

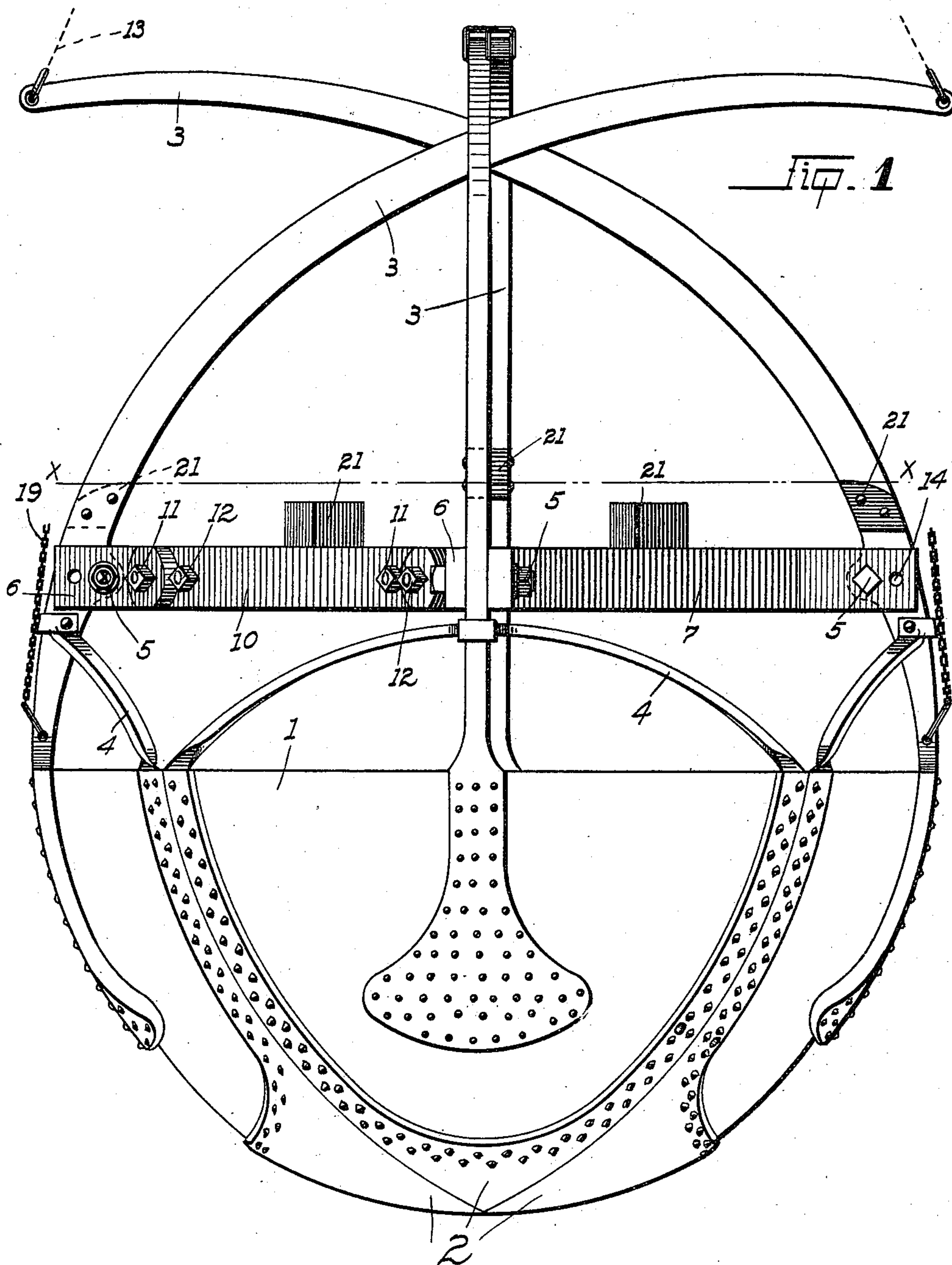
C. M. HICKEY.
DREDGER BUCKET.

APPLICATION FILED MAR. 15, 1910.

975,239.

Patented Nov. 8, 1910.

3 SHEETS—SHEET 1.



Witnesses

Frank H. Carter

J. B. Webster

Inventor

Chas. M. Hickey

by

Curry Webster

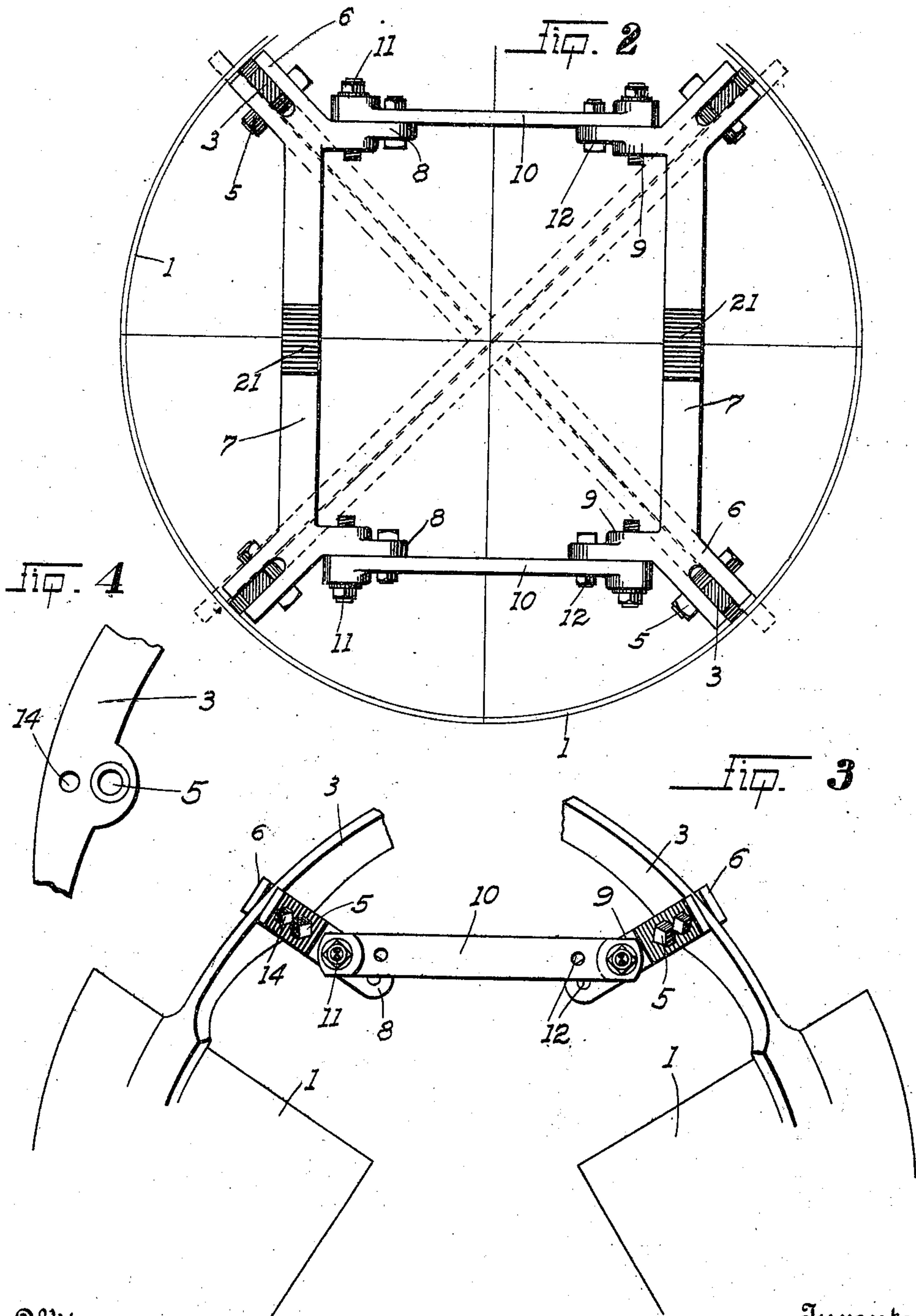
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3 SHEETS—SHEET 2.



Witnesses
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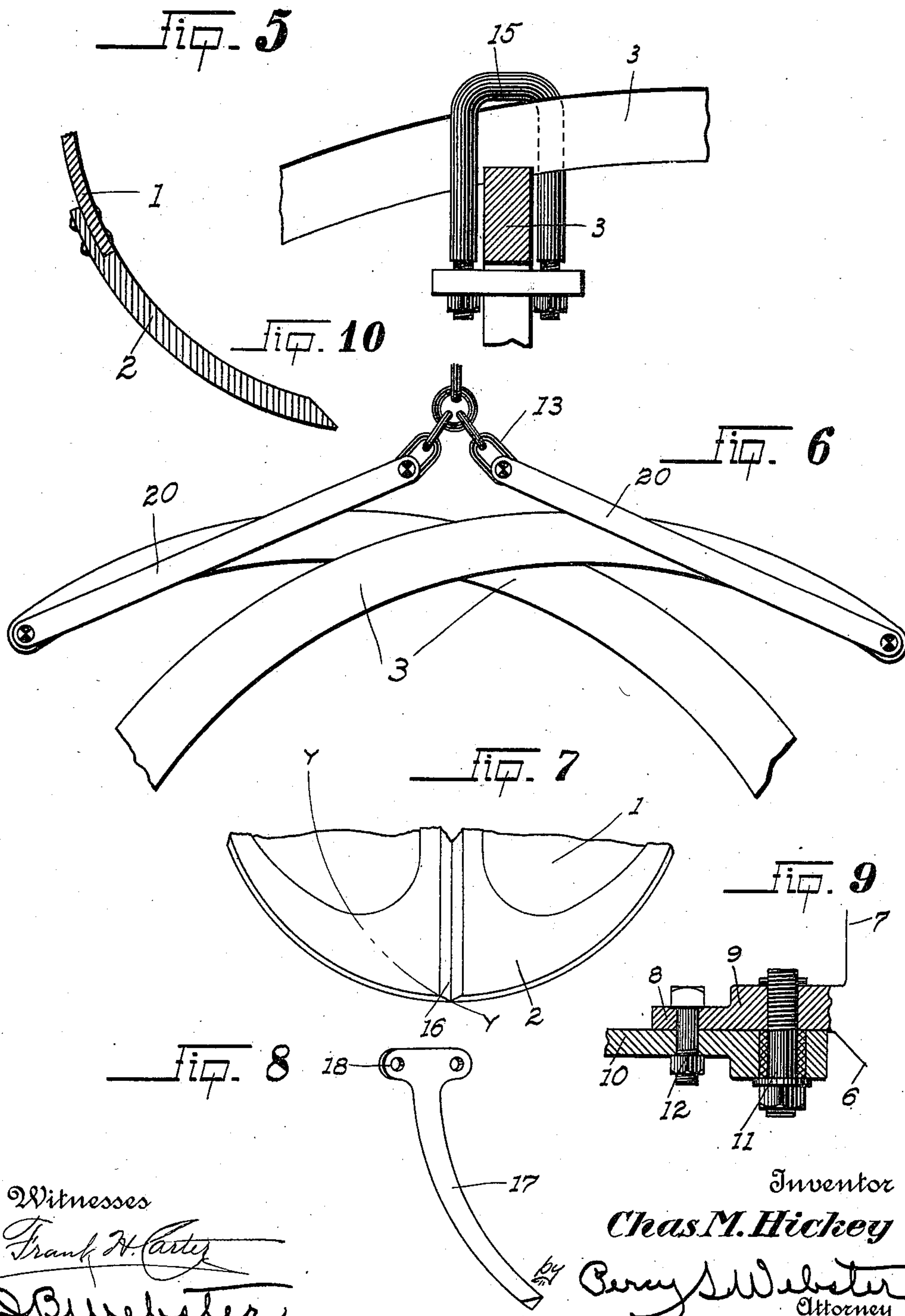
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3 SHEETS—SHEET 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES M. HICKEY, OF STOCKTON, CALIFORNIA.

DREDGER-BUCKET.

975,239.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed March 15, 1910. Serial No. 549,476.

To all whom it may concern:

Be it known that I, CHARLES M. HICKEY, a citizen of the United States, residing at Stockton, in the county of San Joaquin, State of California, have invented certain new and useful Improvements in Dredger-Buckets; and I do declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

The invention relates to dredging and excavating paraphernalia and particularly to the digging and dredging bucket thereof, the object of the invention being to produce a combination clam shell and orange peel dredger bucket whereby when soft easy digging is encountered, then the clam shell feature may be used, and when the surface being dug is hard and not easy to excavate, then the pointed structure of the orange peel feature of the bucket may be used.

A further object of the invention is to produce a strong durable bucket and one which will be simple and inexpensive and yet exceedingly effective for the purposes for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a side elevation of the complete bucket. Fig. 2 is a sectional view taken on a line $x-x$ of Fig. 1. Fig. 3 is a fragmentary view showing the open position of the bucket when used as a clam shell type of bucket. Fig. 4 is a fragmentary view of a bucket arm showing a bearing and bolt hole therein. Fig. 5 is a fragmentary view showing two bucket arms clamped together. Fig. 6 is a fragmentary view of folding bucket arms showing a hoisting means thereon. Fig. 7 is a fragmentary view of the lower end of one half of my improved bucket. Fig. 8 is a perspective view of a filling bar. Fig. 9 is a sectional view of a bucket frame joint. Fig. 10 is a sectional view taken substantially on a line $y-y$ of Fig. 7.

Referring now more particularly to the characters of reference on the drawings, I

first provide orange peel bucket spades 1 having suitable changeable points 2 and curving arms 3 and fender guards 4 from the arms 3 to the outer edges of said buckets 2 to discharge or shed trash or other deleterious material from the buckets. The arms 3 normally have bearings at 5 in yokes 6 on a square frame composed of rigid side members 7 having inwardly projecting arms 8 having embossed shoulders 9, connecting links 10 having normal bearings on said arms 8 at said embossed portion 9 and when the bucket is being used as of the orange peel type such links 10 are fixed rigidly by bolts as at 12 securing them to the arms 8 and then the four points 5 are the pivotal points for the four orange peel bucket sections 1, these points being diametrically opposed as shown in Fig. 2, and one set of the curving and crossing operating arms 3 project first under the other set as shown in Fig. 1 and each having suitable operating chains 13.

Now when it is desired to use the bucket as of the clam shell type the bolts 12 are removed from the links 10 and arms 8 and inserted through the yokes 6 and arms 3 as at 14 (see Figs. 1 and 3) which makes the arms 3 rigid with respect to the members 7 thus forming the two sets of two members 1 adjacent to said members 7 into a clam shaped bucket having their opening pivotal points at 11. When this structure is employed the two arms 3 adjacent to each member 7 are clamped together as at 15 to form said two arms together to act as one for each of the clam shell shaped buckets formed as aforesaid. Since the edges of the bucket sections 1 are sharp, when two of them are formed to a clam shell shape as described a V-shaped groove 16 is formed between them and to prevent anything lodging in said groove which might spring the buckets 1 apart or otherwise injure them, I provide a filling bar 17 which fits and fills said grooves 16 and may be secured to the buckets 1 by bolts through a flange 18 or other suitable means.

Each of the arms 3 has the usual dump chain 19. If desired, the arms 3 may have yokes 20 secured to their outer ends and extending inwardly to the chains 13 (see Fig. 6). This structure would be more advantageous than having chains all the way, since the chains would rub and wear and not be so conveniently operated as are the yokes.

21 are bumpers to prevent the arms 3 from striking the rectangular frame of the bucket if they move to a very low plane.

From the foregoing description it will be readily seen that I have produced such a dredger bucket as substantially fulfils the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention.

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

1. A dredger bucket comprising a frame having side members flexibly joined, means for holding said frame rigid, arms having bearings in said frame, and bucket sections on said arms.

2. A dredger bucket comprising a rectan-

gular frame having opposite side members flexibly joined, means for fixing said opposed side members rigid with respect to one another, arms having flexible bearings in said frame, means for fixing said arms rigid with respect to said frame, and bucket sections on said arms.

3. A dredger bucket comprising a rectangular frame comprising rigid opposite side members, inwardly projecting arms on said side members, links flexibly connected with said arms, means for fixing said links rigid with respect to said arms, and a bucket means carried by said frame.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES M. HICKEY.

Witnesses:

PERCY S. WEBSTER,
FRANK H. CARTER.