

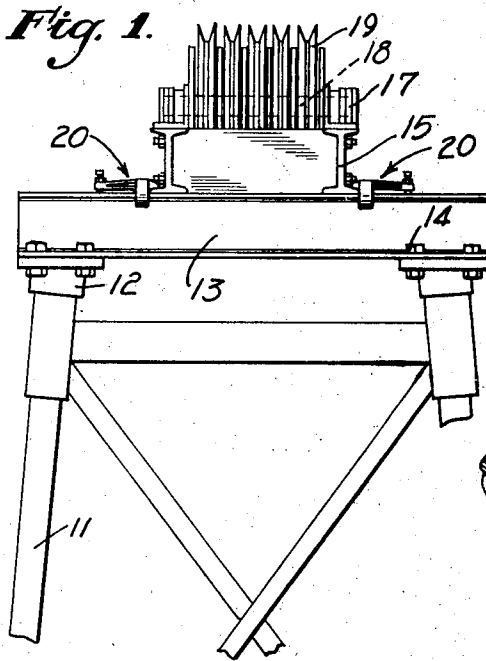
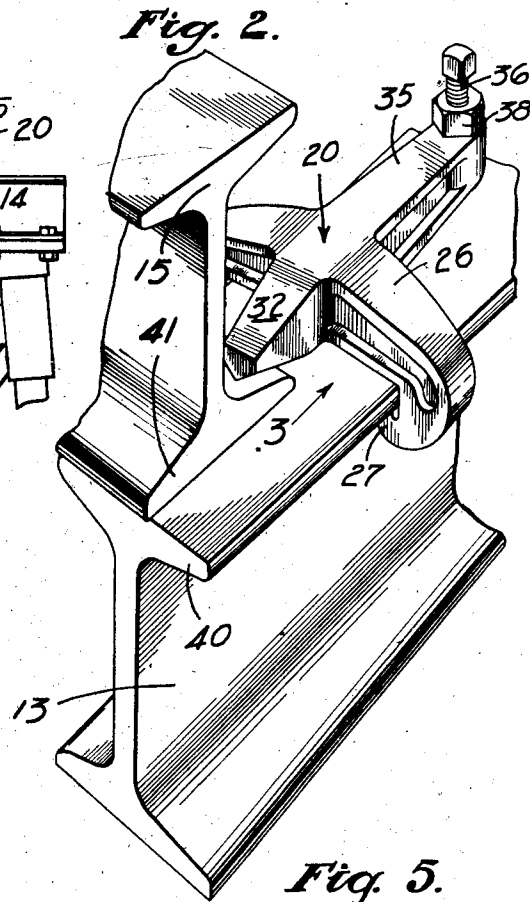
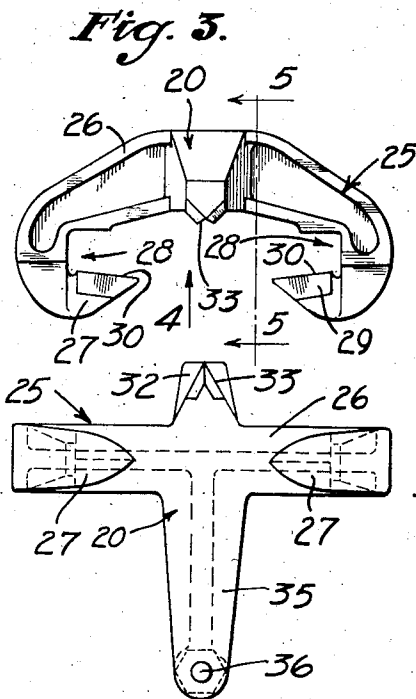
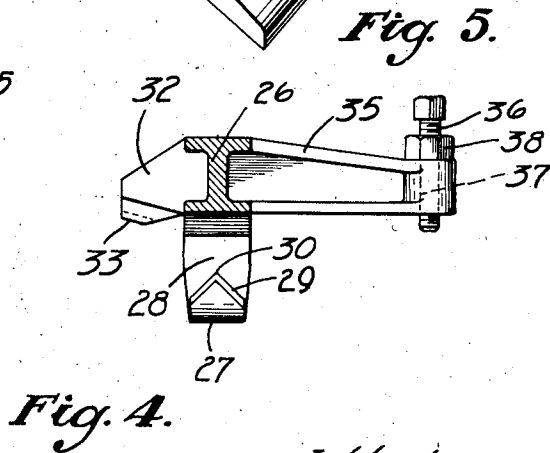
Sept. 13, 1927.

1,642,170

L. A. RAWSON

ANCHOR FOR CROWN BLOCKS

Filed Dec. 13, 1926



INVENTOR:
LESLIE A. RAWSON
By *Forst & Hamer*
ATTORNEY.

UNITED STATES PATENT OFFICE.

LESLIE A. RAWSON, OF HOUSTON, TEXAS, ASSIGNOR TO EMSCO DERRICK & EQUIPMENT COMPANY, OF LOS ANGELES, CALIFORNIA, A CORPORATION OF CALIFORNIA.

ANCHOR FOR CROWN BLOCKS.

Application filed December 13, 1926. Serial No. 154,570.

My invention relates to an I-beam anchor, and it has a particular utility in crown-blocks which form a part of oil well derrick equipment.

In this art the crown-block is placed at the top end of the derrick of the well. The crown-block consists of a base formed of pairs of parallel extending I-beams. Supported on the I-beams which form the base is a pair of I-beams which extend at right angles to the first-named I-beams, and which support the sheaves of the crown-block. It is essential that the crown-block sheaves be mounted directly above the well so that the cables of the traveling block will properly engage the sheaves. Ordinarily, the derrick is not plumb, and it is necessary to adjust the crown-block in position.

It is an object of this invention to provide an anchor for attaching the I-beams of the crown-block together, which means permits a ready adjustment of the crown-block sheaves but rigidly secures the I-beams together.

Other objects and advantages of the invention will be made evident hereinafter.

Referring to the drawing in which I illustrate my invention:

Fig. 1 is a fragmentary view showing a crown-block installed at the top end of a derrick, this crown-block utilizing the anchor of this invention.

Fig. 2 is an enlarged fragmentary perspective view showing my invention in detail.

Fig. 3 is a view of the anchor taken as indicated by the arrow 3 of Fig. 2.

Fig. 4 is a bottom plan view taken as indicated by the arrow 4 of Fig. 3.

Fig. 5 is a section taken on the line 5-5 of Fig. 3.

Referring to the drawing in detail, the numeral 11 represents the upper end of a derrick. Attached to the derrick 11 are support plates 12 on which I-beams 13 rest, and to which the I-beams are secured by suitable bolts 14. Resting on the I-beams 13 are I-beams 15 which extend at right angles to the I-beams 13. The I-beams 15 support bearings 17, which bearings 17 carry a shaft 18 on which sheaves 19 are rotatable. The I-beams 13 and 15 are clamped together by anchors 20 embodying the features of this invention.

The anchor 20, as illustrated best in Figs. 2 to 5 inclusive, consists of a yoke 25. The yoke 25 includes a bridge 26 at the opposite ends of which fulcrum arms 27 are formed. The fulcrum arms 27 extend inward below the bridge 26 so as to provide opposing channels 28. The fulcrum arms 27 are provided with upper V-shaped faces 29 which provide fulcrum edges 30.

Extended from the central part of the bridge 26 at right angles thereto is an engager 32. The engager 32 is comparatively short and is provided with lower gripping edges 33. Extended from the bridge 26 at the central part thereof, at right angles thereto and in a direction opposite from the extension of the engager 32, is a lever arm 35. The lever arm 35 is considerably longer than the engager 32. At the outer end of the lever arm 35 is a screw 36 which is threaded through an opening 37 formed in the end of the lever arm 35. The screw 36 is locked in the desired position by means of a lock nut 38.

In using the anchor of my invention it must be slid onto the I-beams 13 from the ends thereof. Referring to Fig. 2, the bridge 26 extends above an upper flange 40 of an I-beam on which it is placed. The edges of the flange 40 extend into the channels 28 and the fulcrum arms 27 extend below the edges of the flange. The anchor is moved into such a position adjacent to the I-beam which is to be attached to the lower I-beam, that the engager 32 rests above a lower flange 41 of the upper I-beam. In order to clamp the two I-beams together the lock nut 38 is screwed upward on the screw 36, and the screw 36 is advanced downward through the opening 37 in the end of the arm 35. The lower end of the screw 36 engages the upper face of the flange 40 and moves the end of the lever arm 35 upward. The gripping edges 33 of the engager 32 rest on the flange 41 and as the end of the arm 35 is moved upward the fulcrum edges 30 will engage the lower face of the flange 40. As the end of the lever arm 35 is moved further, the entire anchor 20 will fulcrum on the fulcrum edges 30. This fulcruming action swings the engager downward and causes the gripping edges 33 to tightly grip the flange 41 of the upper I-beam. The grip of the engager will be powerful be-

cause the lever arm 35 is much longer than the engager 32 and because considerable power may be had by reason of the screw 36.

The important feature of the invention is that it is adjustable into any position on the lower I-beam 13; therefore, it permits the upper I-beams 15 to be secured in any position, this allowing the sheaves 19 to be centralized above the well.

Another feature of the invention is that the anchor cannot be dropped from the top end of the derrick unless it is moved from the end of the I-beam on which it is placed. The yoke and fulcrum arm construction prevents the anchor from being removed from the I-beam unless it is removed from the end thereof.

The ease with which the I-beams may be clamped together with this invention is also an important feature.

I claim as my invention:

1. An anchor comprising: a yoke adapted to fit around a flange, said yoke having fulcrum arms adapted to engage said flange; an engager extended from said yoke, said engager being adapted to engage a member for securing said member to said flange; a lever arm extended from said yoke; and means engaging said lever arm for moving said yoke and said engager so that said engager will grip said member.

2. A combination as defined in claim 1 in which said fulcrum arms have edges en-

gaging said flange on which said anchor fulcrums.

3. A combination as defined in claim 1 in which said means comprises a screw threaded through said lever arm and adapted to engage said flange.

4. A combination as defined in claim 1 in which said engager and said lever arm extend from a bridge of said yoke at right angles to said bridge and in opposite directions.

5. A clamp adapted to clamp a primary and a secondary member together, comprising: a yoke adapted to engage a portion of said primary member; an engager on said yoke, said engager being adapted to engage said secondary member; a lever arm extending from said yoke; and adjustable means engaging said lever arm and said primary member whereby said engager tightly clamps said secondary member to said primary member.

6. A combination as defined in claim 1 in which said engager carries gripping edges.

7. A combination as defined in claim 1 in which said lever arm is longer than said engager.

In testimony whereof, I have hereunto set my hand at Houston, Texas, this 1st day of December, 1926.

LESLIE A. RAWSON.