

UNITED STATES PATENT OFFICE.

JOHN FITZBERGER, OF BALTIMORE, MARYLAND.

BRAKE FOR EDGING ROOFING-TIN.

SPECIFICATION forming part of Letters Patent No. 391,408, dated October 23, 1888.

Application filed March 12, 1888. Serial No. 206,925. (No model.)

To all whom it may concern:

Be it known that I, JOHN FITZBERGER, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in a Brake for Edging Roofing-Tin; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

In turning the edges of sheet metal where long sheets of the metal are employed—such as the courses in roofing—it is necessary that a straight edge be preserved in order that the courses may be properly joined and a smooth and flat seam result. In consequence of the impracticability of rolling these long sheets for transportation after the edges are turned, this operation is usually performed in some convenient vicinity of the roofing, and tools are employed which will, at most, edge but one or two feet at one time.

The object of my invention is to provide a machine which may be easily transported, and by which in one operation a smooth and perfectly straight edge will be turned on a course of sheet metal of any length. To this end I employ the devices hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 shows a front view of the device partly broken away, the folder shown closed. Fig. 2 is a detail of a part of the wedge-bar, showing slot and pin therein. Fig. 3 shows a cross-section through the device, somewhat enlarged and indicated by the line A A, Fig. 1, the folder shown open and the clamping-bar down. Fig. 4 shows a cross-section through the device, somewhat enlarged and indicated by the line B B, Fig. 1, the clamping-bar up and the edge on a sheet of metal partly formed. Fig. 5 is a view looking on the end of the device, shown somewhat enlarged, the folder closed, and the edge on the metal completed.

The same figures refer to the same or similar parts throughout the several views.

The figure 6 denotes what may be termed the "frame" of the device, which is constructed of wood and may be made with all the parts

connected therewith of any desired length, the feet 7 thereon being provided to secure the device in position. This frame 6 is made in the offset form shown in Figs. 3, 4, and 5, the offset being faced with a metallic plate, 8, which serves as a track upon which travels the wedge-bar 9, this wedge-bar being of the form shown in Fig. 1, whereon are the wedge-shaped projections 14, movement being imparted thereto by the lever 10, which is fulcrumed to the frame 6 and connected in the ordinary manner to the wedge-bar, the pin 11 serving to keep the said wedge-bar in position on the plate 8, and the slot 12, Fig. 2, permitting the necessary movement.

Resting upon the wedge-bar 9 is the clamping-bar 13, constructed of wood or metal and having therein the recesses 15, which conform in shape to and fit over the wedge-shaped projections 14, whereby when the wedge-bar is moved in or out a vertical movement is given the said clamping-bar, the pin 11 serving to keep it in position on the wedge-bar and permitting a free vertical movement. Additional support may be rendered the clamping-bar by a bolt, 16, which fits in a slot provided therefor. (Shown in Fig. 4.)

Placed on top of the frame 6 is the former 17, over which the edge of the sheet metal 23 is turned, a space, 18, being formed between the said former and the plate 19, which faces and projects over the top of the clamping-bar 13, this space 18 being of sufficient size when the said clamping-bar is in its lowest position to admit the easy insertion of the edge of the sheet metal to be turned, a pin, 20, which passes through the former 17, the clamping-bar 13, and into the frame 6, serving as a guide to regulate the depth of insertion of the metal and the amount of lap given thereto.

Hinged to the clamping-bar 13, by means of any desired number of hinges 21, is the folding-bar 22, which in Fig. 3 is shown open, the clamping-bar 13 being down, whereby the space 18 admits of the easy insertion of the metal 23, the projecting strips 24, which are placed on the folder 22, serving to give a greater bearing on the metal in the process of turning and to support the sheet of metal in adjusting it to the device, the levers 25 being provided to give greater leverage in turning the folding-bar 22.

In Fig. 4 the clamping-bar 13 is shown in the raised position, the wedge-bar 9 having been moved to the right, Fig. 1, whereby the edge of the metal 23 will be securely clamped and held rigid between the former 17 and the plate 19, with which the top of the clamping-bar 13 is faced, the raising of the said clamping-bar 13 having caused the joint of the hinges 21, which connects the folding-bar 22 thereto, to be in such position that when the said folding-bar is in the closed position the bottom thereof will lap the upper surface of the forming-plate 17, as shown in Fig. 5, and a straight and perfect bend be given the sheet metal its entire length.

It may be seen that the device can be constructed to accommodate a sheet of any length, as the necessary support can be given the folding-bar 22 by the employment of any number of hinges 21, which, as described, do not interfere with the process of forming a perfectly straight lapped edge.

For raising and lowering the clamping-bar 13 there are various devices in common use. I prefer, however, to use the wedge-bar 9 and the levers connected therewith, as the simplest form to perform this operation.

Having described my invention and the manner of operating, what I claim, and desire to secure by United States Letters Patent, is—

1. In a device for bending the edge of sheet metal, the combination of a frame, 6, one side of the said frame extended to support the form-

ing-plate, the forming-plate 17, rigidly secured on the top of and projecting on the inside of the said extension of the frame 6, the gage-pins 20 for gaging the amount of bend to the metal, the clamping-bar 13, arranged to be moved from or toward the said forming-plate 17, mechanism for moving said clamping-bar 13, and the folding-bar 22, hinged to the said clamping-bar by the hinges 21, the said hinges being distributed throughout the length of the said clamping-bar 13 and the folding-bar 22, so as to prevent the sagging thereof, and in such position thereon that when the clamping-bar 13 is in its highest position the folding-bar 22 will lap the said forming-plate 17 and a sharp bend of the metal result therefrom, substantially as shown, and for the purpose set forth.

2. In a device for turning the edge of sheet metal, the combination of the frame 6, the former 17, the clamping-bar 13, provided with a recess on its lower face for receiving the pin 11, the wedge-bar 9, provided with the slot 12 therein, the pin 11, for holding the said wedge-bar and clamping-bar in position, and the folding-bar 22, hinged to the said clamping-bar, for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN FITZBERGER.

Witnesses:

WM. L. BAILIE,
JNO. T. MADDOX.