

W. E. PEDLEY.

WALL CONSTRUCTION FOR DAMS OR DIKES.

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1,013,610.

Patented Jan. 2, 1912.

Fig. 1.

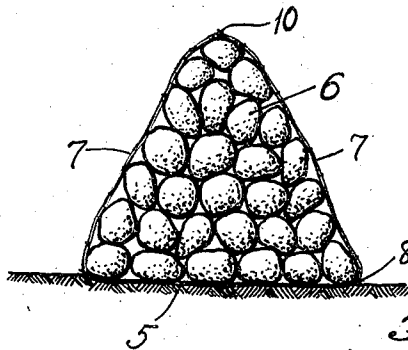


Fig. 4.

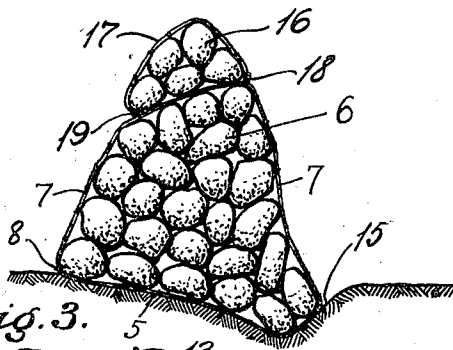
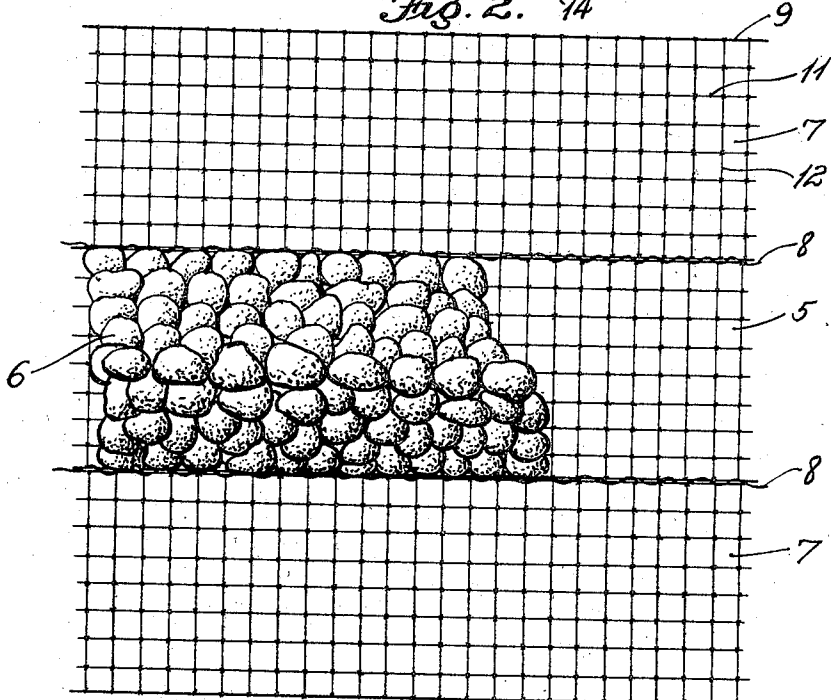


Fig. 3.



Fig. 2.



Witnesses.

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WALL CONSTRUCTION FOR DAMS OR DIKES.

1,013,610.

Specification of Letters Patent.

Patented Jan. 2, 1912.

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To all whom it may concern:

Be it known that I, WILLIAM E. PEDLEY, a citizen of Great Britain, residing at Riverside, in the county of Riverside and State of California, have invented new and useful Improvements in Wall Constructions for Dams or Dikes, of which the following is a specification.

This invention relates to the construction of dams, dikes, or levees for damming or guiding the currents of streams or rivers.

The invention is particularly useful when applied along the beds of streams which are dry at some seasons, but which may overflow their banks at other seasons.

The object of the invention is to produce a wall which can be very cheaply constructed and repaired, and which will not require any special tools or skill in masonry.

In the annexed drawing which fully illustrates my invention, Figure 1 is an end elevation of a wall constructed according to my invention. Fig. 2 is a plan of a wall in process of construction. Fig. 3 is a view similar to Fig. 1, showing only the lower portion of the wall, and illustrating a modified form. Fig. 4 is a view similar to Fig. 1 but illustrating the manner in which the wall may be conveniently repaired in case of a wash-out occurring beneath it.

Referring more particularly to the parts, in forming the wall I prefer to use three sheets or lengths of wire commonly known as "hog" wire, I place a main length or main run 5 upon the ground, and build a wall 6 upon this main length, said wall being formed of large boulders or rocks. To the side edges of the main run 5 of the wire I attach side runs or side pieces 7, which are formed of a similar material and the adjacent edges of the side pieces 7 are attached to the sides of the main piece by lacings 8 of telegraph wire or similar material. Having completed the stone structure and having given it substantially the form in end elevation as illustrated in Fig. 1, I fold up the side pieces 7 so that their outer edges 9 are brought together, and these outer edges are then connected by a longitudinal lacing wire 10, which is applied in the same manner as the lacing wires 8. The arrangement should be such that when the side runs 7 are connected together in this way, the wire forms an envelop fabric or container for the stone forming the wall. The runs or pieces of wire are formed of longitudinal

wires 11 and transverse wires 12, which are attached together at their crossing points in any suitable manner. The construction just described is useful when the ground upon which the wall is built is of light character and likely to be washed out. If this should occur, the wire envelop will still retain the boulders and prevent disintegration.

In some instances where the wall is formed upon hard soil or rock formation the main length 5 of the wire may be dispensed with and the wall may be retained simply by side runs 13 laced together at the top as in the first instance and connected at intervals at their lower edges by cross wires or tie wires 14. These cross wires 14 prevent the lower edges of the wire envelop from separating, so that they will retain the wall intact.

In case a wash-out should occur as indicated at 15 in Fig. 4 which tends to upset the wall or dislocate it, the wall can be readily repaired by placing boulders 16 on the upper side of the wall, which will restore its normal height, said boulders being retained by an auxiliary wire sheet 17, which envelops the boulders, the edges of the wire sheet 17 being secured at 18 and 19 to the main wire envelop of the wall.

The mesh of the wire will depend upon the size of the boulders employed but a square wire mesh of six inches will be used under most circumstances.

In this way I am able to form a wall or dam of very cheap construction. Even if the wall will not prevent the passage of the water current when first erected, earth will tend to deposit in the pockets between the boulders which will tend to make the wall impervious, and at all events the wall can arrest the water currents to prevent the damage which might occur in adjacent property.

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

1. A wall formed of loose boulders, a retaining envelop formed of mesh holding said boulders in position, and transverse members attached at one end to the envelop on one side of said wall and at the other end of the said envelop to the other side of said wall to prevent said lower edges from separating outwardly.

2. A structure of the class described, having a body formed of boulders, side pieces

formed of wire mesh connected together at their upper edges over said body, and members passing under said boulders connecting the lower edges of said side pieces.

5 3. A wall of the class described, having a body formed of boulders, lengths of wire mesh extending longitudinally of said body and adapted to retain said boulders, and longitudinal wires forming lacings connect-
10 ing said wire lengths together.

4. A wall of the class described, having main lengths of wire mesh at the base thereof, a body of boulders piled upon said main lengths, side lengths of wire mesh having

their lower edges attached to the side edges 15 of said main lengths and having their other edges connected together over said body; said wire mesh forming a container for said boulders and preventing the dislocation thereof.

20 In witness that I claim the foregoing I have hereunto subscribed my name this 15th day of April, 1910.

WILLIAM E. PEDLEY.

Witnesses:

F. D. AMMEN,
EDMUND A. STRAUSE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."