No. 647,322. Patented Apr. 10, 1900.

J. I. NEWBURG.

REVETMENT.

(Application filed Nov. 20, 1899.)

(No Model.)

Fig. 1.

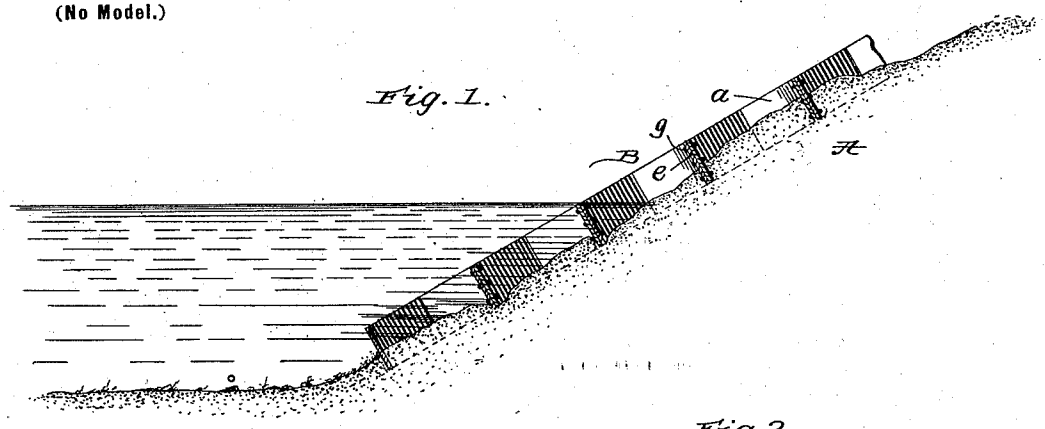


Fig. 2.

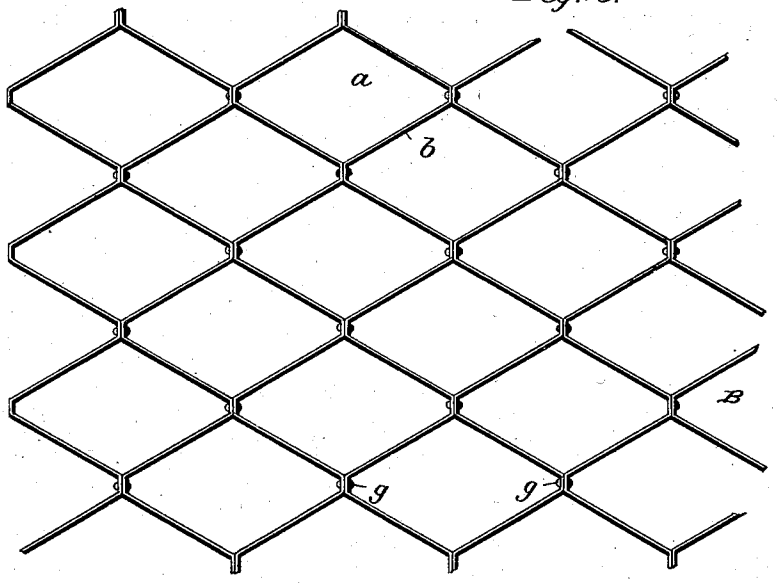
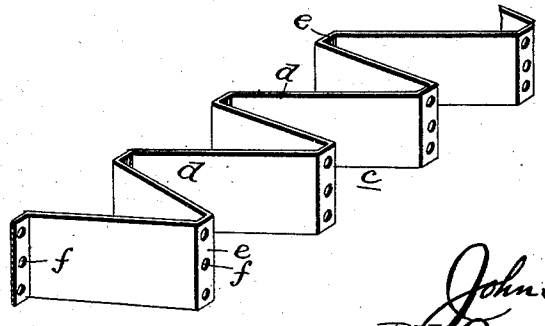


Fig. 3.



Witnesses:
C. H. Raeder
Jr. G. Cooney

Inventor
John I. Newburg.
By James Shelby
Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN ISRAEL NEWBURG, OF VICKSBURG, MISSISSIPPI.

REVETMENT.

SPECIFICATION forming part of Letters Patent No. 647,322, dated April 10, 1900.

Application filed November 20, 1899. Serial No. 737,646. (No model.)

To all whom it may concern:

Be it known that I, JOHN ISRAEL NEWBURG, a citizen of the United States, residing at Vicksburg, in the county of Warren and State of Mississippi, have invented new and useful Improvements in Revetments, of which the following is a specification.

My invention relates to means for protecting the banks of rivers and other bodies of water and contemplates the provision of a revetment which while simple and susceptible of being readily placed in position on the face of a bank is calculated to retain its position against the action of currents and effectually prevent wearing or washing away of the bank.

With the foregoing ends in mind the invention will be fully understood from the following description and claims when taken in conjunction with the accompanying drawings, in which—

Figure 1 is a transverse section illustrating my improved revetment in its operative position on the face of a river-bank. Fig. 2 is a plan view of a portion of the revetment. Fig. 3 is a perspective view of a portion of one of the sections which enter into the revetment.

Referring by letter to the said drawings, A is a bank of a river, and B is my improved revetment which is designed to be laid against the face of the bank after the manner shown in Fig. 1.

The revetment is in the form of an open-work frame and comprises a plurality of interstices or pockets *a*, the walls *b* of which are arranged so as to rest at an angle to the bank against which the revetment is placed. These interstices or pockets are calculated in practice to receive the sediment deposited by the water and enable such sediment to anchor the revetment against casual displacement and at the same time improve the efficiency of the revetment in protecting the bank.

In the preferred embodiment of the invention the revetment is made up of a plurality of sheet-metal sections *c*, which are designed to be formed in a shop and riveted or otherwise connected together at the point where the revetment is located. These sections are similar in construction and respectively comprise a number of truncated angles *d*, which are alternately disposed in opposite directions and are provided in their truncated portions *e* with apertures *f*, designed to receive connecting-rivets *g*. When the sections *c* are of the form shown in Fig. 3 and are arranged and connected together after the manner shown in Fig. 2, the interstices or pockets *a* are of approximate diamond shape. I do not desire, however, to be understood as confining myself to the shape of the sections *c* and interstices or pockets *a*, as they may be of any suitable shape.

Where a river-bank is long—that is, about one hundred feet from the surface of the water to the bottom of the river—my improved revetment is preferably placed in position in the following manner: A plurality of the sections *c* are arranged side by side and parallel to the river on the bank thereof and are riveted together. The upper portion of the revetment thus formed is suitably secured to the bank, and the lower or outer portion is placed on a flat-boat or float. With this done sections *c* are added one after another to the outer end of the revetment, the boat or float in the meantime being pushed out into the river. When the revetment is of the length desired, the outer end of the same is disengaged from the boat or float, and the revetment as a whole is permitted to settle on the river-bank.

Where the river-bank is short, the sections *c* may be connected together on the bank above the water, and the revetment may be lowered to its operative position gradually as the sections are added.

The individual sections *c* are light in weight, and hence it will be appreciated that the several sections may be assembled and connected together to form an efficient revetment with the employment of but a minimum number of hands and with but little effort on the part of the same.

When the revetment is properly placed in position, the water over the same deposits sediment in the interstices or pockets *a*, with the result that the revetment is securely held

against casual movement and is enabled to effectually prevent washing away or disintegration of the bank.

Having thus described my invention, what I claim is—

1. A revetment comprising an open-work sheet-metal frame adapted to rest against the face of a bank, and having interstices, the walls of which are arranged so as to rest at an angle to the bank against which the revetment is placed, substantially as specified.

2. A revetment comprising a plurality of bent sheet-metal sections so arranged as to form interstices between them, and connections between the said sections, substantially as specified.

3. A revetment adapted to rest against the face of a bank, and comprising a plurality of bent sheet-metal sections arranged so as to rest at an angle to the bank upon which the revetment is placed, and form interstices between them, and suitable means connecting the sections, substantially as specified.

4. A revetment placed on the bank of a river or other body of water and comprising a plurality of bent sheet-metal sections arranged one above the other on the bank and so as to rest at an angle to the bank and form interstices between them, and connections between the sections, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN ISRAEL NEWBURG.

Witnesses:
SOL BROWN,
G. SINA.