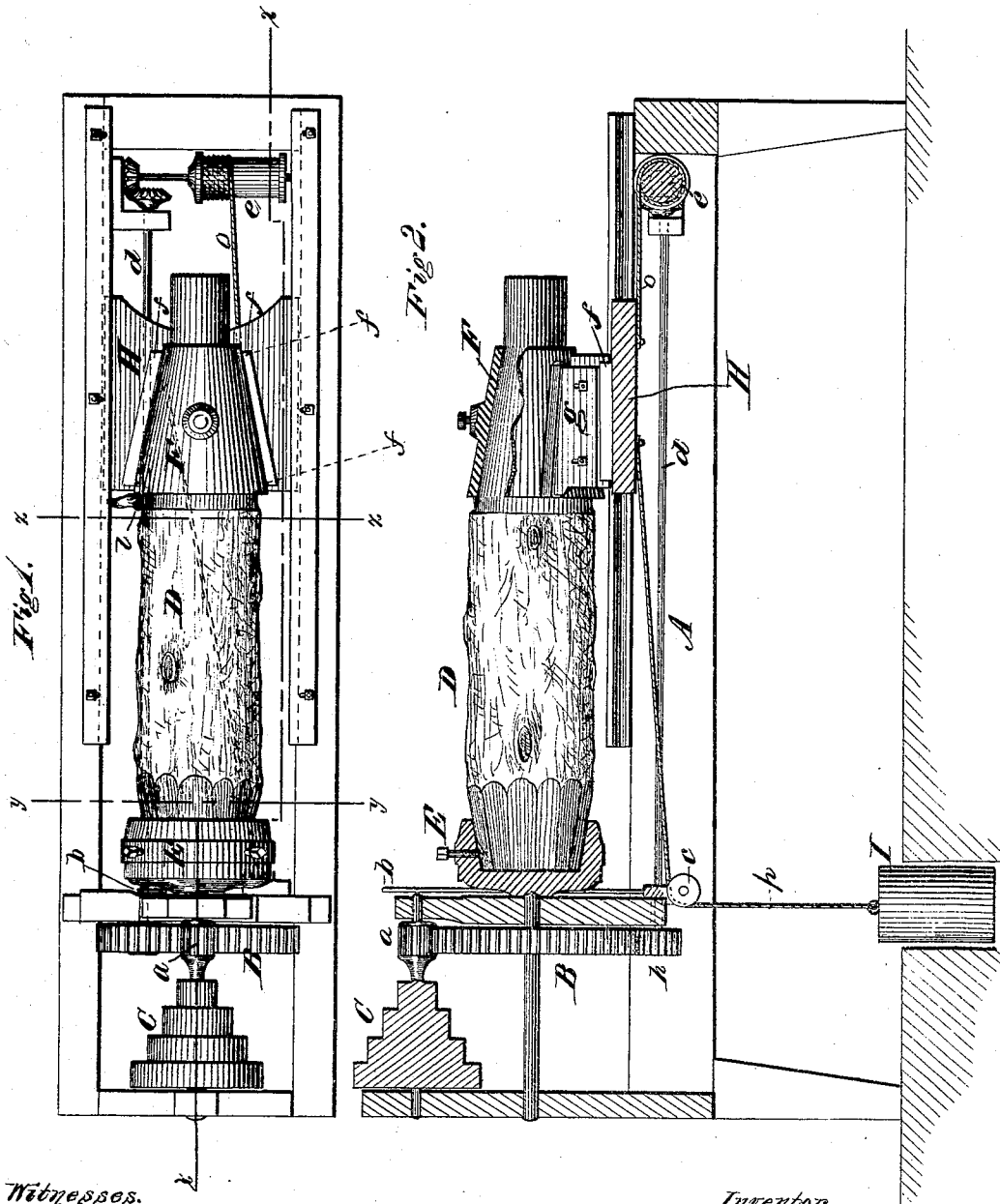


S. D. CARPENTER.
Veneer Cutting-Machines.

No. 149,028.

Patented March 31, 1874.



Witnesses.

Harry King
Wm. E. Chaffee

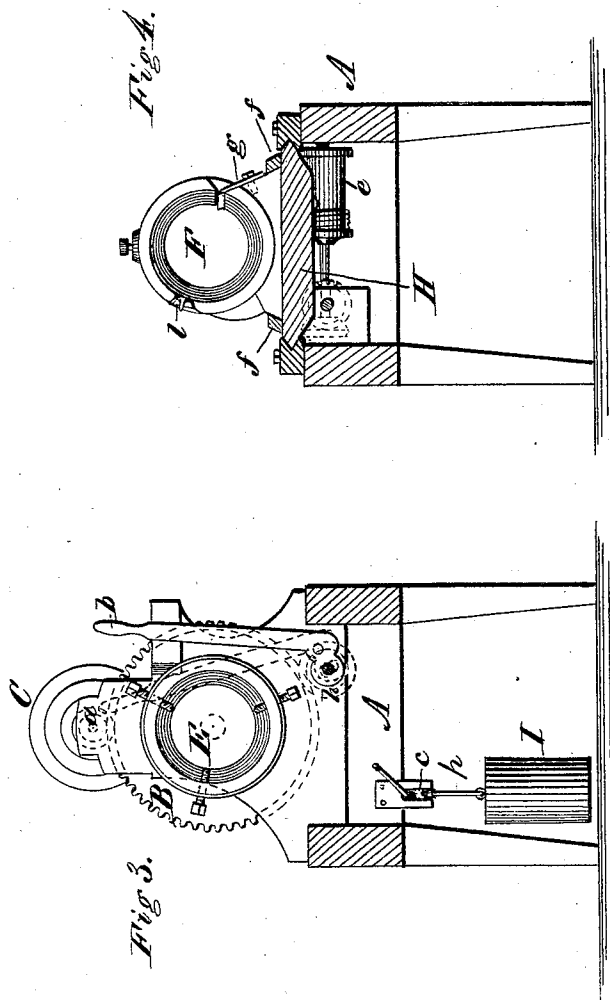
Inventor.

S. D. Carpenter,
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UNITED STATES PATENT OFFICE.

STEPHEN D. CARPENTER, OF MADISON, WISCONSIN.

IMPROVEMENT IN VENEER-CUTTING MACHINES.

Specification forming part of Letters Patent No. **149,028**, dated March 31, 1874; application filed September 5, 1873.

To all whom it may concern:

Be it known that I, STEPHEN D. CARPENTER, of Madison, in the county of Dane and State of Wisconsin, have invented certain Improvements in Veneer-Cutting Machines, of which the following is a specification:

My invention consists of a machine for cutting veneer or thin strips of wood in a continuous sheet from the exterior of a log or block, and cutting it diagonally across the grain, as hereinafter more fully described.

Figure 1 is a top-plan view of my improved machine. Fig. 2 is a side elevation, partly in section; and Figs. 3 and 4 are transverse sections on the lines *y y* and *z z*, respectively.

In constructing my machine, I provide a suitable frame, A, having mounted on it at one end a head-stock, carrying a cone-pulley, C, with a pinion, *a*, gearing into a wheel, B, upon the shaft of which latter is mounted a chuck, E, for receiving and securely holding the end of the stick to be cut, as shown in Figs. 1 and 2, the stick being rotated with the chuck, after the manner of a lathe. Upon the bed or frame A, in suitable ways, I mount a slide, H, which carries the cutter-head F. The cutter-head is secured to the slide H by means of two inclined ribs, *f*, formed on the top of the slide, as shown in Figs. 1, 2, and 4, so that it can be removed by simply sliding it forward on the slide H, but is held securely from moving in the opposite direction. The cutter-head F is made in the form of a conical tube, and has a slit or mouth cut lengthwise along one side, in which is secured the cutter or knife *g*, which is held by bolts, so as to be set or adjusted to cut any required thickness of material. Upon the opposite side of the cutter is secured another cutter or curved knife, *l*, as seen in Figs. 1 and 4, which is arranged to cut in advance of the cutter-head, for the purpose of reducing the log or stick to a uniform size, and make it straight and true, so as to enter the cutter-head without difficulty. To the slide H is attached a cord, *p*, which passes over a pulley, *c*, at the opposite end of the machine, and to which a weight, I, is attached, this serving to draw the slide with its cutter-head forward, and thus feed the knife along as it cuts the strip from the rotating stick. Across the rear end of the frame is secured a shaft, having a

small drum, *e*, on it, around which is coiled a cord, *o*, which has its opposite end secured to the slide H. On this shaft is a bevel-gear, which engages with another bevel-wheel on a shaft, *d*, which extends along within the frame to its opposite side, where it has secured upon it a pinion, *h*, arranged to be thrown in and out of gear with the wheel B by means of a lever, *b*, as shown in Figs. 2 and 3, the object of which is to feed the slide with its cutter-head back, after it has made its cut, the length of the stick, or at any time when necessary. It is obvious, however, that the ordinary screw-feed used on lathes may be substituted, if desired.

The object of making the cutter-head detachable from the slide is to enable it to be removed and another substituted for making a second cut, after the first has traversed the length of the stick. In a large machine, and with plenty of power, a series of these cutter-heads may be used at the same time, they being arranged to follow each other. In that case the slide H might be made long enough to hold several cutter-heads; but such an arrangement would not be advantageous, except when cutting from long logs, because each successive cutter would have to stop farther and farther from the end, and the one in advance would have to be removed before the next could complete its cut. This form of cutter-head will hold the stick up to the knife, and prevent it from springing, thus insuring the cutting of an even and uniform sheet.

By making the cutter-head more or less conical, the angle at which the cut across the grain is made may be varied at will. By these means I am enabled to cut a continuous strip of a width suitable for veneer, and to cut from straight-grained timber a veneer which shows the grain of the wood to good advantage. A machine constructed and operating on this plan may also be used to cut strips of greater thickness, suitable for backs for picture frames, mirrors, &c., and also to make small fruit-baskets, the conical form of the strip admirably fitting it for this latter purpose.

Having thus described my invention, what I claim is—

1. The sliding conical cutter-head F, provided with the trimming-knife *l* and the cut-

ter *g*, constructed and arranged to operate substantially as shown and described.

2. In a veneer-cutting machine, constructed and operated substantially as described, the slide *H*, provided with a dovetailed recess, in combination with the cutter-head *F*, provided with a corresponding base to fit in said recess, as and for the purpose set forth.

3. The combination, in a machine for cut-

ting veneer, of the slide *H* with the cord *p*, having a weight attached, the cord *o*, drum *e*, and shaft *d*, with its shipping-lever *b*, all arranged to operate substantially as set forth.

STEPHEN D. CARPENTER.

Witnesses:

W. C. DODGE,
JOS. T. K. PLANT.