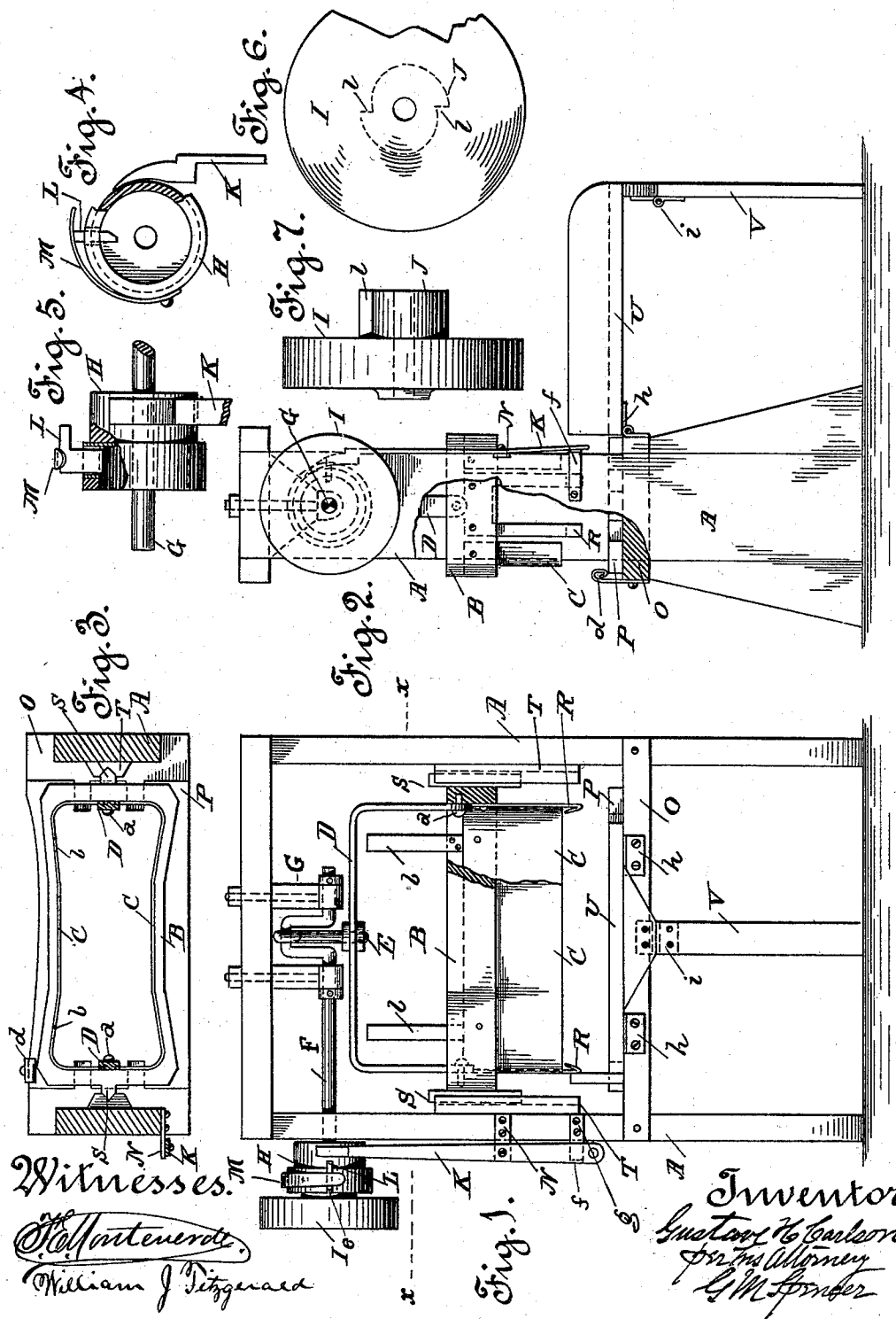


(No Model.)

G. H. CARLSON.
WOOD VENEER JOINTER AND SHAPER.

No. 535,162.

Patented Mar. 5, 1895.



UNITED STATES PATENT OFFICE.

GUSTAVE H. CARLSON, OF HOQUIAM, WASHINGTON.

WOOD-VENEER JOINTER AND SHAPER.

SPECIFICATION forming part of Letters Patent No. 535,162, dated March 5, 1895.

Application filed April 23, 1894. Serial No. 508,702. (No model.)

To all whom it may concern:

Be it known that I, GUSTAVE H. CARLSON, a subject of the King of Sweden and Norway, residing at Hoquiam, Chehalis county, State of Washington, have invented a certain new and useful Improvement in Wood-Veneer Jointers and Shapers, of which the following is a specification.

My invention relates to improvements in a wood veneer jointer and shaper for preparing wood veneer for baskets so that any two of the pieces cut, when laid across each other at right angles the one over the central part of the other, and the four ends of said pieces are bent upward at right angles to the edges when the one crosses over the other, that the ends when so bent upward form with the parts crossing each other a basket in perfect and desirable shape for holding fruit or for other purposes.

The jointer and shaper consists of a cross-head of metal or any suitable material set in a frame, and having four sides, two of which are elongated and curved to conform to the required shape of the pieces cut, which, with the two straight sides, form the ends, making an enclosure open at the top and bottom, into which the veneer pieces as cut slide upward. From the inside lower portion of the elongated sides of the cross-head extend metallic cutters or knives of the same shape and curvature, as the elongated sides of the cross-head; the ends of said knives curving a little, so as to slightly round the corners of the veneer pieces when cut. To the outside of the upper ends of the cross head is attached a bail by means of a pin, and on which it may freely move, which is for the purpose of lifting the same after its descent in shaping and cutting the veneer pieces. To the middle part of said bail is attached at its lower end, an upright handle or lifter through the upper end of which passes the bent portion of the shaft which operates the jointer and shaper, said shaft being held in place by means of supports extending down from the top of frame to which they are secured, and in the lower end of which it revolves. Slide pieces are secured to the ends of the crosshead which move up and down in upright plates attached to the insides of the frame part, having grooves into which the slides fit, thus holding

the crosshead in proper position for its operation. The shaft is operated by a driving pulley and hub on the outside of said frame. The outer end of said hub is hollow, into which the grooved hub of the driving pulley fits for operating the shaft. A pawl is inserted into said hollow part of hub, extending upward to the outside of the same, and which also slides into the groove of the pulley hub and thus communicates the motion of the pulley to axle hub, the outer part of said hub being of a larger circumference than the inner part of the same. The upper end of the pawl has a projection that extends out a little over the smaller circumference of the hub, so as to slide over the end of the upright lever that is attached to the side of the frame part by a support at a point about one-third of its length above the lower end of the same, said lever being fastened to said support by a pin, allowing it to move easily back and forth. The lower end of the lever moves upon a projecting piece attached to the frame, and is held in position by a spring also fastened to the outside of the frame support, extending over the ends of said lever to spring the upper part of the lever back under the projecting part of the pawl, which, as the pawl slides upon it, the lever raises the pawl from the groove in the hub of the pulley, and cuts off all motion with the hub and axle and allows the driving pulley to freely revolve on the end of the shaft. A spring is fastened upon the outside of the hollow hub, the end of which extends over and rests against the upper end of the pawl to spring it back into place when the lever is moved one side to the small circumference of the hub; and as the pawl is pushed back by it, it enters the groove in the pulley hub and sets in motion the shaft. Directly under the jointer and shaper, extending from one side of the frame to the other, is a cross-piece or table upon which there is placed an additional block piece of wood, upon which the veneer sheets slide, as they are pushed under the jointer and shaper, and upon which it acts in cutting and shaping the veneer pieces. From the inside of the bottom part of the crosshead and fastened to it, two thin metallic strips extend a little below the edge of the knives close to the outside of the same. At the ends of said block piece are

places cut into which the ends of the strips enter. Said strips are turned up at the lower ends, and are for the purpose of catching and holding within the shaper, the pieces cut out in the descent of the knives. On the upper back side of the cross head, two guards are set to prevent the strips from falling that way when discharged from the top; also there is an upright guard placed on the back of the cross piece or table, against which the veneer sheets are pushed and prevented from going only so far. An apron is attached to the front of the frame to support the sheets, and from which they are pushed forward under the jointer or shaper. It is hinged at one end to the table, and is supported at the other end by a swinging leg, which, when not in use, may be turned under the apron, and the apron dropped. I attain these objects by the mechanism illustrated in the following drawings.

Figure 1 is a front vertical elevation of the machine, with frame jointer partly broken. Fig. 2 is a side vertical elevation of same partly broken; Fig. 3, a sectional plan of same taken through line $x-x$ Fig. 1, with feed apron left out; Fig. 4, a detail front view of driving hub and shifting lever; Fig. 5, a detail side view of same partly broken, showing pawl in raised position; Fig. 6, a detail front view of driving pulley; Fig. 7, a detail side view of the same.

A, represents the frame support; B, the cross-head part of jointer and shaper; C, the knives attached to the cross-head for cutting and shaping the veneer pieces; D, the bail fastened on the crosshead at its upper ends; E, the upright handle or lift attached to the upper middle part of the bail; F, the revolving shaft; G, the shaft supports in which it is secured and revolves; H, the hub on the end of the shaft, the outside part of which is hollow; I, the driving pulley on the end of the shaft; J, the grooved hub of driving pulley; K, the shifting lever, the upper end of which rests on the hub of the shaft and is used to operate the pawl in said hub to cut off motion of driving pulley; L, the pawl inserted into the hollow part of hub on shaft, and which slides into the groove in hub of driving pulley to communicate motion to the shaft; M, the spring on the outside of hub, the end of which rests on the pawl to press it into the groove in the hub of the driving pulley for communicating motion to the shaft; N, the lever support attached to the frame; O, the table cross piece for supporting the veneer sheets when operated upon by the cutter; P, block piece upon the table against which the knives act in cutting the veneer sheets; R, the metallic supporting strip for catching and holding the veneer pieces when cut inside the shaper; S, slide pieces attached to the crosshead; T, upright grooved plates set on the sides of the frame in which said slides move when the machine is operated; U, the feed apron from which the veneer sheets are fed under the knives; V, swinging leg attached to the under side of

the table to support it; a, pin holding bail; b, guards on the back of the crosshead to keep veneer-shaped pieces from falling in that direction when being discharged from the top of the header; d, guard on the back of the table cross piece, against which veneer sheets are pressed to hold in true position for cutting; e, groove in the hub of the pulley into which the pawl slides that is inserted in the hub of the shaft to communicate the motion of the driving pulley to the shaft; f, spring operating at lower end of the shifting lever to spring it into place for raising the pawl and cutting off the motion of driving pulley; g, the slide or frame on which lower end of the lever moves; h, hinge attaching apron to the table cross-piece in the frame; i, hinge support to the apron.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

A wood veneer jointer and shaper consisting of the frame support, A; the crosshead, B, into which the shaping knives are set; the knives, C, set in the cross-head for cutting and shaping the veneer pieces; the bail, D, fastened to the ends of the crossheads for moving the same up or down; the upright handle or lift, E, attached at its lower end to the middle of the bail to operate it, its upper end being secured to the bent part of the revolving shaft; the revolving shaft, F, that operates the machine; the shaft supports, G, secured to the upper part of the frame; the hub, H, at the end of the shaft having its outer end hollow for receiving the grooved hub of the driving pulley, and for the operation of the pawl placed therein; the driving pulley, I, on the end of the shaft for operating shaft, the grooved hub, J, of the driving pulley fitting into the hollow part of the shaft hub; the groove, k, in the hub of driving pulley, into which the end of pawl slides to secure the driving pulley to the shaft; the pawl, L, inserted in the hollow part of the hub of the shaft, which slides into the groove of the hub of the driving pulley to communicate its motion to the shaft; the spring, M, fastened one end to the outside of the hollow hub of shaft, and the other end resting on the head of the pawl to keep it in place in the grooved hub of the driving pulley to secure its motion to the shaft; the shifting lever, K, for raising the pawl to cut off the motion of the driving pulley; the support, N, for the shifting lever on the side of the frame on which the lever moves; the table cross-piece, O, for supporting the veneer sheets when fed under the shaping knives; the block piece, P, on top of the table crosspiece against which the knives act in cutting the veneer pieces; the metallic supporting strips, R, fastened to the inside ends of the crosshead, and extending downward below the knives, having the ends bent inward to catch and support the veneer pieces when cut; the upright slides, S, on the ends of the crosshead moving in the grooved

plates on the sides of the frame; the grooved
plates, T, on the inside of frame, into which
the upright slides move, securing crosshead
in position; the pins, *a*, holding bail; the
5 guards, *b*, on the back of the crosshead; the
guard, *d*, on the back of table cross-piece of
frame, holding veneer sheets in place under
the knives; the spring, *f*, for securing lever
in place when it raises the pawl and cuts off
10 the motion of driving pulley from the shaft,
and allowing the lever to slip past the end of
the spring, when the upper end is pushed
from under the projecting part of the pawl

for communicating motion to the shaft; the
slide, *g*, against which the lever moves; the 15
apron U from which the veneer sheets are fed
under the knives, the hinge, *h*, attaching apron
to the table cross-piece; the swinging leg V at-
tached to under side of table; and the hinge,
i, uniting leg support to the end of apron; 20
substantially as herein described and set
forth.

GUSTAVE H. CARLSON.

Witnesses:

W. L. ADAMS,
GEO. W. KERTZER.