P. KIRCHER.

CRIBBING.

APPLICATION FILED DEC. 12, 1921.

1,428,595. Patented Sept. 12, 1922.

Fig. 1

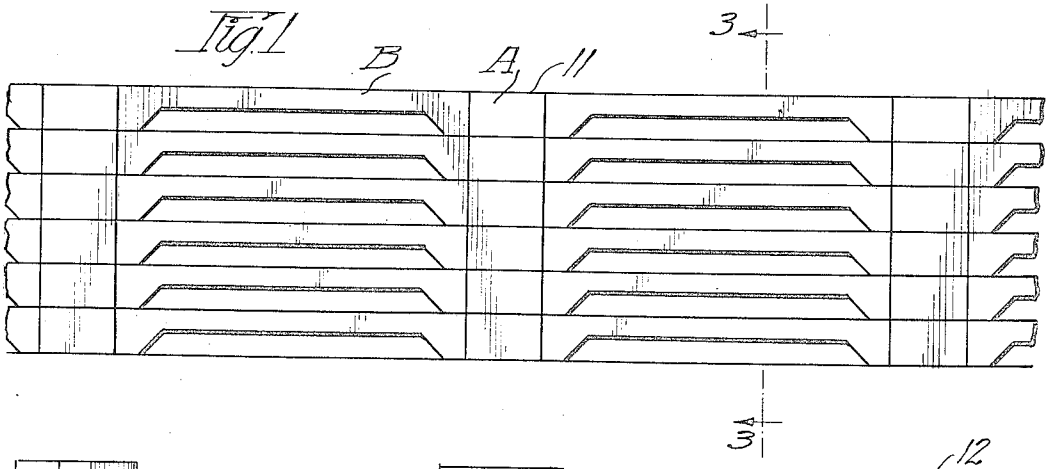
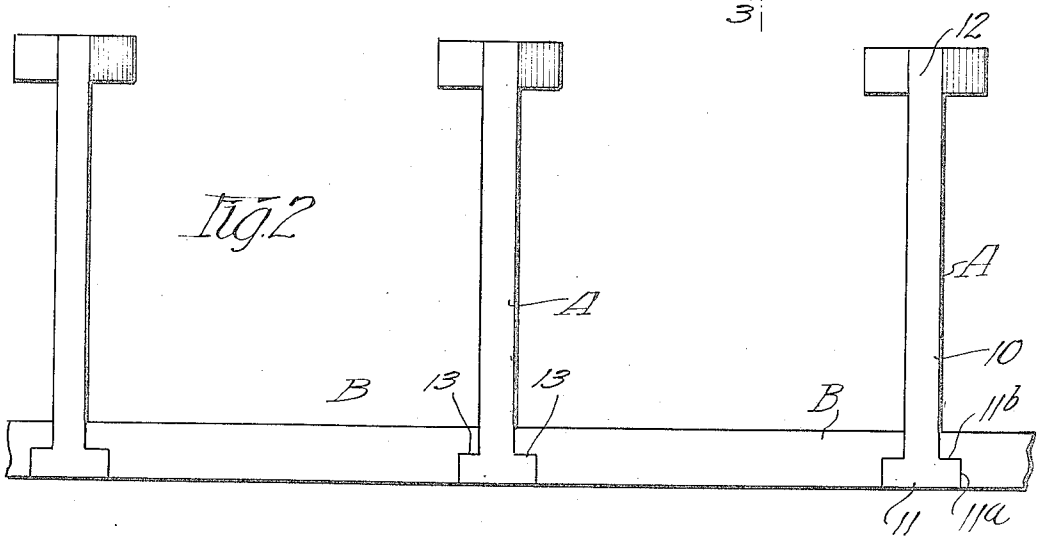


Fig. 2



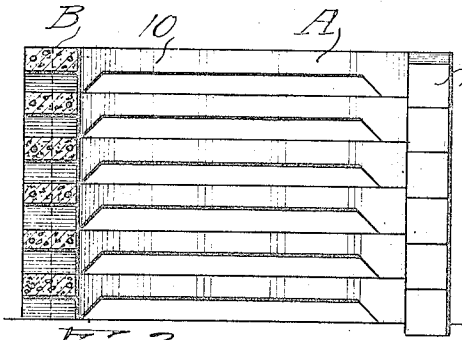


Fig. 3

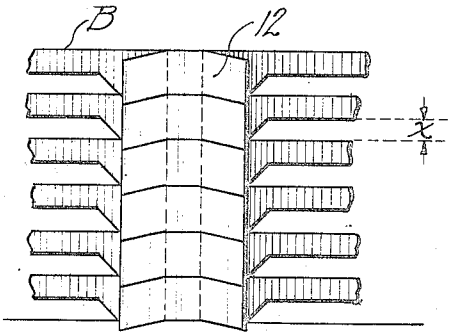


Fig. 4

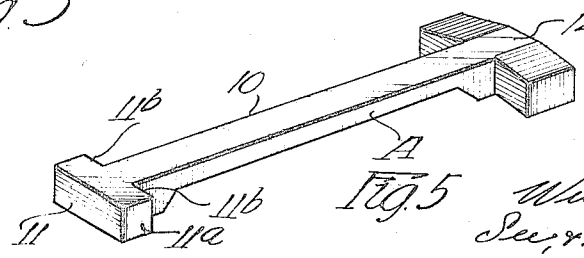


Fig. 5

Inventor
Paul Kircher
Williams, Bradbury,
Sec. & McCabb Attys.

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UNITED STATES PATENT OFFICE.

PAUL KIRCHER, OF CHICAGO, ILLINOIS, ASSIGNOR TO MASSEY CONCRETE PRODUCTS CORPORATION, OF CHICAGO, ILLINOIS, A CORPORATION OF VIRGINIA.

CRIBBING.

Application filed December 12, 1921. Serial No. 521,656.

To all whom it may concern:

Be it known that I, PAUL KIRCHER, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Cribbing, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to improved cribbing adapted for use as a retaining wall for railway fills and embankments. The cribbing of my invention may be manufactured in a factory and erected at any desired locality, the cribbing being formed of a plurality of interchangeable elements of such size and shape that they can be erected and positioned easily and by a very few workmen.

A preferred embodiment of my invention consists of but two distinct sets of elements, namely, a plurality of similar anchor slabs and a plurality of similar face slabs or stretchers. The face slabs or stretchers are arranged to interlock with the "heads" of the anchor slabs and the anchor slabs are so conformed that, when they are arranged in tiers, each slab tends to prevent displacement of the other slabs of the tier.

In the accompanying drawings illustrating my invention:

Figure 1 is a front elevational view of my improved cribbing;

Figure 2 is a top plan view of same;

Figure 3 is a view partly in section and partly in elevation taken on the line 3—3 of Figure 1;

Figure 4 is a rear view of one of the tiers of anchor slabs; and

Figure 5 is a perspective of one of the anchor slabs.

Similar characters of reference refer to similar parts throughout the several views.

The cribbing comprises a plurality of anchor slabs AA and a plurality of face slabs or stretchers BB. Each of the elements A consists of a body portion 10, a head 11 and a tail piece 12. The several elements AA are preferably identical in size and shape. While they may be formed of any suitable material, properly reinforced concrete is the most satisfactory material for the purpose. It will be noted that the surfaces 11^a and 11^b of each head 11 are plane surfaces and are at right angles to each other. The tail piece 12 of each anchor slab is concavo-convex in so far as its upper and lower surfaces are concerned. In the arrangement shown, the upper surface is in each case convex, the under surface being concave. A saving of material is effected by making the intermediate portions of the anchor slabs of less height than the head and tail piece portions thereof. (See Figures 3 and 5).

All of the stretchers BB are preferably of the same size and shape and, like the anchor slabs, are preferably formed of properly reinforced concrete. Each of the face slabs or stretchers is provided at its ends with rabbets 13—13. If desired, the intermediate portions of the stretchers may be of less height than the rabbeted extremities thereof, as illustrated. It should be remembered however, that the distance "X" should be so related to the width of the stretchers that there will be little or no tendency for the earth or other confined material to escape through the spaces between the stretchers when the same are assembled in the manner now to be described.

In erecting the cribbing, the anchor slabs AA are arranged in a plurality of parallel and properly spaced tiers. The stretchers BB are arranged in tiers at right angles to and between the spaced tiers of anchor slabs, the rabbeted ends of the stretchers lying immediately adjacent the surfaces 11^a of the anchor slab heads and behind the surfaces 11^b of said anchor slab heads.

The earth or other material to be retained by the cribbing is filled in behind the stretchers and over and around those portions of the anchor slabs which project rearwardly from the stretchers. The pressure of the retained material thus holds the stretchers tightly in engagement with the heads of the anchor slabs. The forward ends of the anchor slabs are held against displacement by the stretchers. The tail pieces of the several anchor slabs of each tier cooperate to maintain the rear ends of the anchor slabs of the tier in alignment. The weight of the retained material tends to prevent vertical displacement of the rear ends of the anchor slabs and the co-acting convex and concave upper and lower surfaces of the anchor slab tail pieces prevent lateral displacement of the rear ends of the anchor

slabs. The tail pieces, moreover, prevent fore and aft displacement of the anchor slabs.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A cribbing comprising a multiplicity of anchor slabs arranged in a plurality of spaced tiers, the rear ends of the anchor slabs of each tier being conformed to interlock to prevent lateral displacement of any of the slabs with respect to the others, laterally projecting portions on the forward ends of the anchor slabs, and a plurality of stretchers arranged in tiers between and at right angles to the tiers of anchor slabs, said stretchers being conformed to engage behind the laterally projecting portions of the anchor slabs and to be held thereagainst by the pressure of the material confined by the cribbing.

2. A cribbing comprising a plurality of anchor slabs arranged in spaced tiers, a plurality of stretchers extending between the tiers of anchor slabs, the rear ends of the anchor slabs of each tier being concavo-convex in transverse cross section for the purpose set forth.

3. A cribbing comprising a plurality of anchor slabs arranged in spaced tiers, said anchor slabs having T-shaped rear extremities, and a plurality of stretchers extending between the forward ends of the tiers of anchor slabs, said T-shaped rear extremities of the anchor slabs being concavo-convex in transverse cross section for the purpose set forth.

4. A cribbing comprising a plurality of anchor slabs arranged in spaced tiers, said anchor slabs being provided with T-shaped front and rear extremities, and a plurality of stretchers extending between the forward ends of the anchor slab tiers and being provided with end portions adapted to lie behind the forward extremities of the anchor slabs, the rear extremity of each anchor slab of each tier, except the uppermost, being conformed to interlock with the anchor slab immediately thereabove.

5. A cribbing comprising a plurality of anchor slabs arranged in spaced tiers, said anchor slabs being provided with substantially T-shaped extremities, a plurality of stretchers extending between the forward ends of the anchor slab tiers, said stretchers being provided at the ends thereof with rabbets to engage behind the T-shaped forward extremities of the anchor slabs, the rear extremity of each anchor slab of each tier, except the lowermost anchor slab, being conformed to interlock with the rear extermity of the anchor slab immediately therebeneath, substantially as and for the purpose set forth.

In witness whereof, I hereunto subscribe my name this 7 day of December, 1921.

PAUL KIRCHER.

Witnesses:

B. T. LANDERS,

G. H. REDDING.