S. P. M. TASKER.

Tube-Welding Machines.

No. 150,104. Patented April 21, 1874.

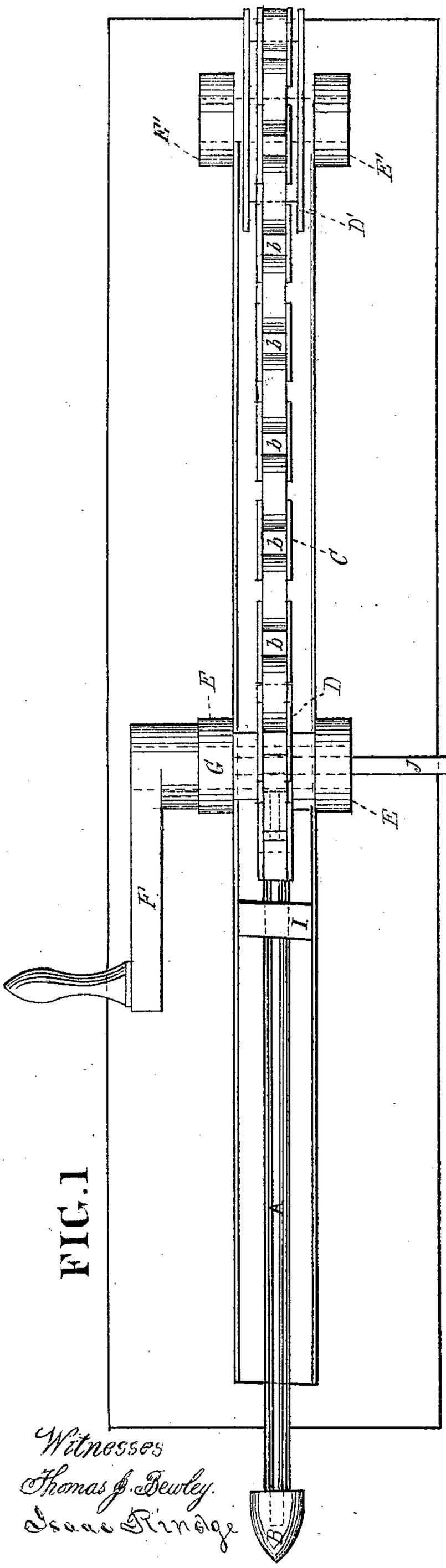

FIG. 1

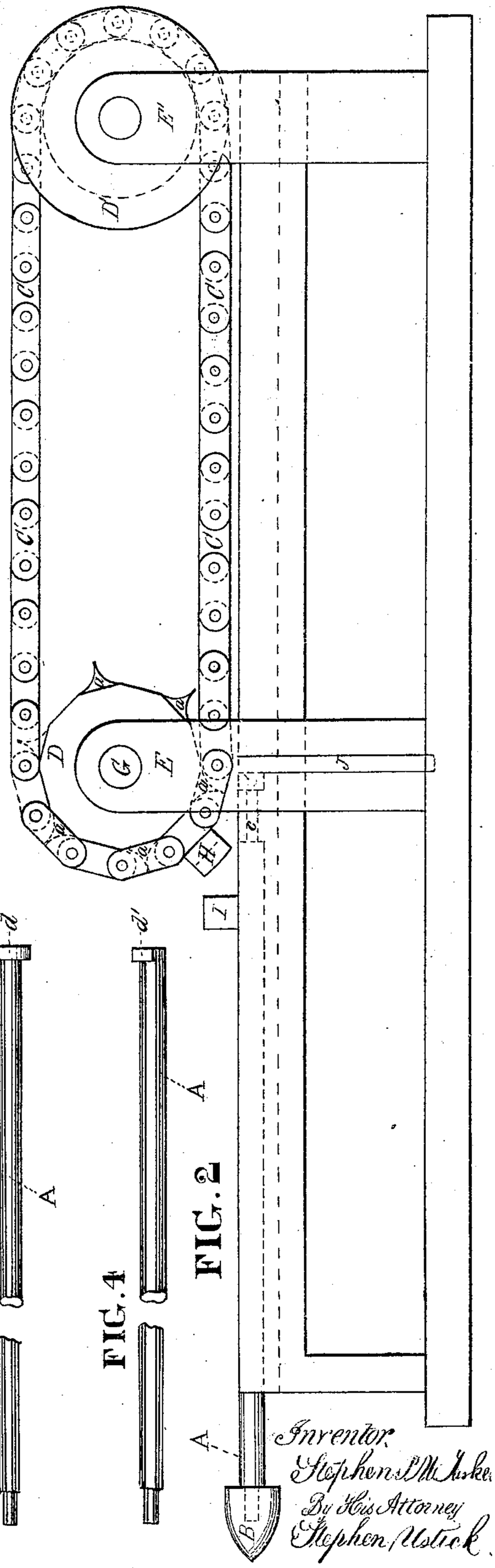

FIG. 2

FIG. 3

FIG. 4

Witnesses
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AM. PHOTO-LITHOGRAPHIC Co. N. Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

STEPHEN P. M. TASKER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN TUBE-WELDING MACHINES.

Specification forming part of Letters Patent No. **150,104**, dated April 21, 1874; application filed February 17, 1874.

CASE B.

To all whom it may concern:

Be it known that I, STEPHEN P. M. TASKER, of the city and county of Philadelphia, in the State of Pennsylvania, have invented an Improvement in Machines for Manufacturing Metal Tubes, of which the following is a specification:

My invention relates to such machines for drawing or rolling tubes as are provided with a mandrel to resist the pressure exerted upon their outer surface. It consists in giving a reciprocating movement to the ball-bar by means of a wild-cat or other pulley and an endless chain, or wire rope, or band, or equivalent device, to bring the bar to the position it occupies during the drawing or rolling of the tubes and the withdrawing of the bar from the tubes, as hereinafter fully described.

In the accompanying drawings the rolls for drawing the tubes are omitted, as they make no part of my invention.

Figure 1 is a plan view of my improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a side view of the bar A, with a collar, *d*, on its forward end. Fig. 4 is a like view of the bar, having a lug, *d'*, instead of the collar.

Like letters of reference in all the figures indicate the same parts.

A is the ball-bar, and B the ball, which, in practice, is brought between the rolls for drawing the tube (not shown in the drawings) to receive the forward end of the tube. C is an endless chain over pulleys D and D', which are supported by the standards E and E', the pulley D being what is usually called a "wild-cat." Its teeth *a* engage with the openings *b* of the chain C. A crank, F, on the shaft G of the pulley D is used for giving the requisite movements to the pulley when it is operated by hand. The forward end of the bar A has a neck, *c*, with which the carrier H, confined to one of the links of the chain, engages. The neck may be dispensed with by having a collar, *d*, (seen in Fig. 3,) or a lug, *d'*, as seen in Fig. 4, at the end of the bar, the carrier coming against one side of the collar or lug to move the bar in one direction, and at the other side for moving it in the reverse direction. I is the guard-ring, and J the stop-lever, both in common use; therefore a particular description of them is not deemed necessary.

The operation is as follows: The pulley D is turned, by means of the crank F or other device, in the direction of the arrows, for the movement of the bar A, until the ball B is brought between the rolls, and remains in this position until the tube has passed through the rolls. The forward end of the tube then catches against the guard-ring I, which arrests its movement. Then the motion of the pulley G is reversed, and, the carrier H bearing against the head *c'* of the neck of the bar A, or the collar *d*, or the lug *d'*, (shown in Figs. 3 and 4,) the bar is moved forward out of the tube for the removal of the latter from the machine. When the bar is started forward the ball B drops off its end. When the tube is removed the bar is returned to its former position, and the ball again connected therewith to receive the next tube, and so on in succession.

Any other suitable pulley may be substituted for the wild-cat pulley D, and any equivalent device in place of the endless chain C.

I claim as my invention—

The combination of the carrier H, endless chain C, or its equivalent, pulleys D and D', and ball-bar A, having a depression or elevation to receive the carrier, for giving a reciprocating movement to the ball-bar, substantially as described, and for the purpose set forth.

STEPHEN P. M. TASKER.

Witnesses:

THOMAS J. BEWLEY,

STEPHEN USTICK.