

(No Model.)

J. L. COLE.
MACHINE FOR SAWING FELLIES, &c.

No. 569,956.

Patented Oct. 20, 1896.

Fig. 1.

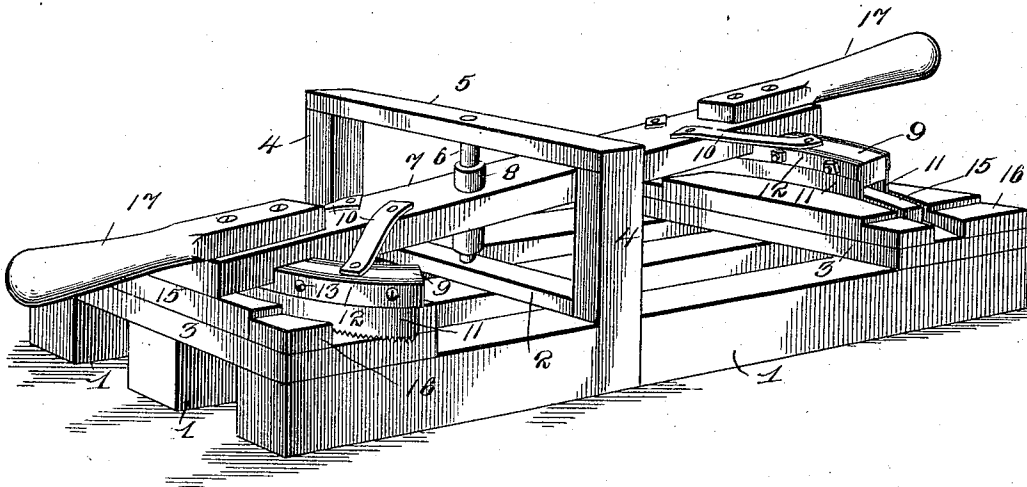
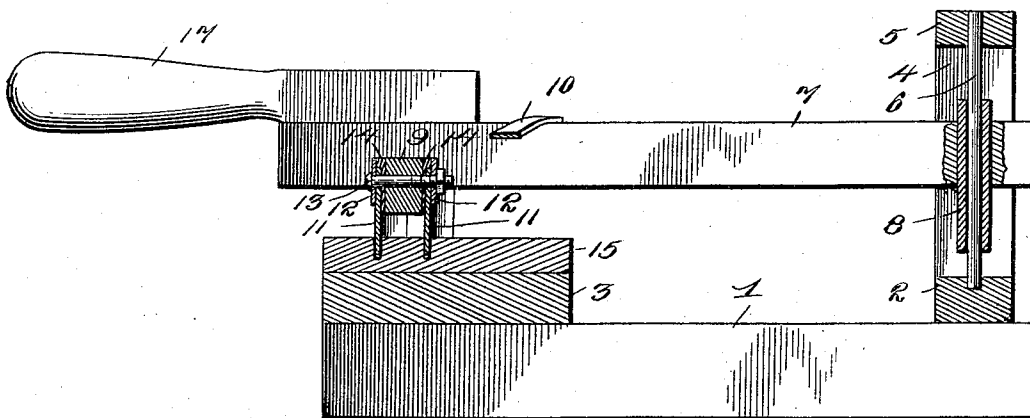


Fig. 2.



Witnesses

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By his Attorneys,

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UNITED STATES PATENT OFFICE.

JOHN L. COLE, OF RADFORD FURNACE, VIRGINIA.

MACHINE FOR SAWING FELLIES, &c.

SPECIFICATION forming part of Letters Patent No. 539,956, dated October 20, 1896.

Application filed February 29, 1896. Serial No. 581,352. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. COLE, a citizen of the United States, residing at Radford Furnace, in the county of Pulaski and State of Virginia, have invented a new and useful Machine for Sawing Fellies, &c., of which the following is a specification.

This invention relates to machines for sawing fellies or other articles formed in the arcs of circles, and the object in view is to provide a simple and effective machine adapted to simultaneously cut out felly-sections of different arcs corresponding, respectively, to the sizes of the front and back wheels of a wagon, or as may be desired.

Other objects and advantages of the invention will appear in the course of the subjoined description.

The invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally pointed out in the claims hereto appended.

In the accompanying drawings, Figure 1 is a perspective view of the improved machine complete and ready for use. Fig. 2 is a vertical longitudinal section through one half of the machine.

Similar numerals of reference designate corresponding parts in both figures of the drawings.

Referring to the accompanying drawings, 1 designates a series of longitudinal base-timbers arranged in parallel relation and connected centrally by transverse timber 2 and at each end by broad transverse timbers 3, forming the beds upon which the material to be sawed is placed. The pieces 1, 2, and 3 constitute the base-frame of the improved machine, and while illustrating the preferred form of frame it will be apparent that the frame may be constructed in any desired manner, or the work-bench may be utilized to constitute the base or bed of the machine. The frame also comprises a pair of oppositely-disposed uprights or standards 4, arranged in proximal relation to the center of the frame and connected at their upper ends by a horizontal transverse bar 5, between which and the timber 2, above referred to, extends a vertical pin 6, upon which the oscillating beam is mounted.

7 designates the oscillating beam, which extends the entire length of the frame and is provided near its center with a metal bearing-sleeve 8, extended preferably above and beneath the beam 7, so as to form an elongated bearing for said beam, the pin 6 being received through said sleeve and forming the axis upon which the beam 7 oscillates. At each end the beam 7 carries a segment 9, of a width substantially equal to that of the felly-section to be cut. These segments may be of any desired length and are preferably extended equally upon both sides of the beam 7, the projecting ends of the segments being braced by means of oblique straps or bars 10, extending inward to the beam 7. Saw-blades 11 are arranged upon opposite sides of each segment 9, as shown, and are bent to conform thereto and secured by means of curved plates 12, arranged outside of the saw-blades and provided with a series of openings, through which are passed transverse bolts 13, said bolts passing also through corresponding openings in the saw-blades.

Flexible cushions of leather or other suitable material may be placed between the saw-blades and their carrying-segments, as indicated at 14, for allowing the blades to flex slightly to accommodate themselves to their work. One of the segments 9 is located at a greater distance from the pin 6 than the other, and the relative distances of the segments from the fulcrum of the oscillating beam are governed by and the same as the radii of the wheels, the felly-segments of which are to be sawed. It is thus practicable to cut a segment for the front wheel at the same time with one for the back wheel, it being of course understood that while the segments are struck on different arcs the center pin 6 is common to both arcs.

The work (indicated at 15) is confined between suitable stops 16, secured to the ends of the pieces 3, and other or additional means may be employed to hold the work rigid while the saw is in operation. The bearing-sleeve 8 is enough shorter than the center pin 6 to allow the oscillating beam to rise and fall, thus imparting to the same the necessary feed in the operation of sawing out the segments of the felly. To the ends of the oscillating beam 7 are attached longitudinally-

projecting end handles 17, whereby the machine may be operated from either end by a single attendant or simultaneously from both ends by two operators.

5 The machine above described is extremely simple and economical in construction, may be operated easily by hand-power, and requires no special skill in handling. It can be manufactured in sizes to suit the trade, and
10 it will be apparent that various changes in the form, proportion, and minor details may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

15 Having thus described the invention, what is claimed as new is—

1. The combination with a suitable frame, of an oscillating beam moving about a fixed fulcrum and carrying at or near its ends segments to the opposite sides of which are secured
20 saws, and the end handles by means of which said beam is oscillated, substantially as and for the purpose described.

2. In a machine for forming fellies, &c.,

the combination with a suitable base-frame 25 having a central vertical fulcrum-pin, of an oscillating beam journaled on said pin and adapted to reciprocate longitudinally of the pin or to rise and fall thereon to provide for the feed of the saws, the segments carried by
30 said beam upon either side of the fulcrum, the saws attached to said segments, and provision whereby the beam may be oscillated by hand-power, substantially as described.

3. In a machine for manufacturing curved 35 articles such as fellies, the combination with an oscillating beam, of arc-shaped cutters carried thereby and arranged in spaced pairs, one pair being located at a greater distance from the fulcrum of said beam than the other, 40 substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN L. COLE.

Witnesses:

CLARENCE AKERS,
C. M. RENYON.