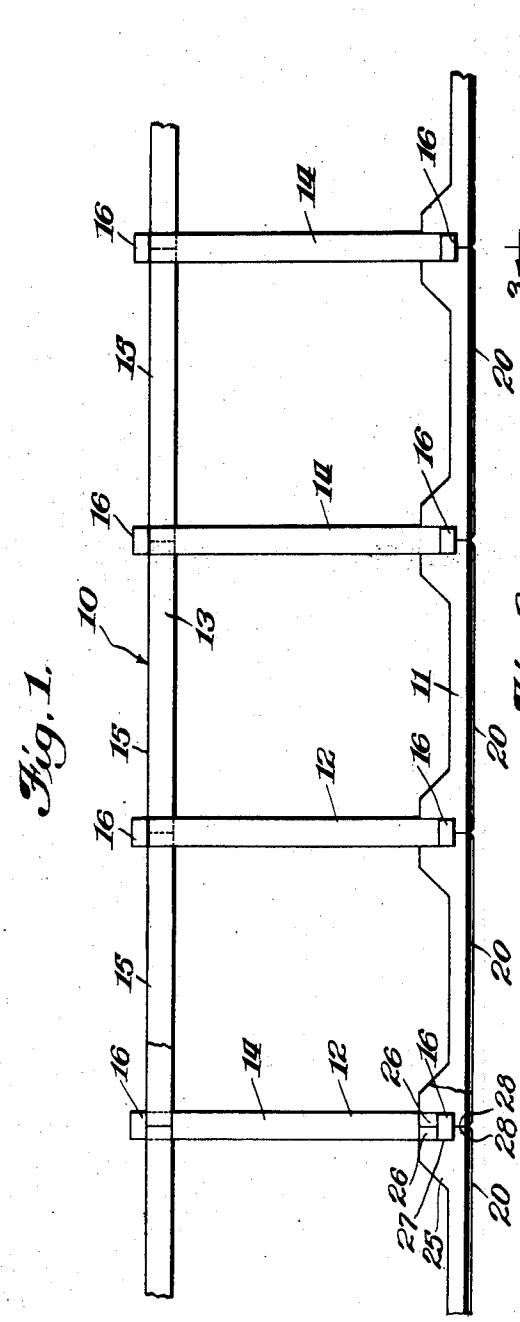
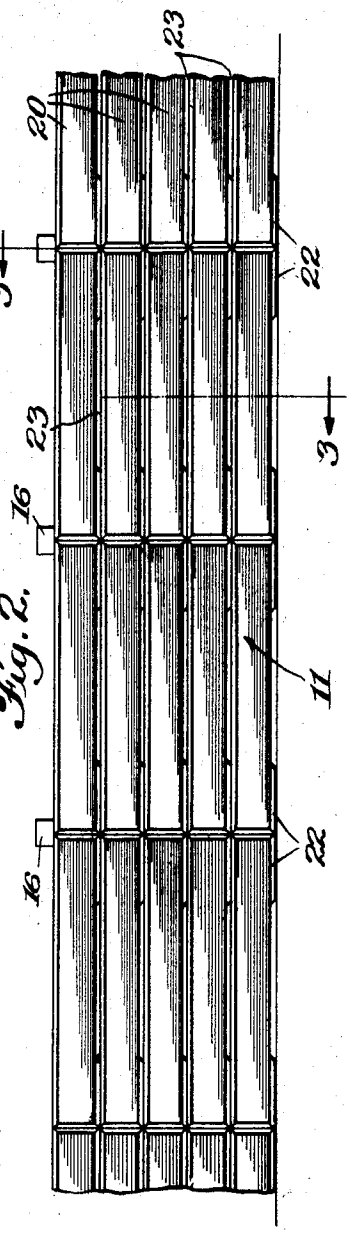
March 29, 1932. J. S. HUNTOON 1,851,959

CRIBBING .

Filed March 22, 1929 2 Sheets-Sheet 1





Inventor
John S. Huntoon
By Williams Bradbury
McCaleb & Hinkle
Attys.

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Filed March 22, 1929 2 Sheets-Sheet 2

Fig. 3

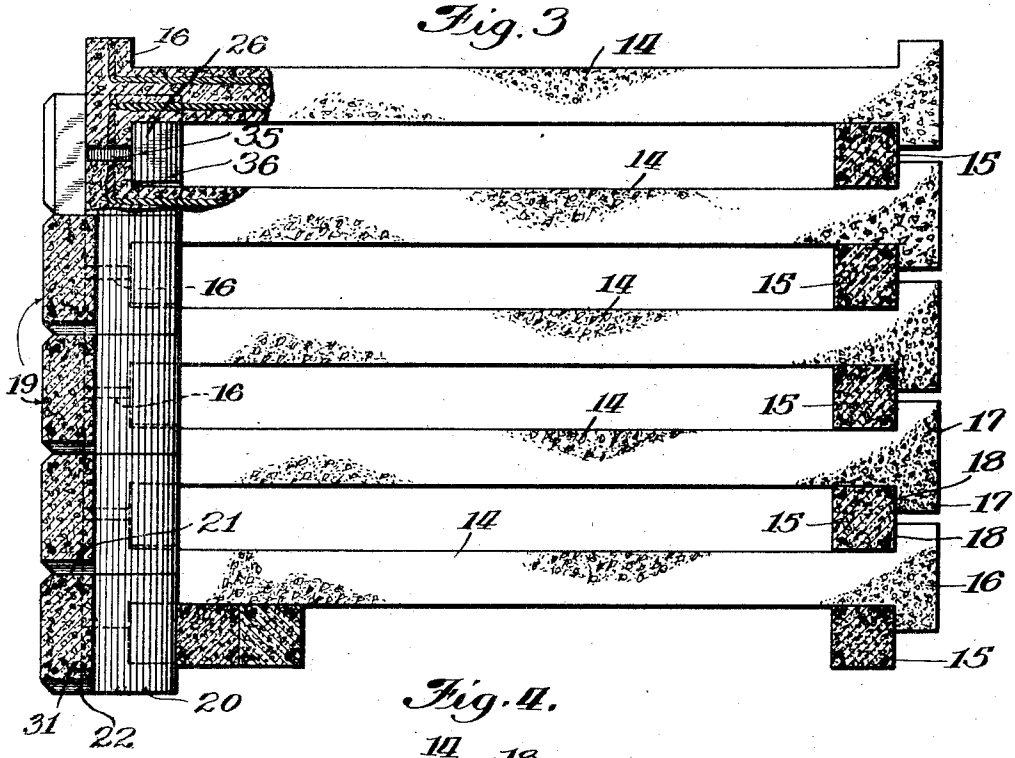
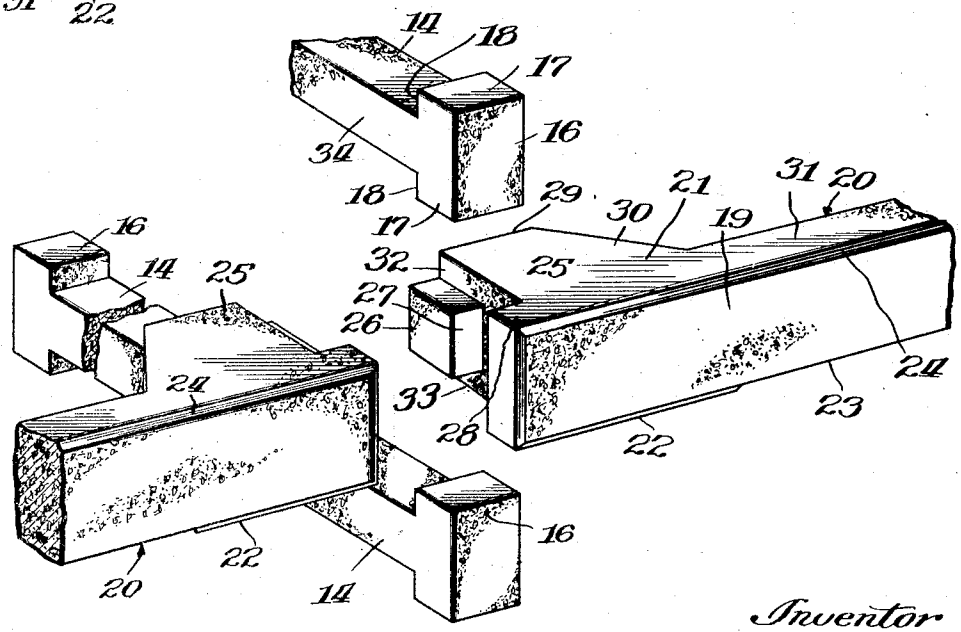


Fig. 4.



Inventor
John S. Huntoon

By Williams Bradbury McCabe & Hinkle
Attys.

Patented Mar. 29, 1932 1,851,959

UNITED STATES PATENT OFFICE

JOHN S. HUNTOON, OF DETROIT, MICHIGAN, ASSIGNOR TO MASSEY CONCRETE PRODUCTS CORPORATION, OF CHICAGO, ILLINOIS, A CORPORATION OF VIRGINIA

CRIBBING

Application filed March 22, 1929. Serial No. 349,021.

The present invention relates to cribbing, and is particularly concerned with cribbing of the closed face type; that is, cribbing adapted to be present a substantially closed forward wall.

The closed face cribbings of the prior art, as a general rule, are provided with headers which have heads projecting from the face of the cribbing, where they detract from the appearance of the cribbing, and in some cases, such projecting heads may be broken off, rendering the header ineffective to perform its function. The headers in the prior cribbings have also been so associated with the stretchers that any header bears the weight of the headers and stretchers above it, and the bearing strength of the header has limited the height to which a cribbing may be built.

One of the objects of the invention is the provision of an improved closed face cribbing structure in which the face of the cribbing has no projecting parts to mar its appearance, or capable of being broken off.

Another object is the provision of an improved cribbing in which substantially the entire top and bottom surfaces of the stretchers may be used as bearing surfaces, thereby greatly increasing the strength of the cribbing and the practical height to which the cribbing may be built.

Another object of the invention is the provision of an improved cribbing in which the headers are merely used to prevent lateral movement of the stretchers, without supporting the cribbing above them, and in which the headers are enclosed and protected by the stretchers at the face of the cribbing.

Other objects and advantages of the invention will be apparent from the following description and from the accompanying drawings, in which similar characters of reference indicate similar parts throughout the several views.

Referring to the drawings, of which there are two sheets;

Fig. 1 is a plan view of a cribbing constructed according to the present invention;

Fig. 2 is an elevational view of a portion of the same cribbing;

Fig. 3 is a sectional view taken on the plane of the line 3—3 of Fig. 2;

Fig. 4 is an exploded view in perspective showing the ends if a pair of headers and stretchers about to be assembled as shown in Fig. 1.

In the embodiment chosen to illustrate the invention, 10 indicates the cribbing in its entirety, which may consist of a forward stretcher wall 11, a plurality of transverse or backwardly extending header walls 12, and one or more longitudinally extending rear stretcher walls 13.

The rear wall stretchers 15 may consist of elongated concrete members having plane rectangular sides and ends, the rear stretchers being preferably square in cross-section, so as to eliminate any possibility of the stretchers being laid on the wrong side. The headers 14 may comprise elongated concrete members of substantially rectangular cross-section provided at one or both ends with heads 16 of substantially T-shape. That is, the heads 16 are formed by providing the ends of the headers 14 with two laterally projecting legs or members 17, also substantially rectangular in cross-section, forming transverse shoulders 18 at the ends of headers 14 for engaging the outside of adjacent stretchers to prevent lateral movement of said stretchers. The length of any leg 17 on the header 14 is preferably less than one-half the depth of the stretchers 15 so that the legs 17 do not engage adjacent parts of the headers above or below them.

The stretchers 20 comprise elongated concrete members, each of which is provided with a plane rectangular face 19 adapted to form a part of the substantially closed and finished forward surface of the stretcher wall 11. Each of the front stretchers 20 is also provided with a substantially plane upper bearing surface 21 and a substantially plane lower bearing surface 22, which may comprise substantially the entire top and bottom surface of the front stretcher 20.

In some embodiments of the invention, the front stretchers 20 may be provided with a longitudinally extending slot 23 at one side for forming a drainage slot when the front stretchers are in an assembled relation as shown

in Fig. 1, and in the preferred embodiment, it is contemplated that the drainage opening may be reduced to about one inch in width, thereby overcoming the objection present in the prior cribbings of the filling material leaching through the face of the wall.

In order to give the face of the forward wall 11 a uniform appearance, the faces 19 of the front stretchers 20 may be uniformly provided with a beveled surface 24 surrounding the face 19, and the width of the beveled portion upon the face may be substantially equal to the width of the slot 23.

At each of its ends, each of the front stretchers 20 is provided with a head 25 which may be formed by substantially widening the stretcher 20 adjacent the ends to increase the bearing surfaces and provide space for the formation of the longitudinally projecting lug 26, header receiving slot or socket 27 and header concealing portion or apron 28.

In order to form the head 25, each stretcher 20 is provided with an end portion of greater width having substantially parallel sides at 29, and having a tapering portion at 30. The central portion 31 of each front stretcher may be of the usual thickness provided in stretchers for cribbing. The head 25 of each front stretcher 20 is provided with a longitudinally extending lug 26, which may be of substantially rectangular cross-section, and which is adapted to have an interlocking engagement with the legs 17 on headers 14.

The lugs 26 are of slightly less length than half the horizontal thickness of the headers 14, so that adjacent lugs 26 on two front stretchers 20 may be placed end to end without interference for supporting one header 14. The header concealing portion 28 of the head 25 on front stretchers 20, comprises an integral forward part of the stretcher having a plane rectangular end, which is adapted to abut flatly against a similar portion of an adjacent header, and which is of equal length or slightly greater length than one-half the horizontal width of a header 14, to insure the complete closure of the cribbing at the ends of the stretchers.

In order to form a socket in the assembled front cribbing wall 11 for each of the headers 14, the head 25 of each front stretcher 20 is cut away at its ends, forming a vertical slot 27 between lug 26 and header concealing portion 28. The horizontal width of slot 27 is equal to or slightly greater than the horizontal thickness of one of the legs 17, measuring longitudinally of header 14 so that a leg 17 may be received in slot 27.

The vertical dimension of lug 26 in Fig. 4 is slightly more than one-half the length of the lug 17 carried by headers 14, so that each header will be supported upon the lug 26 without engagement between successive headers in the walls 12. The heads 25 of front stretchers 20 are also cut away above and below the lugs 26 at 32 and 33 to provide a space above and below the lug 26 for receiving half of the body portion 34 of the headers 14.

It will thus be observed that when two of the front stretchers 20 are placed end to end, the faces 19 of the front stretchers will form a continuous closed face wall 11, the lugs 26 will abut against each other and the adjacent heads 25 of the stretchers will form sockets for receiving the heads 16 on headers 14, as well as a short portion of header body 34 immediately adjacent heads 16.

It should be understood that if desired, a closed face wall 11 may be provided at both the front and back of the cribbing, or two closed face walls may be provided with a plurality of intermediate walls formed of stretchers 15, held in place by several series of headers 14.

It should also be understood that both the headers and stretchers will be reinforced with metal members located in the corners of the concrete members adjacent the surface and having portions extending into all of the projecting lugs or formations.

The mode of assembly of the present cribbing may be best understood from Figs. 3 and 4. If desired, the usual foundation may be provided for the longitudinally extending cribbing walls, after which a plurality of the front stretchers 20 may be laid end to end upon the foundation for the front wall 11. A plurality of the rear stretchers 15 are then laid end to end parallel to the front stretchers 20 and spaced therefrom a distance determined by the headers 14, after which headers 14 may be laid with one head 16 in the socket formed at the ends of stretchers 20 and opposite head 16, outside of stretchers 15. The legs 17 on headers 14 will then engage the outside of lugs 26 on stretchers 20, but the heads 16 will be concealed behind the front portion 28 of stretchers 20, and substantially half of the heads 14 will project above the stretchers 20 to be received in a similar socket formed by the two adjacent stretchers above the first course of stretchers.

Referring to Fig. 3, it will be noted that the proportions of the parts are such that sufficient tolerance is provided at 35 and 36 between parts of the headers 14, so that each header is merely supported upon the lugs 26, but the headers do not support each other, nor do they support the weight of stretchers above them. By reason of the engagement of shoulders 18 on the headers 14 with the shoulders on lugs 26 and with parts of stretchers 15, the stretcher walls are interlocked with the header walls so as to prevent lateral movement of the stretchers. At the stretcher walls, constructed with the stretchers 20, the headers are secured against lateral or longitudinal movement, and the

stretchers are secured against lateral movement outward or inward.

The wall may be completed by laying additional front stretchers 20 upon the front stretchers already laid and by alternately placing headers 14 across parts of stretchers 20 and 15, as shown in Fig. 3.

If desired, a number of auxiliary stretchers 15 may be placed beneath the lowest header 14 adjacent the lowest front stretcher 20 in order to give increased bearing surface for the entire structure when the filling is in place.

It will thus be observed that the cribbing constructed according to the present invention is provided with a closed face wall adapted to give a finished appearance to the cribbing, and adapted to enclose and protect the headers. Furthermore, the stretchers may be provided with a greatly increased bearing surface and laid directly upon each other, so that the present cribbing may utilize the entire length of the stretcher as bearing surface, as distinguished from the cribbings of the prior art where the bearing surface is limited to the contacting portion of two transverse members.

While I have illustrated a preferred embodiment of my invention, many modifications may be made without departing from the spirit of the invention, and I do not wish to be limited to the precise details of construction set forth, but desire to avail myself of all changes within the scope of the appended claims.

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

1. In a cribbing, the combination of a plurality of front stretchers having plane forward surfaces, plane upper surfaces and plane bottom surfaces, with a plurality of headers extending transversely to said stretchers, said stretchers being laid upon each other and adjacent to each other to form a closed face wall, and interlocking shoulders carried by said headers and stretchers behind said closed face for preventing lateral movement of said stretchers, said shoulders comprising a T-shaped formation at the end of said headers, and a longitudinally projecting lug at the ends of said stretchers.

2. A stretcher for cribbing comprising a pre-cast member having plane bottom surface and a plane upper surface and having a plane forward surface, said stretcher having an enlarged end portion with a longitudinally projecting forward apron for enclosing interlocking connections between said stretcher and other units and said stretcher having a longitudinally projecting lug located behind said apron.

3. A stretcher for cribbing comprising a pre-cast member having plane bottom surface and a plane upper surface and having a plane forward surface, said stretcher having an enlarged end portion with a longitudinally projecting forward apron for enclosing interlocking connections between said stretcher and other units and said stretcher having a longitudinally projecting lug located behind said apron, said lug being located between the top and bottom of said stretcher and said stretcher having a slot between said lug and said apron for receiving complementary parts on a header.

4. In a cribbing, the combination of a plurality of front stretchers having plane forward surfaces, plane upper surfaces and plane bottom surfaces, with a plurality of headers extending transversely to said stretchers, said stretchers being laid upon each other and adjacent to each other to form a closed face wall, said header having vertically projecting lugs for engaging with said stretcher and said stretcher having longitudinally projecting aprons for enclosing said lugs, said stretcher having a longitudinally projecting lug located on the side of said header opposite to said aprons.

5. In a cribbing the combination of a plurality of front stretchers each having upper and lower plane surfaces said stretchers being laid one upon the other to form a closed face flush forward wall, said stretchers each being formed with a longitudinally projecting apron at each end and a longitudinally projecting lug behind said apron forming recesses in said cribbing for receiving interlocking lugs behind said apron, said interlocking lugs being carried by transverse headers.

6. A stretcher for cribbing walls, comprising a precast concrete member having a plane upper surface, a plane lower surface and a plane forward surface, said stretcher having a slot extending longitudinally into its end to form a longitudinally extending lug on the end of said stretcher for supporting a header, and a longitudinally extending apron carried by each of said stretcher to close the face of the cribbing in front of said lug, said stretcher having a bevel located on the forward corners of its face and having a drainage slot corresponding in depth to the projection of said bevel on a vertical plane.

In witness whereof, I hereunto subscribe my name this 15 day of March, 1929.

JOHN S. HUNTOON.