

(No Model.)

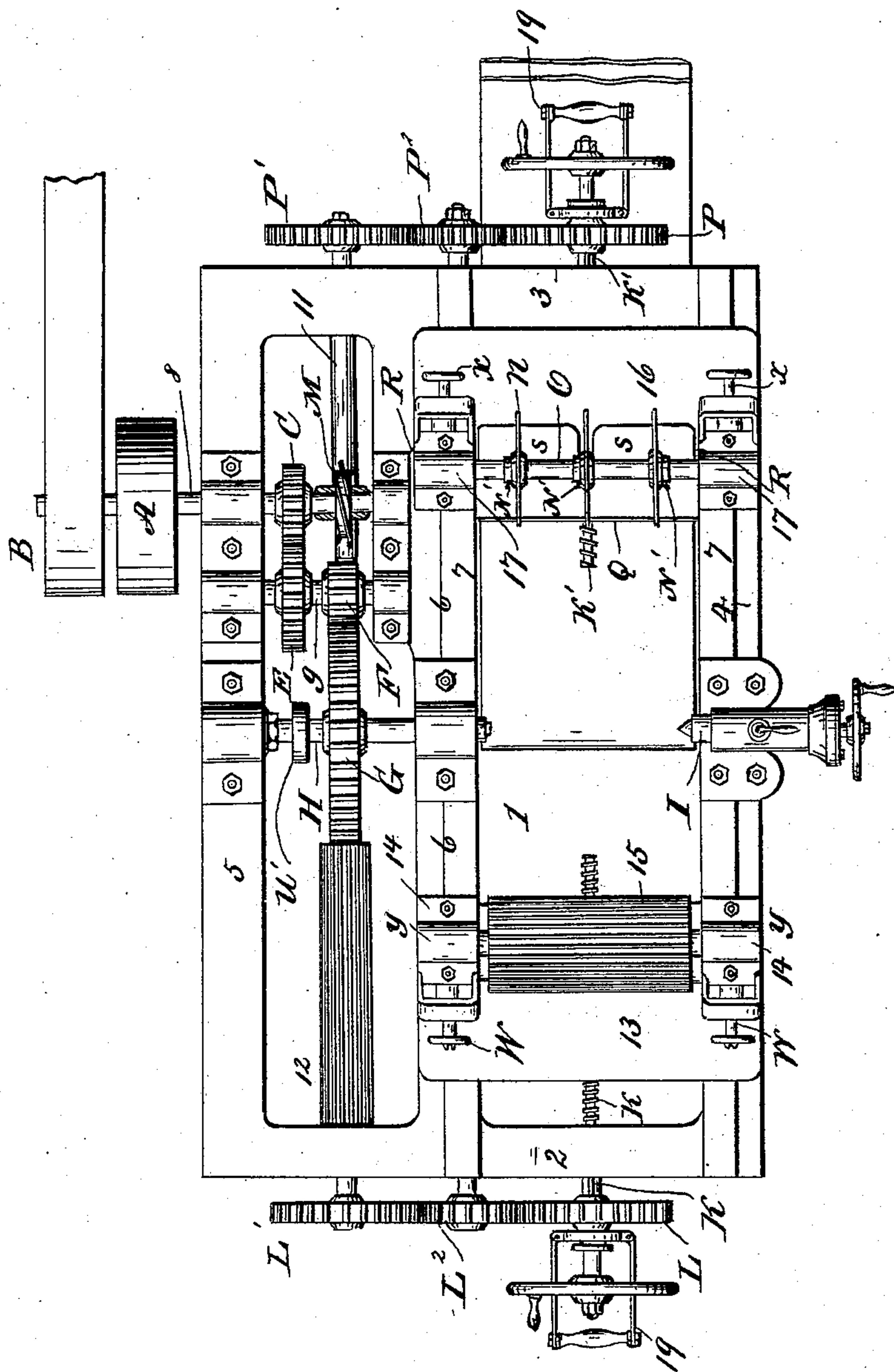
2 Sheets—Sheet 1.

J. D. JONES.
SPLINT CUTTING MACHINE.

No. 324,387.

Patented Aug. 18, 1885.

FIG. 1.

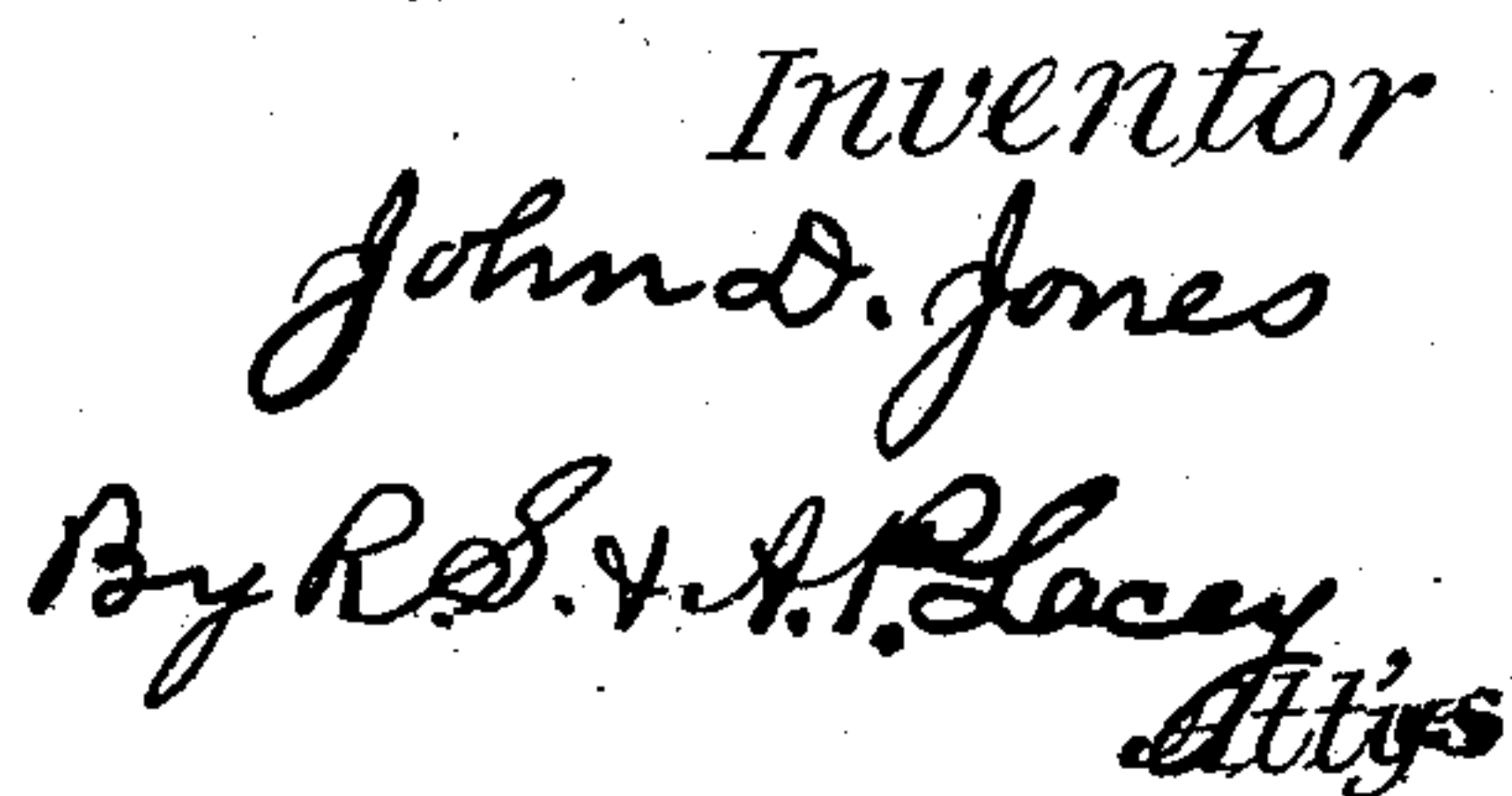


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2 Sheets—Sheet 2.

Patented Aug. 18, 1885.



UNITED STATES PATENT OFFICE.

JOHN D. JONES, OF TOPEKA, KANSAS.

SPLINT-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 324,387, dated August 18, 1885.

Application filed November 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. JONES, a citizen of the United States, residing at North Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Splint-Cutting Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

15 This invention relates to machinery intended especially for the cutting of match-splints, and has for its object to provide a simple machine by which match-splints may be cut directly from a log of wood suitably supported on the machine.

20 It has for further objects to adapt the machine for ready conversion from a match-splint cutter to a veneer-cutter, suited to cut ordinary veneers or veneer-strips from which to make boxes for matches or otherwise.

25 To the ends described, the invention consists in certain novel features of construction, combined and arranged substantially as hereinafter fully described and claimed.

30 Referring to the drawings, Figure 1 is a top plan view. Fig. 2 is a side view, and Fig. 3 an end view of my machine.

The stand or main frame of my machine is provided with the horizontal top frame No. 1, consisting of the end bars, Nos. 2 and 3, 35 the side bars Nos. 4 and 5, and the bar No. 6, which divides the frame longitudinally, as shown. On the bars 4 and 6 are formed the shears or guides 7 7, on which the slides 13 and 16 are held, and movable, as presently described.

40 The drive-shaft 8 is journaled in bars 5 and 6, and is provided on one end with loose and drive pulleys, A B, fitted to receive a belt from an engine or other driving-motor. On the drive-shaft 8 is also secured the pinion C and a worm-wheel, M. The worm-wheel M is meshed with a worm-gear, 10, mounted on a shaft, 11, which is journaled in the end bars, 45 2 and 3, and is projected beyond said bars and provided on one end with gear P' and on the opposite end with gear L', for the purposes

presently described. On the shaft 11 I secure or form an eccentric, 12, arranged to operate the inking devices of a printing apparatus 55 which I have adapted for application to my machine by removing the cylinder 15.

A shaft, g, is journaled in bars 5 6, adjacent to the drive-shaft, and is provided with a pinion, E, meshed with pinion C e, and with a 60 pinion, F, meshed with gear G, secured on the spindle H, journaled between the bars 5 and 6, and having its end extended beyond the bar 6, and formed with a square or other suitable carrying-head, similar to the carrying-head or center of wood-turning lathes. 65

The log is held between center H and an ordinary stationary center, I, supported by a suitable standard on the bar 4, and is revolved by center H, as will be understood from the 70 above description.

A slide, 13, is mounted and movable on shears or guides 7, and is provided with standards Y, on which are supported boxes 14, which may be adjusted horizontally on said standards by means of set-screws W, for the purpose of setting the box 14 carrying the roller 15 nearer to or farther from the log. 75

The cylinder 15 is journaled in boxes 14, and is provided with cutters J, projecting radially, as shown. These cutters may be formed integrally with the cylinder or secured thereto in any suitable manner.

A slide, 16, is mounted and movable on the guides 7, on the opposite sides of centers H I 85 from the slide 13. It is provided with standards R, on which are mounted boxes 17, similar to and adjustable like boxes 14 for a like purpose. Through the medium of set-screws x, shaft O is journaled on the boxes 17, and is provided with cutting-disks N, which are 90 keyed on and movable along shaft O, and held at any point thereto by set-screws N'. The slide 16 is provided on its inner side with a wing, 18, extending up from its lower side and provided with veneer knife or stripper Q, 95 which may be formed integral with or be secured in suitable manner to the slide.

The shafts K K' are journaled respectively in the bars 2 and 3, between bars 4 and 6. The 100 inner end of each of these shafts is threaded, and the shaft K turns in a threaded opening through a block depending from slide 13. The other shaft, K', turns in a threaded opening

through a block depending from slide 16. As these shafts are revolved they feed the slides toward or from the center on which the log is supported. It is preferred to make one of the feed-shafts or screws K K' right and the other left handed, so as to operate properly in connection with the gearing presently described.

Gears L P are keyed on and movable along the outer ends of respectively shafts K K'.

The shaft 11 is provided on one end with a gear, L', and on its opposite end with gear P'. Gear L' is meshed with gear L², which in turn meshes with gear L. Gear P' is meshed with gear P², which in turn meshes with gear P. On the outer end of the shafts K K' are arranged suitable hand-wheels or cranks, by which they may be independently revolved when thrown out of gear with the driving part of the machine.

Bail-handles 19 are connected with wheels L P, by which the said wheels may be conveniently moved along their shafts into and out of engagement with gears P² L².

The gears L² P² may be dispensed with, and the wheels P P' geared directly together by belts or sprocket-bands, or be made sufficiently large to intermesh; but I prefer to use said wheels L² P², as shown, and before described.

In operation a log is placed on the centers H I, and will be revolved by center H through the drive mechanism before described.

The slides 13 and 16 are now advanced toward the log. It is desirable usually to advance just the slide 13 so that its cutters all engage the log before cutters Q N, which adjustment may be conveniently secured by turning shaft K independently of the driving mechanism, or a slight adjustment may be secured by adjusting the boxes 14.

As cutters J N come in contact with the log, it by its revolution revolves said cutters. The cutters J cut the log longitudinally to a depth equal to the thickness of a match, the cutters N cut the log into proper match-lengths, and cutter Q strips the match-splints from the log. By adjusting the cutters N on their shaft the match-splints can be cut to various lengths, as may be desired.

It will be seen that the rails or guides 7 serve to support both slides 13 and 16, and that the latter slide 16 carries both the scoring-cutters N, and the stripper or veneer-cutter Q.

In order to carry off the match-splints and deliver them in proper arrangement for dipping or heading, I provide the endless apron supported at one end on shaft V below the log-support. This shaft is driven by a belt connecting its pulley U with pulley U' on the spindle H. The match-splints fall into this apron through openings S S formed through the slide 16.

By throwing slide 13 out of feed-gear the cutter Q can be employed to cut veneer-strips from the log, and the scorers N may be used to divide said veneer into proper widths for boxes or otherwise.

It will be seen that by drawing the gears L P out of engagement with their respective driving-gears the slides 13 and 16 may be moved by turning their hand-wheels back and forth independently of each other and of the driving mechanism. By this construction the slides 13 and 16 may be adjusted so as to engage properly on opposite sides of the log, or one slide may be thrown out of gear, so as to cut only with the other. For instance, when it is desired to cut veneer-blanks, the slide 13 may be thrown out of gear. Again, when it is desired to cut match-splints the full length of the log, the cutters N may be set back by adjusting-boxes 17, and the roller 15 and stripper caused to operate against the log.

By the novel arrangement of cutters, J N, and Q the gearing is simplified, and the parts are disposed compactly, so as to take up but little room.

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

The combination of the gears L' P', driven by the operating mechanism, the cutter-supporting slides 13 and 16, arranged on opposite sides of the work, the screws K K', the gears L P, geared normally with wheels L' P', the said gears L P being keyed on and movable along their respective screws, whereby they may be independently thrown out of gear with the driving mechanism, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN D. JONES.

Witnesses:

J. M. BAIR,

J. H. STANTON.