

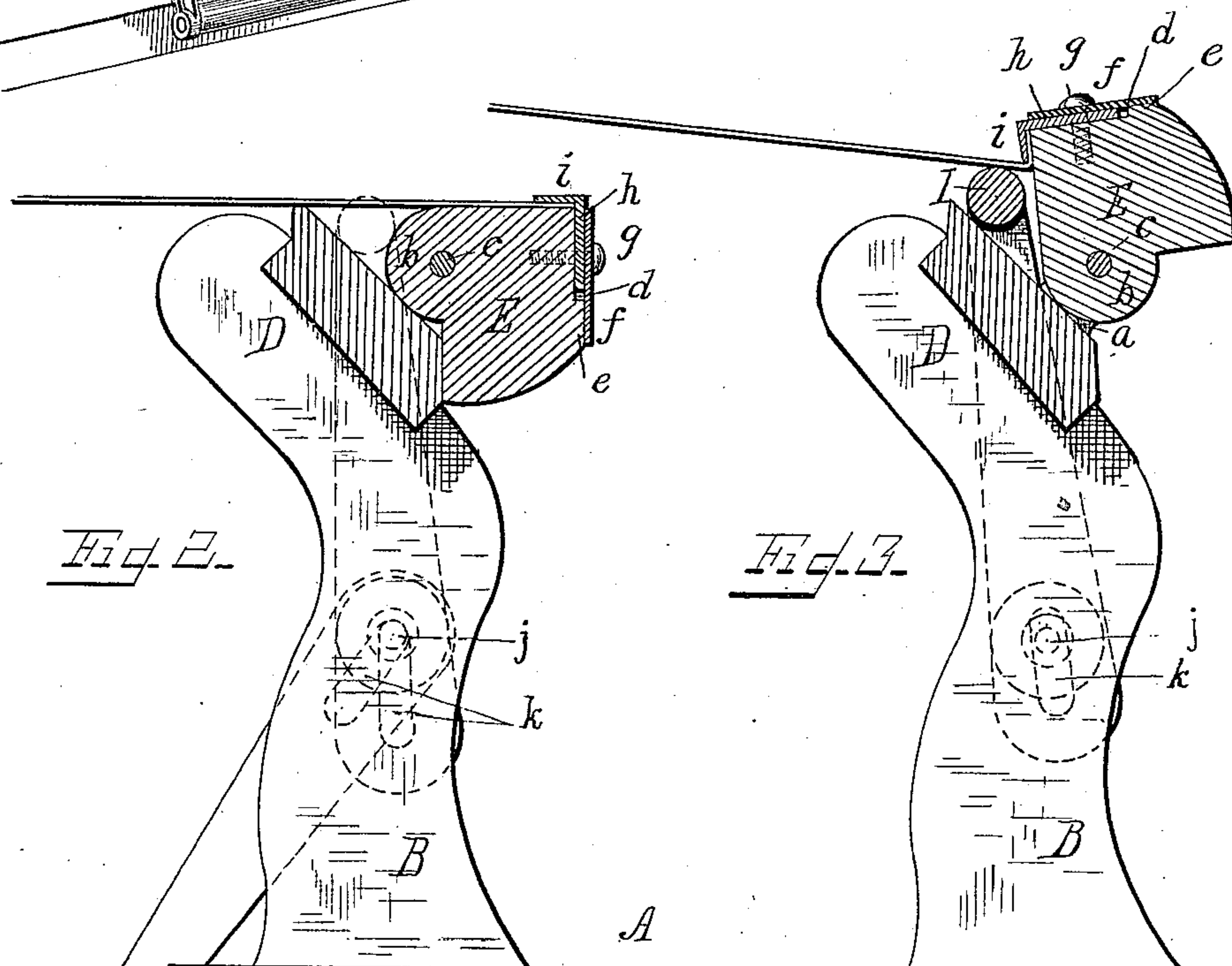
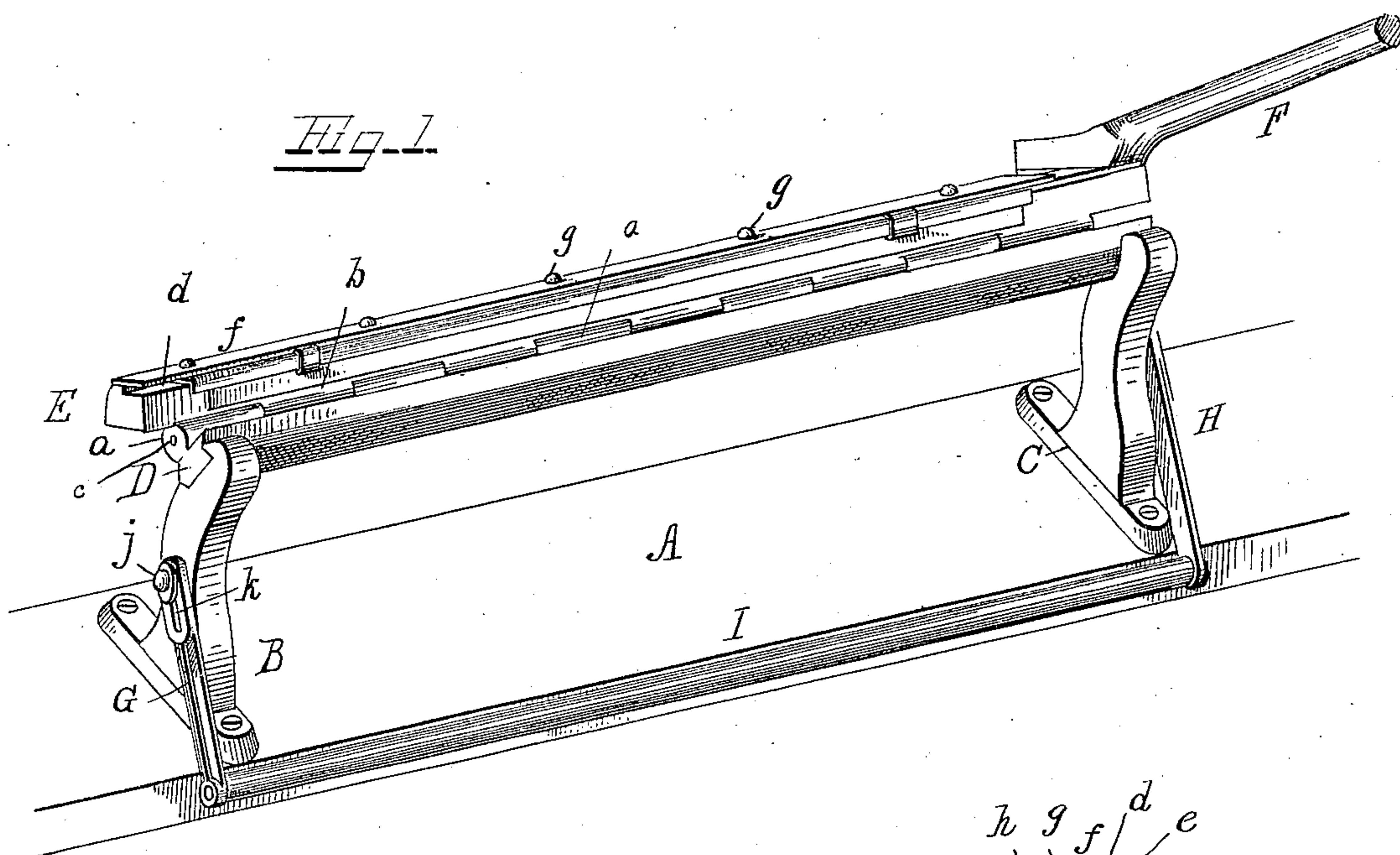
(No Model.)

O. A. FAIRCHILD.

BENDING MACHINE FOR SHEET METAL.

No. 308,349.

Patented Nov. 25, 1884.



WITNESSES  
F. L. Ourand.  
E. Johnson

O. A. Fairchild  
INVENTOR  
Attorney



# UNITED STATES PATENT OFFICE.

ORRIN A. FAIRCHILD, OF SILVER CREEK, NEW YORK.

## BENDING-MACHINE FOR SHEET METAL.

SPECIFICATION forming part of Letters Patent No. 308,349, dated November 25, 1884.

Application filed May 22, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, ORRIN A. FAIRCHILD, a citizen of the United States of America, residing at Silver Creek, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Bending-Machines for Sheet Metal; and I do hereby 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 letters or figures of reference marked thereon, which form a part of this specification.

My invention is a machine for bending sheet metal, and more particularly designed for forming the locking-flanges upon stove-pipe blanks before or after the same have been curved.

In the accompanying drawings, Figure 1 is a perspective view of a bending-machine embodying my improvement, and Figs. 2 and 3 are sectional views illustrating the operation of the machine.

Upon a base, A, are suitably secured two standards, B C, which are inclined on one side, as shown in the accompanying drawings, and are connected together at such inclined sides by a bar, D, which has projecting therefrom a series of perforated ears, *a*. A bar, E, is arranged parallel with the bar D, and also has a series of projecting perforated ears, *b*, which rest between the ears *a*, and are hinged thereto by means of a pivot-bolt, *c*, which passes through the same. The said bar E is provided with a longitudinal depression, *d*, and upon the shoulder *e*, formed by such depression, bears one edge of an elongated plate, *f*, which is rigidly secured in position by means of a series of securing-bolts, *g*, which pass through the plate *f*, and through that portion of the bar E constituting the bottom of the depression *d*, thereby forming a recess between the bottom of said depression and the under side of the plate *f*. A second plate, *h*, is located beneath the plate *f*, and is provided with a series of elongated slots, through which the bolts *g* pass, thereby permitting the plate *h* to play slightly beneath said plate *f*, but

limited in such movement by the bolts *g*. The said plate *h* has a flange, *i*, located at right angles to the plate, and extending parallel with the front face of the bar E. A lever, F, is pivoted upon the bar E at one end of the same, and the end of said lever is connected to the adjacent end of the plate *h*.

The machine thus described embodies nothing new over what is known in the trade as the "Wright Machine." In this machine the edge of the tin to be flanged or bent is placed beneath the flange *i*, as shown in Fig. 2, the lever operated to shift the plate *h*, and thereby clamp the tin beneath the flange, and the bar E then turns its pivot-bolt *c* to the position shown in Fig. 3, thus turning or bending that portion of the metal sheet beneath the flange *i* to a position at about an obtuse angle to the rest of the sheet. For some purposes this angle answers all requirements; but in some instances it is desirable to bend the flange more sharply. This I accomplish by locating a pivot-bolt, *j*, at the outer side and center of each standard B C. Two arms, G H, are pivotally secured to the bolts *j* by reason of the said bolts passing through elongated slots *k* in one end of said arms, the free ends of said arms being connected by a cylindrical rod, I. When the attachment formed by the arms and rod is not used, it occupies the position illustrated in Figs. 1 and 2; but when called into play the arms are swung around on their pivots until the rod I arrives above the space between the bars D E, when the arms are moved down on their pivots and the rod I passes to the position illustrated in dotted lines, Fig. 2. The edge of the sheet metal being then secured beneath the flange *i*, the bar E is then turned on its pivot-bolt *c*, as before described, and the rod I being forced upward from between the bars D E, the sheet metal rides over the same and is bent up at a perfect right or acute angle, according to the adjustment.

From the foregoing it will be apparent that an attachment herein described is capable of effective operation, and may be readily applied to existing machines with but comparatively slight expense.

I claim—

The combination, in a sheet-metal-bending machine, of a frame or stand, a movable bar pivoted thereto and carrying a clamp adapted to embrace the edge of a sheet of metal, and  
5 a pivoted rod constructed and arranged to play between the pivoted bar and the frame, and be forced from between the same when the bar is moved, substantially as set forth.

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

ORRIN A. FAIRCHILD.

Witnesses:

C. A. LANPHERE,  
J. M. SWIFT.