

W. D. CLARK.
Floor-Clamps.

No. 164,145.

Patented June 8, 1875.

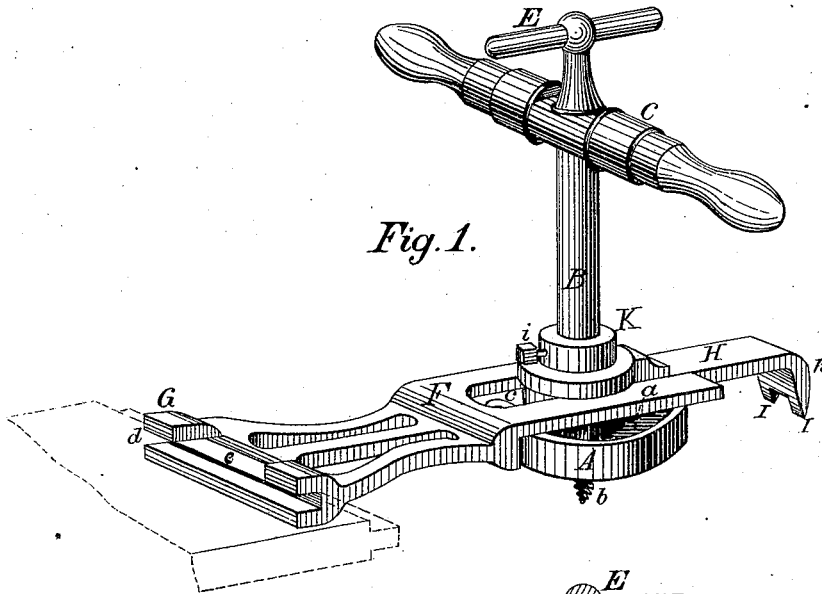


Fig. 1.

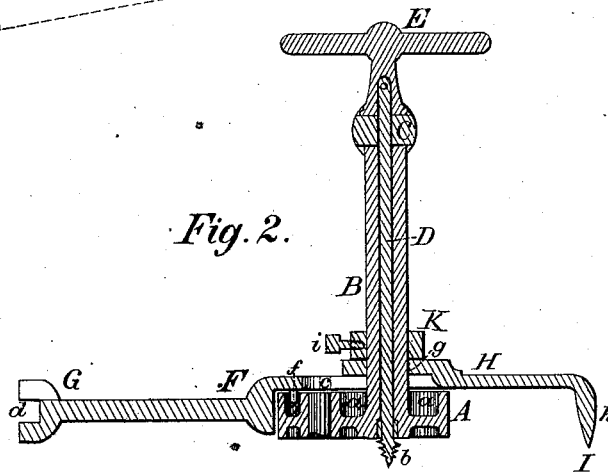


Fig. 2.

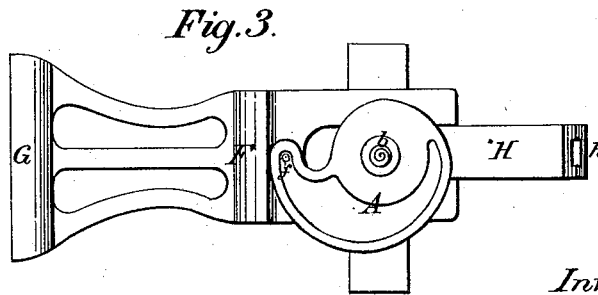


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM D. CLARK, OF SPRINGFIELD, ILLINOIS.

IMPROVEMENT IN FLOOR-CLAMPS.

Specification forming part of Letters Patent No. **164,145**, dated June 8, 1875; application filed April 8, 1875.

To all whom it may concern:

Be it known that I, WILLIAM D. CLARK, of Springfield, in the county of Sangamon and State of Illinois, have invented a new and Improved Floor-Clamp; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The object I have in view is the production of a light and convenient portable floor-clamp that shall combine strength and simplicity, and be effective in result.

My invention consists in a cam, secured to the lower end of a sleeve, or cast in one piece with the sleeve, said sleeve being squared on its upper end to hold a transverse handle, which, when turned, presses the cam against, and forces forward, a presser-arm that presses into position the board to be fastened down, the cam being held down to the floor or beam by a rod that passes through the sleeve, and has a screw-head which penetrates said beam or floor; and, further, in an arm that is sleeved on its inner end to the sleeve before mentioned, and is provided with one or more spurs on its outer end, which are driven into the floor or beam, when the clamp is secured by the screw, and assists in keeping the clamp in position; and, further, in having the presser-arm forked and straddling the sleeve, the outer ends of the fork inclosing a part of the horizontal holding-arm, the under side of the presser-arm being provided with a pin that projects downwardly, and engages in a slot cast in the top of the cam, which draws the arm back when the cam is turned, and confines the play of the cam to its most efficient limits; and, further, the horizontal holding-arm and the presser-arm are held down to the cam by a ring on the sleeve secured in any position by a set-screw. By pressing the pin on the presser-arm into the slot on the cam the presser-arm is held to the other parts, and cannot become disengaged without first raising the ring. The presser-arm is provided with a head that has a groove to cover the tongue on the board to be secured, and is cut away on its upper part to allow the nail to be driven into the side of the tongue.

To enable others skilled in the art to manu-

facture my device, I proceed to describe the same in connection with the drawings, in which—

Figure 1 is a perspective view, Fig. 2 is a sectional view, and Fig. 3 a plan view, of the bottom of the device.

Like letters denote similar parts in each figure.

A represents the cam, preferably cast in one piece with the sleeve B, and having cast on its upper face a slot, *a*. The sleeve B is squared on its upper end to hold a transverse handle, C. D represents a rod, which passes through the sleeve B, and is provided with a screw, *b*, on its lower end, which keeps it from slipping up, and a handle, E, on its upper end, which keeps it from slipping down. F represents an arm that extends at right angles from the sleeve B, and has its inner end forked at *c* to straddle said sleeve. The outer end is enlarged to form a head, G, which is grooved at *d*, with its upper part cut away to leave a slot, *e*, on its upper face. The middle part of the arm F is cast with a shoulder to form a bearing-face for the cam. A pin, *f*, projects from the under side of the arm F forward of the fork *c*, near the shoulder before mentioned, and engages in the slot *a* on the cam. H represents an arm that has a hole, *g*, on one end, by which it is sleeved on the sleeve B. The arm H is made to fit in the forked end of the arm F, and has its outer end bent down at *h*, and is provided with one or more spurs. K is a ring sleeved on the sleeve B above the arm H, and is provided with a set-screw, *i*, to secure it to the sleeve. It is pushed down on the sleeve B, and secured by the set-screw, thus securing the arms F and H to the other parts of the machine.

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

1. The combination of the cam A, the sleeve B, provided with the handle C, the rod D, provided with the handle E and the screw *b*, and the presser-arm F, substantially as described.

2. The combination of the cam A, the sleeve B, provided with the handle C, the arm H, provided with the spur *h*, and the presser-arm F, substantially as described.

3. The combination of the cam A, the sleeve

B, provided with the handle C, the rod D, provided with the handle E and the screw *b*, the arm H, provided with the spur *h*, and the presser F, substantially as described.

4. The combination of the cam A, provided with the slot *a* in its upper surface, the sleeve B, provided with a handle, the rod D, provided with a handle and a screw, *b*, and the presser-arm F, provided with the pin *f* on its under side, adapted to draw back the presser-arm when the cam is turned, substantially as described and shown.

5. The combination of the cam A, the sleeve

B, provided with the handle C, the rod D, provided with the handle E and screw *b*, the ring K, provided with set-screw *i*, the arm H, provided with the spur *h*, and the forked presser-arm F, made to inclose a part of the arm H, so that said presser-arm must move in a straight line, substantially as described.

This specification signed and witnessed this 15th day of March, 1875.

WILLIAM D. CLARK.

Witnesses:

SAML. D. SCHOLLES,

T. C. MATHER.