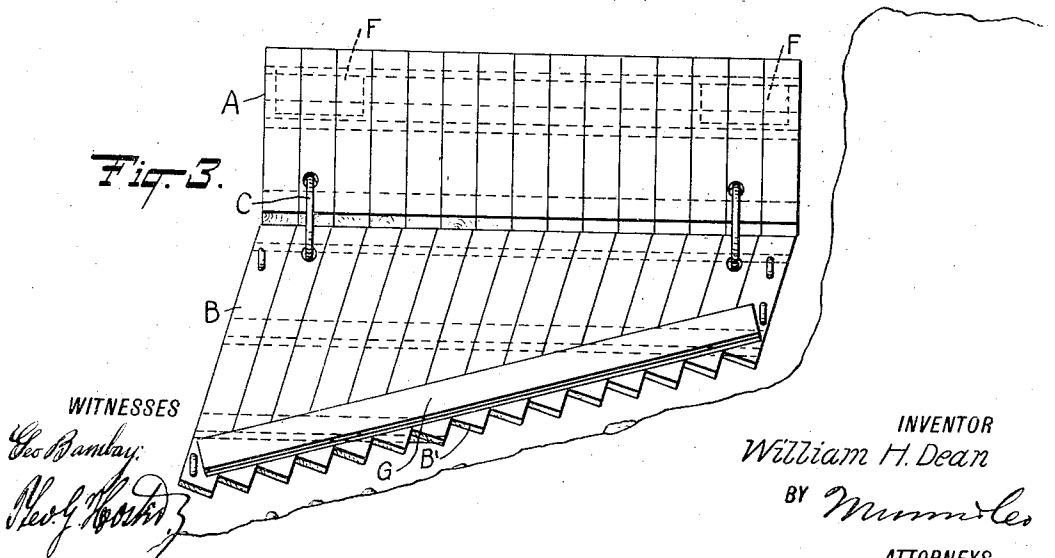
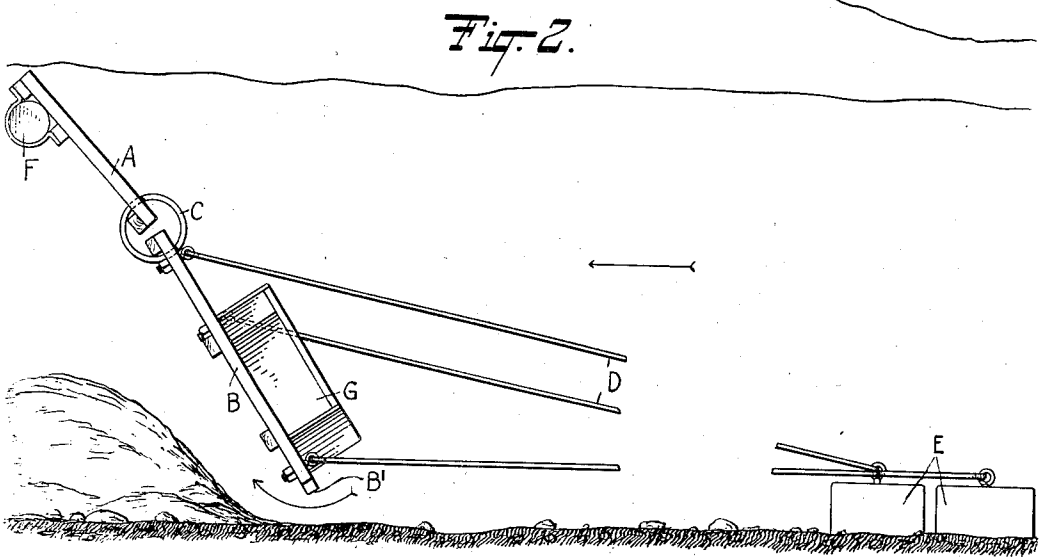
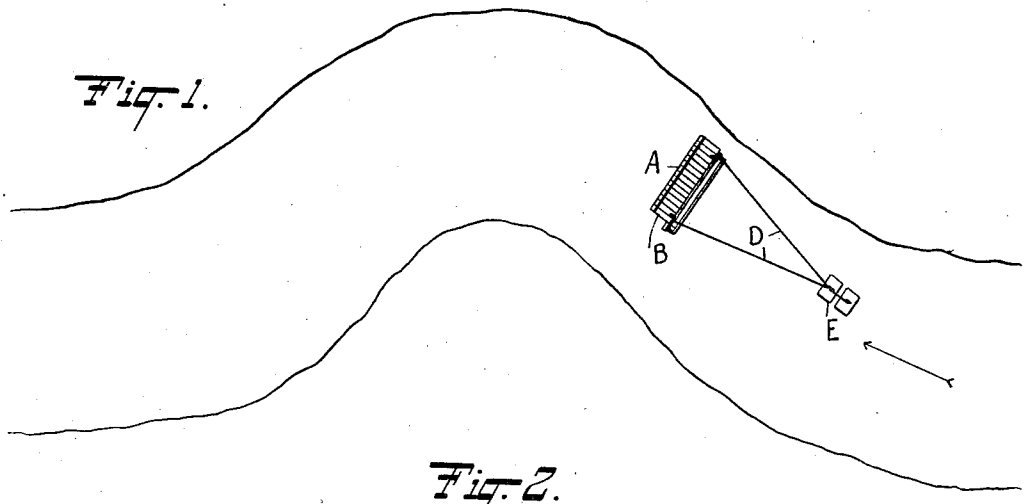


W. H. DEAN.
 STREAM DEFLECTOR.
 APPLICATION FILED FEB. 20, 1913.

1,080,049.

Patented Dec. 2, 1913.



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM HENRY DEAN, OF SIOUX CITY, IOWA.

STREAM-DEFLECTOR.

1,080,049.

Specification of Letters Patent.

Patented Dec. 2, 1913.

Application filed February 20, 1913. Serial No. 749,614.

To all whom it may concern:

Be it known that I, WILLIAM H. DEAN, a citizen of the United States, and a resident of Sioux City, in the county of Woodbury and State of Iowa, have invented a new and Improved Stream-Deflector, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved stream deflector, more especially designed for use in rivers and other waterways, and arranged to divert or deflect the current of the waterway with a view to prevent the same from cutting into the bank, to maintain a channel along a proper predetermined line and to insure the formation of a permanent shore line.

In order to accomplish the desired result use is made of an apron made in sections hinged together, one of the sections forming an overflow or spillway and being float-supported, and the other section being inclined upstream and anchored in the stream.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the stream deflector as applied; Fig. 2 is an enlarged side elevation of the same with the waterway shown in section; and Fig. 3 is a face view of the deflector.

The stream deflector consists essentially of an apron made in two sections A and B connected with each other by hinges C formed of cables or other suitable material. The section B is inclined in an upstream direction and is held in this position by cables D extending upstream and connected with suitable anchorages E held on the bottom of the waterway, as plainly indicated in Fig. 2. The downstream section A is supported by floats F arranged on the downstream end of the section A so as to hold this section slightly inclined with a view to form an overflow or a spillway.

The upstream section B is preferably gradually reduced in height toward the shore, as plainly shown in Fig. 3, and the lower edge of this section B is provided with openings or serrations B' forming passages for the water with a view to produce an eddy underneath the apron to allow the sediment carried by the water to settle immediately below the apron, as plainly indicated in Fig.

2, thus gradually forming a permanent bank or shore. The lower end of the section B is weighted and for this purpose use is made of a box G attached to the apron section B and filled with stone, cement or other suitable material. By arranging the weight in the manner described, the apron is kept submerged and the relation of the sections A and B is maintained for the purpose mentioned.

The sections A and B are preferably formed of planks fastened to suitable cross pieces, as indicated in the drawings, but I do not limit myself to this particular construction as the same may be varied without deviating from the invention.

The stream deflector shown and described is very simple and durable in construction, can be readily placed in position in the waterway with a view to prevent the current from cutting into the bank, to maintain a channel along a predetermined line, and to insure the formation of a permanent shore.

It is understood that the water passing under the apron section B produces a horizontal or building current instead of forming a vertical or digging current. By having the weighted box G at the lower end of the apron section B the latter is held at such an angle that the current is prevented from descending rapidly and cutting away the bottom of the waterway, and the downward course of the current is directed into an outward course away from the bank as well as away from the channel.

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

1. A stream deflector comprising a submerged apron made in sections hinged together, one of the sections being float-supported and forming an overflow for the water, and the other section being inclined in an upstream direction, and upstream anchoring means for the said inclined apron section.

2. A stream deflector comprising a submerged apron formed of an inclined upstream section and a float-supported overflow section, the sections being hinged together, weighting means on the lower end of the upstream section, and anchorage means for the apron.

3. A stream deflector, comprising a submerged apron made in sections hinged together, one of the sections being float-sup-

ported and forming an overflow for the water and the other section being inclined in an upstream direction and having its lower edge provided with passages for the
3 water to form an eddy underneath the apron on the downstream side thereof, and anchoring means for the said apron.

4. A stream deflector comprising a sub-merged apron made in sections hinged to-
10 gether, one of the sections being float-supported and forming an overflow for the water and the other section being inclined in an upstream direction and gradually decreasing in height toward the shore side, the
15 lower edge having openings for the passage of the water, and anchoring means for the apron.

5. A stream deflector comprising a sub-

merged apron made in sections hinged together, one of the sections being float supported and forming an overflow for the water and the other section being inclined in an upstream direction and having its lower edge provided with openings for the passage of the water, a weight box on the
25 lower end of the upstream section, and anchorage means connected with the upstream section of the said apron.

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

WILLIAM HENRY DEAN.

Witnesses:

HENRY R. DEAN,
OSCAR M. DEAN.