L. E. ROBERTS.

Clamp for Anchoring Cores.

No. 160,062. Patented Feb. 23, 1875.

Fig. 1.

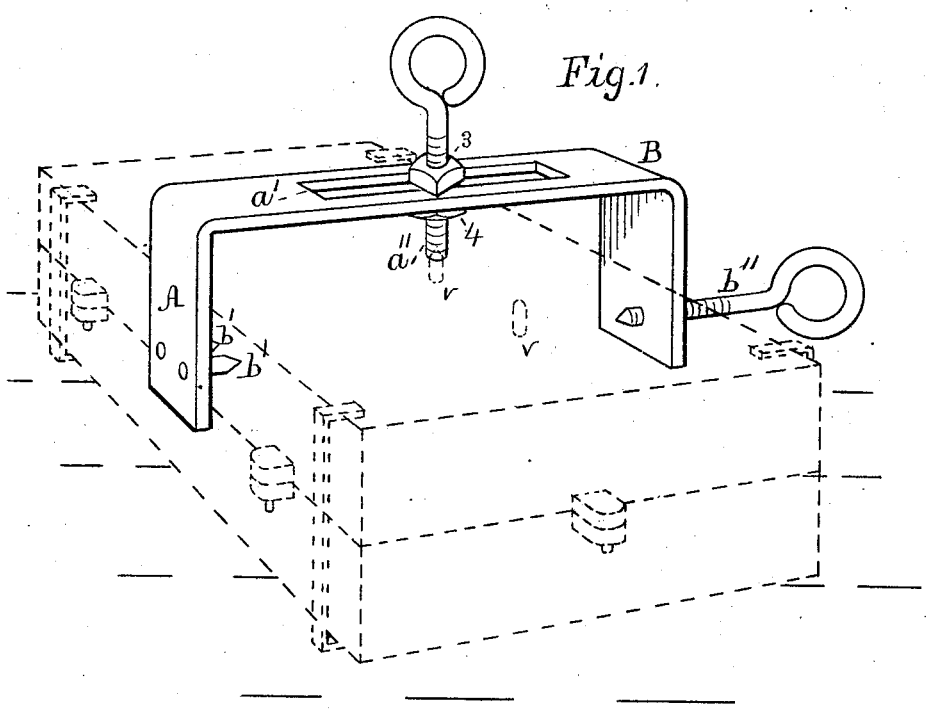
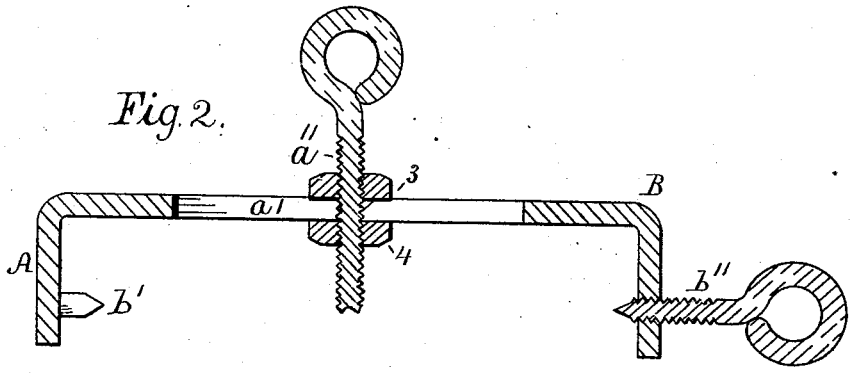


Fig. 2.



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UNITED STATES PATENT OFFICE.

LEWIS E. ROBERTS, OF QUAKERTOWN, PENNSYLVANIA.

IMPROVEMENT IN CLAMPS FOR ANCHORING-CORES.

Specification forming part of Letters Patent No. **160,062**, dated February 23, 1875; application filed January 20, 1875.

To all whom it may concern:

Be it known that I, LEWIS E. ROBERTS, of Quakertown, in the county of Bucks and State of Pennsylvania, have invented a Clamp for Anchoring-Cores in Foundry-Flasks, of which the following is a specification:

The object of my invention is to dispense with the use of weights heretofore placed upon the flasks and anchor-bars to keep the cores steadily in their proper positions during the operation of casting iron and other metals; and my invention consists of a slotted bar of iron, or any other suitable metal, provided with an adjustable screw and screw-nuts in the slot, and spurs and a pointed screwing-bar in the two respective ends, whereby the said slotted bar can be readily clamped across the top of the filled flask, and the nutted screw in the slot of the bar adjusted and operated so as to bear directly down upon the usual anchor-bar, and thus keep the core at that part from rising or becoming displaced during the operation of casting, as will be more fully and clearly described with reference to the accompanying drawing, in which—

Figure 1 is a perspective view of my said invention applied to a flask, the latter being indicated by dotted lines. Fig. 2 is a vertical longitudinal central section of the clamp, shown in Fig. 1.

The body A B of the clamp is a bar of iron having two downward-projecting ends and a slot, a', along in the part which is between the two ends, substantially as represented in the drawing. At the inner side, near the lower end of one of the downward projections of the bar A B, two spurs or pointed teeth, b', are rigidly secured, and at the opposite end of said bar a pointed screw-rod, b'', is secured, so as to be rotated by hand in the operation of applying the clamp to a flask, as will hereinafter be explained. Secured in the slot a' there is another screw-rod, a'', which is provided with two screw-nuts, 3 and 4, one of which is above the bar A B, and the other one below it, and the said screw-rod can be readily moved and subsequently fixed so as to be rotated by hand. The lower end of the screw-rod a'' is slightly concave.

My said clamp is intended to be applied and operated as follows, viz: The core being inserted and supported in the usual well-known manner in the "drag" of the flask, and the "coping" applied and secured upon the drag with the usual adjustable anchor-rods projecting up through the coping, the clamp is then applied across the flask, and made fast by means of the pointed spurs b' b' and the pointed screw-rod b'' with the slot a' directly over the anchor-bar, which is to be operated upon. The nutted screw-bar a'' is then adjusted and secured by the screw-nuts 3 and 4, so that its concave lower end will be directly over the projecting end of the anchor-bar, and the said screw-bar a'' then screwed down upon the anchor-bar until the latter is pushed down into its intended bearing upon the core in the flask, as represented in connection with the dotted lines, showing the exterior of the flask and the projecting portions of the anchor-rods v v, each anchor-rod requiring a clamp.

It will be readily understood without any further explanation that my said adjustable clamps, applied and operated as described, will afford great facility to the molder in adjusting the pressure required upon the anchor-rods, and in accurately keeping them in their intended positions during the operation of casting.

It is intended to have the clamps made in sufficient number and of various sizes to suit the requirements of the foundry. They are simple and inexpensive of construction, and will entirely do away with the use of the heavy weights of pig-iron heretofore used for the same purpose.

I claim as my invention—

The adjustable clamp consisting of the slotted bar A B, with its spurs b', and screwing-bar b'', in combination with the anchor-adjusting screw a'' and nuts 3 and 4, the said parts being constructed and arranged substantially as and for the purpose set forth.

LEWIS E. ROBERTS.

Witnesses:
THOS. MORRIS,
ROBERT MORRIS.