

No. 822,330.

PATENTED JUNE 5, 1906.

B. WILSON.
SAW TABLE FOR CURVED WORK.
APPLICATION FILED AUG. 11, 1905.

2 SHEETS—SHEET 1.

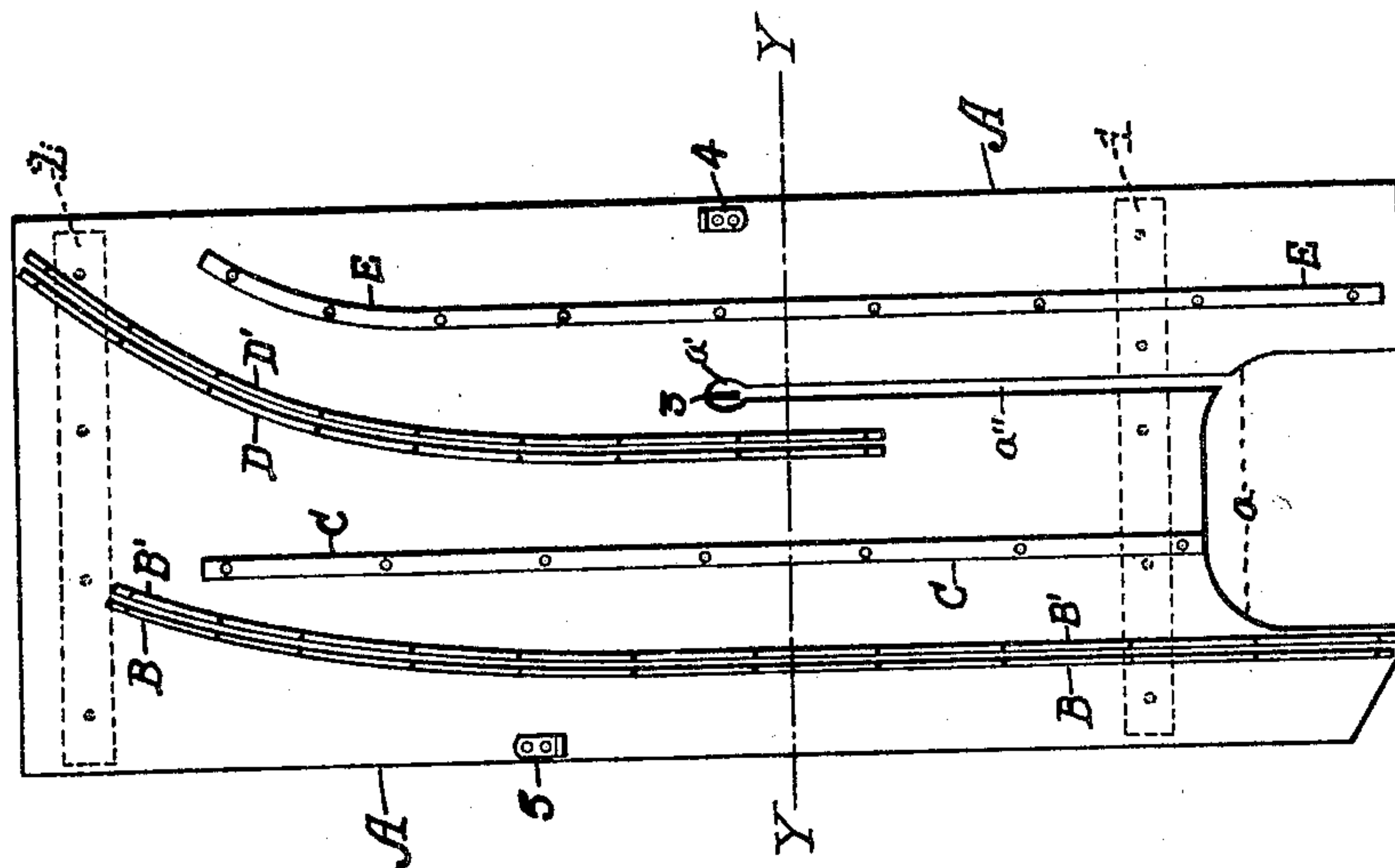


Fig. 1.

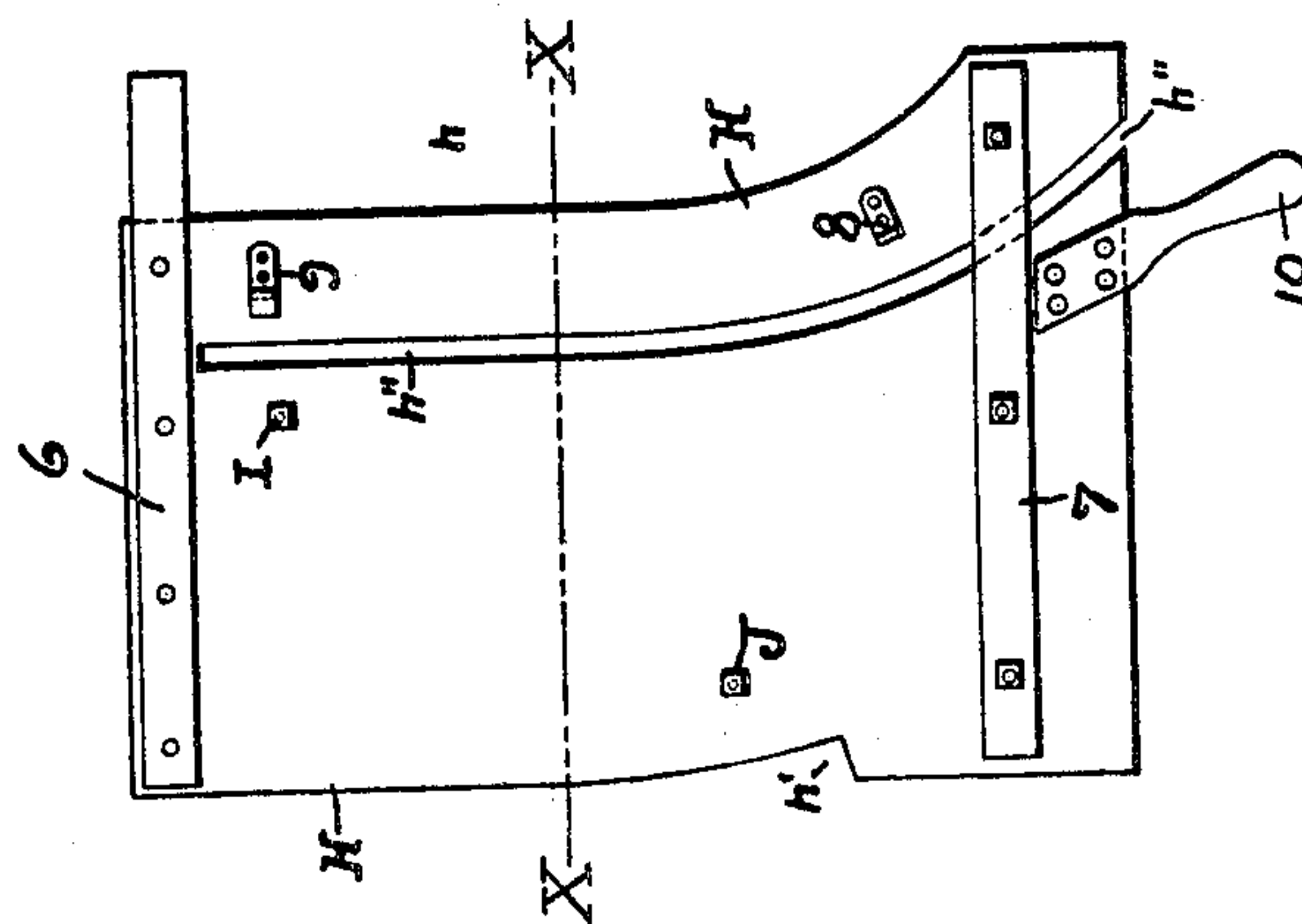


Fig. 2.

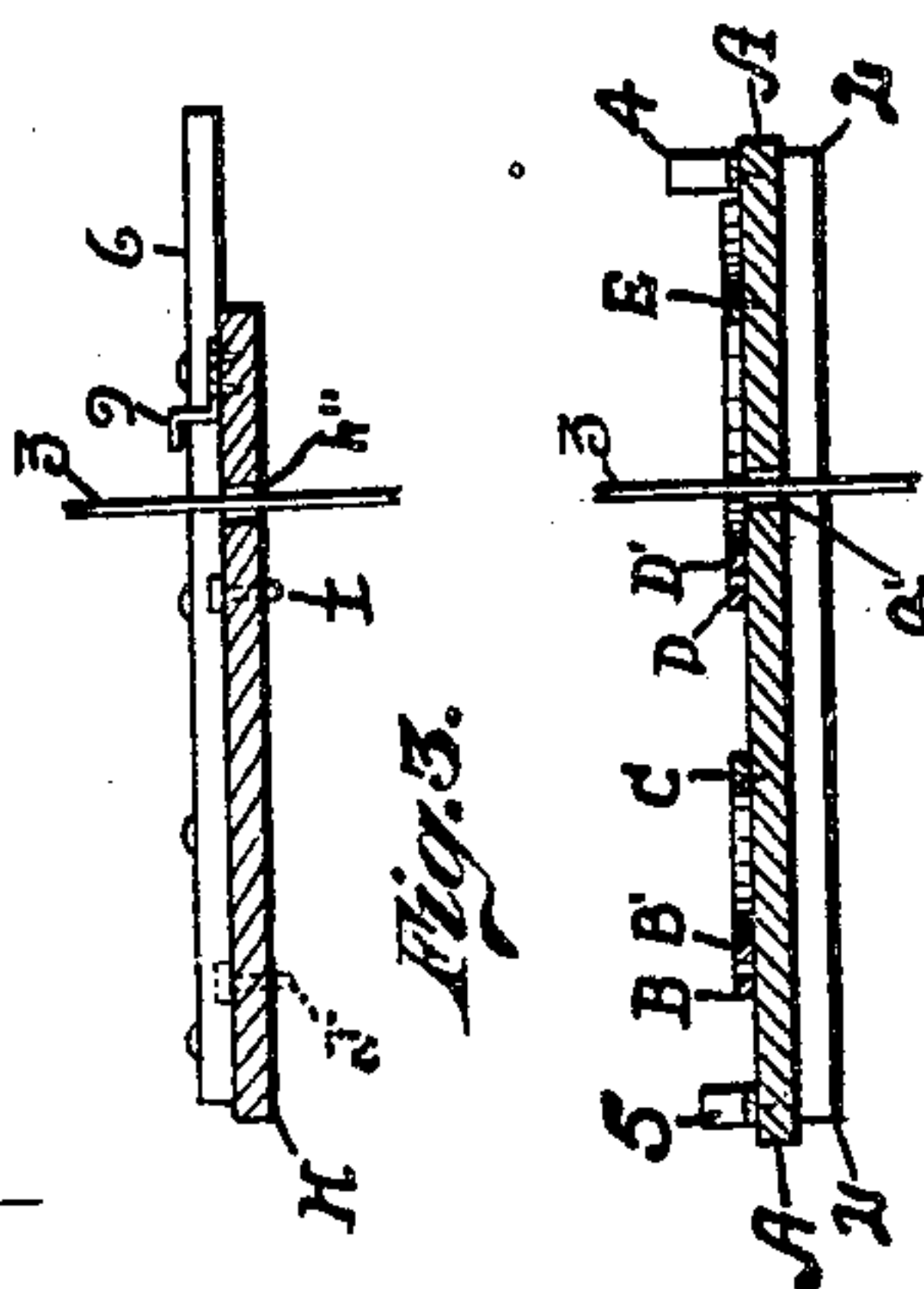


Fig. 4.

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2 SHEETS—SHEET 2.

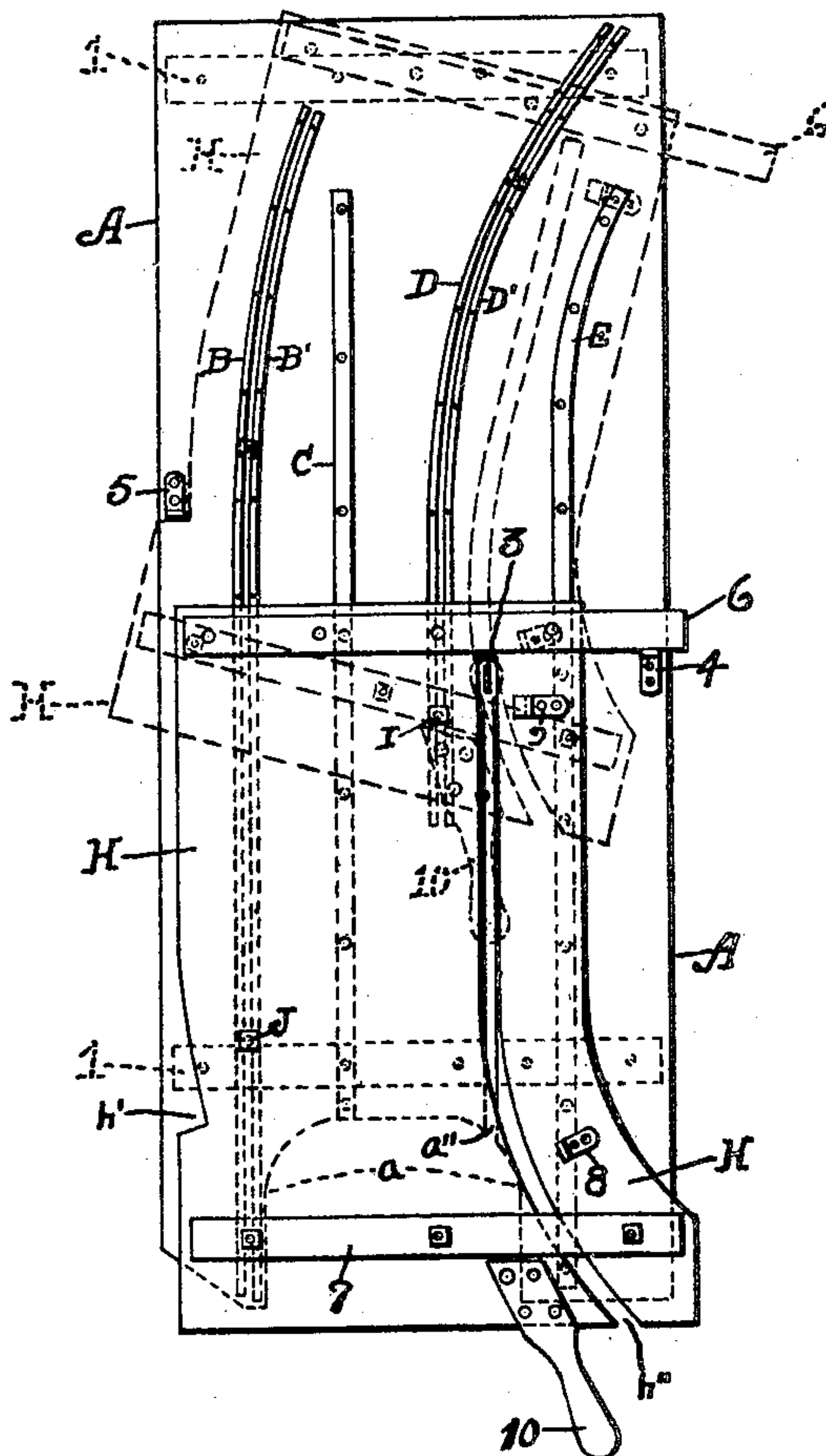


Fig. 5.

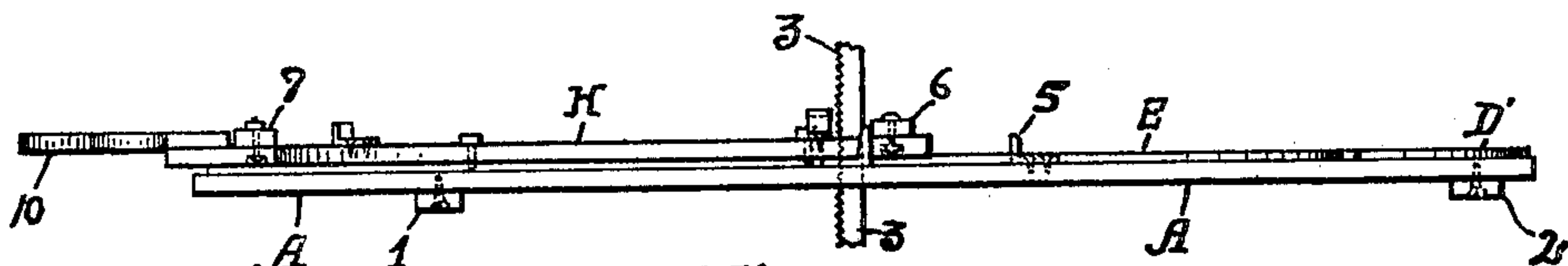


Fig. 6.

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UNITED STATES PATENT OFFICE.

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SAW-TABLE FOR CURVED WORK.

No. 822,330.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed August 11, 1905. Serial No. 273,726.

To all whom it may concern:

Be it known that I, BENTON WILSON, a citizen of the United States, residing in Cambridge City, in the county of Wayne, and in the State of Indiana, have invented certain new and useful Improvements in Saw-Tables for Curved Work; and I hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same when taken in connection with the accompanying drawings, forming a part thereof.

The object of this invention is to improve saw-tables for curved work, securing therein the highest attainable degree of efficiency and simplicity and especially adapting it to the accurate sawing of irregular forms, such as folding-chair legs and the like, without especial care on the part of the attendant except in the matter of delivery at a predetermined point.

To this end the said invention consists in the construction and combination of parts hereinafter more particularly set forth and claimed.

Figure 1 is a plan view of the face of the permanent or stationary table, showing the track and guides located thereon. Fig. 2 is a plan view of the face of the movable carriage. Fig. 3 shows a cross-section of the carriage, taken on the line X X of Fig. 2. Fig. 4 is a cross-section of the table, taken on the line Y Y of Fig. 1. Fig. 5 is a plan view of the assembled parts in operative position, showing the two extreme positions of the carriage; and Fig. 6 is a side elevation of the parts shown in Fig. 5.

Similar indices refer to and denote like parts throughout the several views of the drawings.

With all of the above-named views in mind I will now take up the detail description of my invention, which I will do as briefly and compactly as I may.

The stationary table.—The letter A denotes the body of the table proper, which has a perfectly level top, reinforced by the cleats 1 and 2 extending thereacross on the under side thereof, being secured by screws or otherwise, substantially as indicated. In one end of the table A is a body-aperture a , cut out, whereby that end portion of the table may partially inclose the body of the operator.

The indice a' denotes the aperture through which the saw 3 operates at right angles to

the table, and a'' denotes a slot leading directly from the aperture a' into the aperture a , as shown in Fig. 1. Secured on the face of the table A is the double track B B', the rails of which are spaced slightly apart parallel with each other and are identical in size. Said track extends along on the left-hand portion of the table, from the near end thereof to near the far end thereof, the far portion being curved somewhat to the right, as shown in Fig. 1. Also secured on the face of the table A is the double track D D', the rails of which are spaced slightly apart parallel with each other and are identical in size. Said track extends from a point near to, to the left of, and toward the near end of the table from the aperture a' , lying a short distance parallel with the slot a'' , and then extending in the desired curve to the far right-hand corner of the table, as shown in Fig. 1. Secured to the face of the table A, between the two tracks above mentioned, is the cleat C, and also secured to the face of the table A, to the right of the track D D' and the slot a'' , is the cleat E. The faces of said tracks and cleats should be perfectly smooth and should all be on a common level an equal distance above the face of the table A. Secured on the face of the right-hand edge of the table A, near the longitudinal center thereof, is the lug or stop 4, and similar thereto, but located on the left-hand edge of the face of the table, but nearer the far end thereof, is the lug or stop 5. The purposes of said stops will presently be explained.

The carriage.—The carriage is about half as long as the table above described and slightly narrower and consists of the body portion H, which is a flat member having a smooth lower face adapted to rest on and slide over the faces of the tracks and cleats of the table. A portion of the right-hand side of the body H is cut away in a curve from near the near end of the carriage through to the opposite end, as shown in Fig. 2, forming the aperture h at the side of the carriage, and in the opposite or left-hand edge of the body is the notch h' . Extending from the end of the body H, from near the right-hand forward corner to near the far end thereof, is the slot h'' , which is located on an ascertained curve corresponding to the predetermined curvature into which the product should be formed, the aforesaid tracks B B' and D D' having also the same curvature. The body H is reinforced by a permanent cleat 6, extending across the far end, with its right-hand

end extending beyond to the right, as shown, and, further, by the detachable cleat 7, which extends across the slot h'' and supports the partially-detached portion of the body H, near the near end of which said cleat 7 is located, as shown.

Secured in the body of the carriage and extending therethrough, with their points projecting below the under face thereof, are the two pintles I and J, their location of necessity being accurately predetermined, the lower point of the former being located to operate between the rails of the track D D' and of the latter between the rails of the track B B' when the carriage is moved backward and forward. The location of said pintles must be mathematically determined in order to give the proper movements to the carriage without interference when in operation.

The numerals 8 and 9 denote the two lugs, against which the material to be operated on is placed. Said material is to be laid on the surface of the carriage and extends over the slot h'' when the carriage is drawn forward by the operator.

The numeral 10 denotes a handle whereby the operator may control the movements of the carriage forward and backward.

Operation: As before intimated, the table shown in Fig. 1 may be secured on the ordinary table of a band-saw machine by clamps or otherwise, bringing the table to position by allowing the saw 3 to pass through the slot a'' and being finally located in the aperture a' , as shown. After the table is secured in position the carriage is placed thereon, the cleat 7 being then turned aside to allow the saw 3 to enter through the slot h'' and then being replaced, as in Fig. 2. The points of the pintles I and J are entered between the rails of the respective tracks D D' and B B', with the under side of the carriage resting on the faces of the said tracks and the cleats C and E, as shown in Figs. 5 and 6. It will now be apparent that by grasping the handle 10 the operator may move the carriage forward and backward at pleasure. The movements of the carriage toward the operator is limited by the right-hand end of the cleat 6 engaging the stop 4, at which time the carriage, will assume the location shown in solid lines in Figs. 5 and 6. A piece of material (not shown) may now be laid on the carriage with one of its edges engaging the lugs 8 and 9 and overlapping the slot h'' . Then the operator has only to gently push the carriage from him, when it will travel to the position shown by the dotted lines thereof, as shown in Fig. 5, having been guided in its movement by said tracks, and thus causing the saw to cut the material from end to end and giving it the

proper curvature. The movement of the carriage from the operator is limited by the notch h' engaging the stop 5, as is indicated by the dotted-line position of the carriage shown in Fig. 5.

It will be understood that the positions and the curvature of the tracks may be changed for various kinds of work, and the lugs 8 and 9 may be changed nearer to or farther from the slot h'' in order to gage the material as desired, and various other changes may be made to meet varying conditions.

Having now fully shown and described my invention and the preferred manner for its construction, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In mechanism for curve-sawing the combination of a carriage having pintles I J with a relatively fixed table, having two parallel double tracks receiving the said pintles, and a saw working up through said table and carriage, the curvature of said tracks corresponding to that of the outline to be cut on the article, and the said carriage and table being further provided with a stop and lateral notched part adapted to engage each other for limiting the movement of the carriage in one direction substantially as set forth.

2. In mechanism for curve-sawing, the combination of a carriage having transverse cleats 6 and 7, curved slot h'' , pintles I J in combination with a relatively fixed table having raised longitudinal cleats C D, two curved parallel double tracks receiving said pintles, stops 4 and 5 and a saw-opening and a saw working through said saw-opening and said curved slot, the curvature of said slot and said tracks corresponding to that required for the article and the stops 4 and 5 being arranged for engagement respectively with cleat 6 and notched part h' of the table substantially as set forth.

3. In combination with a relatively fixed table and a feed-table carriage movable over the top thereof and notched at one side, a saw working through slots in these two parts, means for guiding the movement of the carriage in the desired curvilinear lines and a relatively fixed stop arranged to engage the notched part of said carriage and limit its movement in one direction substantially as set forth.

In testimony whereunto I have signed my name to this specification in the presence of two subscribing witnesses.

BENTON WILSON.

Witnesses:

H. H. BRYAM,
R. W. RANDLE.