

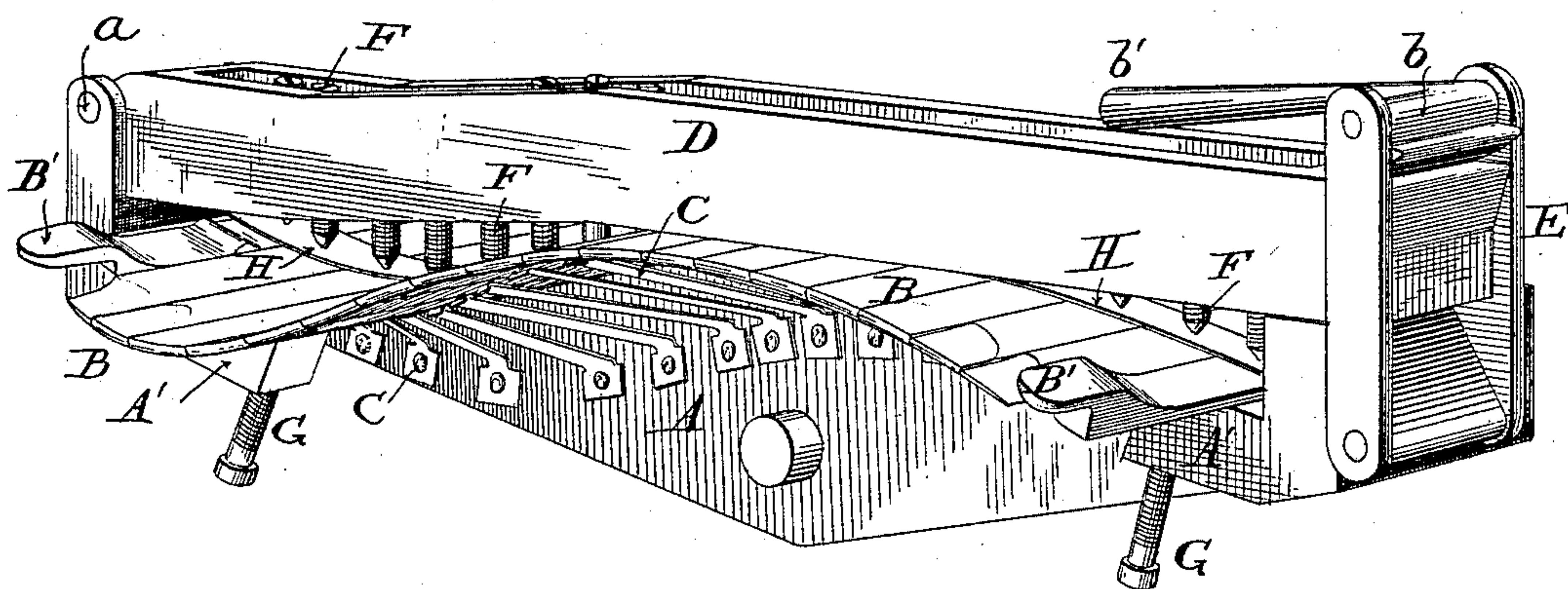
(No Model.)

H. M. GOODHUE.  
LASTING MACHINE.

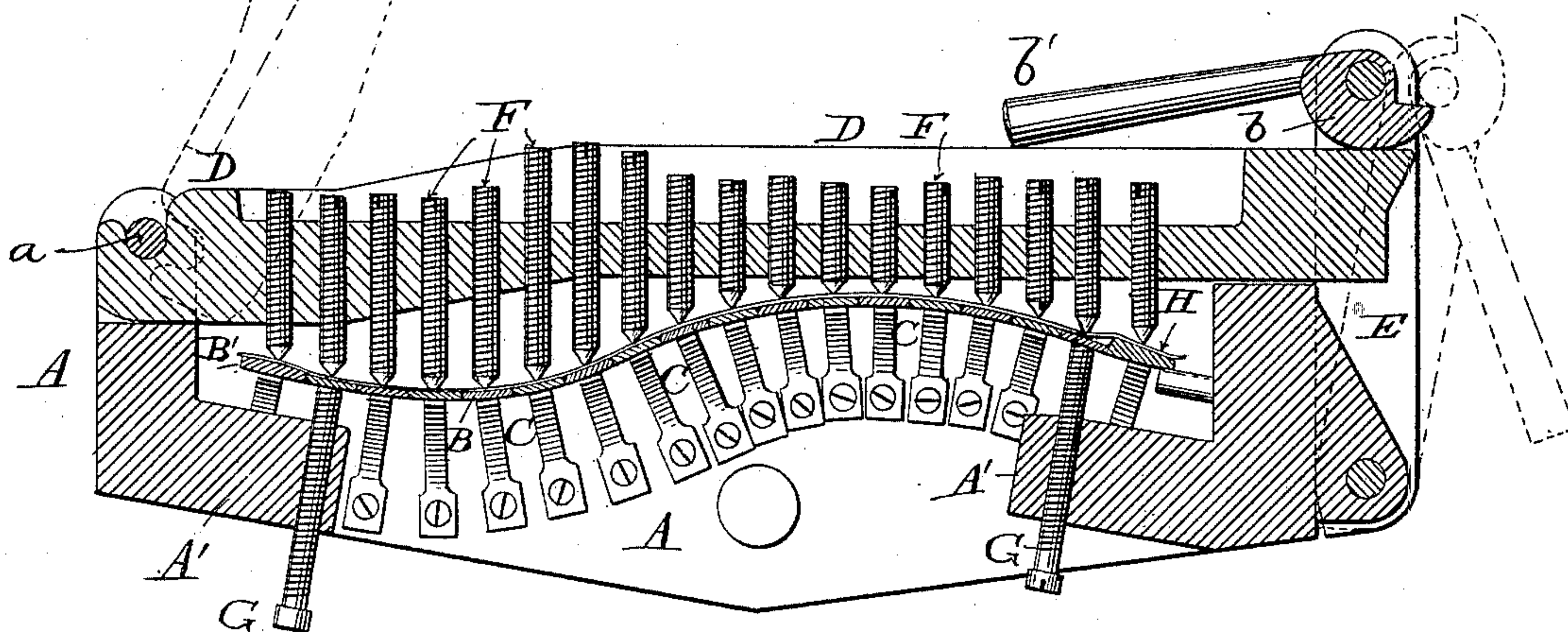
No. 391,788.

Patented Oct. 30, 1888.

*Fig. 1.*



*Fig. 2.*



*Attest:*

*Sidney P. Hollingsworth*  
*Horace A. Dodge.*

*Inventor:*

*Henry M. Goodhue,*  
*by Dodge & Sons,*  
*Attys:*



# UNITED STATES PATENT OFFICE.

HENRY M. GOODHUE, OF ROCHESTER, NEW YORK, ASSIGNOR TO WILLIAM S. KING, OF MINNEAPOLIS, MINNESOTA.

## LASTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 391,788, dated October 30, 1888.

Application filed August 6, 1888. Serial No. 282,070. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY M. GOODHUE, of Rochester, in the county of Monroe and State of New York, have invented certain new and  
5 useful Improvements in Lasting-Machines, of which the following is a specification.

My invention consists in a removable or exchangeable "former" for use in connection with the jaws of a lasting-machine to bring the  
10 folding blades or fingers to the proper line or curvature to conform to the contour of the last. Claim is not made by me to the broad idea of removable or exchangeable formers for this purpose, as I am aware that such claim belongs to another; but my invention consists in  
15 a former having a series of screws, each arranged to bear upon a separate blade or finger, so that one former may be adjusted to suit different lasts, or to compensate for wear  
20 of the former itself or of the last, and so, too, that the former may be readily brought to the required shape. I contemplate employing in practice a different former for each different last, and the purpose of the screws is rather to  
25 secure easily and quickly the necessary outline than to provide for varying it after being once secured, though such variation may incidentally prove of value at times.

Referring now to the drawings, Figure 1 is  
30 a perspective view of a jaw embodying my improvements; Fig. 2, a longitudinal section of the same through the center of the former.

A indicates the stock or body of one of the jaws, which are commonly employed in pairs,  
35 both jaws being of like construction and each mounted upon suitable supporting and actuating mechanism, which, however, constitutes no part of the present invention, and is therefore omitted.

40 Carried by the stock or body A are blades or wipers B, which may be hinged or pivotally attached thereto, or made elastic and yielding in themselves, both forms being now in use in machines of this class.

45 Bearing against one face of each blade or finger is a spring, C, (represented in the drawings as below, but in practice to be either above or below, as desired,) the spring in every instance being on the side of the blades or fingers opposite that against which the former acts. The  
50

purpose of the springs is to hold the blades or wipers normally in a given position, but to permit their adjustment to a different position when necessary. To effect this adjustment, the former is provided, consisting of a bar, D,  
55 one end of which is hinged upon or hooked under a pin, *a*, at one end of stock A, and the other end of which is locked down upon the stock or body A by an eccentric, *b*, carried by a swinging yoke or bail, E, and formed with a  
60 hand-piece, *b'*, as best shown in Fig. 2. The bar D is perforated directly over each blade or finger, and each perforation is tapped to receive a screw, F, which may be set to depress (more or less) the blade or finger below it. 65

By properly adjusting the several screws any desired line of curvature can be given to the outer or free ends of the blades or fingers as a series to correspond with the curvature of the last with which the jaw is to be used. The  
70 first and last blade or finger, B', of the series are not designed to act upon the upper, but are fashioned, as shown, to guide and sustain heel and toe wipers or blades, not connected with the present invention. To prevent the  
75 blades or fingers next to each end of the series from falling too low, and thus permitting the heel and toe jaws or wipers to strike against or pass below the third blade or wiper at either end, a stop-screw, G, is placed beneath such  
80 second blade or wiper at each end of the series, as shown in Figs. 1 and 2, the springs being usually omitted from beneath said blades or fingers when the screws are used. The  
85 screws pass through threaded holes in inwardly-projecting arms A', formed integral with or secured to stock or body A.

In using the improved jaw a strip, H, of sheet metal is advisedly placed upon the fingers or blades B directly below the line of  
90 screws F for said screws to bear upon, thus avoiding any marring or injury of the blades or fingers and (the sheet metal being soft) giving a hold for the points of the screws, and thereby preventing any tendency of the screws  
95 to slip or spring laterally. The strip also tends to produce a more perfect alignment of the blades or fingers, which yield somewhat laterally and adapt themselves to the contacting surface of the strip. 100



The arrangement of parts may be exactly reversed, if desired, the bar D being placed below and the springs C above the fingers or blades; but I prefer the arrangement described 5 and shown. The form of spring is likewise wholly immaterial.

Any form of adjustable stop—as, for instance, a sliding wedge-block—may be employed in lieu of the stop screws F.

10 Having thus described my invention, what I claim is—

1. The combination, substantially as set forth, of a stock or body, a series of yielding blades or fingers carried thereby, and a bar 15 extending across the series of blades or fingers and provided with screws to bear thereon.

2. In combination with a stock or body, A, a series of yielding fingers, B, a bar, D, detachably secured to the stock or body A, and 20 a series of screws, F, passing through said bar and bearing upon the blades or fingers.

3. In combination with stock or body A A', yielding fingers B B', and a former bearing upon the fingers, stop-screws G, passing 25 through the arms A' and serving to limit the descent of the fingers next to the end fingers, B'.

4. In combination with stock or body A A', yielding fingers B B', and a former bearing upon said fingers, adjustable stops carried by the arms A' of the stock or body and serving 30 to limit the depression of the fingers next to the end fingers, B', of the series.

5. In combination with stock or body A, fingers or blades B, and a former bearing upon said fingers, swinging yoke or bail E, and eccentric b, carried by said bail and serving to 35 lock the former to the stock.

6. The herein-described lasting-machine jaw, consisting of stock or body A, yielding fingers B, bar D, provided with screws F, and 40 swinging bail E, provided with eccentric b, all combined and operating substantially as set forth.

In witness whereof I hereunto set my hand in the presence of two witnesses.

HENRY M. GOODHUE.

Witnesses:

JOHN WOOLLARD,  
THOS. F. BOLGER.