

O. MELANÇON.
SHINGLE MACHINE.

No. 458,775.

Patented Sept. 1, 1891.

Fig. 4.

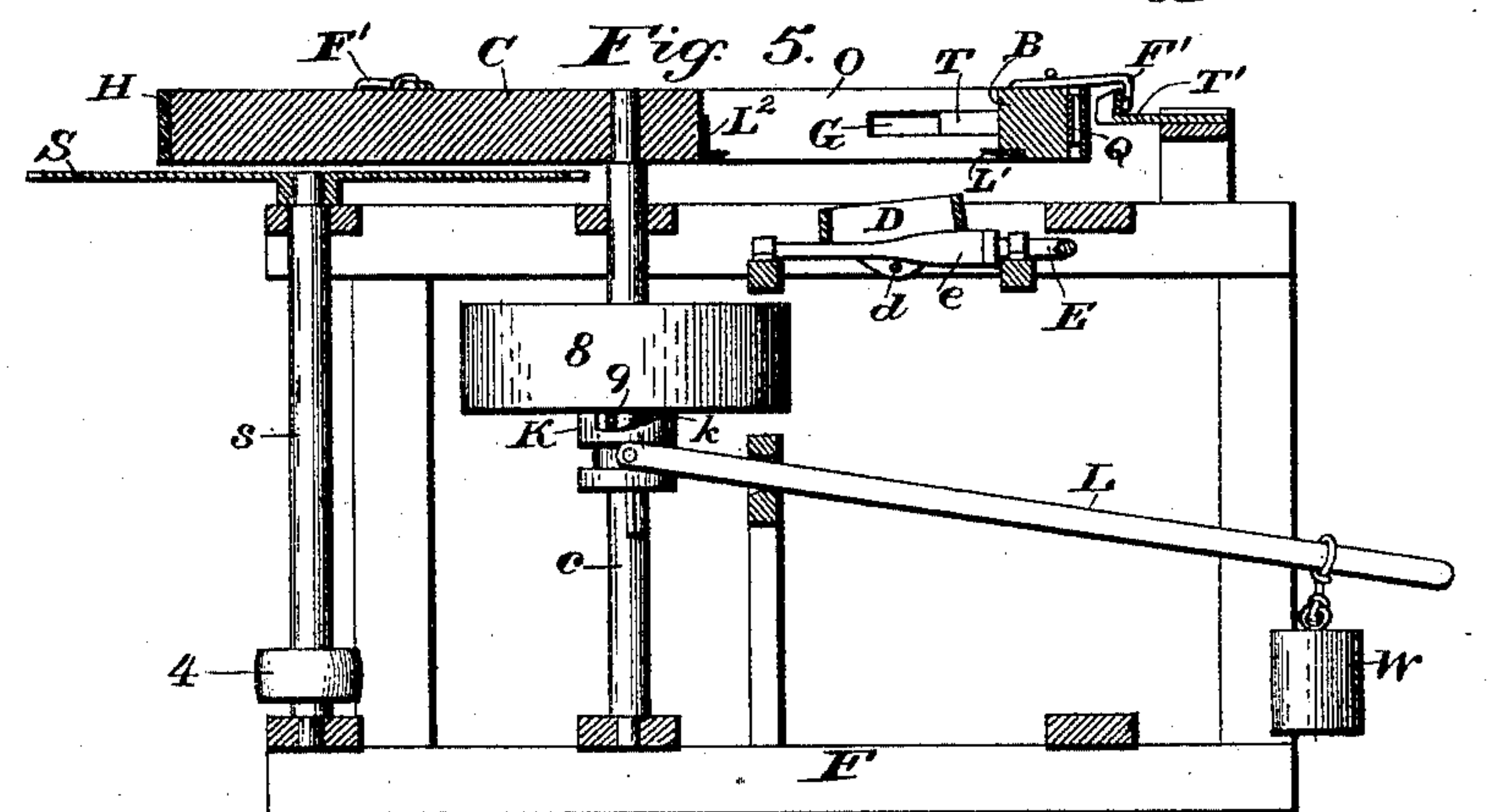
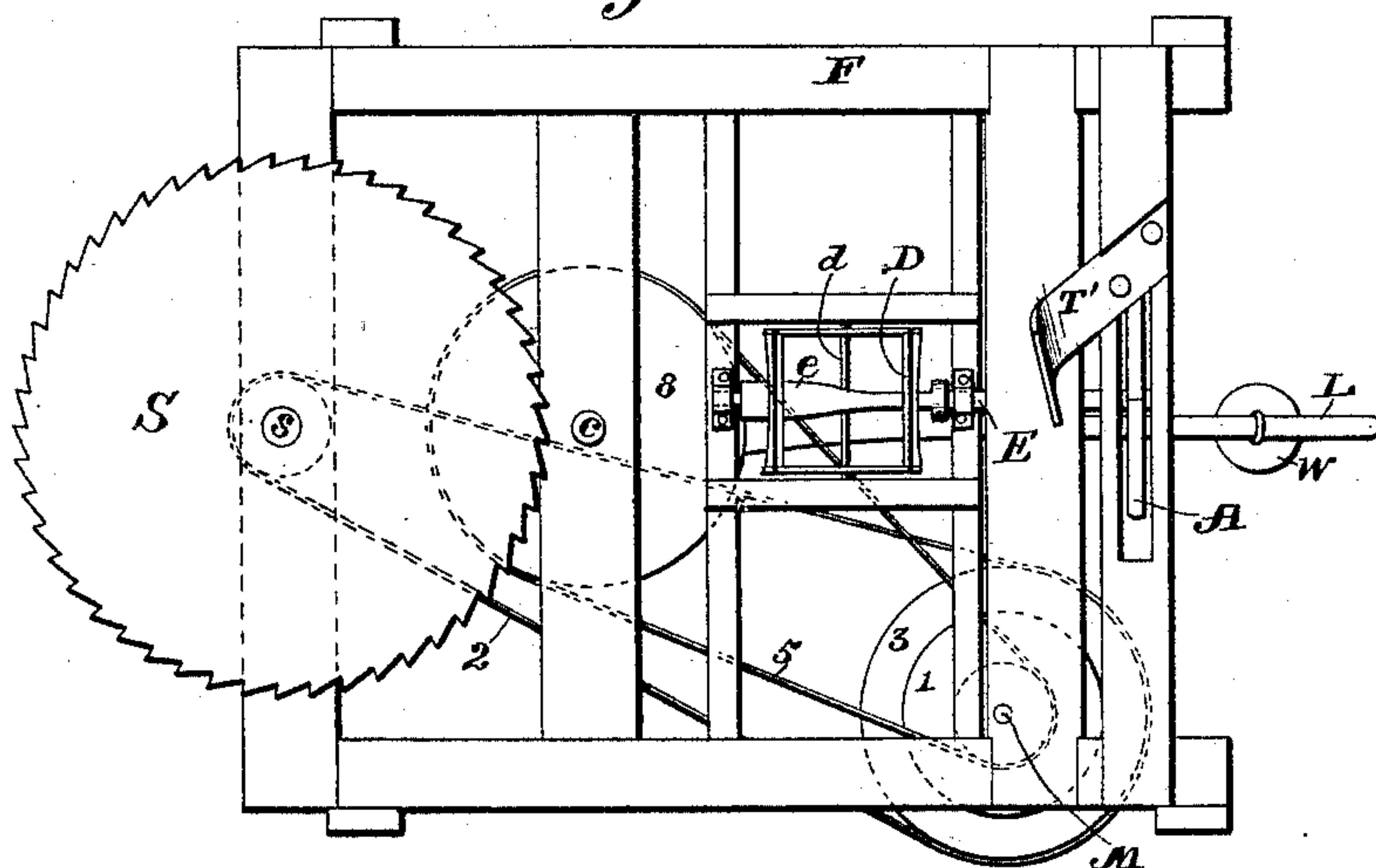
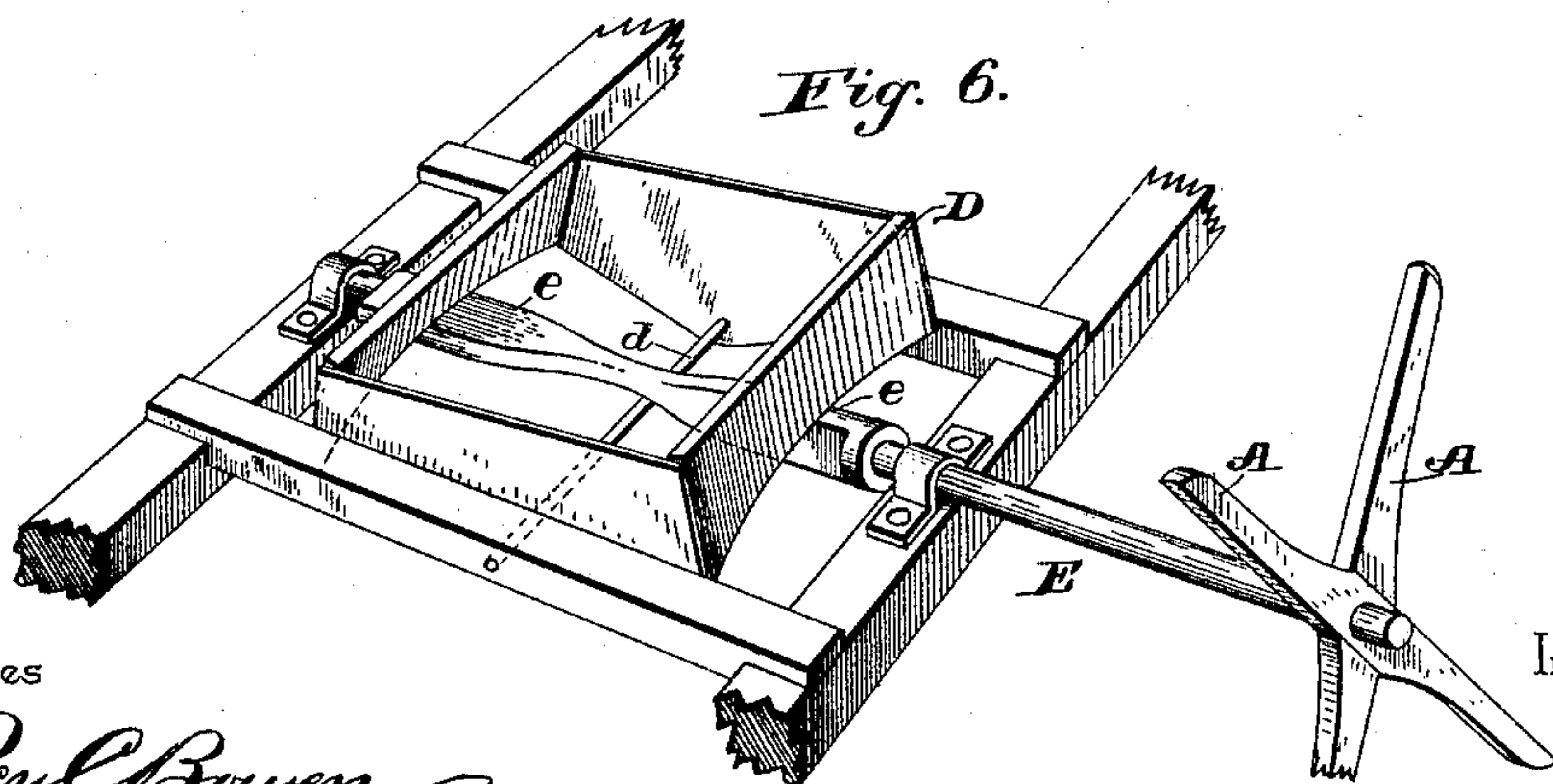


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

OSCAR MELANÇON, OF DAVENPORT, FLORIDA.

SHINGLE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 458,775, dated September 1, 1891.

Application filed January 6, 1891. Serial No. 376,894. (No model.)

To all whom it may concern:

Be it known that I, OSCAR MELANÇON, a citizen of the United States, residing at Davenport, in the county of Polk and State of Florida,

5 have invented a new and useful Shingle-Machine, of which the following is a specification.

This invention relates to shingle-machines; and the object of the same is to simplify the construction thereof.

10 To this end the invention consists of the machine hereinafter more fully described and claimed, and as illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation, partly broken
15 away. Fig. 2 is a plan view. Fig. 3 is a right side elevation. Fig. 4 is a plan view with the carriage removed. Fig. 5 is a central transverse section through the carriage and through the tripper. Fig. 6 is a perspective detail of
20 the tilter.

Referring to the said drawings, the letter F designates a suitable frame-work, in which is journaled in vertical position the main shaft M, the saw-shaft s, and the carriage-shaft c.
25 Power is applied to a large pulley 1 on the main shaft, and the speed of rotation thereof is increased by the belt 2, connecting the large pulley 3 on the main shaft with the small pulley 4 on the saw-shaft s. A circular saw S is
30 secured to the upper end of the saw-shaft and turns in a horizontal plane. A belt 5 passes over fast and loose pulleys 6 and 7 on the main shaft and leads thence to a large pulley 8, mounted loosely on the carriage-shaft c,
35 which pulley is provided with pins 9 on its lower face.

K is a clutch splined on the carriage-shaft and having teeth k, adapted to engage said pins 9, and L is a lever having a weight W at
40 its outer end and centrally pivoted to the frame-work, the said weight normally raising the inner end of the lever, which is connected to a groove in the clutch, and hence connecting the pulley 8 with the carriage-shaft, but
45 disengaging the carriage-shaft and stopping the motion of the carriage when the outer end of the lever is raised.

The letter C designates the carriage, which is of circular shape and mounted upon the
50 upper end of the carriage-shaft c. This carriage is preferably arranged, as shown, with openings to receive about three blocks from

which shingles are to be sawed, each of which is of the following construction: The opening O is radial to the carriage and at its inner end
55 has a stationary lip L². In its side walls are grooves G, engaged by the tongues T of the movable block B, which carries the movable lip L', as shown. This block is pressed normally inward toward the stationary lip by a
60 spring Q, standing between the outer face of the block and a metallic hoop H, which surrounds the carriage, and by this means the block from which the shingles are to be sawed is held in the opening. The movable block B
65 carries a finger F', which projects over the hoop H and turns downwardly, so as to engage a tripper T', which is carried by the frame-work and whose operative face is shorter than the width of each opening O, and by
70 this means at each revolution of the carriage the movable block B is tripped or moved slightly outward, so as to cause the movable lip L' to disengage the block being sawed and allow it to drop.

Referring now to Fig. 6, the letter E designates an eccentric-shaft mounted in suitable journals in the frame-work and having a cross-arm A on its outer end. I call this shaft an
75 "eccentric-shaft" because it has eccentrics e on its body which stand at right angles to each other.

D is a frame pivotally mounted on a transverse rod d, which passes beneath the shaft E, and the side bars of this frame rest, respectively, upon the eccentrics e, whereby as the
80 shaft E is rotated the frame D will rock on its pivotal rod d.

Projecting from the carriage C, at a point just in advance of each opening O, is a shifter-arm I, which strikes the arm A of the tilter
85 and imparts quarter-revolution to the shaft E. By this means, after the blocks are locked in the openings, the lever L is lowered to engage the clutch-teeth k with the pins 9, and the
90 carriage commences to rotate, the tripper T' causing the movable lips L' to disengage the blocks as they pass that side of the frame-work. At each one-third revolution of the carriage a shifter-arm I strikes the arm A and
100 turns the eccentric-shaft E, so that the frame D is tilted, and hence as the blocks are released from the lips and drop onto the frame they are caused to tilt slightly before they are

again engaged by the lips. As the saw S saws shingles from the blocks, they drop in a pile and may be removed by an operator. When the blocks have been completely sawed up, 5 the belt 5 is shifted from the fast pulley 6 to the loose pulley 7 by a belt-shifter, (not shown,) or, preferably, the outer end of the lever L is raised and the pulley 8 disengaged from the carriage-shaft c, whereby the motion 10 of the carriage will be stopped, although the saw continues to turn. A new block is then secured in each of the openings O and the lever L allowed to drop, when the machine resumes operation, or the blocks may be placed 15 in the openings O while the carriage is in operation, if the operator is skillful.

This machine is especially advantageous on account of the simplicity of its construction and the efficiency of its operation; yet I 20 do not confine myself to the specific details of construction above described, as considerable change may be made therein without departing from the spirit of the invention.

What is claimed as new is—

25 1. In a shingle-sawing machine, the combination, with a revolving circular carriage having radial openings closed by an annular hoop, a stationary lip at the inner end of each opening, a radially-moving block in each opening, 30 said block carrying a lip, an expansive spring between the hoop and block, and a finger on the latter extending over the hoop and thence downwardly, of a beveled tripper at one point on the frame-work and shorter than the width

of each opening, engaging the tips of said fin- 35 gers and momentarily drawing said block outward and then releasing it, a tilter, substantially as described, beneath said tripper, and shifter-arms carried by the carriage for moving said tilter in advance of each opening, as 40 and for the purpose set forth.

2. In a shingle-sawing machine, the combination, with a revolving circular carriage having radial openings, a stationary lip at one end of each opening, a spring-actuated block 45 carrying a lip at the other end of each opening, and a finger on said block extending beyond the periphery of the carriage, of a shifter-arm on the carriage projecting radially beyond its periphery, a tilter-frame 50 mounted on a pivot-rod standing at right angles to a radius of said carriage, a shaft journaled below said frame at right angles to said rod, eccentrics oppositely located upon said shaft beneath the side bars of the frame, a 55 cross-arm keyed on said shaft working in a slot in the frame-work and adapted to be struck by said shifter, and a tripper engaging the fingers on said movable blocks, all as and for the purpose hereinbefore set forth. 60

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

OSCAR MELANÇON.

Witnesses:

JNO. M. LEE,

J. E. FOXWORTHY.