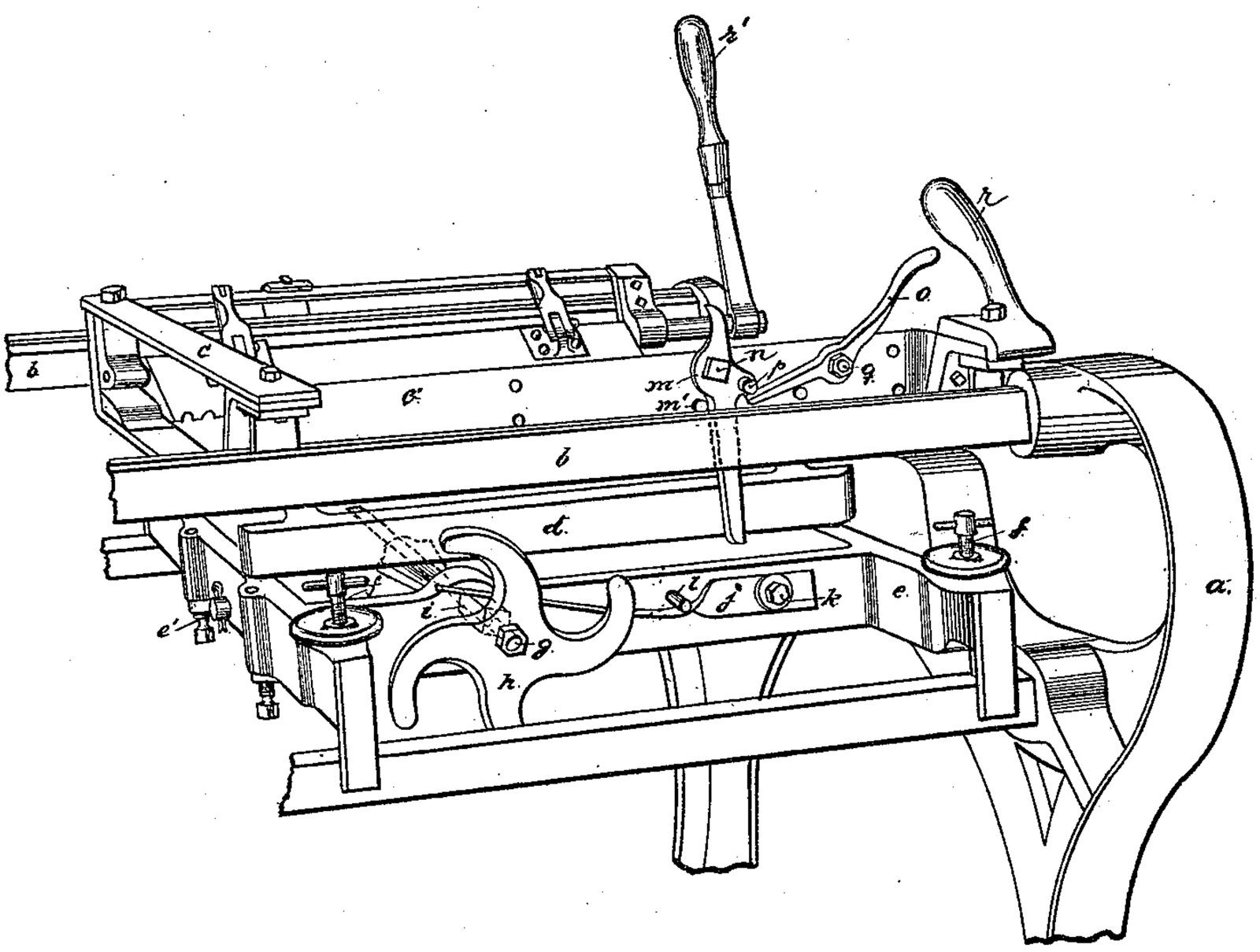
(No Model.)

J. L. DICKINSON.

SHINGLE MACHINE.

No. 450,996. Patented Apr. 21, 1891.



Witnesses.
Frances Joy.
S. E. W. Bewley.

Inventor.
Joseph L. Dickinson.
By His Attorney Thomas J. Bewley.

UNITED STATES PATENT OFFICE.

JOSEPH L. DICKINSON, OF DUBUQUE, IOWA, ASSIGNOR TO THE NOVELTY IRON WORKS COMPANY, OF SAME PLACE.

SHINGLE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 450,996, dated April 21, 1891.

Application filed July 16, 1890. Serial No. 358,956. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. DICKINSON, of Dubuque, in the county of Dubuque and State of Iowa, have invented certain Improvements in Shingle-Machines, of which the following is a specification.

The invention relates to a novel mode of operating the table that holds the block of wood from which the shingles are to be cut. The table is automatically tilted sidewise alternately during the return movement of the carriage by means of the lower end of a lever pivoted upon the side of the carriage, which engages with one of the arms of a wheel keyed upon the end of the cam-shaft, which causes said shaft to turn one-fourth around, thereby bringing one of the four sides of the cam rigid thereon upward and pressing against the lower surface of the side of the frame which is contiguous thereto, thereby causing the carriage to tilt over. A spring is bolted on its rigid end to one side of the carriage, and whose resilient end bears upon and presses down on the upper side of a square collar rigid upon the cam-shaft, which prevents the latter from making more than one-fourth of a revolution after each shingle is cut, as will be more fully understood from the following detailed description.

In the accompanying drawing, which makes a part of this specification, the figure represents a perspective view of that portion of a shingle-machine which contains the tilting mechanism.

a is the frame of the machine.

b b are the rails.

c is the carriage.

r r' are the handles by means of which the operator effects the reciprocating movements of the carriage upon said rails *b b*.

d is the tilting table upon which the block rests from which the shingles are to be cut.

e is the stationary table to which the tilting table *d* is attached by means of the shaft *e'*.

f f are screws by means of which the table *e* can be adjusted as desired.

g is the cam-shaft which has its bearings in boxes of the stationary table *e*, the rotation of which shaft imparts the necessary alternating movements to the tilting table *d*.

h is a ratchet-wheel attached to the end of the cam-shaft *g*.

m is a pawl attached to the carriage *c* by the screw *n* and prevented from swinging beyond the perpendicular line by the stop-pin *m'*.

o is a lever which is attached to the carriage *c* by the screw *g* and engages the pawl *m* by means of the pin *p*.

The operation of the machine is as follows: The operator, with his left hand on the handle *r*, can, by extending one of his fingers, depress the end of the lever *o*, thereby raising the pawl *m* clear of the ratchet *h*, thus preventing the rotation of the cam-shaft *g* when the carriage is being drawn toward the operator. When the operator wishes to tilt the table *d*, he takes his finger off of the end of the lever *o'*, which allows the pawl *m* to drop into its normal position, as shown in the drawing. The pawl *m* during the forward motion of the carriage *c*, by engaging one of the points of the ratchet *h*, rotates the cam-shaft *g* one-quarter of a revolution upon its axis, and on the return movement of the carriage the end of the pawl *m* slides over the ratchet-wheel *h*.

i is a square collar rigid on the cam-shaft *g*.

j is a resilient spring attached on its heel to the stationary carriage *e* by means of the screw *k*.

l is a pin used as a fulcrum for the spring *j*, the resilient end of which pin presses on the upper side of the square collar *i* and prevents the cam-shaft *g* from being rotated more than one-quarter of a revolution at each forward movement of the carriage.

I claim as my invention—

In a shingle-sawing machine, the combination of frame *a*, tilting table *d*, ratchet-wheel *h*, rails *b b*, carriage *c*, handle *o*, pawl *m*, and projection *p* on pawl *m*, substantially as described, and for the purpose set forth.

JOSEPH L. DICKINSON.

Witnesses:

G. E. DAVIS,

F. THORNELY.