No. 617,666. Patented Jan. 10, 1899.

M. M. WHIPPLE, 2d.

KNIFE ADJUSTER.

(Application filed July 23, 1898.)

(No Model.)

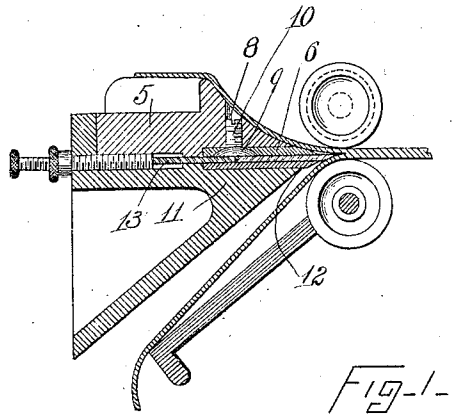


Fig-1-

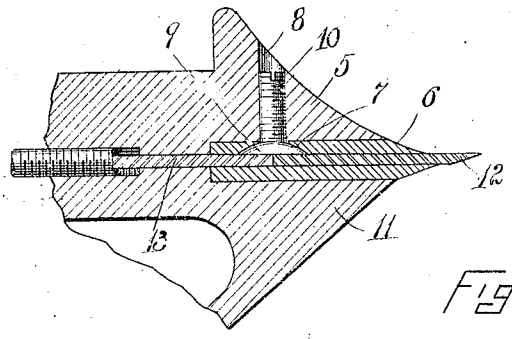


Fig-2-

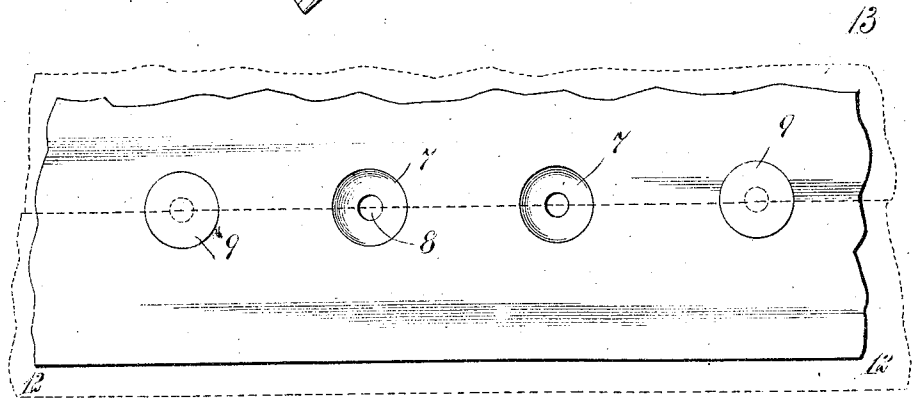


Fig-3-

WITNESSES-

Wm. A. Varnum

John C. Varnum

INVENTOR-

Marcus M. Whipple 2nd

by his atty,

Henry J. Miller

UNITED STATES PATENT OFFICE.

MARCUS M. WHIPPLE, 2D, OF SHARON, MASSACHUSETTS.

KNIFE-ADJUSTER.

SPECIFICATION forming part of Letters Patent No. 617,686, dated January 10, 1899.

Application filed July 23, 1898. Serial No. 686,679. (No model.)

To all whom it may concern:

Be it known that I, MARCUS M. WHIPPLE, 2d, of Sharon, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Knife-Adjusters; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to knife-adjusters for leather-splitting machines.

The object of the invention is to so construct the knife-jaws of leather-splitting machines that much of the wear on the jaws is prevented by reducing the vibration of the knife.

Another object of the invention is to adjust the knife with relation to the back plate, whereby the action of the knife-edge on the leather is made more accurate and the stoppage of the machine by reason of the knife riding under the back plate is obviated, as well as the wear on the parts of the machine resulting therefrom.

The invention consists in an upper jaw provided with independently-adjustable bearing portions which bear on the surface of the back plate and of the knife.

The invention also consists in the construction of the upper jaw in combination with the adjustable sections.

The invention still further consists in such other novel features of construction and combination of parts as shall hereinafter be more fully described, and pointed out in the claims.

Figure 1 represents a vertical sectional view of the knife-jaws of a leather-splitting machine with the feed and gage rolls and a piece of leather passing therethrough and being cut by the knife. Fig. 2 represents a similar view, on an enlarged scale, of portions of the same. Fig. 3 represents a bottom plan view of the upper jaw, showing one of the adjustable sections removed.

Similar numbers of reference designate corresponding parts throughout.

In leather-splitting machines of this nature the knife consists of an endless band of steel which passes over guides and lengthwise between a pair of jaws adjusted as closely to the movable knife as possible without obstructing the driving of the same. This is necessary by reason of the accuracy with which the edge of the knife should follow a straight line as the leather is carried forward to the knife. Notwithstanding the bearing of the jaws on the knife it is found that as the knife is driven in its course constant vibration of the knife results from the nature of its material and from the manner in which it is mounted and driven. This vibration of the knife unduly wears the jaw-plates, necessitating the mounting of the jaws so that their front edges may be brought closer together. The jaws are also worn unevenly, which prevents their accurate adjustment, and the knife has a tendency to ride under the back plate and between the same and the lower jaw, requiring the stopping of the machine and complete readjustment of the jaws and knife.

In carrying my invention into practice I form in the upper jaw 5 and its plate 6 a series of concavities 7 7, which are connected by the screw-threaded perforations 8 8 with the upper surface of the jaw 5. In each of the concavities 7 7 is seated a presser-button 9, having an upper surface corresponding to the shape of the concavity and a smooth lower surface. This button, presser, or section 9 is furnished with a screw-threaded stem 10, working in the screw-threaded perforation 8 and having an upper end adapted to be engaged by a tool to turn the stem 10, and thus elevate or depress the button to adjust its bearing on the knife.

When the various parts are assembled, the lower jaw 11 supports the knife-blade 12 and the back plate 13, both of which are of the construction well known in this class of machines, the back plate 13 forming a rear abutment to prevent the rearward movement of the knife when the leather is brought against its edge. Above the knife and the back plate is mounted the upper jaw 5, provided with the adjuster-buttons 9 9, which are adjusted to bear on the upper surfaces of the knife and of the back plate, so that both are maintained in corresponding alinement and the knife is prevented from riding under the back plate. From time to time the presser-buttons may be adjusted in accordance with any change of vibration in the knife and to reduce the same.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a knife-adjusting device for leather-splitting machines, the combination with the lower jaw, the knife, and the back plate, of the upper jaw having recesses, and independently-adjustable pressers contained within said recesses and adapted to be adjusted to bear on the knife and on the back plate.

2. The combination with the jaw 5 having the concavities 7 7 and the screw-threaded perforations 8 8, and the buttons 9 9 seated in said concavities and having the threaded stems 10 10 engaged in the perforations, of the lower jaw 11, and the back plate 13 and knife 12 supported thereby.

MARCUS M. WHIPPLE, 2ND.

Witnesses:
H. J. MILLER,
A. E. DENISON.