

G. L. JONES.

Compound Metal Working-Machines.

No. 142,398.

Patented September 2, 1873.

Fig. 1.

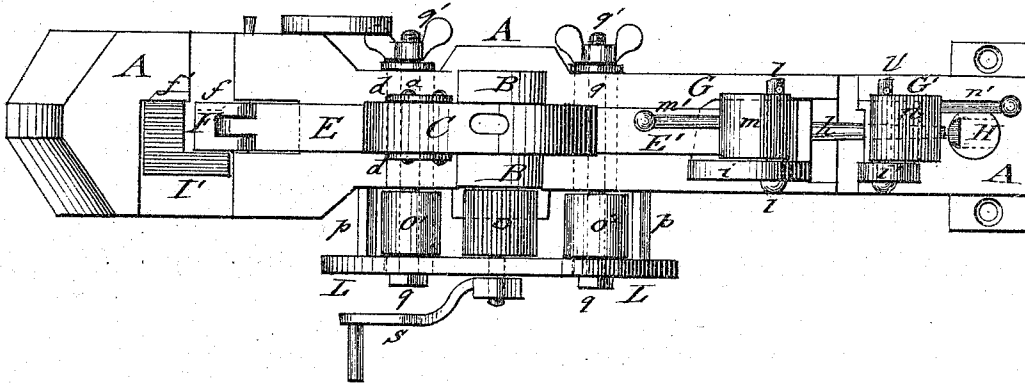
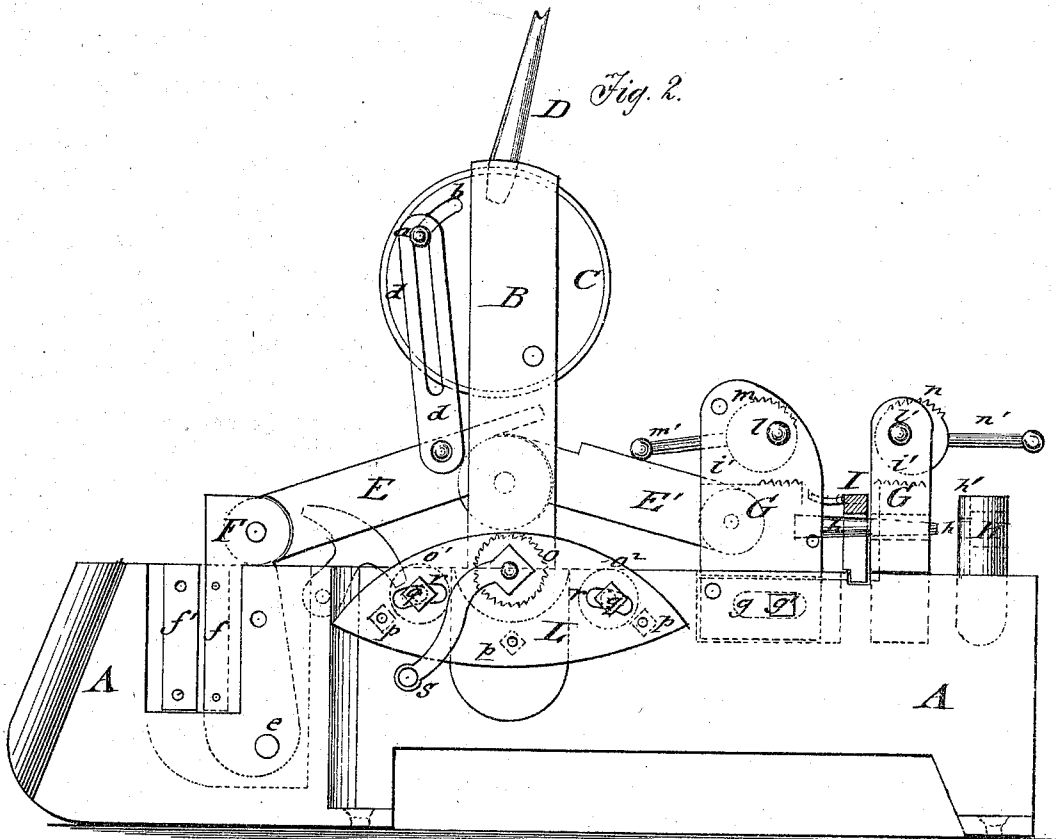


Fig. 2.



Witnesses:

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GEORGE L. JONES, OF VANVILLE, WISCONSIN.

IMPROVEMENT IN COMPOUND METAL-WORKING MACHINES.

Specification forming part of Letters Patent No. 142,398, dated September 2, 1873; application filed June 14, 1873.

To all whom it may concern:

Be it known that I, GEORGE L. JONES, of Vanville, in the county of Chippewa and State of Wisconsin, have invented a new and Improved Combination-Tool, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view of my improved combination-tool for blacksmith and wagon shops, and Fig. 2 a side elevation of the same.

Similar letters of reference indicate corresponding parts.

The object of my invention is to furnish for the use of blacksmiths and wagon-manufacturers a convenient and effective combination-tool, by which the operations of cutting and punching iron, and the tightening, upsetting, and bending of tires may be accomplished. The invention consists in the compound tool hereinafter fully described and subsequently claimed.

In the drawing, A represents the frame of the instrument, of oblong shape and suitable material. It is firmly secured by strong bolts, screws, or otherwise, to the ground or other base, and provided with strong vertical standards B, between which is pivoted the eccentric C, which is operated by lever D. The eccentric C operates on the knee-joint levers E E' by means of bolt a, sliding in slot b of the eccentric, and the slotted links d, which are pivoted to lever E. Lever E again is hinged at its outer end to a heavy block, F, moving in a recess of the heavier part of frame A. Block F is pivoted at e with its lower end to frame A, and provided with a cutting edge or blade, f, which acts on a similar blade, f', of frame A, in the manner of shears. The end of the lever E' is hinged to a sliding frame or carriage, G, which moves in a recess of frame A, and is guided by means of its slot g and lateral piece g'. At the outer end of carriage G is secured, by suitable wedges or otherwise, in the direction of the longitudinal axis of frame A, the puncher h, which acts on a perforated steel cutter, h', in socket or standard H. The upper side of carriage G is grooved or notched, and has a vertical extension-plate, i, which

carries a strong bar or bolt, l, and the partially grooved or notched eccentric m, with the lever m'. To a grooved standard, G', which is placed between carriage G and socket H, and perforated for the passage of the puncher h, is attached, in similar manner as eccentric m, to extension-plate i', the bolt l, and partially-notched eccentric n, with hand-lever n'. The wagon-tire is clamped between these eccentrics and their corresponding grooved bases, and either tightened or upset when off the wheel, as required, by lever E' acting on carriage G. A movable block, I, of steel or other material, fills up the recess between carriage G and standard G', and block I' that of shears f f', when the same are not in use.

For bending or rolling the tire, the cylindrical rollers O, O¹, and O² are arranged side-wise of the frame A, between the same and plate L, which is supported by arms p. The outer rollers O¹ and O² are placed on bolts q, with thumb-nuts q', which bolts are adjustable for tires of different sizes and thicknesses by means of slots r of plate L. The notched roller O is placed between and above the outer rollers and turned by crank s, giving the bend to the tire on its passage through them.

By this instrument a great convenience for expediting the different operations is furnished, and the same quickly and effectively accomplished.

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

The blacksmith's combination-tool for cutting and punching iron parts, tightening and bending tires, &c., consisting of frame A, with standards B, eccentric C, lever D, knee-joint lever E E', cutter F, carriage G, with puncher h and socket H, standard G', blocks I I', plate L, and rollers O O¹ O², substantially as described.

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Witnesses:

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