2 Sheets—Sheet 1.

H. BORCHARDT.

Shirt-Neck Shaper.

No. 215,204. **Patented May 13, 1879.**

Figure 1.

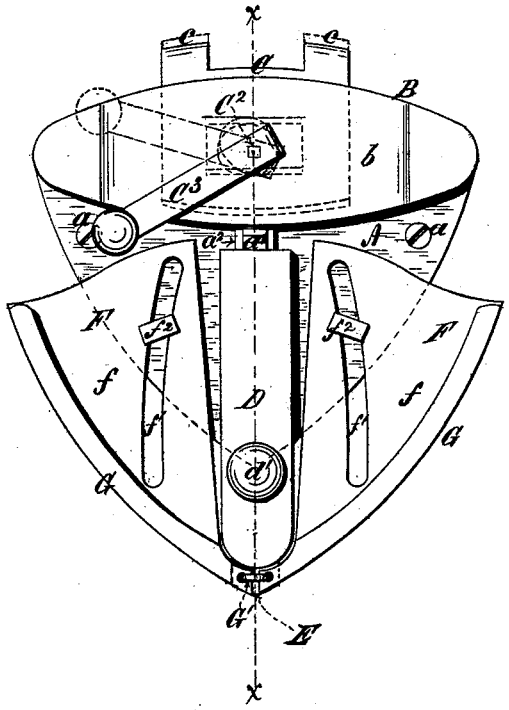
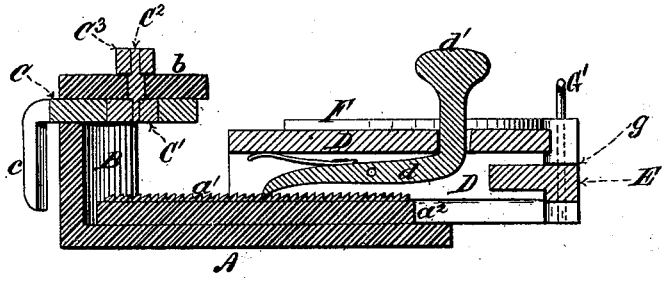


Figure 2.



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Edwd Payson

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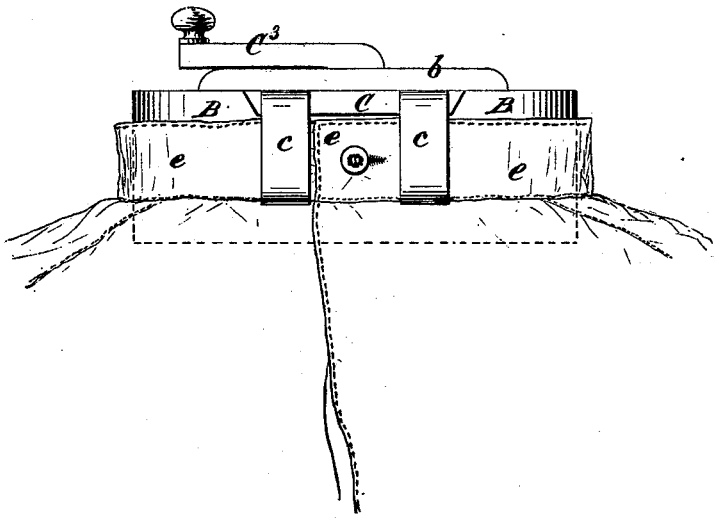
Figure 3.



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UNITED STATES PATENT OFFICE.

HUGO BORCHARDT, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN SHIRT-NECK SHAPERS.

Specification forming part of Letters Patent No. **215,204**, dated May 13, 1879; application filed November 4, 1878.

To all whom it may concern:

Be it known that I, HUGO BORCHARDT, of Bridgeport, Connecticut, have invented certain Improvements in Shirt-Neck Shapers for Ironing-Tables, of which the following is a specification.

My improvements relate to the shirt-neck shaper which forms the subject of Letters Patent of the United States No. 206,856, granted to Albert Borchardt August 13, 1878; and my invention consists in combining with a shirt-neck shaper, substantially such as shown and described in the aforesaid Letters Patent, a device for griping the back portions of the neck-band of a shirt, and holding them against the strain of the expanding wings of the neck-shaper; and, secondly, in the reorganization of the apparatus, by which it is simplified in construction.

The accompanying drawings illustrating my improvements are as follows:

Figure 1 is a top view representing the side wings as partially expanded. Fig. 2 is a vertical section through the line *x x* on Fig. 1. Fig. 3 is an end view, showing the clamping-jaws in operation.

The drawings represent a shirt-neck shaper, consisting of a base-plate, A, which is to be secured by means of the screws *a a* or otherwise to the end of the ironing board or table.

It will be seen that the base-plate has three curved sides, and that its upper end is provided with a vertical curved wall, B, the outer surface of which is intended to hold the back portions of the shirt-neck band, and may be made with a greater or less curve at the will of the constructor.

The wall B is surmounted with the cap *b*, provided in the middle on its under side with a groove for receiving the dovetailed slide C, to the outer end of which the downwardly-projecting clamps *c c* are affixed. The slide C, carrying the clamps *c c*, is moved back and forth by means of the eccentric or cam C^1 on the lower end of the vertical shaft C^2, to the upper end of which the operating-crank C^3 is affixed.

It will be seen that an object—as, for example, a shirt-neck band—introduced between the clamps *c c* and the outer face of the wall B is firmly held when the crank is so turned as to draw in the slide C, and thus cause the clamps *c c* to squeeze the neck-band or other object against the wall B.

The operation of this part of the apparatus will be seen on reference to Fig. 3, which represents the back portion *e* of the neck-band of a shirt in the position in which it is held by the operation of the clamps, the purpose of the clamps being to hold a shirt-neck band which is not provided with a back button, or, if there is a back button, then to hold the band by friction, and thus relieve the button from the strain to which it would be subjected by the stretching of the neck-band upon the apparatus.

In the center of the base-plate A is provided a rack, a^1, which is secured to the top of the tongue or guide a^2, which is affixed to the base-plate, and which has inwardly-inclined sides. This tongue engages dovetailed recesses formed longitudinally on the inner side walls of the slotted actuating-slide D. A spring-pawl, *d*, is transversely pivoted within the slotted actuating-slide D. The lower end of the pawl *d* engages the ratchet-teeth formed in the surface of the rack *a*.

It will be seen in the drawings that when the actuating-slide moves away from the vertical wall B, the pawl rides over the ratchet-teeth, but catches them and prevents the inward movement of the slide. The end of the pawl opposite to that which engages the ratchet-teeth is bent forward and extends through a hole in the top of the actuating-slide, and is provided with a thumb-piece, *d'*. When the thumb-piece is pressed down, the forward end of the pawl is lifted from the rack, and the slide can then be pushed in.

The outer end of the actuating-slide is provided with the projecting tongue E, for the purpose of affording a means of fastening in position the expanding wings F F. Each of the wings F is composed of a flat plate, *f*, resting upon the top of the bed-plate A, and provided with a curved or inclined slot, f^1, for receiving the vertical guide-pin f^2, which is affixed to the bed-plate A. The outer face of the plate *f* is provided with the vertical wall G, which is curved according to the shape which it may be desired to impart to the lower portion of the shirt-neck band.

The lower end of the wall G is provided with the slot *g* for admitting one-half of the tongue E on the outer end of the actuating-slide, and is pivoted to the tongue by means of a vertical wire, or preferably by means of one of the legs of the staple G′, which, it will be seen, extends downwardly through the wall G and the tongue E. As the actuating-slide is moved in and out the side wings swing inwardly or outwardly upon their pivots in obedience to the action of the guide-pin f^2 upon the slot f^1.

It will be seen that as the actuating-slide is drawn out the upper ends of the wings are expanded, and vice versa. When it is desired to take the wings off—as, for example, when wings having a different curve are required to be substituted for the wings previously in use in the apparatus—the staple G′ is pulled out, and each wing is then slipped forward until it can be so turned that the sides of the slot f^1 are brought into line with the sides of the flattened head of the guide-pin f^2, in which position the wing can be slipped off the guide-pin and another wing can be slipped on in its place.

I claim as my invention—

1. In a shirt-neck shaper, an adjustable clamping device, in combination with the vertical wall B, adapted and operating to clamp against the outer surface of the wall B the back portion of the neck-band of a shirt, substantially as set forth.

2. In a shirt-neck shaper, the base-plate A, provided with the rack a^1 and tongue a^2, in combination with the actuating-slide D, provided with a spring-pawl, *d*, substantially as is above set forth.

3. In a shirt-neck shaper, the side wings F F, each provided with an inclined or curved slot, f^1, and pivoted to the end of the actuating-slide, in combination with the guide-pins f^2, as and for the purposes set forth.

HUGO BORCHARDT.

Witnesses:
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