

S. C. WEBER.
Lath Sawing-Machines.

No. 155,479.

Patented Sept. 29, 1874.

Fig: 1

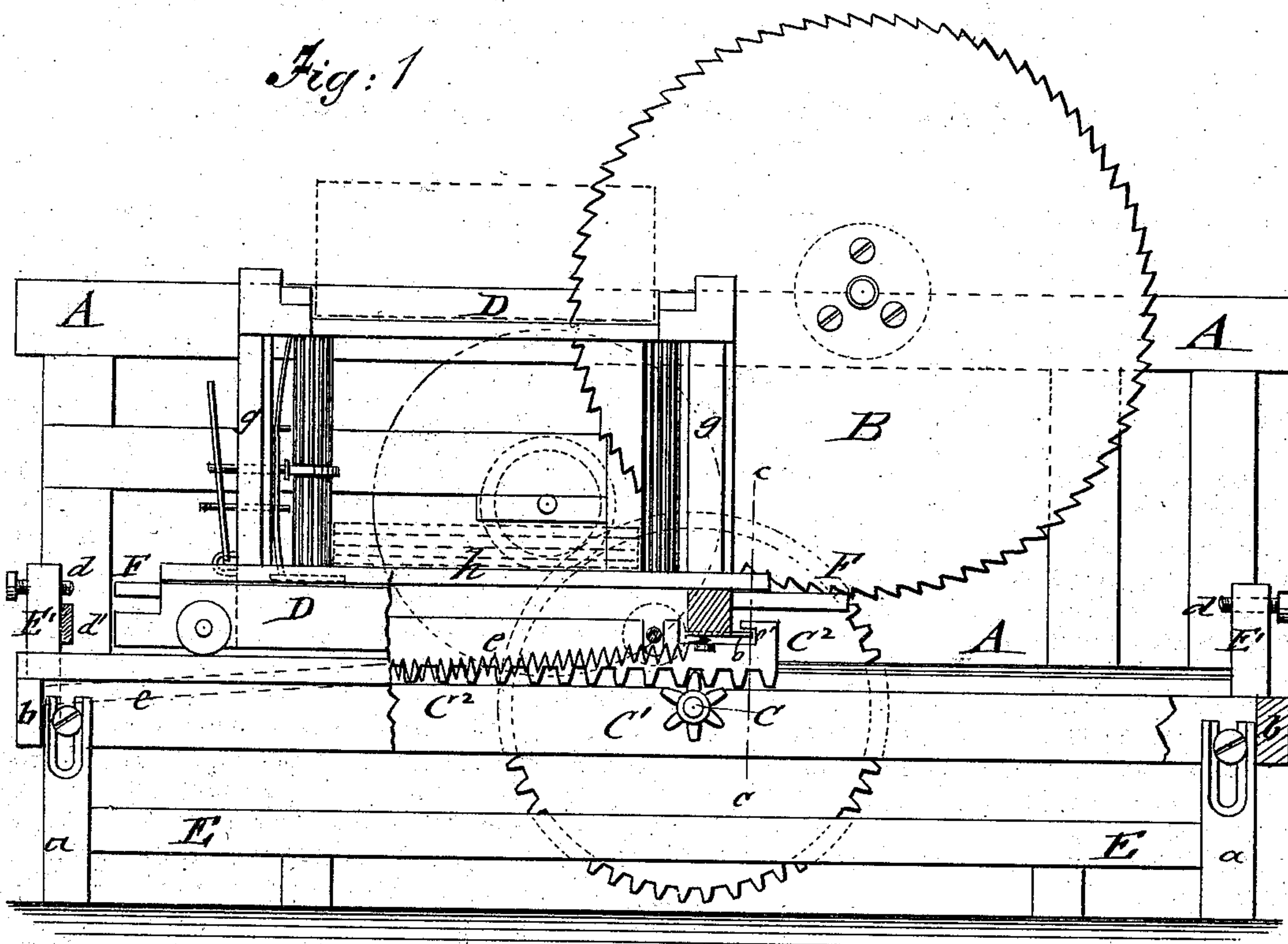


Fig: 2

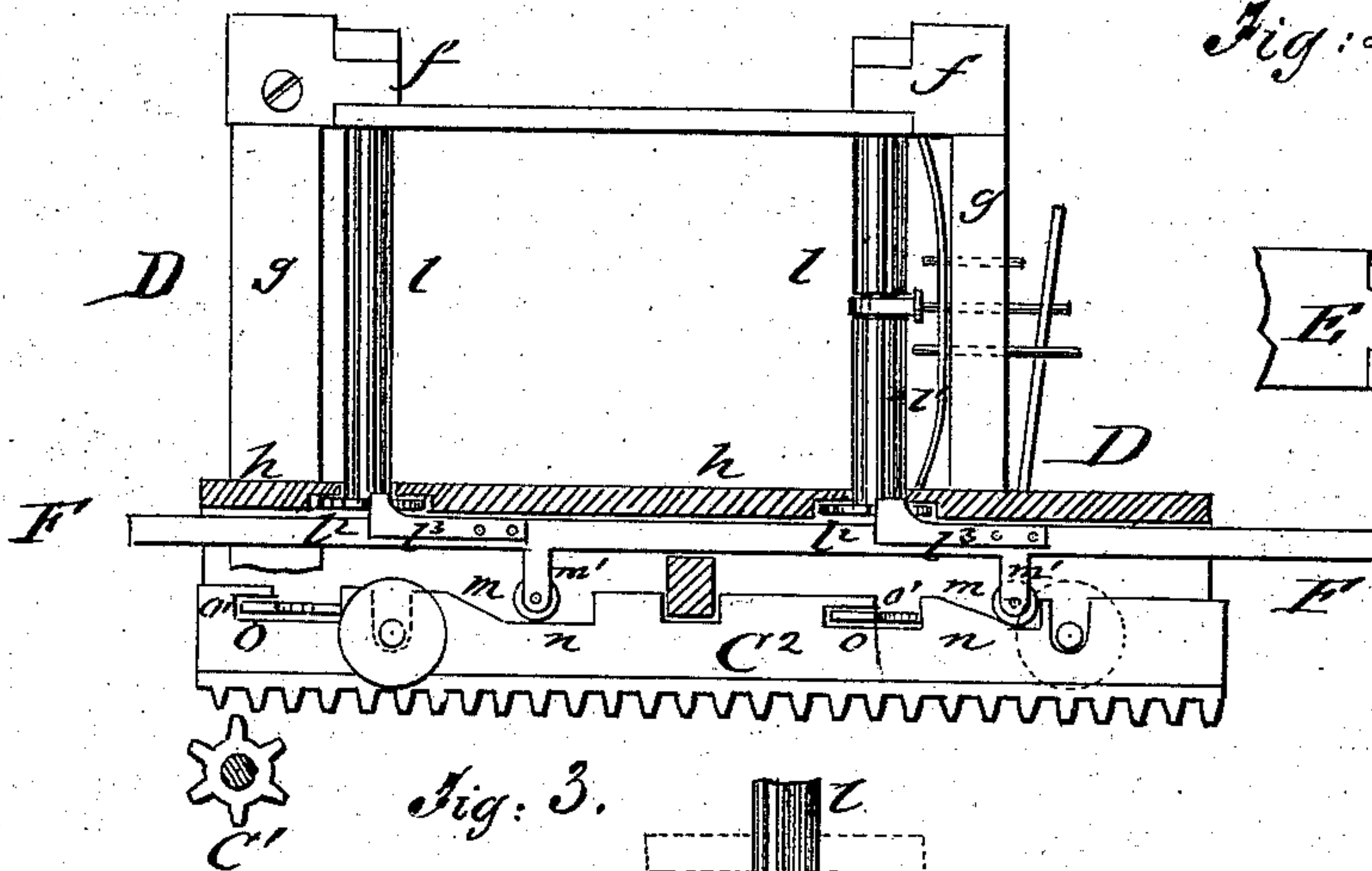


Fig: 4.

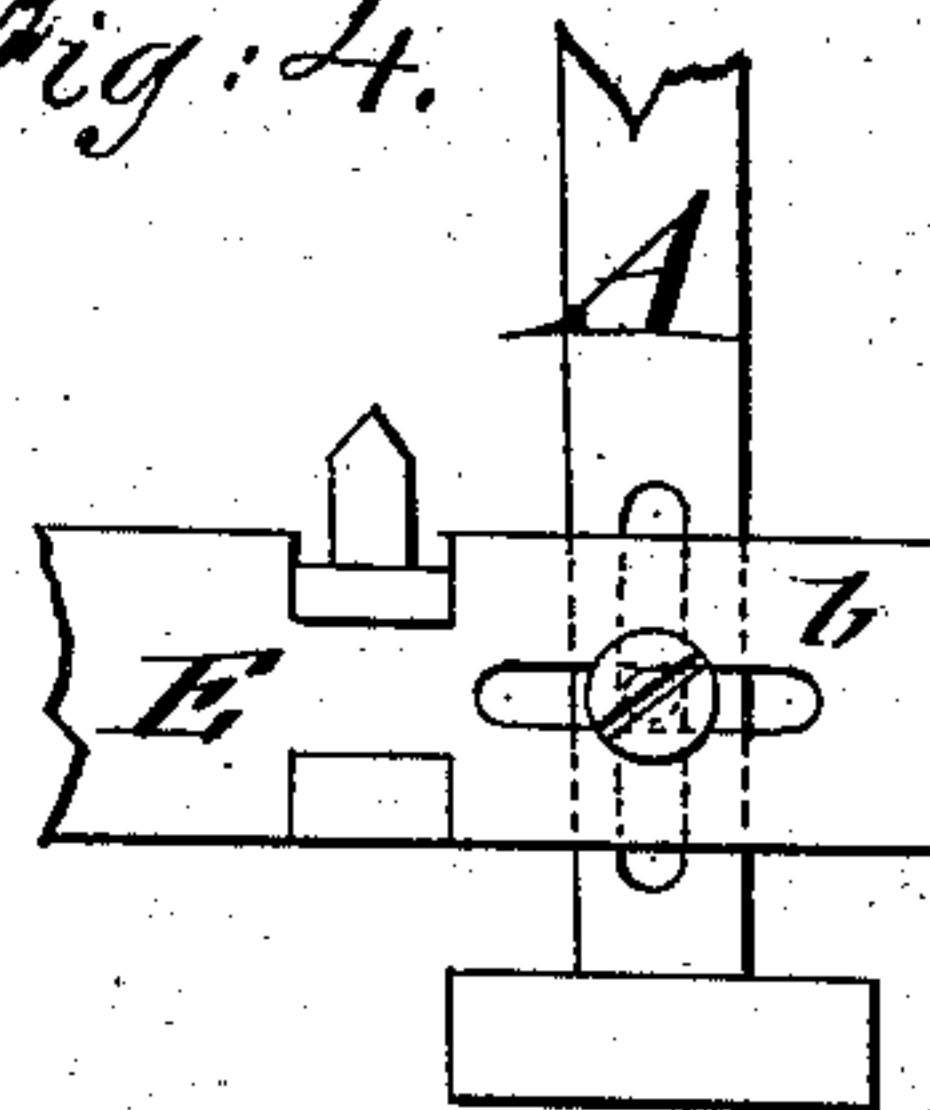
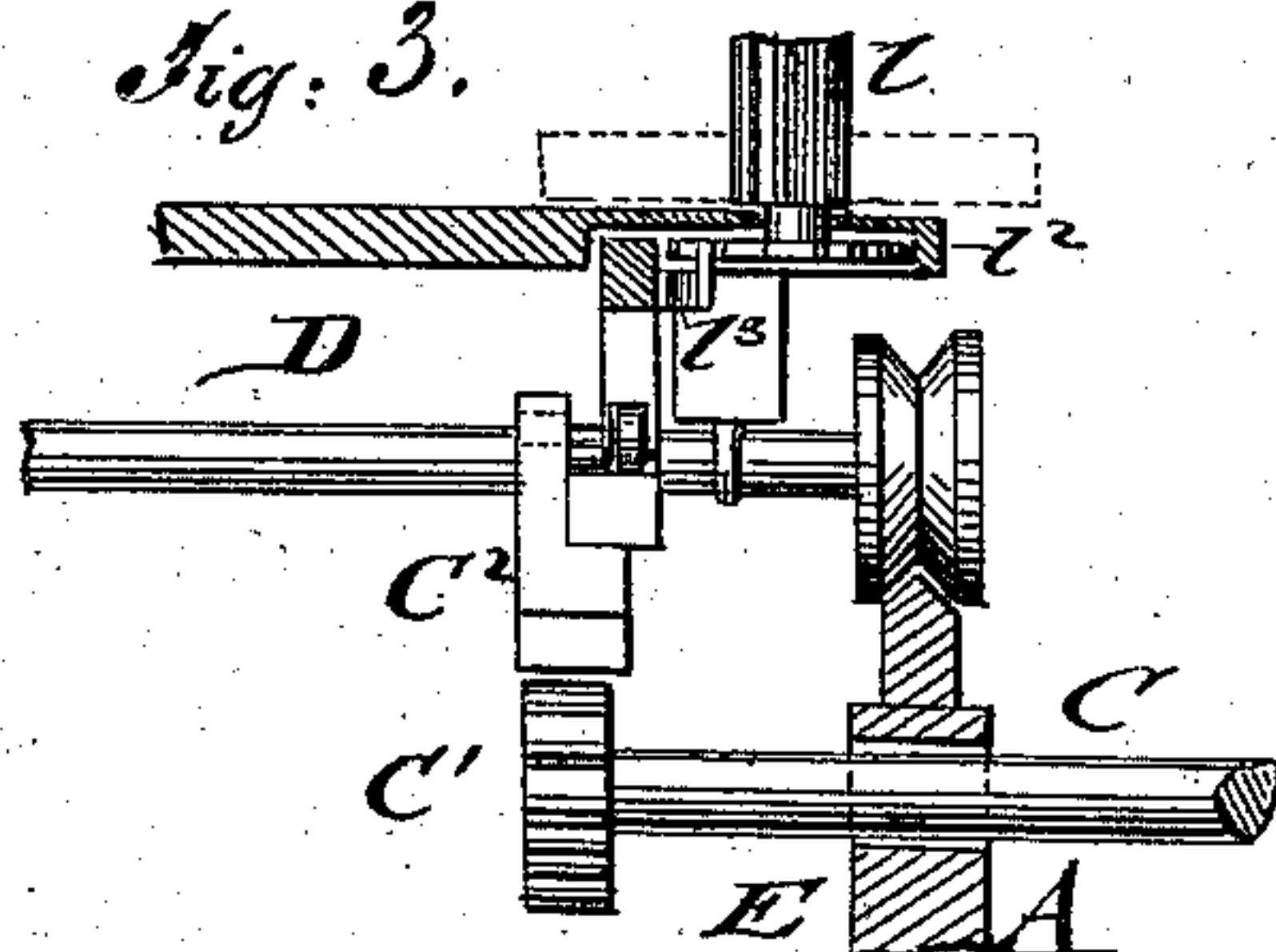


Fig: 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

SAMUEL C. WEBER, OF PATTERSON, OHIO.

IMPROVEMENT IN LATH-SAWING MACHINES.

Specification forming part of Letters Patent No. **155,479**, dated September 29, 1874; application filed July 18, 1874.

To all whom it may concern:

Be it known that I, SAMUEL C. WEBER, of Patterson, in the county of Hardin and State of Ohio, have invented a new and Improved Lath-Sawing Machine, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation, with parts cut off, of my improved lath-sawing machine; Fig. 2, a sectional rear elevation of the saw-carriage, with gear and feeding devices; Fig. 3, a detail vertical section on line *c c*, Fig. 1, showing connection of carriage and way frame; and Fig. 4, a detail end view of main saw-frame and way-frame, showing adjustability of the latter on the former.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claims.

In the drawing, A represents the main saw-frame, which is constructed of the usual size and strength, and, preferably, built stationary on the mill-floor. It supports the rotating shaft of the circular saw B, and the driving-shaft C with pinion C¹ at front end, motion being imparted to both by belt and pulley connection in the usual manner. The pinion C¹ of the driving-shaft gears with a feed-rack, C², of the saw-carriage D, which moves by flat and V-grooved rollers on corresponding rails of the adjustable way-frame E. The vertical supporting-posts *a*, as well as the lateral connecting-pieces *b*, of way-frame E are slotted and acted upon by strong set-screws for the adjustment of the way-frame, and with it of the carriage D, in vertical direction, as required by the gradual wearing out of the saw, so that the same can be used for a considerable length of time without necessitating a new blade. The way-frame E is, furthermore, placed under a certain inclination toward the saw, for the purpose of offsetting or neutralizing the tendency of the lower part of the saw to crowd or hurry the feed motion of the carriage. The return of the carriage for the next cutting is thereby also facilitated to a certain extent. In connection with the adjustable way-frame, it is necessary to change the position of the driving-shaft and pinion in the same proportion, which is done by means of slotted jour-

nal-boxes with set-screws. Upright posts E' at both ends of way-frame E define, by means of suitable adjusting-screws *d*, the exact extent of motion in either direction, and throw, by means of a sliding feed-bar, F, of carriage E, the feed-rack C² in or out of gear with the pinion C¹. The front post E' is also provided with a suitable spring or rubber cushion, *d'*, for taking up the shock or concussion of the saw-carriage when returning to the same, by the action of spiral springs, weight, and pulley or equivalent device *e*, for being fed again to the saw. The saw-carriage D is constructed with top or upper head-blocks *f*, preferably made of light metallic blocks, and provided with knees and dogs to hold the bolts or blocks thereon, and also with the usual lever and ratchet-feeding devices. The upper head-blocks *f* are made of several detachable pieces for adjusting the relative height of the blocks to the saw, in connection with the raising or lowering of the way-frame E. The upper head-blocks *f* are supported on upright posts *g*, which are secured into the truck or base frame *h*, and serve as lower head-blocks for securing a series of planks thereto. The height of the saw-carriage is determined by the size of the saw, the dimensions being such that a block is fed by the upper head-blocks to the upper section of the saw, while the planks are fed by the lower part to the lower section of the saw, and thereby, through the action of one saw, is produced the simultaneous ripping of the blocks into planks, and of the planks into laths. The planks are fed by means of feed-rollers *l*, one of which is provided with a band-spring, *l'*, and sliding bearing for adjusting itself readily to the inequalities of the planks, and admitting the introduction of the same. The feed-rollers *l* are operated by ratchet-wheels *l'* and fixed pawls *l''* of the sliding feed-bar F, simultaneously with the throwing into gear of the carriage after its return to the beginning post of the way-frame. The feed-bar F acts also by means of small friction-rollers *m*, which turn, at the ends of downward-extending bearings *m'* of bar F, on recesses *n* at the upper end of feed-rack C², which is supported by strong band-springs *o* in slots *o'*, and carried in downward direction by the inclines at one side of

recesses *n*, to gear with pinion *C*¹ until the contact of the feed-bar *F* with the end post *E'* releases the feed-rack, and produces the return of the saw-carriage by the throwing out of gear of feed-rack and pinion. The sliding feed or gear bar is also provided with a suitable lever mechanism at the front end for throwing the rack-bar instantly out of gear, and interrupting thereby the operation of the machine.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The laterally-tilting way-frame *E*, com-

bined with saw *B*, as shown and described, to prevent its lower part from hurrying the feed-motion, and to facilitate the return of carriage.

2. The sliding feed-bar *F* combined with feed-rack *C*² and pinion *C*¹, to throw them in or out of gear.

3. The reciprocating carriage, having upper and lower head-blocks, combined with stationary saw-frame and adjustable-inclined way-frame, as and for the purpose specified.

SAMUEL CYRUS WEBER.

Witnesses:

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J. B. YOUNG.