

(No Model.)

P. S. WITCHER.
PORTABLE DAM.

No. 535,153.

Patented Mar. 5, 1895.

Fig. 1.

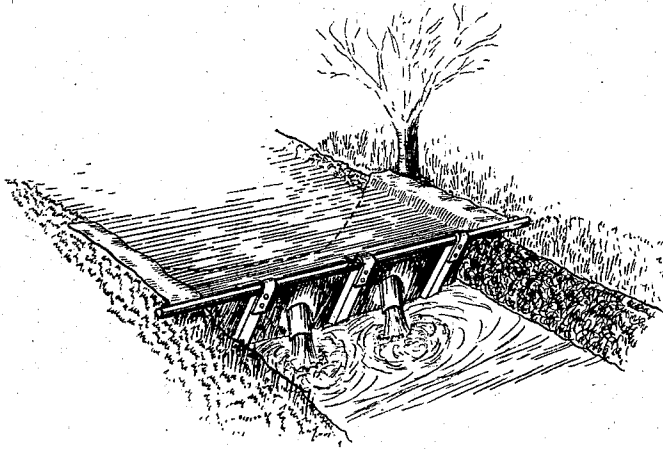
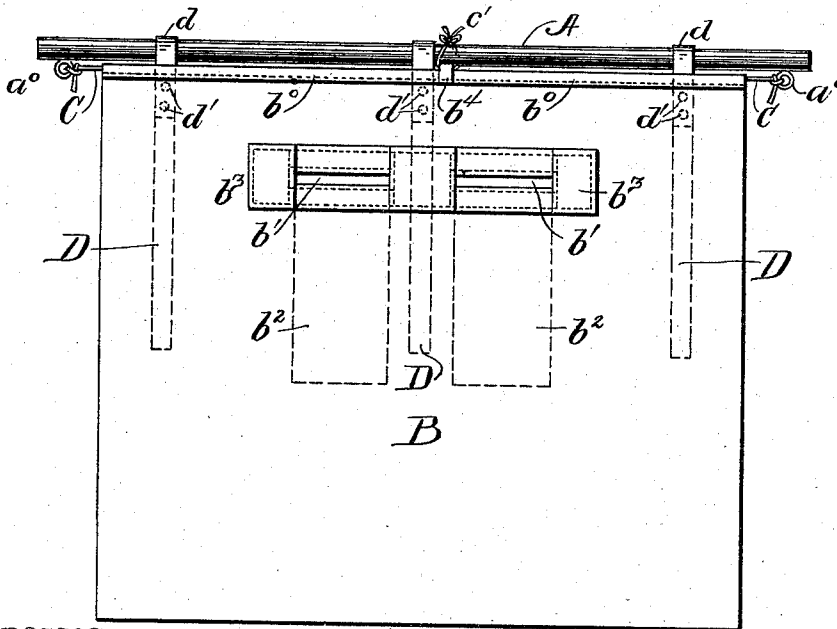


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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PORTABLE DAM.

SPECIFICATION forming part of Letters Patent No. 535,153, dated March 5, 1895.

Application filed January 16, 1895. Serial No. 535,117. (No model.)

To all whom it may concern:

Be it known that I, PHILIP S. WITCHER, a citizen of the United States, residing at Granger, in the county of Salt Lake and Territory of Utah, have invented certain new and useful Improvements in Portable Dams; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in water dams, and has for its object to provide a dam which may be readily and quickly placed in a ditch, flume, or other similar water channel, and which may be readily carried from place to place, and which, when in position in a water channel, will effectively stop the flow of water until it has reached a predetermined height.

My invention consists of the novel dam hereinafter described and claimed.

Reference is had to the accompanying drawings in which similar parts are indicated by the same letters.

Figure 1 is a perspective view of a portion of a ditch or flume, showing my improved dam or water check in position therein; and Fig. 2 is an elevation of my apparatus.

A represents a log or pole which may be of any convenient size of the necessary strength.

B represents an apron which should be of heavy canvas, and preferably made waterproof. This canvas apron has a hem b^0 provided at its upper edge through which runs the rope or wire C. This rope or wire C is drawn taut and tied or otherwise suitably secured at its ends to the eye bolts a^0 screwed or driven or otherwise fastened into the log A near its ends as shown in Fig. 2.

One or more loops b^4 may be provided on the upper edge of the apron through which loops a cord c' is passed and is then secured to the log A or to an eye bolt on one of the braces D to prevent the apron sagging in the center.

The canvas apron B may be provided with pockets of any suitable size b' having necks b^2 as indicated in dotted lines in Fig. 2, through which the water escapes as shown in Fig. 1 when the water has reached the height of the openings or pockets a' .

Around the openings or pockets b' a rein-

forcement b^3 should be provided in order that the strain due to the extreme pressure of the water may not cause the canvas to tear around the openings or pockets b' .

D represents three standards or braces, each of which is secured at its upper end to the log or pole A by means of a metal strap d , which passes around the said log and is bent and has its ends bolted or otherwise suitably secured as at d' to the said brace. The other end of each of said braces is free, and said braces may be swung freely around the log A. When the dam is in position in a water ditch, the free or lower ends of these braces rest on the bottom of the ditch in a slanting position, with the lower ends up stream, and act as braces for the canvas apron B, and prevent the said apron from bulging too much at the back, and thus avoiding the tearing or washing away of the apron when the pressure becomes very great. The length of these braces should be regulated to suit the depth of the ditch, and they should be somewhat longer than the depth of the ditch. I have shown but three of these braces, but I may use any number convenient or desirable, according to the width of the ditch.

My dam is placed in the ditch or stream in the following manner: First, place the braces D on the log A by means of the bent metal straps as hereinbefore described. Then put on the eyebolts. This log should be somewhat longer than the width of the ditch or stream, and the braces D should be somewhat longer than the depth of the ditch. The log A is then thrown across the ditch, and the free lower ends of the braces are turned up stream, so that the said braces slant upward and backward or down stream. The canvas apron B having a rope or wire run through the hem thereof, is then got in readiness to be placed in the ditch. This apron should be much wider than the ditch, so that its sides may lap over and have a good bearing surface on the banks of the ditch. The apron should be longer than the depth of the ditch so as to have a good bearing surface on the bottom. If it be desired to allow the water to run out of the pockets b' in the apron, when it has risen to that height, the necks b^2 of the said pockets should be turned down stream, but if it is not so desired, these necks should be

turned upstream and laid flat against the front of the apron, thus preventing escape of water therefrom. The ends of the rope or wire C are then drawn taut and are secured to the eye bolts a^0 on the log A. The cord c' passing through the loop b^4 is then secured to the log A in any convenient way, and thus prevents sagging of the center of the apron. A man might then step down into the ditch above the dam and taking hold of each lower edge of the apron B, stretch the apron across the ditch. Then by means of his foot or by using a shovel or the like instrument, he can press the apron down to the bottom of the ditch. The pressure of the water will then hold the apron firmly and flat against the sides and bottom of the ditch, and the braces D will prevent the apron from being torn, or the bottom edge thereof from being carried through under the log by the pressure of the water.

It will be seen that I provide a cheap, simple and efficient apparatus for stopping the flow of water in a small stream, which can be easily placed in the said stream and may be readily removed therefrom when desired and replaced when needed.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a device of the character described, the combination with the log A, and a plurality of swinging braces connected thereto and free at their lower ends; of an apron made

of flexible material connected at its upper edge to said log A, and free at its lower edge and side edges, substantially as and for the purposes described.

2. In a device of the character described, the combination with the log A, and the swinging braces D; of the flexible apron B provided with pockets therein, and necks connected with said pockets, substantially as and for the purposes described.

3. In a device of the character described, the combination with the log A and the swinging braces D; of the apron B provided with a hem b^0 ; the rope C passing through said hem and secured at its ends to eyebolts on the log A, substantially as and for the purposes described.

4. In a portable dam of the character described, the combination with a log adapted to span the ditch or stream, of a canvas apron provided with a hem along its upper edge through which hem passes a rope or wire, which rope or wire is secured at its ends to eyebolts on said log; and a plurality of braces hinged to said log and adapted to support the back of said canvas apron when in use, substantially as described.

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

PHILIP S. WITCHER.

Witnesses:

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