Jan. 7, 1969 L. L. ARNES 3,420,481

TRANSMISSION SADDLE FOR LIFT

Filed Oct. 6, 1967

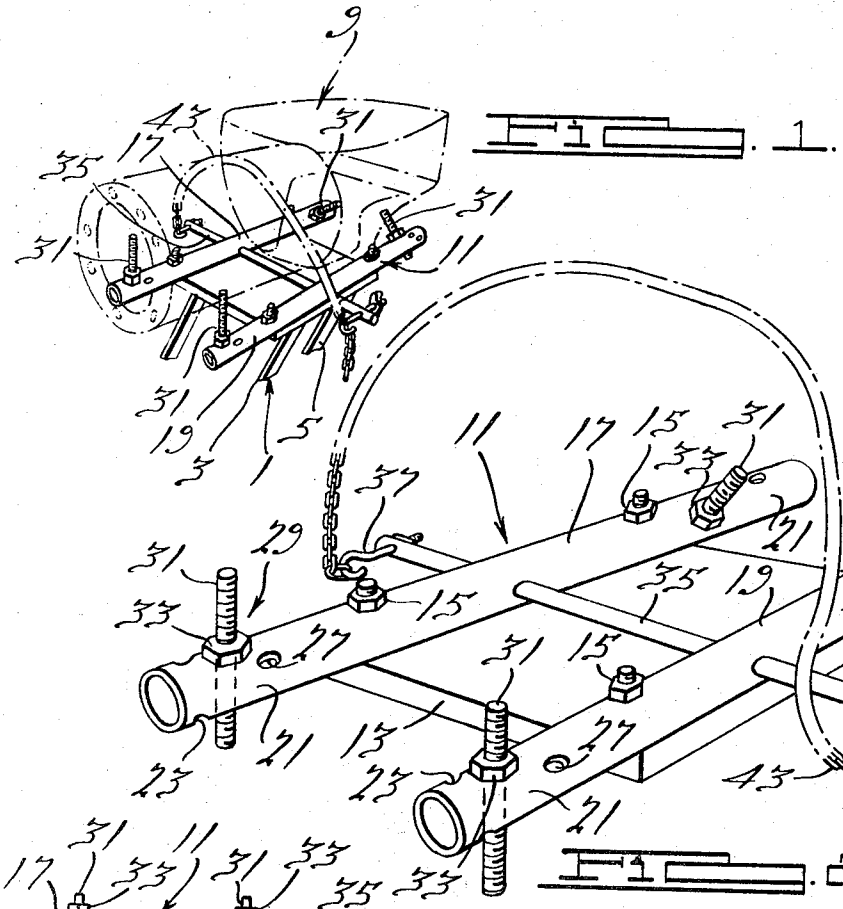


FIG. 1.

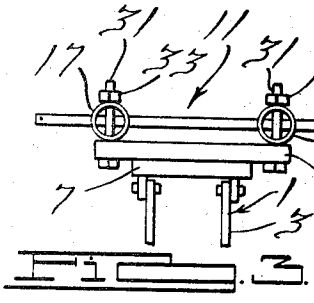


FIG. 3.

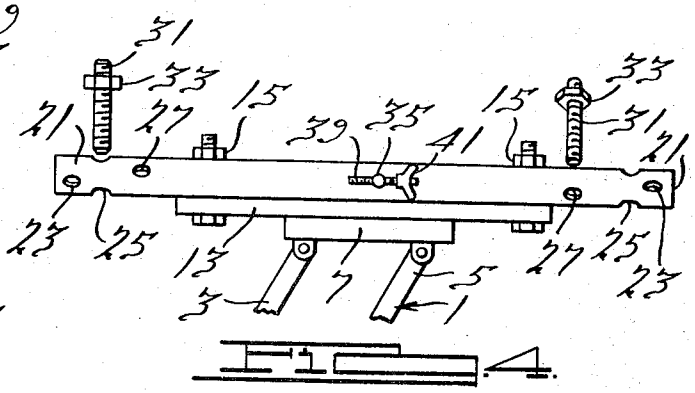


FIG. 4.

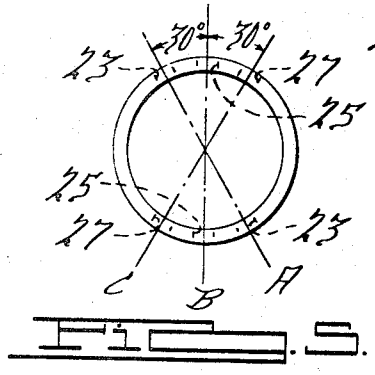


FIG. 5.

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TRANSMISSION SADDLE FOR LIFT

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U.S. Cl. 248—25 2 Claims
Int. Cl. A47b 57/20

ABSTRACT OF THE DISCLOSURE

A saddle for holding irregularly shaped objects such as truck transmissions comprises a pair of parallel tubes having a plurality of adjustable transmission engaging supports that may be placed at different locations and a flexible strap that may be placed over the transmission to hold it securely on the supports.

Brief summary of the invention

Many saddles for use on jacks employed to remove transmissions do not provide sufficient flexibility to firmly support a wide variety of transmission shapes. It is the purpose of the present invention to provide a saddle that has a number of independently adjustable support elements that can be adjusted to securely support a wide range of irregularly shaped objects such as transmissions. In accomplishing this purpose the invention provides a pair of parallel tubes, which may be bolted to a support plate at the top of a jack, and which have projecting ends which are provided with a series of holes that are longitudinally and angularly displaced from each other. Stud and nut combinations fit in the holes and can be adjusted in length independently of each other to contact appropriate points on the transmission so that a firm support is obtained. There is a transverse bar that extends through both tubes to one end of which is attached a chain or strap at one end that loops over the transmission and is tightened at the other end of the bar.

Description of the drawings

FIGURE 1 is a perspective view of a portion of a jack embodying the invention, a typical transmission being shown in phantom lines;

FIGURE 2 is an enlarged perspective view of the transmission saddle of FIGURE 1;

FIGURE 3 is a reduced size end view of the saddle with the chain removed;

FIGURE 4 is a side view with a chain removed and with the support studs in exploded position; and

FIGURE 5 is an enlarged end view of an end of one of the saddle tubes.

Description of the invention

A conventional lifting jack **1**, such as shown in U.S. Patent No. 3,062,500, has lift members **3** and **5** which may raise and lower a pad or plate **7**. In order to adapt the jack **1** to securely hold objects to be lifted, such as transmission **9**, a saddle **11** is attached by suitable means, such as bolts, to the pad **7** or, if desired, directly to the lift members **3** and **5**.

The saddle **11** includes a base plate **13**, which could be used in lieu of the pad **7** for permanent installations, to which are secured by bolts **15** a pair of parallel tubes **17** and **19**. The tubes have portions **21** which project beyond the ends of the plate **13** and these portions are provided with pairs of holes **23**, **25**, and **27** which are longitudinally and angularly displaced from each other (preferably 30°) as seen best in FIGURE 5, each pair comprising diametrically aligned holes on opposite sides of the tube.

Four transmission contacting members **29** in the form of studs **31** which thread into nuts **33** are provided and each stud **31** can freely project radially through any of the pairs of holes.

Slidably extending through aligned holes in the tubes **17** and **19** and located centrally with respect to their lengths is a bar **35** that has an eye-bolt **37** fixed to one end and an eye-bolt **39** projecting through a hole in the other end and provided with a wing nut **41** that may be rotated to adjust the projecting length of the eye-bolt. A tie down chain **43** is attached to the eye-bolt **37** at one end and an appropriate part adjacent the other end of the chain **43** may be fitted over the hook of the eye-bolt **39** and drawn tight by means of the wing nut **41** after it is looped over the transmission **49**.

It is apparent that at least three of the four support members **29** may be positioned in alignment with parts of the transmission **9** and then adjusted in length to contact the transmission and thereby provide a stable support for it that will eliminate teetering. The transmission is tightly held against these supports by means of the adjustable tie down chain **43** and bar **35** as just described.

Modifications may be made without departing from the spirit and scope of the invention.

I claim:

1. In a device for the mobile support of irregularly shaped objects such as truck transmissions and including a support surface,

a pair of parallel horizontal tubes secured to said surface and each having both ends projecting beyond the support surface,

each of said projecting ends having a series of pairs of holes formed therein wherein each pair of holes comprises diametrically aligned holes in the tube wall to provide an aperture extending transversely through the tube,

each series of pairs of holes comprising pairs of holes that are angularly and axially displaced from each other with respect to the axis of the tube,

and a stud and nut combination connected with each projecting end,

each said stud being sized to project freely through each of said holes,

said nuts serving to support said studs on the tubes and said studs being adjustable in projecting length by virtue of the threaded connection with the nut and therefore adjustable in length and in said holes to enable them to contact and support an object to be carried by said mobile support.

2. A device as set forth in claim **1** including a horizontal bar extending transversely through central portions of said tubes and projecting at opposite ends beyond said support surface,

each projecting end of the bar having a tie down means one of which is adjustable,

and a flexible member for attachment to said tie down means and looping over an object supported on said studs to hold it firmly against the studs.

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U.S. Cl. X.R.

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