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Crimper.

No. 119,234.

Patented Sep. 26, 1871.

Fig. 1.

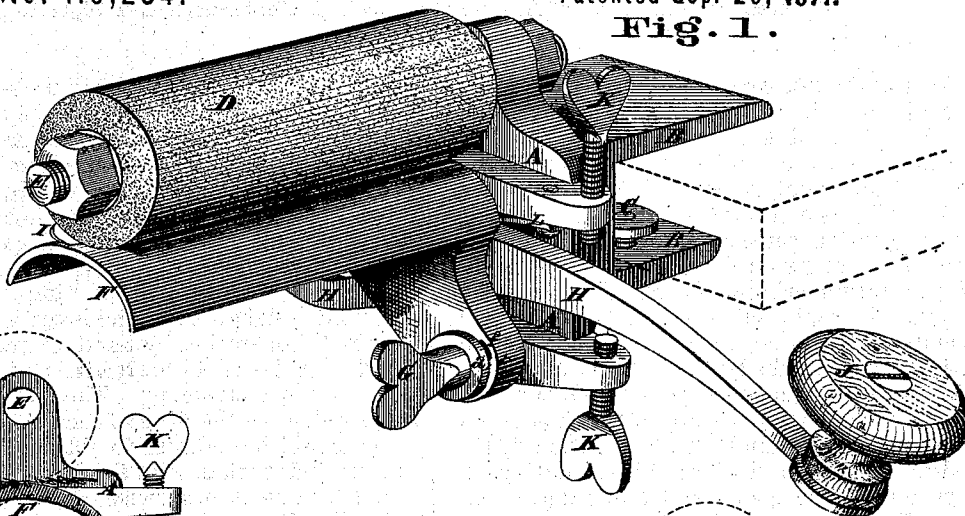


Fig. 3.

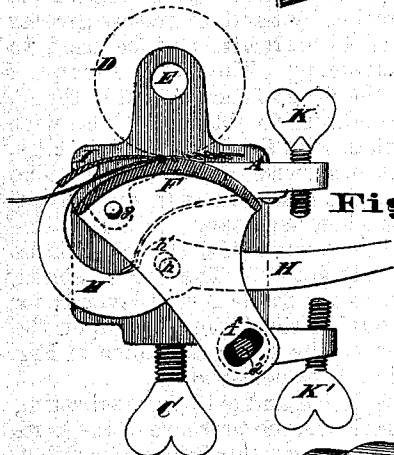


Fig. 2.

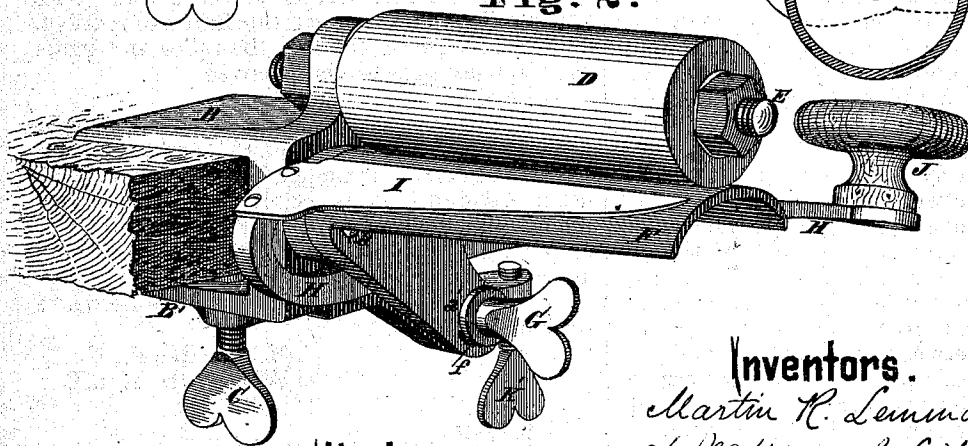
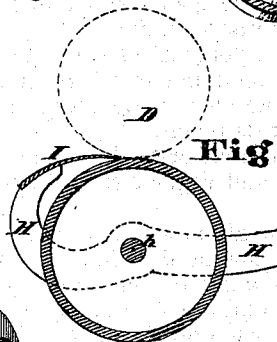


Fig. 4.



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UNITED STATES PATENT OFFICE.

MARTIN R. LEMMAN AND WILLIAM A. L. KIRK, OF HAMILTON, OHIO.

IMPROVEMENT IN CRIMPING-MACHINES.

Specification forming part of Letters Patent No. 119,234, dated September 26, 1871.

To all whom it may concern:

Be it known that we, MARTIN R. LEMMAN and WILLIAM A. L. KIRK, both of Hamilton, Butler county, State of Ohio, have invented a certain new and useful Crimping-Machine, of which the following is a specification:

Our invention consists, in the first part, of a combination of two rollers or pressure-guides, and a vibrating crimping-knife adapted to form and press in rapid succession folded crimps in the material operated upon, the object of our invention being to do by a machine capable of rapid operation a class of work which cannot be done by fluting-machines, and which has heretofore been done by hand. Our invention further consists in certain devices for regulating the pressure upon the goods and adjusting the motion of the vibratory knife.

Figure 1 is a perspective view of a machine or instrument embodying our invention in its preferred form, the view being taken from the rear side of the instrument. Fig. 2 is a perspective view from the front or feeding side. Fig. 3 is a cross-section, and Fig. 4 a modification in cross-section.

The instrument shown in the drawing is one adapted to be operated by hand; but our invention can as readily be operated by treadle or power as by hand. The frame A is formed with jaws B B' and set-screw C for convenient attachment to a table. A roller, D, preferably of India rubber or other elastic material, revolves upon a fixed spindle, E, secured to frame A, the roller being properly bushed with metal. A curved guide, F, between which and roller D the material to be crimped is pressed, is pivoted to the frame A at *a*, and also secured by thumb-screw G to frame A at *a'*. The guide is constructed with a slotted hole, *f*, to permit of its adjustment, to give a greater or less pressure upon the goods. Between the guide F and the frame A a lever, H, is pivoted at *h* to the frame, which carries on its forward end a knife, I, fitting between roller D and guide F, and upon its rear end a handle, J, for the hand of the operator. The motion of the lever H is limited in

both directions by adjustable thumb-screws K K'. This adjustment of the motion of the lever enables the crimps to be made of exactly uniform width of fold as far as desired, and permits of the width being changed at will by an increase or decrease in the motion of the lever. The motion of the lever being limited exactly by the screws K K', the fold or crimp cannot exceed or fall below a certain width of crimp, which can be repeated indefinitely. The lever is adapted for very rapid operation by hand, but where greater rapidity is desirable a treadle may be used to operate the instrument. The guide F may, if preferred, have the form of face shown in Fig. 3, which enables the knife to fold the crimp with greater facility than with the form shown in Figs. 1 and 2; but is otherwise objectionable. The guide F may also be made circular, for convenience of heating when necessary. It may in this case be left free to revolve, and the roller D be made vertically adjustable. The curved spring L is fitted between the frame A and lever H for the purpose of forcing the knife down upon the goods, the center of the lever, as shown in Fig. 3, being slotted at *h'* to permit of it.

The material is folded and fed by the vibrating knife I and the roller D, the pressure of the knife against the roller causing the latter to revolve. As the goods pass between the roller and guide the requisite pressure is imparted.

We claim—

1. In combination with the roller D, guide F, and knife I, the slotted lever H *h'* and the spring L, the parts being arranged, in relation to one another, substantially as set forth.

2. In combination with the roller D and knife I, the adjustable guide F *a f* G, as described, and for the purpose described.

In testimony of which invention we hereunto set our hands.

M. R. LEMMAN.
WM. A. L. KIRK.

Witnesses:

FRANK MILLWARD,
J. L. WARTMANN.

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