

(No Model.)

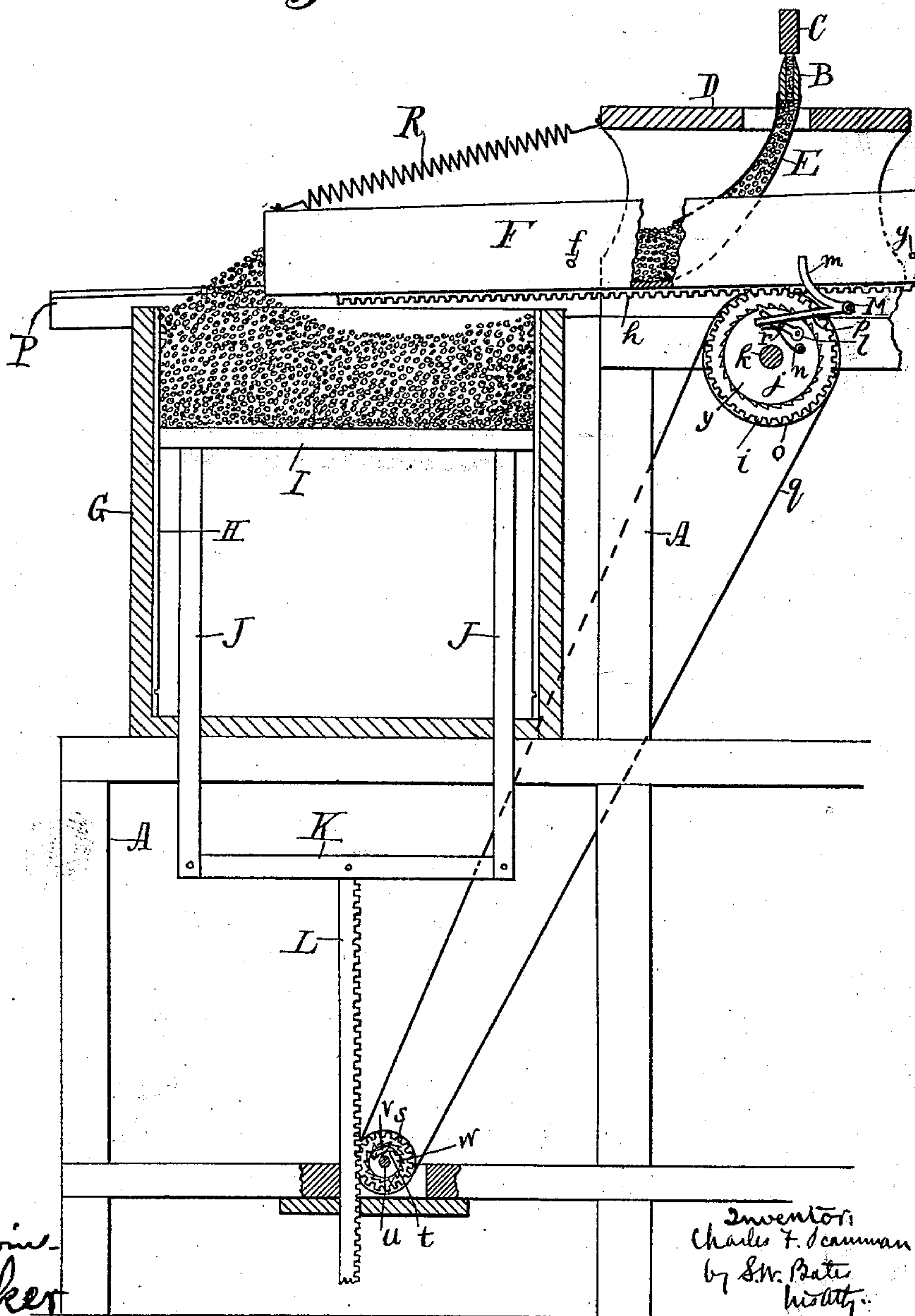
2 Sheets—Sheet 1.

C. F. SCAMMAN.
TOOTHPICK MACHINE.

No. 548,891.

Patented Oct. 29, 1895.

Fig. 1.



Witnesses:

Wm. A. Stasinski
J. O. Ricker

Inventor:
Charles F. Scamman
by S. M. Bate
Att'y.

(No Model.)

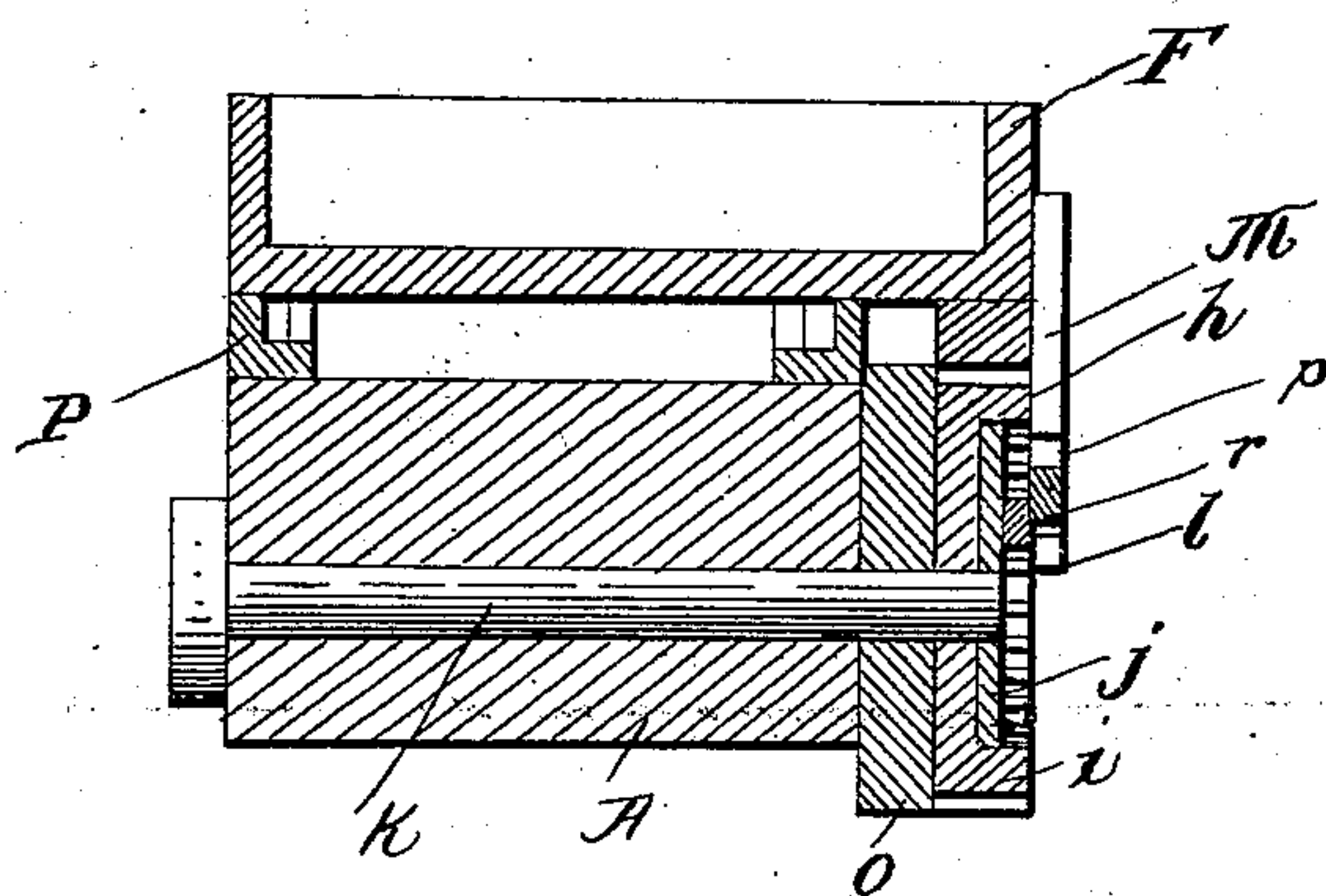
2 Sheets—Sheet 2.

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TOOTHPICK MACHINE.

No. 548,891.

Patented Oct. 29, 1895.

Fig. 2.



WITNESSES:

T. E. Hughes
Wm. Elliott

INVENTOR

Chas. F. Scamman
BY
D. W. Bates
ATTORNEY.

UNITED STATES PATENT OFFICE.

CHARLES F. SCAMMAN, OF DEERING, MAINE.

TOOTHPICK-MACHINE.

SPECIFICATION forming part of Letters Patent No. 548,891, dated October 29, 1895.

Application filed May 11, 1895. Serial No. 548,935. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. SCAMMAN, a citizen of the United States, 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 a device to be attached to toothpick-machines, by which the picks are caught as they fall from the machine and are automatically carried along and filled into drying-trays.

In the toothpick-machines to which my invention is particularly adapted the picks are formed by a pair of knives, over which a strip of veneer is fed and against the edge of which a reciprocating block acts. The picks as they are formed drop down between the knives; and the object of the present invention is to carry them to the drying-tray and fill it without the intervention of any hand labor, the picks all the while remaining parallel with one another.

In the form of machine which I prefer to use the picks are discharged into a curved stationary spout as they drop from the machine, and, according to my invention, they are then discharged into a movable spout, which reciprocates beneath the end of the stationary spout with a longitudinal motion. The reciprocating spout deposits the picks in a tray layer upon layer, and the body of picks in said tray is lowered as fast as they are deposited, so that the tray is gradually filled. As I prefer to construct the machine, the outer end of the movable spout moves back and forth above the open end of a drying-tray with a vertically-movable follower, which gradually lowers as the picks accumulate on top of it. As the movable spout moves slowly forward, it receives a layer of picks from the curved spout, and when it reaches the farther end of the tray it is suddenly drawn back, depositing its layer of picks on top of the follower. By the time it deposits another layer the follower has lowered just the thickness of

the layer. This process is kept up, layer upon layer being deposited on the follower until the tray is full.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a sectional elevation through a toothpick-machine with my device attached. Fig. 2 is a section taken vertically through the shaft *k*.

D is the bed of the toothpick-machine, B the knives, and C the reciprocating block. The picks are preferably received as they drop in a curved spout E, and are thence discharged onto the bottom of a longitudinally-movable spout F, which runs in guides P. Motion is imparted to the spout F by means of a rack *h* and a pinion *i*, which is loose on the shaft *k*. The rack and pinion are so constructed that the spout may be drawn back by the retracting-spring R, being automatically disconnected to allow of such retraction. As herein shown, I form a ratchet inside of the pinion *i*, and on a disk *j*, attached to the shaft inside of the pinion, I pivot a pawl *l*, adapted to engage the ratchet. A spring *n* presses the pawl into engagement with the ratchet, and a pin *r* projects from the face of the pawl, by which it may be controlled. When the pawl is in engagement, the spout F is fed slowly forward; but when the pawl is disconnected the spring retracts the spout, turning the pinion on the shaft *k*. The pawl is disengaged by means of a crooked lever M, having one arm *p* extending out over the pin *r* when the latter is in a position vertically over the shaft. The other arm *m* projects up outside of the side of the spout F in a position to be hit by the pins *f* and *g* in the side of the spout. There is sufficient friction in the pivoted joint of the lever M, so that when the arm *m* is knocked over by the pin *g* and the pawl depressed it will be held down until released by the pin *f* striking the arm *m*. The outer end of the spout F reciprocates across the open end of the vertically-disposed drying-tray H, and the pin *g* is set in such a position as to strike the arm *m* when the end of the spout reaches the outer side of the tray, and the pin *f* strikes the arm *m* when the spout reaches the inner side of the tray, the

pawl *l* being so located that it will come vertically above the center of the shaft when the end of the stroke is reached.

The tray *H* is supported in a suitable frame *G*, and, as before stated, the upper end of the tray is open. In the tray is a vertically-movable follower *I*, secured to the upper ends of the supports *J J*, the lower ends of which are connected by a cross-bar *K*. The follower is raised and lowered by suitable mechanism, as a rack *L* and pinion *s*. The pinion *s* has an internal ratchet, in which engages the pawl *v*, held by the spring *t* and mounted on the disk *w*, the whole being operated by the shaft *u*. The arrangement of the pinion and its connecting parts is the same as that described in connection with the pinion *i*, and it is so constructed that when the shaft turns the rack will be slowly lowered; but it may be lifted by hand when the tray is empty. Motion is imparted from the shaft *k* to the shaft *u* by means of a belt *q*, running over a pulley *o* on the shaft *k* and over a pulley placed on the shaft *u*. If desired, a sprocket-chain or connecting-gears may be used. A represents the framework by which the attachment is supported.

A certain relative motion must be maintained between the spout *F* and the follower *I*, and it may be accomplished by the relative sizes of the pinions or in any other suitable manner.

It is necessary that when the spout is passing across the upper end of the tray with its layer of picks the follower should drop just the thickness of that layer.

From what has been said the operation of my device is evident. The picks are delivered onto the bottom of the spout *F* from the lower end of the curved spout *E*, and as the spout *F* moves forward the picks form in a layer on the bottom. When the spout *F* reaches the outer edge of the tray, the pin *g* hits the arm *m*, disconnects the pawl, and allows the spring *R* to retract the spout *F*, thus discharging the layer of picks on top of the follower. Each time the spout moves forward to deliver its load the follower has dropped just the thickness of the layer of picks, so that when it discharges it completely fills the tray. This operation is carried on until the tray is completely filled, when it is removed

in any suitable manner and another is substituted.

It will be seen that by the use of my attachment the picks can be placed in the drying-trays without any handling and that they will always remain substantially parallel one with another.

I claim—

1. The combination with a toothpick machine of a stationary spout into which the picks drop when formed, a horizontal longitudinally reciprocating spout below said stationary spout for receiving the picks from the same, an upright open ended tray below the outer end of said reciprocating spout, a vertically movable follower in said tray on which the picks are deposited, means for reciprocating the outer end of said reciprocating spout across the upper end of said tray whereby the picks are discharged on the top of said follower and means for lowering said follower as fast as the picks accumulate on it.

2. The combination in a toothpick machine of a stationary spout into which the picks drop when formed, a longitudinally movable spout below said stationary spout for receiving the picks from the same, a rack and pinion for feeding said spout forward, clutch mechanism for disconnecting said rack and pinion and allowing the said spout to move backward, a spring for retracting said spout, an upright open ended tray below the outer end of said reciprocating spout for receiving the picks, a vertically movable follower in said tray on which the picks are deposited and means for lowering said follower as the picks accumulate on it.

3. The combination with a toothpick machine of a stationary spout into which the picks fall when formed, a horizontal, longitudinally reciprocating spout below said stationary spout for receiving the picks from the same, a tray for receiving the picks from said spout layer upon layer and means for lowering the body of picks in said tray as fast as they are deposited.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES F. SCAMMAN.

Witnesses:

FREDK. A. LIBBY,
S. W. BATES.