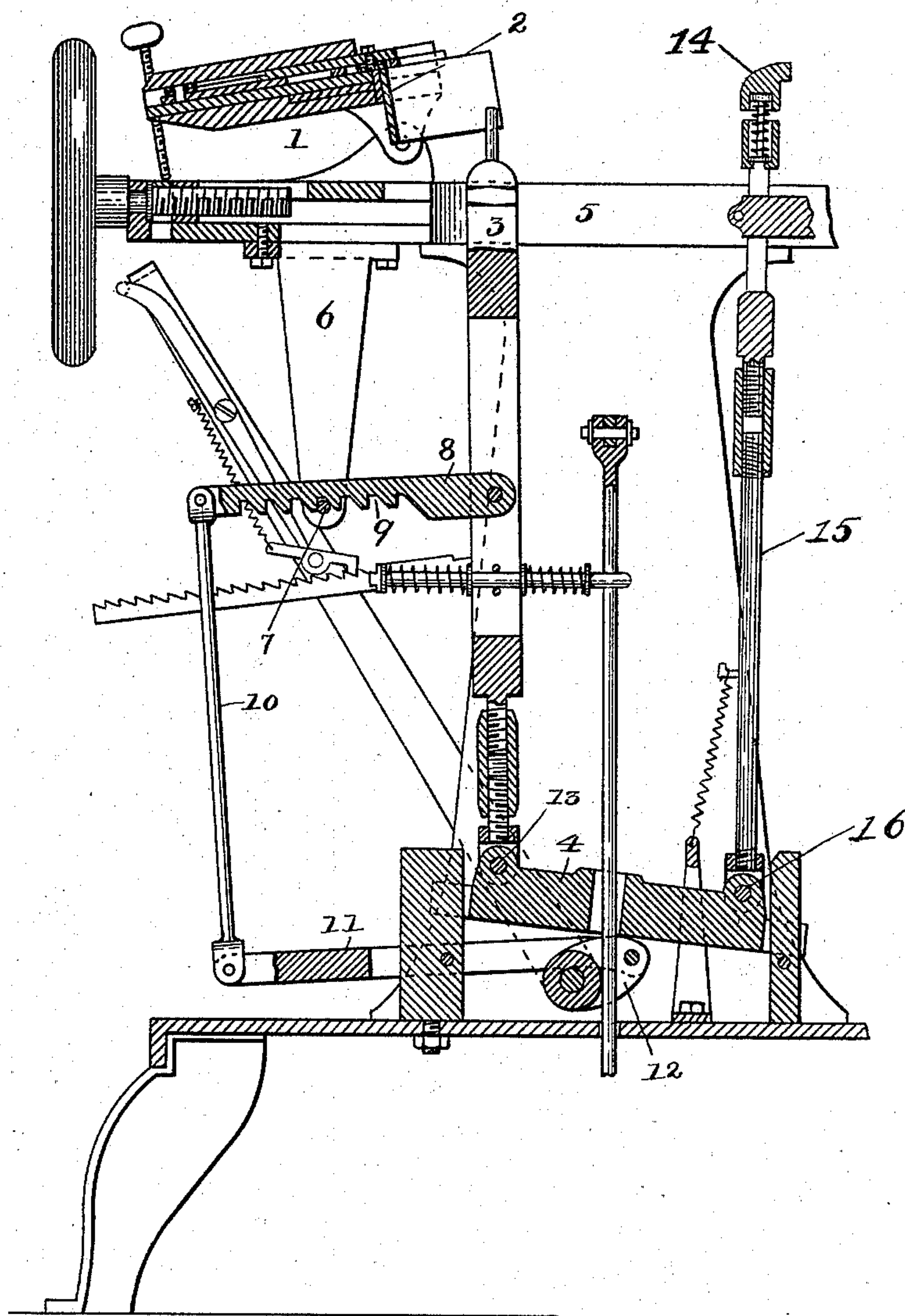


(No Model.)

F. CHASE.  
CLAMPING MECHANISM FOR LASTING MACHINES.  
No. 571,509. Patented Nov. 17, 1896.



WITNESSES.

*A. D. Grover*  
*William A. Leopeland*

INVENTOR.

*Frank Chase*  
*by his attorney*  
*Edward S. Beach*



# UNITED STATES PATENT OFFICE.

FRANK CHASE, OF WATERVILLE, MAINE, ASSIGNOR TO THE CHASE LASTING MACHINE COMPANY, OF PORTLAND, MAINE, AND BOSTON, MASSACHUSETTS.

## CLAMPING MECHANISM FOR LASTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 571,509, dated November 17, 1896.

Application filed October 16, 1895. Serial No. 565,913. (No model.)

*To all whom it may concern.*

Be it known that I, FRANK CHASE, of Waterville, in the county of Kennebec and State of Maine, have invented a new and useful Improvement in Clamping Mechanism for Lasting-Machines, of which the following is a specification.

The accompanying drawing is a central sectional elevation of the preferred embodiment of my improvement in clamping mechanisms for lasting-machines.

In my application, Serial No. 563,454, filed September 23, 1895, the heel-clamping mechanism comprises a reciprocating heel-clamp which coöperates with a heel-pin which moves toward the heel-clamp to cause the clamp to automatically grip the jacked shoe.

While that plan of clamping the heel for the lasting operations is of great value in practice, it is nevertheless frequently desirable, not only in fitting over large numbers of an older type of lasting-machines in order to increase their speed or lasting capacity, but also in the manufacture of a new type of lasting-machine having a greatly-increased lasting capacity, to jack the shoe on a heel-pin which is stationary except in respect to its ordinary vertical movements.

In accordance with my present invention the shoe is jacked on a heel-pin which is stationary while the shoe is being lasted. In other words, the heel-pin is held in a fixed position relatively to the toe-carriage and the compressing heel-clamp is moved toward and away from the heel-pin to clamp and release the jacked last.

The features of my invention are specified below.

In the drawing, illustrating the principle of my invention and the best mode now known to me of applying that principle, 1 is a heel-carriage which carries any desired kind of heel-clamping instrumentalities 2 and is movable toward and from an inserted last. As shown, the heel-gripping instrumentalities 2 are of the construction set forth in my prior patents, and the carriage 1 moves in a straight path; but neither of these constructions is essential to the main features of my invention above set forth, and the heel-clamping instrumentalities may be of any other desired

construction and moved toward and from the inserted last in any other desired manner without departure from my invention, so long as the heel-clamping mechanism is compressive. Heel-pin 3 is supported from a tilting bar 4, which also supports a toe-rest, all of which is explained in my prior patents and said application. Frame 5 is in this case preferably provided with an extension or bracket 6, having a cross pin or tooth 7, and a notched rack-bar 8 is connected with the heel-pin 3 and extends over the cross-pin 7, the notches 9 in the rack-bar corresponding to different lengths of lasts to be operated on and engaging cross-pin or tooth 7 to hold the heel-pin in any desired position and lock it or hold it stationary in that position for jacking the last and for the approach and effective operation of the compressive heel-gripping instrumentalities.

Tooth 7 is preferably in the lower end of a downward projection, as shown, because the rack-bar is thereby in convenient position to be grasped by the operator in making adjustments of the heel-pin into a plurality of different positions corresponding to different lengths of shoes. The outer end of the rack-bar 8 is connected with a rod 10, which is in turn connected with a lever 11, pivoted to cam 12, on which the tilting bar 4 (carrying the heel-pin and toe-rest posts) is supported for raising and lowering the heel-pin 3, which is ordinarily carried in a post pivoted to bar 4 at 13 to permit the heel-pin to be moved in the direction of the length of the last.

To adjust the heel-pin 3, rack-bar 8 is readily lifted out of engagement with tooth or pin 7 and moved in and out by hand to bring the heel-pin into the position desired. The last is jacked and thus secured in a stationary position with reference to the length of the inserted last by engagement of a tooth 9 with the pin 7 and the heel-gripping mechanism moved to grasp the heel part of the shoe on the stationary heel-pin. The jacked last is firmly and positively secured by the compressive pressure of the heel-gripping mechanism on the heel part of the last, which is held stationary by engagement of the rack-bar with the cross pin or tooth above described. Of course other devices than a



notched rack and coöperating tooth may be substituted, if desired, as a heel-pin-locking device.

Any desired construction of toe-support 5 may be used; but in practice I prefer to use the construction of toe-rest shown in the drawings, where toe-rest 14 is mounted on a vertically-movable post 15, which is fulcrumed at 16 to the tilting bar 4, already described.

10 In rapidly operating lasting-machines it is practically important for the operator to find the heel-pin quickly and easily.

The foregoing is the best of several contemplated embodiments of my invention; which 15 may be varied, if desired, in some respects.

What I claim is—

1. In a lasting-machine, the combination of a reciprocating heel-clamping mechanism and a heel-pin movable from and toward said 20 heel-clamping mechanism with a notched bar

connected with the heel-pin and a stationary tooth-bar which engages with the notches of the notched bar that is connected with the heel-pin.

2. The combination in a lasting-machine, 25 of a reciprocating heel-clamping mechanism and a heel-pin movable from and toward said heel-clamping mechanism with a notched bar connected with the heel-pin and a stationary tooth-bar which engages the notches on said 30 bar connected with the heel-pin; and with a movable toe-rest.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 27th day 35 of September, A. D. 1895.

FRANK CHASE.

Witnesses:

SARAH L. CHOATE,  
L. W. HASKELL.