

J. H. TAYLOR.
 REINFORCED REVETMENT.
 APPLICATION FILED SEPT. 2, 1908.

929,728.

Patented Aug. 3, 1909.

2 SHEETS—SHEET 1.

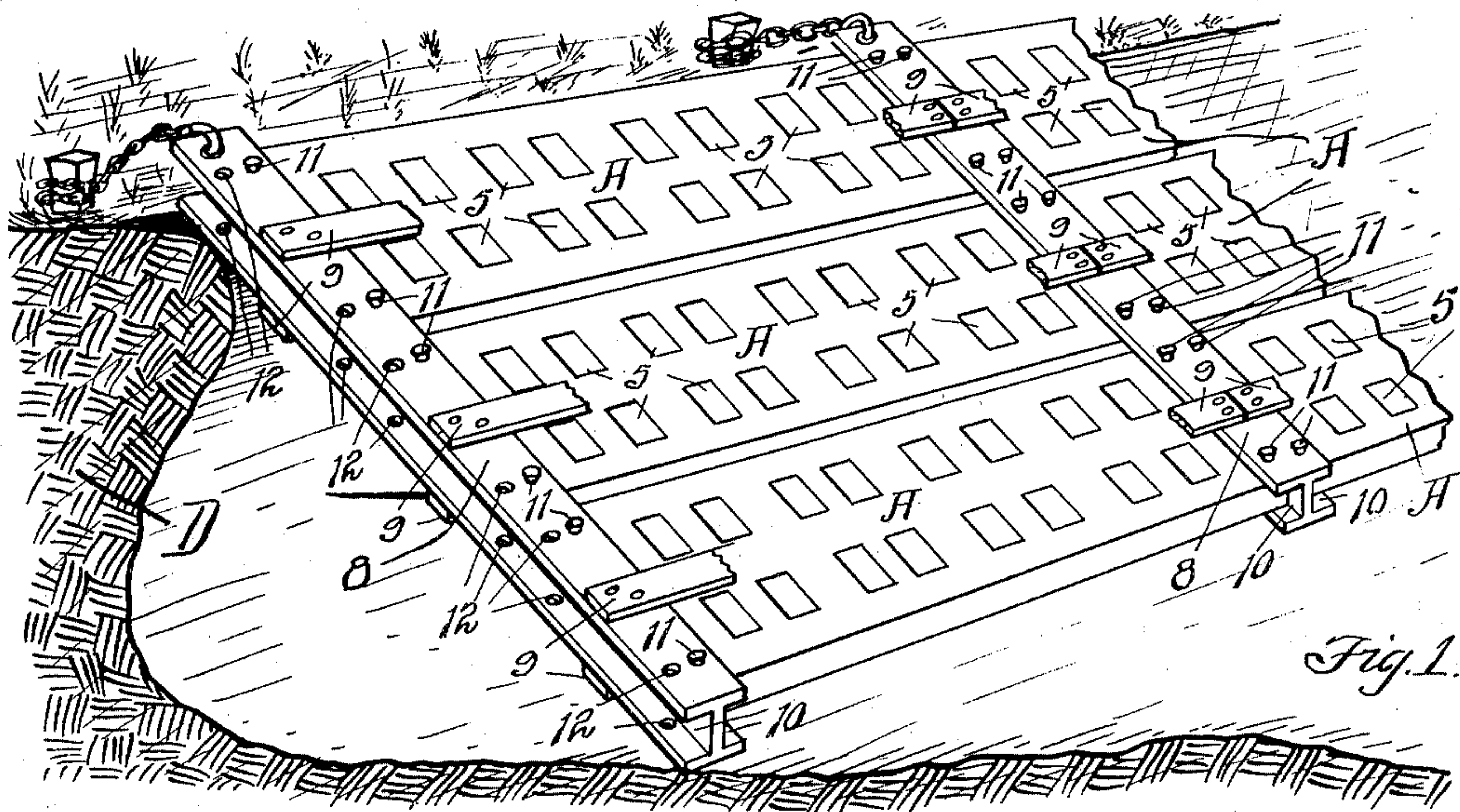


Fig. 1.

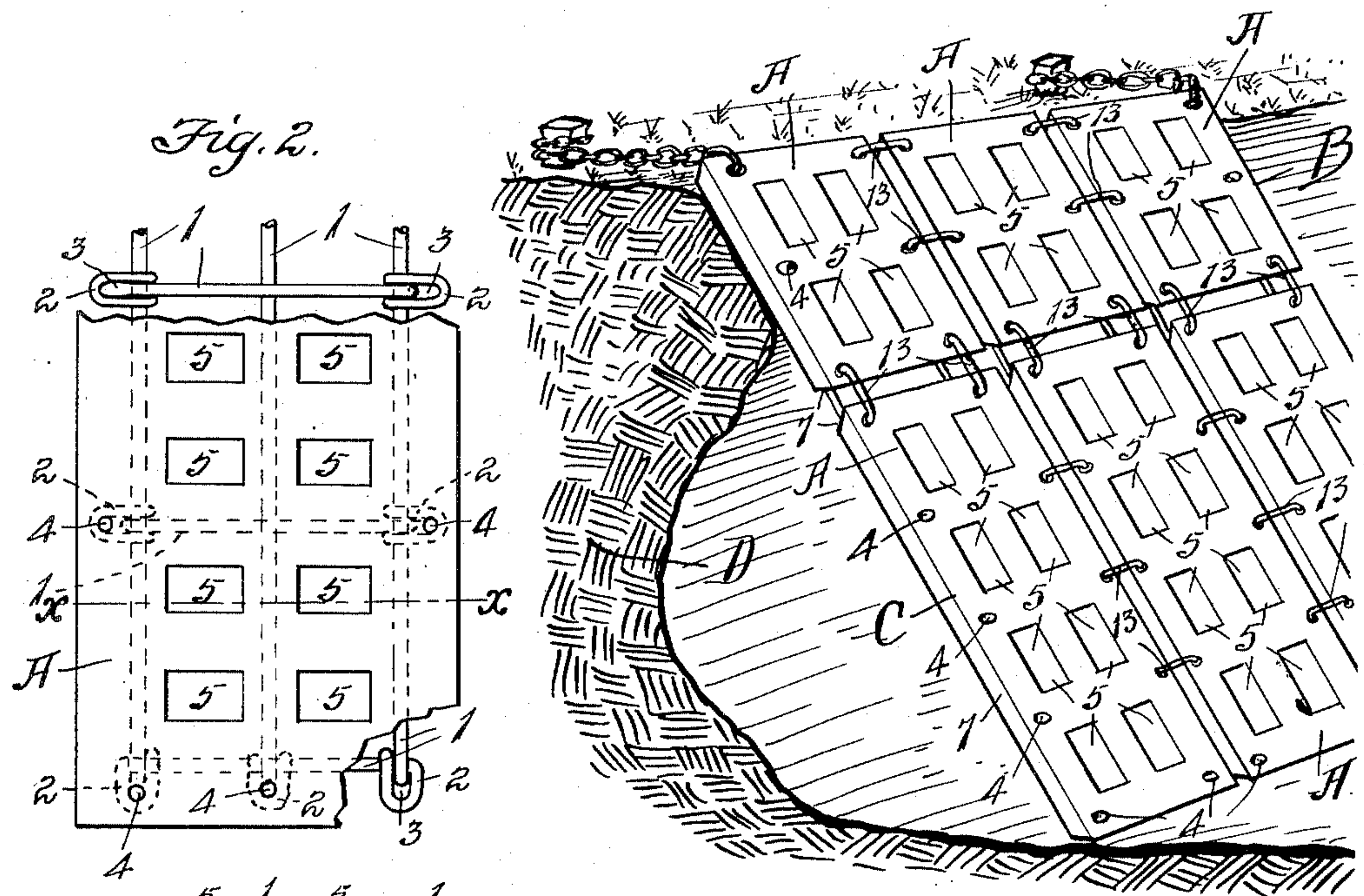


Fig. 2.

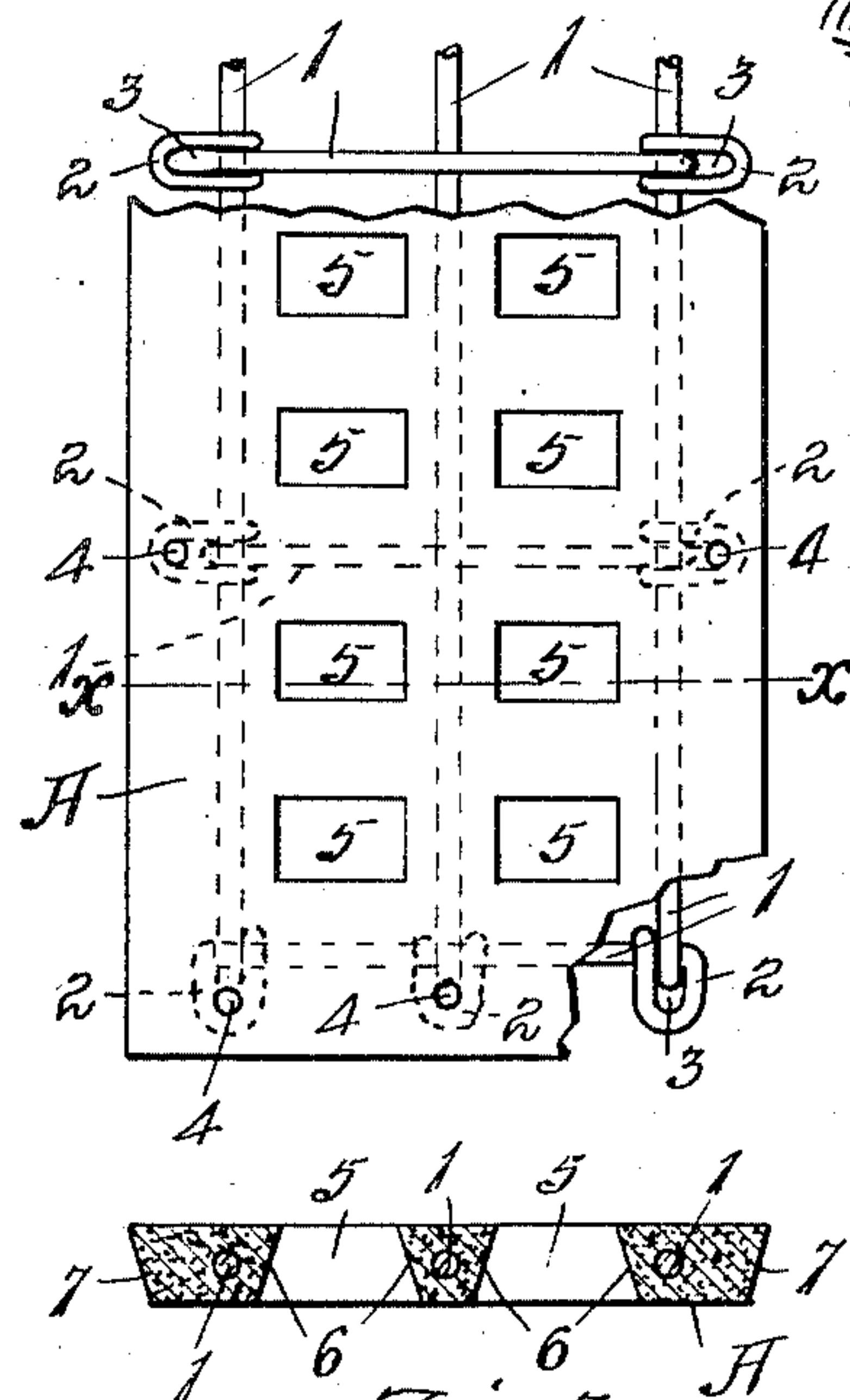


Fig. 3.

Witnesses:

Wheator,
Grandell & S.S.

By,

John H. Taylor.

F. J. Larson & Co.

Attorneys

Fig. 4.

Inventor

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Fig. 5.

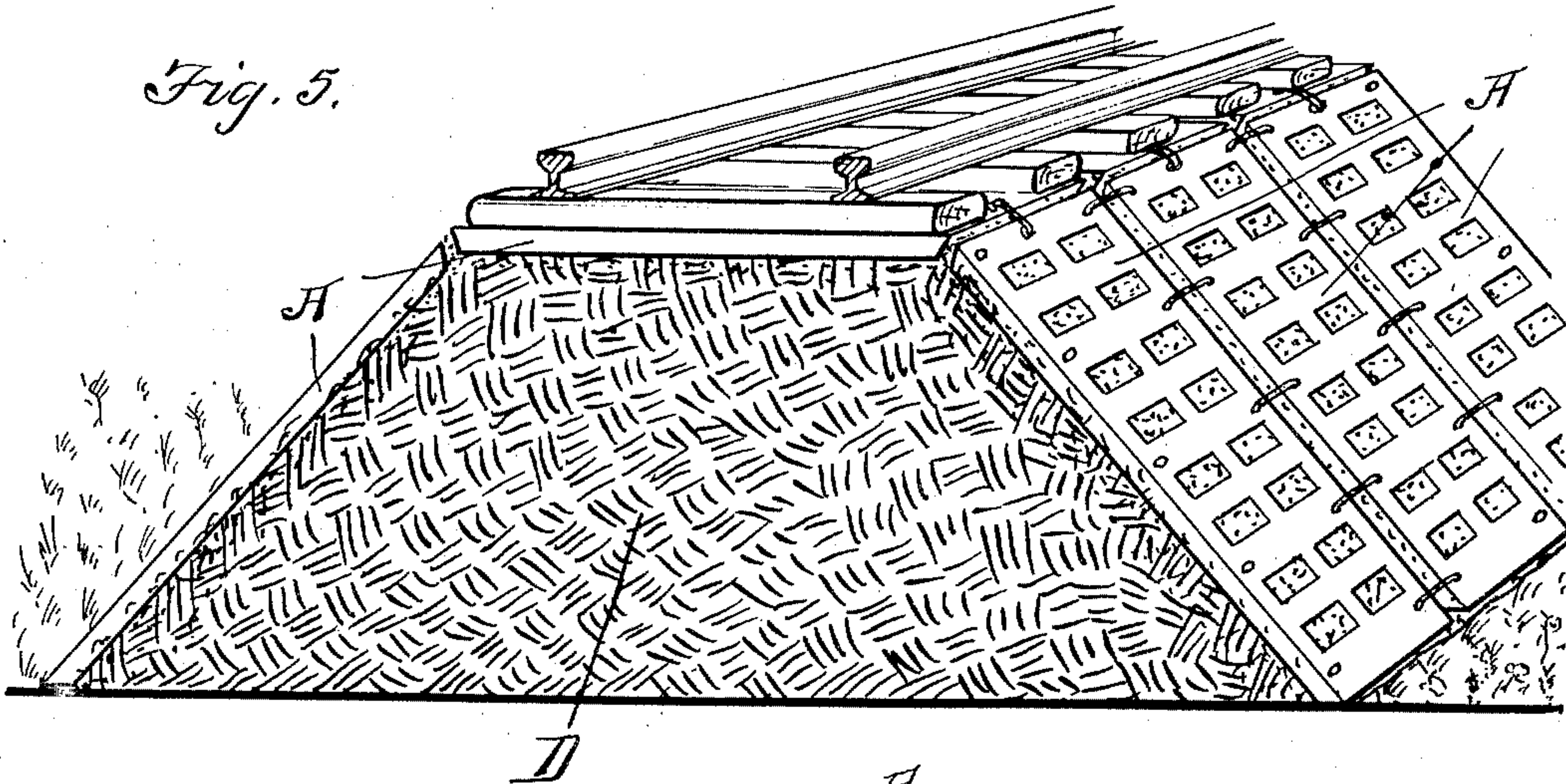
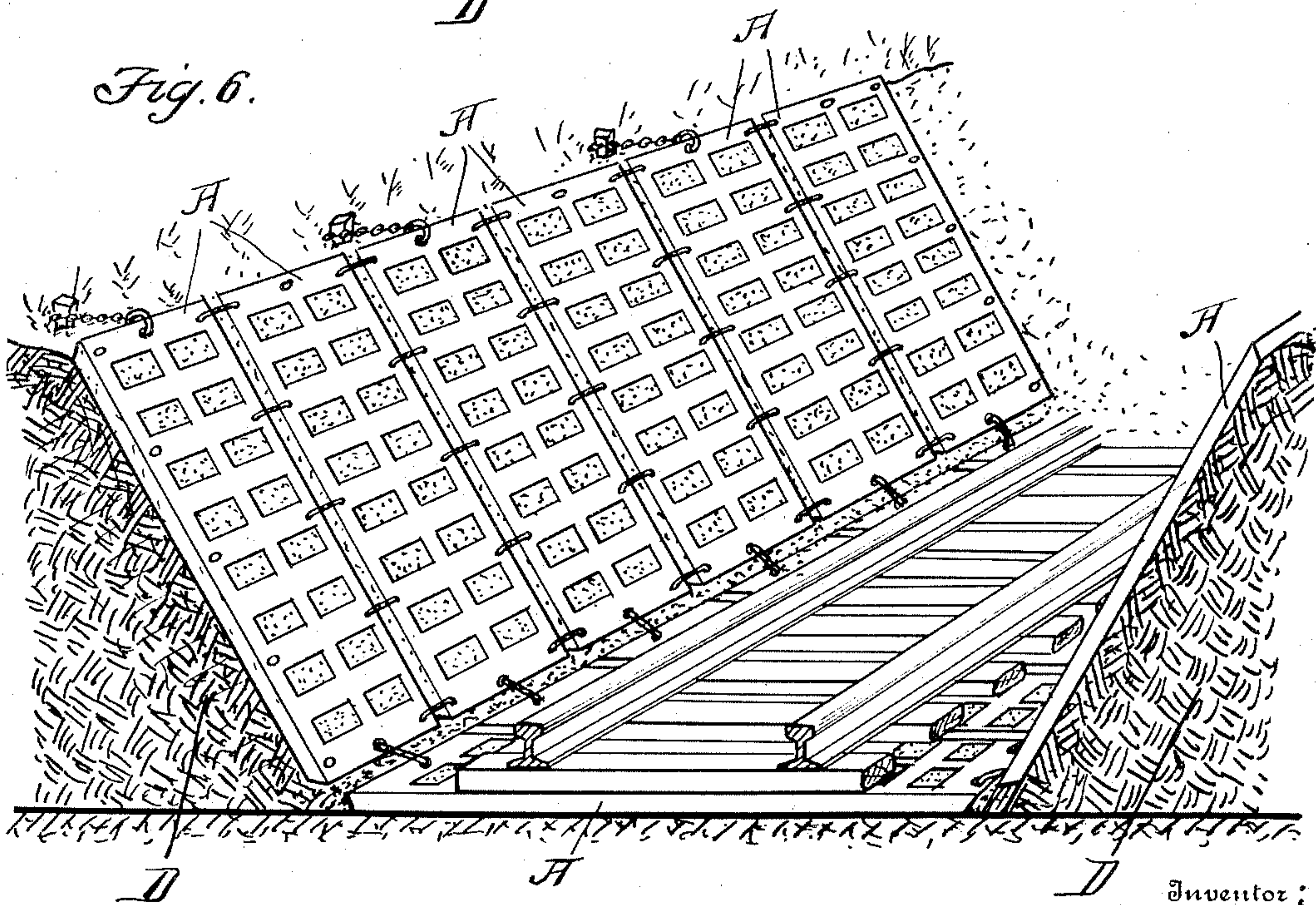


Fig. 6.



Witnesses:

Wheaton & Co.
Grandee S.P.S.

By

John H. Taylor:

F. J. Larson & Co.

Attorneys.

UNITED STATES PATENT OFFICE.

JOHN H. TAYLOR, OF WATERLOO, NEBRASKA.

REINFORCED REVETMENT.

No. 929,728.

Specification of Letters Patent.

Patented Aug. 3, 1909.

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To all whom it may concern:

Be it known that I, JOHN H. TAYLOR, a citizen of the United States, residing at Waterloo, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Reinforced Revetments, of which the following is a specification.

My invention relates to improvements in reinforced revetment and has for its object to provide a revetment comprising a series of units formed of plastic material for the protection of banks of streams etc., and other places where it is desired to protect the bank or face of the ground from erosion, either by the current of the stream, beating of the waves or the washing of rain.

A further object of the invention is to provide suitable means for holding the several units forming the revetment in position.

With these and other objects in view the invention consists in certain new and novel features of construction and combination and arrangement of parts as will be more fully hereinafter described and pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification wherein like characters of reference denote similar parts throughout the several views: Figure 1, is a perspective view of my improved revetment and one style of means for holding the same in place. Fig. 2, is a detail of one of the reinforced units or panels with portions thereof broken away. Fig. 3, is a sectional view taken on line X—X of Fig. 2. Figs. 4, 5 and 6 are views illustrating the various applications of my improvements.

Referring to the drawings A, designates a unit of the revetment which comprises a panel of plastic material so as to resist the action of water.

The reference character 1, designates wires or rods which are molded within the panels A both longitudinally and laterally for the purpose of reinforcing or strengthening the units or panels. The ends of the wires or rods 1, are provided with a loop 2 to form an eyelet 3, which eyelets 3 are adapted to register with the openings 4 near the side edges and end of the units or panels A. It will be observed that the wire or rod reinforced frame including the looped ends are completely embedded in the plastic material forming the panels. The panels or units A, are further provided with a plurality of

elongated openings 5, which openings have their faces beveled as at 6, as clearly shown in Fig. 3, of the drawings. The side edges and ends of the panels A, are also beveled as clearly shown at 7, so that whenever the panels or units are laid closely together that in case of the earth settling the panels or units could easily settle into position without binding one another.

In Fig. 1, of the drawings I have shown the units or panels A, held in position by means of a frame or holder which will now be described.

The frame or holder consists of a plurality of I beams 8 suitably spaced apart and connected together by means of suitable cross-pieces 9, which are suitably secured to both sides of the I beams 8. By this arrangement of parts the side channels 10 of the I beams 8 serve as pockets for the ends of the units or panels A to rest in. The units or panels A, are held in position within the frame or holder by means of the pins 11, which pass through the side openings 12 of the I beams and the end openings 4 of the units or panels A.

In Fig. 4, of the drawings I have shown the units or panels A, connected together by means of suitable fastening devices 13 which pass through the openings 4 thereby forming a flexible mat or protecting body. This view shows the revetment consisting of two divisions B and C. Two divisions however are only used where the embankment is too high for one division. It will be observed that as many divisions as desired may be used to fully protect the bank or embankment which ever it may be. When the units or panels are assembled as shown in Figs. 4, 5 and 6 and used without a supporting frame or holder as shown in Fig. 1, they stand in the water vertically, likewise when used for railroad embankments and when carried or supported by a frame or holder the units or panels lie horizontally as clearly shown in Fig. 1. The units or panels are provided with the beveled openings so as to allow the water to pass through and deposit the sand, silt, and other solids carried in the stream behind the units or panels thereby causing it to fill up behind the revetment and form a solid bank having a face of plastic material thereby preventing any further cutting of the banks by the current of the stream.

The modification shown in Fig. 5, illus-

trates the units or panels A, laid upon a railroad embankment thereby protecting the face of the ground from the washing of rain. Here it will be readily seen that the beveled openings fill up with sand, dirt and other solids which helps to hold the revetment in position and further form a perfectly smooth embankment which will not wash during rains.

Fig. 6, illustrates the revetment as used in a railroad or other cut to prevent the dirt from washing down upon the tracks or road. When the units or panels are used in the manner and for the purposes shown in Figs. 5 and 6 they are tied or connected together by means of suitable fastening devices such as shown at 13 in Fig. 4, of the drawings.

In the various figures the reference characters D, designate the earth to be protected.

From the foregoing description it will be seen that I provide a protection for the banks of a stream or other body of water and embankments of various kinds that is extremely simple, durable and one which will attain the ends in view.

The various advantages of the herein described invention will readily suggest themselves to any competent parties engaged in this line of work.

Having fully described my invention, what I claim is:

1. A unit for a revetment comprising a panel of plastic material having a plurality of beveled openings, and a plurality of openings along the side edges and ends of said panel, and a wire frame having looped ends to form eyelets embedded within said panel, said eyelets being adapted to register with said last mentioned openings.

2. A revetment comprising a plurality of panels formed of plastic material having a plurality of tapered openings, and a plural-

ity of openings along the side edges and ends of said panels, a wire frame having looped ends to form eyelets embedded in each of said panels, said eyelets adapted to register with said last mentioned openings, and means passing through said openings for connecting said panels thereby forming a protecting body.

3. A revetment for the protection of the banks of a river or other body of water comprising a plurality of panels formed of plastic material having a plurality of tapered openings and a plurality of openings along the edges and ends of said panels, a wire frame having looped ends embedded in each of said panels, said looped ends being adapted to register with said openings, and means for holding said panels in suitable spaced relation to form a protecting body through which the current may pass in a divided state with reduced velocity.

4. A revetment for the protection of the banks of a river or other body of water comprising a plurality of panels formed of plastic material having a plurality of tapered openings, and a plurality of openings along the side edges and ends of said panels, a wire frame having looped ends embedded in each of said panels, said looped ends being adapted to register with said openings, a frame composed of I beams and suitable cross-pieces adapted to receive said panels, and means for connecting said panels to said I beams in suitable spaced relation thereby forming a rigid protecting body.

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

JOHN H. TAYLOR.

Witnesses:

ANNA BURRESS,
FREDK. J. LARSON.