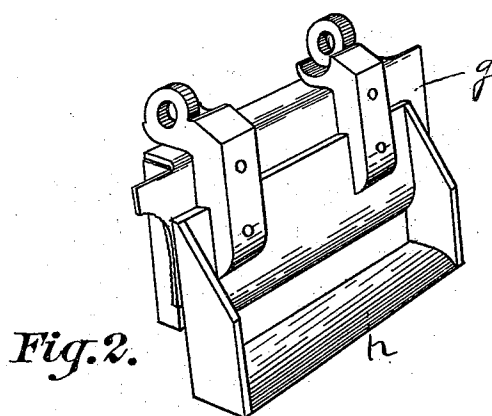
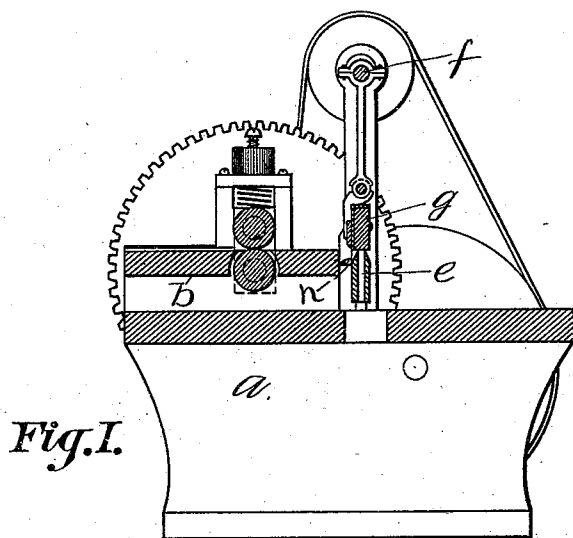


(No Model.)

H. P. CHURCHILL.
TOOTHPICK MACHINE.

No. 549,488.

Patented Nov. 12, 1895.



Witnesses:

Grace E. Holland.

Annie H. Everett.

Inventor:

Henry P. Churchill,
by Merrill & Cliford,
Attorneys.

UNITED STATES PATENT OFFICE.

HENRY P. CHURCHILL, OF DEERING, MAINE, ASSIGNOR TO ALVIN S. WILCOX, OF SAME PLACE.

TOOTHPICK-MACHINE.

SPECIFICATION forming part of Letters Patent No. 549,488, dated November 12, 1895.

Application filed October 22, 1894. Serial No. 526,543. (No model.)

To all whom it may concern:

Be it known that I, HENRY P. CHURCHILL, a citizen of the United States of America, residing at Deering, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Toothpick-Machines; and I do 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.

My invention relates to improvements in toothpick-machines, and more particularly to means for raising the blank above the knife after it has been forced down below the edge of the knife by the reciprocating plunger.

It consists in attaching to said plunger a plate or arm extending below the plunger in such position as to operate between the knife and the table over which the blank is fed.

In the drawings herewith accompanying and forming a part of this application, Figure 1 is a sectional view of the table, feed-rolls, knife, and plunger mechanism, showing my improved blank-lifter attached; and Fig. 2 is a perspective view of the plunger with my improved blank-lifter arm attached thereto.

The same letters refer to like parts.

In said drawings, *a* represents a framework upon which the machine is mounted; *b*, the table over which the blank passes as it is fed to the knife. In front of the table is placed a hollow knife *e*, of any approved construction. Eccentrically mounted on a suitable shaft *f* is a reciprocating plunger *g*, in such position that when down it rests upon the top of the knife, as shown in Fig. 1. These parts may be substantially the same as in toothpick-machines as at present constructed.

As formerly constructed, the blank when forced below the edge of the knife has been raised again by an independent mechanism, operated in various ways, including a plate attached to a lever and operated by a tension-spring, a plate pivoted to the under feed-roll

and operated by a connecting-link mounted eccentrally on a shaft, and a spring-plate attached to the table, which in its normal position is above the edge of the knife, but which is capable of being depressed by the plunger. The objections to these machines were that the spring-plate would get out of order and become broken, and they served to complicate the machine and rendered it more expensive to construct and operate. To obviate these objections, I have attached to said plunger a lifter arm or plate *h*, which, when the plunger is down upon the knife, is below the edge of the knife; but when the plunger is raised the arm is brought upwardly against the bottom of the blank and raises it above the edge of the knife, so that it can be fed over the knife by the feed-rolls.

My attachment may be made of any convenient form and attached to the plunger in any convenient manner. To facilitate the reception of the blank, the arm may be made beveled toward the approaching blank.

My device obviates the necessity for springs or pivoted plates, is simple in construction, and cannot get out of time with the other parts of the machine.

Having thus described my invention and its use, what I claim is—

In a tooth pick machine, a table, feed rolls, a knife in front of said table, a vertically reciprocating plunger mounted in such manner as to strike periodically upon said knife and a blank lifter rigidly attached directly and exclusively to the plunger, said lifter extending some distance below said plunger, substantially as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses this 25th day of September, 1894.

HENRY P. CHURCHILL.

Witnesses:

ELGIN C. VENILL,

FREDERICK G. FASSETT.