June 12, 1928. 1,673,130

W. E. WALSH

RAIL TONGS

Filed June 13, 1927

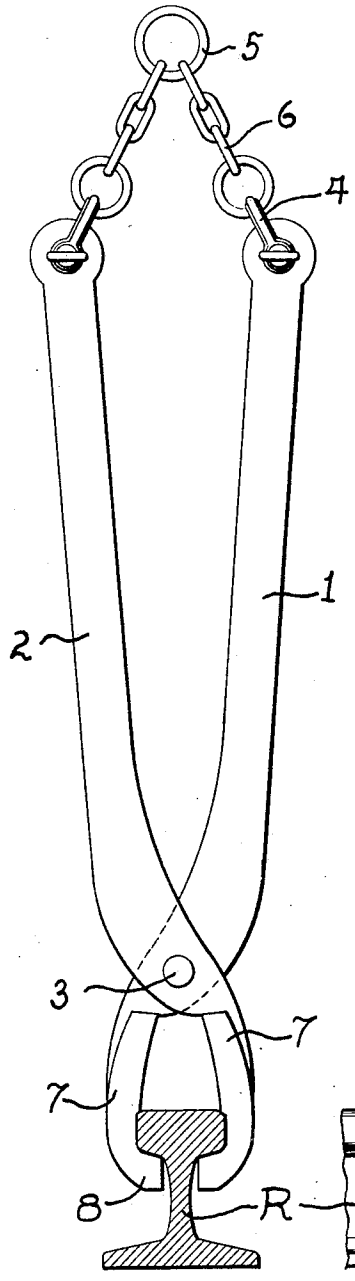


Fig-1

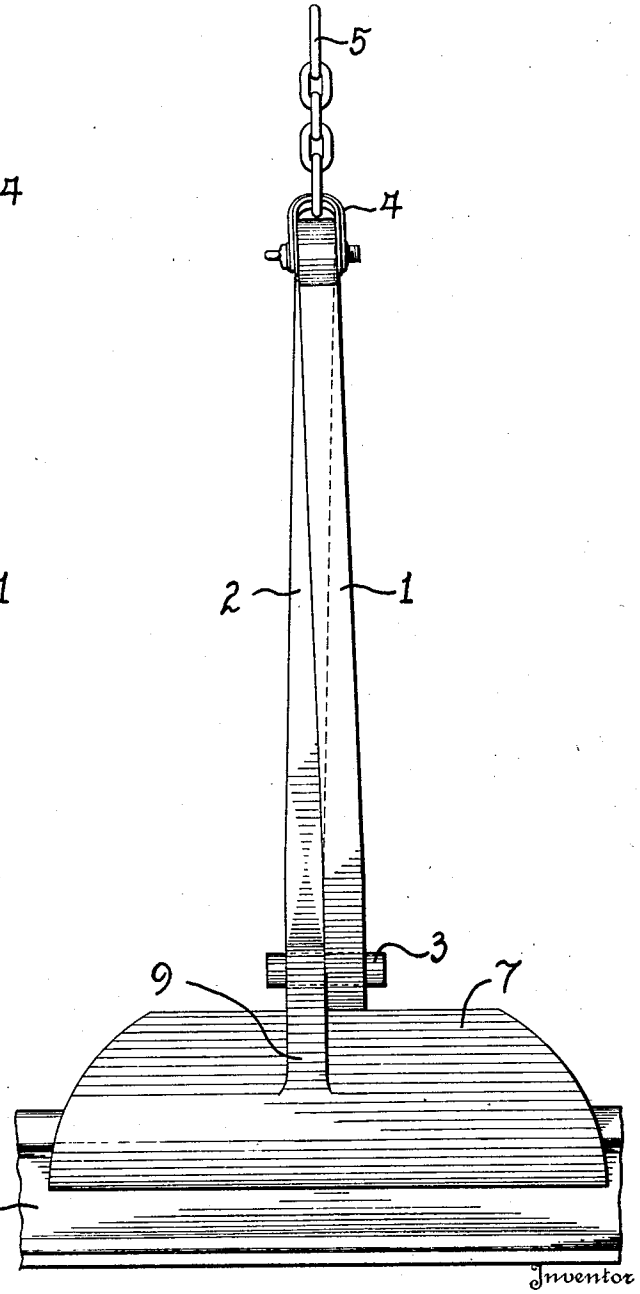


Fig-2

Inventor

William E. Walsh

By Owen & Owen

Attorneys

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UNITED STATES PATENT OFFICE.

WILLIAM E. WALSH, OF GIBSONBURG, OHIO.

RAIL TONGS.

Application filed June 13, 1927. Serial No. 198,349.

This invention relates to rail handling devices, but more particularly to tools for handling rails which can be readily manipulated for engagement with or disengagement from the rails.

Heretofore, it has been a difficult task to handle rails, I-beams and other similar bars which are heavy, cumbersome and difficult exactly to balance. Numerous tools, mostly makeshifts, have been devised, but are, in the main, impractical and objectionable because they either fail to securely grip the rails so that they slip out after engagement, or are so difficult to attach to the rails that the work cannot be speedily handled.

An object of this invention is to provide a simple and practical tool for handling rails or beams which may be readily attached for service and, when attached, will securely and reliably grip, preventing disengagement of the rails regardless of the point of attachment.

The invention is shown by way of illustration in the accompanying drawing, in which:

Fig. 1 is an edge view of the rail tongs; and Fig. 2 is a side view of the tongs shown in Fig. 1.

The illustrated embodiment of the invention comprises rail tongs having gripping arms 1 and 2 which are pivoted together by a pin 3 adjacent the lower end portion. The upper end portion of the arms 1 and 2 are bent into substantial alignment, and attached to the outer ends are clevises 4, which are connected to a ring 5 by links 6. It will be understood that the ring 5 may be engaged by a hook over a crane or other suitable lifting means.

Formed on the lower end portion of the arms 1 and 2 are gripping jaws 7, the outer ends of which are curved toward each other as at 8 to engage beneath the upper portion of a rail R.

An outstanding characteristic of the invention resides in constructing the gripping jaws of the tongs relatively long, approximately one-half of the gripping surface extending on each side of the arms. While the length of the gripping jaw may be varied to suit the conditions of service, it has been found that a jaw of substantially 18 inches in length is suitable for the purpose, although a longer jaw may be used to advantage. It will be seen that the arms 1 extend to approximately the center of the jaws, as indicated at 9, so as to provide a re-inforcement for the jaws.

From the above description and referring particularly to the drawing, it will be noted that each of the jaws is comparatively thin and substantially straight, the bottom portions of the jaws being curved inwardly so as to engage in the corners formed between the web and the under face of the head of the rail R, with the entire under face of the rail, and with the entire outer side portion and with a portion of the upper face of the head, the outer faces of the jaws being gradually inclined toward the bottom edges of the jaws.

In operation, the jaws may be readily opened to receive the rail by loosening the links 6 to permit the arms 1 and 2 to open up. After the tool has been forced over the rail, by lifting on the ring 5 the gripping jaws are moved toward each other into secure engagement with the rail. Regardless of the position at which the rail is engaged by the tongs, it cannot become disengaged owing to the long or wide gripping jaws. Liability of the rails slipping from the jaws is unmistakably prevented.

In order to enhance the strength of the tongs the arms are preferably formed by forging, although under some circumstances they may be cast. Changes in details of construction may be effected without departing from the spirit of the invention.

What I claim as new and desire to secure by Letters Patent is:

A tong for use in handling railway rails, which includes a pair of pivoted arms, each arm having a relatively long gripping jaw extending transversely of the arm, said jaws being comparatively thin and substantially straight, the bottom portions of the jaws being curved inwardly so as to engage in the corners formed between the web and the under face of the head of the rail, with the entire under face of the head of the rail, and with the entire outer side portions and with a portion of the upper face of the head, the outer faces of the jaws being gradually inclined toward the bottom edges of the jaws.

In testimony whereof I have hereunto signed by name to this specification.

WILLIAM E. WALSH.