(Model.)

H. G. LOCKE.

BOOT OR SHOE TREE.

No. 427,698. Patented May 13, 1890.

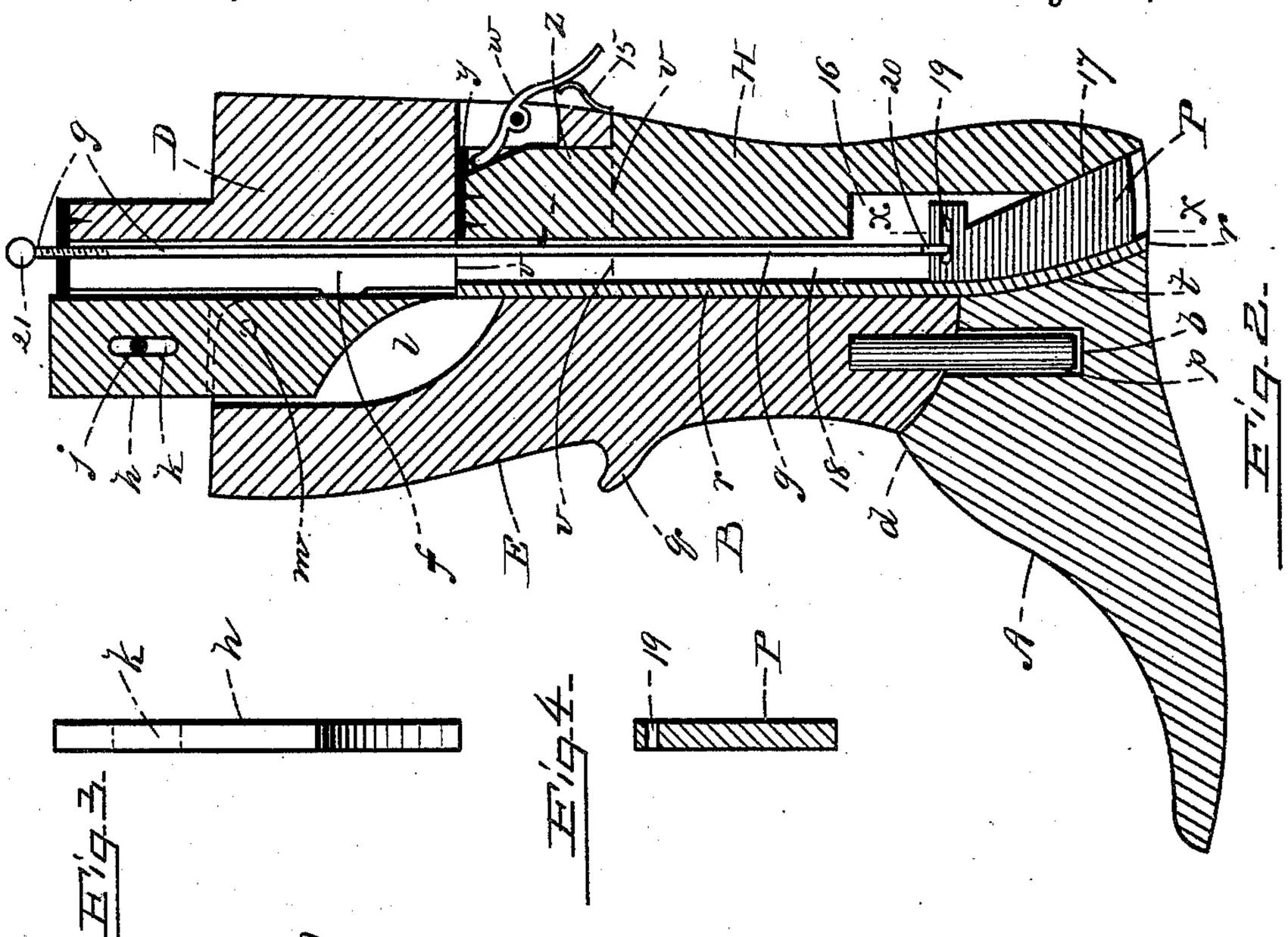

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 1.

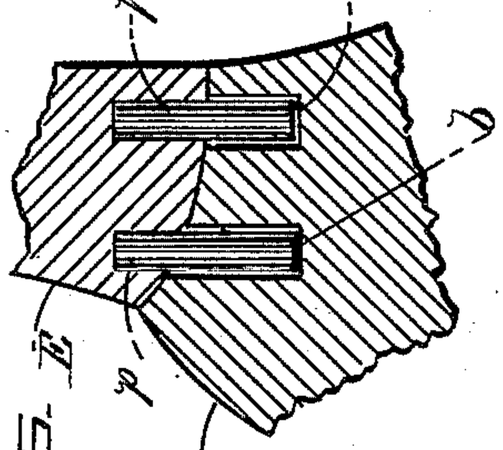

Fig. 5.

WITNESSES=

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UNITED STATES PATENT OFFICE.

HOWARD G. LOCKE, OF WEYMOUTH, ASSIGNOR OF ONE-HALF TO THE BROCKTON LAST COMPANY, OF BROCKTON, MASSACHUSETTS.

BOOT OR SHOE TREE.

SPECIFICATION forming part of Letters Patent No. 427,698, dated May 13, 1890.

Application filed July 9, 1889. Serial No. 316,943. (Model.)

To all whom it may concern:

Be it known that I, HOWARD G. LOCKE, of Weymouth, in the county of Norfolk, State of Massachusetts, have invented a certain new and useful Improvement in Shoe-Trees, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of my improved tree; Fig. 2, a vertical transverse section of the same; Fig. 3, an elevation illustrating certain details of construction; Fig. 4, a vertical section of the wedge, taken on line *x x* in Fig. 2; and Fig. 5, a sectional view illustrating a modification.

Like letters and numerals of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to that class of boot or shoe trees in which the foot and heel portions may be "spread" or separated; and it consists in certain novel features hereinafter fully set forth and claimed, the object being to produce a simpler, cheaper, and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the foot portion of the tree, and B the leg portion, considered as a whole. The foot A is constructed in the ordinary form of a shoe-last, the heel being cut away vertically therefrom. A vertical spindle-socket *b* is formed centrally in the foot slightly at the rear of the crown *d*, said socket being formed at the same determined distance from the crown in all the different sizes of foot-pieces, that they may be used interchangeably with a single leg portion. The leg portion consists of a body-piece D, preferably formed of iron and adapted to be secured horizontally to a bench or table in the usual manner. The body-piece is provided centrally with a vertical groove *f* for the spreading-rod *g*. A rectangular block *h* (shown in front elevation in Fig. 3) is fitted to slide vertically in a corresponding groove in the front *i* of the body D. A pin *j* passes laterally through the front *i* and a vertical slot *k* in said block, securing it in said groove. A front piece E has a vertical groove or socket *l* in the inner face of its upper portion, adapted to receive the lower end of the block *h*, to which it is pivoted by a pin *m*. A vertically-arranged spindle *p*, adapted to enter the socket *b* in the foot-piece A, is disposed in the lower end of said front piece. A finger-hook *q* is formed on the forward edge of said front piece. To the rear face of the front piece E a flat steel plate *r* is secured, said plate extending downward beyond the front piece and adapted to engage the rear end *t* of the foot A. A heel-piece H, elongated to form a portion of the leg B, has its upper end reduced at *z* and fitted to enter a vertical socket or chamber *v*, formed on the lower end of the body-portion D. A pivoted lever *w* in the body D projects into the chamber *v* and forms a catch to take under a plate *y*, secured to the top of the heel portion H. A spring 15 acts expansively to hold said catch in engagement with said plate and lock the heel in said body portion. The heel is chambered vertically at 16, the rear wall of said chamber inclining outward at 17. A vertical groove 18, formed in the face of the heel portion and opening into the chamber 16, is adapted to register with the groove *f* in the body D. A wedge-shaped spreader P is disposed in the heel-chamber 16 and engages the beveled walls 17 thereof, said spreader being provided with a horizontal slot 19 in its upper end. The spreading-rod *g* is disposed in the grooves *f* 18, and has a hook 20 on its lower end inserted in the wedge-slot 19. The outer end of the rod *g* has an eye 21, connecting it with any suitable mechanism—commonly a treadle—for drawing it outward from said grooves.

In the use of my improvement the operator grasps the finger-hook *q* and draws the front piece E and foot attached thereto outward or downward, when in the position shown in the drawings, as far as the slot *k* in the block *h* will permit. The foot A is then inserted in

the shoe, and the operator, grasping the top thereof, slides the foot and front back again, forcing the heel-piece into the shoe, the parts then being in the position shown in the drawings. To force the foot more firmly into the shoe than can readily be done by hand, in order that it may dry and shape itself thereon, the spreading-rod *g* is drawn outward by means of the treadle. This causes the spreader P to be drawn inward between the beveled chamber-wall 17 and plate *r*. As said plate is secured to the front E, pivoted at *m* to the stationary body D, said front piece is forced or swung forward on its pivot, driving the foot A firmly into the shoe. The shoe is then removed and the foot A allowed to remain in it, another foot-piece being substituted on the spindle *p*. The spindle *p* and plate *r* conjointly serve to hold the foot rigid or prevent lateral movement while the shoe is being adjusted, and yet offer no resistance to said foot being separated from the leg when the spreader is not in operation. Instead of employing the plate *r*, the leg-front may be provided with two spindles *p* (see Fig. 5) and the foot with corresponding sockets, which will serve to prevent lateral movement of said foot. I prefer, however, to employ said plate, as it serves also as a wear-plate for the spreader.

It will be understood that the part *q* and lever *w* are so situated that they will project above the shoe-upper and not interfere with its adjustment on the tree. Moreover, by constructing the leg B of sufficient length between the projection *q* and foot the tree may be employed for treeing leg-boots, if desired.

Having thus explained my invention, what I claim is—

1. In a shoe-tree, a body portion having a groove for the spreading-rod and socket for the heel-piece, in combination with a foot portion, a block fitted to slide in said body, a front piece pivoted to said block and provided with a spindle for the foot portion, and a plate projecting from said front to engage the inner end of said foot, substantially as described.

2. In a shoe-tree, a body, a front piece hinged to a block sliding in said body, a foot-spindle and plate thereon, an elongated heel-piece, a spring-catch for securing it in a chamber in said body, a spreader working in a chamber in said heel, a rod for said spreader working in grooves in said heel and body, and a foot-piece provided with a spindle-socket, substantially as described.

3. In a shoe-tree, a detachable foot-piece, in combination with a front piece hinged to a block fitted to slide longitudinally in the upper portion of the tree, substantially as and for the purpose set forth.

4. In a shoe-tree, a leg portion comprising a body-piece, a slotted block sliding on a pin therein, a front piece hinged to said block and provided with a foot-spindle, a foot provided with a spindle-socket, a foot-plate secured to the inner face of said front piece, an elongated heel-piece fitted to enter a socket in the body, and spring-catch for detachably securing it therein, said heel-piece and body being chambered and grooved for the spreader and rod, substantially as described.

5. In a shoe-tree, the leg B, comprising the body D, having the groove *f* and chamber *v*, the sliding block *h*, the front piece E, hinged to said block and provided with the spindle *p*, the heel-piece H, having the groove 18, chamber 16, plate *y*, and the spring-catch *w*, constructed and arranged to operate substantially as described.

6. In a shoe-tree, a foot-piece provided with a spindle-socket, in combination with a leg comprising a body portion, a slotted block sliding on a pin in the front thereof, a front piece hinged to said block and provided with a foot-spindle, a foot-plate secured to the inner face of said front, a heel-piece fitted to enter a socket in said body, a spring-catch for securing it therein, and a wedge-shaped spreader and rod working in a chamber, and grooves in said heel and body, substantially as described.

7. In a shoe-tree provided with a front piece hinged to the body portion, a heel-piece, a detachable foot portion, and a metallic spring-plate secured to said front piece and extended to engage the inner end of the foot when in use, substantially as described.

8. In a shoe-tree provided with a heel-piece, a detachable foot portion, a front piece hinged to a block sliding in the leg-body, and a hook or finger-piece secured to said front piece, substantially as and for the purpose set forth.

9. In a shoe-tree having a hinged leg-front, a foot separable from the leg while in the shoe, and a spindle and plate on the rear face of the hinged leg-front for holding the foot rigid while the shoe is being adjusted thereon, substantially as and for the purpose set forth.

10. In a shoe-tree of the character described, a hinged leg-front provided with two spindles, in combination with a foot having sockets to receive said spindles, whereby lateral movement of said foot is prevented while the shoe is being adjusted, substantially as described.

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Witnesses:
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