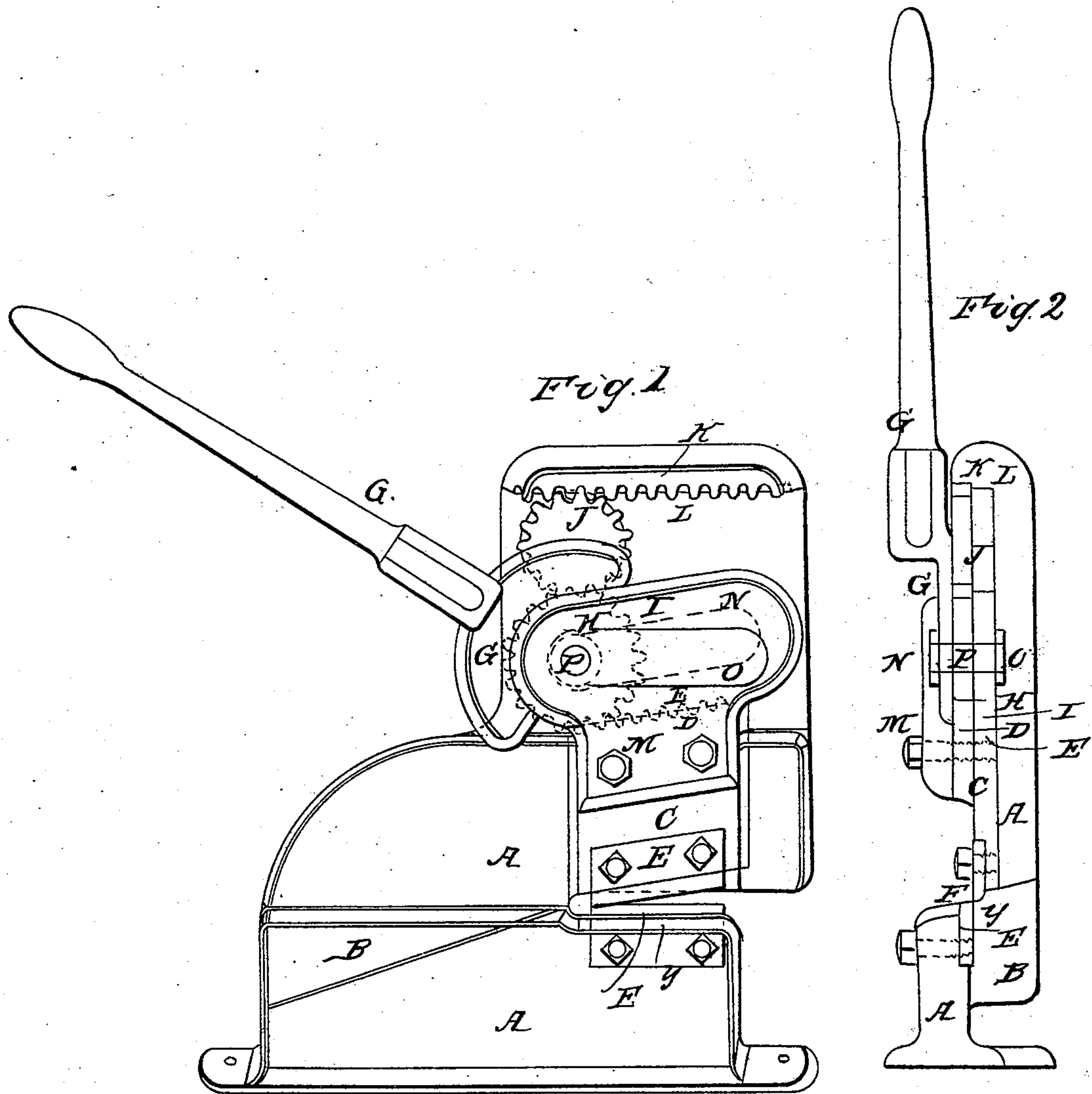


T. F. TAFT.  
Shearing Metal.

No. 18,025.

Patented Aug. 18, 1857.



Witnesses  
A. B. Brown  
Chas. L. Watson

Inventor  
Timothy F. Taft

# UNITED STATES PATENT OFFICE.

TIMOTHY F. TAFT, OF WORCESTER, MASSACHUSETTS.

## SHEARS FOR CUTTING METAL.

Specification of Letters Patent No. 18,025, dated August 18, 1857.

*To all whom it may concern:*

Be it known that I, TIMOTHY F. TAFT, of Worcester, in the county of Worcester, and State of Massachusetts, have invented a new and useful Machine for Cutting All Kinds of Metals, which I give the title "Shears"; and I do hereby declare the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is in part a perspective view. Fig. 2 is a transverse sectional view.

The nature of my invention consists in the rolling lever upon an incline plane, upon the top side of the blade holder or slide, rolling horizontal and parallel to the cutting edge of the blades, making the pressure equal and direct with the cut of the blades, rolling the whole length of the blades (more or less) with much less friction than there is in the cam or lever shears, in them, the pressure on the lever is greater as you near the last cutting end of the blades.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation in drawings of the two figures.

A A are the top and bottom parts of the frame or body of the shears, connected at B.

C is the slide or top blade holder, having the geared rack D, and the incline plane E on the top edge, and the blade F on the bottom side.

G, G, is the rolling lever with the gear H corresponding with rack D, and the round surface I corresponding with incline plane E.

J is the friction roller with the gear and round surface upon it corresponding with the lever G.

K is a rack attached to the top part of the frame or body with gears corresponding with friction roller J, the rack K is very essential to keep the roller J in its place with little or no friction or strain upon its gears.

L is a plane or smooth surface just back of the rack K square with the perpendicular sides of the slide or blade holder C, and corresponding with the surface on roller J, to receive the pressure of the cutting of the blades E and E'.

M is a plate bolted or cast upon the front side of the slide or blade holder C, with the recess N on an inclination corresponding and parallel with, the inclination of the slide or blade holder C, and central with the gear and surface part of the lever G.

O is a recess in the front part of frame or body, central with the gear and surface part of lever G and parallel with the rack K and plane L.

P is a stud or shaft running through the center of the gear part of the lever G, with rollers on each end, rolling in recesses N and O, for the purpose of raising the slide or blade holder, and not a bearing only, on one side of each recess, that is the lower side of back recess and the top side of front recess.

What I claim as my invention and desire to secure by Letters Patent, is—

The rolling lever upon an incline plane, which is upon the slide or blade holder, substantially as specified.

TIMOTHY F. TAFT.

Witnesses:

P. C. BARON,  
CHAS. F. ALLEN.