

(No Model.)

J. M. HARRISON.
PATTERN PLATE.

No. 463,603.

Patented Nov. 17, 1891.

Fig. 1.

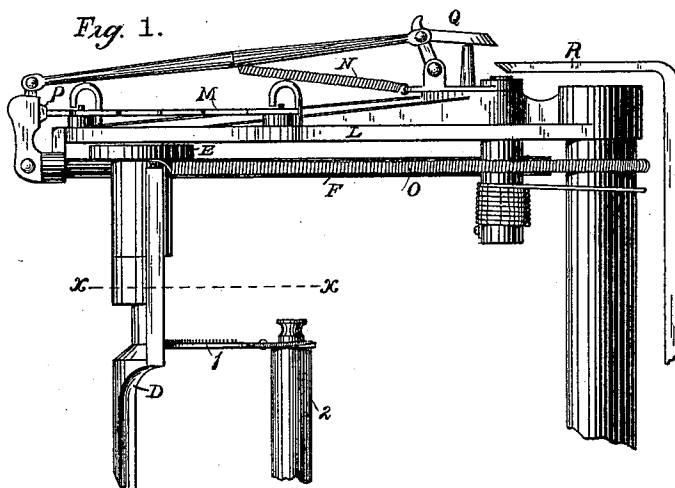


Fig. 2.

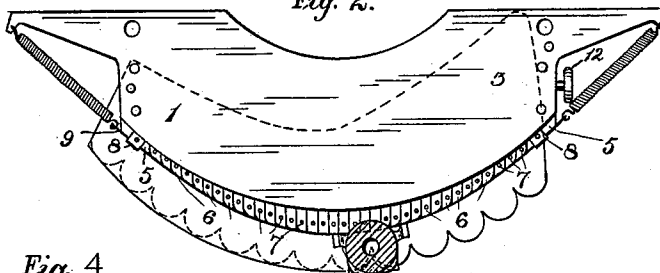


Fig. 4.

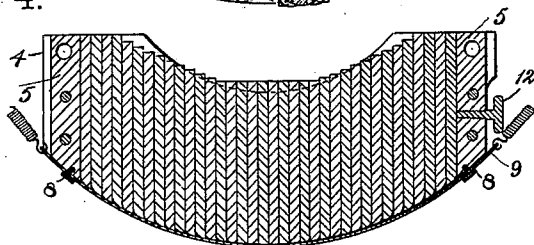


Fig. 6.

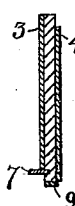


Fig. 3.

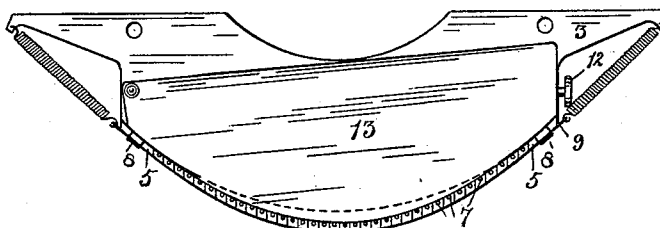
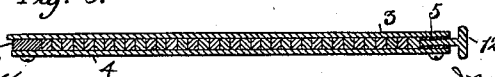


Fig. 5.



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PATTERN-PLATE.

SPECIFICATION forming part of Letters Patent No. 463,603, dated November 17, 1891.

Application filed June 15, 1891. Serial No. 396,327. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. HARRISON, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Former or Pattern Plates; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.

My present invention has for its objects to provide an improved former or pattern plate particularly adapted for machines in which a cutter or marking-tool is made to traverse a certain path to mark or cut goods according to the contour of said patterns, but which can be used as a pattern to mark or cut goods by hand.

Heretofore it has been necessary to employ a separate former for each different style of article, and as their first cost is considerable a great outlay is necessary to perfectly equip a factory where a great variety of goods is made.

With the object in view, therefore, of reducing the cost of the devices and at the same time increasing their usefulness my invention consists in an improved former, which can readily be adjusted for any style of article; and it further consists in certain novelties of construction and combinations of parts, all as will be hereinafter described, and the novel features pointed out particularly in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a side view of a button-fly-scalloping machine, showing the application of my invention thereto. Fig. 2 is a sectional view on the line *xx* of Fig. 1, showing the former in plan; Fig. 3, a plan view of the former, showing the manner of adjusting it; Fig. 4, a horizontal sectional view; Fig. 5, a longitudinal and Fig. 6 a cross-sectional view.

Similar reference numerals and letters in the several figures denote similar parts.

I have shown my improved former applied to a machine for scalloping button-flies for shoes, such as is contained in Patent No. 372,618, dated November 1, 1887, D indicating the cutting-chisel; E, the head thereof; F, the

arm carrying the chisel; L, the plate for depressing the chisel; M, the ratchet-segment for limiting the lateral movements of arm F; N, the spring for rotating arm F; O, the spring drawing the chisel inward and holding it against the former; P, the catch co-operating with the ratchet-plate, and Q the latch for operating it, actuated by the stationary arm R when the plate L is reciprocated.

The parts are well known, and therefore their specific construction and operation need not be herein described further than that the plate L is depressed to bring down the head carrying the cutting-chisel, the lateral movement of which is governed by the ratchet-plate, the catch releasing one tooth and allowing the spring to move said head to the next, when the plate L is moved upward after cutting one scallop. The radial movements of the chisel are governed by the edge of the former or pattern-plate 1, forming the subject of my present invention, said former being adapted to be mounted on standards or posts 2, secured to a presser-plate, as ordinarily, to the bed of the machine, or it may be secured to any other suitable support, or, if desired, used without a support resting on the goods themselves.

In making my former I prefer to employ a frame consisting of two plates 3 and 4, connected together at opposite ends by suitable blocks 5, leaving a space between them sufficient for the accommodation of a series of blocks or slides 6, each having a pin 7, projecting from its upper surface near the outer end, and preferably rounded off on the outer end, so that when in extreme inward position, with the pins T engaging the edge of upper plate 3, (which is preferably curved, as shown, or another suitable stop,) said ends will also form a practically continuous curve.

Upon the outer edge of the frame formed by the plates 2 and 3 are arranged loops or guides 8, through which pass the ends of a strip 9, preferably of flexible spring metal held against the ends of the blocks 6 by means of springs 10, secured to one or both of its ends, as shown, which also tend to return the blocks to their inner position with their pins 7 against the edge of plate 3. This strip 9 serves as a surface against which the

cutting-chisel or marking device is held, and its contour is regulated by the projection of the blocks, and determines that of the article being cut or marked.

5 At one or both ends of the frame carrying the movable blocks is a screw 12, operating when screwed in to clamp the blocks together and to the frame, holding them in their adjusted position.

10 The operation of setting the former or gage will now be understood. The operator is provided with a number of patterns 13, which may be of wood or light metal and provided with a small pin in one end, as shown in Fig. 3 in dotted lines, each pattern having the contour of the button-fly or other article it is desired to form. Assuming the blocks 6 are all retracted, with their pins 7 against the edge of plate 3, the operator, taking one of the
15 plates 13, being the pattern he wishes to cut or mark, inserts its pivotal pin in the aperture in plate 3 and turns its free end outward, as in Fig. 3, when its edge will engage the pins 7 and move the blocks 6 outward until the
20 strip 9 is in proper position, conforming to the edge of pattern 13, when the blocks are secured by means of the screw 12 and the former is ready to properly guide the tool operating against the strip. This former could
30 be used whenever desired and for whatever purpose, the machine to which it is shown attached being but one of the many ways in which it may be utilized—as, for instance, it could be used with good effect for cutting the
35 uppers of shoes, the operator passing his knife around the edge the same as he now does with a single metallic pattern-plate.

Numerous modifications could be made without departing from the spirit of my invention, as the outer strip 9 could be dispensed with and other means employed for retracting the sliding blocks, and instead of providing the pivot-pin on the pattern-plate 13 the latter could be moved into position, being
45 guided in its movements by suitable means. However, I prefer the arrangement shown, as

I have found it admirably adapted for the purpose.

It will be understood that instead of setting the former by means of the pins on the sliding blocks the edge of the pattern 13 could, if desired, be placed against the rear edges of the blocks, moving them and the strip 9 outward the required distance.

I claim as my invention—

1. The combination, with the frame, of the series of abutting and longitudinally-movable blocks arranged therein, having the curved faces for the ready passage of a cutting or marking tool, and also the projecting pins for the engagement of the edge of a pattern, and the clamp for securing the blocks together and to the frame, substantially as described.

2. The combination, with the frame, of the series of abutting and longitudinally-movable blocks therein, the flexible strip, supporting devices for holding said strip against the blocks and forming a smooth surface for the operating-tool, and a clamp for securing the blocks together and to the frame, substantially as described.

3. The combination, with the frame, of the series of abutting and longitudinally-movable blocks therein having the projecting pins for co-operating with the pattern, the flexible strip-supports for holding it against the outer ends of said blocks and forming a smooth surface for the operating-tool, and a clamp for securing the blocks together and to the frame, substantially as described.

4. The combination, with the frame, of the series of sliding blocks therein, each having a pin projecting above the top of the frame, the strip of spring material at the outer ends of the blocks and guides for it, a spring connected to said strip, and a clamp in the frame for securing the blocks in adjusted position, substantially as described.

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Witnesses:

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