July 20, 1954 W. BUDD 2,683,968

SEA WALL

Filed Oct. 28, 1952 2 Sheets-Sheet 1

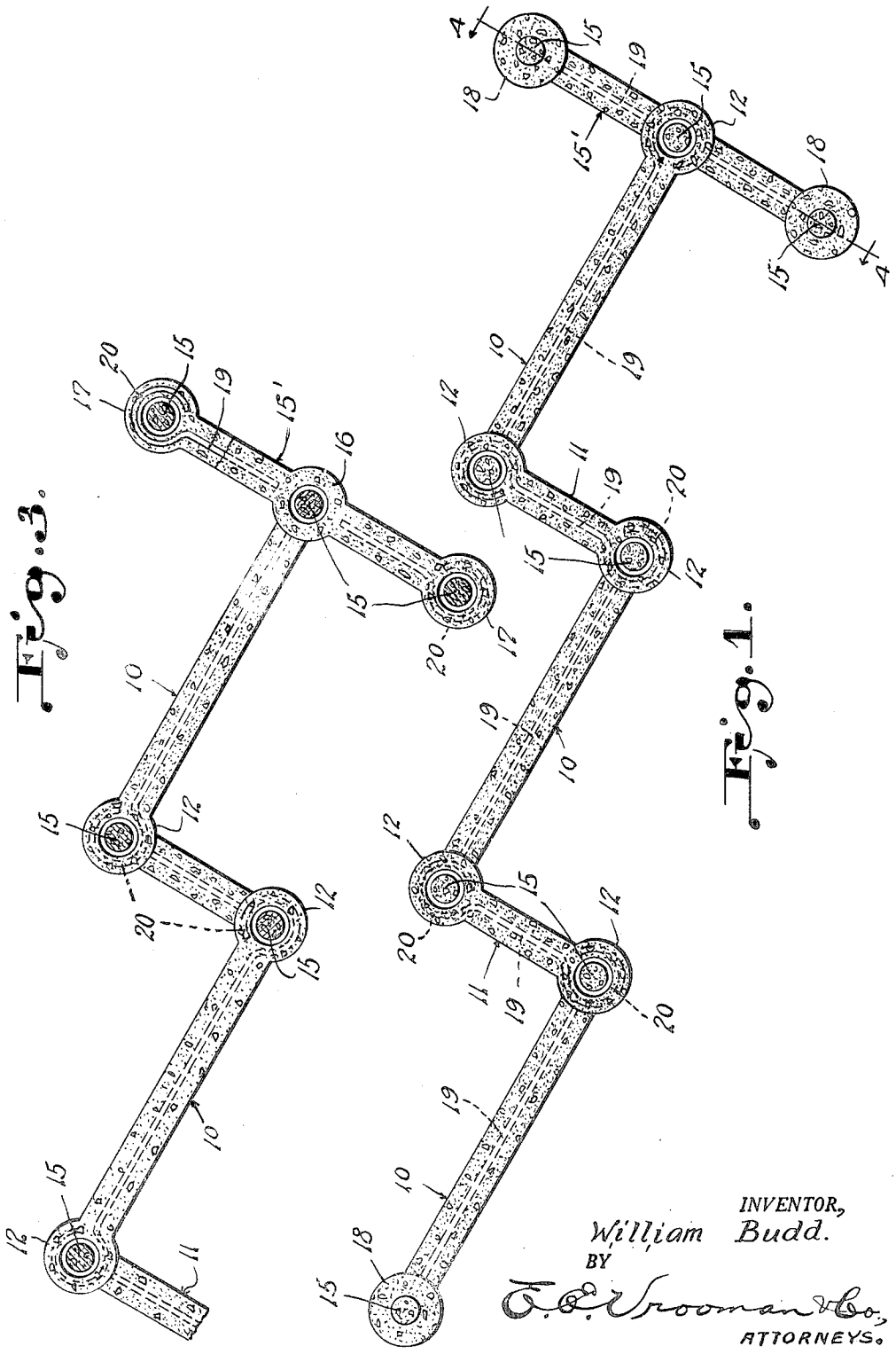


Fig. 3.

Fig. 1.

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2 Sheets-Sheet 2

Fig. 2.

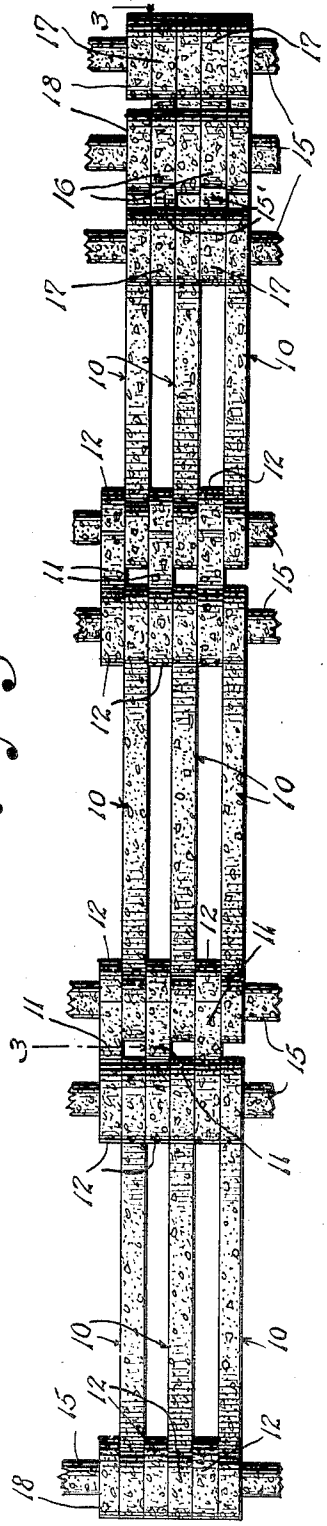


Fig. 5.

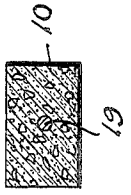
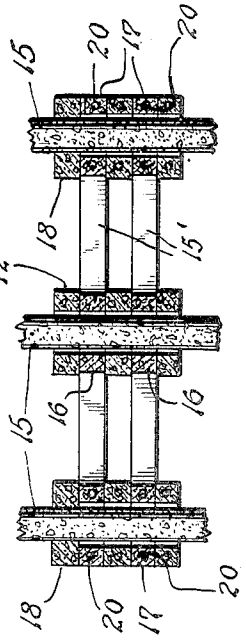


Fig. 4.



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SEA WALL

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Application October 28, 1952, Serial No. 317,210

2 Claims. (Cl. 61—4)

1

This invention relates to seawalls and has special reference to a sectional seawall consisting of a series of linked sections.

One important object of the invention is to provide a novel form of seawall wherein by means of linked sections a barrage will be formed for protecting a coast against the damaging action of waves and sand.

A second important object is to provide a device of this character assemblable in zig-zag formation with alternating links alternately disposed.

A third important object of the invention is to provide a device of this sort having improved anchor means for each end of the seawall.

A fourth important object of this invention is to provide an improved reinforcing arrangement for seawalls of this character.

With the above and other objects in view, the invention consists in general of certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly claimed.

In the accompaning drawings, like characters of reference indicate like parts, and:

Fig. 1 is a plan view of a portion of a seawall constructed in accordance with this invention and showing one form of anchoring means for an end thereof.

Fig. 2 is a side elevation of the device as shown in Fig. 1.

Fig. 3 is a detailed plan view of another end section of the seawall showing a modified form of anchoring means.

Fig. 4 is a section on the line 4—4 of Fig. 1.

Fig. 5 is an enlarged detailed section transversely of one of the elements of the seawall.

In the construction of the invention as shown in the accompanying drawings, there is provided a series of elongated link members 10 and a series of shorter members 11. Both the link members 10 and the shorter members 11 have at their ends enlarged hubs 12 forming eyes. These members are assembled as shown in Fig. 2 so that the hubs of the longer and shorter members are arranged in vertical stacks with the openings of the eyes alined so that piles 15 may be driven through these openings into the ground and thus hold the links firmly in place. As is shown in Fig. 1, the longer and shorter links are alternated and preferably are arranged at right angles to each other.

As a means for anchoring the device as shown in Figs. 1 and 4, and also in Fig. 3, special links 15' are used and these special links each has an enlarged boss 16 disposed centrally thereof and

2

an enlarged boss 17 at each end. This anchor arrangement is so arranged that the end links 10 are interfitted between links 15 and the terminal portions of links 15 have piles 18 driven therethrough. All of these links are reinforced by steel rods having straight portions 19 extending longitudinally of the respective link and bent at the ends to form eyes 20 surrounding and reinforcing the hubs 18.

It is very important that this reinforcing should be constructed in the manner set forth since it aids in preventing breakage at the eyes and if not prevented, breakage of the eyes would cause the entire seawall to rapidly disintegrate.

It is to be noted that the arrangement of concrete and reinforced links alternately forming short and long sections of the wall is highly efficient since the wall may be so laid that the short sections take the greater shock of waves normally to be experienced on the part of the coast to be protected by the wall. Moreover, the novel arrangement of anchor elements aids greatly in preventing dragging out of place by one end of the wall during violent storms.

It is obvious that minor changes may be made in the form and construction of this invention without departing from the material principles thereof. It is not therefore desired to confine the invention to the exact form herein shown and described, but it is wished to include all such as properly come within the scope claimed.

What is claimed as new, is:

1. In a sea-wall, a construction element of cement having an elongated body of rectangular cross-section and having a segmento-cylindrical hub at each end provided with an axially disposed vertical opening, said elements being arranged in rectangularly disposed sets with the hubs at respective ends of one set interposed between the hubs at the respective ends of a second set, and ground engaging piles extending through the openings at the interposed ends, the sets of elements being of alternate short and long dimension between the hubs, and a set of anchor elements each having a body and terminally disposed hubs, said anchor elements each also having a centrally disposed hub provided with an opening, said anchor elements being interposed between the end set of the above mentioned sets of elements with the central hubs of the anchor elements alined with the hubs at the free ends of a said end set of elements and disposed perpendicular to the elements to which they are attached.

2. In a sea-wall, a construction element of cement having an elongated body of rectangular

cross-section and having a segmento-cylindrical hub at each end provided with an axially disposed vertical opening, and a reinforcing rod embedded in said body and bent at each end to form an eye surrounding the opening of the respective hub, said elements being arranged in rectangularly disposed sets with the hubs at respective ends of one set interposed between the hubs at the respective ends of a second set, and ground engaging piles extending through the openings at the interposed ends, the sets of elements being of alternate short and long dimension between the hubs, and a set of anchor elements each having a body and terminally disposed hubs, said anchor elements each also having a centrally disposed hub provided with an opening, said anchor elements being interposed between the end set of the above

mentioned sets of elements with the central hubs of the anchor elements alined with the hubs at the free ends of a said end set of elements and disposed perpendicular to the elements to which they are attached.

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