

G. Utley.

Crimping Leather,

Nº 12,109.

Patented Dec. 19, 1854.

Fig: 1.

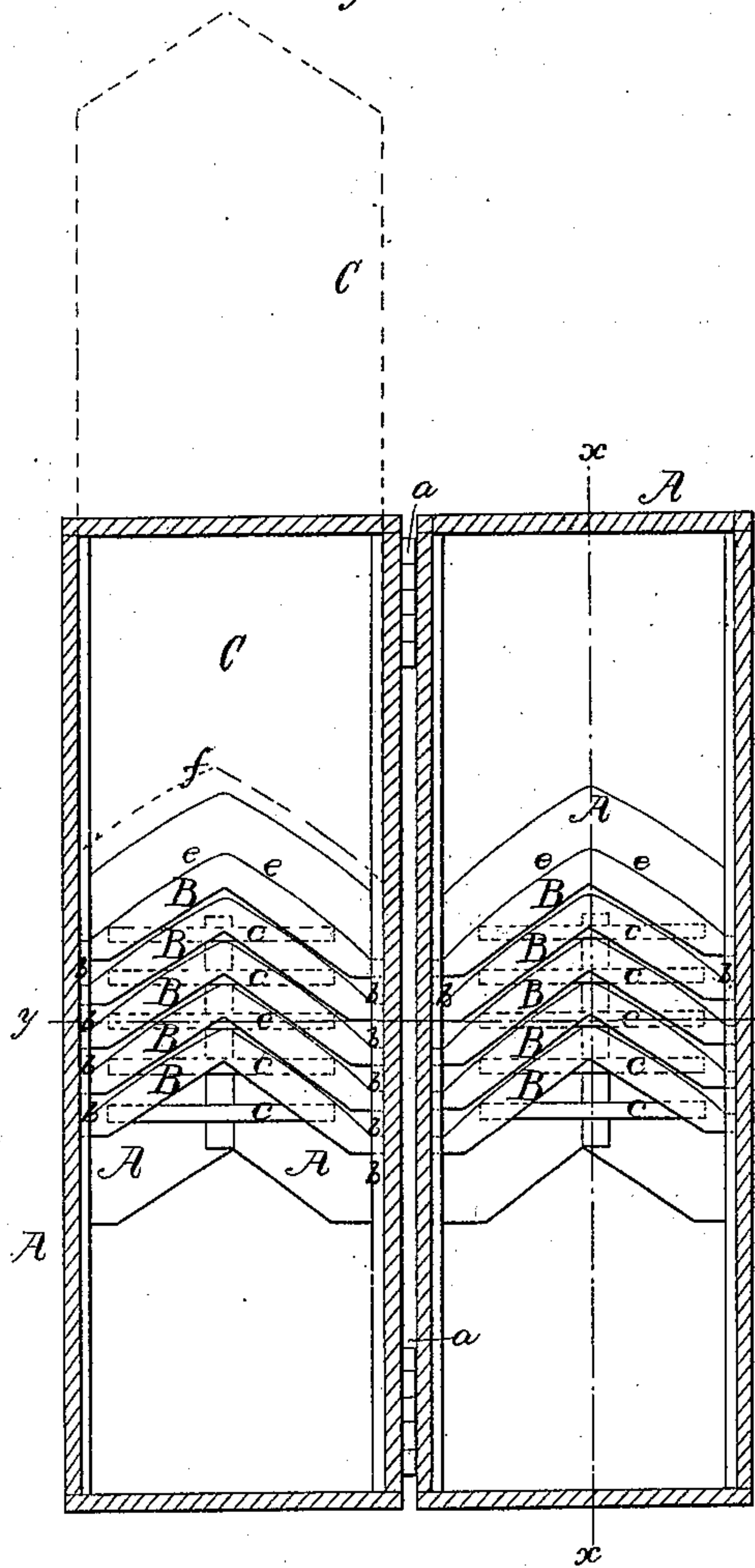


Fig: 2.

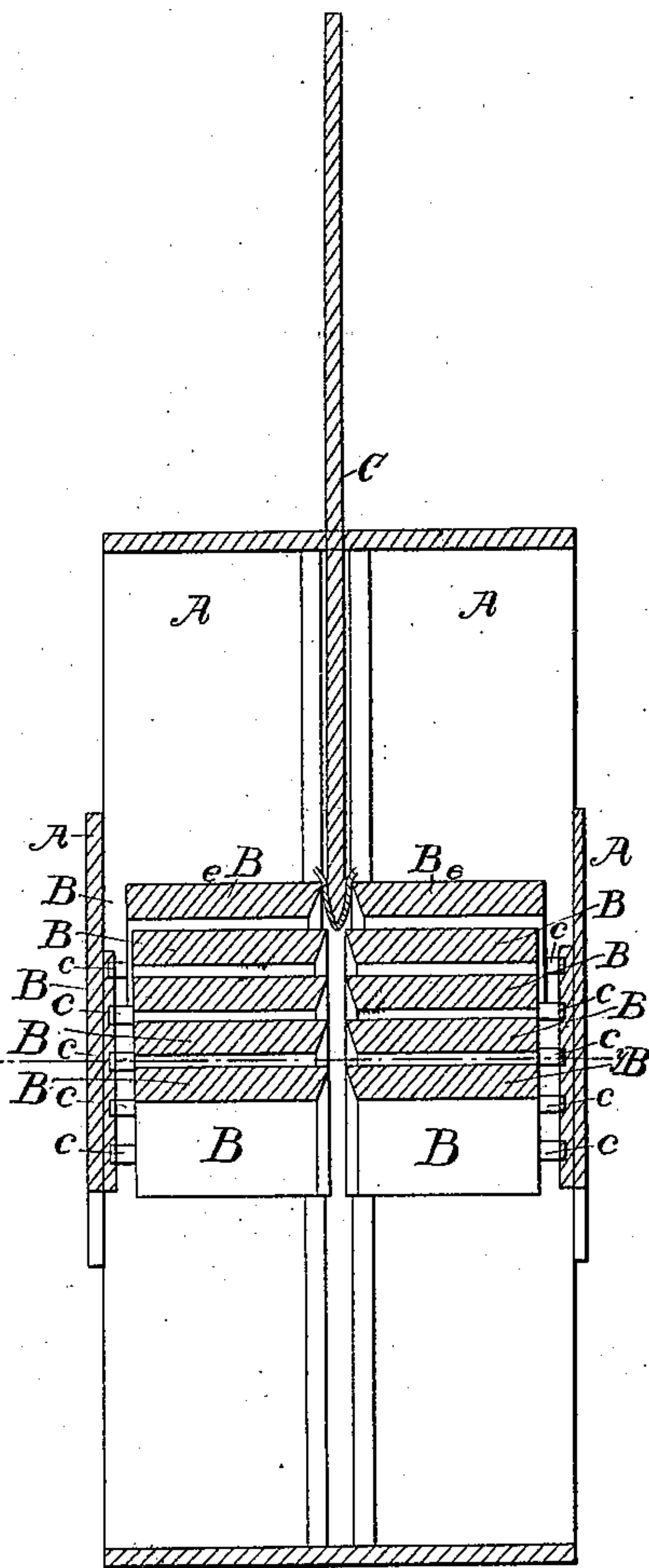
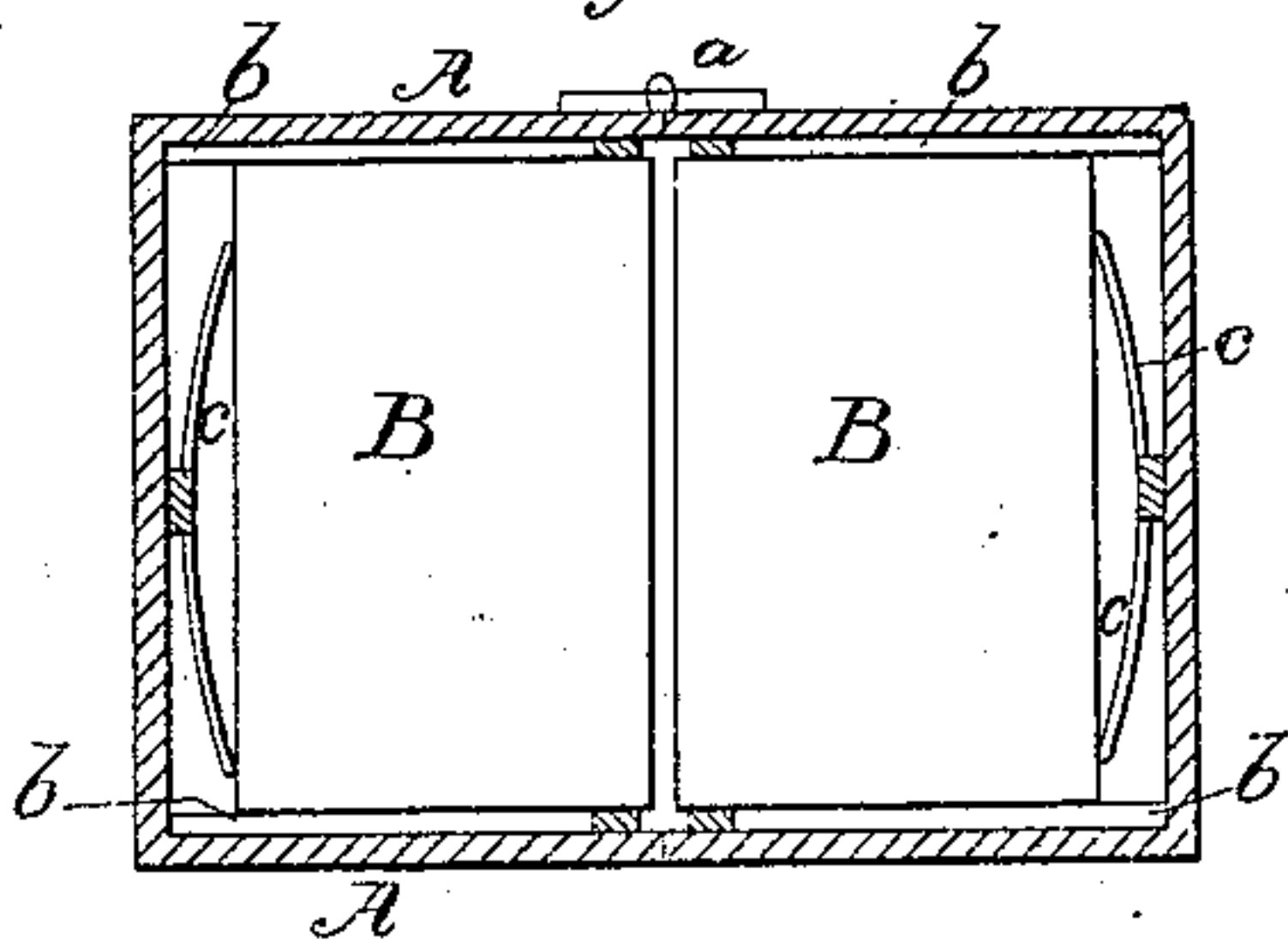


Fig 3.



UNITED STATES PATENT OFFICE.

GREY UTLEY, OF CHAPEL HILL, NORTH CAROLINA.

BOOT-CRIMPING MACHINE.

Specification of Letters Patent No. 12,109, dated December 19, 1854.

To all whom it may concern:

Be it known that I, GREY UTLEY, of Chapel Hill, in the county of Orange and State of North Carolina, have invented a new and useful Improvement in Boot-Crimping Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, forming part of this specification, in which—

Figure 1 is an interior elevation of the machine when opened, showing interior edges of rubbers. Fig. 2 is a vertical section of the machine when in operation, taken as indicated by line *x x* of Fig. 1. Fig. 3 is a horizontal section on line *y y*.

Similar characters of reference in the several figures denote the same part of the machine.

My invention consists in constructing the machine with a double row or series of angular rubbers placed opposite to each other, and moving upon slides to and from the center, in a horizontal direction; a spring being attached behind each rubber for the purpose of exerting a gentle pressure upon the leather as it is driven between the rubbers by a crimping board moving perpendicular to the direction of motion of the rubbers; the effect of the arrangement being that each pair of rubbers shall as the crimping board passes between them, retain their pressure toward the center, and from the edge of said board upward, stretching the leather until it shall have passed through the entire series of rubbers, as will be hereafter fully set forth.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

In the drawing A represents the case of the machine hinged as shown at *a*, each half containing one series of the rubbers B. These rubbers are of an angular form as shown in Fig. 1, and are movable horizontally on guides *b* attached to the case of the machine. Between the exterior edge of each rubber B, and the case is a spring *c*, the tendency of which is to press the rubber toward the center of the machine; these springs may be secured to a piece whose distance from the case is regulated by a set

screw, so as to graduate the intensity of the pressure of the rubbers toward the center. The crimping board C passes perpendicularly through the middle of the case between the inner edges of the two series of rubbers B, as shown in Fig. 2, a rack and pinion or any other suitable means being employed for moving it.

The operation of my improved machine is as follows: The piece of leather to be crimped is adjusted upon the upper surface *e* of the upper rubber B, and the crimping board C pressed down upon the leather, forcing it between the inner faces of the upper rubbers (as shown in Fig. 2); the springs *c* at the back of which maintain the pressure against the board sufficient to draw the leather upon the edge *f* of the said board and cause it to assume the shape of the edge. As the board C continues to move downward it meets and is clasped between the second pair of rubbers, which act as above described, to stretch the leather smoothly upon the lower edge *f* of the crimping board, while the first pair by reason of the springs *c* continue to press gently upon the leather and aid in the operation. In this manner as the crimping board passes downward the leather successively meets with the several pairs of rubbers, all of which continue the pressure with which they first clasp the said board; so that when the board has passed between the entire series the material is smoothly stretched upon its lower edge *f*.

I am aware that crimping machines have been made, in which two jaws were furnished with two corresponding series of projecting ridges, between each pair of which the leather is pressed in succession by the crimping board—but these successive ridges being formed upon one and the same rubbing jaw have of course no independent motion or pressure upon the leather. Disclaiming therefore, this or any essentially equivalent device, what I claim as my invention is—

The double row or series of independent and disconnected angular shaped rubbers, placed opposite each other, and movable in horizontal guides to and from the center; a spring behind each rubber effecting a gentle pressure upon the leather as it is pressed

down between the rubbers by a crimping board, and each pair of rubbers retaining their pressure toward the center and from the edge of the crimping board upward,
5 stretching the material until it shall have passed successively through the entire series, substantially as herein before set forth.

In testimony whereof, I have hereunto signed my name before two subscribing witnesses.

GREY UTLEY.

Witnesses:

GEO. PATTEN,
SAML. GRUBB.