

(No Model.)

M. F. ROBERTS.

DEVICE FOR FOLDING THE EDGES OF WIRE CLOTH, SHEET METAL, &c.

No. 317,857.

Patented May 12, 1885.

Fig. 1.

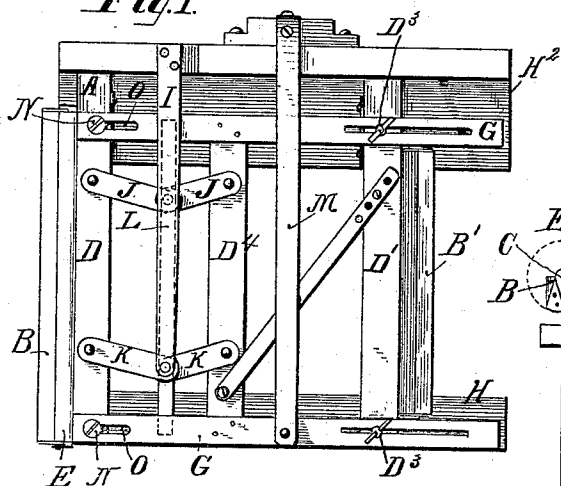


Fig. 2.

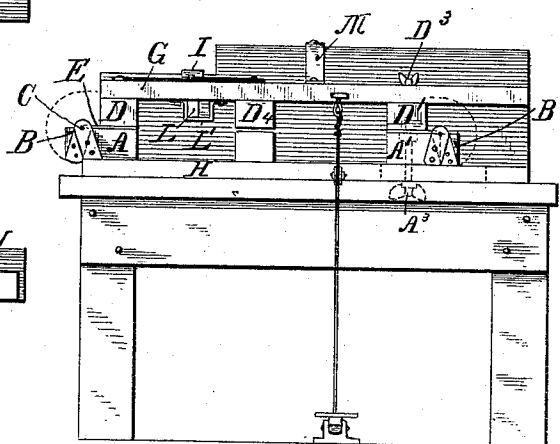


Fig. 7.

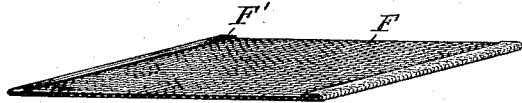


Fig. 6.

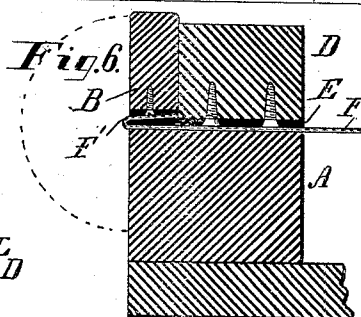


Fig. 3.

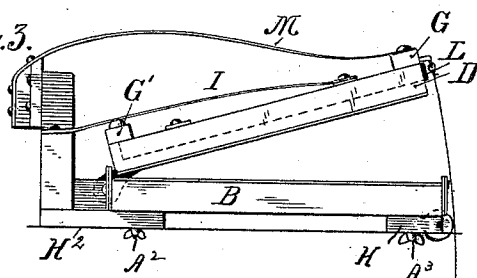


Fig. 4.

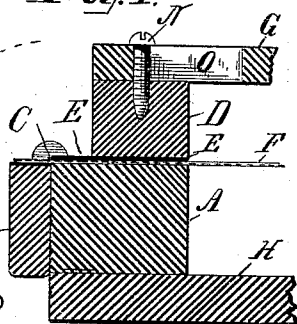
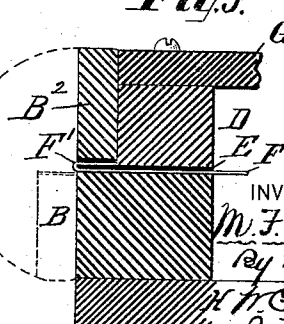


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

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DEVICE FOR FOLDING THE EDGES OF WIRE-CLOTH, SHEET METAL, &c.

SPECIFICATION forming part of Letters Patent No. 317,857, dated May 12, 1885.

Application filed June 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, MORRIS F. ROBERTS, of the city of Philadelphia and State of Pennsylvania, have invented a new and useful Device for Folding the Edges of Wire-Cloth, Sheet Metal, or like Articles, of which the following is a specification.

The object of my invention is the provision of means whereby the edges of sheets of wire-cloth, metal, or like articles of varying lengths may be readily and exactly folded; and it consists as hereinafter described and claimed.

Figure 1 is a top plan view of a device embodying my improvements, and Figs. 2 and 3, respectively, side and end elevations of the same, and Figs. 4, 5, and 6 vertical sectional elevations of those parts of the apparatus through the immediate action of which the edge of the sheet is folded. Fig. 7 is a perspective view of a sheet of wire-cloth provided with folded edges effectuated by the apparatus shown in the drawings, and hereinafter described.

A and B constitute the bed upon which the sheet rests during the operation of folding. The part A is stationary, the part B being hinged thereto at C in such manner that the upper surfaces of said parts, when they occupy the position shown in Fig. 4, form a continuous surface.

E is a plate or former, the front edge of which coincides with the line upon which the parts A and B are hinged together, adapted to be brought into close contact with the upper surface of the stationary part A of the bed.

F represents the body of a sheet of wire-cloth or other article introduced and held between the former E and the bed A B, its front edge being caused, when in position to be folded, to extend forward of the line upon which the parts A and B are hinged together a distance equal to the width of fold to be made, as shown in Fig. 4.

The operation of folding is accomplished by swinging the hinged part B of the bed from the position shown in Fig. 4 to the position B', (shown in Fig. 5,) with the result that that part of the sheet extending forward of the line upon which the parts A and B are hinged together is folded upon the upper forward edge

and surface of the former E and the fold F produced.

The edge or edges of the former E, over which the sheet is to be folded, may be made beveled, as shown in Fig. 6, to facilitate the withdrawal of the former from the fold, as is hereinafter described.

In the drawings, the bed A is shown attached to and supported upon a frame, H H', and the former E is shown attached to a slat, D, which latter is, by means of pins or screws N and slots O O, adjustably attached to a frame, G G', which frame is at one side thereof hinged to the base or frame piece H', or to an extension thereof, as shown in Fig. 3.

M is a spring, one end of which is attached to the frame G G' and the other to the bed H', or to an extension thereof, said spring being adapted to lift and support the frame G G' and former E away from and out of contact with the bed A B until such parts are again brought into contact by a depression of the foot-treadle Q, as shown in Figs. 3 and 4.

I is a rod at one end fixedly attached to the frame H' and at the other end to a sliding bar, L, which is loosely supported in a bracket, L', secured to the under side of the frame G G'. The movable slat D, fixed slat D', and bar L are connected together by the toggle or lazy-tongs joint K K J J. Such being the construction of my apparatus, its operation will be readily understood. The frame G G' being lifted and held in the position shown in Fig. 3, the sheet to be folded may be readily placed upon the bed A B, in the manner above described, and the former E, by means of the treadle Q, be brought into contact with the surface of the sheet supported upon the bed, and the operation of folding be accomplished, as has been hereinbefore explained. The edge of the sheet having been folded, the part B is swung down to the position shown in Fig. 4 and the foot-treadle Q released, with the result that the frame G G' is elevated by the spring M, the upward movement of said frame causing the bar L to be thrust forward, the joint J J K K contracted, and the former E automatically withdrawn from the fold F.

It is obvious that both the forward and rear ends of the apparatus may be provided with

the folding devices above described, as is indicated in the drawings at D' and E', whereby two parallel edges of a sheet may be simultaneously folded; so, also, the parts may be adjusted to fold cloth of various lengths by longitudinally shifting one set of the folding devices to the required position by means of the clamp-screws A³ D³. (Shown in Figs. 1, 2, and 3.)

10 Having thus described my invention, I claim—

1. A device for folding the edge of a sheet of wire-cloth or like article, consisting of a supporting-bed in two parts and of a continuous surface, one part being stationary and the other part being hinged to the stationary part on a line parallel to the line on which the sheet is to be folded, in combination with a former the front edge of which substantially coincides with the front edge of the stationary part of the bed, all so constructed and arranged that the sheet to be folded may during the operation of folding be held between the stationary part of the bed and the former and the edge of the sheet folded by swinging the hinged part of the bed over upon the stationary part, said former being in combination with means for automatically withdrawing it from the fold of the sheet, substantially as specified.

2. A device for folding the edge of a sheet of wire-cloth or like article, consisting of a supporting-bed in two parts and of a continuous surface, one part being stationary and the other part being hinged to the stationary part on a line parallel to the line on which the sheet is

to be folded, in combination with a former the front edge of which substantially coincides with the front edge of the stationary part of the bed, all so constructed and arranged that the sheet to be folded may during the operation of folding be held between the stationary part of the bed and the former and the edge of the sheet folded by swinging the hinged part of the bed over upon the stationary part, said former being in combination with means for automatically withdrawing it from the fold of the sheet and with means for moving said former out of contact with the sheet, substantially as specified.

3. A device for folding the edges of a sheet of wire-cloth or like article, consisting of a bed in two parts, one part, A, being stationary and the other part, B, being hinged thereto, in combination with a former, E, and means for automatically withdrawing said former from the fold of the sheet by the movement of said former away from and out of contact with the sheet, substantially as shown and described.

4. A device for folding the edges of a sheet of wire-cloth or like article, consisting of a hinged bed, A B, former E, slats D D¹, toggle-joint J K, sliding bar L, and rod I, as specified.

In testimony whereof I have hereunto signed my name this 29th day of May, A. D. 1884.

MORRIS F. ROBERTS.

In presence of—

W. C. STRAWBRIDGE,
J. BONSALE TAYLOR.