Dec. 18, 1923. 1,478,307

J. P. SYKES ET AL

JACK STRUCTURE

Filed April 6, 1922 2 Sheets-Sheet 1

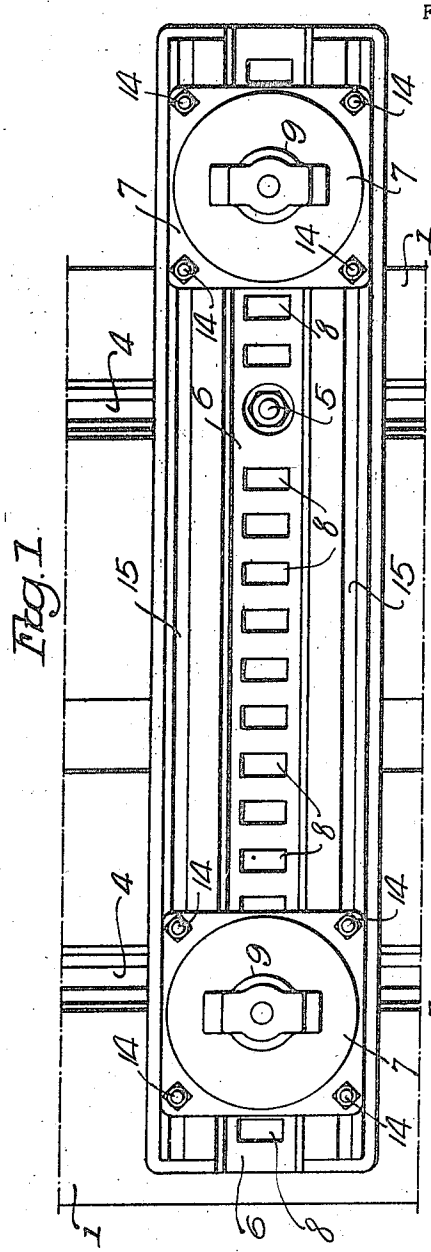


Fig. 1.

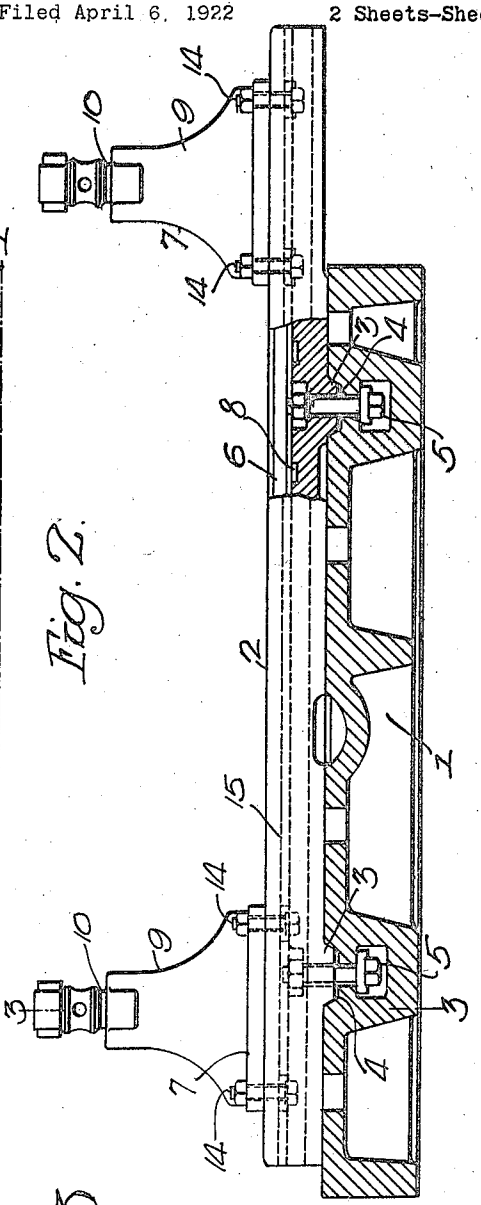


Fig. 2.

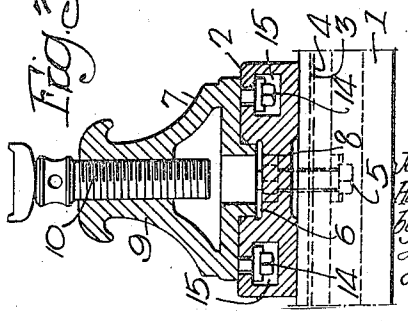


Fig. 3.

Inventors:
John P. Sykes,
Harmon R. Stover,
by their Attorneys
Howson & Howson

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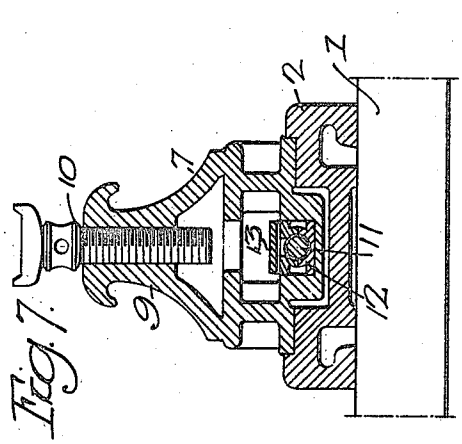


Fig. 7.

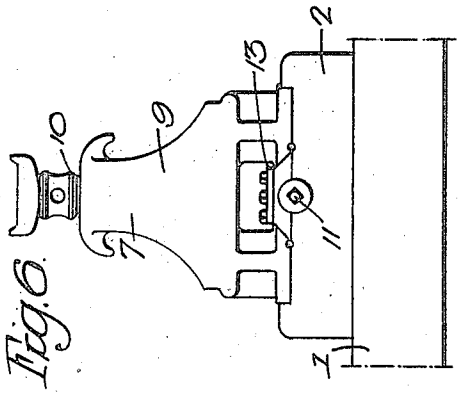


Fig. 6.

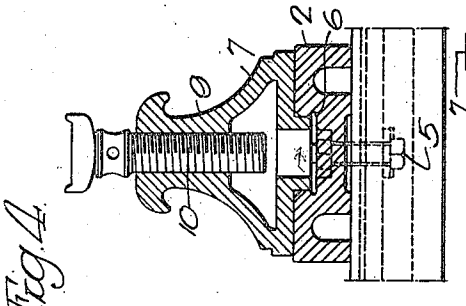


Fig. 4.

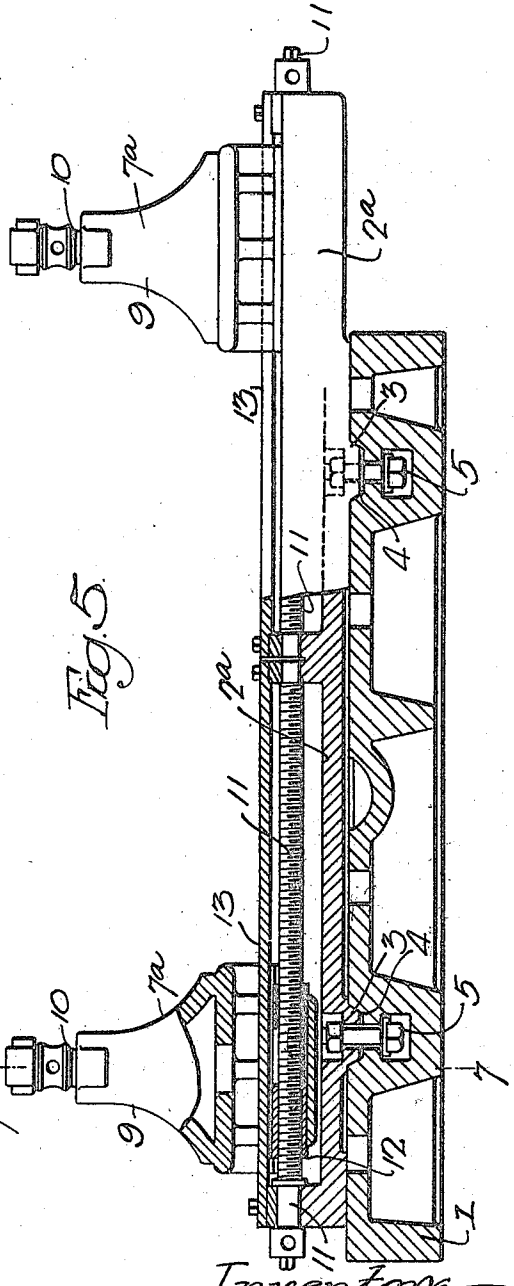


Fig. 5.

Inventors.—
John P. Sykes.
Harmon E. Stover.
by their Attorneys.
Howson & Howson

Patented Dec. 18, 1923. 1,478,307

UNITED STATES PATENT OFFICE.

JOHN P. SYKES, OF WALLINGFORD, AND HARMON E. STOVER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO THE BALDWIN LOCOMOTIVE WORKS, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

JACK STRUCTURE.

Application filed April 6, 1922. Serial No. 550,014.

To all whom it may concern:

Be it known that we, JOHN P. SYKES and HARMON E. STOVER, citizens of the United States, residing, respectively, in Wallingford, Delaware County, Pennsylvania, and Philadelphia, Pennsylvania, have invented certain Improvements in Jack Structures, of which the following is a specification.

Our invention relates to jack structures for supporting heavy objects, such as locomotive frames, during the assembling of the parts on the frame and may be used in connection with saddles which support and align the frames, as set forth in an application for patent filed by us even date herewith.

The object of our invention is to construct a jack structure so that it can be readily and accurately adjusted in position under heavy frames, and, when in proper position, it will firmly support the frames during the assembling of parts thereon.

In the accompanying drawings:

Fig. 1 is a plan view of our improved jack structure;

Fig. 2 is a side view partly in section;

Fig. 3 is a transverse sectional view on the line 3—3, Fig. 2;

Fig. 4 is a sectional view of the jack in its simplest form;

Fig. 5 is a side view, partly in section, illustrating a modification of the invention and showing adjusting screws;

Fig. 6 is an end view of the construction shown in Fig. 5; and

Fig. 7 is a sectional view on the line 7—7, Fig. 5.

1 is a foundation plate, which may extend the full length of a locomotive frame and which may support the saddles on which the frames are mounted, as well as the jacks. 2 is a transverse base plate having ribs 3 on the under side, which extend into longitudinal grooves 4 in the foundation plate so that the base plate can be adjusted accurately on said foundation plate. The base plate is held in the position in which it is adjusted by bolts 5.

In the upper surface of the base plate 2 is a longitudinal groove 6, and mounted on the base plate are the jacks 7.

The body of each jack has a projection extending into the groove. In the bottom of the groove is a series of pockets 8 to receive the end of a pinch bar, which in utilized to move the jacks, which are heavy, on the base, to the desired position. In the present instance, two longitudinal T-slots 15 are formed in the base plate at each side of the groove 6. Headed bolts 14 are adapted to the slots 15 and extend through openings in the body portion of each jack 7 and are provided with nuts. By this construction, the jacks can be firmly held in the position in which they are adjusted. In some cases, the bolts may be omitted, as shown in Fig. 4, when the jacks are very heavy.

The body 9 of each jack has a screw-threaded opening, in which is a heavy screw 10 having a head perforated for the reception of a bar by which the screw is turned. Secured to the head is a swiveled block, which engages the frame, or other member to be supported.

In Fig. 5, 6 and 7 modifications are shown, in which two longitudinal adjusting screws 11 are mounted in the base plate 2^a. Each screw has a perforated head to receive a turning bar. Secured to each jack 7^a is a nut 12 through which a screw 11 extends. Plates 13 are secured to the base plate and extend over the screws and through an opening in each jack.

By the above construction, the jacks can be moved over the base plate to position either by a pinch bar or by a screw. The base plate, with the jacks thereon, can be mounted on a foundation plate and can be readily adjusted in position to support a load properly.

The jack structure is particularly designed to support the overhanging ends of locomotive frames while they are on jigs and it is essential to have the support rigid and capable of being adjusted accurately to the work.

We claim:

1. The combination in a jack structure, of a foundation plate; a base plate adjustably mounted thereon; and jacks on the base plate adjustable longitudinally thereon.

2. The combination of a base plate; a longitudinal groove therein; a jack having a projecting portion extending into the groove; and a screw on the jack, the base

plate having a series of pockets in the base of the groove to receive a pinch bar to adjust the jack on the base plate.

3. The combination of a foundation plate having longitudinal grooves therein; a base plate having ribs extending into the grooves; bolts for securing the base plate in position, said base plate having a longitudinal groove therein and having a series of pockets in the base of the groove; jack bodies mounted on the base plate having projections extending into the grooves; and screws in each jack body.

JOHN P. SYKES.
HARMON E. STOVER.