C. W. OLSON.

CONVEYER BUCKET.

APPLICATION FILED OCT. 26, 1910.

1,014,666. **Patented Jan. 16, 1912.**

Fig. 1.

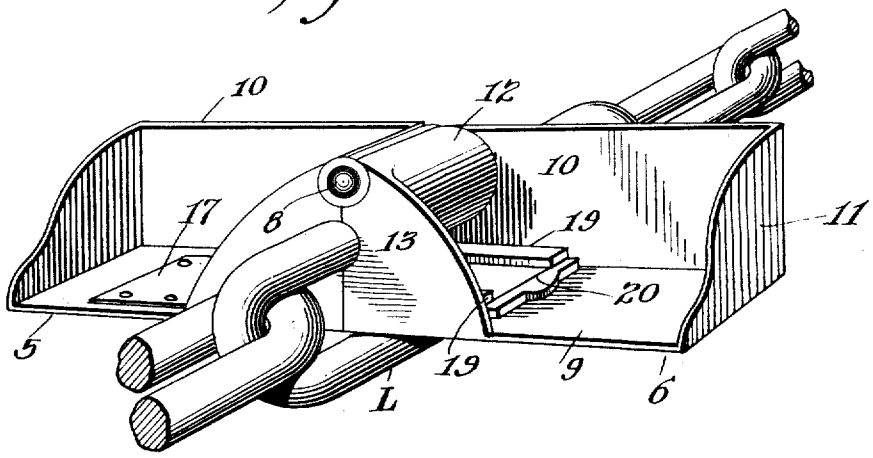


Fig. 2.

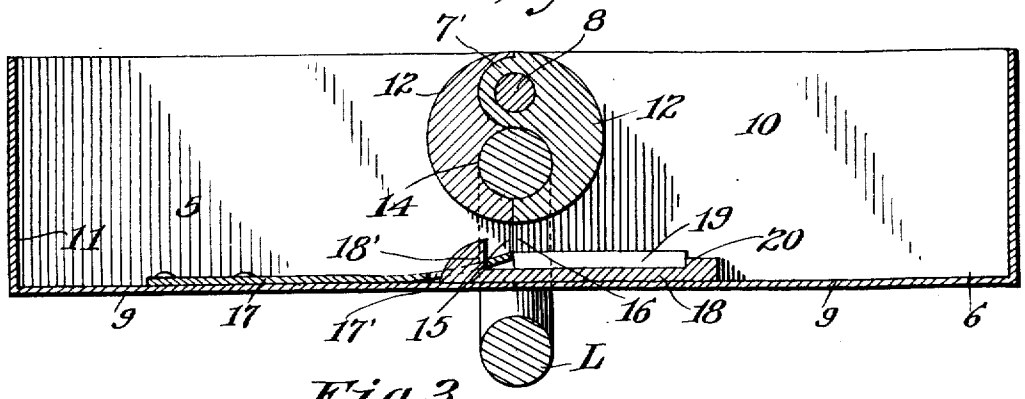
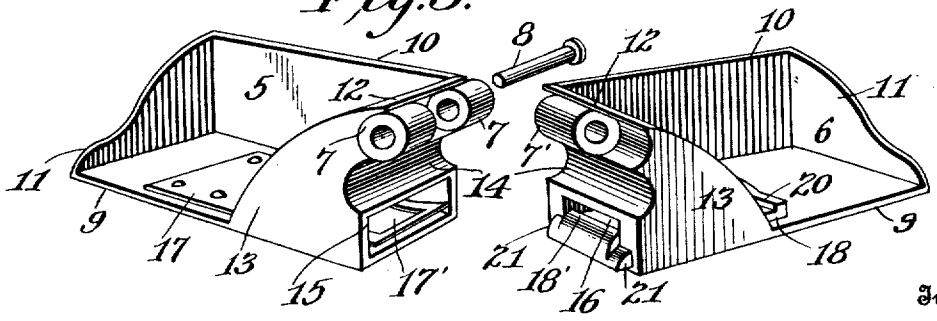


Fig. 3.



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CONVEYER-BUCKET.

1,014,666. Specification of Letters Patent. Patented Jan. 16, 1912.

Application filed October 26, 1910. Serial No. 589,214.

To all whom it may concern:

Be it known that I, CHARLES W. OLSON, citizen of the United States, residing at Rainier, in the county of Columbia and State of Oregon, have invented certain new and useful Improvements in Conveyer-Buckets, of which the following is a specification.

This invention relates to improvements in conveyer buckets and more particularly to improved means for removably attaching the bucket to the conveyer chain.

The primary object of the present invention resides in the provision of a conveyer bucket, formed in two hingedly connected sections and a locking device carried by said sections for securely uniting the same upon one of the links of a conveyer chain.

A further object is to provide a bucket which may be quickly and easily attached to or detached from the chain link.

A still further object of my invention is to provide a bucket of the above character which is simple, light, strong and durable in construction and one which may be manufactured at a nominal cost.

With these and other objects in view, the invention consists of the novel features of construction and the combination and arrangements of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a conveyer bucket, constructed in accordance with my invention, showing the same arranged upon a link chain. Fig. 2 is a longitudinal section, and Fig. 3 is a perspective view showing the bucket sections disconnected.

Like numerals of reference designate corresponding parts throughout the several views.

Referring more particularly to the drawing L designates the links of a conveyer chain upon which my improved bucket is adapted to be arranged. In the present embodiment of the invention, the bucket is formed in two sections, 5 and 6 respectively. The section 5 is provided upon one end with the spaced knuckles 7 while the section 6 is formed with a single knuckle 7′ which is adapted to be received between the knuckles 7. A hinge pintle 8 extends through the bores of the knuckles whereby the bucket sections are hingedly connected.

Each of the bucket sections comprises a bottom 9, longitudinal wall 10 and end walls 11 and 12. The hinge knuckles 7 and 7′ are formed on the latter walls and short side plates 13 are integrally formed with the walls 12 and upon the front longitudinal edges of the bottoms 9. The walls 12 have also formed therein, beneath the hinge knuckles, the grooves 14 which receive one of the parallel portions of the link L. These walls are further provided below the grooves 14 with the openings 15 and 16 respectively, the purpose of which will be hereinafter made apparent.

To the bottom of the bucket section 5 one end of a spring plate 17 is firmly secured while the other end thereof is curved slightly upward and is provided with a rectangular opening 17′ to receive a locking shoulder 18′ formed on one end of a sliding plate 18 arranged in the other of the bucket sections. Between the walls 10 and 13 longitudinal stop cleats 19 are formed which are adapted to be engaged by a transverse shoulder 20 formed on the other end of the plate 18 whereby the outward sliding movement of said plate is limited. On the end of the lock plate on which the shoulder 18′ is formed, a lug 21 is formed on each edge of the plate. The shoulder is adapted to extend slightly into the opening 16 in the end wall 12 while the lugs 21 engage said wall and limit the inward movement of the lock plate. The upper surface of the shoulder 18′ is convex and engages under the upwardly curved end of the spring plate 17 and is received in the opening 17′ thereof as the bucket sections are moved into position upon the chain link.

In the practical operation of my invention, the bucket sections are arranged upon one of the chain links as shown in Fig. 1 and as the ends 12 thereof are brought into engagement with each other, the plate 18 moves through the opening 16 and beneath the spring plate 17 in the other bucket section. As before stated this movement is limited by the engagement of the shoulder 20 with the ends of the stop cleats 19, at which time the shoulder 18′ on the opposite end of said plate will be disposed through the opening 17′ in the spring 17. The edge portions of the spring plate beyond the ends of the opening rest upon the lugs 21. In this manner the bucket sections are securely united upon the chain link and any possibility of their relative movement effectually prevented.

From the foregoing, it is believed that the construction and operation of my improved conveyer bucket will be readily understood and while I have shown and described the preferred form of the bucket sections it will of course be obvious that they may be greatly modified in accordance with the particular use for which they are designed. A bucket constructed as above described is of great convenience as it may be very quickly arranged upon the chain link or as easily removed, therefrom, by simply lifting the spring plate 17 and swinging the bucket sections apart. The bucket moreover combines the desirable features of simplicity and lightness with great strength and durability. It is also apparent that the device may be manufactured at a very small cost.

While I have described the preferred embodiment of my invention it will be obvious that various modifications may be resorted to without departing from the essential features or sacrificing any of the advantages thereof.

Claims.

1. The combination with a conveyer chain of a bucket comprising two hingedly connected sections, a sliding locking element carried by one of said sections, and means on the other section to engage said element and rigidly secure said sections together upon said chain.

2. The combination with a conveyer chain of a bucket comprising two hingedly connected sections, a sliding locking plate carried by one of said sections and having a shoulder formed on one end, and a spring plate carried by the other bucket section, having an opening in one end to receive said shoulder whereby said sections are rigidly secured together upon said chain.

3. The combination with a link chain of a conveyer bucket adapted to be arranged on one of the chain links, said bucket comprising two hingedly connected sections, provided with grooves in their opposed walls to receive one of the parallel portions of the link, a movable locking member carried by one of the bucket sections and a resilient element adapted for co-engagement with said member to rigidly secure the sections together upon the chain link.

4. The combination with a link chain of a conveyer bucket comprising two hingedly connected sections adapted to be arranged upon one of the chain links, the opposed walls of said sections having openings therein, a slidable plate carried by one of said sections movable through the opening thereof, a shoulder formed on said plate, a spring plate secured at one end to the other bucket section having an opening in its free end to receive said shoulder and means to limit the sliding movement of said first named plate whereby said bucket sections are rigidly secured together upon the chain link.

5. The combination with a link chain of a conveyer bucket comprising two hingedly connected sections adapted to be arranged upon one of the chain links, a slidable locking plate carried by one of said bucket sections and movable into the other section, said plate having a shoulder formed on one end means carried by the other bucket section for co-engagement with said shoulder to lock the sections together, lugs formed on said plate adjacent to said shoulder to limit the movement of the plate in one direction and stop cleats formed on the bucket section to engage a shoulder on the opposite end of said plate and limit its movement in the opposite direction, whereby said bucket sections are rigidly locked together upon the chain link.

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

CHARLES W. OLSON.

Witnesses:
GEO. W. VOGEL,
JOHN W. MCCREA.