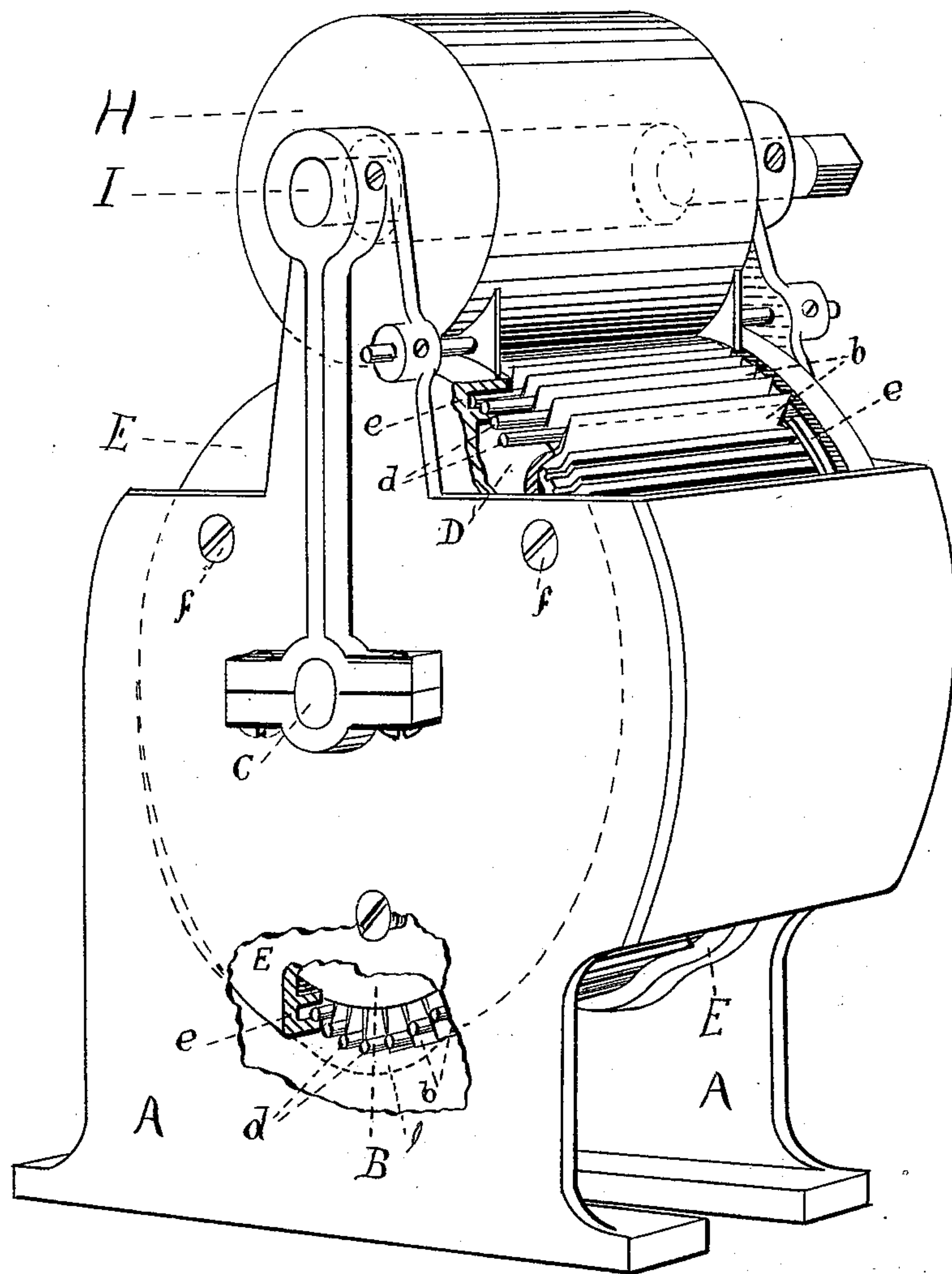


(No Model.)

W. F. HUTCHINSON.  
TOOTH PICK MACHINE.

No. 433,788.

Patented Aug. 5, 1890.



Witnesses

*Alfred C. Campbell*  
*Effraim*

Inventor

*William F. Hutchinson*

# UNITED STATES PATENT OFFICE.

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## TOOTH-PICK MACHINE.

SPECIFICATION forming part of Letters Patent No. 433,788, dated August 5, 1890.

Application filed November 21, 1889. Serial No. 331,070. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM F. HUTCHINSON, a citizen of the United States, residing at Lynn, in the county of Essex, in the State of Massachusetts, have invented a new and useful Tooth-Pick Machine, of which the following is a full, clear, and exact description.

My invention relates to that class of tooth-pick machines in which the tooth-picks are cut from thin strips or veneers of wood, the width of the veneers corresponding to the lengths of the tooth-picks. These veneers are turned from the log in long ribbons or strips in a manner well known to the trade and needing no detailed description.

The object of my invention is to provide a machine that shall cut these tooth-picks very rapidly and to provide means to prevent them from sticking between the knives of the machine.

To this end my invention consists in a frame carrying two rotary drums, the larger of which has a series of knives arranged around its entire periphery the width of a tooth-pick apart, and having means, as hereinafter described, for expelling the tooth-picks from between said knives, and the smaller of which acts as a bearing for the knives. This construction will be hereinafter fully described, and more specifically pointed out in the claims.

Reference is to be had to the accompanying drawing, forming a part of this specification, which is a perspective view of the machine, with portions broken away to show the manner of expelling the tooth-picks, and in which like figures of reference indicate corresponding parts.

The larger drum or cylinder B is hung in the frame A and turns upon the shaft C. The shaft C is provided with a pulley, (not shown in the drawing,) to which power is applied to run the machine.

The knives *b* are a little longer than a tooth-pick, and are placed in grooves in the face of the cylinder B the width of a tooth-pick apart, and are held in position by the flanges D, which clamp onto the ends of the knives. Between the knives *b* are rods or wires *d*, which lie against the face of the cylinder B, and the ends of which project be-

yond the ends of the knives *b*, and are retained by the annular grooves *e* of the collars E. These collars E are rigidly attached to the frame A by the screws *f*, and the grooves *e* form the same circle as the cylinder B, except that at the under side of the cylinder B the grooves *e* swell out in the form of a cam, as indicated by the dotted line at the point 1, so that as the cylinder B revolves the ends of the rods *d* will follow the grooves *e*, and where the grooves *e* swell out, as described, the rods *d* will be forced out to the edge of the knives *b*.

The frame A is provided with two upwardly-extending arms, in which is hung the drum H, which turns upon the shaft I. This drum may be made of wood, rubber, rawhide, or any suitable material, and should bear against the edge of the knives *b*.

The machine, being set in motion, is operated as follows: A strip of veneer is inserted between the knives *b* and the drum H, and as the drums revolve the veneer is cut into tooth-picks by the knives *b* pressing against the drum H. The tooth-picks will thus be forced between the knives *b* upon the rods *d*, and as the cylinder B revolves the ends of the rods *d* will follow the grooves *e* till the projecting portion of the grooves *e* at the point 1 is reached, when the rods *d* will be forced out, as described above, forcing the tooth-picks from between the knives. As the cylinder revolves further and the grooves *e* resume their circular shape, the rods *d*, following said grooves, will be forced back into position against the face of the cylinder B.

Instead of having the grooves *e* extend entirely around the collar E, the inner face of the grooves could be dispensed with except for a short distance at the bottom of the collar, where the cam portion of the groove is located.

The cylinder B, knives *b*, and drum H are arranged substantially as shown in a former patent to me, dated May 28, 1889, No. 404,282, and I do not claim such as my invention; but

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

1. In a tooth-pick machine, the combination, with a revolving cylinder, having knives the width of a tooth-pick apart arranged around



its periphery, and a rotary drum as a bearing  
for said knives, and having rods between the  
knives, with their ends extending beyond the  
ends of the cylinder, of a collar rigidly at-  
5 tached to the frame of the machine, having  
its inner surface provided with an annular  
groove adapted to receive the ends of said  
rods, said groove having a cam-like projec-  
tion adapted to force said rods to the outer  
10 edge of the knives, substantially as described.

2. In a tooth-pick machine, the combination,  
with the cylinder B, having knives *b* arranged  
around its periphery, and having rods *d* be-  
tween said knives, of means, as collar E and  
groove *e*, for forcing said rods to the outer 15  
edges of the knives, substantially as described.

WILLIAM F. HUTCHINSON. [L. s.]

Witnesses:

J. T. L. ARCHAMBAULT,  
D. C. BELIVEAU.