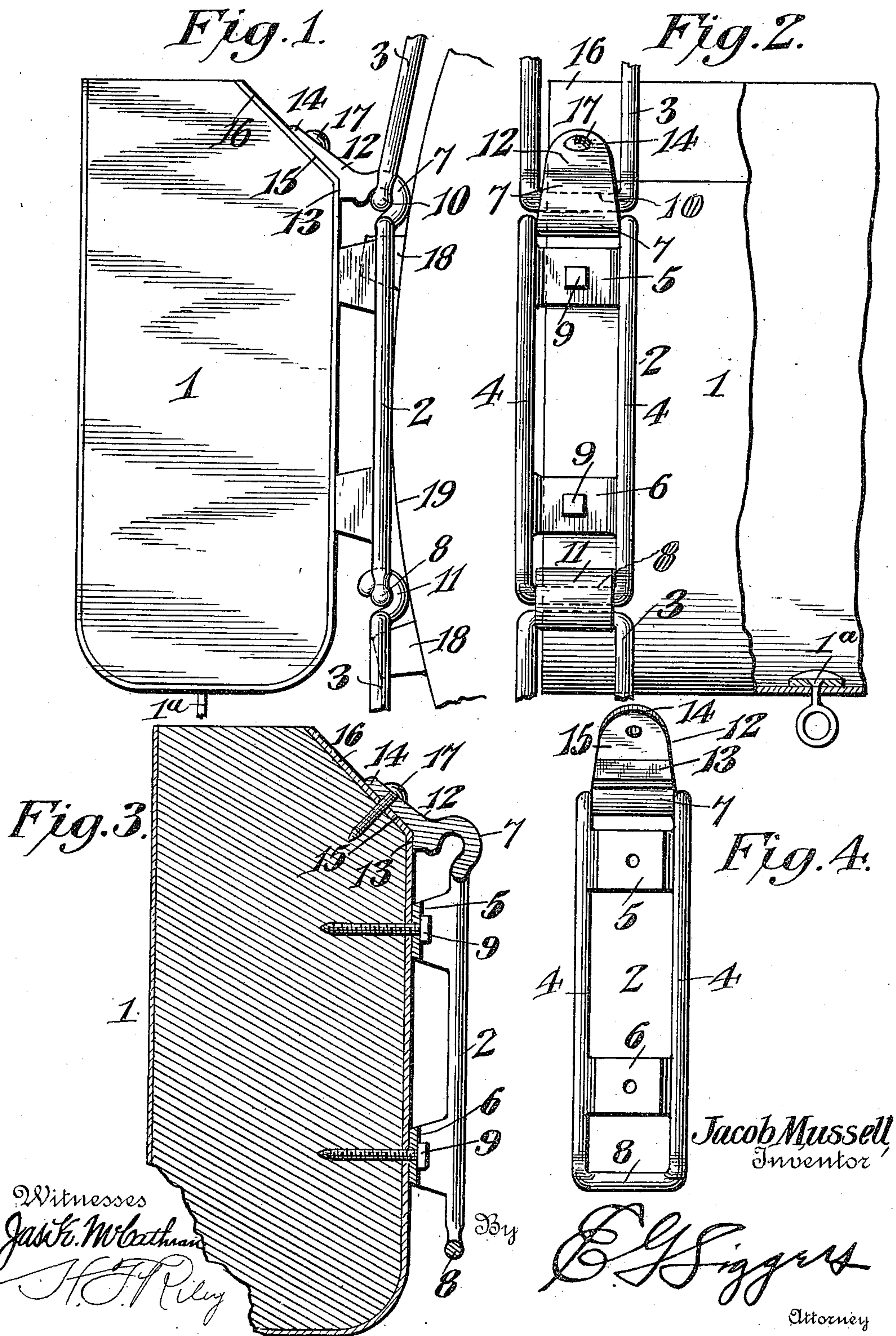


J. MUSSELL.
CONVEYER MECHANISM.
APPLICATION FILED JAN. 27, 1910.

975,565.

Patented Nov. 15, 1910.



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JACOB MUSSELL, OF CALDWELL, IDAHO.

CONVEYER MECHANISM.

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Specification of Letters Patent.

Patented Nov. 15, 1910.

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To all whom it may concern:

Be it known that I, JACOB MUSSELL, a citizen of the United States, residing at Caldwell, in the county of Canyon and State of Idaho, have invented a new and useful Conveyer Mechanism, of which the following is a specification.

The invention relates to improvements in conveyer mechanism.

The object of the present invention is to improve the construction of that class of conveyer mechanism, employing a plurality of buckets and a connecting chain, and to increase the strength of the hooks of the chain, and to enable the buckets to be fastened to the links more rigidly than heretofore.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a side elevation of a portion of a conveyer, constructed in accordance with this invention. Fig. 2 is a rear elevation of the same. Fig. 3 is a vertical sectional view. Fig. 4 is a front elevation of one of the bucket carrying links.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

1 designates a bucket, equipped with a valve 1^a and preferably constructed, as shown and described in Patent No. 898,672, granted to me Sept. 15, 1908, but the bucket may be of any other preferred construction. The bucket 1 is rigidly secured to a link 2 of a chain composed of bucket carrying links 2 and connecting links 3. The bucket carrying link 2, which may be constructed of any suitable metal, is composed of rigid sides 4, integral front and rear off-set connecting webs 5 and 6, a front hook 7 and a rear end 8, formed integral with the sides 4. The sides 4 are rigid and continuous from one end of the link to the other and are disposed in substantial parallelism, as shown.

The front and rear webs 5 and 6, which

are off-set from the plane of the sides of the link, are fitted against and rigidly secured to the bucket by means of headed fastening devices 9, which preferably consist of screws. These webs 5 and 6 are approximately U-shaped being composed of side portions and a connecting transverse portion, and they space the side bars of the links from the buckets. The headed fastening devices 9 are embedded in wooden end walls of the bucket, as explained in the aforesaid patent. The hook 7 engages a transverse end portion 10 of the connecting link 3, and the end 8 of the bucket carrying link 2 is engaged by a hook 11, located at the opposite end of the bucket connecting link.

In order to increase the strength of the bucket carrying link at the hook, and to enable the bucket to be rigidly secured to the same, the hook 7 is equipped with an integral bucket support 12, consisting of an inner portion or seat 13 and an outer angularly disposed arm 14. The inner portion or seat 13 is provided with a flat bucket-receiving face 15, arranged in parallelism with the plane of the sides of the link and fitting against the back of the bucket. The arm 14, which is arranged at an obtuse angle to the face 15 of the seat 13, fits against and is secured to the angularly disposed upper portion 16 of the bucket. The angularly disposed portion 16 of the rear wall of the bucket converges toward the outer wall and forms a contracted mouth. The inclined or angularly related arm 14 is pierced by a screw 17, which is also embedded in the wooden end wall of the bucket. The bucket is rigidly secured to the support 12, which not only constitutes a supporting bracket or seat for the bucket, but which increases the thickness of the hook 7 at the outer portion thereof at a point where the hook is subjected to the greatest strain and is most liable to break unless reinforced.

The hook is spaced from the upper or front web 5 to provide a tooth receiving space, which is of sufficient size to receive a tooth 18 of a sprocket wheel 19. The tooth 18 of the sprocket wheel engages the end of the link a sufficient distance from the transverse portion of the web, so that it will not come in contact with either the bucket or the fastening devices for securing the bucket to the link 2. The link 2, illustrated in the accompanying drawing, is designed for use

in connection with a relatively wide bucket, such bucket being connected at each end with a chain, but when a relatively narrow bucket is employed, the chain may be secured to the bucket at the center thereof. The attaching means for connecting the bucket with the link rigidly maintains the bucket in position and prevents the same from twisting on the chain, and there is no liability of the bucket coming off the chain when the latter is applied either at the center or end of the bucket.

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

1. The combination with a bucket, of a chain including a bucket carrying link having a hook at one end and provided between its ends with means for securing it to the bucket, and a support receiving and secured to the bucket and formed integral with and strengthening the hook.

2. The combination with a bucket, of a chain including a bucket carrying link having a hook at one end and provided between its ends with means for securing it to the bucket, and a support formed integral with the hook and increasing the thickness thereof and provided with a bucket receiving seat, and means for securing the said support to the bucket.

3. The combination with a bucket, of a chain including a bucket carrying link having a hook at one end and provided between its ends with means for securing it to the bucket, and a support formed integral with the hook and having angularly related faces fitted against and receiving the bucket, and

means for securing the bucket to the support.

4. The combination with a bucket provided at the back with an upper inclined portion, of a chain including a bucket carrying link having a hook and provided with an integral bucket supporting bracket consisting of an upper portion having a face arranged in parallelism with the link and fitted against the back of the bucket, and an outer angularly disposed arm fitted against the upper inclined portion of the bucket, and means for securing the bracket to the bucket.

5. The combination with a bucket provided at the back with an upper inclined portion, of a chain including a bucket carrying link comprising spaced side bars, front and rear off-set webs connecting the side bars at points between the ends thereof and fitted against and rigidly secured to the bucket, a lower or rear end connecting the side bars at the back of the link, a hook connecting the side bars at the front of the link, and a bucket supporting bracket formed integral with the hook and composed of an inner portion or seat, and an outer inclined arm, the seat being fitted against the back of the bucket and the arm against the inclined upper portion thereof, and means for securing the bracket to the bucket.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JACOB MUSSELL.

Witnesses:

J. J. KANNHEIMER,
LEWIS E. KILIAN.