J. E. Tucker,

Crimping Leather,

No. 5,723,

Patented Aug. 22, 1848.

Fig. 4.

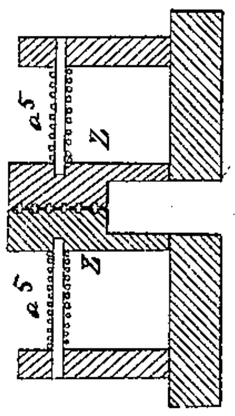


Fig. 3

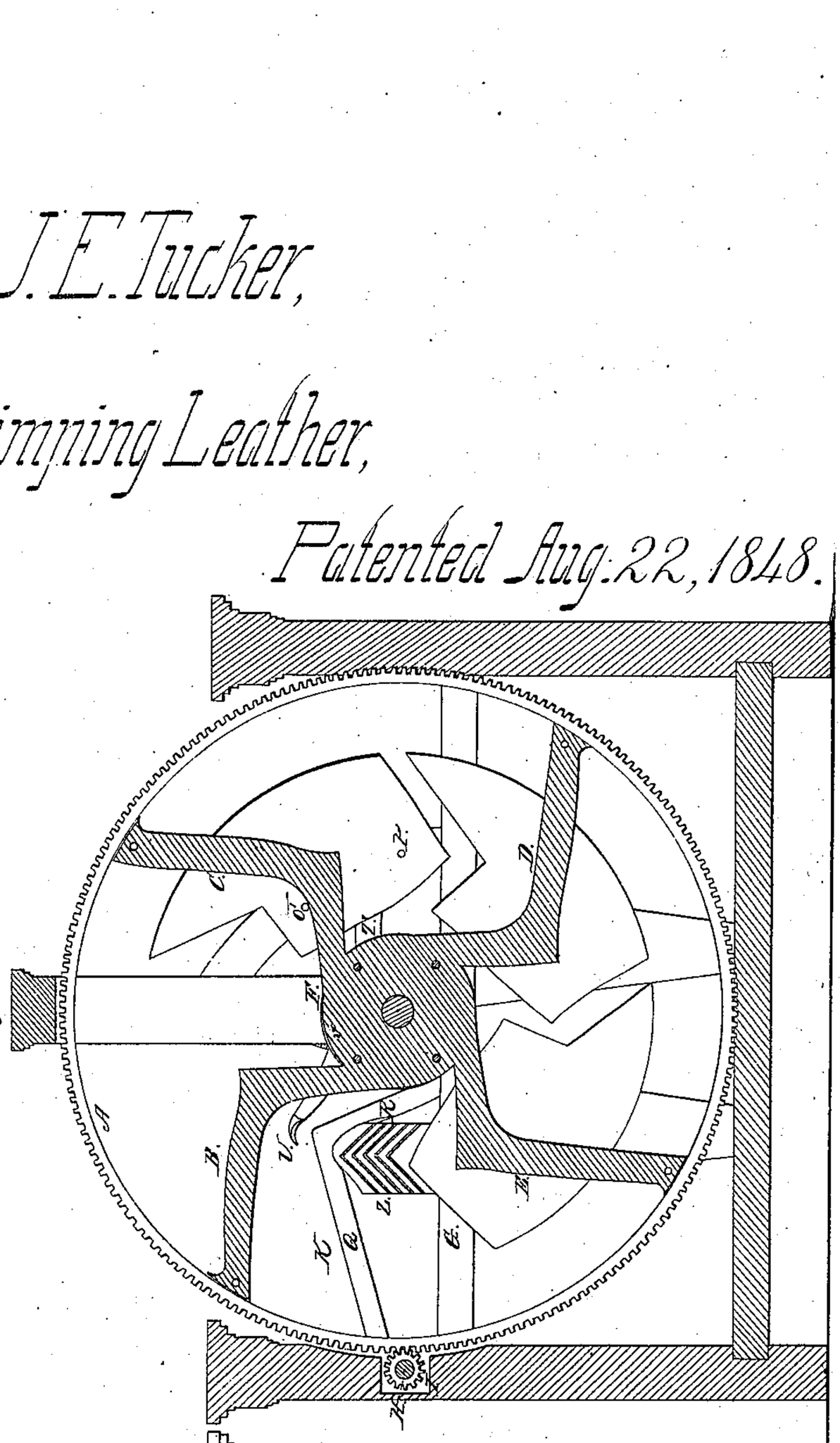


Fig. 1

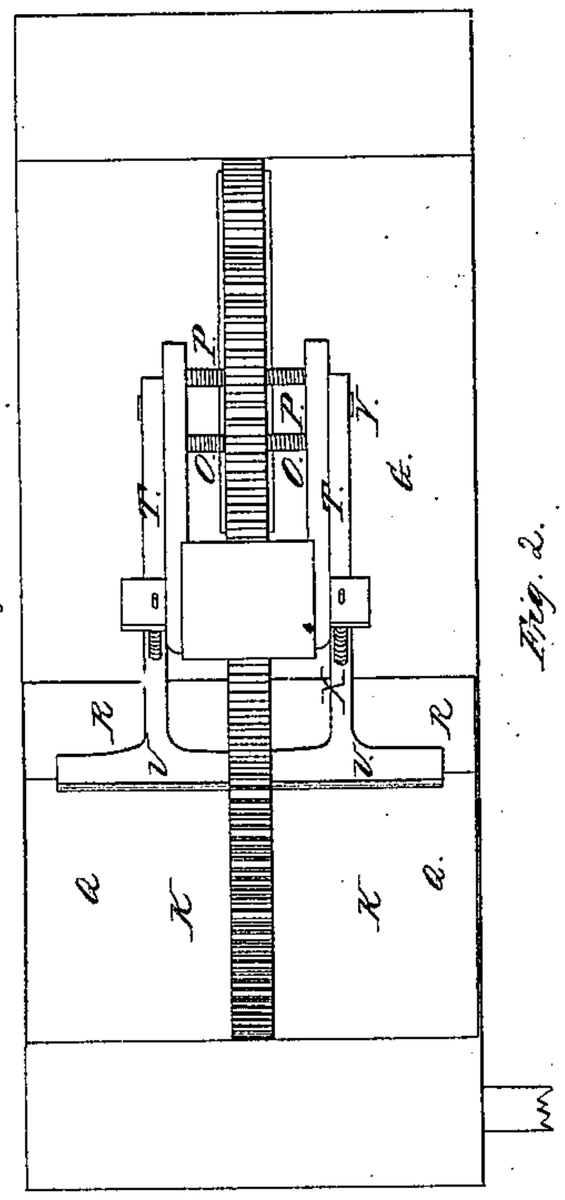
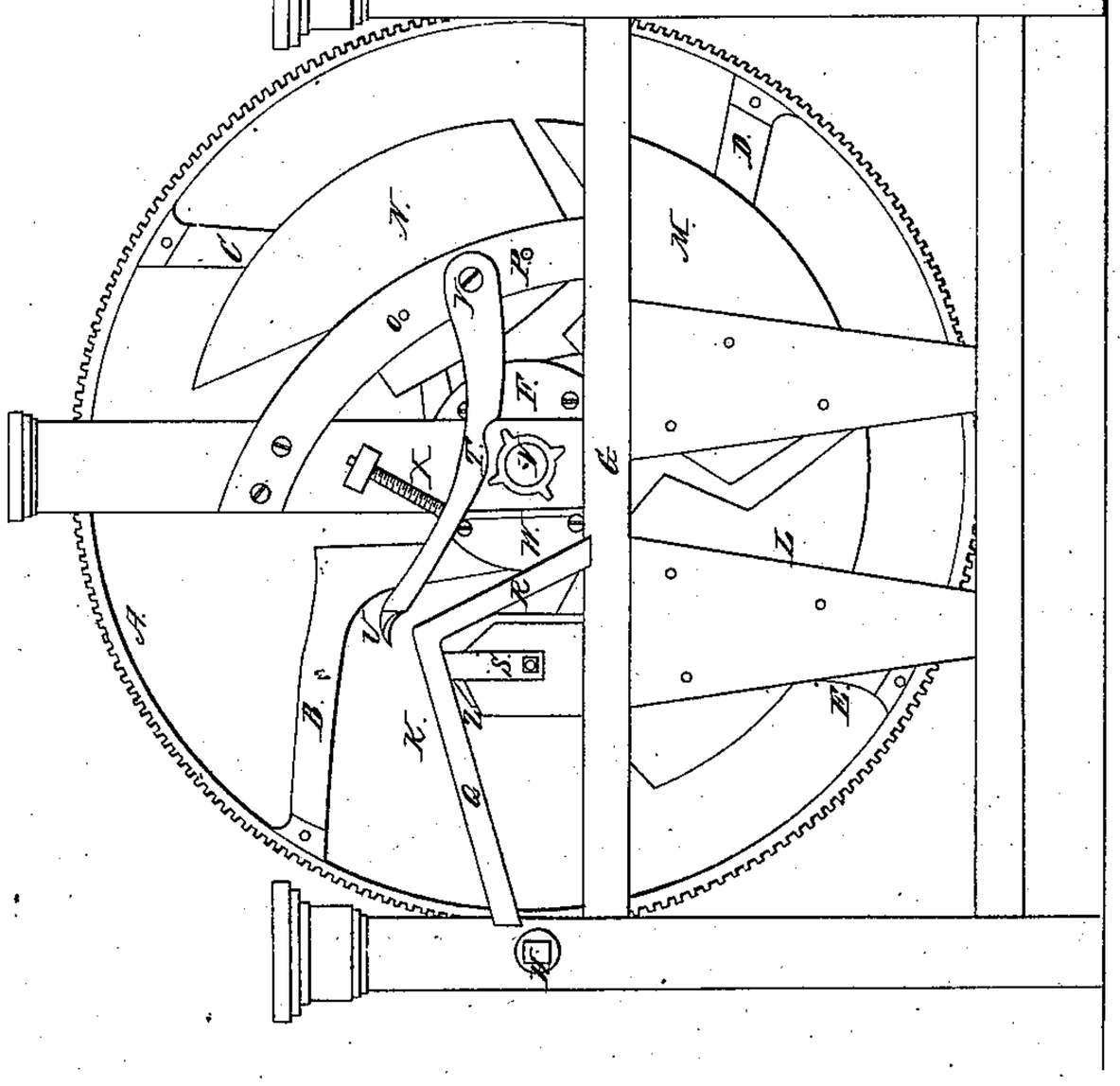


Fig. 2.



UNITED STATES PATENT OFFICE.

JOHN E. TUCKER, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BOOT-CRIMPS.

Specification forming part of Letters Patent No. **5,723**, dated August 22, 1848.

To all whom it may concern:

Be it known that I, JOHN E. TUCKER, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Machine for Crimping Boot-Legs; and I do hereby declare that the same is fully described and represented in the following specification and accompanying drawings, letters, figures, and references thereof.

Of said drawings, Figure 1 denotes a top view, Fig. 2 a side elevation, of my machine, and Fig. 3 is a vertical, central, and longitudinal section of it.

In the same, A is a circular rim, having teeth on its periphery and arms B C D E extending from it to a hub, F, and made in the shape like the followers of a common boot-crimper, said shape being exhibited in the drawings. Said wheel of followers is sustained by and so as to revolve within a frame, G. It receives its motion from power properly applied to a shaft, H, and acting on a pinion, I, placed on said shaft and made to engage with the teeth of the rim A. Each of said arms is provided with a pair of spring-jaws, they being represented at K K′ in Fig. 1 and at K L M N in Fig. 2. The said spring-jaws are disposed in such manner and held in position by suitable fixtures—viz., springs O O′, &c., attached to the frame G—as that each of the followers during its revolution shall pass successively through each set of jaws. The said jaws of each pair are to be made of wood or other proper material, and should be forced toward one another by springs, some of said springs being seen at O O′ P P′. The first set, K K′, of said jaws are made tabular; or, in other words, each jaw thereof is composed of two boards, Q R, arranged at an angle to one another, and as seen in the drawings. A spring, S, is applied to each board Q for the purpose of allowing the boards to separate from one another or move laterally, when either of the followers passes between them. An arm, T, having a jaw, U, on one end of it, is made to turn vertically on a fulcrum or pin at V. Said arm moves on a stationary rod, W, and is pressed downward (so as to cause its jaw U to rest and press on the angle of the boards Q R) by a strong spring, X.

On the axle of the hub a toothed or cam wheel, Y, is fixed, there being the same number of teeth on its circumference as there are followers. While the axle is revolving, the teeth or cams of the wheel alternately raise and allow to fall (by the reaction of the spring X) the lever or rod T, and so as to cause its jaw to bear down upon the leather extending over the angle of the two boards composing the jaw K. The opposite jaw, K′, also has its lever or curved arm T′, which has a jaw, U′, and is operated at the same time and manner, or by machinery applied to it similar to that as above described as made to operate the arm first named.

Directly below the angle of the two jaws K K′, I arrange a small auxiliary set of spring-jaws, one of which is seen at Z′ in Fig. 3. They are represented in cross-section in Fig. 4, and consist of two blocks or plates arranged face to face and pressed toward one another by springs a^5 a^5, as seen in Fig. 4.

The leather to be crimped is laid on the tabular jaws, so that the flat part of the boot-front, which is destined to compose the upper-leather of the foot, may lap over or be sustained by the two inclined boards R R′, the leg part being spread out or made to rest equally on the two boards Q Q′. This is done while the arms T T′ are raised up, so as to elevate their respective jaws above the angles or parts of junction of the two boards. Just previous to the passage of one of the followers into or between the jaws K K′ the arms T T′ should be caused to descend, so as to carry their jaws down upon the leather. Now while the follower is entering or passing into the space between the jaws K K′ and Z Z′ the jaws of the arms will allow the leather to slip from under them, while at the same time they will press upon it with a force sufficient to take out its wrinkles and cause it to be drawn full up into the angle of instep and leg of the follower. The leather is next carried successively between the remaining sets of jaws and by them submitted to successive stretchings until it is finally removed by an attendant, who, as fast as he removes a piece of leather from one of the followers, just previous to its passage between the jaws K K′, places another piece on the tabular jaws, ready to be pressed between them by said follower. By such a

combination and arrangement of stationary spring-jaws and rotating series of followers the work of crimping can be effected much more expeditiously and in a far more satisfactory manner than it can by the ordinary kind of crimping-machines.

I therefore claim—

A combination of any suitable number of stationary spring-jaws and a rotating series of followers arranged and made to operate together, substantially as above specified.

In testimony whereof I have hereto set my signature this 5th day of June, A. D. 1847.

JOHN E. TUCKER.

Witnesses:
R. H. EDDY,
D. H. TILLSON.