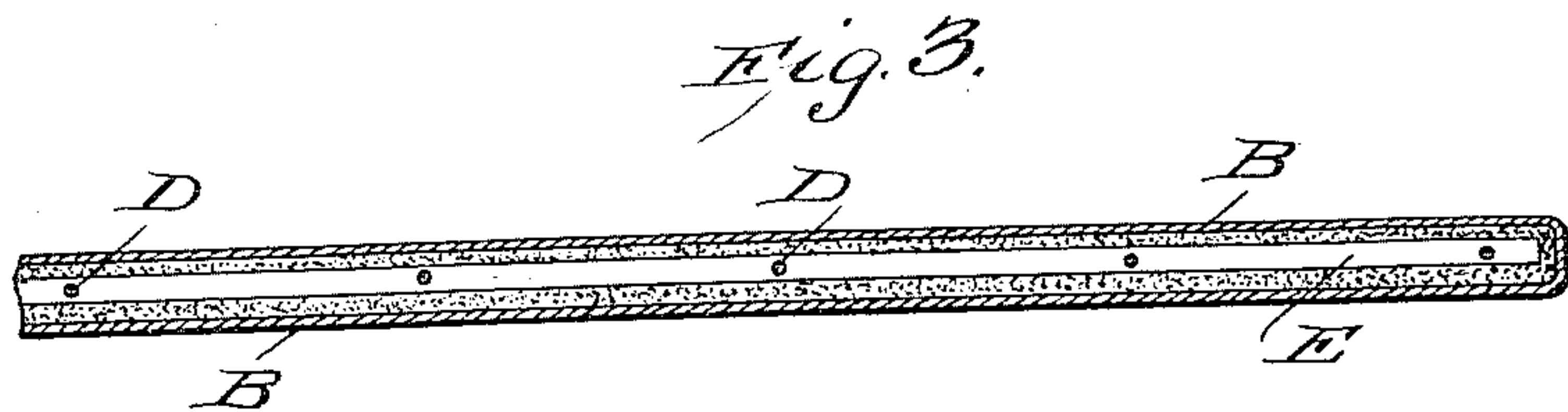
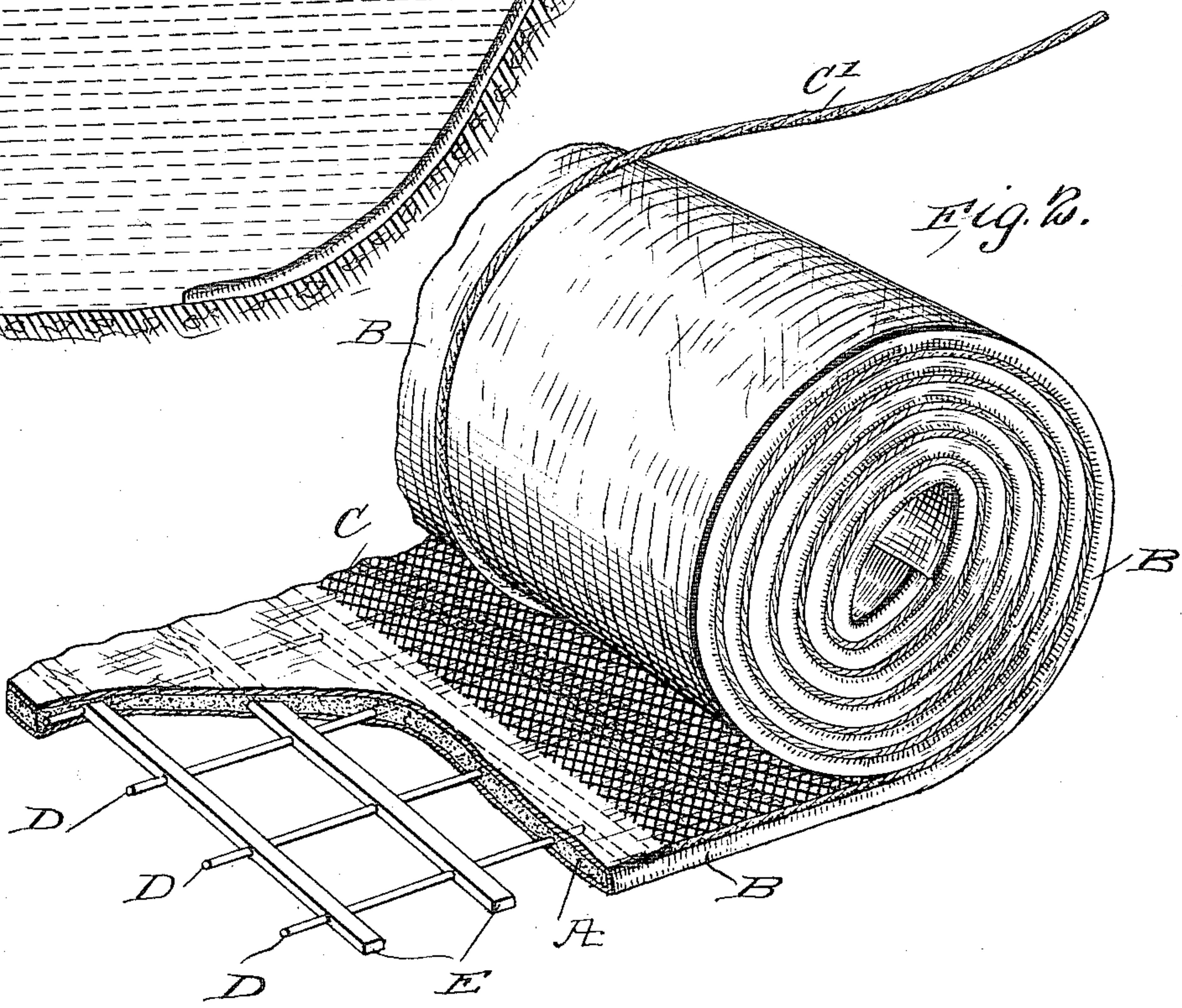
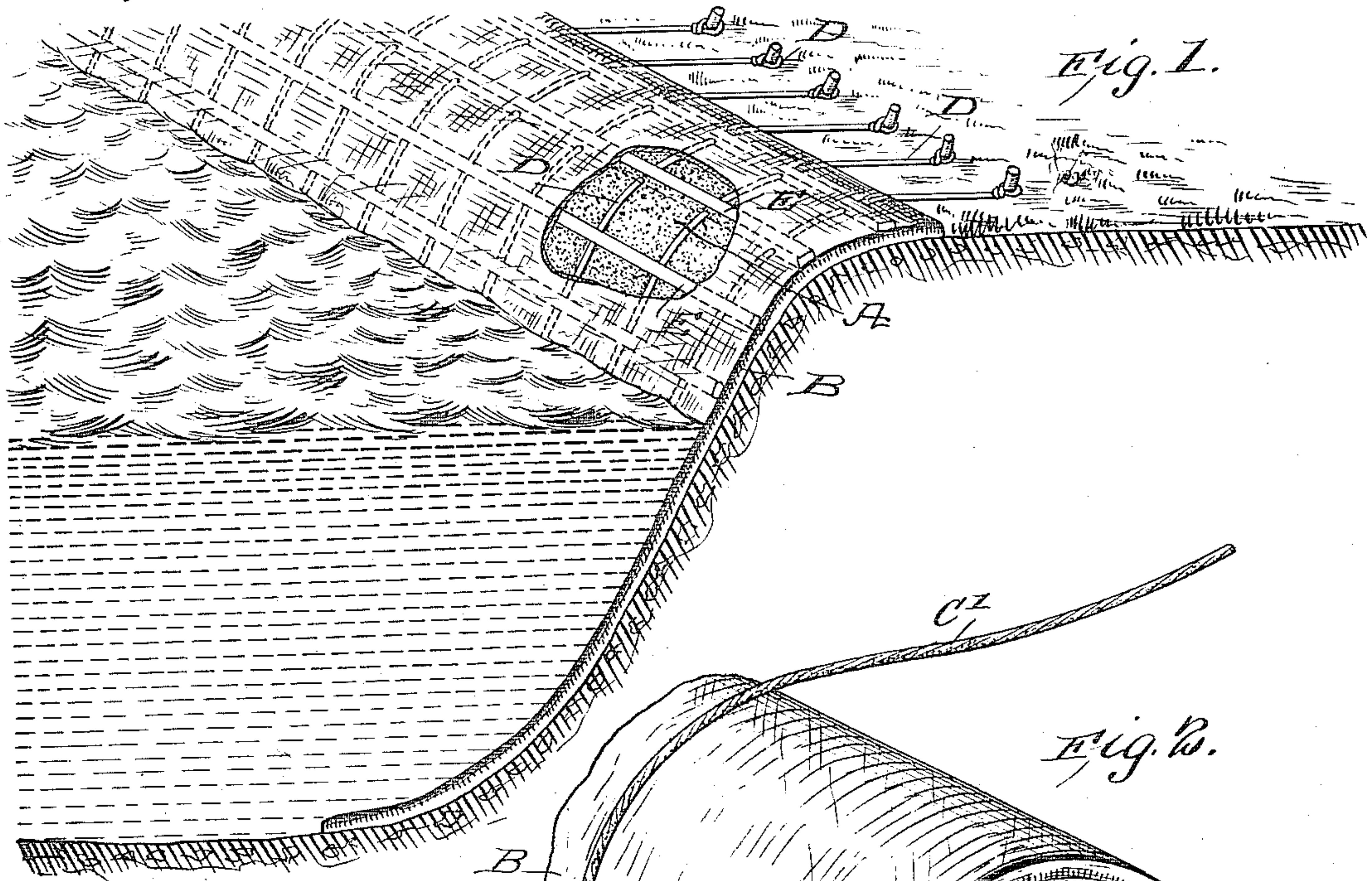


C. C. CONDIE.
 REVETMENT MATTRESS.
 APPLICATION FILED NOV. 9, 1910.

Patented Jan. 31, 1911.

983,209.



WITNESSES:
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UNITED STATES PATENT OFFICE.

CHRISTOPHER C. CONDIE, OF MEMPHIS, TENNESSEE.

REVTMENT-MATTRESS.

983,209.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed November 9, 1910. Serial No. 591,437.

To all whom it may concern:

Be it known that I, CHRISTOPHER C. CONDIE, a citizen of the United States, and a resident of Memphis, in the county of Shelby and State of Tennessee, have invented certain new and useful Improvements in Revetment-Mattresses, of which the following is a specification.

This invention is an improvement in revetment mattresses such, for instance, as is illustrated in my former application for Patent No. 566,315 filed June 11, 1910, the mattress being designed for use for revetment purposes, especially in connection with the protection of the bottom and sides and the caving banks of rivers such as the Mississippi.

The present invention has for an object to provide certain means for reinforcing and strengthening the mattress in such manner as to prevent tearing of the covers employed for retaining the concrete mass, together with means for facilitating the unrolling of a mattress when wound in roll form and also means for anchoring a revetment mattress on a bank to overcome the tendency to slip down the bank in the use of the mattress.

The invention consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawing Figure 1 is a perspective view of the invention as in use on a bank, parts being broken away and others shown in section. Fig. 2 is a detail perspective view, parts being removed and others shown in section, illustrating the specific construction of the mattress. Fig. 3 is a cross section of the mattress.

In constructing the mattress, ordinarily I employ cementitious matter A between two opposite coverings B which coverings may be of any suitable cloth or other textile material and the filling may include cement mixed with broken stone or other suitable material to form a concrete.

It is found in practice that the concrete is very heavy and there is a danger at times, when the mattress is wound in the form of a roll, of the wet cement tearing the cloth. To avoid this, I use a reinforcement in the form of a net C which may be of rope net or other suitable material and is designed to be rolled up with the mattress and to operate to take the strain of the wet concrete material from the cloth and thus relieve the cloth of the danger of breakage. The net

may be commensurate in length and width with the mattress to which it is to be applied and by preference a rope C' is connected with the inner end of the net when wound into the mattress so that by pulling on the rope the mattress may be unrolled for use. The net thus operates to overcome the danger of tearing the covers and also co-operates in the unwinding of the roll for use. In practice it is also found that when a mattress is placed on a steep bank especially under water, there is a tendency for the mattress to slip down because of the weight. I seek to avoid this by providing an anchorage means which comprises longitudinal strands D, preferably wire, laid into the body of the concrete before the top cover B is put on and on these wires D I place cross strips or clogs E at intervals, which clogs may be secured to the strands D in any suitable manner and may be of metal or wood as preferred. These clogs tend to prevent any displacement of the concrete material longitudinally of the mattress and also prevent any creeping of the mattress along the longitudinal strands D and the strands D are extended at D' at the upper end of the mattress and may be tied or anchored to points on the shore either by securing the strands to trees or stumps or by driving anchorage stakes or otherwise, as may be most convenient to the special locality in which the mattress is to be used.

By the novel construction described, I provide for reinforcing the mattress in such manner as to prevent its breaking through the covers and thus increase its efficiency, I facilitate the handling of the mattress by providing means to aid in unrolling the same and I also provide means for the convenient anchorage of the mattress in position so it will not tend to slip down a steep bank, when applied thereto.

In my former application No. 566,315 before referred to, the filling includes specifically concrete in dry form, while in the present construction, the filling is specifically a wet concrete, rendering the mattress quite heavy and making it desirable in the actual use of the invention to employ reinforcing means shown and before described.

I claim:

1. A revetment mattress comprising a filling impregnated or combined with cementitious matter, covers above and below the same, a net adapted to be rolled with the

mattress and having an unwinding rope at one end, anchorage wires extending longitudinally through the mattress and projecting at one end beyond the same and transverse clogs on the anchorage wires within the mattress, all substantially as and for the purposes set forth.

2. A revetment mattress comprising a filling impregnated or combined with cementitious matter, covers above and below the filling and adapted to be wound with the latter into the form of a roll and a reinforcing net wound with the mattress.

3. A revetment mattress comprising a filling impregnated or combined with cementitious matter, covers above and below the same and a reinforcement extending approximately throughout the area of the mattress and having at one end an unwinding rope.

4. In a revetment mattress, a filling im-

pregnated or combined with cementitious matter, means for retaining the filling and anchorage strands extending longitudinally through the filling and projecting at one end beyond the mattress.

5. A revetment mattress comprising a filling impregnated or combined with cementitious matter, means for retaining the filling and strands extending longitudinally through the filling and provided with transverse clogs within the filling.

6. A revetment mattress in roll form and comprising a filling impregnated or combined with cementitious matter, means for retaining the filling and a reinforcing net wound with the mattress and adapted to reinforce the means for retaining the filling.

CHRISTOPHER C. CONDIE.

Witnesses:

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