Nov. 3, 1925.

1,560,370

H. D. BENNETT

CHAIN BUCKET

Filed Feb. 2, 1925

3 Sheets-Sheet 1

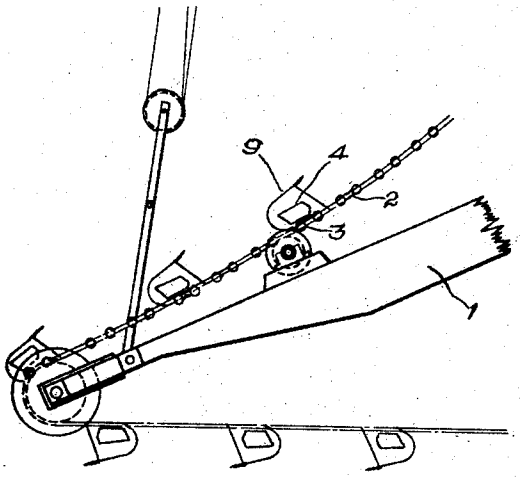


Fig. 1

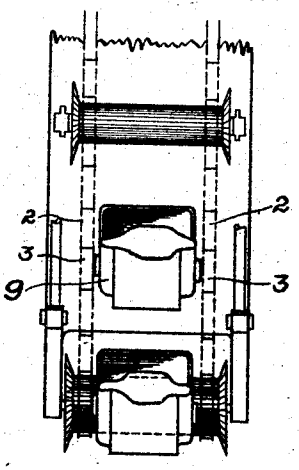


Fig. 2

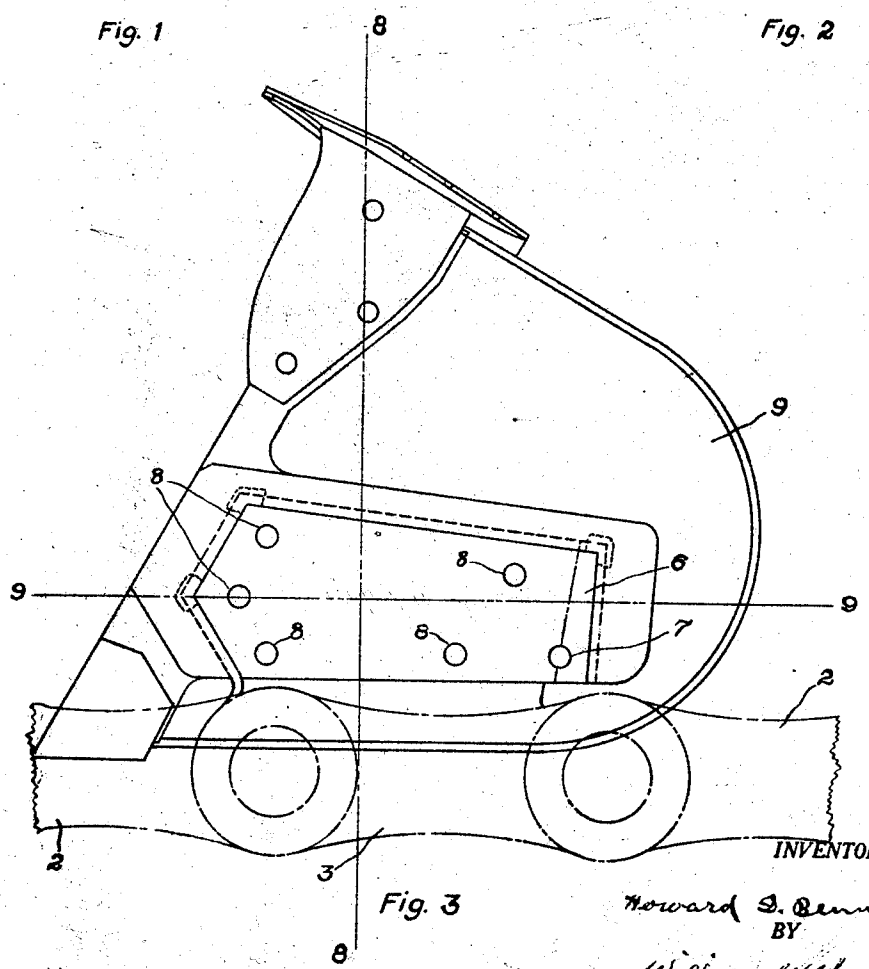


Fig. 3

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3 Sheets-Sheet 2

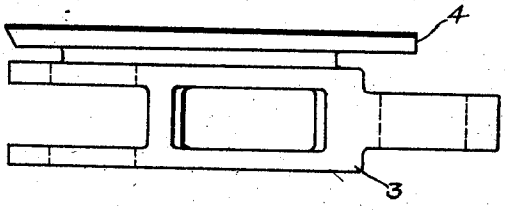


Fig. 5

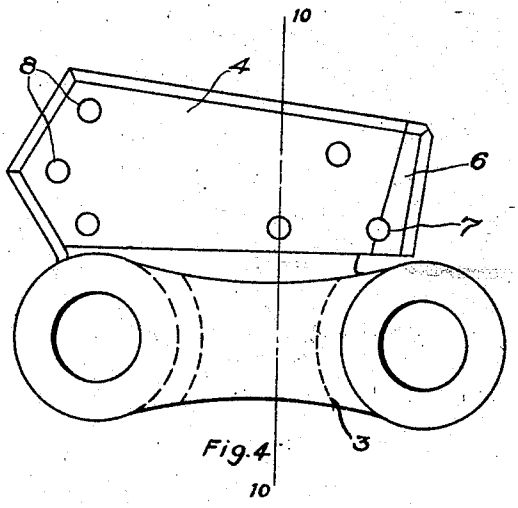


Fig. 4

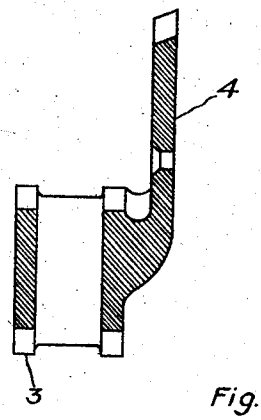


Fig. 10

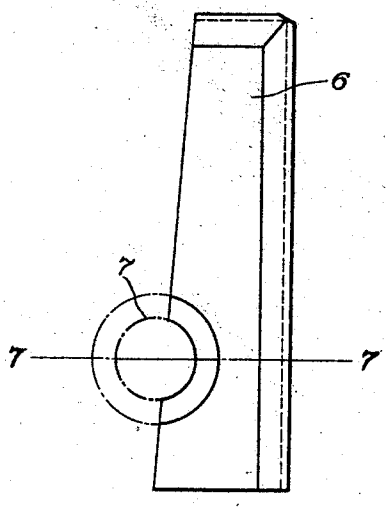


Fig. 6

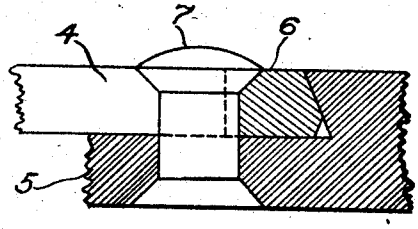


Fig. 7

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CHAIN BUCKET

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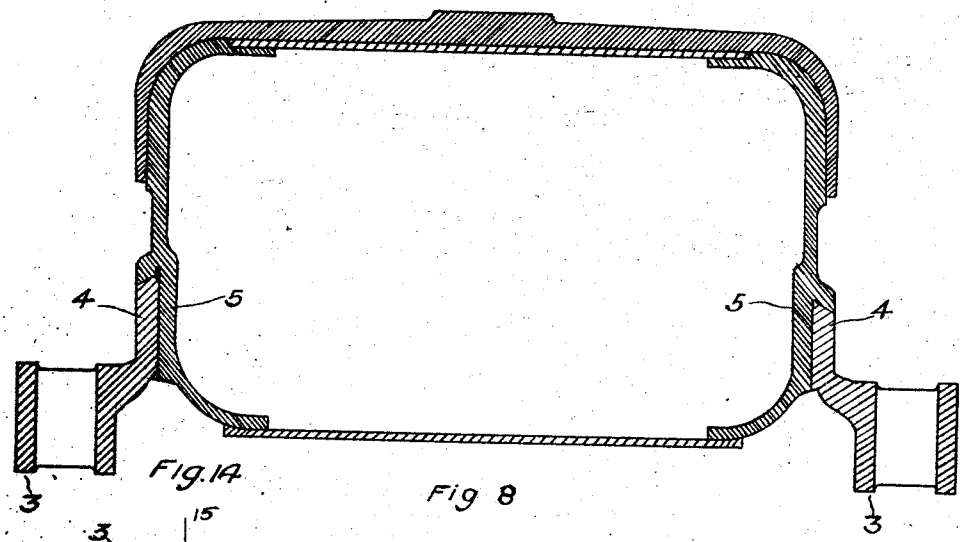


Fig. 14

Fig 8

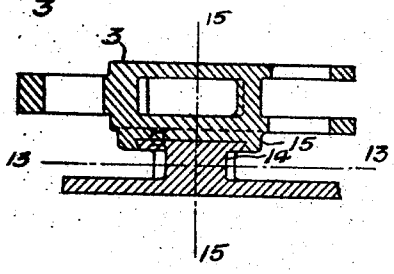


Fig. 13

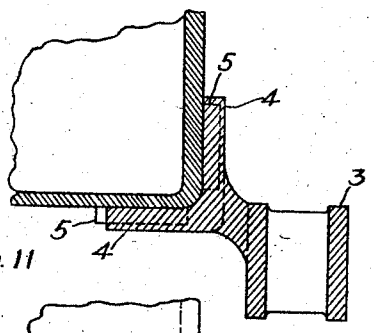


Fig. 11

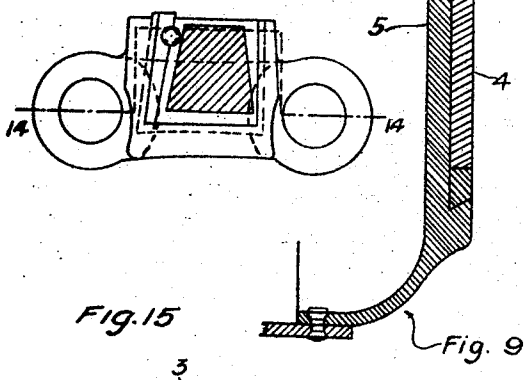


Fig. 15

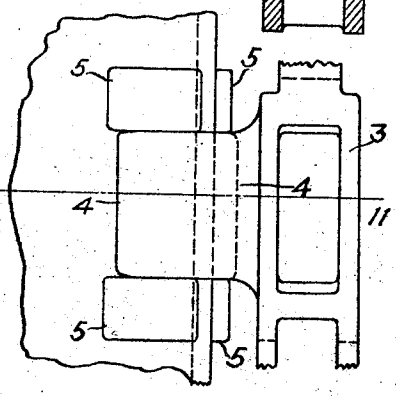
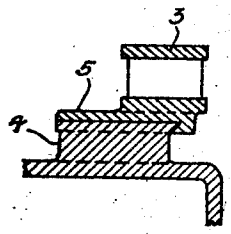


Fig. 12



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Patented Nov. 3, 1925. 1,560,370

UNITED STATES PATENT OFFICE.

HOWARD D. BENNETT, OF BALTIMORE, MARYLAND.

CHAIN BUCKET.

Application filed February 2, 1925. Serial No. 6,352.

To all whom it may concern:

Be it known that I, HOWARD D. BENNETT, a citizen of the United States, and a resident of Baltimore city, in the State of Maryland, have invented a new and useful Chain Bucket, of which the following is a specification.

The object of my invention, is the providing of new and useful means for securing a bucket to a chain carrier, or other conveying means.

A further object of my invention, is the providing of improved means for securing a bucket to its carrier in such a manner that the same may be easily removed as desired.

A further object of my invention, is the providing of improved means on a carrier, chain, cable, or arm, of locking a bucket thereto rigidly, thus avoiding the ordinary securing means, such as rivets or bolts, or the like.

A further object of my invention, is the providing of dovetailing securing means for securing a bucket to its carrier.

A further object of my invention is the providing of lugs in the securing of a carrier to a bucket to prevent shearing of rivets, or bolts, as ordinarily used.

With the foregoing and other objects in view, my invention consists of the novel construction, combination and arrangement of parts as hereinafter specifically described and illustrated in the accompanying drawings, wherein is shown the preferred embodiment of my invention, but it is understood that changes, variations and modifications may be resorted to which come within the scope of the claims hereunto appended.

In this specification and claims when I use the term "lug", I mean any projection, socket, or recess, using the term as conjugate members. When I use the term "bucket", I mean a cutting, scraping, or lifting member and not in the ordinary term of a holding vessel alone; and when I use the term "chain", I mean any supporting member, such as a chain ordinarily known, a cable, wire, or otherwise, and operating supports.

For the purpose of illustrating my invention, I have shown in the drawings and described only one of many uses to which the same may be applied.

In the drawings of the herein-described embodiment of my invention, Fig. 1 is a side view in elevation of the lower end of the ladder of a chain bucket dredge; Fig. 2 being a plan view of the same; Fig. 3 is an enlarged side view in elevation of the bucket; Fig. 4 is an enlarged side view in elevation of a link of the chain carrying my improved means for securing the bucket thereto; Fig. 5 is a plan view of the link shown in Fig. 4; Fig. 6 is an enlarged view of the locking-key; Fig. 7 is a sectional view of the locking-key and its securing means taken through 7—7 of Fig. 6; Fig. 8 is a sectional view of the bucket taken through 8—8 of Fig. 3; Fig. 9 is a partial sectional view of the bucket taken through 9—9 of Fig. 3; Fig. 10 is a sectional view of the securing means, or miter, taken through 10—10 of Fig. 4; Figs. 11 and 12 show a modification of the securing means where plain lugs are used instead of dove-tailing the lugs, Fig. 11 being a sectional view taken through 11—11 of Fig. 12; Figs. 13 and 14 and 15 show a modification wherein the male and female members of the dove-tailing means are reversed as to the link and bucket, Fig. 13 being a sectional view taken through 13—13 of Fig. 14, Fig. 14 being a sectional view taken through 14—14 of Fig. 13, and Fig. 15 being a sectional view taken through 15—15 of Fig. 14.

Similar numerals refer to similar parts throughout the several views.

1 is the ladder, or frame, of a chain bucket dredge, and over which the chain operates when such construction is used; my improvement, however, is adapted for use in other character of apparatus, such as scraping, or any use to which a chain and attached bucket is adapted, and many other uses, as suggested in my objects above enumerated.

2 is a link of a chain of the ordinary construction. 3 is a link of a chain to which the bucket is attached by means of my improvement.

On link 3 is secured a conjugate miter member 4, this may be cast integral therewith, or it may be otherwise secured thereto.

5 is the other conjugate miter member, into, or onto, which the other miter member 4 fits. Member 5 is secured to the bucket in the case shown by being cast integral with the side casting of the bucket.

6 is the locking-key for locking the conjugate miter members in position, and is itself secured in position by rivet, or bolt, 7;

this is particularly shown in Figs. 3, 6 and 7. 8 are bolts, or rivets, for additional securing, if desired.

9 is the bucket.

The uses to which the chains and attached buckets of this character are put are very severe; when ladders are used often most of the weight of the ladder, chains and adjacent operative apparatus are carried by the securing means between the buckets and chains. Again, in operation the bucket may encounter rock, boulders, or extremely hard material, thus bringing great strain on said securing means; which, in the ordinary means of attachment by means of rivets, or bolts, the buckets work loose from the chains. To overcome this difficulty, my improvement provides lugs to carry most, if not all, of this great strain.

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

1. In combination, a chain, a bucket, and means for securing said chain to said bucket consisting of conjugate miter members attached respectively to said chain and said bucket.

2. In a chain conveyor, a bucket, a chain comprising a plurality of links, a member secured to one of said links, lugs on said bucket between which said member fits and means for securing said member between said lugs.

3. In a conveyor, a bucket, a moving means, a member secured to said moving means, a lug on said bucket, and means for securing said member in a conjugate manner with said lug.

4. In combination, a chain, a bucket, means for securing said chain to said bucket consisting of conjugate miter members attached respectively to said chain and said bucket, and means for locking said miter member.

5. In combination, a chain, a bucket, means for securing said chain to said bucket consisting of conjugate miter members attached respectively to said chain and said bucket, and means for locking said miter members together consisting of a key between said miter members.

6. In combination, a chain, a bucket, means for securing said chain to said bucket consisting of conjugate miter members attached respectively to said chain and said bucket, and means for locking said miter members together consisting of a key between said miter members, and means for securing said key.

7. In combination, a chain, a bucket, means for securing said chain to said bucket consisting of conjugate miter members attached respectively to said chain and said bucket, and means for locking said miter members together consisting of a key between said miter members, and means for securing said key, consisting of a member interposed between one of said miter members and said key.

HOWARD D. BENNETT.