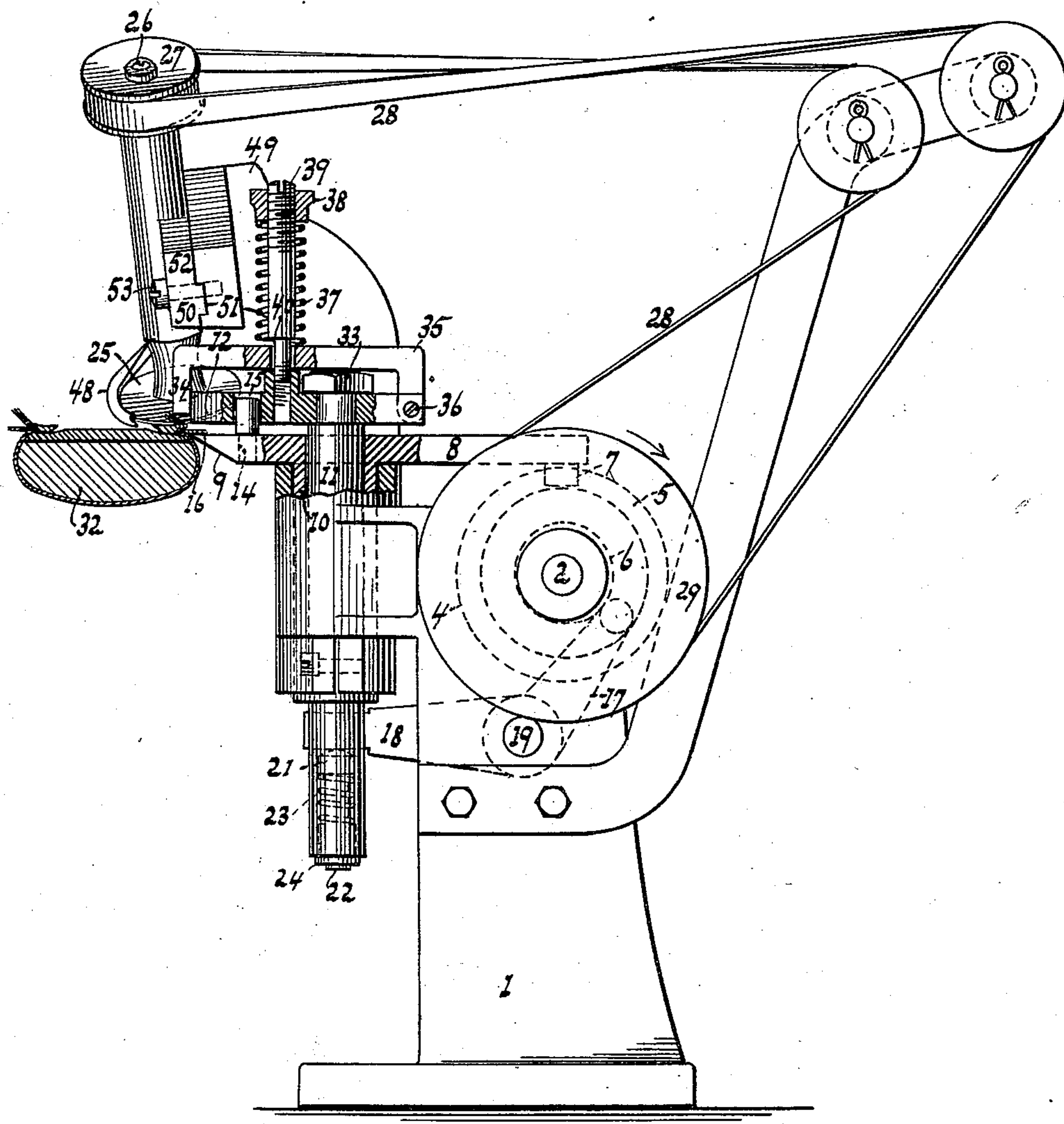


(No Model.)

3 Sheets—Sheet 1.

C. DANCEL.
MACHINE FOR BEATING WELTS AND TRIMMING SHOES.
No. 547,715. Patented Oct. 8, 1895.

Fig. 1.



WITNESSES:

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ATTORNEYS.

(No Model.)

3 Sheets—Sheet 2.

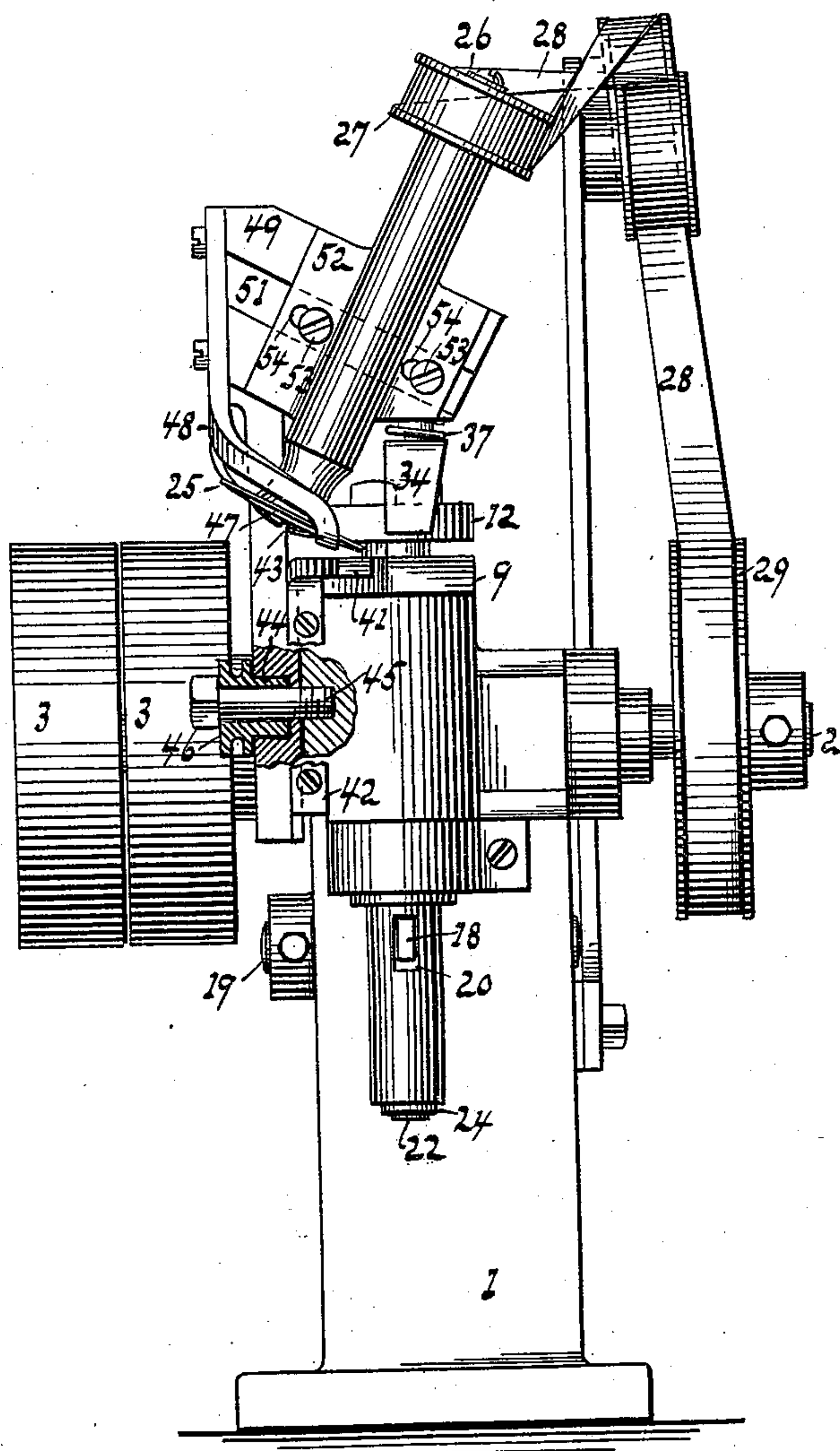
C. DANCEL.

MACHINE FOR BEATING WELTS AND TRIMMING SHOES.

No. 547,715.

Patented Oct. 8, 1895.

Fig. 2.



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MACHINE FOR BEATING WELTS AND TRIMMING SHOES.
No. 547,715. Patented Oct. 8, 1895.

Fig. 3.

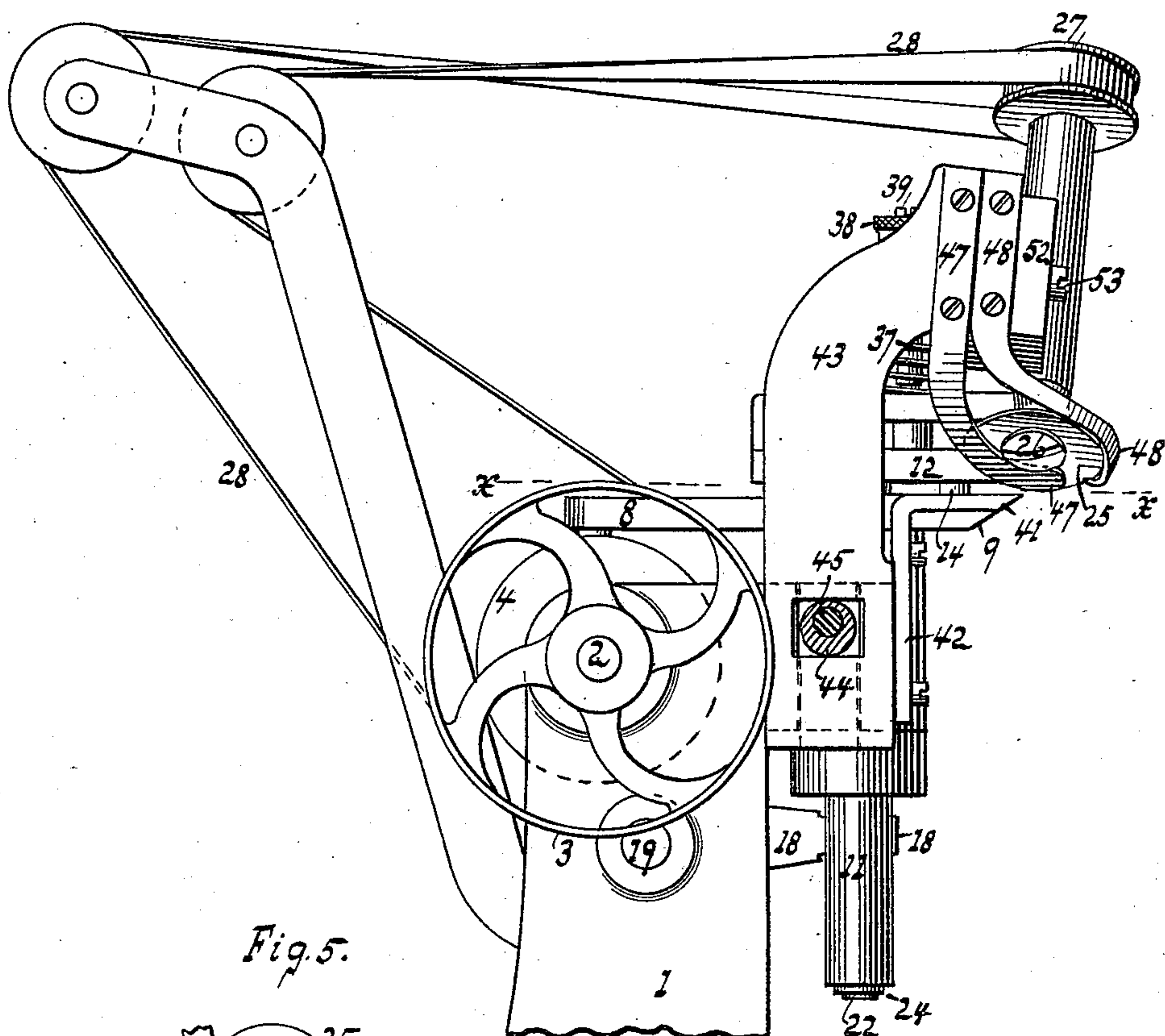


Fig. 5.

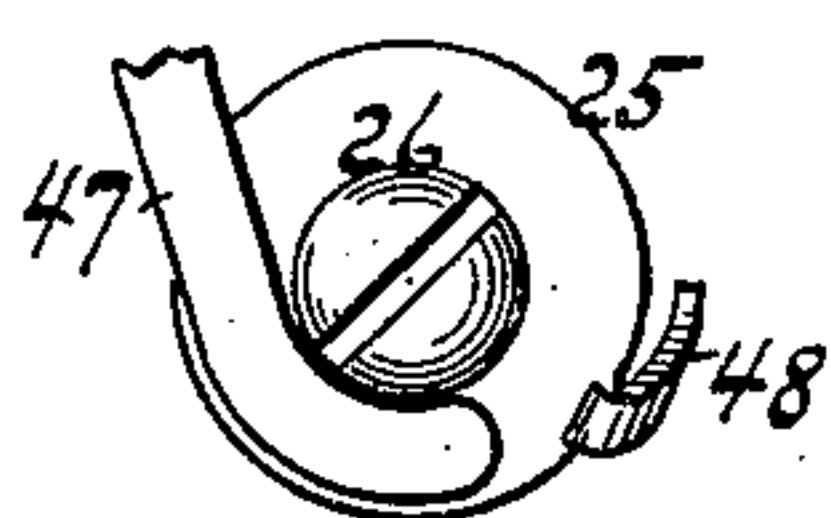
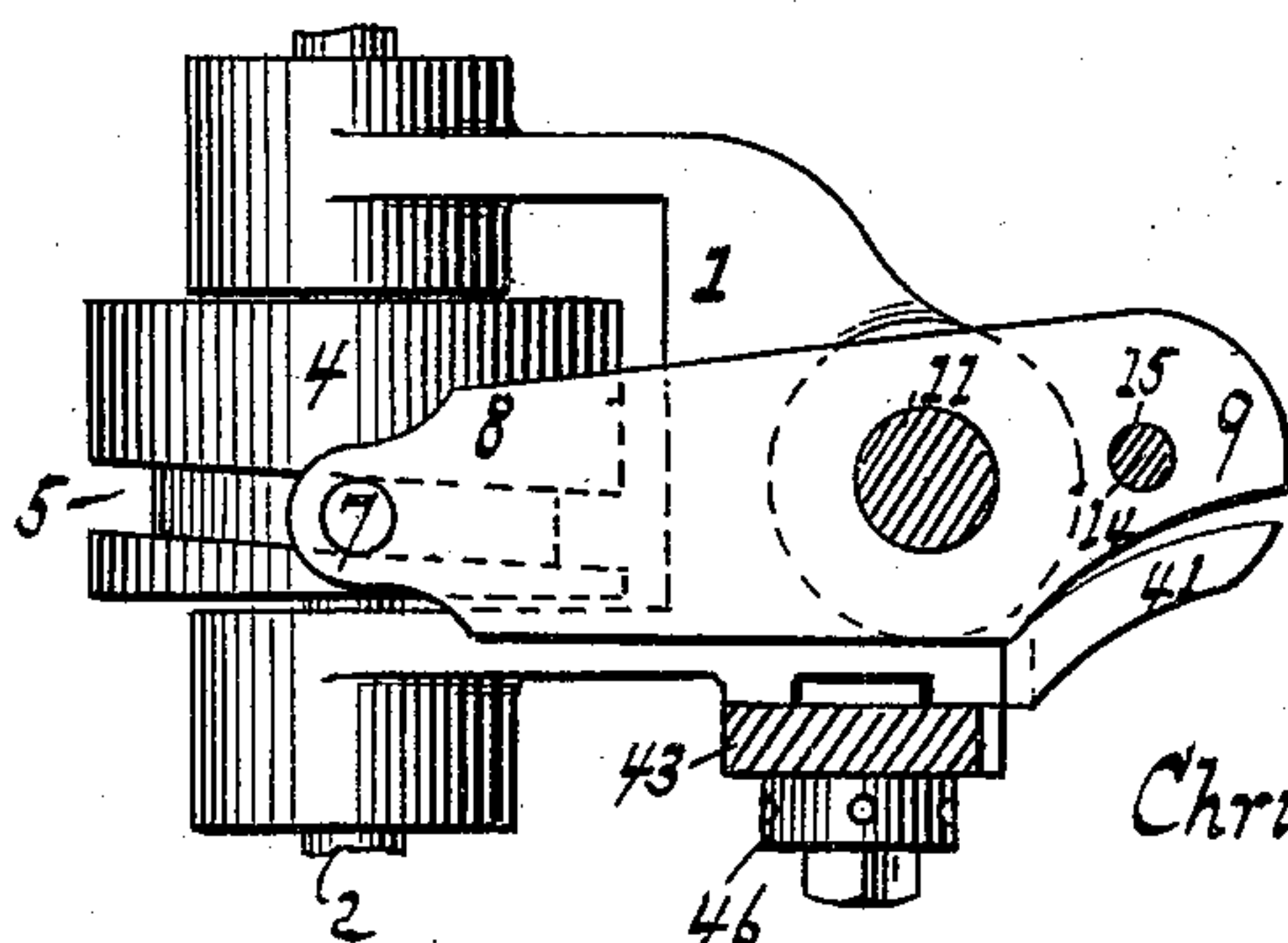


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHRISTIAN DANCEL, OF BROOKLYN, NEW YORK.

MACHINE FOR BEATING WELTS AND TRIMMING SHOES.

SPECIFICATION forming part of Letters Patent No. 547,715, dated October 8, 1895.

Application filed August 3, 1895. Serial No. 558,146. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN DANCEL, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Machines for Beating Welts and Trimming Shoes, of which the following is a specification.

The object of this invention is to effect certain hereinafter described improvements in machines for beating welts of boots and shoes and for trimming the boot or shoe; and the invention resides in the novel features of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a side elevation of the machine, partly in section. Fig. 2 is a front elevation of the machine. Fig. 3 is a side elevation opposite to that of Fig. 1. Fig. 4 is a section along xx , Fig. 3. Fig. 5 is an inverted plan view of a knife or cutter.

The base or support 1 is provided with a driving-shaft 2, having the usual fast and loose pulleys 3 and provided with a cam 4, having the circumferential cam-groove 5 and the lateral cam-groove 6. The groove 5 is engaged by a roller-stud 7 on an arm 8, extending from a welt-gripping jaw 9, so that the groove 5 imparts to the welt-gripping jaw 9 a reciprocating or oscillating, or what may be called a "feeding" movement. This jaw 9 is provided with a sleeve 10, surrounding the shaft 11 of welt-gripping jaw 12. The jaw 12 is connected to jaw 9 by a pin-and-slot connection 14 and 15, so that said jaw 12 will partake of the oscillations or reciprocations of jaw 9, while at the same time said jaw 12 is free to move toward and from jaw 9.

When the jaws 9 and 12 are apart, a welt 16 can be inserted therebetween, and as the jaws come together at the same time, swinging forward or in the direction of feed, the welt is not only beaten or properly flattened, but is at the same time fed along by the swing of the jaws. After the completion of the feeding-stroke the jaw 12, separating or moving away from jaw 9, will leave the welt free during the back or return swing of the jaws, and on the completion of the return swing, the jaws again coming together and seizing a succeeding part of the welt, will beat said succeeding welt part and also cause a further feed of the welt by the forward swing of the jaws.

The alternate movement of jaw 12 toward and from jaw 9 is caused by the lateral cam-groove 6 engaging lever 17 and 18, fulcrumed at 19, the lever-arm 18 engaging the shaft 11 of jaw 12. Said shaft 11 is longitudinally movable as well as capable of rocking or oscillating.

The slot or eye 20 in shaft 11, into which lever-arm 18 engages, is large enough to allow shaft 11 to rock to the required degree. In raising said shaft 11 to move jaw 12 away from jaw 9 the lever-arm 18 acts directly on shaft 11, but the motion of jaw 12 toward jaw 9 is effected by lever-arm 18 pressing on the head 21 of the stem 22, about which is coiled spring 23, seated in a suitable chamber or recess in shaft 11, closed by the screw-plug or closure 24. The spring 23 at the proper period thus holds jaw 12 with yielding pressure toward jaw 9, so that as varying thicknesses of welt come between the jaws such welt will be properly beaten.

The knife or cutting-disk 25 has its shaft 26 inclined relatively to the jaws, and said driving-shaft 26 is driven or rotated by pulley 27 and belt 28, connecting with pulley 29 on the cam-driving shaft 2. As the welt is thus beaten and fed by the jaws 9 and 12, the knife or trimmer 25 will suitably trim the shoe. The shoe shown on last 32, while having the outer edge of the welt beaten between the jaws 9 and 12, also has the inner edge of its welt beaten, as presently described. A shoulder or nut 33 lies under a hammer 34 35, the arm 35 of the hammer being jointed at 36 to the jaw 12 and the head or hammer portion 34 extending over the inner edge of the welt. As the jaw 12 rises and falls, the hammer 34, moving with jaw 12, beats the inner edge of the welt and the between substance to make said inner edge lie level, or practically so, with the outer edge of the welt. The hammer-arm 35 is pressed by spring 37, braced against nut 38, screwed onto stem 39, said stem having its lower end threaded to screw into a tap in jaw 12. The spring 37 allows the hammer 34 35 to swing or yield a certain distance until arrested by shoulder 40 on screw 39. By adjusting the screw 39 in jaw 12 the shoulder 40 is set to allow the hammer 34 to yield more or less. The shoe is steadied during the operation of the device by a table 41, having its arm or supporting-bracket 42 secured to a suitable part of the base or support 1. The

jaws 9 and 12 feed toward this table, so that the part of the shoe just released by the jaws is supported by this table 41.

An arm 43 is connected to or guided on a suitable part of base 1 by a tongue and groove, and an eccentric 44 bears against a suitable part of this arm 43. This eccentric 44, mounted on a shaft or pin 45 on support 1, has a collar 46, provided with eyes or corrugations on its periphery for the grip or engagement of a tool by which the collar 46, with eccentric 44, can be turned to set or adjust the arm 43, as required. The arm 43 supports a gage 47, which extends below the cutting-edge of the knife to prevent excessive penetration by the knife-edge. Said arm 43 also supports a gage or guard 48 to protect the operator from injury or from being cut, said gage 48 also serving to gage or secure the proper pitch of the shoe or work. The arm 43 has a head or branch 49, on which by tongue-and-groove connection 50 and 51 is placed the knife stock or support 52, said knife-stock with the knife being capable of being set or adjusted along groove 51 and fixed at the desired point of adjustment, a suitable screw-and-slot connection 53 and 54, as known, adjustably connecting the knife-stock 52 to the head 49. This knife-stock, as seen, is in slanting position, and its line of adjustment is parallel to or inclined in accordance with the knife blade or disk, so that as the cutting-edge wears away the knife-stock can be set or adjusted to compensate for the wear without adjusting or disturbing the gages.

By having the knife and gages 47 and 48 adjustable together by means of arm 43 the machine can be rapidly and accurately set for varying thicknesses of welt.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a welt-beating machine, the combination with two jaws adapted to grip and feed a welt, and means for actuating the jaws, of a welt-beating hammer arranged in operative connection with the jaws and acting to beat the edge of the welt.

2. In a welt-beating machine, the combination with two jaws adapted to grip and feed a welt, and means for actuating the jaws, of a spring pressed welt beating hammer arranged in operative connection with the jaws and acting to beat the edge of the welt.

3. In a welt-beating machine, the combination with two oscillating jaws, one of which is movable vertically to and from the other, of a welt-beating hammer mounted on the vertically moving jaw and acting to beat the edge of the welt when said jaw is moved vertically.

4. In a welt-beating machine, the combination with two oscillatory jaws adapted to open and close to grip and feed the welt, a cutter to which the welt is presented by the feed movement of the jaws, and means for actuating the jaws, of a welt-beating hammer ar-

ranged in operative connection with the jaws to act upon the welt before the latter is acted upon by the cutter.

5. In a welt-beating machine, the combination with two jaws adapted to grip and feed a welt, and means for actuating the jaws, of a hammer arranged in operative connection with the jaws and acting to beat the edge of the welt, a spring engaging the hammer, and a spring-supporting-stem having a shoulder or detent for arresting the motion of the hammer as it moves away from the welt.

6. In a welt-beating machine, the combination with two oscillating jaws, one of which is movable to and from the other for gripping and feeding the welt, of a fixed table arranged in relation to the jaws and toward which said jaws feed the welt, said table serving to steady the shoe or work during the beating acting of the jaws.

7. A combined welt beater and trimmer comprising separable welt gripping jaws, in combination with a welt trimming knife or cutter, and a gage made to extend into proximity with the cutting edge to prevent excessive penetration of the latter substantially as described.

8. In a welt-beating machine, the combination with oscillating gripping jaws which grip and feed the welt, and a welt-trimming cutter arranged in operative relation to the jaws and to which the welt is presented by the feed movement of the jaws, of a gage or guard surrounding a portion of a cutting edge of the cutter to shield the latter and secure the proper pitch of the shoe or work, substantially as described.

9. A combined welt beater and trimmer comprising separable welt gripping jaws, in combination with an inclined welt trimming knife or cutter, and a knife stock or support made adjustable in a direction parallel to the inclination of the knife substantially as described.

10. A combined welt beater and trimmer comprising separable welt gripping jaws, in combination with a welt trimming knife or cutter and an adjustable supporting arm for the knife, said arm being provided with a gage and a guard for the knife substantially as described.

11. A combined welt beater and trimmer comprising separable welt gripping jaws, in combination with a welt trimming knife or cutter and an adjustable supporting arm for the knife, said arm being provided with gages and said knife being made adjustable on said arm independently of the gages substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHRISTIAN DANCEL.

Witnesses:

WM. C. HAUFF,
E. F. KASTENHUBER.