

(No Model.)

C. W. THOMSEN.
SHOE HEELING MACHINE.

No. 354,271.

Patented Dec. 14, 1886.

Fig. 1.

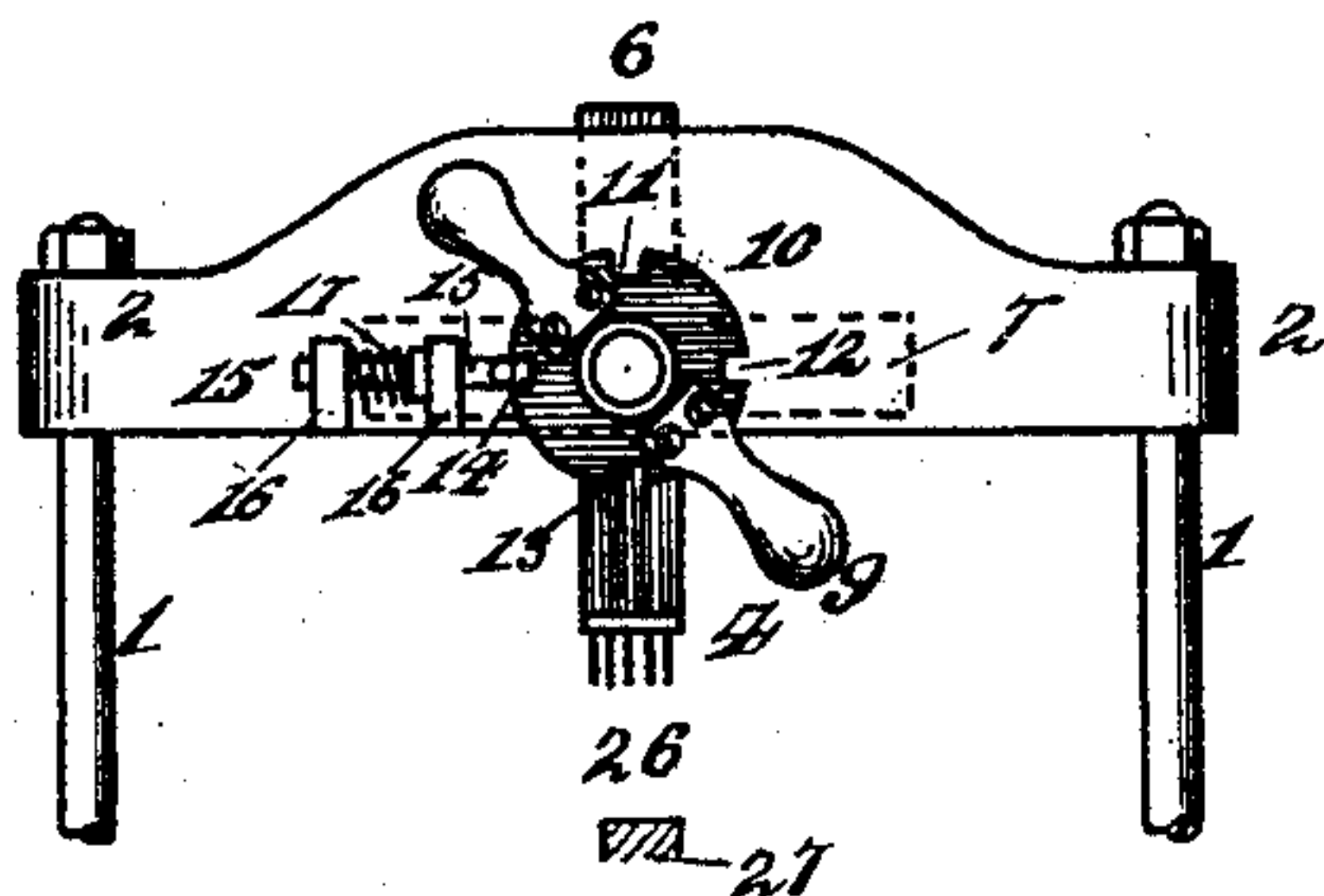


Fig. 2.

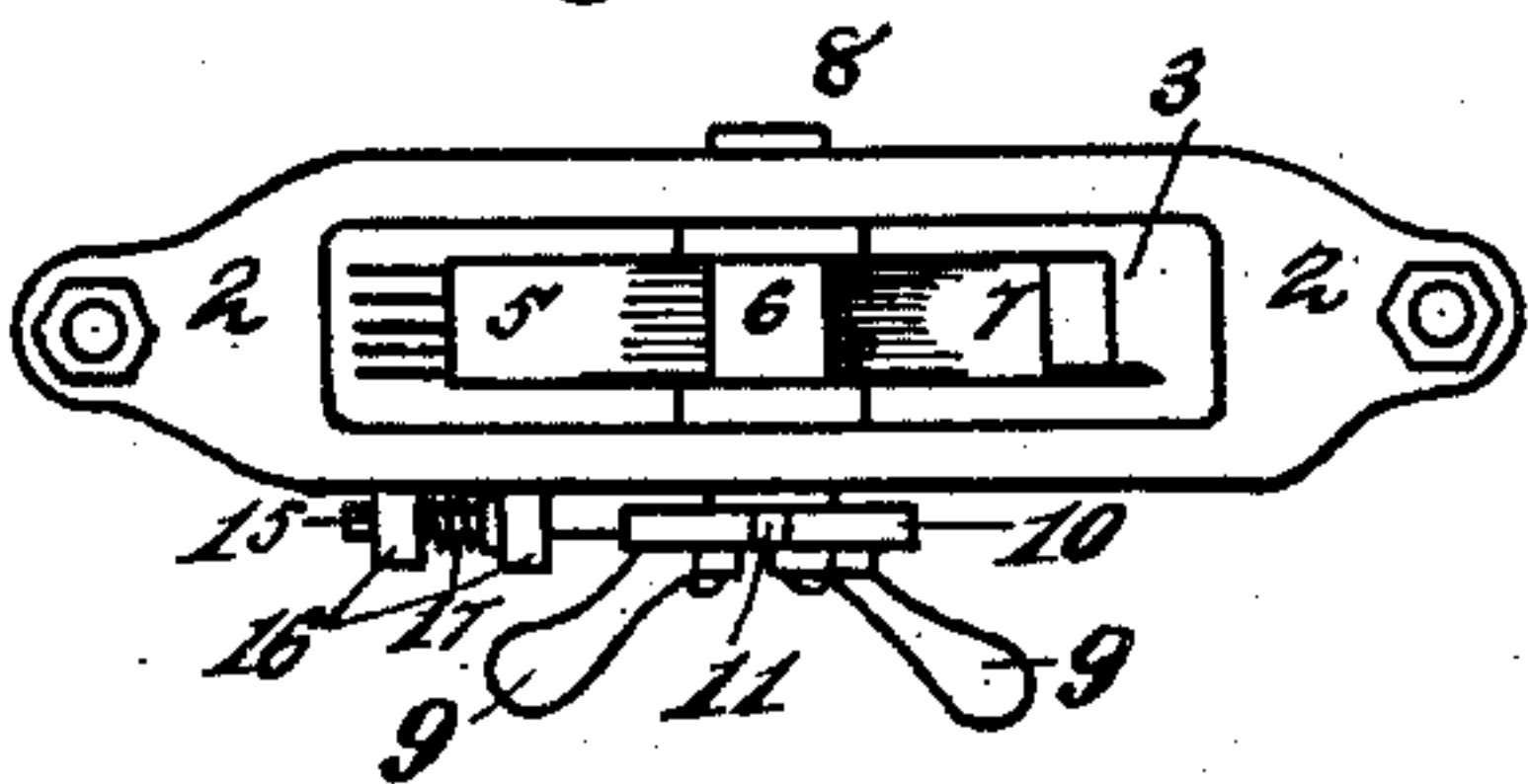


Fig. 3.

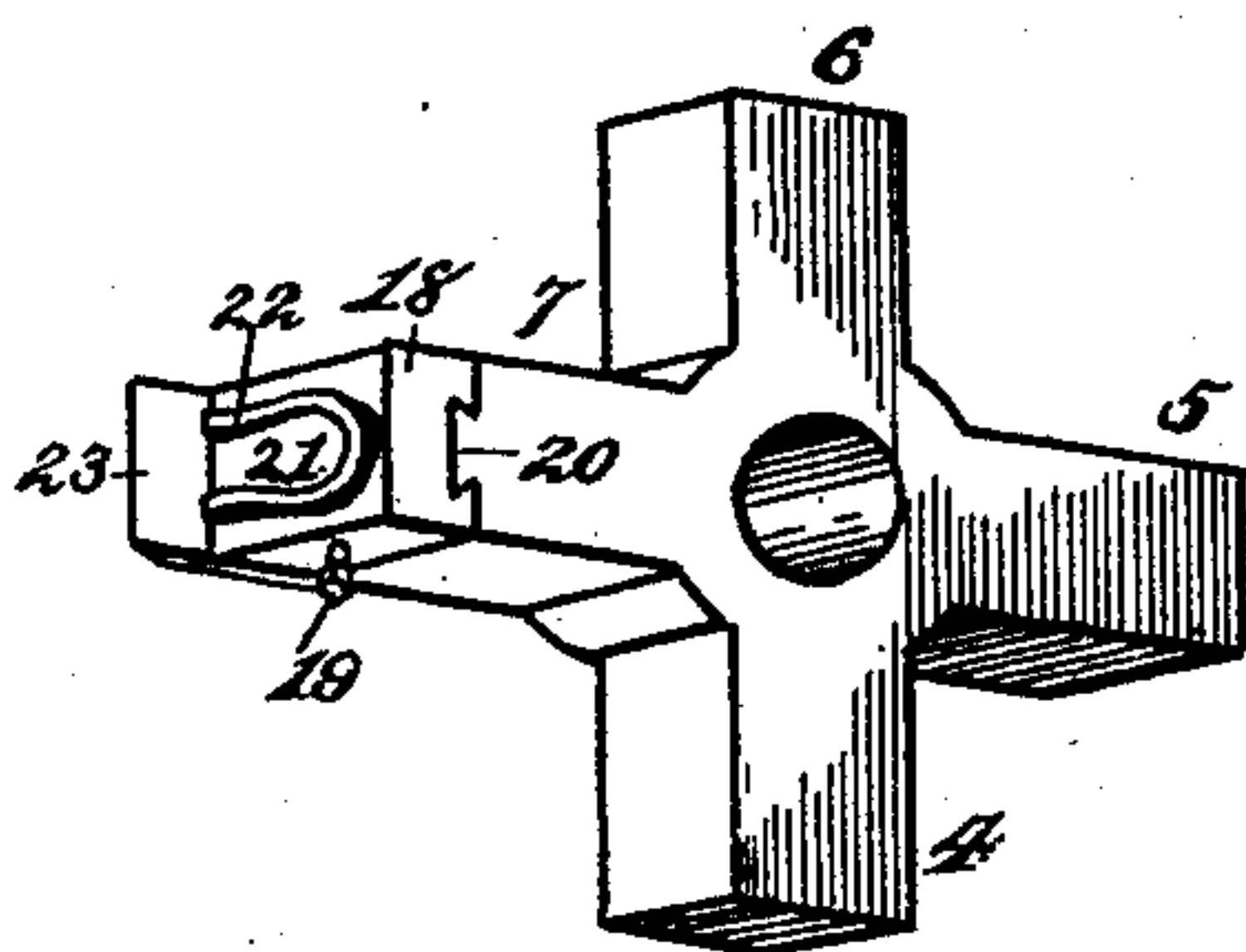
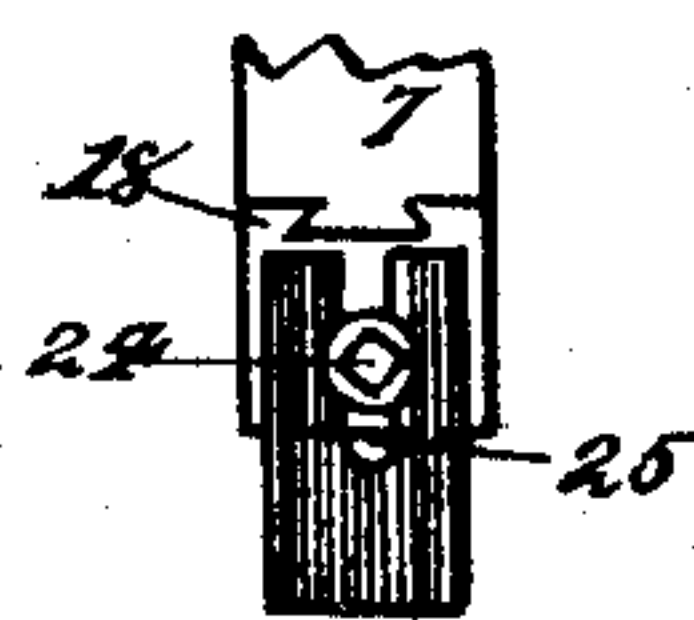


Fig. 4.



Attest

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UNITED STATES PATENT OFFICE.

CHRISTIAN W. THOMSEN, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF
TO AARON A. BROWN, OF SAME PLACE.

SHOE-HEELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 354,271, dated December 14, 1886.

Application filed April 10, 1886. Serial No. 198,492. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN W. THOMSEN, a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Shoe-Heeling Machines, of which the following is a specification.

My invention relates to an improvement in a heel-attaching machine.

The object of my invention is to provide a breasting-knife adapted to be used intermittently in conjunction with the ordinary heeling mechanism, all of which will be fully set forth in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front elevation of my improvement applied to a heeling-machine. Fig. 2 is a top plan view of the same. Fig. 3 is a perspective view of the revolving and reciprocating plunger-arms which are employed in attaching and breasting the heel. Fig. 4 is a front elevation of the breast-knife and stock.

1 represents the plunger-rods of an ordinary heeling-machine; 2, a yoke or cross-head rigidly attached to the plunger-rods. It is provided with a rectangular opening, 3, in which the reciprocating plunger-arms 4 5 6 7 are revolved.

8 represents a shaft upon which is keyed the hub of arms 4 5 6 7. This shaft 8 journals in the yoke 2, as shown in Figs. 1 and 2.

9 represents a crank or handle secured to the shaft 8, for revolving said arms.

10 represents a stop-plate, which is provided with notches 11 12 13 14.

15 represents a spring-bolt journaling in ears 16; 17, a spring which normally holds the bolt 15 in engagement with one of the notches on the stop-disk 10.

18 represents the knife-stock, which is secured to the arm 7, preferably by a dovetail groove engaging with a similar shaped tenon formed on the face of arm 7.

19 represents a set-screw passing through the stock 18 and engaging with the side of the tenon 20, for holding the stock 18 in any position of lateral adjustment.

21 represents a concave or hollowed-out surface.

22 represents a face which serves as a stop.

23 represents a knife, which is adjustably secured to the edge of the stock 18 by a set-screw, 24.

25 represents a slot pierced in the knife passing over the shank of the set-screw 24, so as to secure the knife to stock 18. By means of the set-screw 24 the knife 23 can be adjusted to any desired height, and by means of set-screw 19 it can be adjusted laterally to breast any desired size of heel. The plunger-rods 1 and cross-head or yoke 2 are operated reciprocally in the ordinary manner customary with heeling-machines. Arm 4 is provided with a set of awls, 26, for piercing holes through the blank heel to be attached to a boot or shoe, which is supported by a last in the ordinary way at the point 27, vertically under the arm 4, as shown in Fig. 1. The reciprocation of the rods 1 and cross-head 2 brings down the awls 25, and pierces the hole through the blank.

5 represents the arm carrying the nail-drivers. 6 represents the arm carrying the spanker for putting on the finishing-piece of the heel. These are alternately used by releasing the stop-bolt 15 and turning the handles 9 to bring successively the other arms in position for reciprocation.

7 represents the arm carrying the stock 18, which is adjusted laterally by means of set-screw 19, to bring the knife into the desired plane for breasting the inner face of the heel across the sole. This knife may be of any desired form or shape. It is set in a vertical position by means of the set-screw 24.

The bottom of the stock 18 is provided with a boss, 22, and a concave portion, 21, inside of the boss 22. This boss 22 serves as a stop for arresting the downward stroke of the knife. The concave portion 21 is employed for the following reasons: The nails which attach the heel to the shoe are generally in the central portion of the top lift, and if the second blow is given by a smooth surface similar to the construction of the spanker it brings the nails too far through the top lift, but by providing the concave portion 21 the force of the blow is received on the outer edge of the heel only, without driving the nails through the finishing-sole.

Heretofore a heeling-machine has been con-

structed in which a series of awl-holding, nail-driving, and spanker arms, mounted upon a revolving hub in a vertically-reciprocating cross-head, have been employed; also a breast-
5 ing-knife rigidly fixed to a vertically-movable knife-carrying frame has been employed; but these constructions are not my invention, and are not claimed by me, my invention consisting, essentially, in the combination, with a
10 series of heeling-arms, of an arm carrying a knife-stock and knife for breasting a heel, said heeling-arms and knife-arm being mounted upon a revolving hub carried by a vertically-reciprocating cross-head, all as hereinbefore
15 set forth.

Having described my invention, what I claim as new is—

In combination with the arm 7, the knife-stock 18, provided with a finishing-piece, 22, and a concave central portion, 21, substantially as specified.

In testimony whereof I have hereunto set my hand.

CHRISTIAN W. THOMSEN.

Witnesses:

JNO. S. ROEBUCK, Jr.,

M. E. MILLIKAN.