(No Model.)

W. T. BAUSMITH.

Lever Clamp.

No. 235,064. Patented Dec. 7, 1880.

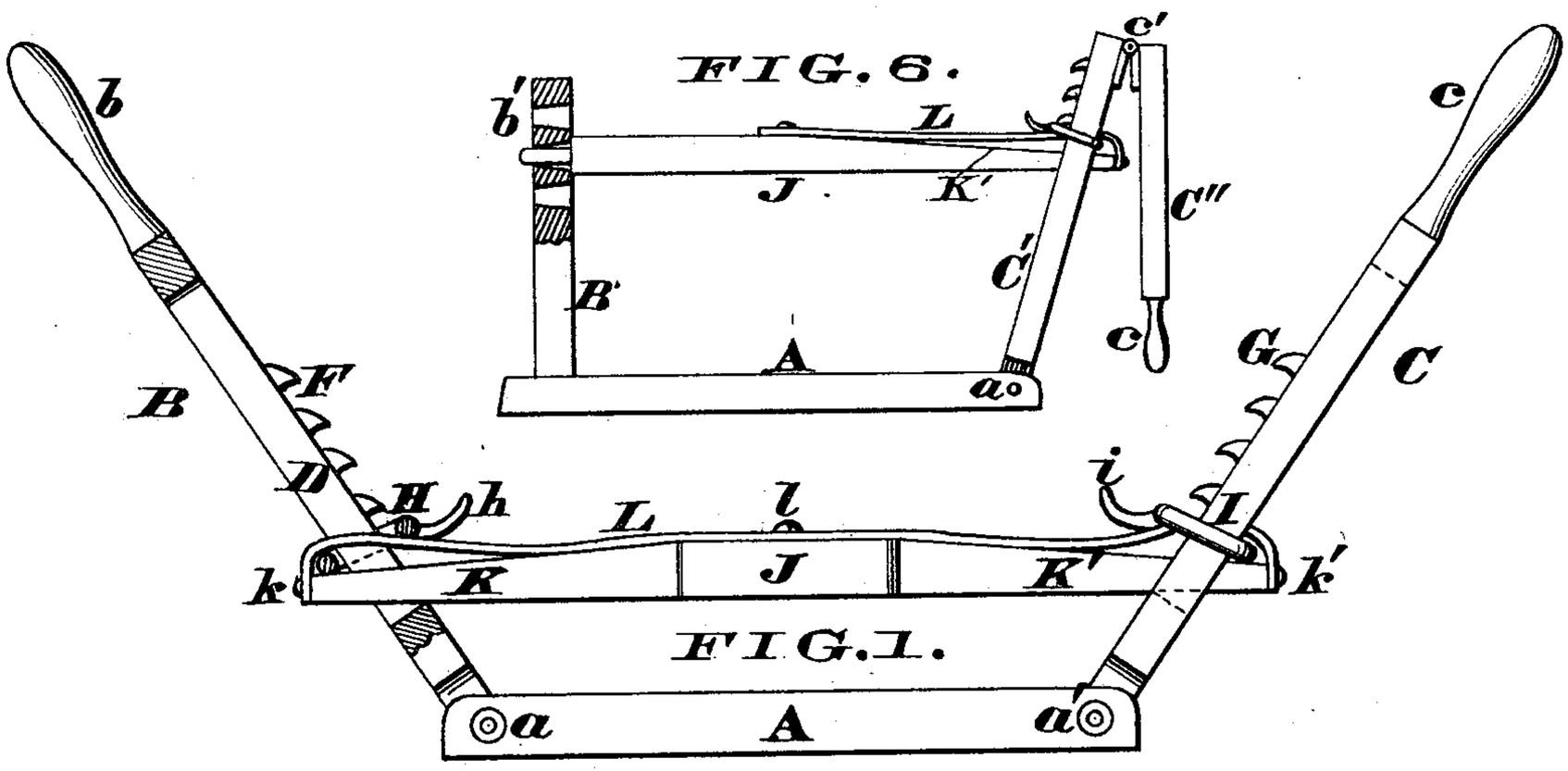

FIG. 1.

FIG. 6.

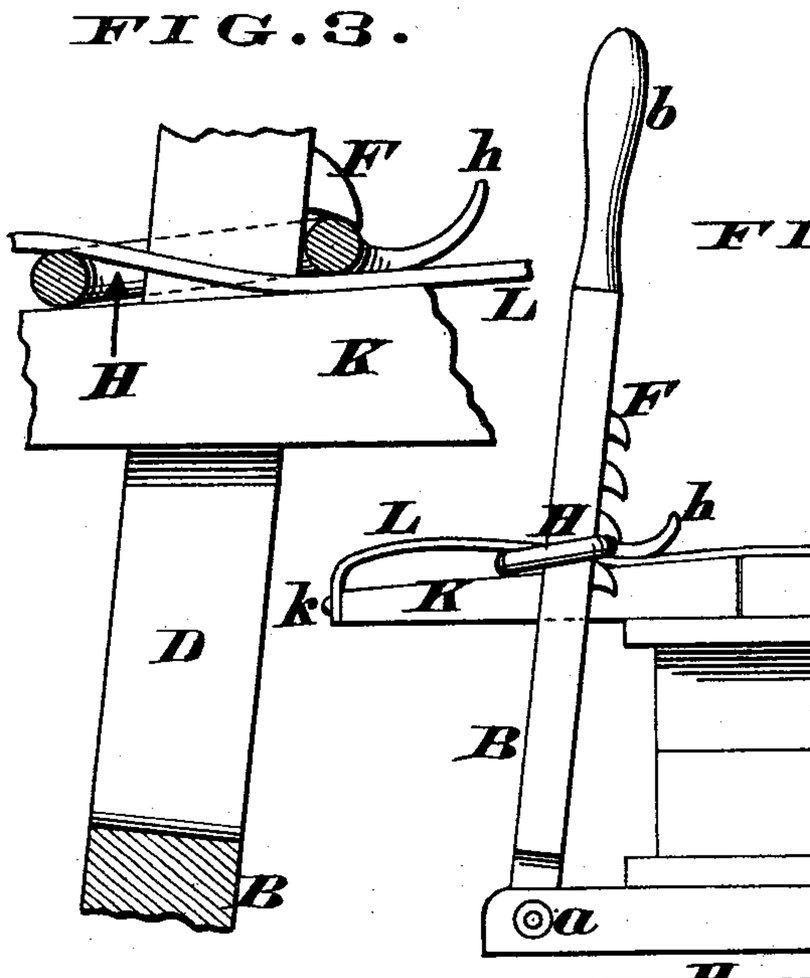

FIG. 3.

FIG. 2.

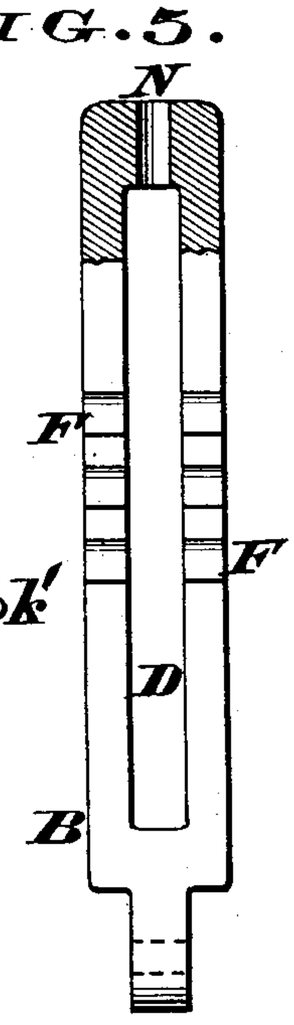

FIG. 5.

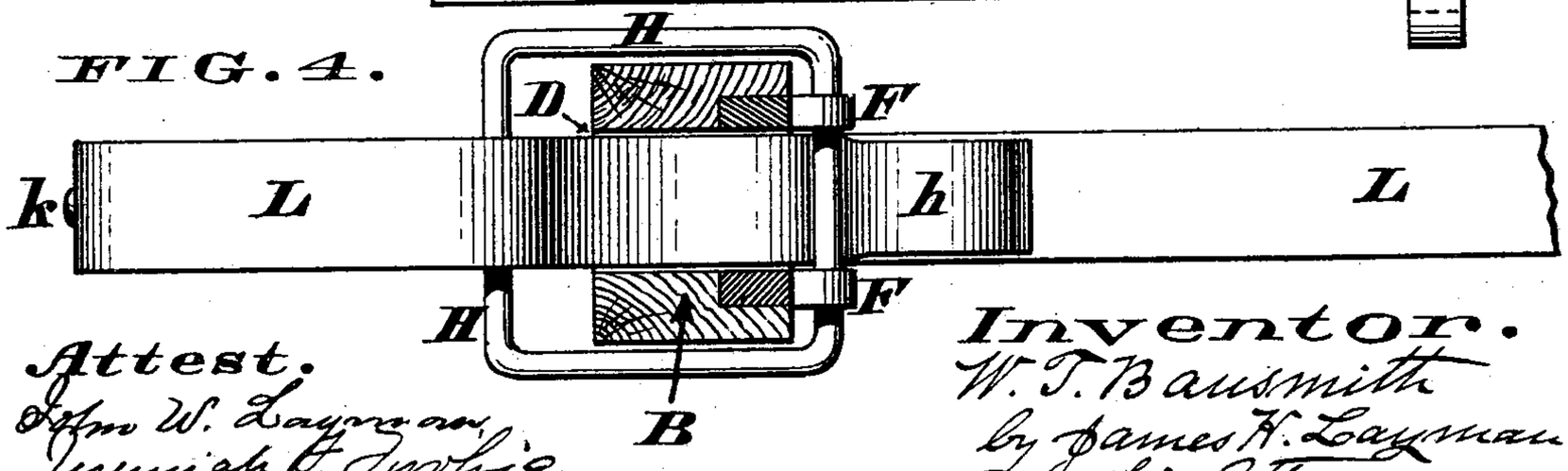

FIG. 4.

Attest.
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UNITED STATES PATENT OFFICE.

WILLIAM T. BAUSMITH, OF LUDLOW, KENTUCKY.

LEVER-CLAMP.

SPECIFICATION forming part of Letters Patent No. 235,064, dated December 7, 1880.

Application filed September 30, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. BAUSMITH, of Ludlow, Kenton county, Kentucky, have invented certain new and useful Improvements in Lever-Clamps, of which the following is a specification.

The object of this invention is to furnish a lever-clamp especially adapted for the use of box-makers, carpenters, packers, molders, and other artisans who may have occasion to close with a greater or less pressure such receptacles as boxes, bales, flasks, &c.; and my implement in its more complete form comprises a novel combination of swinging ratchet-levers, pressing-beam, elastic or pliable strap, and a pair of buckles, as hereinafter more fully described, and pointed out in the claims.

In the annexed drawings, Figure 1 is a side elevation of the more complete form of my clamping device in its normal position, the left lever being represented in section. Fig. 2 is an elevation representing the implement in the act of clamping together a molder's flask, the right lever being shown in section. Figs. 3 and 4 are, respectively, enlarged vertical and horizontal sections of one of the buckles and its accessories. Fig. 5 represents a modified form of one of the ratchet-levers, the upper portion of the same being shown in section. Fig. 6 is an elevation of a more simple form of the implement.

Referring to Figs. 1 and 2, A represents a suitable base or bed plate or floor, to which is jointed at *a a'* a pair of swinging levers, B C, having handles *b c* at their free ends. Furthermore, these levers are slotted, respectively, at D E, and furnished with racks or ratchets or pins F G, wherewith are engaged the buckles H I, said buckles being provided with projections or tongues *h i*. Adapted to traverse these longitudinal slots D E is a pressing-beam, J, the upper surface of which slopes toward each end, so as to afford two long inclined planes or wedges, K K', of any desired pitch. Attached to the mid-length of this beam, as at *l*, is a strap, L, composed of sheet iron or steel, or any other material or materials that combine the advantages of elasticity or pliability and strength.

In practice I prefer to make said strap of hoop-iron, such as commonly used for baleties and various other purposes, as this material is sufficiently flexible or pliable to be bent around the buckles in the desired manner, while at the same time it is not liable to become stretched or elongated by constant use. The extremities of this flexible strap or band after being passed under the inner and over the outer cross-bars of the buckles H I, as seen in Fig. 3, are secured at *k k'* to the opposite ends of pressing-beam J K K'.

To use this preferred form of my implement, the pressing-beam J K K' is first raised to about the proper level, and the inner cross-bars of the two buckles H I are engaged with the appropriate racks F G, after which act the box or flask or other receptacle, M, to be clamped together is set upon the table A. The handles *b c* are then grasped by the operator, and the levers B C drawn together with a greater or less degree of force, according to the nature of the article or device to be pressed. Now, as the buckles H I cannot escape from the ratchets F G, as the handles *b c* approach each other, it is evident the strap L must be tightly griped by the retaining-buckles H *h* I *i* while said buckles are riding up the inclines K K', the friction thereby produced being sufficient to retain the levers B C in any desired position necessary to secure the required clamping or pressing action. From this description it will be apparent that the power of the implement is obtained by the locked buckles H I acting on the wedges K K', and by simply giving these wedges a very gradual pitch, and lengthening the levers B C, the purchase of the clamp may be greatly increased.

After the flask has been subjected to the pressing action for a sufficient length of time it can be instantly liberated from the clamp by simply forcing the levers B C away from each other, and if this is done with a sudden jerk the contact of the outer bars of the buckles with the bends at the opposite ends of elastic strap L will cause the inner bars of said buckles to fly up and instantly snap under the ratchets F G. By adopting this expedient any special engagement of the buckles is obviated.

It will be noticed that the strap L is rove through the buckles in such a manner as to prevent the beam J K K' being accidentally

disengaged from the slotted ratchet-levers B C, and as the latter are jointed to the bearing or base A, it is evident the implement is so securely united together as to render it impossible for any of the members of the same to become detached and lost. Consequently the complete implement can be hung on the walls of a shop, ready for use at any time.

The above is a description of a form of clamp that may be used for general purposes; but for special requirements I may modify the construction of the implement.

In Fig. 6 one end of the pressing-beam J is attached to a fixed standard, B′, while the other end of said beam is adapted to be acted on by a lever, C′, similar to the one C. Standard B′ has apertures *b′* to receive the tenon end of beam J, and the lever-handle C″ is hinged at *c′* to the slotted portion C′, so as to fold compactly alongside the latter when not in use, and thereby save room in the shop or factory; or the upper ends of the ratchet-levers may have sockets or perforations, as indicated at N in Fig. 5, to receive an auxiliary lever, and thereby adapt the implement for pressing cotton and doing other heavy work, in which event said ratchet-levers may be jointed directly to the floor of the press-room.

Finally, the meeting surfaces of strap L and tongues *h i* may be roughened or serrated for the purpose of increasing the friction between these two members of the clamp, and thereby render it impossible for the levers to open accidentally.

I claim as my invention—

1. The combination of slotted swinging lever C E, rack G, buckle I, and pressing-beam J, to which latter is attached an elastic strap, L, rove through said buckle in the manner herein described, the end of said beam traversing the slot E being provided with an incline, K′, while its opposite end is secured to a suitable support, for the purpose stated.

2. The combination of base A, swinging levers B D C E, racks F G, buckles H I, pressing-beam J K K′, and elastic strap L *l k k′*, which latter is attached to said beam and is rove through said buckles, in the manner herein described, and for the purpose set forth.

3. In combination with the swinging levers B D C E, racks F G, pressing-beam J K K′, and elastic strap L of a lever-clamp, the buckles H I, having, respectively, tongues *h i*, which tongues afford extended bearings on said strap, for the purpose stated.

In testimony of which invention I hereunto set my hand.

WM. THOS. BAUSMITH.

Witnesses:
JAMES H. LAYMAN,
M. KERNS.