

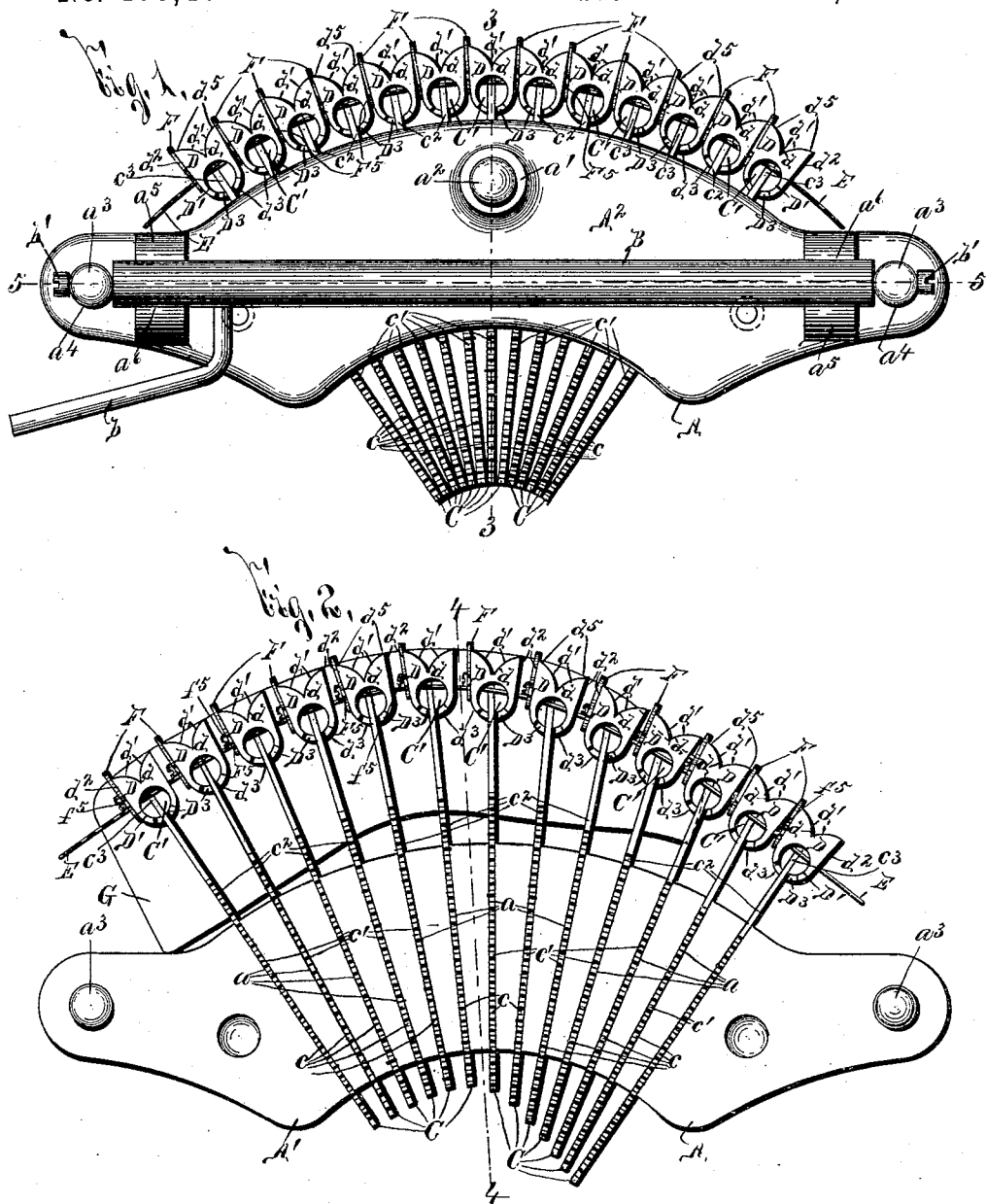
(No Model.)

2 Sheets—Sheet 1.

H. LOEWER.  
SCALLOPING MACHINE.

No. 486,408.

Patented Nov. 15, 1892.



WITNESSES:

*W. C. Chase,*  
*G. A. Wright.*

INVENTOR

*Henry Loewer*

BY

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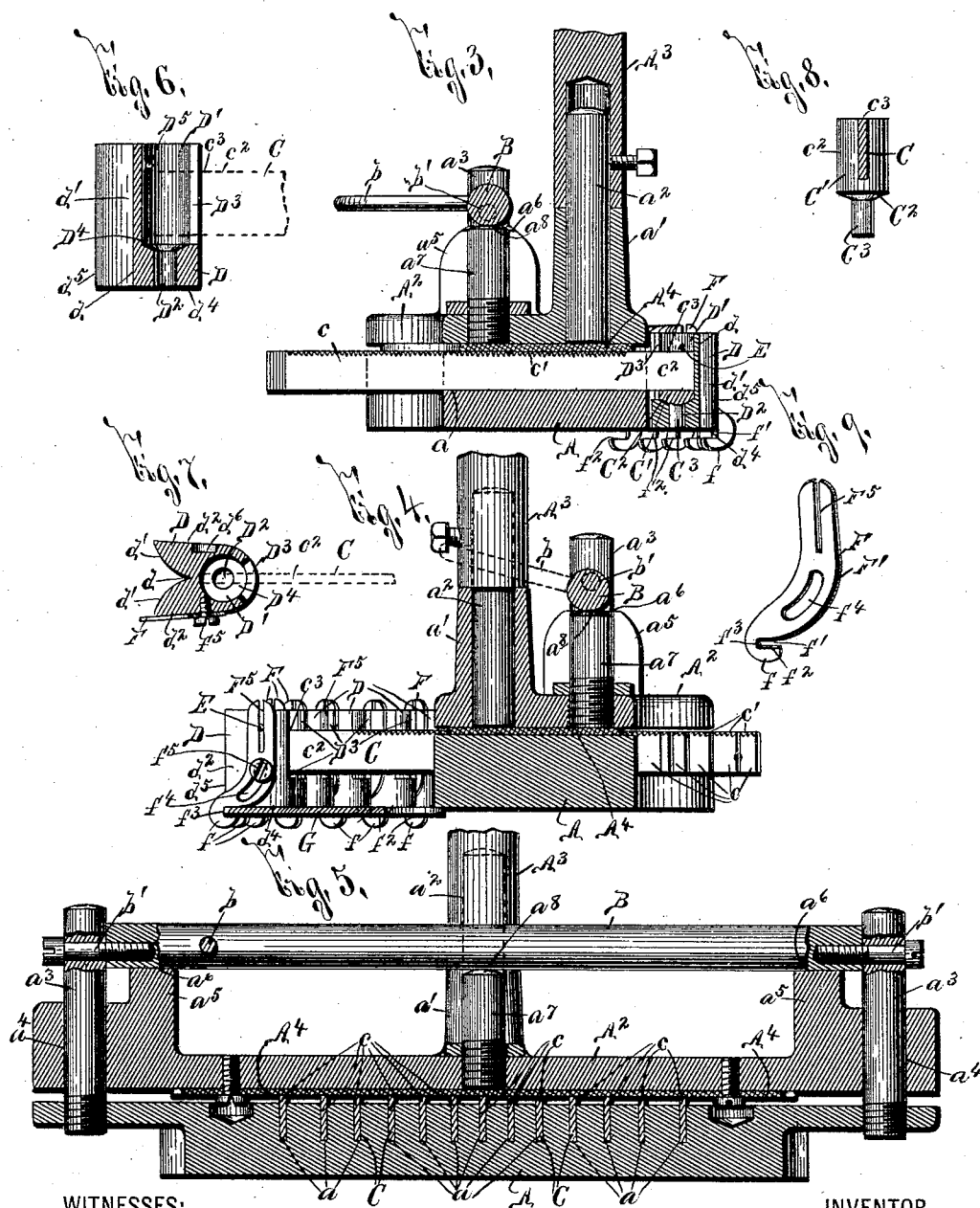
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# UNITED STATES PATENT OFFICE.

HENRY LOEWER, OF ROCHESTER, NEW YORK.

## SCALLOPING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 486,408, dated November 15, 1892.

Application filed April 15, 1892. Serial No. 429,242. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY LOEWER, of Rochester, in the county of Monroe, in the State of New York, have invented new and useful Improvements in Scallop-Machines, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in scalloping-machines, and has for its object the production of a simple, practical, and efficient attachment which can be readily adjusted to the required size of the scallop or the conformation of the pattern or the article to be scalloped; and to this end it consists, essentially, in a frame having radial guide-ways, a series of bars or arms adjustably mounted in said guideways and formed with serrations along corresponding edges, a movable plate for engaging the serrations of the bars or arms, and heads hinged to the outer extremities of the arms or bars.

The invention furthermore consists in a flexible connection between the heads, a pattern-holder adjustably supported between adjacent heads and arranged with its lower end adapted to project beneath the plane of the lower faces of the heads and beyond the plane of the outer faces thereof, and in the detail construction and arrangement of the parts, all as hereinafter more particularly described, and pointed out in the claims.

In describing this invention reference is had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

Figure 1 is a top plan view of my invention, illustrating the general construction and arrangement of the parts. Fig. 2 is a similar top plan view, the upper plate for securing the bars or arms in position being shown as removed and the parts as adjusted to conform to a pattern shown as operatively engaged by the pattern-supports. Fig. 3 is a transverse vertical sectional view taken on line 3 3, Fig. 1. Fig. 4 is a similar vertical sectional view taken on line 4 4, Fig. 2, illustrating the opposite side of the attachment to that shown at Fig. 3. Fig. 5 is a longitudinal vertical sectional view taken on line 5 5, Fig. 1. Figs. 6 and 7 are respectively vertical and hori-

zontal sections of one of the detached heads secured to the adjustable bars or arms, the adjacent end of one of the bars being shown by dotted lines and the pattern-support being shown in section at Fig. 7. Fig. 8 is an elevation of the detached end of one of the bars or arms, and Fig. 9 is an isometric perspective of one of the detached pattern-supports.

It is well known that there has been a demand for a cheap and practical device for facilitating the formation of scallops of economical manufacture and capable of ready adjustment to the required size of the scallops and the conformation of the pattern or the article to be scalloped, and by my invention I produce a device possessing these qualifications, as will be readily apparent upon reference to the following description and the accompanying drawings.

The frame A of my attachment is of desirable form, size, and construction, and, as here shown, consists of the base-plate A', formed with radial guides or upright slots a, and the top plate A<sup>2</sup>, provided with an upwardly-extending hub a' and a spindle or cylindrical spur a<sup>2</sup>, rising from the hub and adapted to be attached to a support A<sup>3</sup>, not necessary to specifically illustrate or describe, it being understood that it is preferably reciprocal for moving the frame toward and away from the articles to be scalloped.

At the ends of the base-plate A' are upwardly-extending cylindrical arms a<sup>3</sup>, passed through openings a<sup>4</sup> in the corresponding ends of the top plate A<sup>2</sup>, and eccentrically pivoted to the upper projecting ends of these arms is a cross-bar B. At the inner side of the openings a<sup>4</sup> are upwardly-extending ears a<sup>5</sup> on the top plate A<sup>2</sup>, which are each formed with a top bearing-face a<sup>6</sup>, and midway between these ears is a central ear a<sup>7</sup>, having an upper bearing-face a<sup>8</sup>. The cross-bar B is formed with a crank-arm b for rocking the same on its eccentric trunnions b', journaled in the arms a<sup>3</sup> a<sup>3</sup>, and as the crank-arm is forced downwardly into its position shown at Fig. 4 the cross-bar B bears against the faces a<sup>6</sup> a<sup>6</sup> and a<sup>8</sup> and forces the top plate A<sup>2</sup> of the frame firmly against the lower plate A'. To separate the plates A' A<sup>2</sup>, the crank-arm b is forced upwardly, rocking the cross-bar B, and the lower plate A' by force of gravity feeds

downwardly, drawing the cross-bar B against the faces  $a^6 a^6 a^8$  upon the top plate, which, as previously stated, is mounted on a support  $A^3$ .

5 C C represent bars or arms having one end  $c c$  adjustably movable in the guides  $a a$  of the frame base-plate  $A'$  and their corresponding upper edges adapted to project slightly above the top face of the base-plate  $A'$  and  
10 formed with serrations  $c'$ , adapted to be engaged by the under face of the top frame-plate  $A^2$ , which is preferably provided with a yielding face-plate  $A^4$  of suitable material for firmly holding said bars in their adjusted position.

15 D D are heads provided upon the outer ends  $c^2 c^2$  of the bars or arms C and formed with inwardly-extending grooves  $d$  in their outer faces, having curved sides  $d' d'$  extending toward the adjacent sides  $d^2 d^2$  of the heads. The outer faces of these heads D D form, essentially, the outer face of the bars or arms C C, even though I preferably hinge said heads to the bars for rendering my invention particularly practical and efficient.  
25 The opposite sides  $d^2 d^2$  of the preferable form of head D taper slightly outward, and the rear side  $d^3$  of the head is convexly-curved and is provided with a socket  $D'$ , having its lower extremity  $D^2$  of less diameter than its upper extremity, and with an upright slot  $D^3$ , opening into the upper end of the socket. The outer end of each of the bars or arms is formed with an enlargement  $C'$ , registered with  
30 the upper portion of the socket  $D'$ , an annular shoulder  $C^2$ , adapted to rest upon the shoulder  $D^4$  of the socket  $D'$ , and a depending nipple  $C^3$ , adapted to enter the lower portion  $D^2$  of the socket  $D'$ . It will thus be seen  
40 that the heads D D are removable from their respective supporting bars or arms and are movably mounted thereon, so as to permit of an independent hinge movement of each head D upon its respective supporting-arm, thereby greatly aiding the formation of scallops of corresponding contour. These heads D D are connected together by a suitable connection E, consisting, preferably, of a spring-wire passed through openings  $D^5$  in the upper portion of the heads directly above the upper  
50 face  $c^3$  of the bars C, whereby the spring serves, also, to connect said heads to their respective arms.

The bars C are independently adjusted outwardly to the desired degree, and the heads D have an independent hinge movement upon said bars, which is restrained or governed by the flexible connection E, so that the adjacent sides of the heads are comparatively close together and substantially equidistant, and the adjacent sides  $d' d'$  of the slots  $d$  in the adjacent heads form segments of a series of broken scallops. When the bars are adjusted as described, the top plate  $A^2$  is forcibly  
55 clamped against the inner ends thereof for preventing their disarrangement.

In use the operator adjusts the bars, as de-

scribed, to the required number of scallops and the conformation of the pattern or the article to be scalloped, clamps the bars in their  
70 adjusted position, brings the attachment into contact with the articles to be scalloped, which are arranged beneath the front ends of the bars C, and guides his cutting-tool along the curved outer faces of the heads D.

75 In order to facilitate the adjustment of my attachment to a pattern, I provide the same with a series of pattern-holders F. (Best seen at Figs. 1, 2, 4, and 9.) As here illustrated, these holders consist of metallic plates, which  
80 may be readily stamped from sheet metal at a minimum expense and are adjustably mounted between the adjacent sides of the heads D.

The lower end  $f$  of the pattern F is formed with a slot  $f'$ , having a lower shoulder  $f^2$ , arranged normally beneath the lower faces  $d^1$   
85 of the heads D for supporting a pattern G, Fig. 2, and a forward shoulder  $f^3$ , normally in advance of the extreme front surface  $d^5$  of the heads D, so as to provide for the ready removal of the pattern from beneath the heads  
90 when desired to use the attachment and the presence of sufficient material in advance of the heads to permit of the required trimming along the scalloped edge of the article to be scalloped. The central portion  $F'$  of the pattern-holder is curved rearwardly and upwardly and is formed with a correspondingly-curved slot  $f^4$ , with which is registered a screw  
95  $f^5$ , secured to the adjacent face of the head D for supporting said pattern, as seen at Fig. 7. The opposite face of the adjacent head is formed with a cut-out  $d^6$  for receiving the head of said screw when desired to closely approximate the adjacent sides of the heads.  
100 The upper extremity of the pattern-holder is formed with an upright slot  $F^5$  for receiving the wire or flexible connection E and causing the lower end  $f$  of said pattern-holder to rock inwardly as my improved attachment is forced toward the article to be scalloped and the pattern-holder raised upwardly by encounter with said object.

105 It will thus be understood that when my improved attachment is in operative contact with the article to be scalloped the pattern-holders are, with the exception of their upper extremities, entirely concealed between the adjacent heads, and that since their lower ends are readily forced upwardly and rocked  
120 inwardly they do not retard the formation of the scallops.

The operation of my invention will be readily understood upon reference to the foregoing description and the accompanying drawings. It will be particularly noted that the frame is simple, the bars or arms readily adjustable, the heads readily attached to the bars and capable of independent movement thereon, the pattern-holders particularly effective for holding the pattern and of such construction as to be readily forced out of their operative position when desired to form the scallops, and that all of the parts are eco-

nomically constructed, readily assembled, and practical and efficient in operation.

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

1. An attachment for scalloping-machines, comprising a frame, a series of movable bars or arms, removable heads provided upon two or more adjacent bars and having in corresponding faces inwardly-extending grooves formed with curved sides extending toward opposite sides of the heads, and a flexible connection between two or more of the heads, substantially as and for the purpose specified.

2. An attachment for scalloping-machines, comprising a frame, a series of movable bars or arms, removable heads hinged upon the extremities of two or more adjacent bars or arms and having in corresponding faces inwardly-extending grooves formed with curved sides extending toward opposite sides of the heads, and a flexible connection between two or more of said heads, substantially as and for the purpose set forth.

3. An attachment for scalloping-machines, comprising a frame, a series of movable bars or arms, removable heads hinged upon the extremities of two or more adjacent bars or arms and having in corresponding faces inwardly-extending grooves formed with curved sides extending toward opposite sides of the heads, and a spring-wire passed through two or more of said heads, substantially as and for the purpose specified.

4. An attachment for scalloping-machines, comprising a frame having radial guideways, a series of bars or arms lengthwisely movable in said guideways, heads hinged upon two or more of said bars or arms and formed with inwardly-extending grooves having curved sides extending to opposite sides of the heads, and a clamp for holding said arms or bars in their adjusted position, substantially as and for the purpose set forth.

5. An attachment for scalloping-machines, comprising a frame having guideways, arms or bars adjustably movable in said guideways and formed along one of their corresponding edges with serrations, a plate adapted to bear upon said serrated edges, and a clamp for securing said plate in position, substantially as and for the purpose specified.

6. An attachment for scalloping-machines, comprising a frame having guideways, arms or bars adjustably mounted in said guideways

and formed along one of their corresponding edges with serrations, and heads movably mounted upon two or more of said bars or arms, having corresponding faces provided with inwardly-extending grooves formed with curved sides extending toward opposite sides of the heads, substantially as and for the purpose set forth.

7. An attachment for scalloping-machines, comprising a frame, a series of radially-movable bars or arms, heads hinged upon said bars or arms and formed with inwardly-extending grooves having curved sides extending to opposite sides of the heads, and a pattern-holder movably mounted on one of said heads and having its lower end provided with a shoulder projecting normally beneath the plane of the lower faces of said heads, substantially as and for the purpose specified.

8. An attachment for scalloping-machines, comprising a frame, a series of movable bars or arms, heads provided upon said bars or arms, and a pattern-holder having its lower end provided with an engaging shoulder adapted to project beyond the plane of the outer faces of said heads, substantially as and for the purpose set forth.

9. An attachment for scalloping-machines, comprising a frame, a series of movable bars or arms, heads provided upon said bars or arms, and pattern-holders adjustably mounted on said heads and having their lower ends formed with an engaging shoulder projecting normally beneath the plane of the lower faces of said heads, and beyond the plane of the outer faces of said heads, substantially as and for the purpose specified.

10. An attachment for scalloping-machines, comprising a frame, a series of movable bars or arms, heads provided upon said bars or arms, a connection between two of said heads, and a pattern-holder having its upper end engaged with said connection and its central portion adjustably connected to one of said heads, substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Rochester, in the county of Monroe, in the State of New York, this 7th day of April, 1892.

HENRY LOEWER.

Witnesses:

C. B. HATFIELD,  
HAMPDEN HYDE.