J. F. TUDOR.

Improvement in Machines for Boring Blind-Stiles.

No. 129,439. Patented July 16, 1872.

FIG. 1

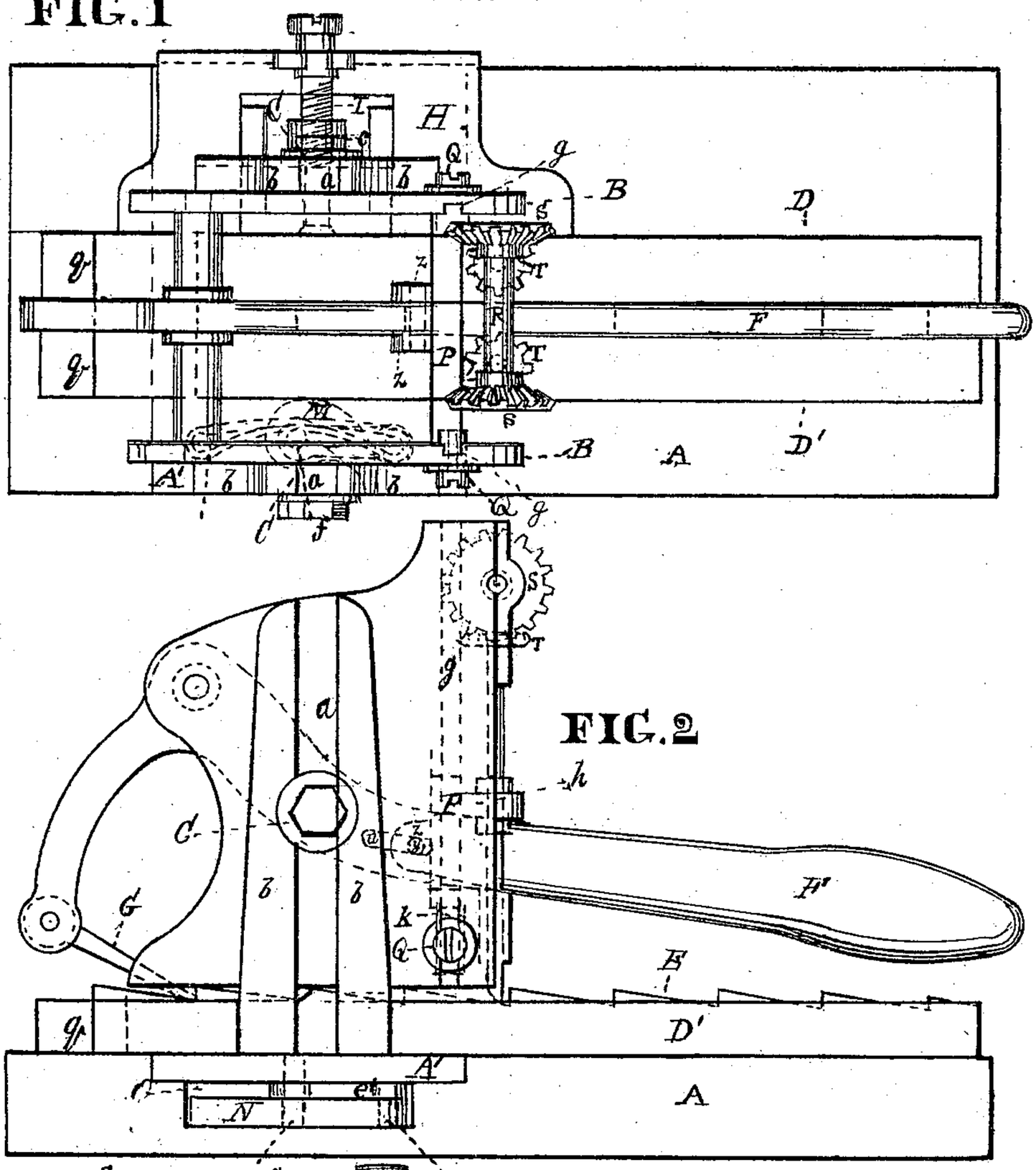
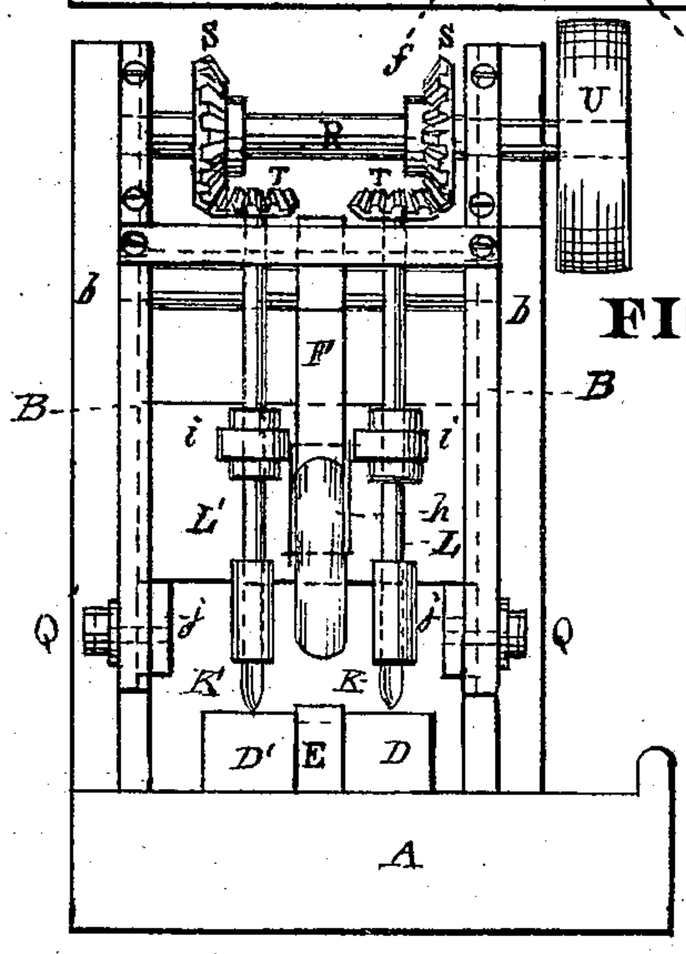


FIG. 2

FIG. 3



WITNESSES.

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JOHN F. TUDOR, OF CAMDEN, NEW JERSEY.

IMPROVEMENT IN MACHINES FOR BORING BLIND-STILES.

Specification forming part of Letters Patent No. 129,439, dated July 16, 1872.

Specification describing certain Improvements in Machines for Boring Blind-Stiles of Rolling Window-Blinds, invented by JOHN F. TUDOR, of the city and county of Camden, in the State of New Jersey.

My invention relates to the combination of vertical boring-bits with the permanent frame of the machine, a slide and lever for throwing the bit in and out of connection with the stiles, and a sliding rack, which is moved forward by means of the lever and pawl, the rods which carry the bits being geared together and driven by a motive-power, and the several parts of the machine being constructed and arranged, in relation to each other, as hereinafter fully described.

Figure 1 is a plan view of the machine. Fig. 2 is a side elevation of the same. Fig. 3 is a front elevation.

Like letters in all the figures indicate the same parts.

A is the bed-plate, B B are the housings, which have a vertical adjustment by means of permanent strips *a a* that fit between uprights *b b* and *b b*, which have a permanent connection at their lower ends to the metal plate A′, which is sunk into the bed-plate and confined there by means of screws, the said guides being provided with tightening-screws C C. There are two stiles, D D′, represented in the drawing, in the position to be bored, yet it will be seen that any desirable number may be bored at the same time. They are carried forward by means of the sliding rack E, operated by means of the lever F and pawl G in each upward movement of the lever. H is an adjustable guide at one side of the machine, operated by the screw-rod I, which works in the lug *c* that that projects upward from the metal plate A′. The rack E is of the necessary thickness to suit the thickness of the stile to be bored. The guide H is so set as to bring the stile D in its proper position with the bit K in the lower end of the vertical rod L. At the other side of the machine there is a cam, M, which bears against the stile D′ and presses it, the rack E, and stile D′ together, and the stile D against the guide H so that they may all be moved forward together at each upward movement of the lever F the required distance of the holes apart, the pawl G, which is hung to the rear end of the lever, engaging with the teeth of the rack. The latter has heads *q q*, which bear against the rear ends of the stiles. The cam M is borne against the stile by means of the spring N in the chamber O, the spring pressing against the pin *e* in the outer end of the arm *e′*, the inner end of which has a permanent connection with the pivot *f* of the cam. The rack E must be of the required thickness to bring the stile D′ in proper position with the bit K′. P is a vertical slide, which is held in the grooves *g g* of the housings B B. It has a slot, *h*, with which the lever F is connected, as seen in Fig. 2. The lever has a slot, *u*, which works on the horizontal pin *y*, supported by the lugs *z z* on the rear side of the slide. The bit-rods L L′ are connected with the lugs *i i* of the slide, as seen in Fig. 3. In the upward movement of the lever the bits K K′ are elevated above the stiles, and are borne downward as it is pressed downward during the boring operation. The depth of the holes is gauged by means of the adjustable stops *j j*, which are held in the slots *k k* of the housings B B, there being tightening-screws Q Q which pass through the slots and connect with said stops.

The bits K K′ are revolved by means of the driving-shaft R and gear-wheels S S, on said shaft, and wheels T T on the upper ends of the bit-rods L L′, one end of the driving-shaft being provided with a pulley, U, over which a belt passes from the motive-power.

I claim as my invention—

The combination of the rack E, spring N, cam M, adjustable guide H, bits K K′, rods L L′, and driving-shaft R, the said rods being geared together as described, and the several parts being arranged for joint operation, substantially in the manner and for the purpose set forth.

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