

(No Model.)

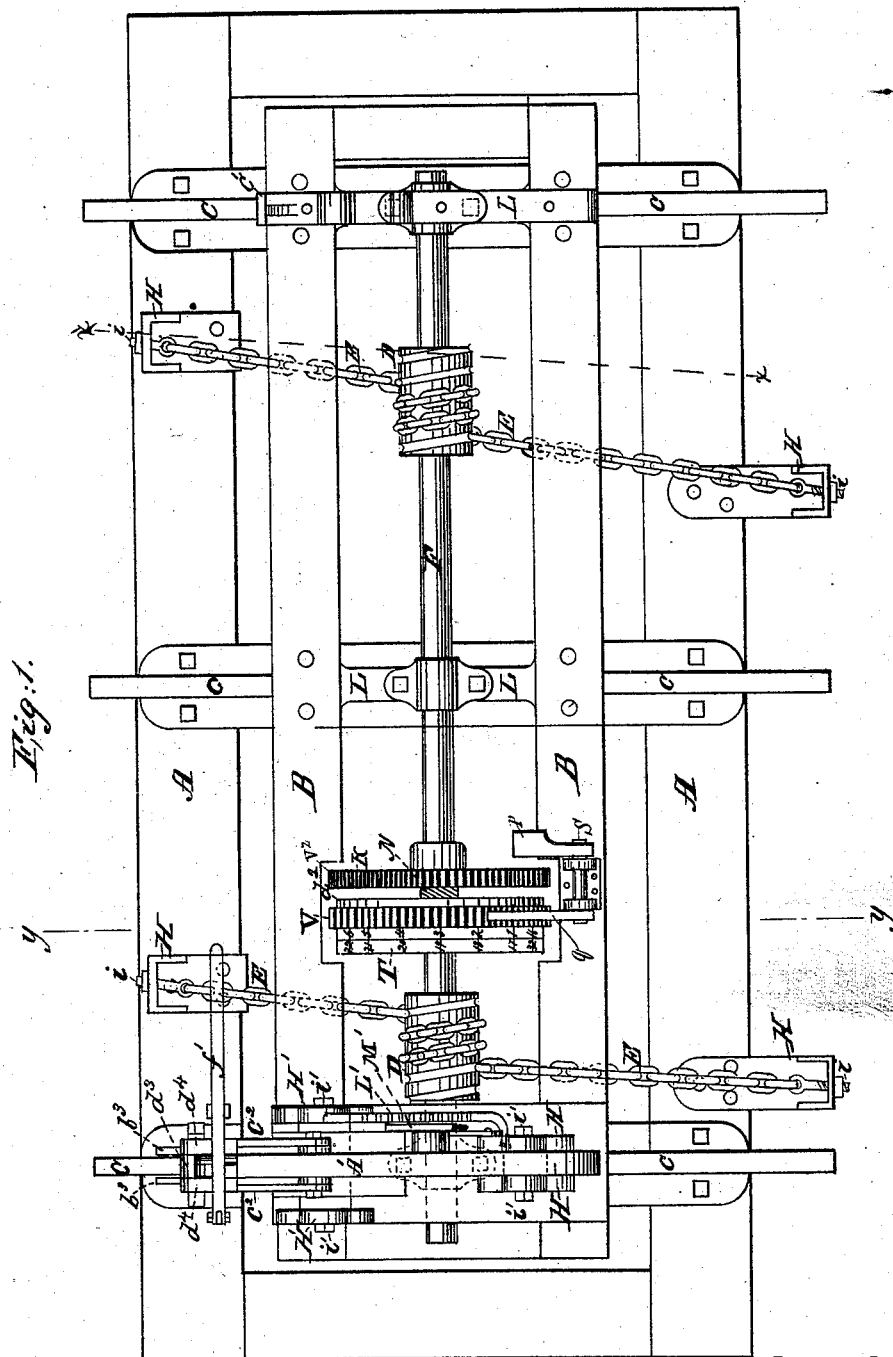
3 Sheets—Sheet 1.

C. C. BROOKS.

LOG SETTING APPARATUS FOR SAW MILLS.

No. 261,804.

Patented July 25, 1882.



Witnesses:  
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C. Pedquinn

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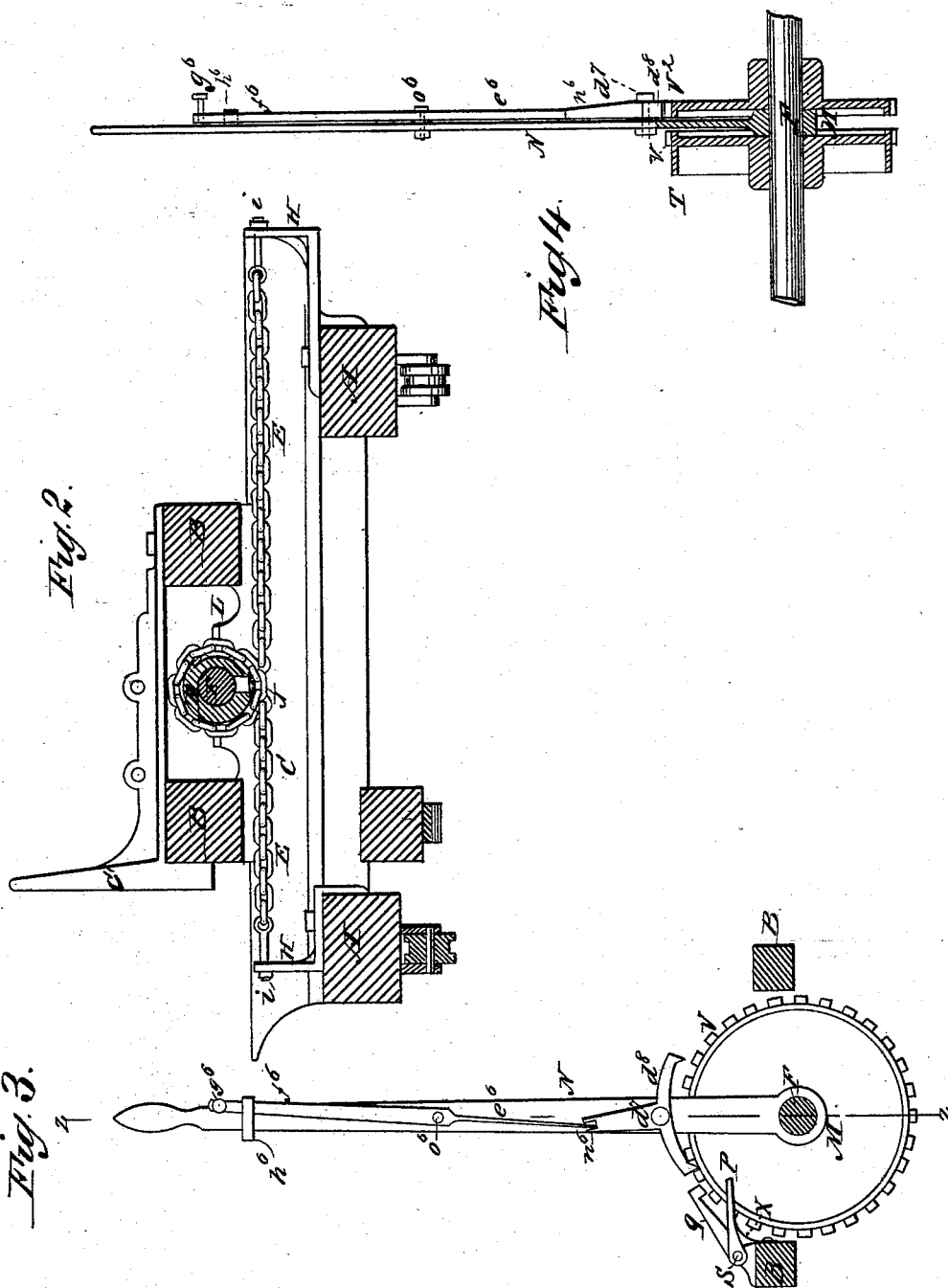
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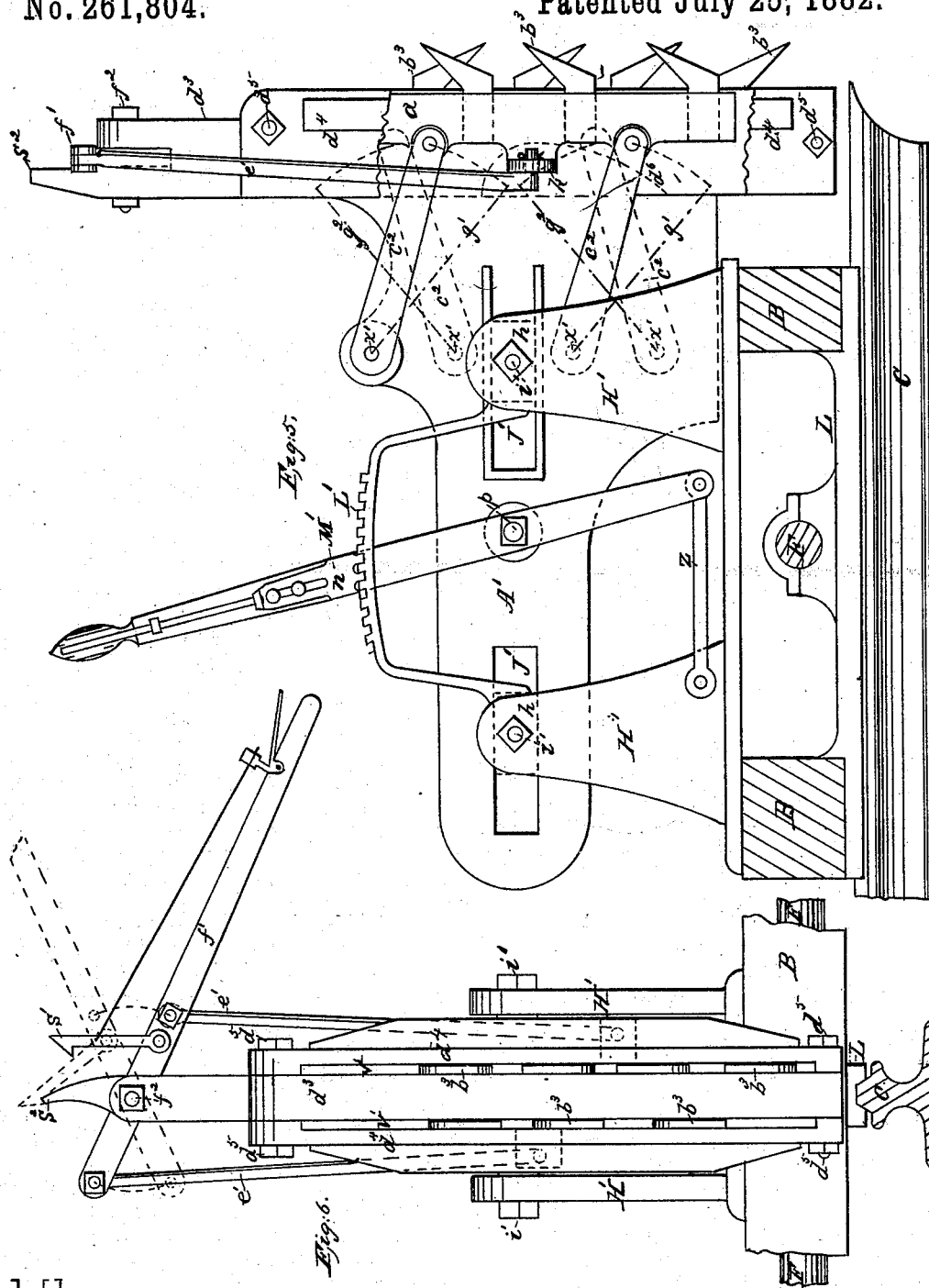
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# UNITED STATES PATENT OFFICE.

CHAPIN C. BROOKS, OF LANCASTER, NEW HAMPSHIRE.

## LOG-SETTING APPARATUS FOR SAW-MILLS.

SPECIFICATION forming part of Letters Patent No. 261,804, dated July 25, 1882.

Application filed April 17, 1882. (No model)

*To all whom it may concern:*

Be it known that I, CHAPIN C. BROOKS, of Lancaster, in the county of Coos and State of New Hampshire, have invented a new and Improved Log-Setting Apparatus for Saw-Mills, of which the following is a full, clear, and exact description.

The invention consists essentially of a shaft running lengthwise along and mounted on the saddle, with a spirally-grooved drum on near it, each end of the saddle, over each of which drums a chain is coiled, so as to work in the grooves, with the ends extended to the two sides of the carriage, respectively, and attached by adjusting-screws to set them taut, and alike for drawing the saddle forward and backward on the head-blocks of the carriage, according as the shaft is turned one way or the other, by means of a hand-lever and a toothed setting-wheel and pawl, said wheel being located on the shaft together with the lever, and with a setting-dog and indicator to gage the setting by, all as hereinafter described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the log-carriage, head-blocks, saddle, and the improved setting and dogging apparatus. Fig. 2 is a transverse section of Fig. 1 on line *x x*. Fig. 3 is a section through the saddle and setting apparatus on line *y y*, Fig. 1. Fig. 4 is a section on line *z z* of Fig. 3. Fig. 5 is a side elevation of the apparatus for securing the log and setting it to adjust it for the taper, the beams of the saddle being shown in cross-section. Fig. 6 is a front elevation of Fig. 5.

A represents the longitudinal timbers of the carriage; B, the longitudinal timbers of the saddle; C, the head-blocks upon the carriage, and whereon the saddle slides forward to push the logs up to the saw by the knees *c'*, Figs. 1 and 2, and knee-blocks *d'*, Figs. 1, 5, and 6.

F represents the shaft, located in boxes on the cross-bars L, and whereon the spirally-grooved drums D are mounted for working the saddle by chains E, coiled upon and attached to said drum at J, Fig. 2, and also attached to the carriage, being extended to both sides, as shown, and connected to brackets H by ad-

justing-screws *i*, which adjust and tighten the chains, so that the saddle may be always adjusted exactly parallel with the saw, and so that there will be no slack and backlash, as in most setting devices.

The chains E are inclined from the drums D to the connecting-brackets H to coincide with the inclination of the grooves of the drums at the points where they run on and off the drums to avoid angles thereat, and thus insure the best action.

It will be seen that by the drums moving along the chains forward and backward the grooves of the drums and the chains always coincide in the pitch or inclination, thus insuring uniform tension of the chains, also uniform travel of the saddle.

To turn the shaft for working the saddle a lever, N, is attached to a hub, M, fitted loosely to the shaft alongside of the notched wheel V<sup>2</sup>, and provided with the double-headed dog *d'*, pivoted at *d'* to said lever, and connected at the end of its arm *n'* with the spring-arm *e'* of a lever, *f'*, pivoted to lever N at *o'*, and having a knob-handle at *g'* for shifting said lever *f'* forward and backward in guard *h'* to reverse the dog *d'*. The spring portion *e'* of said dog-reversing lever *f'* is to allow the dog to rise out of and shift back in the teeth of wheel V<sup>2</sup> when lever N is operated to move the saddle of the log-carriage. The dog *d'* is to be reversed, as above described, according as the saddle is to be shifted forward or backward.

A notched gage-wheel, V, is attached to the shaft F on the side of lever N opposite to the wheel V<sup>2</sup>, with a stop-latch, *q*, and a foot-piece, P, arranged on the pivot S in connection with said gage-wheel, to be used to gage and stop the saddle when setting the log, and an indicator-wheel, T, is also attached alongside of the stop-wheel with a scale by which to show how much to set the saddle for the desired thickness of the boards.

The spring X throws the stop-pawl *q* out of the stop-wheel V, leaving the said wheel V free to be turned until the stop is brought down by the foot of the operator.

For securing and holding the log while sawing, and also for setting out the taper end of the log, the two sets of reversely pointing and

adjusting setting-dogs  $b^3$  are mounted on the upright knee-block  $d^3$  of a substantial supporting-plate,  $A'$ , by the bars  $a$ , to slide up and down thereon, also to swing on the parallel  
 5 connecting-bars  $c^2$ , the said dogs being arranged on the bars  $a$  in the ways  $V'$ , between the guides  $d^4$  and the sides of the said upright knee-block  $d^3$ , the guides  $d^4$  being bolted at  $d^5$  to said knee-block  $d^3$ .

10 The bars  $a$  are pivoted to the aforesaid bars  $c^2$ , and said bars are pivoted to the plate  $A'$  at  $X'$ , whereon they swing to swing the dogs.

The front dog-bar,  $a$ , in Fig. 5, is connected by rod  $e'$  and lug  $k$  with lever  $f'$  at one side of  
 15 its pivot  $f^2$  in the top of the knee-block  $d^3$ , and the opposite bar  $a$  is similarly connected by another rod  $e'$  and lug  $k$  to lever  $f'$  at the opposite side of the pivot  $f^2$ , so that when said lever is raised into the position represented by the  
 20 dotted lines, Fig. 6, front bars,  $c^2$ , will swing down into the position indicated by dotted lines  $g'$ , Fig. 5, and the corresponding bar  $c^2$  of the other bar  $a$  will be raised up to the position indicated by dotted lines  $g^2$ , thereby  
 25 drawing the dogs back within ways  $V'$  to allow the log to be shifted. The catch  $S'$  then engages with toe  $S^2$  on the knee-block  $d^3$  to hold them in that position until the log is ready for being secured by the dogs. The  
 30 bar  $f'$  is then thrust down to project the dogs

and engage them with the log. The lugs  $k$  swing in the notches  $d^5$  of the guides  $d^4$  when the dogs are so operated, said notches being shown by dotted lines  $d^5$  for both bars  $d^4$ , as the front bar is broken out in the drawings. 35  
 The plate  $A'$ , to which the bars  $c^2$  are connected, is fixed by slotted ways  $J'$  to slide on guides  $h$ , dotted, Fig. 5, and secured by bolts  $i'$  to the standards  $H'$ , mounted on the saddle  
 B, so as to slide forward and backward to set 40 the dogs forward and backward, and an operating-lever,  $M'$ , is connected to the plate  $A'$  by pivot  $p$ , and coupled to one of the standards  $H'$  by the link  $Z$  for shifting the plate, and said lever is provided with a latch,  $n$ , and rack 45  
 $L'$  for setting it.

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

The combination, with the carriage A, saddle B, shaft F, spirally-grooved drums D, and 50 chains E, of the angle-plates H, secured to the carriage A diagonally across from each other in lines tangent to the average position of the spiral groove where it receives their  
 55 respective chains, as shown and described.

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Witnesses:

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