March 25, 1930. H. H. LAMPERT 1,751,823

ADJUSTING TOOL FOR FORM TIES

Filed April 28, 1928

Fig. 1.

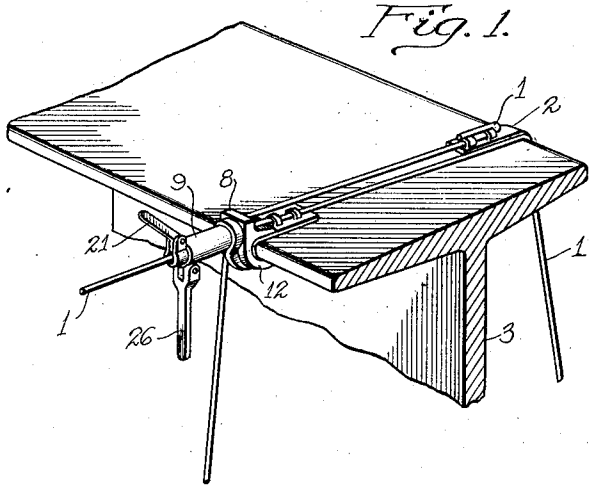
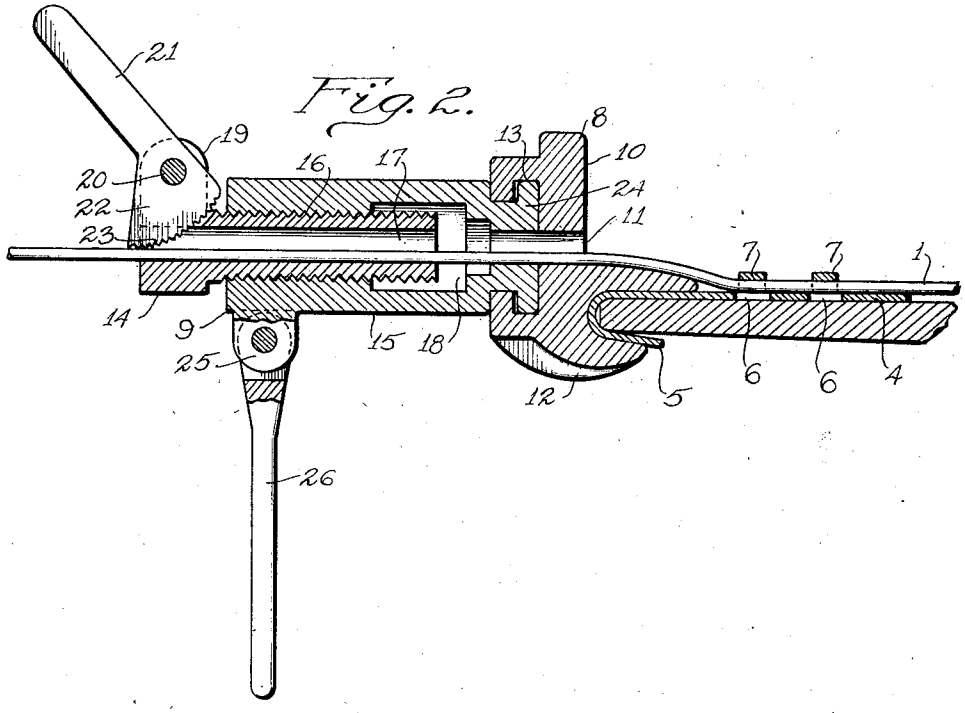


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE

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ADJUSTING TOOL FOR FORM TIES

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The main objects of this invention are to provide an improved tool for adjusting a tie element relative to a clamp; to provide a tie adjusting tool which is particularly adapted for use in connection with form clamps used in concrete construction work; and to provide a form tie adjusting tool having an improved bearing member adapted for engagement with the clamp.

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

Figure 1 is a fragmentary perspective of a beam, showing an improved tool in position to pull a tie relative to its clamp.

Fig. 2 is an enlarged longitudinal section of the tool, showing also parts of the clamp, beam and tie.

In the construction illustrated, the tool is used in connection with a form tie 1 arranged to form a sling for supporting a mold, not shown, and having a clamp 2 on each end thereof for securing the tie to an I-beam 3 or other structural shape located within the mold.

The tool is adapted for use in connection with many different types of form clamps. In the construction shown, the clamp 2 comprises a sheet metal plate 4, having one end curled to provide a bearing hook 5 adapted to embrace one edge of the top flange of the I-beam.

Portions of the plate 4 are struck out therefrom to provide recesses 6 and overlying bridge portions 7 arranged to provide guideways for the tie rod 1. The bridge portions 7 are bendable, when struck with a hammer or similar tool, for kinking the tie by forcing portions thereof into the recesses 6 after the tie has been properly adjusted by means of the improved tool.

In the form shown, the improved tool comprises a jaw 8 adapted to bear against the clamp and having swiveled thereon an expansible jack 9 arranged to grip the tie for pulling it relative to the jaw.

The jaw 8 is preferably a metal casting comprising a bearing part 10 having an opening 11 for receiving the tie 1. Formed on the bearing part 10 and located on one side of the opening 11, is a substantially U-shaped clip 12 adapted to embrace the bearing hook 5 of the clamp. Also formed in the bearing part 10, is an undercut recess 13 for receiving part of the jack 9.

The jack 9 comprises a pair of telescoping parts 14 and 15, having threaded engagement with each other as shown at 16 to permit expansion and contraction of the jack, and having openings 17 and 18, respectively, alined with the opening 11 for receiving the tie.

Formed on the outer end of the part 14, is a pair of ears 19 which support a pin 20 on which is pivotally mounted a lever 21. Formed on the inner end of the lever 21, is a cam 22 having a knurled edge 23 adapted to grip the tie rod 1 for clamping the part 14 to the tie.

A swivel 24, formed on one end of the part 15, is seated in the recess 13 to permit the part 15 to be rotated relative to the tie for moving the gripping member 14 away from the jaw 8 so as to thereby tighten the tie.

Formed on the rotatable member 15, is a lug 25, on which is pivoted an operating handle 26.

In operation, the clamp 2 is applied to the I-beam and the tie is inserted through the clamp and looped around the beam and mold. The projecting end of the tie is then inserted through the openings 11, 17 and 18 and the clip 12 is positioned to embrace the hook 5.

The lever 21 is then shifted to lock the member 14 to the tie and the member 15 is then rotated for expanding the jack.

After the tie has been properly adjusted, the bridge portions 7 are bent to kink the tie. The tool may then be removed for use on other clamps.

Although but one specific embodiment of this invention has been herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

I claim:

1. A tool for adjusting a form tie relative to its clamp, comprising a jaw including a bearing part having an opening therein for

receiving the tie, a clip formed on said bearing part and offset from said opening, said clip having a pocket for receiving one edge of the clamp, and a jack swiveled on said bearing part and having means adapted to grip the tie for pulling it relative to said jaw.

2. In a device of the class described, the combination with a form clamp having a bearing hook for engagement with a structural shape, of a tool for adjusting a form tie relative to the clamp, said tool comprising a jaw including a bearing part having an opening therein for receiving the tie, a substantially U-shaped clip formed on said bearing part and offset from said opening for embracing said bearing hook, and a jack swiveled on said bearing part and having means adapted to grip the tie for pulling it relative to said jaw.

Signed at Chicago this 26th day of April, 1928.

HENRY H. LAMPERT.