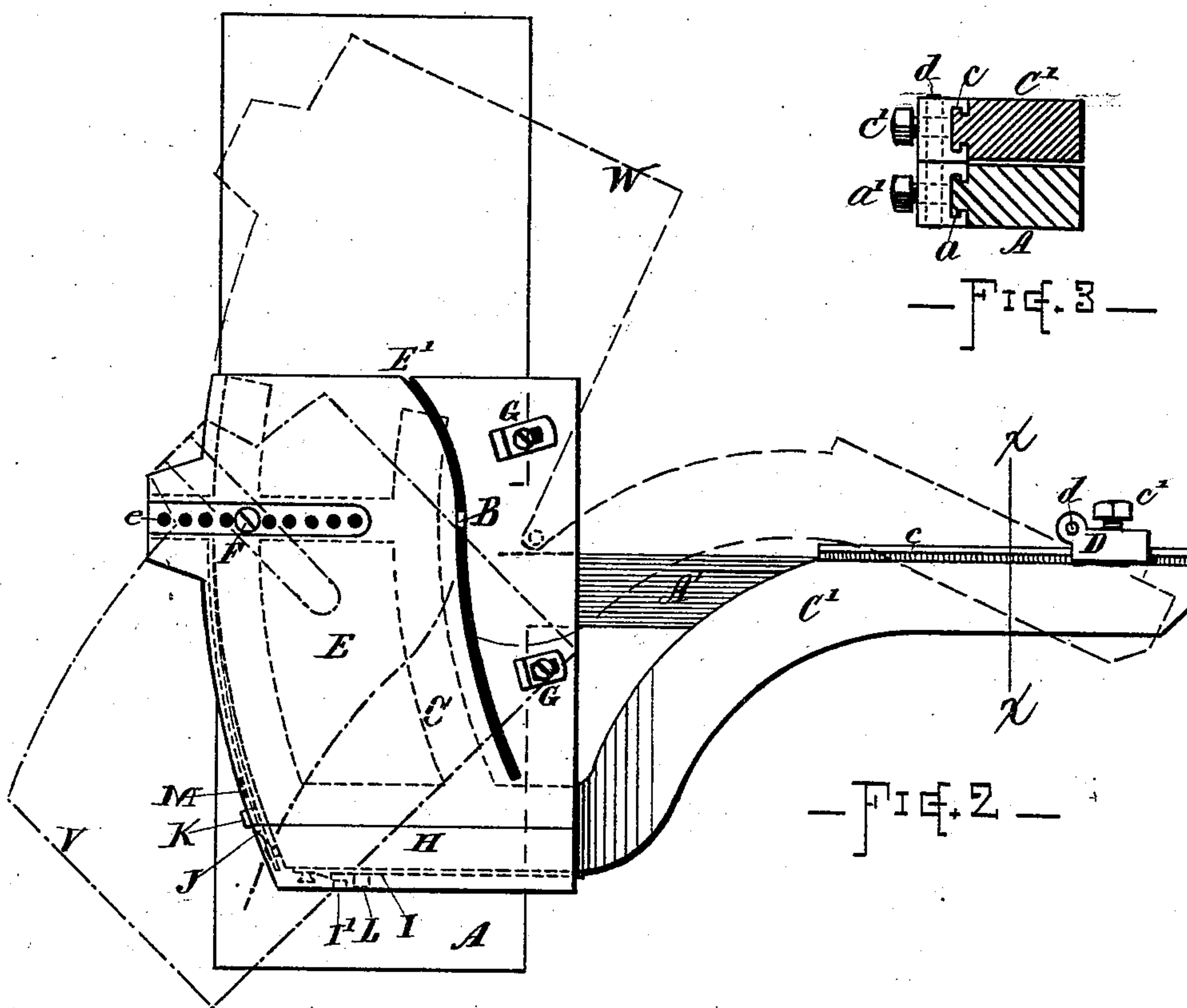
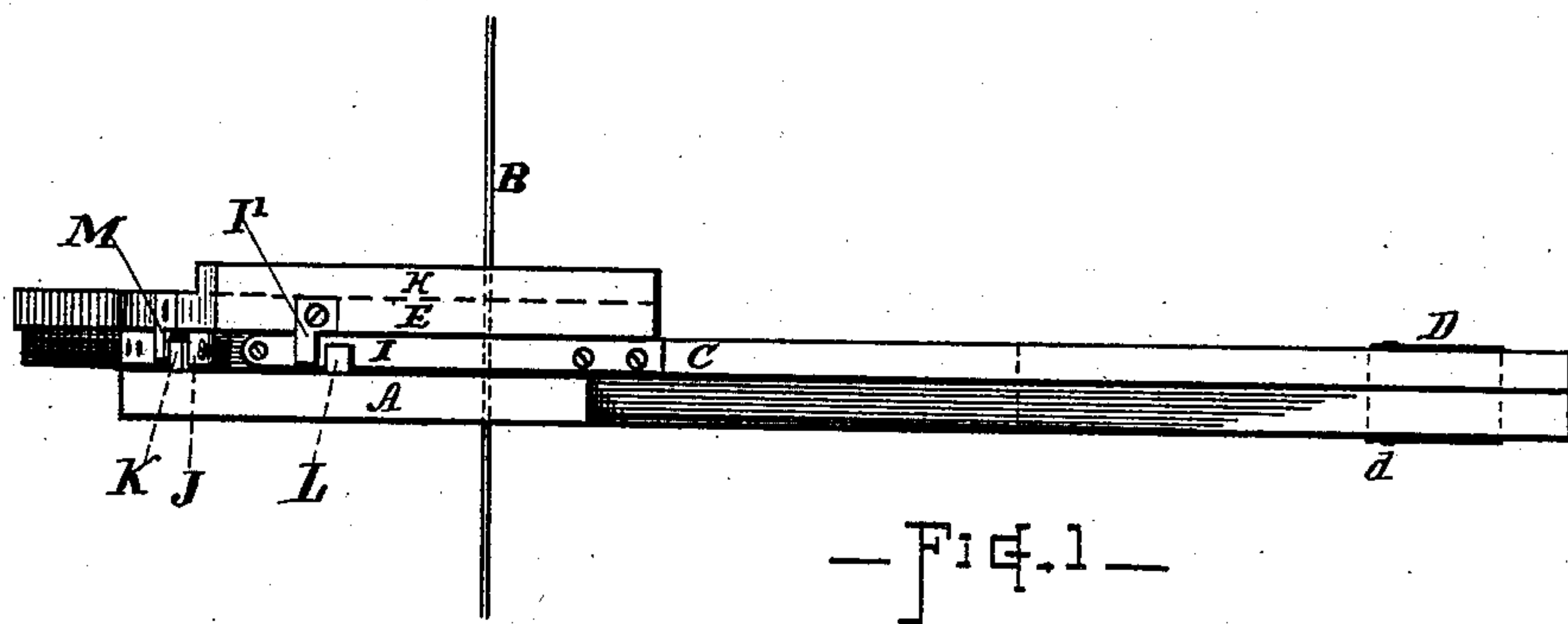


(Model.)

A. S. PARKS & A. W. STREETER.
Gage for Sawing Irregular Curves.

No. 236,075.

Patented Dec. 28, 1880.



~~Witnesses.~~

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UNITED STATES PATENT OFFICE.

AUSTIN S. PARKS AND AMRO W. STREETER, OF WINCHENDON, MASS., ASSIGNORS OF ONE-THIRD TO CHARLES J. RICE, OF SAME PLACE.

GAGE FOR SAWING IRREGULAR CURVES.

SPECIFICATION forming part of Letters Patent No. 236,075, dated December 28, 1880.

Application filed November 1, 1880. (Model.)

To all whom it may concern:

Be it known that we, AUSTIN S. PARKS and AMRO W. STREETER, of Winchendon, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Apparatus or Gages for Sawing Irregular-Curved Pieces; and we declare the following to be a description of our said invention sufficiently full, clear, and exact to enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

It has heretofore been customary, when sawing chair-stock and similar curved pieces, to mark out the curved form of the frames on the face of the plank or board by the aid of a suitable pattern, and to then saw the curves as indicated by the lines so marked, moving the plank or stock upon the saw-table as required, considerable skill being necessary for producing uniform work, and much time being consumed in the marking and sawing.

The object of our present invention is to provide a mechanism, applicable to ordinary sawing-machines, for carrying or guiding the stock or plank to the saw in such a manner that properly curved pieces can be quickly and conveniently sawed out without the necessity of any previous marking and by unskilled operatives; also, to afford means for the adjustment of the apparatus to saw curved pieces of different size and curvature and to render the action of the mechanism simple and convenient. These objects we attain by mechanism substantially such as shown in the accompanying drawings, and herein described, the subject-matter claimed being hereinafter definitely specified.

In the drawings, Figure 1 represents a front view of our improved apparatus for sawing chair-stock, &c. Fig. 2 is a plan view of the same, the broken lines and the dot-and-broken lines indicating various positions of the parts. Fig. 3 is a transverse section of the arms at line *x x*, Fig. 2.

Our improved apparatus, as herein shown, is intended to be applied as an accessory to the ordinary sawing-machines—band-saws or jig-saws—such as are commonly employed for working chair-stock and similar material; but,

if desired, it might be embraced in the construction as a part of the sawing-machine itself without departure from the nature of the invention.

A denotes the bed-piece, which is to be secured rigidly to the frame or table of the sawing-machine (or it may be a part of the same) in such relation to the saw B that the latter will occupy a position substantially as shown.

C indicates a swinging frame, mounted on the bed-piece A and having an arm, C', which is fulcrumed or pivoted to an arm, A', projecting laterally from the bed-piece A, by means of an adjustably-arranged pivoting device or hinge, D, the center pin, *d*, of which connects the parts C' A' together, and serves as a center or axis, on which the frame C swings horizontally. The hinge D may be arranged, as illustrated in Fig. 3, with its parts respectively fitted to slide on the under-cut ways *a c*, on the side of the arms A' C', and adapted to be clamped or secured at any adjusted position by set-screws *a' c'*, or in other suitable manner.

E indicates the work-supporting table, arranged to swing upon the frame C, to which it is pivoted by the stud or screw F, the swinging movement being in lateral direction, but opposite in direction to the swing of the frame C. A series of holes, *e*, are provided for the adjustment of the stud F, to vary the position of the axis on which the table E swings. A suitable channel or kerf, E', is formed through the table E for the passage of the saw B, and, if desired, the borders of said channel may be re-enforced by a removable metal plate, a series of such plates being interchangeably employed to correspond with curves of different radius or character.

G G indicate gage-dogs, for assistance in placing the work in position, and H is the front breast or bearer for the end of the plank.

I indicates a spring-latch arranged on the front of the frame C, which serves for engaging the lug or pin I' and retaining the table E when the arm C swings forward.

J indicates a spring-latch arranged on the outer side of the frame C, which serves for engaging with the stud K, fixed on the bed-plate A, and thereby retaining the frame C while the table E is swung back.

L indicates a stud fixed in the bed-plate A,

which serves as a stop for the frame C in its forward movement, and also as a cast-off to the latch I.

M indicates a lug or pin dependent from the table E, which serves as a stop for the swing movement of said table E and as a cast-off for the latch J.

These several parts are combined and arranged for action as illustrated.

Screws are arranged through openings in the ends of the spring-latches to limit their outward movement and adjust them for perfect action.

Parts required for supporting and operating the saw, and not herein shown and described, may be arranged in any ordinary or suitable manner, either for band or jig sawing, as preferred.

In the operation the frame C is swung forward against the stud L, which throws off the latch I from the lug I', and permits the table E to be swung outward to the position indicated by the dot-and-broken lines V, Fig. 2, at the same time permitting the latch J to catch onto the stud K for retaining the frame C in its forward position—i. e., as indicated in full lines, Fig. 2. The plank or lumber, cut to the required length, is placed upon the table E when at position V, with its end against the breast H and its side against the gage-dogs G, and the table is then swung back to carry the plank in contact with the saw B. The table E swings on the pivot F until the lug or pin M strikes the latch J and casts it off from the stud K, thereby releasing the frame C, which, as it starts to swing backward, relieves the latch I from the stud L, permitting it to catch onto the pin I' for retaining the table E, while the frame C and table swing backward on the axis d to the position indicated by the broken lines W, completing the movement required for sawing the stock. The movement of the parts, as above described, causes the saw to take a course through the plank corresponding with the channel E', or a compound curve composed of arcs having radii equal, respectively, to the distance from the stud-center F to the saw and from the stud-center d to the saw.

By adjusting the pivots F and d toward or from the saw the curves may be varied and the apparatus adapted for different sizes and shapes of chair-frames, &c.

What we claim as of our invention, and desire to secure by Letters Patent, is—

1. An apparatus for sawing chair-stock and similar pieces, consisting of a horizontally-swinging frame pivoted to the bed or body of a saw-machine and carrying a horizontally-swinging work-supporting table pivoted to said frame and adapted to swing in opposite direction thereto, substantially as and for the purposes set forth.

2. The combination, substantially as described, of the bed-piece A, the horizontally-swinging frame C, pivoted to said bed, and the work-supporting table E, pivoted to said frame, and stops L and M, for the purpose set forth.

3. The combination, substantially as described, of the bed-piece A, the horizontally-swinging frame C, connected thereto by the adjustable pivot or hinge D d, the horizontally-swinging work-table E, connected with said frame by an adjustable pivot, F, and arranged to operate in relation to the saw B as set forth.

4. The combination, with the bed-piece A, frame C, and table E, respectively pivoted for right and left swinging action, as set forth, of the spring-latches I and J, located at the front and side of said frame, the studs or pins L K, attached to said bed-piece, and the studs or pins I' M, attached to said table for engaging with the respective latches and operating in connection therewith to alternately confine and release the swinging parts, substantially as described.

Witness our hands this 29th day of October, A. D. 1880.

AUSTIN S. PARKS.
AMRO W. STREETER.

Witnesses:

GEO. M. WHITNEY,
WILDER P. CLARK.