# G. W. DUNCAN.

## Flood-Fences.

No. 145,493. Patented Dec. 16, 1873.

Fig. 1.

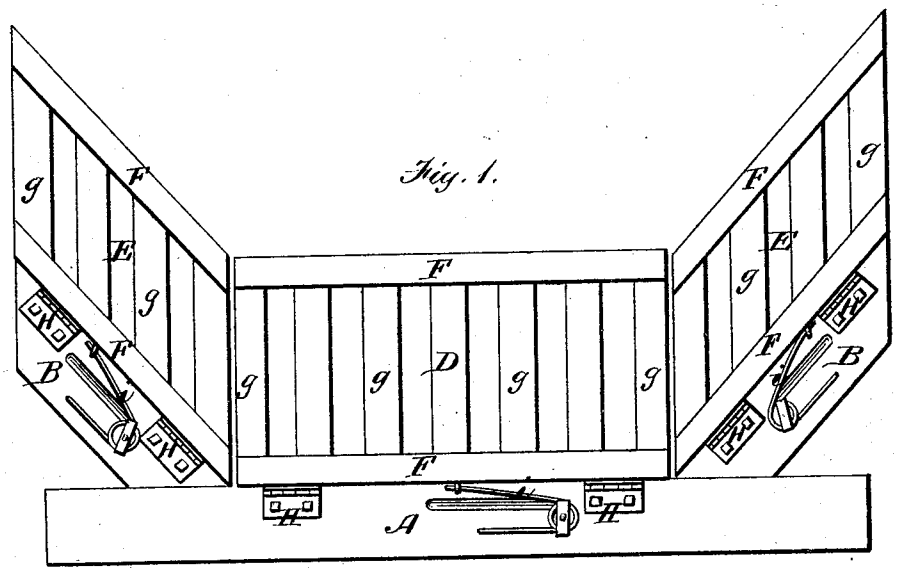
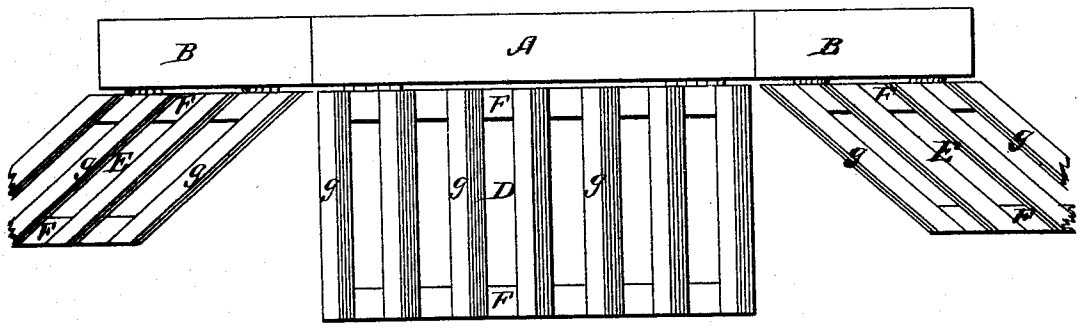



Fig. 2.




Witnesses.
C. F. Brown.
Melville Church

Inventor
G. W. Duncan
by his Attys.
Hill & Ellsworth

# UNITED STATES PATENT OFFICE.

GEORGE W. DUNCAN, OF COLUMBIA, MISSOURI.

## IMPROVEMENT IN FLOOD-FENCES.

Specification forming part of Letters Patent No. **145,493**, dated December 16, 1873; application filed June 27, 1873.

*To all whom it may concern:*

Be it known that I, GEORGE W. DUNCAN, of Columbia, in the county of Boone and State of Missouri, have invented a new and Improved Water-Gate; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is an elevation with the gates in an upright position, and Fig. 2 is a plan view with the gates turned down.

Similar letters of reference in the accompanying drawings denote the same parts.

This invention has for its object to provide a flood-gate that will remain in an upright position at ordinary times, give way for the passage of drift in cases of flood, and, after having allowed the drift to pass, regain its upright position, and to place the same so as to form a complete continuation of the fence from one side of the stream to the other, without leaving any gap or break. To these ends the invention consists in placing across the bed of the stream a heavy timber, with the ends projecting into the bank on either side to hold it securely to its place. At the point where the timber enters the banks two other timbers are framed into or otherwise securely fastened to it on an inclined position, one on either side the stream, so as to form a continuous timber from one bank to the other. To each of the timbers are hinged one or more spring-gates, adapted to yield for the passage of drift or a strong current of water, and regain their upright positions after the same has passed through. The banks as well as the bed of the stream being provided with gates, greater facility for the passage of drift is afforded than would be the case where only a single gate is employed in the bed of the stream, because there is no resistance offered from the top of one bank to the top of the other. The rails of the middle gate are horizontal, while those of the sides are inclined in the same angle as the side timbers. The palings of all the gates are of the same length, and arranged in an upright position, so that the outer ends of those that are inclined shall form an uninterrupted connection of the fences upon the banks. The palings are made triangular in form, transversely, and nailed to the stringers so as to present sharp edges to the water and drift. They therefore offer less resistance to floating objects, and serve to deflect the latter between them.

In the accompanying drawings, A is the timber in the bed of the stream, the ends of which should project into the banks somewhat to hold it in place; and B are the inclined timbers, securely fastened to the timber A. D is the central gate, and E E the two side gates, forming wings to the central gate D. F F are the rails of the gates, running parallel with the timbers to which the latter are attached; and *g g* are the palings, made triangular in form transversely, and nailed vertically to the rails. H H are the hinges by which the gates are attached to the timbers, and upon which they turn when required; and *i i*, the springs which keep the gates in an upright position ordinarily, but yield to the pressure of the water or drift against the gates, which turn down upon the hinges, the center one into the bed of the stream, and the side ones against the banks, and allow the drift to pass through. After its passage the springs throw the gates back to their upright position. The two upper ends of the inclined gates connect with the fence upon the banks, so that the gate will form a continuation of the fence.

Having thus described my invention, what I claim is—

1. The string-piece A, provided with the inclined pieces B B, framed or otherwise secured thereto, in combination with the inclined hinged spring-gates E E, forming a continuation of the bank-fences, substantially as described, and for the purpose specified.

2. The timbers A B and hinged gates D E E, with springs *i*, arranged as described, and for the purpose specified.

G. W. DUNCAN.

Witnesses:

W. W. GARTH,

A. J. HARBISON.