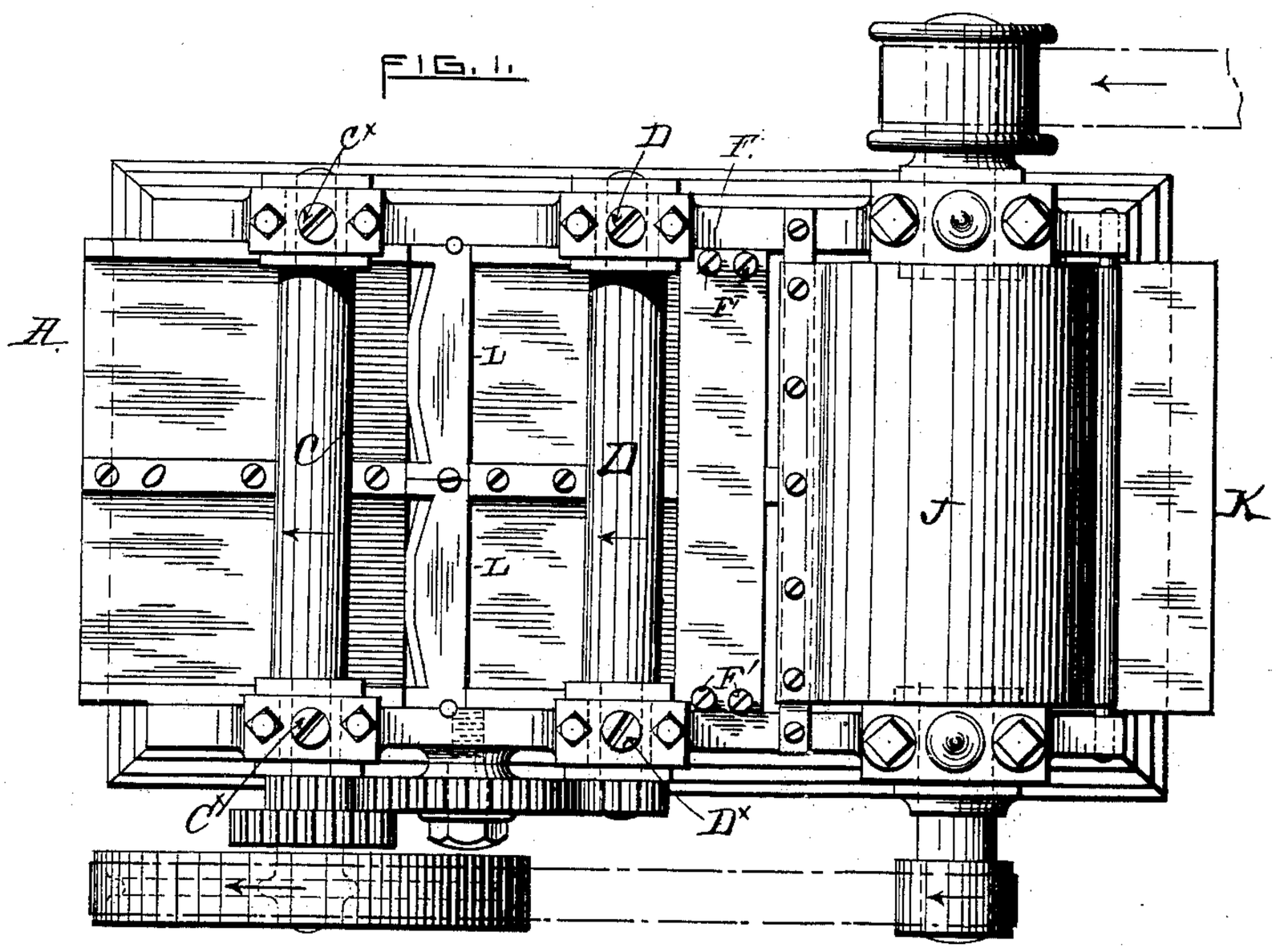
(No Model.) 2 Sheets—Sheet 1.

E. A. HARRIS.

MACHINE FOR CUTTING TOOTH PICKS.

No. 375,812. Patented Jan. 3, 1888.

FIG. 1.



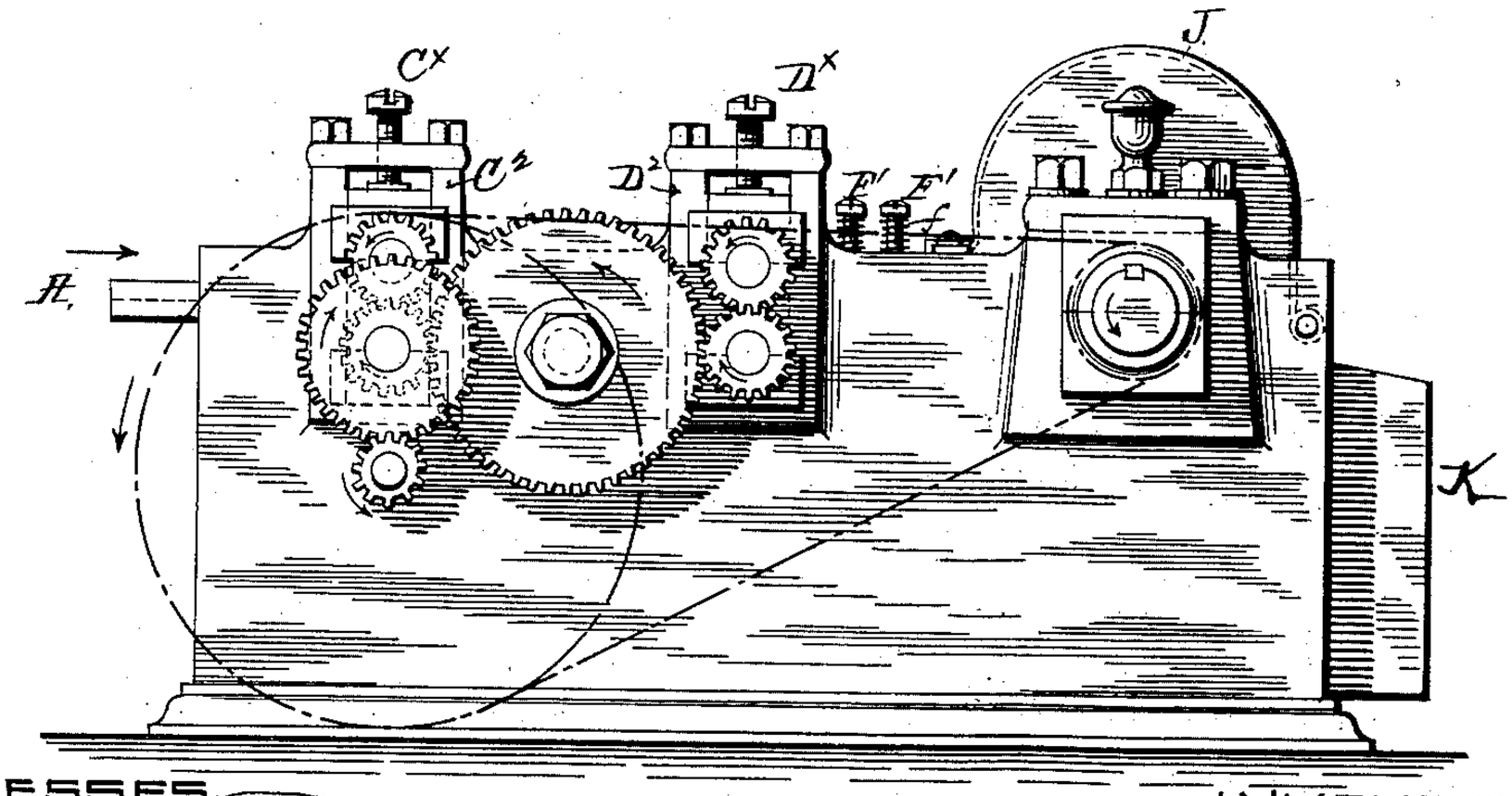


FIG. 2.

WITNESSES.

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(No Model.) 2 Sheets—Sheet 2.

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FIG. 3.

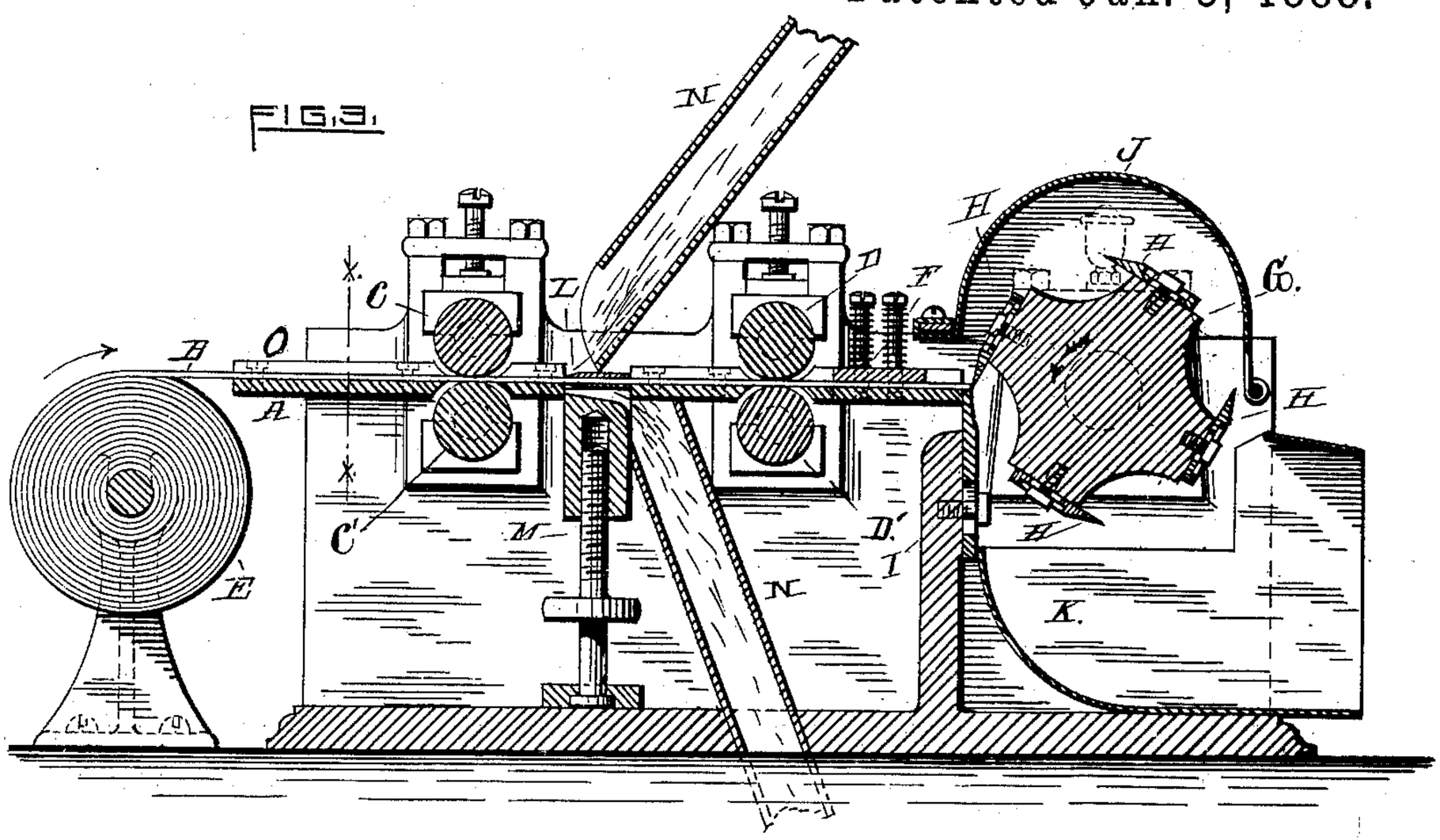


FIG. 8.

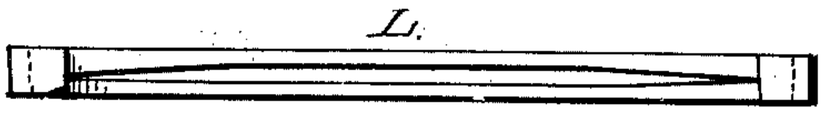


FIG. 4.

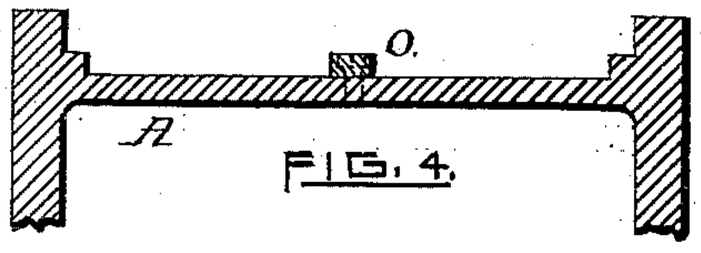


FIG. 5.

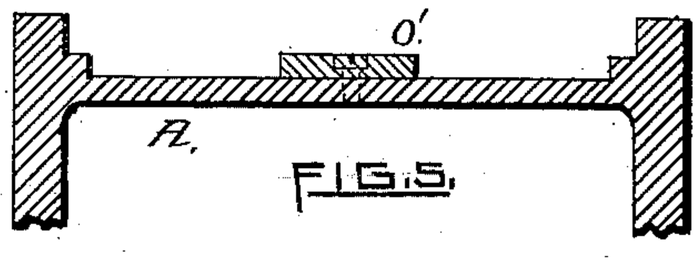


FIG. 6.

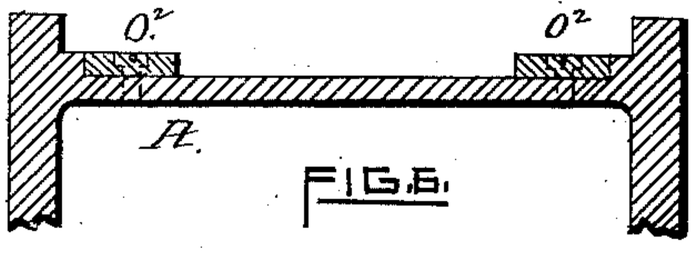
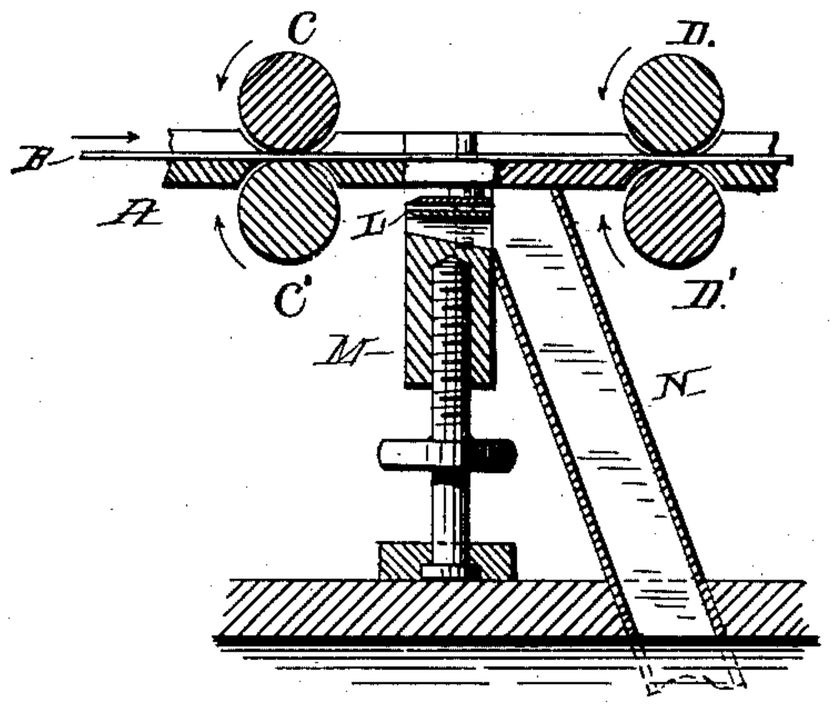


FIG. 7.



WITNESSES.

Cornelius P. White

David D. Granger.

INVENTOR

Ernest A. Harris

By Walter B. Vincent Atty.

UNITED STATES PATENT OFFICE.

ERNEST A. HARRIS, OF MECHANIC FALLS, MAINE.

MACHINE FOR CUTTING TOOTH-PICKS.

SPECIFICATION forming part of Letters Patent No. 375,812, dated January 3, 1888.

Application filed June 2, 1887. Serial No. 240 015. (No model.)

To all whom it may concern:

Be it known that I, ERNEST A. HARRIS, of Mechanic Falls, in the State of Maine, have made certain new and useful Improvements in Machines for Cutting Tooth-Picks; and I do hereby declare that the following specification, taken in connection with the drawings making a part of the same, is a full, clear, and exact description thereof.

Figure 1 is a plan of my improved machine. Fig. 2 is an elevation of same. Fig. 3 is a vertical section of same. Fig. 4 is a cross-section of table and guide on line *x x*. Fig. 5 is a cross-section of table and guide, showing a guide of another width. Fig. 6 is a cross-section of table, showing guides at the sides. Fig. 7 is a section showing feeding-rolls and mechanism for adjusting and depressing the knife. Fig. 8 is a back view of the knife.

The object of my improvements is to facilitate the production of the picks, to secure a more suitable and uniform shape, and to more carefully guide the stock in its passage into and through the machine; and it consists in the arrangement, construction, and combination, with other parts of the machine, of knives and guides, as hereinafter described.

A is an elevated bed or table, over which the veneer B passes on its way to the cutting devices, and is moved along by feeding-rolls C C′ and D D′, and drawn from a stock-roll, E. The rolls C C′ and D D′ are held in standards or ways C^2 and D^2, respectively, and the upper roll of each pair is set in an adjustable boxing, and is provided with set-screws $C^\times$ and $D^\times$, respectively, which are threaded through the cross-head of the standards, by means of which the rolls C and D may be adjusted to accommodate the thickness of the veneer.

F is a crosswise adjustable spring-plate, which holds the stock down to the bed near the point of delivery to the cutting-knives. The plate F is held longitudinally and laterally by the screws F′, passed through it, and is borne upon by springs J′, whereby it is given a spring-pressure upon the veneer.

G is a rotating cutter-head, to which is attached knives H H H H, which operate upon the stock as it moves along in connection with the vertical and stationary knife I.

J is a bonnet covering the rotating cutter-head, and K is a pan or chute for delivering the picks from the machine.

L is a double knife extending crosswise the machine horizontally, and is adjusted or lowered out of the way, when not required, by a vertical screw-arbor, M.

N is a chute for disposing of all shavings made by the knife L, and preventing them from clogging and interfering with the operation of the other parts of the machine.

O O′ O^2 are guides attached to and extending lengthwise of the table or bed.

Motion being imparted to the several parts of the machine through suitable pulleys and gears, the veneer, which is of an even thickness throughout its entire width, is drawn from the roll E by the feeding-rolls C C′ and D D′ over the bed or table A. In its passage along the bed A the veneer passes through the double knife L, which is carefully adjusted vertically by the screw-support M. The two parts of the knife L converge at each end, as shown in Fig. 8, so that the veneer as it is drawn through them has its edges chamfered upon both sides at the same time. After passing through the rolls D D′ the veneer passes under a spring-pressed plate, F, which tends to hold the end firm as it is presented to the knife, and to overcome any warp or spring in the stock. As fast as the veneer projects beyond the stationary knife I it is struck by the rotating knives H at regular intervals, each strike of the knife removing a pick and allowing it to drop into the pan or chute K below.

It will thus be seen that the pick, when severed from the veneer, will be sharp at both ends by the previous removal of a portion of the stock upon both sides, thus forming a point best adapted for insertion between the teeth.

The machine may be built of sufficient width, as shown in the drawings, to permit the passage of two or more parallel strips of veneer at the same time, and thus increase its capacity. When it is desired to cut from more than one strip of veneer at the same time, I make use of one or more guides, attached to the bed A and running lengthwise thereof, as shown in Figs. 1, 4, and 5, the width of which may differ according to the width of the veneer.

The machine may also be used for the cut-

ting of matches and lighters, for which use guides of suitable width may be placed upon either side, as shown in Fig. 6, and the knife L lowered out of the way, as shown in Fig. 7.

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

1. In a machine for cutting tooth-picks, the combination of the bed or table A, the feeding-rolls, the stationary converging knives L, and the cutter G and stationary knife I, against which the cutter works, the whole constructed and operating substantially as described, for the purposes specified.

2. In a machine for cutting tooth-picks, the combination of the bed-plate A, the feeding-rolls, the stationary knife L, the spring-pressed plate F, and the cutter G and stationary knife I, against which the cutter works, the whole constructed and operating together, substantially as described, for the purposes specified.

3. A machine for cutting tooth-picks, consisting of a suitable frame, a bed-plate, A, guides thereon, feeding-rolls C C′ and D D′, a stationary knife, L, arranged in the line of the travel of the stock, and the rotating knives H and stationary knife I, against which knives H work, all arranged and combined substantially as set forth.

4. In a machine for cutting tooth-picks, the combination, with the bed plate, feed-rolls, and rotating knives, of the stationary knife L, held in the line of travel of the veneer, and having an adjustable support, whereby it may be dropped below said line of travel, substantially as and for the purpose set forth.

ERNEST A. HARRIS.

Witnesses:
WALTER B. VINCENT,
CORNELIUS P. WHITE.