

2 Sheets—Sheet 1.

No. 419,561.

Patented Jan. 14, 1890.

Fig. 1.

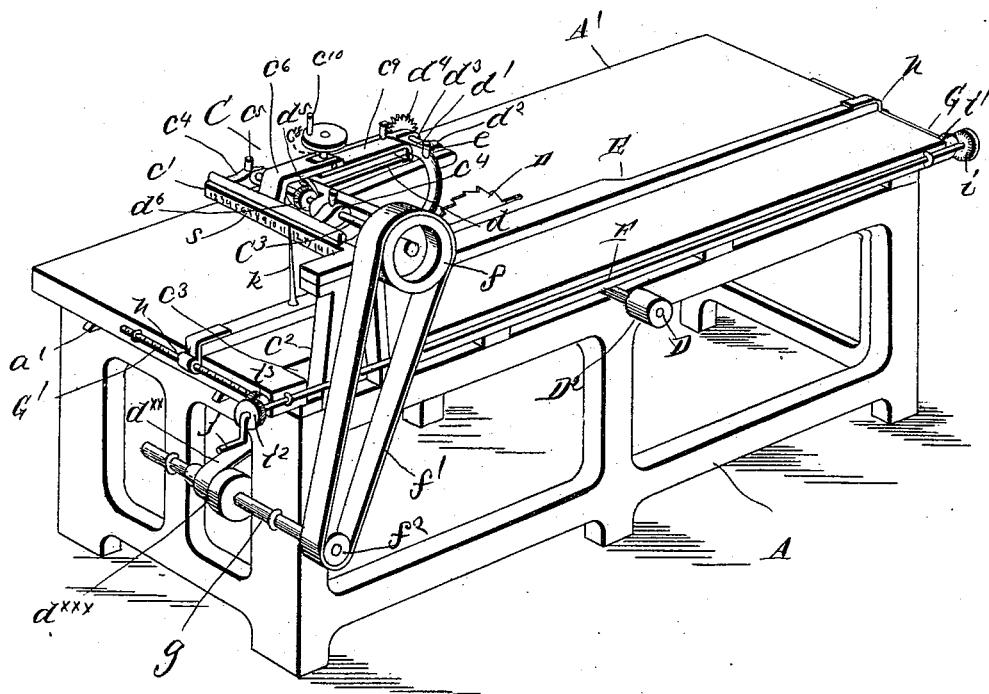


Fig. 3,

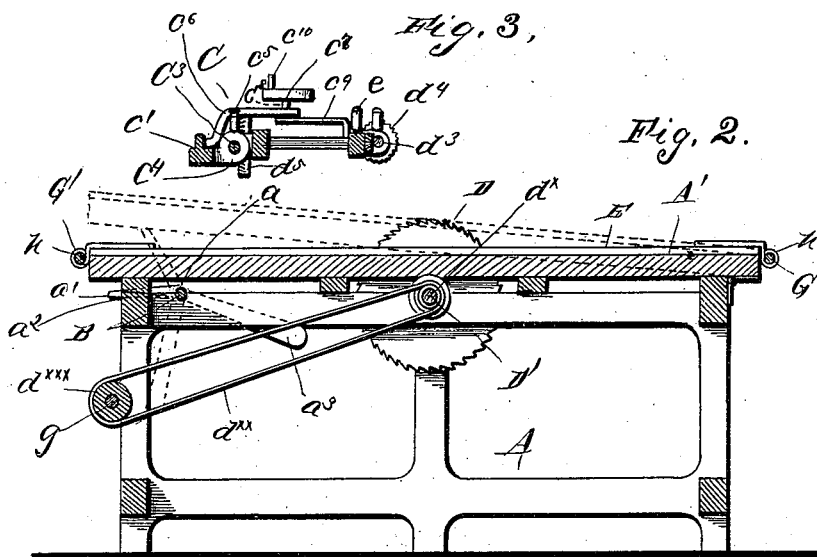


Fig. 2.

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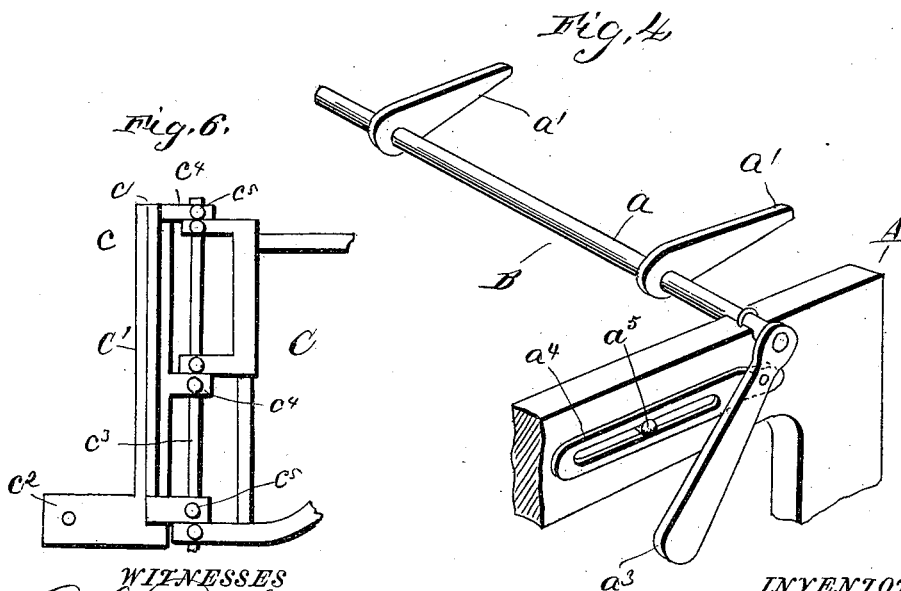
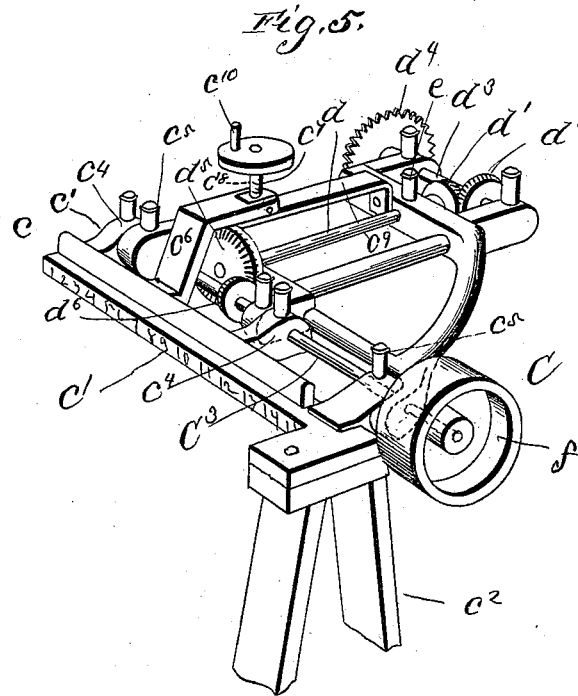
(No Model.)

2 Sheets—Sheet 2.

J. R. RIPLEY.
SELF FEEDING RIP SAWING MACHINE.

No. 419,561

Patented Jan. 14, 1890.



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UNITED STATES PATENT OFFICE.

JAMES R. RIPLEY, OF MEMPHIS, TENNESSEE.

SELF-FEEDING RIP-SAWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 419,561, dated January 14, 1890.

Application filed September 7, 1889. Serial No. 323,331. (No model.)

To all whom it may concern:

Be it known that I, JAMES R. RIPLEY, a citizen of the United States, and a resident of Memphis, in the county of Shelby and State of Tennessee, have invented certain new and useful Improvements in Self-Feeding Rip-Sawing 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 letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a perspective view. Fig. 2 is a vertical longitudinal section, and Figs. 3, 4, and 5 are detail views. Fig. 6 is a detail view showing more fully the hinging or pivoting connection between the pivoted frame and the work-table.

This invention pertains to certain improvements in saw feed mechanism; and it consists of the novel combination and construction of parts, as will fully appear from the following description and accompanying illustration.

In accordance with my invention I employ a suitable supporting-frame A, upon which is mounted a table A', having its outer end hinged to said frame. Directly under its opposite end is arranged an adjusting device B, to effect the vertical adjustment of the table at any desired angle of inclination required. This adjusting device consists of a shaft a, extending entirely across and journaled in the frame A, and having cam-arms a' a', engaging the under side of the table A', said arms, however, when in their lowest position or out of use, resting in gains or notches a² a² in the top edge of one end of the frame A. The outer end of the shaft a has preferably formed with it a handle a³, which is pivoted to a slotted slide a⁴ to limit the movement of the handle and consequently that of the shaft a and its arms a' a' in their upward direction. The slotted slide a⁴ engages a stop or stud a⁵, projecting from the frame A and through its slot, so that while it allows the slide a certain amount of play, according to the predetermined movement of the handle or shaft, yet it limits the movement of the slide.

C is the work-feed device, which is arranged

above the table A', and comprises a frame or support c, hinged or pivoted to a fixed horizontal arm c' of a standard c², bolted to the top edge of the frame A and extending up through a recess or opening c³ in the opposite edge of the table. The hinging or pivoting of the frame c to the arm c' of the standard c² is effected by means of a rod c³, (also, as presently seen, serving as a shaft,) passed through apertures of lugs c⁴ on said arm and on the inner cross-bar of said frame. Oil or lubricant boxes c⁵ may be furnished upon the lugs c⁴ to lubricate the bearings of the shaft or rod c³. In the hinged or pivoted frame b is journaled a shaft d, extending lengthwise of the table A' and carrying at one end a beveled pinion d', gearing with a similar pinion d² on a shaft d³, bearing a spur-wheel or feeder proper d⁴, which engages and feeds the work forward to the saw. The opposite or inner end of the shaft d is also provided with a beveled pinion d⁵, which gears with a similar pinion d⁶ on the rod or shaft c³. The shaft d may also be lubricated by means of lubricant or oil contained in boxes e e, arranged upon cross-pieces of the frame b above the bearing of said shaft. Upon one end of the shaft or rod c³ is secured a pulley f, which is driven by an endless belt f', also encompassing a small pulley f² on a shaft g, suitably journaled in a frame A. From the fixed arm c' of the standard projects forward an offset arm c⁶, which carries at its outer free end a swiveled or pivoted nut c⁷, engaged by a screw c⁸, also engaging the inner end of a spring c⁹ of the frame b of the work-feed device C. One end of the screw c⁸ has a crank or handle c¹⁰ for its convenient manipulation, by turning which in the required direction the hinged or pivoted frame b of the feed device C is depressed and the spur-wheel d⁴ caused to engage and feed, through its rotation, the work to the saw. The feed device may, when not in use, be swung to one side by suitably loosening the fastening of the fixed arm c' from its support c.

D is the saw, arranged as usual to project up through the table A', and having its mandrel or shaft D' suitably journaled in the frame A, and having a driving-pulley D².

The shaft or mandrel D bears a cone of three or more pulleys d^x , any one of which is encompassed by an endless belt d^{xx} , likewise encompassing a similar cone of pulleys d^{xxx} on the shaft g .

E is a work-guide arranged on the table A', parallel with the saw D and extending the entire length of the table, its ends being provided with screw-threaded loops or eyes h , depending therefrom at the ends of the table.

F is a shaft arranged and journaled upon one side of the table A', and carrying at one end a beveled pinion i , geared to a similar pinion i' on a shaft G, journaled upon one end of the table A' and engaging one of the eyes or loops h of the work-guide E. Upon the shaft F, near its opposite end, is a second beveled pinion i^2 , geared to a similar pinion i^3 on a shaft G', journaled upon that end of the table A' and engaging the other eye or loop h of the work-guide E, while upon this end of the shaft G' is a handle or crank j , for the convenient manipulation thereof, whereby the work-guide can be adjusted relatively to the saw according to the predetermined width of board required.

The work-guide E is provided with an upwardly-extending arm or index k , registering with a suitable scale or numbered graduations l , carried by the arm C' as a convenient means of support.

Having described this invention, what I

claim, and desire to secure by Letters Patent, is—

1. The combination, with the table and its supporting-frame, of the standard fixed to said table, and its horizontal arm arranged above the table, and the hinged or pivoted frame or support supporting the work-feed mechanism, comprising the geared shafts, one actuating the feeder proper and one being driven as shown, said feed proper consisting of a shaft arranged at right angles to the former shaft and carrying a toothed or spur wheel, and means to hold said hinged or pivoted frame depressed, causing feeding contact between said wheel and the work, substantially as set forth.

2. The combination, with the hinged or pivoted frame supporting or carrying the work-feed mechanism proper and having a spring, of the offset arm projecting from a fixed arm of a supporting-standard secured to the supporting-frame, and an adjusting-screw carried by a pivoted or swiveled nut hung in said offset arm, said screw engaging the spring of said hinged or pivoted frame, substantially as set forth.

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

JAS. R. RIPLEY.

Witnesses:

J. C. STANSELL,
J. J. O'DONNELL.