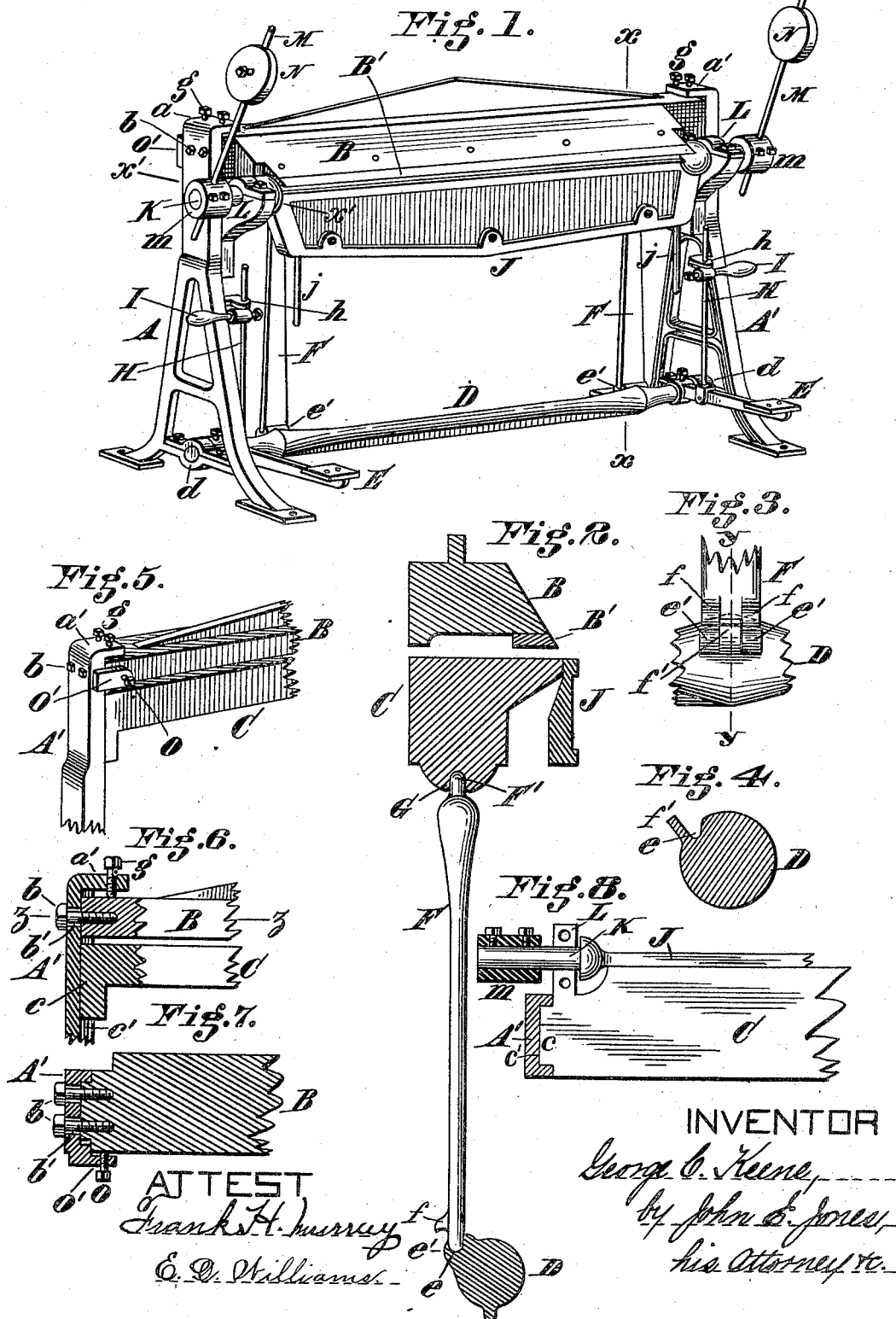


(No Model.)

G. C. KEENE.
CORNICE BRAKE.

No. 301,128.

Patented July 1, 1884.



UNITED STATES PATENT OFFICE.

GEORGE C. KEENE, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO
EDWARD D. CHILDS, OF SAME PLACE.

CORNICE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 301,128, dated July 1, 1884.

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

To all whom it may concern:

Be it known that I, GEORGE C. KEENE, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Cornice-Brakes, of which the following is a specification.

My invention relates to improvements in cornice-brakes, or, more particularly speaking, a machine for bending sheet metal into shape for cornices and other purposes, which will be fully hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view of the machine embodying my invention. Fig. 2 is a vertical transverse section on line *x x*, Fig. 1. Fig. 3 is a broken rear elevation of the rock-shaft and the lower end of one of the vertical bars for raising the clamping or compression table. Fig. 4 is a transverse section on line *y y*, Fig. 3, of the rock-shaft with the lifting-bar omitted. Fig. 5 is a perspective broken view of one of the upper corners of the machine, showing the manner of mounting and adjusting the stationary beam or platen against which the movable table comes in contact when clamping a sheet of metal for bending. Fig. 6 is a longitudinal sectional elevation of the same. Fig. 7 is a sectional plan of Fig. 6 on line *z z*. Fig. 8 is a broken sectional plan on line *x' x'*, Fig. 1, showing the movable clamping-table and the forming or bending apron with one of its pivotal bearings and weight-rod sleeves.

A A' represent the frame-legs of the machine, upon which the working parts are supported.

B represents a stationary table or beam uniting the upper ends of the frame-legs and secured in place by screw-bolts *b*. Beam B is provided with a beveled edge, B', against which the metal is bent into shape.

C represents a movable clamping-table, mounted within the frame-legs, so that its tensioned ends *c c* move vertically in guides *c'*.

D represents a rock-shaft, suitably journaled at its ends in boxes *d* on the frame-legs.

E represents treadle foot-levers, mounted on the rock-shaft for operating it.

F represents vertical bars or rods, resting at their lower ends in recesses *e*, formed by lugs *e'* on the periphery of the rock-shaft, and *f f*

are lugs on the lower end of said vertical bar, between which the lugs *f'* on the said shaft rest to keep the bar in place and serve as stops when the foot-treadles are depressed.

F' are projecting pins or points at the upper ends of bars F, and G are sockets on the bottom of table C, for receiving the pins F'.

H H represent vertical rods pivotally connected at their lower ends to the foot-levers E, and passing through openings in guide-brackets *h*, which project from the inner edges of both frame-legs.

I I represent handles on the rods H, for raising the foot-levers when it is desired to part the tables B and C to release the bent plate.

J represents the former or bending-apron, having short shafts K at its ends, which journal in boxes L, projecting from the movable table C.

j j are operating levers or handles on the bending-apron.

M M represent rods attached to the journals K of the apron by sleeves *m*, and N N are adjustable weights on said rods, for counterbalancing the weight of the apron, so as to facilitate its operation in bending the metal.

In order to adapt my machine to various thicknesses of sheet metal, and to make the clamping pressure thereon uniform, I have provided means for adjusting the stationary beam B, which are as follows: The screw-bolts *b*, for supporting the beam, pass through holes *b'* in the frame-legs, which are of greater diameter than the shanks of the bolts, as shown in Figs. 6 and 7. This permits vertical or horizontal adjustment of said beam when the bolts have been properly loosened.

g g represent bolts or thumb-screws inserted through the flanges *a a'* on the upper ends of the frame-legs. These bolts are employed to adjust the beam B vertically, so that all parts of it will bear uniformly upon the sheet placed between it and the movable table.

O represents bolts passed through lugs O' on said frame-legs, to adjust the beam B horizontally to or from the bending-apron, so that sheets of different thickness can be placed in the machine for bending.

The operation of my machine is as follows: The sheet of metal is placed in the opening be-

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tween the two platens B and C up to the point where it is to be bent. Either of the foot-levers is then depressed, which action partially rotates shaft D and raises the table C and apron J through the medium of the vertical bars F, thereby firmly clamping the sheet between the said tables or platens. Rock-shaft D is rotated just sufficient to bring the bars F in a line with the diameter thereof and temporarily lock them to support the clamping-table C during the succeeding bending operation. The sheet being firmly clamped in place, the forming-apron J is then turned upward on its journals by handles *j j*, to form the fold or bend in the sheet against the bending-edge B'. In order to release the sheet to form another fold or remove it altogether, either handle I is raised, which lifts rods H and the foot-levers, and lowers the bars F, together with the table C and the bending-apron.

I claim—

1. In a sheet-metal-bending machine, the combination, with a stationary platen, B, of a

platen, C, provided with a bending-apron, J, and mounted upon lifting-bars F, adapted to be operated by means of a treadle-shaft, D E, substantially as herein set forth. 25

2. In a cornice-brake, the combination, with a stationary platen, B, and a movable platen, C, provided with a bending-apron, J, and lifting mechanism F D E, of vertical handled rods H I, adapted to part the tables B and C, to release the bent sheet and return the operative parts to their normal position, substantially as herein set forth. 30

3. In a cornice-brake, the combination, with a movable table, C, provided with a bending-apron, J, of a stationary table, B, mounted upon a suitable frame, so as to be capable of horizontal or vertical adjustment by bolts or thumb-screws *b g O*, substantially as and for the purpose specified. 35

GEORGE C. KEENE.

Witnesses:

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FRANK H. MURRAY.