

H. B. SEVEY.

Compound Metal-Working Machines.

No. 143,722.

Patented Oct. 14, 1873.

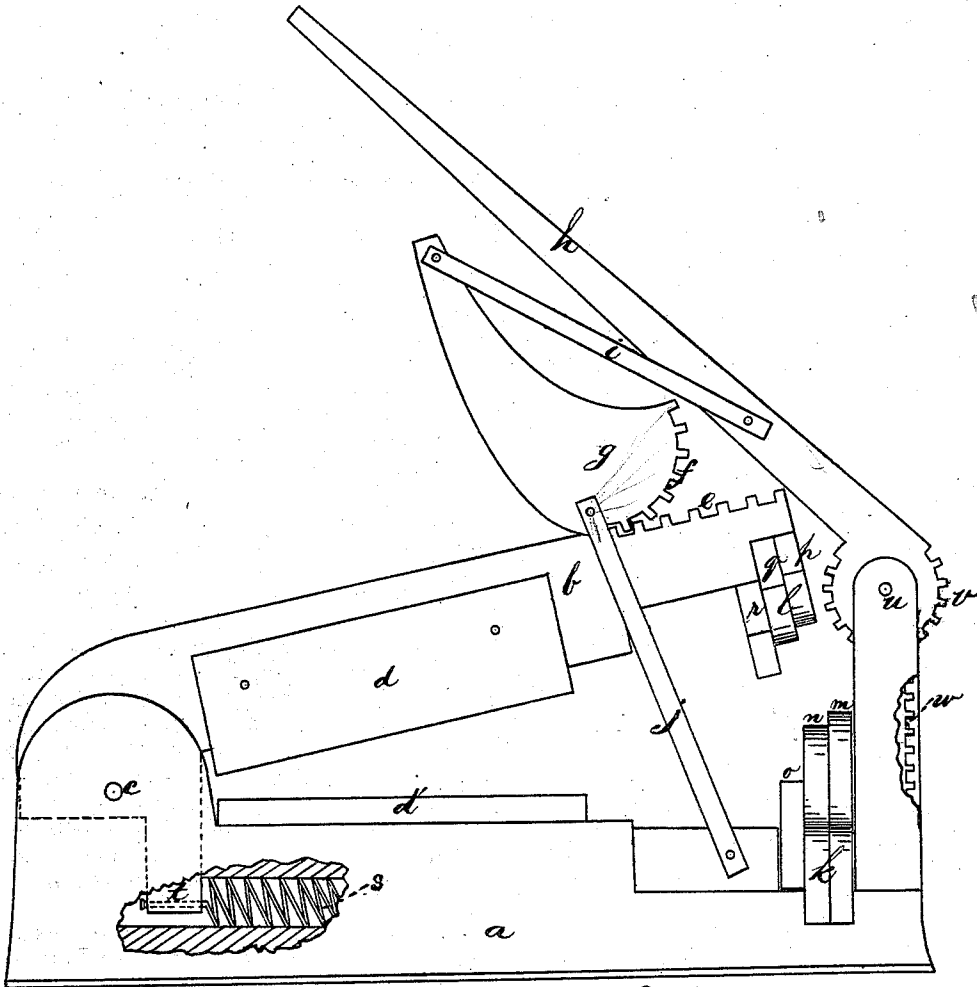


Fig. 1.

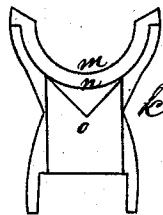


Fig. 2.

Witnesses:
Frank H. Jordan,
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Inventor:
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per Atty.
Wm. Henry Clifford

UNITED STATES PATENT OFFICE

HIRAM B. SEVEY, OF VIENNA, MAINE.

IMPROVEMENT IN COMPOUND METAL-WORKING MACHINES.

Specification forming part of Letters Patent No. **143,722**, dated October 14, 1873; application filed September 15, 1873.

To all whom it may concern:

Be it known that I, HIRAM B. SEVEY, of Vienna, in the county of Kennebec and State of Maine, have invented certain new and useful Improvements in Combined Metal-Benders and Shears; and I do hereby declare that the following is a full, clear, and exact description thereof, that 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 of reference marked thereon, which form a part of this specification.

Figure 1 is a side view of my invention with parts broken away; Fig. 2, a detail view. Same letters show like parts.

The object of my invention is to produce a machine for cutting and bending metal.

a shows the bed or frame of the machine. *b* shows a movable arm, pivoted to the frame at *c*. *d d'* show the shears. *d* is attached to the arm *b*; *d'*, to the frame of the machine, as shown. *e* represents cogs on the arm *b*, into which mesh the cogs *f* of the eccentric *g*. This eccentric *g* is connected with the hand-lever *h* and the frame of the machine by the links *i j*. *k* is a die, a front view of which is shown in Fig. 2. This is set into the frame of the machine, as illustrated in Fig. 1. Into this die fits the stamping or bending device *l* on the end of the arm *b*, when said arm is thrown downward by the movement of the hand-lever *h*, and the consequent movement of the eccentric *g*. This die consists of three forms, (shown in Fig. 2,) two of which, *m n*, are designed more particularly for bending horse-shoes; the other one, *o*, for bending iron into a square or V shape. The stamping or bending device *l*, composed of its parts *p q r*, is of course made to conform to the shape of the die *k*.

In the bed of the machine, as illustrated in Fig. 1, is set a spiral spring, *s*, one end of which is attached to a projection, *t*, on the

movable arm. This spring has for its purpose to throw the arm upward into the position shown in the drawing, when it has previously been thrown downward by the movement of the hand-lever *h*. The lower end of the lever *h* is pivoted to the frame of the machine at *u*. This end of the lever is provided with cogs *v*. At *w* is seen a cogged frame.

When a larger purchase is desired than what is obtained with the lever pivoted at *u*, it (the lever) can be shifted down so that the cogs *v* shall mesh with *w*, and as it is moved up or down these cogs will play up and down in *w*.

The operation of my machine may be thus described: When the arm *b* is thrown downward by the movement of the lever *h*, and the consequent movement of the eccentric *g*, it brings together the shears *d d'*, the bending device *l*, and the die *k*. It also expands or pulls apart the coils of the spiral spring *s*. When the hold on the lever *h* is released, the contraction of said spiral spring causes the machine to resume its original position, or, in other words, the position seen in Fig. 1.

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

The arrangement and combination of the bed or frame *a*, provided with the spring *s* and the cogged frame *w*, the arm *b*, having the projection *t* and cogs *e*, the shears *d d'*, the eccentric *g*, with its cogs *f*, the links *i j*, hand-lever *h*, with its cogs *v*, bending device *l*, and die *k*, as herein set forth, to operate as a shears and metal-bender.

In testimony that I claim the foregoing I have hereunto set my hand this 8th day of September, 1873.

H. B. SEVEY.

Witnesses:

C. W. MAYHEW,
FRANK WHITTIER.