casing, the water can be drawn from any depth which may be necessary, either from a point near the surface in mild weather, or from a point near the bottom when the weather is very cold.

Fig. 2 shows my invention applied to the entrance of a channel, through which water is drawn to supply the water-wheel F, and will be readily understood without explanation.

In applying my invention to a breast-wheel, as shown in Fig. 3, a gate, *x*, should be arranged in one side of the casing to correspond with the gate *y*, formed in the breast-wall of the wheel-house.

I claim as my invention—

The combination, with the opening of a channel through which water is drawn from a river or reservoir, of a box or casing, B, extending to a point below the said opening, and to a point above the surface of the water, all substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEWIS H. BEEBE.

Witnesses:

HUBERT HOWSON,
HARRY SMITH.