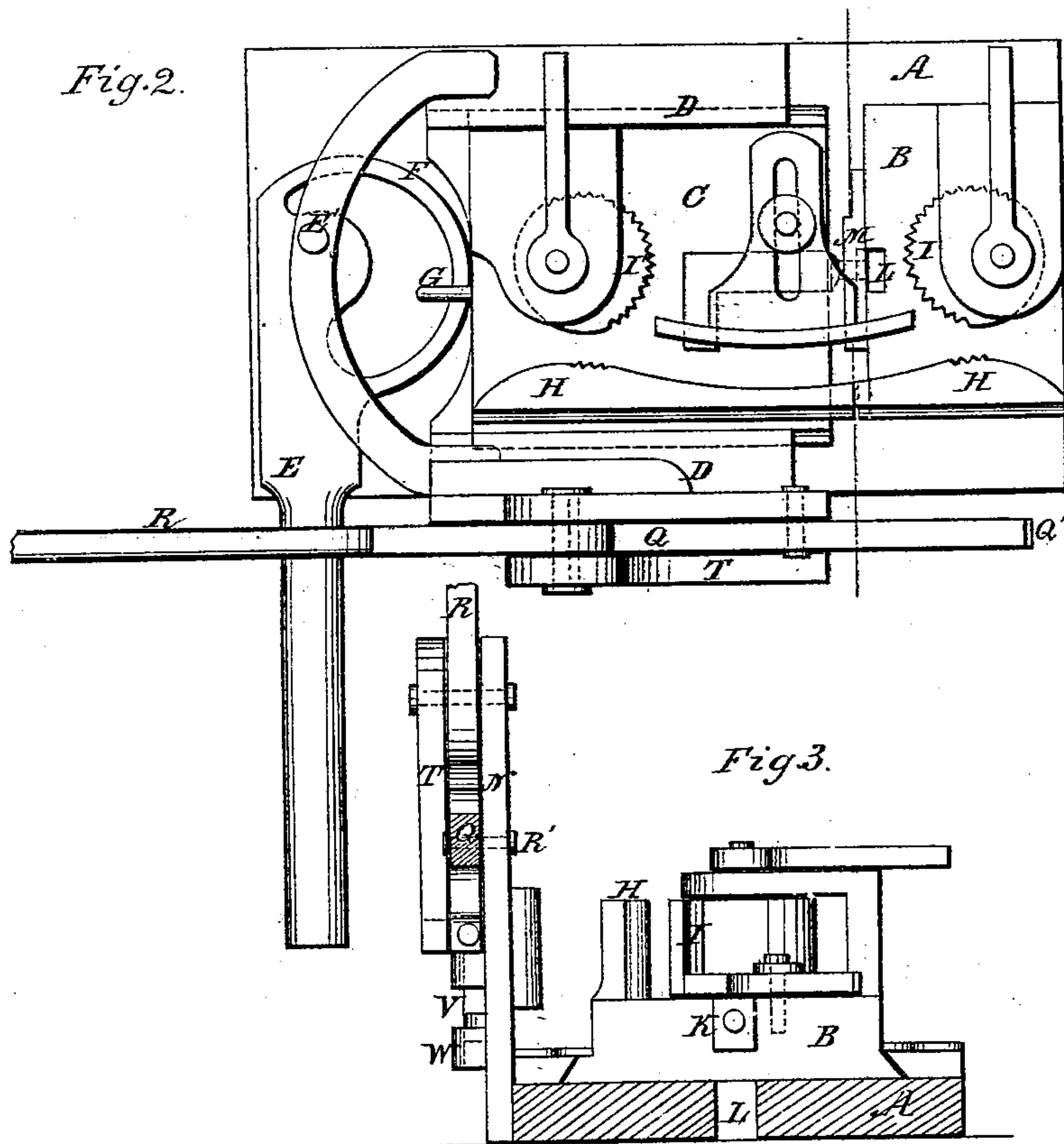
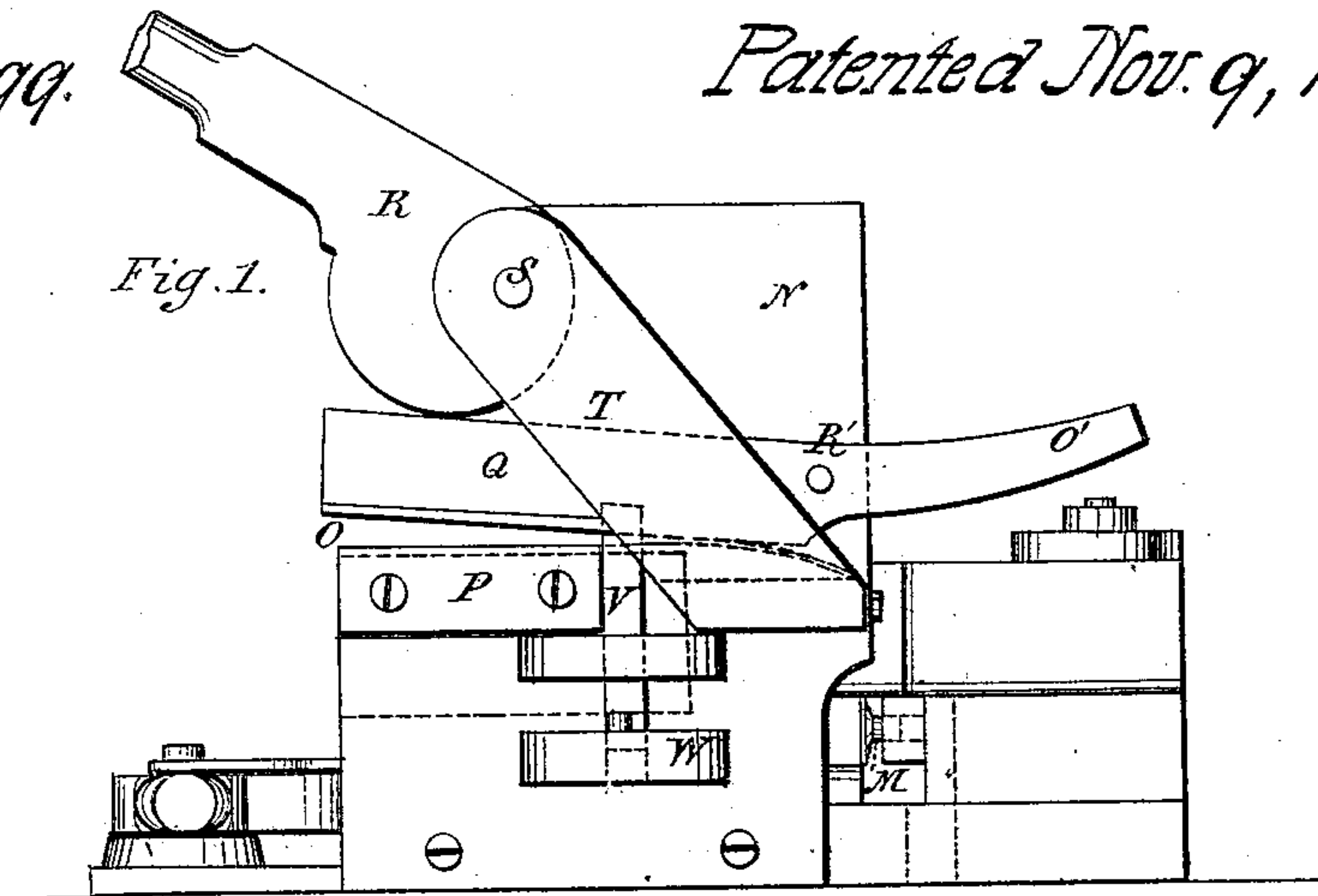


*S.D. Hicks.*

*Upset, Punch, Shears and Saw Gumming  
Machine.*

*N<sup>o</sup> 96,699.*

*Patented Nov. 9, 1869.*



*Inventor*

*Witnesses.*

*Albenneusendof  
Jno. R. Brooks.*

*S.D. Hicks  
per Wm. C. Calkins*

# United States Patent Office.

S. D. HICKS, OF NEW LONDON, WISCONSIN, ASSIGNOR TO HIMSELF AND  
J. C. WILCOX, OF SAME PLACE.

*Letters Patent No. 96,699, dated November 9, 1869.*

## IMPROVED UPSET, PUNCH, SHEARS, AND SAW-GUMMING DEVICE.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, S. D. HICKS, of New London, in the county of Waupacca, and State of Wisconsin, have invented a new and improved Machine for Gumming, Punching, Upsetting, and Cutting; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in iron-workers' apparatus; and consists in the arrangement on one portable base of said gumming-devices, punching-devices, tire-upsetting devices, and shearing-devices, the gumming and shearing-devices being arranged to be operated by one and the same hand-lever, and the upsetting and punching-devices by another lever.

Figure 1 represents a side elevation of my improved machine;

Figure 2 represents a plan view; and

Figure 3 represents a section on the line *y y* of fig. 2.

Similar letters of reference indicate corresponding parts.

A is a base-plate or bed;

B, a fixed block thereon; and

C, a movable block corresponding to B, and arranged to move to or from the latter in ways or guides, D.

It is worked by a hand-lever, E, pivoted to the bed at E', and having an eccentric boss, F, bearing against the said block C.

The latter is also connected to the eccentric boss F, by a bent arm, G, taking behind a raised curved flange, so as to be withdrawn by the lever when moved backward.

The fixed block B and the movable block C are provided with the curved and serrated clamping abutments H' H' and eccentric clamping-dogs I I', commonly employed in upsetting-devices, whereby the tire or other bar may be upset in the usual way.

The fixed block B is provided with a female punching-die, K, the stock or plate wherein the same is made being arranged in front of a vertical groove or guideway, L, through the block and the bed A, for the bar to be punched.

The movable block has a male punch coinciding with

the female die K, so that a bar being held in the way L may be punched by these devices, the movement being produced by the same lever that is used to effect the upsetting.

N represents a strong plate attached to one side of the bed A, in a vertical position.

It is notched at O, and the lower wall of the notch supports a fixed shearing-cutter, P, with which a movable shear-cutter, Q, pivoted at R, works, and which is forced down by an eccentric lever, R, pivoted at S, between the plate A and a strong brace T, connected to the plate below pivot R.

This movable cutter is provided with a spring, U, for throwing it up, and with a projection, Q', at the rear end, on which the lever R may be brought to bear by swinging it over in that direction, to assist the spring in raising it in case it binds with the metal being cut, so as to resist the action of the spring.

V is a vertically moving gumming-punch, connected to the moving cutter Q, so as to work up and down with it.

W is a corresponding female gumming-die, fixed in a shelf projecting from the side of the plate N, so as to support the edge of the saw to be gummed, which is moved along the said shelf by hand or otherwise, to bring the teeth in position for gumming.

By this arrangement the gumming and shearing-devices are also operated by one hand-lever, and thereby an economy of construction is effected.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

1. The arrangement, on one portable bed A, of the upsetting, punching, shearing, and saw-gumming devices, substantially in the manner herein described.

2. The arrangement of the hand-lever R relatively to the projection Q', of the movable shear, for operation, substantially as specified.

3. The combination of the hand-lever R, movable shear Q, sliding gumming-punch, and the gumming-die W, all substantially as specified.

The above specification of my invention signed by me, this 13th day of September, 1869.

S. D. HICKS.

Witnesses:

E. D. DAVIS,

L. B. CHITTENDEN.