No. 640,024. Patented Dec. 26, 1899.

W. B. PERO & J. KOERNER.

CONVEYER.

(Application filed Oct. 7, 1899.)

(No Model.)

Fig. 1.

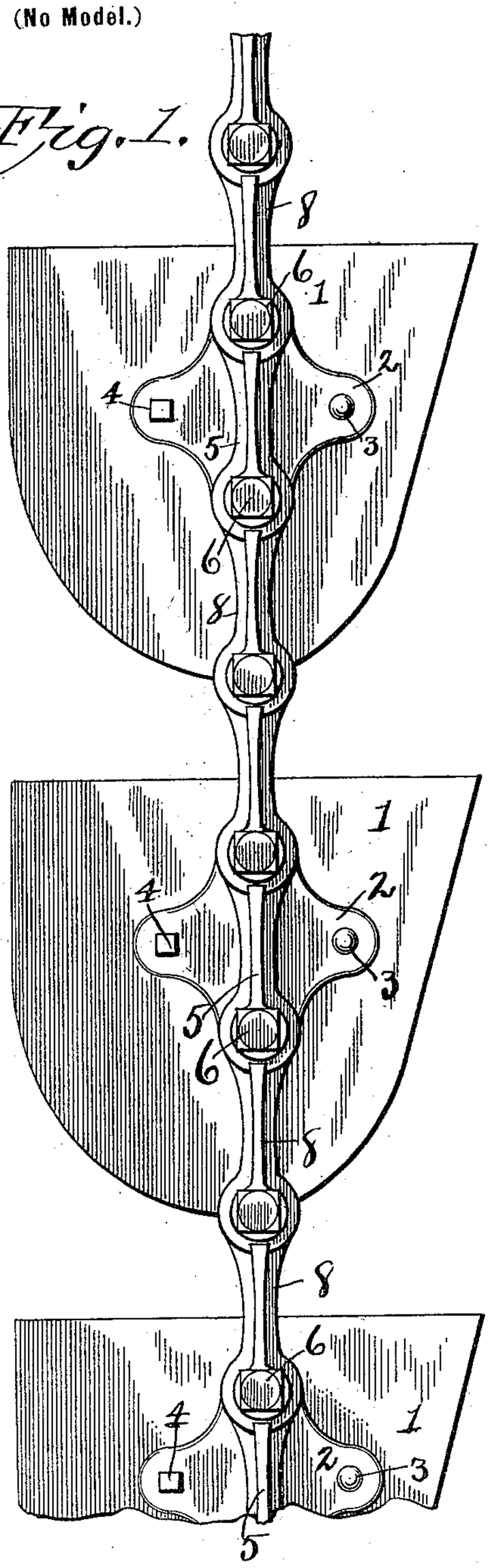
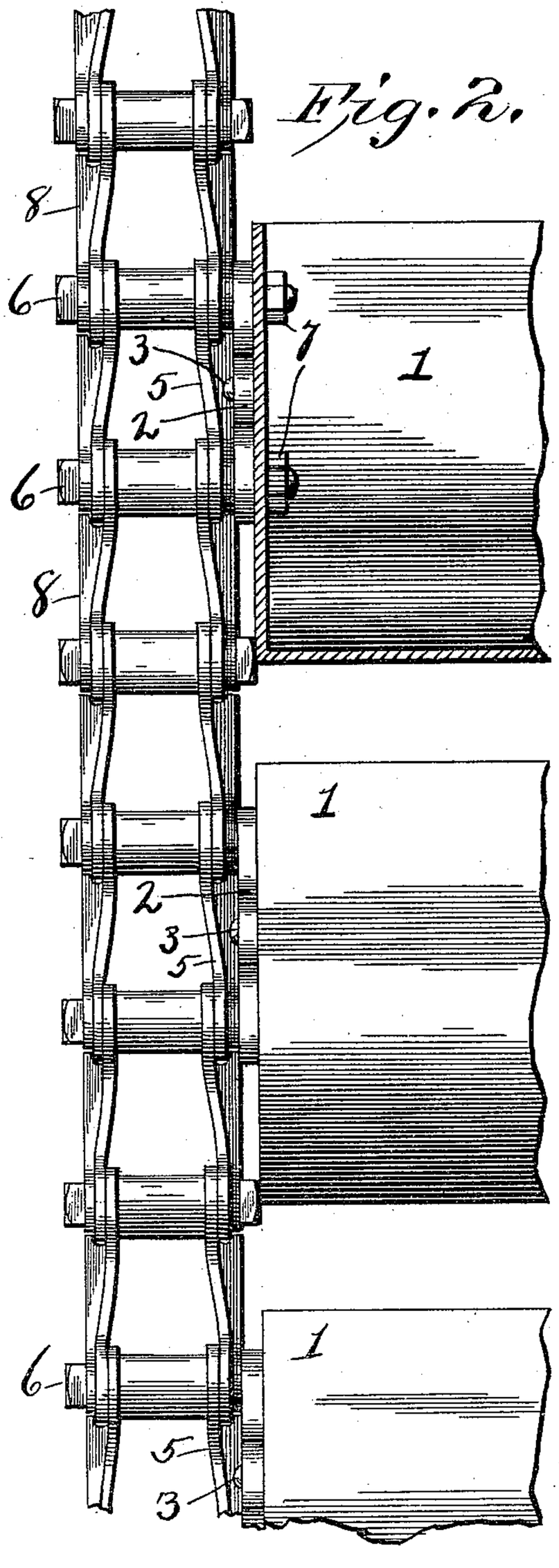


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM B. PERO AND JOSEPH KOERNER, OF LOUISVILLE, KENTUCKY;
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CONVEYER.

SPECIFICATION forming part of Letters Patent No. 640,024, dated December 26, 1899.

Application filed October 7, 1899. Serial No. 732,889. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM B. PERO and JOSEPH KOERNER, citizens of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Conveyers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in hoisting apparatus, and particularly to conveyers, chain, and bucket.

The objects of the invention are, first, to provide a novel connection between the chain and the bucket, whereby the strain on the two chains and bucket is equalized and the liability of fracture is minimized; second, to provide a reinforcement for the sides of the bucket in order that increased strength and durability may result, and, third, to provide a device in which chains of ordinary construction and links of varying dimensions may be utilized, one link being secured to the end of the bucket by a bolt at each end of the link, for it has been found in practice that the greatest strain is on the link directly connected with the bucket, or, at least, that said link is the one that most often breaks. Hence the bolts through the ends of the bucket and the links will complete a connection which will obviate the necessity of stopping the conveyer should the said link be broken, for in any event the links at each end of the one broken will be connected to the bucket through the bolts.

The invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters designate corresponding parts in both views, and in which—

Figure 1 is an end view of a series of buckets with the chain attached. Fig. 2 is a front view of one end of the buckets shown in Fig. 1.

In the drawings, 1 indicates the buckets, each of which has the reinforcing-plates 2 attached at each end by a rivet 3 and a screw 4. The plates are attached to the bucket with the corners lying transversely and vertically thereof, and the vertically-disposed corners are apertured to receive the bolts, to be hereinafter described. The links 5 are approximately the length of the reinforcing-plates and are attached to the buckets by means of the bolts 6, one through each end of the links 5, said bolts passing through the reinforcing-plates and the ends of the buckets and having nuts 7 run on the inner ends. As will be seen from the drawings, the bolts 6 also pass through one end of the connecting-links 8, which may be of any ordinary construction.

It has been found in practice that the strain and wabbling movement of the buckets tend to cause bolts to work loose. Hence it is preferable to attach the reinforcing-plate by rivets; but both forms of attachment are illustrated.

By use of the invention great strength is afforded at the junction of the chains and buckets, and if the link attached to the bucket is broken the bolts which are attached to the bucket and to the connecting-link will retain the parts in their respective positions and permit a continuance of operation. Again, there is advantage in having the parts constructed as described, for the reason that the operator can give the chain such play as is required to allow for unequal expansion and retraction.

The construction, operation, and advantages will, it is thought, be understood from the foregoing description, it being noted that changes in the proportions and other details of construction may be resorted to for successfully carrying the invention into practice without departing from the scope of the claims.

Having fully described the invention, what we claim as new and useful, and desire to secure by Letters Patent, is—

1. In a conveyer, the buckets, reinforcing-plates secured to the buckets, links approximately the length of the reinforcing-plates, bolts for fastening the links to the reinforcing-plates and to the buckets and connecting-links therebetween.

2. In a conveyer, the buckets, plates having their corners lying transversely of the

buckets and secured thereto, with the opposite corners standing vertically, and provided with apertures, links having eyes registering with the apertures of the plate, bolts run through the links, plates and buckets, and connecting-links therebetween, as and for the purpose described.

In testimony whereof we affix our signatures in the presence of two witnesses.

W. B. PERO.
JOSEPH KOERNER.

Witnesses:
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