(No Model.)

C. ROACH.

SHEET METAL BENDING MACHINE.

No. 264,567. Patented Sept. 19, 1882.

Fig. 1.

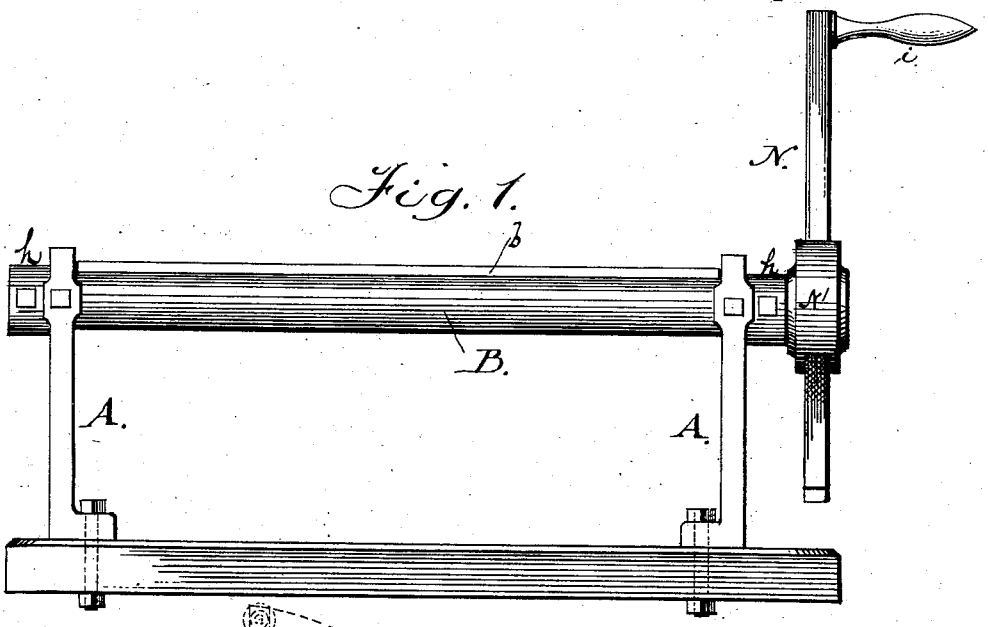


Fig. 2.

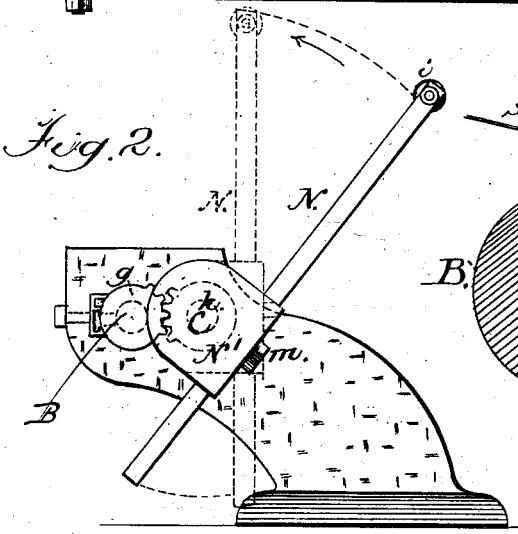


Fig. 3.

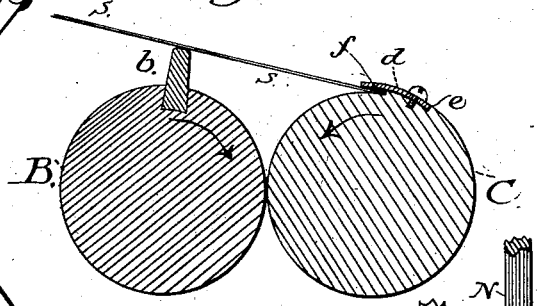


Fig. 4.

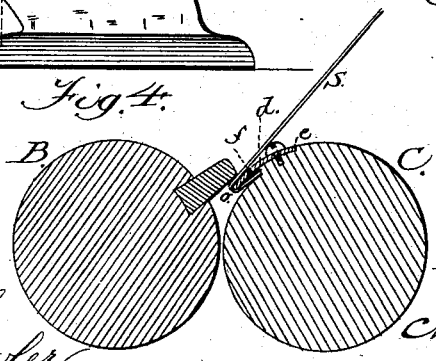
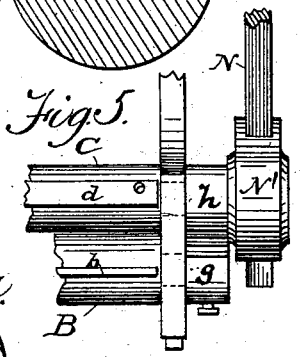


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHESTER ROACH, OF MINNEAPOLIS, MINNESOTA.

SHEET-METAL-BENDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 264,567, dated September 19, 1882.

Application filed July 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHESTER ROACH, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and Improved Sheet-Metal-Bending Machine; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front view of the machine. Fig. 2 is a side elevation. Fig. 3 is a cross-sectional view through the rollers with a sheet of metal inserted to be bent. Fig. 4 is a view of the same with the metal sheet bent. Fig. 5 is a top plan view of one end of the machine.

The object of my invention is to provide a machine which will with facility and certainty bend or fold sheet-iron or other sheet metals; and my invention consists in a pair of rollers, one bearing a holding-lip and the other a projecting tang or rib which are mounted in a frame and so geared that by means of segmental cogs and a crank the rollers revolve toward each other, and as the rib approaches the holding-lip the metal sheet is bent back over the lip by a kind of rubbing-pressure, all of which is hereinafter fully described, and specifically pointed out in the claims.

In order that those skilled in the art may make and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A A represent a frame, in the upper end of which are journaled two rollers, B C, with their axes in the same plane. The front roller, B, has inserted in its circumference in a longitudinal central line a projecting rib, *b*, and in the back roller, C, within a recess, *e*, is set a removable holding-lip, *d*, conforming in some degree to the outline of the roller, and beneath this lip is a space, *f*, to receive the edge of the sheet-metal plate to be folded. As the thickness of lip *d* determines the space within the bight of the bent edge of the metal sheet, lips of varying thickness may be inserted at will to obtain various-sized bights. On the ends of the journals of rollers B and C are segmental cogs *g h*, which, by means of a handle on the back roller, C, operate both rollers simultaneously, their revolution being toward each other. One of the cogs, *g*, is fitted to the spindle by means of a collar and set-screw, so it may be adjusted in relation to the rib on roller B.

The operation is as follows: The rollers being in the position seen in Fig. 3, the sheet of metal S is inserted edgewise within the space beneath lip *d* and resting on rib *b*. The operator then seizes handle *i*, and bringing it toward him the rollers are revolved and rib *b* and lip *d* approach each other until the end of rib *b* rests upon the edge of lip *d*, carrying the sheet of metal over until the fold *o* is made, as seen in Fig. 4. The handle is then pushed back, the rollers retracted, and the folded sheet withdrawn from lip *d*. The handle or crank consists of a square bar, N, which passes through a square hole in a hub, N′, on the journal of roller C, it being secured to the hub at any desired point of its length by means of a set-screw, *m*, whereby the amount of leverage may be increased or diminished.

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

1. In a sheet-metal-folding machine, the longitudinally-ribbed roller B, in combination with the roller C, provided with the longitudinal holding-lip *d*, substantially as and for the purpose described.

2. In a sheet-metal-bending machine, the roller C, provided with a segmental cog, *h*, in combination with roller B, carrying rib or tang *b*, and the adjustable segmental cog *g*, provided with collar and set-screw, all constructed, arranged, and operated as specified.

CHESTER ROACH.

Witnesses:

FRED P. FOSTER,

E. W. ROSSMAN.