

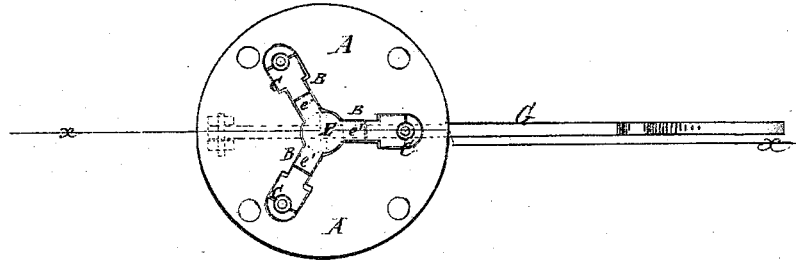
EDWARD L. GAYLORD.

Improvement in Pin-Clamps for Riveting.

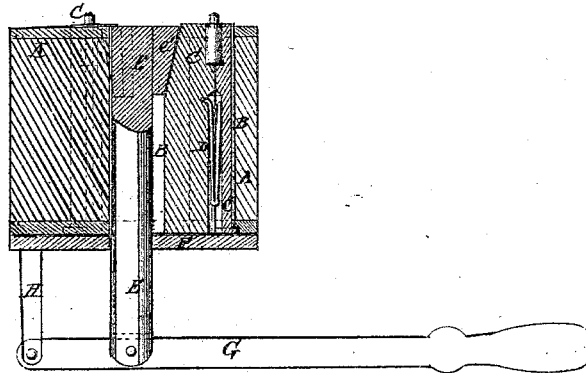
No. 115,840.

Patented June 13, 1871.

*Fig. 1*



*Fig. 2*



*Witnesses:*

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*Per*

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# UNITED STATES PATENT OFFICE.

EDWARD L. GAYLORD, OF TERRYVILLE, CONNECTICUT.

## IMPROVEMENT IN PIN-CLAMPS FOR RIVETING.

Specification forming part of Letters Patent No. 115,840, dated June 13, 1871.

*To all whom it may concern:*

Be it known that I, EDWARD L. GAYLORD, of Terryville, in the county of Litchfield and State of Connecticut, have invented a new and useful Improvement in Pin-Clamp for Riveting; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a top view of my improved clamp. Fig. 2 is a detail sectional view of the same taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved clamp for holding pins to be riveted to lock-plates and other articles where it is necessary that the pins should be held perfectly true while being riveted, and which shall be simple in construction, effective in operation, and easily and conveniently manipulated when in use; and it consists in the construction and combination of the various parts of the clamp, as hereinafter more fully described.

A is a block of iron or other suitable material, which is perforated longitudinally with a perforation, B, having three—more or less—arms, but preferably three, all of said arms leading into a common center. Several of these arms or cross-perforations may be formed in the same block A when a greater number of pins is to be riveted to the same plate than can be conveniently connected with a common center. In each of the arms of the perforations B is placed a clamp, C, which is made in two parts, the plane of division being across the said arms. In the upper part of the adjacent sides of the parts of the clamp C is formed a recess of the proper size and shape to receive and hold the pins to be riveted. The clamps C are provided with a shoulder or other stop at their lower ends, to stop them at the proper point—that is to say, when their upper ends are raised a little above the face of the block A—so that the plate to be riveted may rest upon the upper ends of the clamps C instead of resting upon the face of the block A

while being riveted. The adjacent sides of the parts of the clamps C are recessed, and are provided with springs D, by the elasticity of which, when the said clamps are released from pressure, they may be spread apart to allow the pins to be conveniently removed from them. Through the center of the perforation B passes a shaft, E, having as many inclined projections *e'* formed upon the sides of its upper part as there are arms to the perforation B, said projections *e'* being made of such a size as to fit into the arms of the said perforation B and rest against the inner sides of the clamps C, which said sides should be inclined to correspond with the inclination of the said projections *e'*. The projections *e'* should be made of such a size that, when the shaft E may be drawn down, they will bring the upper end of the said shaft E about flush with the face of the block A. The clamps C are kept from dropping down out of place by a plate, F, secured to the bottom of the block A, and which is perforated to allow the lower end of the shaft E to pass through. G is a lever, the end of which is pivoted to a support or standard, H. The lever G is pivoted to the lower end of the shaft E, and its free end extends into such a position that it may be conveniently reached and operated.

In using the device, when the pins have all been placed in the clamps C the free end of the lever G is forced downward, which forces the inclined projections *e'* of the shaft E against the inclined sides of the clamps C, clamping the pins securely.

In case any of the pins should be a trifle smaller than the others the shaft E will clamp the others or larger pins first, and will then be forced over toward the smaller pin or pins so as to clamp and hold them all securely and in their proper positions.

When the riveting has been completed the free end of the lever G is raised; the first effect of which is to release the pins, and the next effect is to force the upper end of the shaft E against the under side of the plate to which the pins have been riveted, raising said plate and its attached pins so that it can be conveniently removed.

Having thus described my invention, I claim

as new and desire to secure by Letters Patent—

The armed perforation B, one or more clamps, C, provided with recesses and springs D, and shaft E, having inclined projections *e'* formed upon its upper part, in combination with each other and with the block A, in which they

work, substantially as herein shown and described, and for the purpose set forth.

E. L. GAYLORD.

Witnesses:

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