(No Model.)

P. GENDRON.

UPSETTING MACHINE.

No. 382,355. Patented May 8, 1888.

Fig. 2.

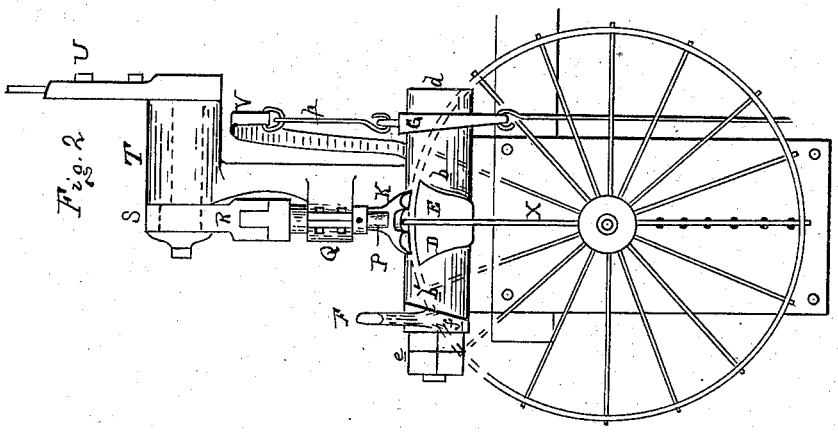


Fig. 4.

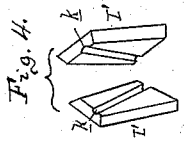


Fig. 3.

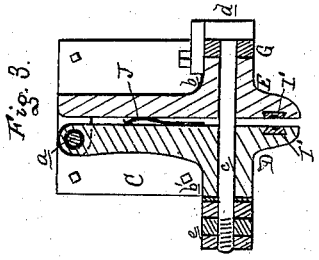
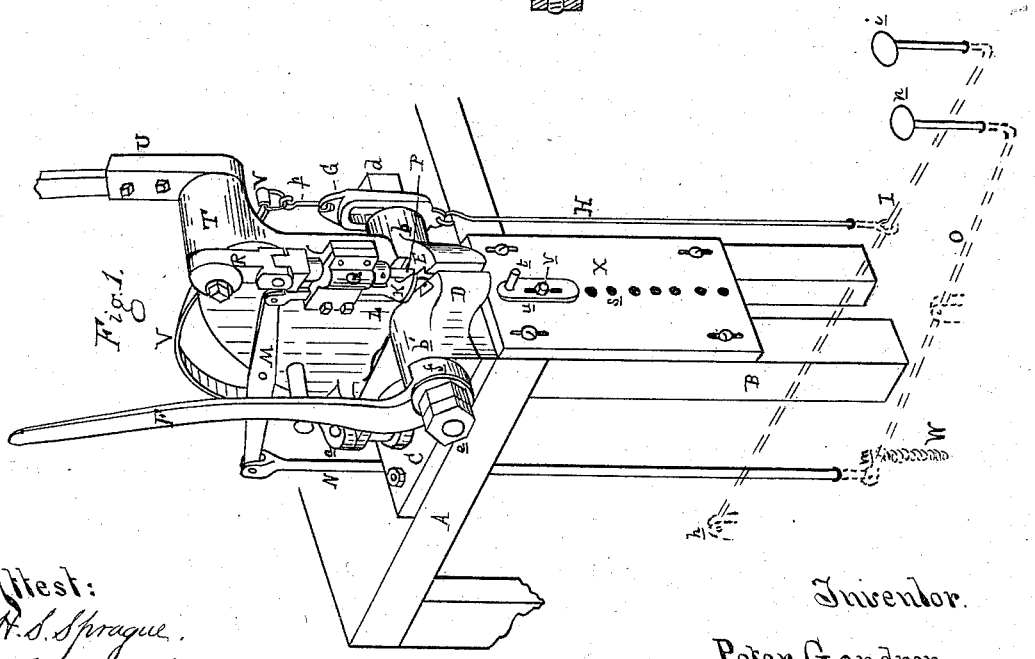


Fig. 1.



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UNITED STATES PATENT OFFICE.

PETER GENDRON, OF TOLEDO, OHIO.

UPSETTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 382,355, dated May 8, 1888.

Application filed October 18, 1887. Serial No. 252,659. (No model.)

To all whom it may concern:

Be it known that I, PETER GENDRON, of Toledo, in the county of Lucas and State of Ohio, have invented new and useful Improvements in Upsetting-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and useful improvements in upsetting-machines.

The object of this invention is to provide suitable means for economically, readily, and efficiently upsetting the ends of wire spokes, and thereby forming rivet-heads on the same outside the tire or rim of the wheel.

The invention consists in the peculiar construction of the various parts and their combination, as more fully hereinafter described and claimed.

Figure 1 is a perspective view of my improved machine. Fig. 2 is a front elevation showing the machine in operation. Fig. 3 is a sectional plan view of that portion of the machine called the "vise." Fig. 4 is a detached perspective view of the clamping-plates in said vise.

In the accompanying drawings, which form a part of this specification, A represents the top or platform, which supports the machine upon suitable frame-work, B.

C is the bed-plate.

D is a jaw secured upon said bed-plate, or forming an integral part thereof, as may be desired.

E is the movable jaw pivotally secured to the fixed jaw at *a*, substantially as shown. Each of these jaws is provided with a hollow boss, *b b'*, through which a bolt, *c*, passes, having a nut, *d*, upon one end, and one or more nuts, *e*, upon the opposite end. The outer end of the boss *b'* is slightly wedge-shaped, and between such ends and the nuts *e* there is sleeved the lever F, the head *f* of which is also slightly wedge-shaped, such wedge shape upon both parts being slight.

G is a wedge interposed between the outer end of the boss *b* and the nut *d*, having a slot therein to embrace the bolt, as shown in Fig. 1. This wedge G has a connecting-rod, H, attached thereto, leading down to a treadle-lever, I, the rear end of which is pivotally secured to a proper support, as at *h*, while the front end thereof is provided with an upturned treadle, *i*, so that the pressure of the foot of the operator upon the treadle *i* will depress or draw down the wedge G and compel the movable jaw to engage against the face of the fixed jaw D.

I' are two steel plates, having oblique grooves *k* formed upon their inner faces, so that when they are closed together such grooves will be coincident, and these plates are inserted in dovetails in the fixed and movable jaws, as more clearly shown in Fig. 3. A spring, J, is interposed between the jaws, the object of which is to keep the jaws apart, except when forcibly closed upon each other.

K is a presser-foot secured to the lower end of a lever, L, the opposite end of which is pivotally secured to a rocking beam, M, and to the opposite end of this beam is pivotally secured the rod N, the lower end of which is pivotally secured, as at *m*, to the treadle-lever O, which terminates in an upwardly-projecting foot-piece, *n*, and for the purpose of saving room and to afford better facilities for working, these treadle-levers I and O are placed underneath the floor, through which the rods H and N pass to such levers, and the foot-pieces *i n* project upward through the floor within easy reach of the operator at the machine.

P is the upsetter-head, which is supported by suitable boxes, Q, above which it is pivotally secured to the strap R, said strap passing over and around an eccentric, S, adapted to rotate within the box T, and having a lever, U, secured to its protruding end.

V is a spring secured by means of a link, *p*, to the top of the wedge G, and its office is to withdraw the wedge whenever the pressure is relieved from the foot-piece *i*.

W is a spring adapted to raise the presser-foot whenever the weight is not imposed upon the foot-piece *n*.

X is a face-plate secured to the frame, and is in vertical line with the opening between the two jaws, and provided with a series of holes, *s*.

t is a stub-axle, upon which the wheel is placed while being operated upon, and se-

cured to a slotted plate, *u*, by means of a bolt, *v*, and its object is to vertically adjust, by means of the holes *s* and the slot in such plate *u*, the stub-axle *t*, so that the device may be used in any desired size of wheel. The plate *u* may be dispensed with and the stub-axle *t* adapted to fit into any one of the series of holes *s*, if preferred, and still be within the spirit of my invention.

In Fig. 2 the device is shown in operation as riveting the ends of wire spokes through the frame of the wheel, and as in all wire wheels these spokes are staggering—that is, as each alternate one converges from the rim to the hub—it follows as a matter of course that each alternate one is presented for action until the diameter of the wheel has been worked over, when the wheel is removed, turned around, and the intermediate spokes submitted to a like operation, which is as follows: The rim having been engaged with the ends of the spokes, the first spoke is inserted between the plates I in the grooves *k*, when the operator places his foot upon the foot-piece *i*, thereby compelling the wedge G to force the movable jaw up to grasp the spoke; but as this movement does not confine the spoke with sufficient rigidity to withstand the blow of the upsetting device, a slight movement in the proper direction of the lever F will accomplish this result, the rim being prevented from springing by the presser-foot, operated by treading upon the foot-rest *n*. Now the operator, grasping the lever U, draws it forward, when the upsetter is forced down to rivet the projecting end of the spoke against the rim.

What I claim as my invention is—

1. The combination, with the jaws, one connected to the other by a bolt, as described, and each formed with a boss through which the confining-bolt passes, of a slotted wedge straddling said bolt and operating on one of said jaws, and a lever having a head acting on the other jaw, substantially as and for the purpose specified.

2. The combination, with the jaws, one connected to the other by a bolt, as described, and each formed with a boss through which the confining-bolt passes, and a spring interposed between said jaws, of a slotted wedge straddling said bolt and operating on one of said jaws, and a lever having a head acting on the other jaw, substantially as and for the purpose specified.

3. In a device for the purposes described, the combination, with a clamping device having two movable jaws, a wedge operated by a treadle-lever, and a retracting-spring, of a lever having a wedge-shaped head, substantially as and for the purposes specified.

4. The combination, in a device for the purposes described, with a clamping device having two movable jaws, and a presser-foot operated by a treadle-lever, of a retracting-spring arranged between said jaws, substantially as and for the purposes specified.

5. The combination, in a device for the purposes described, with a clamping device having two movable jaws, of a plate having a vertical series of holes therein, and a stub axle in vertical line with the interval between such jaws, substantially as and for the purposes set forth.

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Witnesses:
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