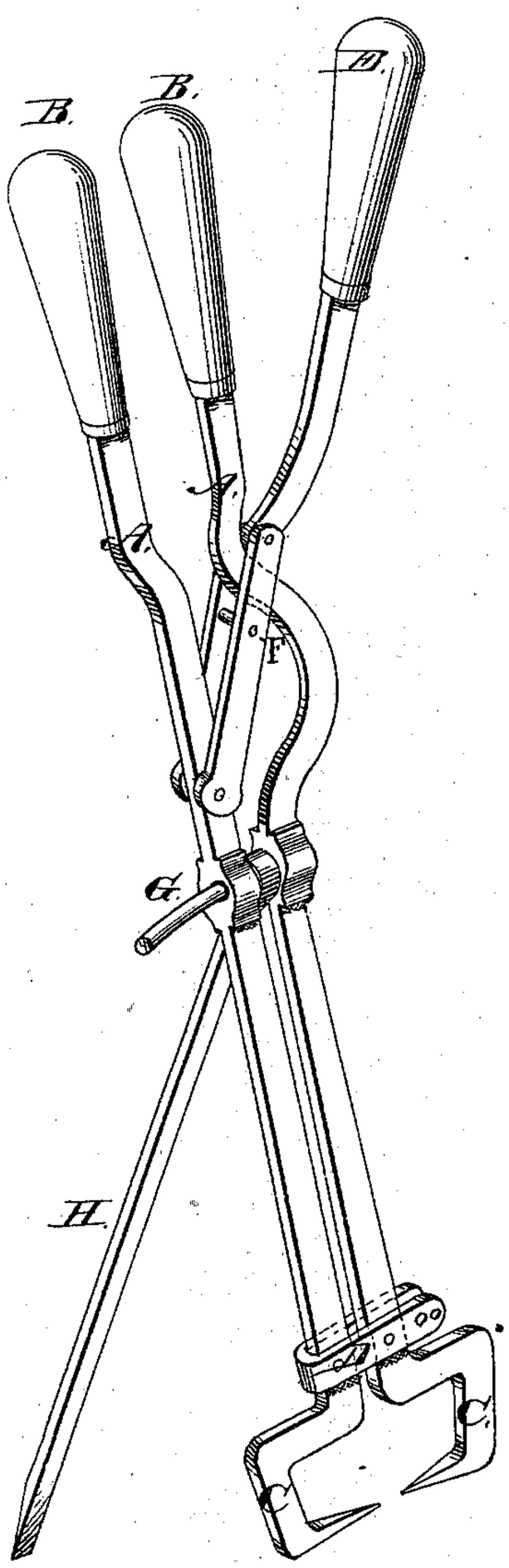
J. G. ROGERS.

Floor-Clamps.

No. 139,265. Patented May 27, 1873.



Witnesses.

S. H. Wheeler.
R. B. Wheeler.

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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

JOHN G. ROGERS, OF NILES, MICHIGAN, ASSIGNOR TO HIMSELF AND SILAS S. WHITE, OF SAME PLACE.

IMPROVEMENT IN FLOOR-CLAMPS.

Specification forming part of Letters Patent No. **139,265**, dated May 27, 1873; application filed February 17, 1873.

To all whom it may concern:

Be it known that I, JOHN G. ROGERS, of Niles, Berrien county and State of Michigan, have invented certain Improvements in Floor-Clamps, of which the following is a description:

This invention relates in its nature to the construction and manner of connecting the grappling-levers of floor-clamps; and consists chiefly in providing an adjustable yoke, by means of which the levers are readily adjusted to the varying thickness of the timbers on which floors are commonly laid.

The accompanying drawing forms a part of this specification and shows a side view of a device embodying my invention.

The letters of reference marked thereon indicate the parts represented by a similar letter in the written part of this specification, of which—

A A represent the grappling-levers. These levers are made of iron, of any suitable size, and provided at one end with the handles B B and at the other end with square-turned hooks C C. These hooks are set with their points inwardly. D represents a yoke. This yoke is permanently attached to one of the levers A A and is U-shaped, and provided with several holes through the open or slotted end, in which a thumb-screw is fitted. This serves as a pivot for the other lever A A. E represents a forked lever. This lever is pivoted to one of the levers A A at about midway of its length and sets astride of said levers. F represents a pin fixed through the forks of the lever E. This pin serves as a stop, against which the inner edge of the bent portion of one of the levers A A impinges in opening the clamps. G represents a cross-bar. This bar serves as a pivot for the brace H, and is attached permanently to one of the levers A A, working loosely through the other, and is sufficiently long to allow said levers to separate as much as is required.

To operate this clamp the levers A A are set the desired distance apart to allow the hooks C C to pass astride of the timbers on which the floor is to be laid, by moving the thumb-screw to the most suitable hole in the yoke D, then the handles of the levers A A and E are all brought up together, causing the hooks C C to separate. These are then caused to grapple the timbers by moving the lever E to a horizontal position; then the levers A A are crowded against the edge of the floor-board to be clamped. The brace H serves to hold the levers until the floor-board is securely nailed, when the clamp may be disengaged by raising the lever E to a vertical position.

I curve one of the levers A A (nearly but not quite) to a circle corresponding to that described by the pin F in the lever E. The object of this curve is to modify the action of the lever E, producing a much more powerful and gradual movement of the levers A A than could be obtained if left straight, as is usually done, and as the position of the lever E will be so nearly radial to the curve in the lever A there will be but little tendency for the pin F to slip, and consequently will retain its position under strain, and no ratchet and pawl will be required, and the friction-roller commonly used on the pin F may be dispensed with, as the curve prevents that abrupt contact that is encountered in levers that are straight at this point where the pin F impinges when power is applied to tighten the clamps.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

The floor-clamp, consisting of the levers A A, one of which is curved at the point of contact with pin F, the lever E, cross-bar G, brace H, and adjustable U-shaped yoke D, all constructed, arranged, and combined as and for the purposes set forth.

JOHN G. ROGERS.

Witnesses:
S. H. WHEELER,
R. B. WHEELER.