April 15 , 1924. 1,490,284

J. A. MacLEOD

ADJUSTABLE SCREW CLAMP FOR CONCRETE MOLDS

Filed Dec. 30 . 1922

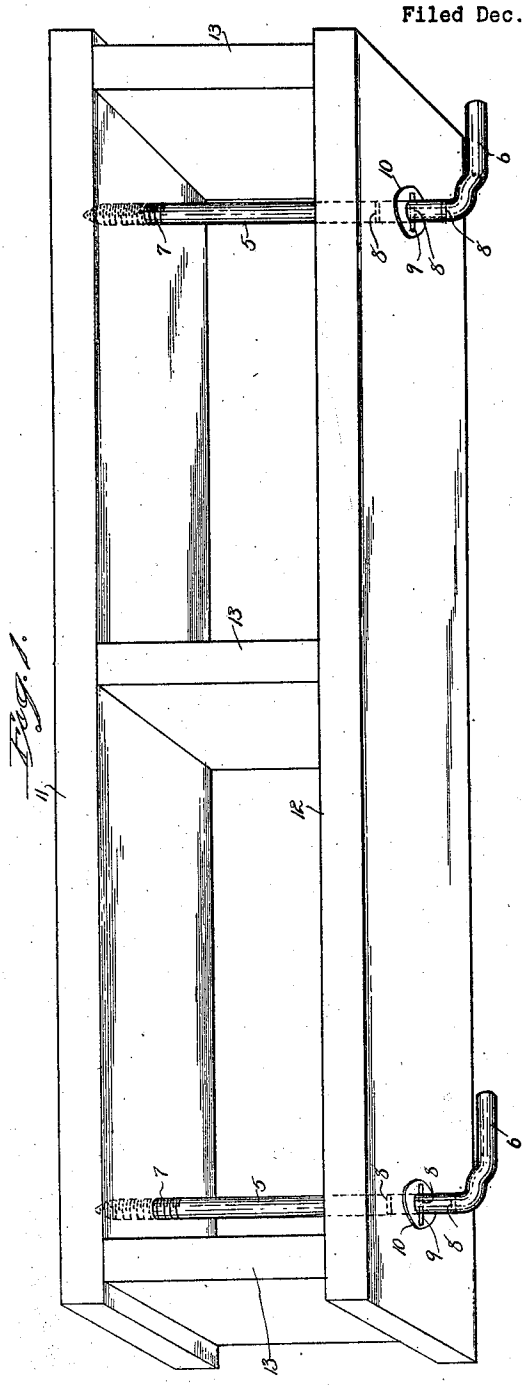


Fig. 1.

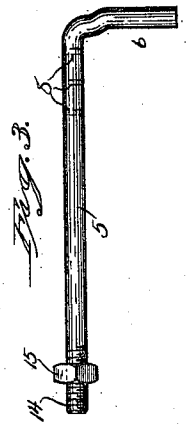


Fig. 3.

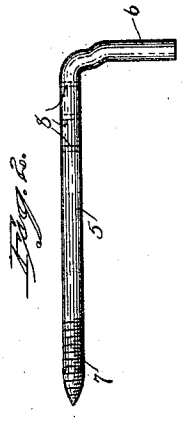


Fig. 2.

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UNITED STATES PATENT OFFICE.

JAMES A. MacLEOD, OF NEW HAVEN, CONNECTICUT.

ADJUSTABLE SCREW CLAMP FOR CONCRETE MOLDS.

Application filed December 30, 1922. Serial No. 609,835.

To all whom it may concern:

Be it known that I, JAMES A. MacLEOD, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Adjustable Screw Clamps for Concrete Molds; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Fig. 1 a perspective view showing my improved screw-clamps in use.

Fig. 2 a detached plan view of one of the clamps.

Fig. 3 a corresponding view of a modified form thereof.

My invention relates to an improved adjustable screw-clamp for concrete molds, the object being to greatly simplify and cheapen the installation of cast concrete work, with particular reference to the maximum salvaging of the lumber used in the molds.

With these ends in view, my invention consists in an adjustable screw-clamp for concrete molds, the said clamp consisting of a one-piece rod bent to form a shank provided at one end with a hand-grip adjacent to which it is furnished with a plurality of transverse perforations for the reception of an abutment-pin and a washer positioned thereby, and having its opposite end threaded.

In carrying out my invention, as herein shown, my improved clamp is made from a single piece of rod-stock and comprises a shank 5 having its outer end formed with an integral hand-grip 6 and its inner end pointed and provided with standard wood-screw threads 7. The hand-grip end of the shank 5 is formed with a plurality of transverse perforations 8 for the reception in different positions of a removable abutment-pin 9 forming an abutment for a washer 10, which is shifted upon the shank according to the distance between the oppositely-located mold-boards 11 and 12 of the demountable mold, which, as shown, also comprises three corresponding, transversely-arranged spacers 13. The number of the transverse perforations 8 will be varied according to the desired range of adjustment. If preferred, the threaded or inner end of the shank may be provided with a machine screw-thread 14 to receive a nut 15, as shown in Fig. 3.

In using my improved adjustable screw-clamp, the mold-boards 11 and 12, forming the opposite walls of the mold, are first installed, and the spacers 13 inserted between them. The screw-clamps are then inserted into the mold-boards through one or the other thereof, as the case may be, and at right angles thereto. The abutment-pin 9 and its washer 10 of each clamp are now adjusted, as called for by the distance between the two mold-boards, and the length of the shanks of the clamps, which are now manually turned by their hand-grips to draw the mold-boards firmly against the ends of the spacers, the purchase being provided by the screw-threads and pins. The washers serve to prevent the pins from being embedded in the wood and to reduce friction. The concrete, whatever its specific character, is now poured and allowed to harden, after which the screw-clamps may be readily removed for the removal or re-positioning of the mold-boards, and their spacers, which may be used over and over again. The modified screw-clamp shown by Fig. 3 is peculiarly adapted for use with sheet-metal mold-pieces, which may be used in place of wood, if preferred.

By my improved screw-clamp I am able to carry on the work of casting concrete with the minimum amount of labor and expense, the salvage value of the lumber used in the molds being practically one hundred per cent. I am aware that a screw-clamp for concrete molds, consisting of a rod bent to form a straight shank with a hand-grip at one end thereof, the shank being threaded at its outer end, and provided at its hand-grip end with a fixed washer, is old, and I do not claim such a construction broadly, but only my particular construction, in which the hand-grip end of the shank is provided with a plurality of transverse perforations for the interchangeable reception of a pin to hold a sliding washer at any predetermined position within the range of the said holes.

I claim:

In an adjustable screw-clamp for concrete molds, the combination with a one-piece rod bent to form a straight shank with a hand-

grip offsetting from one end thereof, the hand-grip end of the shank having a plurality of spaced, transverse perforations and the outer end of the shank being threaded; of a sliding washer located upon the perforated end of the said shank, and a pin interchangeable in the said perforations for locating the washer upon the shank in any predetermined position thereon within the range of the said perforations, whereby the washer may be positioned upon the shank as required by the work in hand.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

JAMES A. MacLEOD.

Witnesses:
FREDERIC C. EARLE,
MALCOLM P. NICHOLS.