C. H. Denison,

Making Fellies.

No. 26,392. Patented Dec. 6, 1859.

Fig. 1.

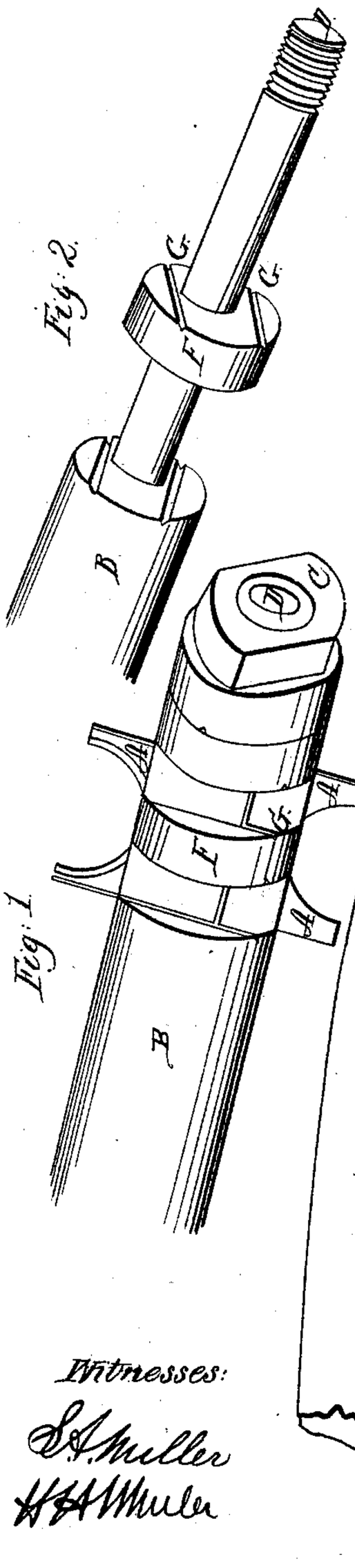


Fig. 2.

Fig. 3.

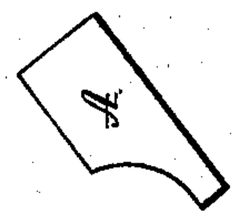


Fig. 4.

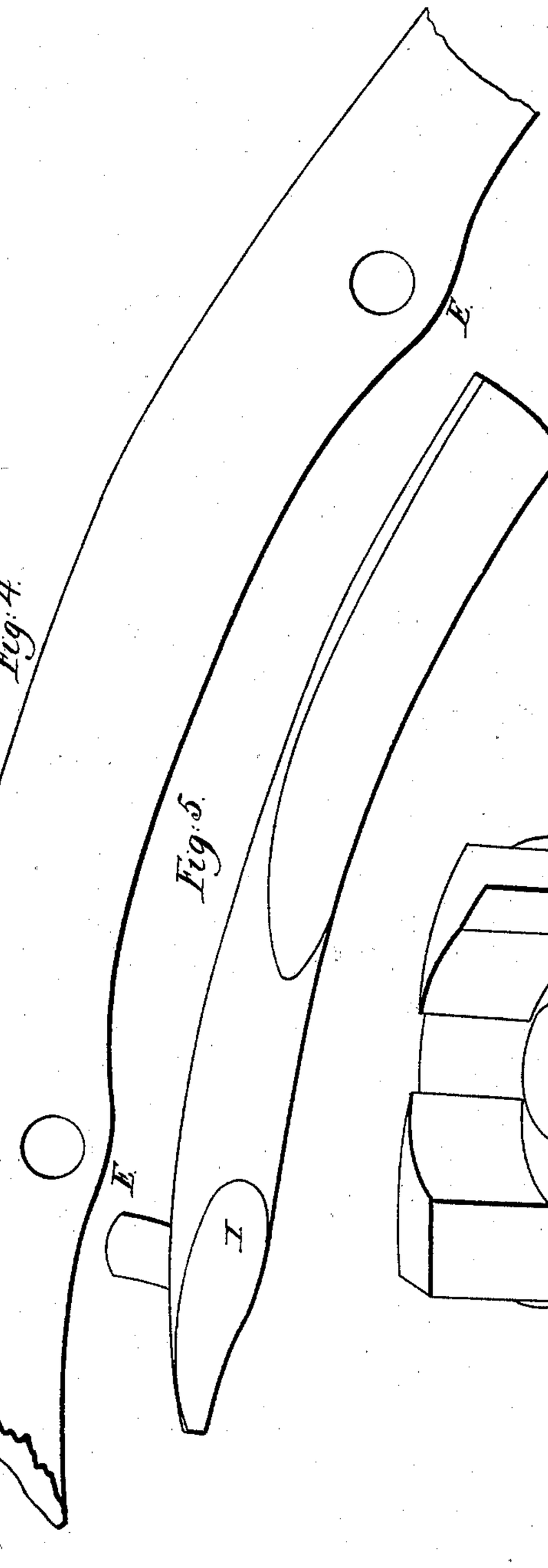


Fig. 5.

Fig. 6.

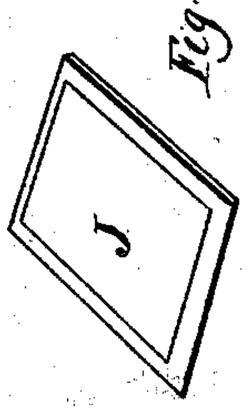
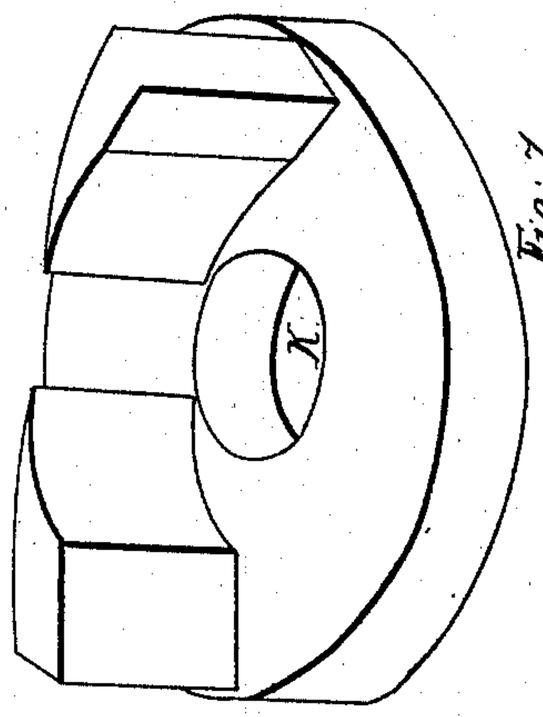


Fig. 7.



Witnesses:

S. A. Miller

H. A. Miller

Inventor:

C. H. Denison

UNITED STATES PATENT OFFICE.

CHARLES H. DENISON, OF GUILFORD, VERMONT, ASSIGNOR TO A. MILLER, OF BRATTLEBORO, VERMONT.

TOOL FOR FINISHING FELLIES.

Specification of Letters Patent No. 26,392, dated December 6, 1859.

To all whom it may concern:

Be it known that I, CHARLES H. DENISON, of Guilford, in the county of Windham and State of Vermont, have invented a new and useful Machine for Manufacturing and Finishing the Fellies of the Wheels of Carriages and other Vehicles not Known or Used Before my Invention Thereof; and I do hereby declare that the following is a full and true description of said invention.

The object and purpose of my machine is to square the external or convex as well as the internal or concave surface of the felly; and further, to dress and round the internal corners of the fellies between the spokes having the square surface at each spoke to sustain the pressure of the shoulder of the spoke. This has usually been done by hand. I do it by machinery, and first as to rounding the said corners, after the fellies have been squared, I subject them to the action of revolving cutters (A A in the accompanying drawing) carried by an arbor (B Figs. I and II). This arbor when in use rises perpendicularly through a table or bench, although it is in the drawing for convenience represented as lying horizontally. Fig. I represents this arbor with the cutters A adjusted to it and firmly held in grooves prepared for them, by the action of the nut (C) acting on the screw D. But in order to have a square and broad place to receive and strongly support the shoulder of each spoke (E, Fig. IV) I make use of the following device: A metallic washer or collar (F, Figs. I and II) holds in its grooves (G) the cutters, and this washer being changed for one either thicker or thinner adapts the machine for finishing a broader or narrower felly. This washer prevents the cutters going any deeper than is desirable as it traverses the already squared internal surface of the felly. But to leave the broad places at the spokes (E, Fig. IV) the holes for the spokes are first bored, each in its proper place, and as each section of the felly is about to be placed against the cutters an iron gage (Fig. V) is used. This gage having a cylindrical projection (H) which fits the holes bored in the felly for the spokes, is easily held in place by a clasp of the operator's hand. This gage receiving on its inclined surface (I) the action of the washer (F, Fig. I) holds the collars from the wood at the place to be occupied by the spoke, and consequently leaves a square plane for the shoulder of the spoke, and as the washer F traverses down the inclined plane (I, Fig. V) the cutters gradually depress their cutting of the internal corners of the felly.

To square the internal surface of the felly, instead of using the cutters with curved edges I put onto the arbor one pair of straight edged cutters as shown (at J, Fig. VI) and to prevent these cutters from penetrating too deep and to secure an even internal surface for the felly I drop over the arbor and onto the table or bench a collar gage (shown at Fig. VII). The central orifice (K) of this collar gage is made to fit without pinching the well turned arbor B (Figs. I and II,) so that whether the operator presses the felly evenly or not the collar gage will turn and allow the cutters to find the wood. To even and square the external surface of the felly, the same straight edged cutters are employed and a similar collar gage, except that it merely has two strong upright pins to hold the convex surface of the fellies from the centers.

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

1. The above described washer and the above described iron gage for trimming and shaping the internal surface of fellies.

2. The above described collar-gages for squaring the external and internal curved surfaces of the felly.

C. H. DENISON.

Witnesses:

I. DORR BRADLEY,

H. H. WHEELER.