M. C. BUFFINGTON.

Wheelwrights' Machines.

No. 149,986. Patented April 21, 1874.

Fig. 3.

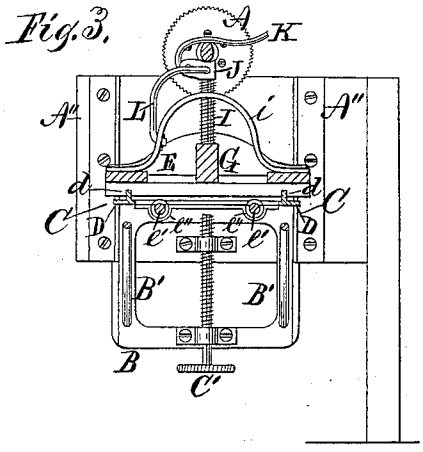


Fig. 2.

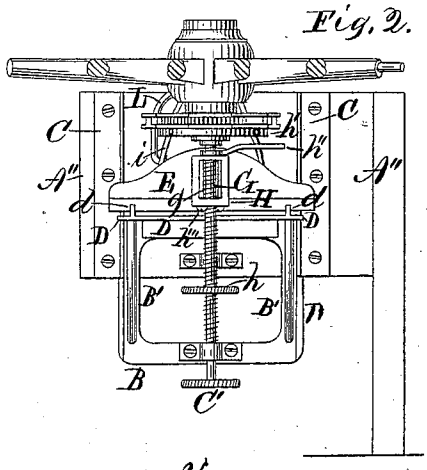


Fig. 4.

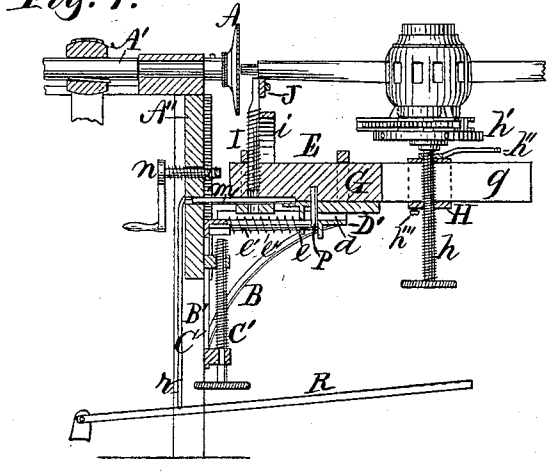
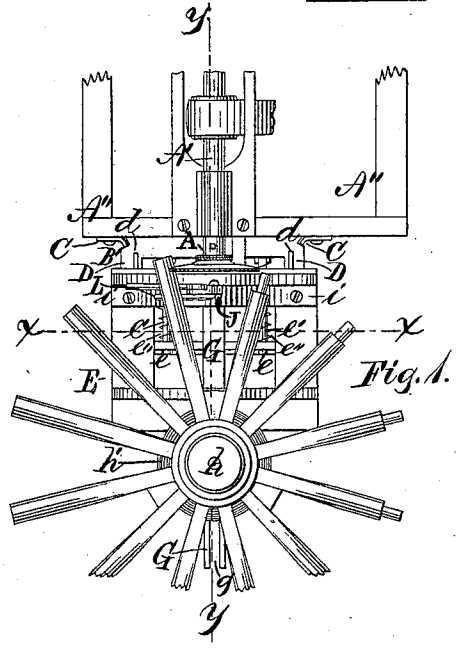


Fig. 1.



Witnesses.
L. M. Richards
M. H. Barringer.

Inventor.
Moses C. Buffington,
by W. B. Richards,
atty.

UNITED STATES PATENT OFFICE.

MOSES C. BUFFINGTON, OF BURLINGTON, IOWA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES M. FORNEY, OF SAME PLACE.

IMPROVEMENT IN WHEELWRIGHTS' MACHINES.

Specification forming part of Letters Patent No. **149,986**, dated April 21, 1874; application filed February 9, 1874.

CASE B.

To all whom it may concern:

Be it known that I, MOSES C. BUFFINGTON, of Burlington, county of Des Moines and State of Iowa, have invented certain new and useful Improvements in Wheelwrights' Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a top plan or view of my invention. Fig. 2 is a side elevation of Fig. 1, seen from the rear side. Fig. 3 is a vertical sectional view of Fig. 1 on the line *x x*, seen from the front side; and Fig. 4 is a vertical sectional view of Fig. 1 on the line *y y*, seen from the left-hand side.

The nature of my invention relates to improvements in wheelwrights' machines, for sawing the ends of spokes of uniform length, and forming the round tenons thereon; and the invention consists in the arrangement of a table with a shaft driven by power, and carrying a combined hollow auger and dished saw, said table being provided with suitable devices for holding and adjusting the wheel to be operated upon to the operations of the saw and of the hollow auger, all as hereinafter fully described.

Referring to the parts by letters, letter A represents any combined circular saw and a hollow auger or tool for cutting round tenons, supported or carried on a shaft, A′, the end only of which is shown, together with the adjacent parts of a frame, A″, for supporting the same, and the devices constituting my invention, also. B represents a frame with side pieces B′ B′, which slide in grooves formed by the ledges C C on the side of the main frame A″, and C′ is an adjusting-screw, by means of which the height of the frame B may be adjusted on the frame A″. D D are horizontal arms of the frame B, connected by an arm, D′, and having on their upper surfaces slides or ways *d d*, at right angles from the frame A″. E is a rectangular frame, which is notched onto the slides *d d*. *e e* are projections from the lower side of the frame E, and have eyes or holes, through which spring-retainers *e′ e′* pass, the one end of which rests against one side of the frame E, and their other ends against the opposite side of the frame B, which contains cavities for their reception. The bars *e′ e′* are encircled by spiral springs *e″ e″* between the eye-plates *e e* and the side of the frame B adjacent to the main frame A″. G is a bar secured to the upper side of the frame E, with one end projecting therefrom, and which has a vertical longitudinal slot, *g*, therein. H is a sliding collar on the projecting end of the bar G. *h* is an adjusting-screw passing up through the collar H and slot *g*, and carries on its upper end a chuck, *h′*, and a lock-nut and handle, *h″*, the chuck being secured thereto so as to allow it a rotary motion. *h‴* is a set-screw. I is a standard, supported upright from the frame E, into which it is screwed by a stay-bar, *i*, its upper end carrying a grooved block, J. K is a clamping-lever, pivoted at one end to one side of the block J. L is a supporting-rod, bent as shown at Fig. 3, and having one end fixed in the stay-bar *i*, and its other end to the block J. *m* is a pin projecting from the side of the frame E through a hole in the side of the frame A″. *n* is an adjustable stop, threaded where it passes through the frame A″. P is a stop-pin projecting downward from the frame E. R is a treadle, from which a strap, *r*, passes upward and through a suitable hole in the frame A″, and connects with the frame E.

The operation of my invention is as follows: The frame B being adjusted to the proper height, the table E is placed thereon, with the pin *m* projecting through the side frame of A″, to stay and aid in holding the table E. The wheel to be operated upon may now be mounted in the chuck *h′*, as shown in the drawings. The set-screw *h‴* being loose, the collar H may be adjusted on the bar G to suit the length of spoke required, and fixed in position by the set-screw *h‴*, and the screw *h* be utilized to adjust the height of the wheel at the hub to suit the different dishing, &c., when, by means of the nut *h′*, the screw *h* may be locked in position. The stop *n* may now be adjusted to limit the sliding movement of the table E toward the auger and saw A, the movement

in the opposite or return direction being limited by the stop P. The wheel may now be turned so as to bring one of the spokes to the action of the saw, as shown at Fig. 1, and when sawed off the wheel may be turned a little farther, until the same spoke is opposite to the opening in the hollow auger, when the cam-lever K may be turned down, as shown at Fig. 3, to secure it firmly, while, by means of the treadle R and strap *r*, the table E may be moved, and the spoke brought to the action of the auger for cutting the round tenon thereon. Upon releasing the treadle R the springs *e''* *e''* will return the table E to its normal position, stopped by the pin P striking the rear side of the frame B, and so on consecutively the spokes may be brought to the action of the saw and auger, the bar L (see Fig. 2) acting as a support while the saw is operating upon the spoke.

It will be seen that by lifting the outer end of the frame E it may be removed from the frame B.

The construction and relative arrangement of the saw and hollow auger A are fully described in another application for Letters Patent made by me, and filed concurrently with this.

I am aware that machines having moving tools and stationary tables have before been used for like purposes; but I am not aware that any machine operating like mine has before been known or used.

I claim—

1. The frame E and springs *e''* *e''*, supported as herein stated, and arranged to operate with the auger and saw A, clutch *h'*, and clamp K, substantially as described, and for the purpose specified.

2. The clutch *h'*, adjustably mounted on the slotted bar G, as set forth, and arranged to operate with the reciprocating table E, stationary table B, and auger and saw A, substantially as described, and for the purpose specified.

3. The stops *n* and P, arranged to operate with the tables E and B, and auger and saw A, substantially as described, and for the purpose specified.

MOSES C. BUFFINGTON.

Witnesses:
T. J. TRULOCK,
JAMES M. FORNEY.