

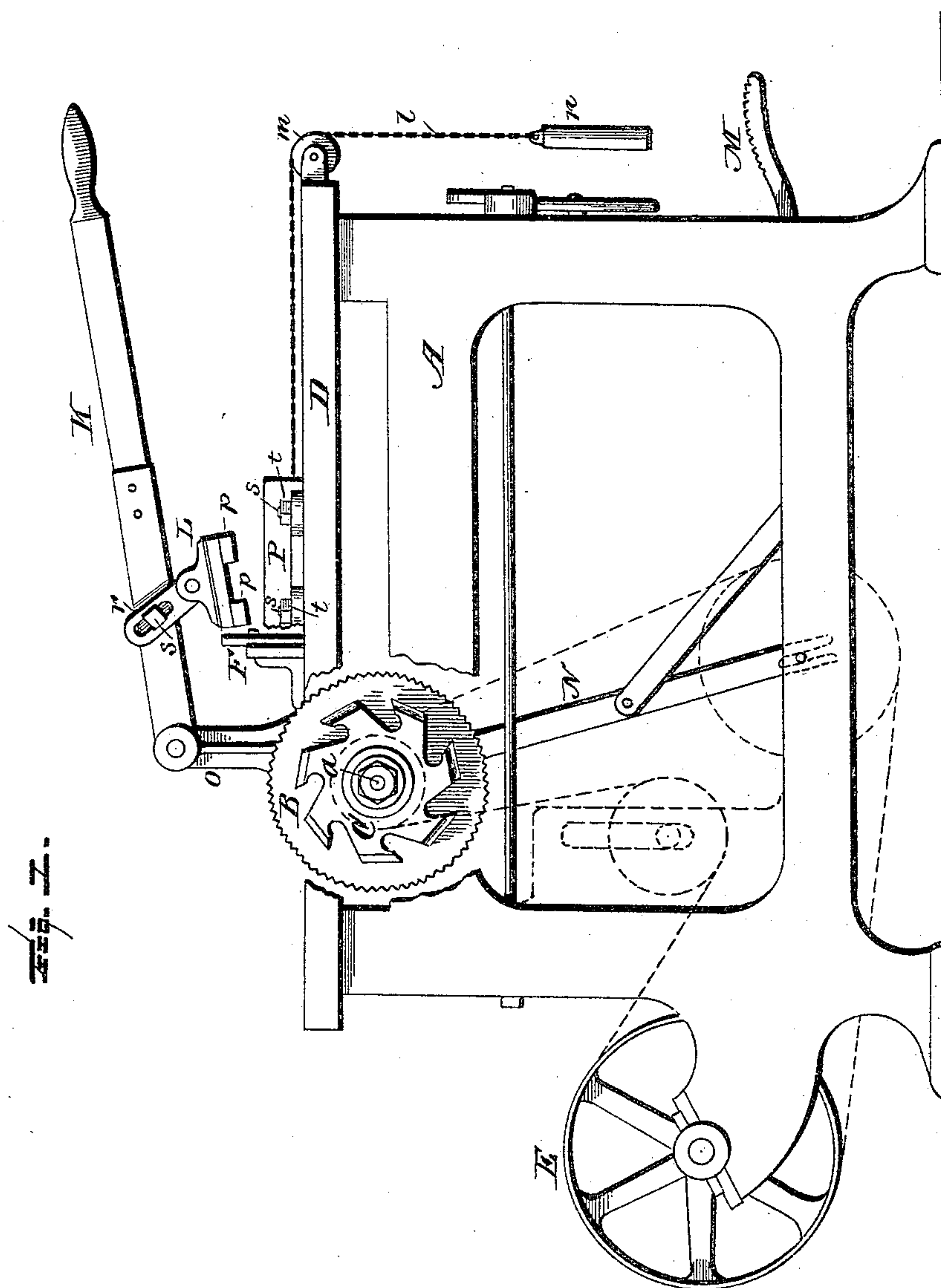
(No Model.)

3 Sheets—Sheet 1.

C. F. OVERHISER.
MACHINE FOR SHAPING WOOD ARTICLES.

No. 529,505.

Patented Nov. 20, 1894.



Witnesses
L. C. Hill.
Roy Dawson

Inventor
Charles F. Overhiser,
per *Chas. H. Fowler*
Attorney

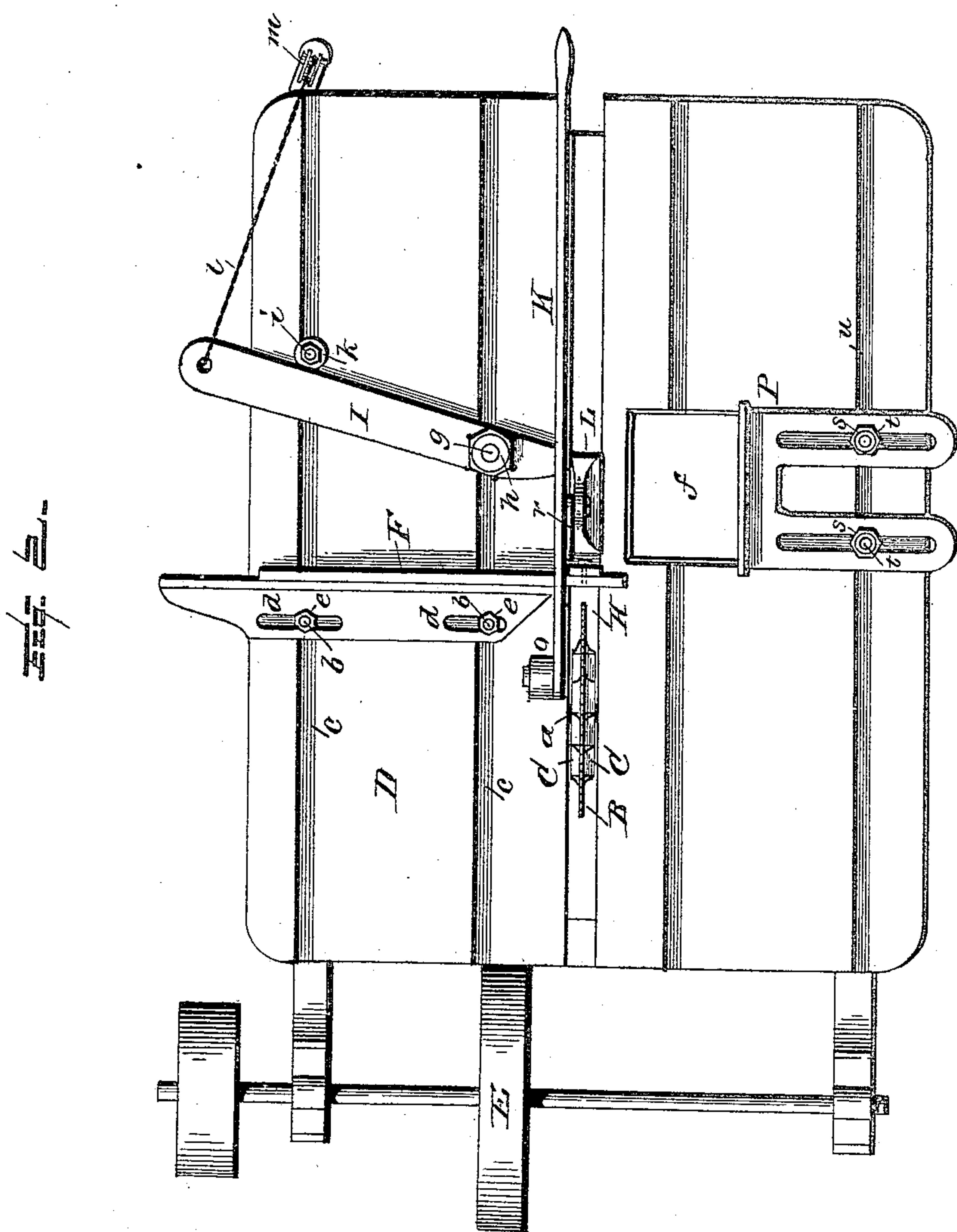
(No Model.)

3 Sheets—Sheet 2.

C. F. OVERHISER.
MACHINE FOR SHAPING WOOD ARTICLES.

No. 529,505.

Patented Nov. 20, 1894.



Witnesses

L. C. Hills.
Roy Dawson

Inventor

Charles F. Overhiser.
per Cha. W. Fowler
Attorney

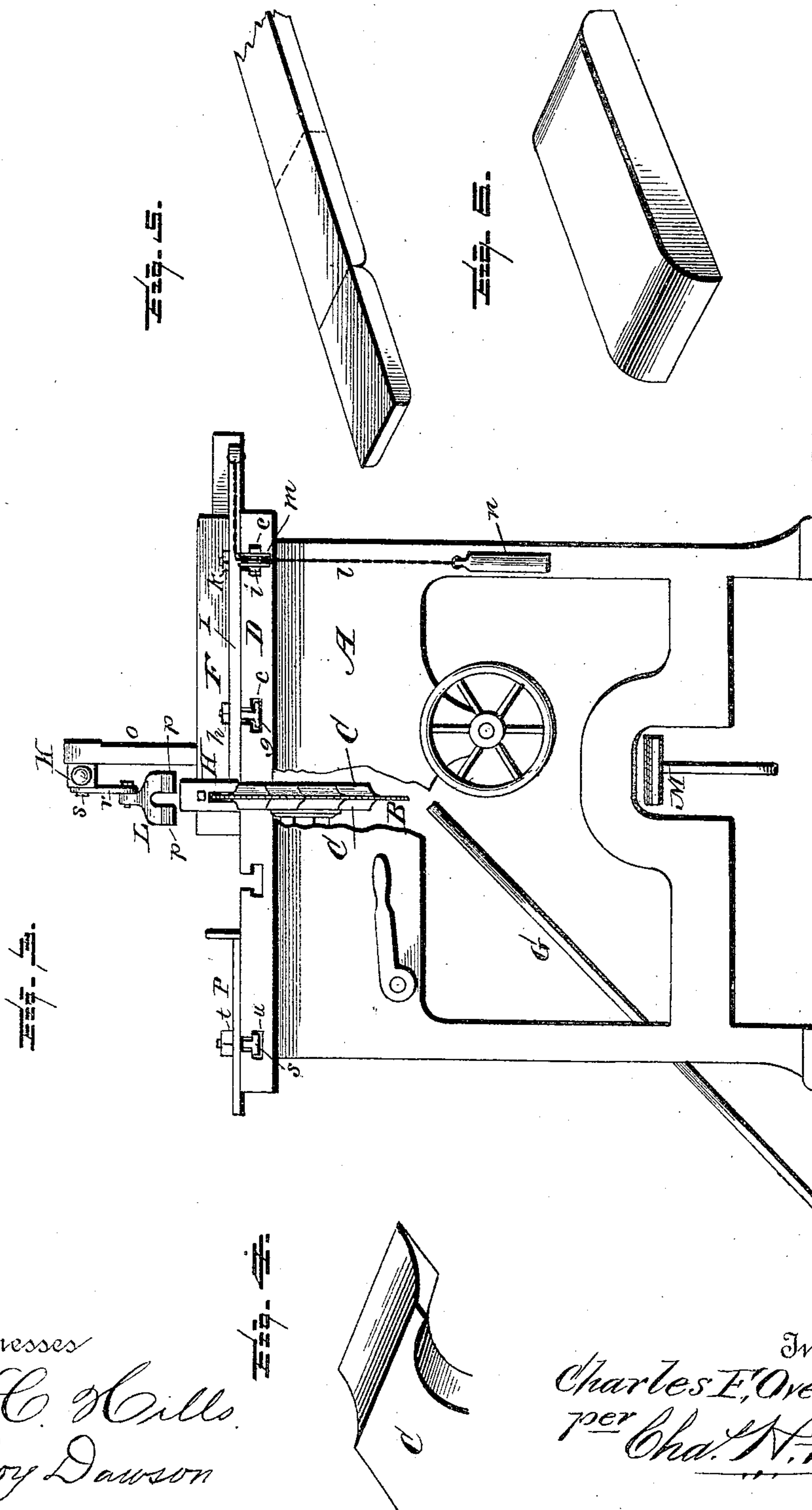
(No Model.)

3 Sheets—Sheet 3.

C. F. OVERHISER.
MACHINE FOR SHAPING WOOD ARTICLES.

No. 529,505.

Patented Nov. 20, 1894.



Witnesses
L. C. Hills
Roy Dawson

Inventor
Charles F. Overhiser.
per Cha. W. Fowler
Attorney

UNITED STATES PATENT OFFICE.

CHARLES F. OVERHISER, OF WILLIAMSPORT, PENNSYLVANIA.

MACHINE FOR SHAPING WOOD ARTICLES.

SPECIFICATION forming part of Letters Patent No. 529,505, dated November 20, 1894.

Application filed March 15, 1893. Serial No. 466,064. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. OVERHISER, a citizen of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Shaping Wood Articles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has relation to that class of machines which are designed to shape brush-backs or stocks or other similar articles of wood, and consists in the several details of construction substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings represents a side elevation of the machine with the frame partly broken away to show the saw cutter; Fig. 2, a top plan view thereof; Fig. 3, an end view showing the frame partly broken away on line with the saw and cutter; Fig. 4, a detail view on an enlarged scale of one of the blades of the cutter; Fig. 5, a detail view in perspective of one of the wood forms or stock from which the backs are cut and shaped; Fig. 6, a similar view on an enlarged scale of one of the brush backs.

In the accompanying drawings A represents a supporting table or frame of any suitable form, size, and construction, and of any desirable height for the convenience of the attendant or operator. To a short rotary shaft α is keyed or otherwise rigidly connected a circular saw B, the periphery thereof projecting above the top of the table or frame A as shown in Fig. 1. To the shaft α upon each side of the saw B is rigidly secured a cutter C in such manner as to rotate with the shaft but admitting of its removal for sharpening or for other purposes.

The shaft α may be rotated by any suitable and well known means, such as belts and pulleys as shown in dotted lines, Fig. 1, the belt passing over a wheel E having its bearings in the frame A, any suitable power being used to impart motion to the wheel and transfer it to the shaft by the ordinary intermediate con-

nections of belt and pulleys or suitable gearing.

I do not wish to be understood as confining myself to any special driving power for imparting motion to the saw and cutters, as it is evident any suitable arrangement of belts and pulleys or gearing may be employed without departing from the principle of my invention.

The cutters C may be of any desirable shape and construction so as to give to the wood-blank a round, beveled, beaded, or any other form desired after the circular saw B cuts the block off the desired length. As the strip of wood or stock is fed to the machine and the block cut therefrom the required length by the revolving saw B, the cutters C upon each side of the saw will respectively shape the ends of the block as shown in Fig. 6.

Upon the top D of the frame A is adjustably connected a suitable gage F of any preferred construction and rendered adjustable in any well known manner. The gage as will be noticed is capable of adjustment both lengthwise and crosswise of the top of the frame, and one of many means that may be employed to effect this compound adjustment I have shown in Figs. 2 and 3, which consists in T-headed screws b located in correspondingly shaped grooves c in the top D of the frame. The screws b extend up through slots d in the gage and lengthwise thereof, and clamping-nuts e engage the screws to hold the gage in its adjusted position, which adjustment determines the length of the blocks to be cut. An opening f in the table-top D admits the passage of the severed blocks which fall upon the inclined plane or chute G as fast as they are shaped by the cutters.

A slotted standard H is suitably connected to the table-top D on a line with the saw and cutters which pass through the slot as they rotate, said standard being preferably constructed of hard wood and the purpose thereof to prevent tearing or otherwise injuring the blocks while in the process of being shaped.

The saw and cutters cut their own way through the hard wood standard so that the opening or slot will conform in shape exactly to that of the saw and cutters and a close fit insured.

When the slotted standard becomes worn so as no longer to fit sufficiently close to the moving saw and cutters, a new piece of wood to form the standard is substituted or the one already in use is lowered and a new cut made.

To the table-top D is pivoted a horizontal presser-arm I which is rendered adjustable by means of the T-headed screw *g* engaging the correspondingly formed groove *c*, hereinbefore referred to, a nut *h* engaging the screw to hold the presser-arm thereon while the screw serves as a pivot therefor. A suitable stop is provided to limit the movement of the presser arm I, which stop is adjustable and consists of the T-headed screw *i* and nut *k*.

The presser-arm I has connected to its outer end a suitable cord or chain *l* which passes over a grooved pulley *m* connected to the table-top D, and from this cord or chain is suspended a weight *n*, the presser-arm being pivoted and through the medium of the weight upon the end of the cord or chain, the arm will be automatically pressed against the strip of wood from which the blocks are to be formed and keep it against the face of the gage while it is being fed forward to the saw and cutters, the presser-arm automatically yielding to any irregularities in the strip of wood as it passes forward. The degree of pressure of the presser-arm is regulated by changing the position thereof to increase or decrease the distance between the arm and gage, which is attained by means of the T-shaped screw *g* and nut *h*.

To the table-top D is connected a short upright *o* to which is pivoted a hand-lever K and to this lever is adjustably connected a suitable presser-foot L provided with rubber or other elastic pads *p*. This presser-foot is pivotally and adjustably connected to the hand-lever in the following manner which is considered the most simple and effective: A slotted plate *r* is provided which is connected to the lever by a set screw *s* and to this plate is pivoted the presser-foot, thus rendering it both adjustably and pivotally supported, the foot being held down upon the wood strip by pressing down upon the lever and the elastic pads preventing the foot from slipping, thus firmly holding the wood strip in place while the saw and cutters are operating.

The saw and cutters are supported upon the upper end of a standard N which has its

lower end pivoted or similarly connected with the frame A so that it can swing back and forth, and connecting with the standard is a suitable treadle M, by which means the saw and cutters may be thrown forward at the will of the operator, as shown in Fig. 1, thus bringing them in contact with the wood strip from which the blocks are cut.

An adjustable fender P is provided to enlarge or contract the opening *f* through which the blocks drop after being formed by the cutters and also to serve as a guard to prevent the blocks from passing over the side of the table-top. The fender is rendered adjustable in the same manner as the gage and presser-arm, viz: by means of the T-shaped screws *s* and nuts *t* and the corresponding formed groove *u*.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a machine for shaping wood articles, a rotatable circular saw, suitable cutters upon each side thereof, a gage having a compound adjustment, a presser-arm pivotally and adjustably connected to the table-top, a pivoted hand-lever, a presser-foot pivotally and adjustably connected with the lever, an adjustable fender and opening through which the wood blocks fall, a chute to receive the blocks, substantially as and for the purpose set forth.

2. A machine for shaping wood articles, consisting of a suitable table, a rotatable saw and cutters adjustably connected thereto, a gage having a compound adjustment, a pivoted hand-lever, a slotted plate adjustably connected thereto, a presser-foot pivoted to the plate, a presser-arm pivotally and adjustably connected to the table-top, and means for rendering it automatic in its action, consisting of a cord or chain connected to the arm and extending over a grooved pulley, and a weight connected to the end of said cord or chain, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES F. OVERHISER.

Witnesses:

J. C. HILL,
B. BERNDT.