Feb. 14, 1933. J. L. TUNISON 1,897,346

EXCAVATING BUCKET SHACKLE

Filed April 8, 1932

Fig. 1

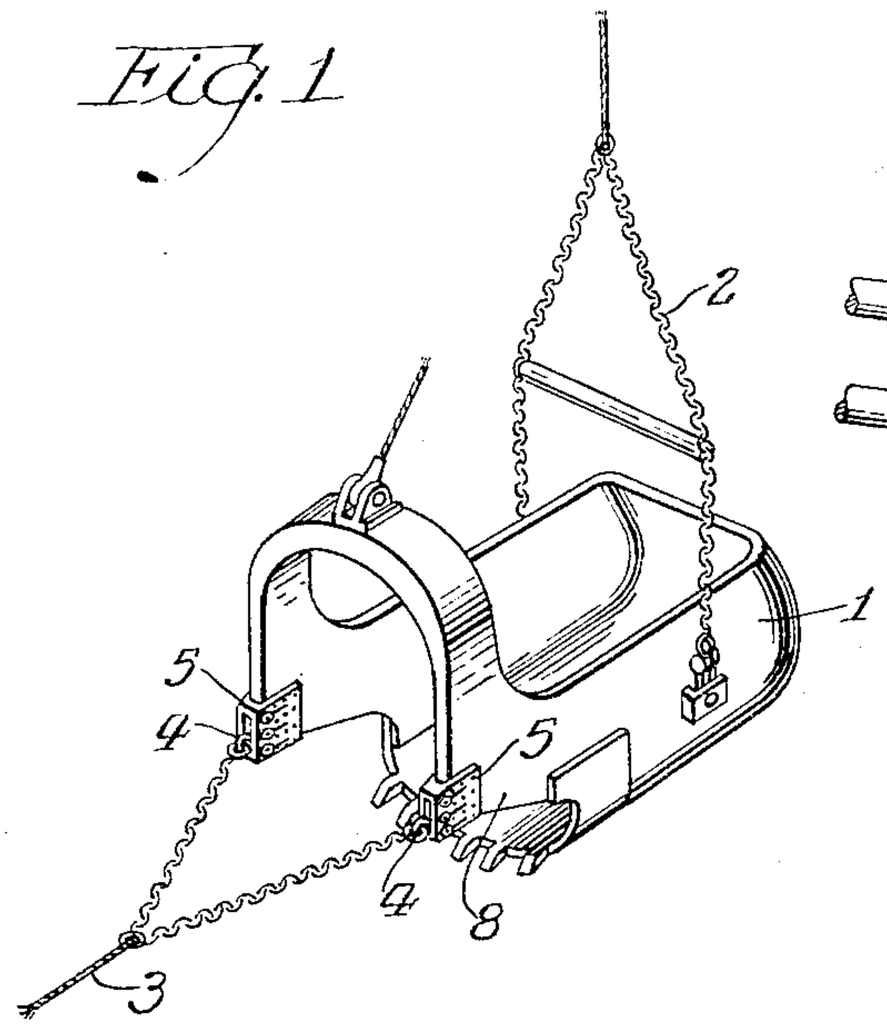


Fig. 3

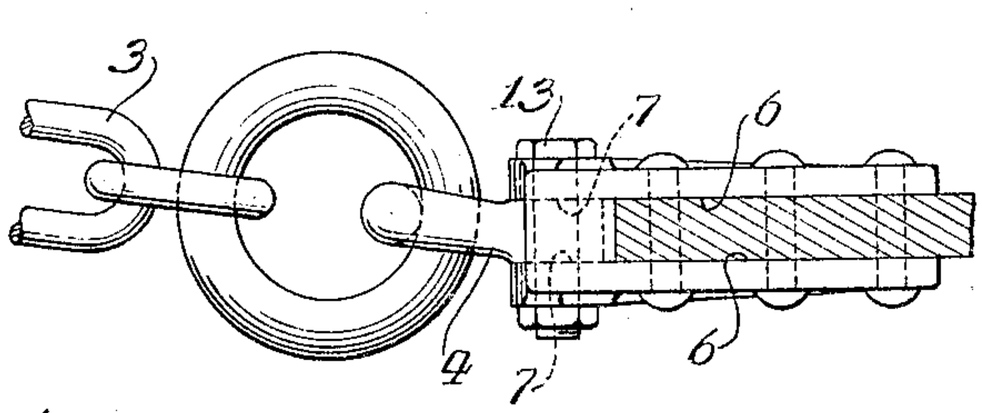


Fig. 2

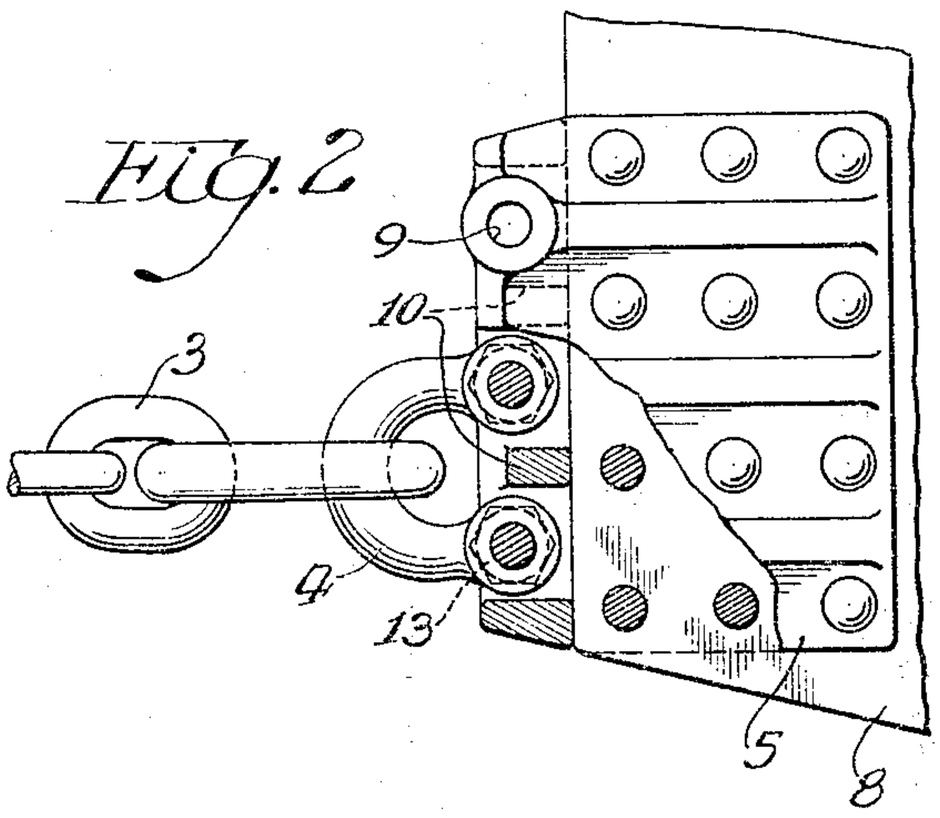


Fig. 5

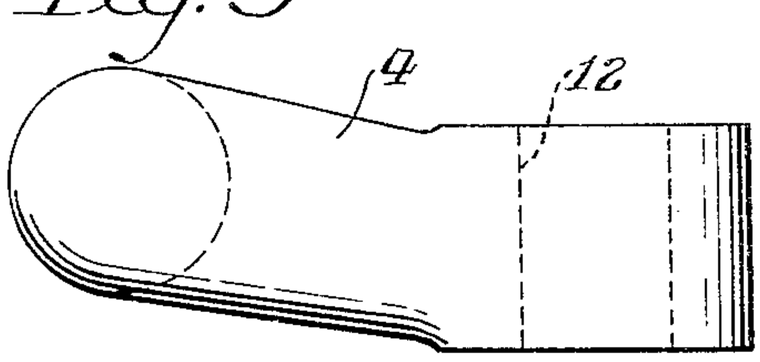


Fig. 4

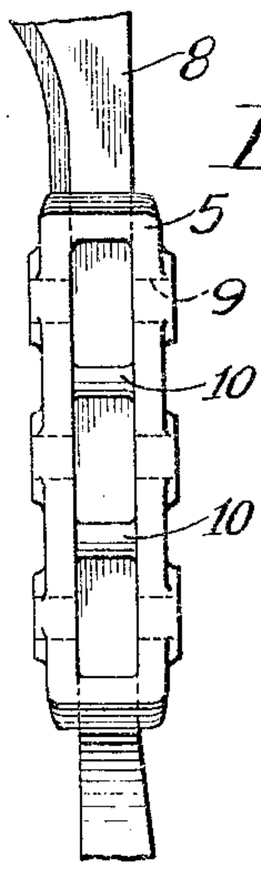
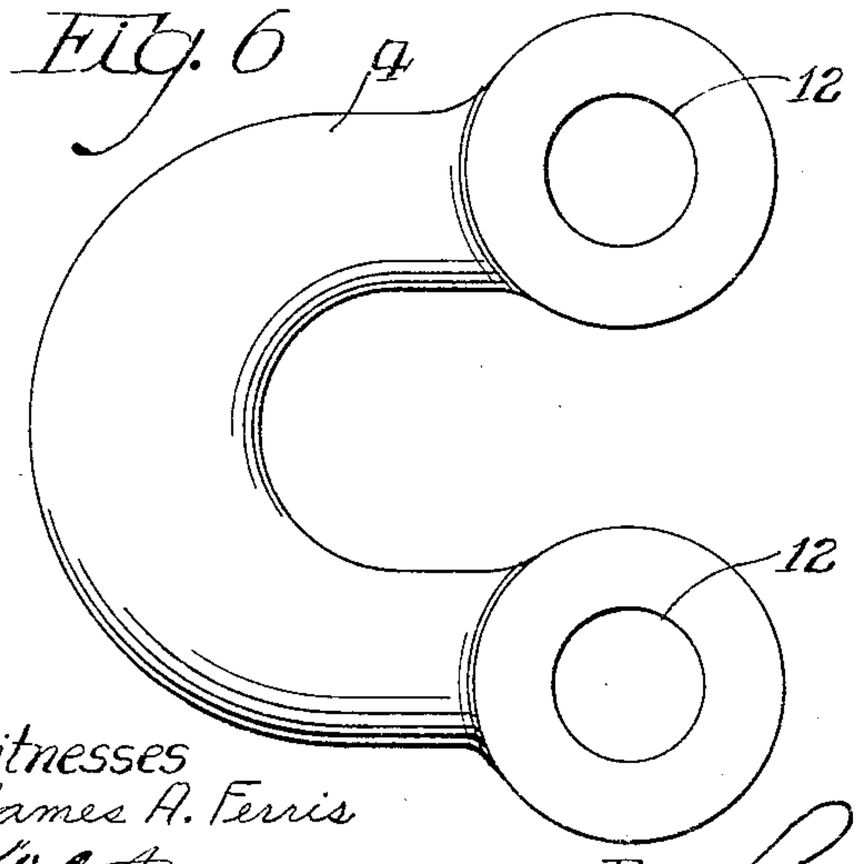


Fig. 6



Witnesses
James A. Ferris
W. A. Snow

Inventor
John L. Tunison

By Rummler Rummler & Woodworth Attys.

Patented Feb. 14, 1933 1,897,346

UNITED STATES PATENT OFFICE

JOHN L. TUNISON, OF CHICAGO, ILLINOIS, ASSIGNOR TO BUCYRUS-MONIGHAN COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS

EXCAVATING BUCKET SHACKLE

Application filed April 8, 1932. Serial No. 603,989.

This invention relates to improvements in excavating buckets and particularly to drag line bridle attachments in the form of rigid adjustable clevises and bracket mountings therefor attached to the forward end of drag line buckets.

The objects of the invention are to provide an excavating bucket having an improved clevis bracket; to provide a bucket having an improved clevis bracket into which the clevis is rigidly and demountably secured for vertical adjustment; and to provide a bucket of the character described having an improved bracket which affords a simple and desirable means for rigid clevis attachment and which will withstand hard usage, and reduce the necessity for replacements.

An illustrative embodiment of this invention is shown in the accompanying drawing in which:—

Figure 1 is a perspective view of a complete bucket showing my invention embodied therein.

Fig. 2 is a side view of the clevis and bracket with a portion of the bracket in cross section.

Fig. 3 is a top view of Fig. 2 showing the bucket side wall in cross section.

Fig. 4 is an edge view of the bracket and side wall.

Fig. 5 is a top view of the clevis.

Fig. 6 is a side view of the clevis.

In the present invention, the bracket comprises pairs of jaws, one pair of which extends rearwardly and is securely fastened to and embraces the forward edge of the side wall of an excavating bucket. The other pair of jaws of the bracket extend forwardly to receive and embrace a clevis and are provided with spaced alined apertures which are formed at right angles to the plane of the bracket and receive the clevis securing bolts. The clevis is provided with apertures in its ends. Interposed between the apertures in the bracket are strengthening bridges which form guides for the clevis when it is inserted into the forward pair of jaws bringing the apertures in the clevis in alinement with those in the bracket for receiving the clamping bolts.

Heretofore it has been customary to employ pivotal pin connections, extending in the plane of the bracket and clevis and causing wear on the pin and clevis when the bucket is in operation.

Referring more in detail to the drawing, a drag line excavating bucket 1 is provided with a bail 2 which pivotally supports the bucket, a loading cable 3 having two continuations of chain attached thereto, each of which is attached to an edge of the front of the bucket, a clevis 4 and a bracket 5. The bracket 5 is formed to provide pairs of jaws 6 and 7. The jaws 6 extend rearwardly of the forward edge of the bucket wall 8 and embrace the wall and are securely fastened thereto by any suitable fastening means such as rivets, bolts and the like.

The jaws 7 extend forwardly of the forward edge of the wall 8 and are provided with a plurality of spaced alined apertures 9. A plurality of bridges 10 are interposed between the apertures 9 and between the jaws 7. The U-shaped clevis 4 is provided with apertures 12 in its ends. The clevis is inserted in the jaws 7 and embraces one of the bridges 10 with the apertures 9 in the jaws 7 and the apertures 12 in clevis 4 in alinement with bolts 13 rigidly securing the clevis to the bracket 5.

The clevis can be adjusted vertically so that the digging angle of the bucket may be varied in accordance with the requirements.

It is to be understood that some of the details set forth may be altered or omitted without departing from the spirit of the invention as defined by the following claims:

I claim:

1. An excavating bucket having side walls, a one-piece clevis bracket formed to provide pairs of jaws, one pair of said jaws extending rearwardly from the forward edge of a side wall and secured thereto, the other of said pairs of jaws extending forwardly of the forward edge of said side wall and being provided with a plurality of spaced alined apertures extending at right angles to the plane of said bracket, in combination with a U-shaped clevis, the ends of which are provided with apertures and are inserted between said for-

wardly extending jaws with the apertures in the jaws in alinement with those in the clevis and bolts extending through said apertures for rigidly clamping said clevis to said bracket.

2. An excavating bucket having side walls, a clevis bracket formed to provide pairs of jaws, one pair of said jaws extending rearwardly from the forward edge of a side wall and secured thereto, the other of said pairs of jaws extending forwardly of the forward edge of said side wall and being provided with a plurality of spaced alined apertures extending at right angles to the plane of said bracket, a plurality of bridges formed in said forwardly extended jaws and positioned between the apertures, in combination with a U-shaped clevis, the ends of which are provided with apertures and are inserted between said forwardly extending jaws and embracing one of said bridges with the apertures in said jaws in alinement with those in said clevis and bolts extending through said apertures for rigidly clamping said clevis to said bracket.

Signed at Chicago in the county of Cook and State of Illinois this 5th day of April, 1932.

JOHN L. TUNISON.