

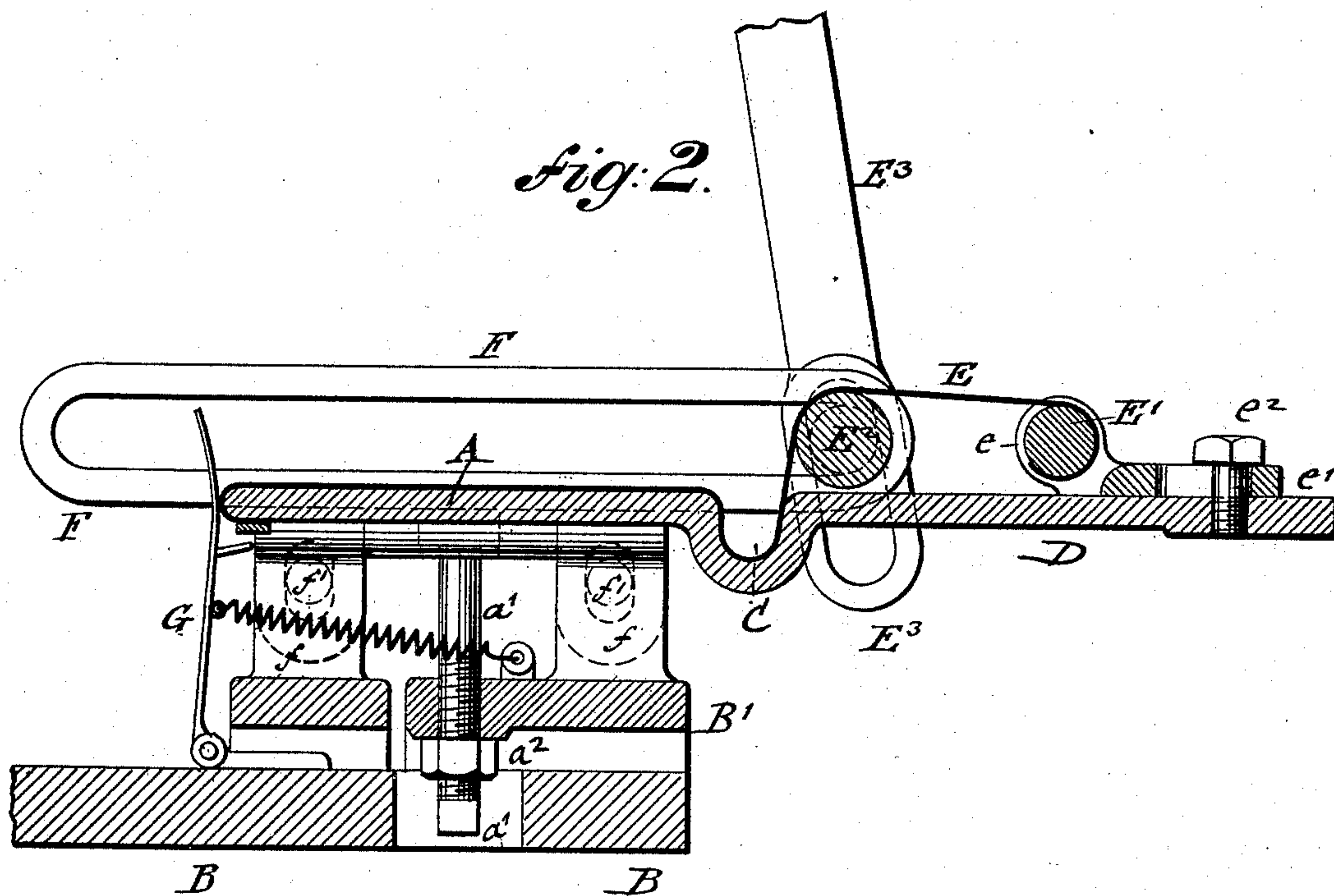
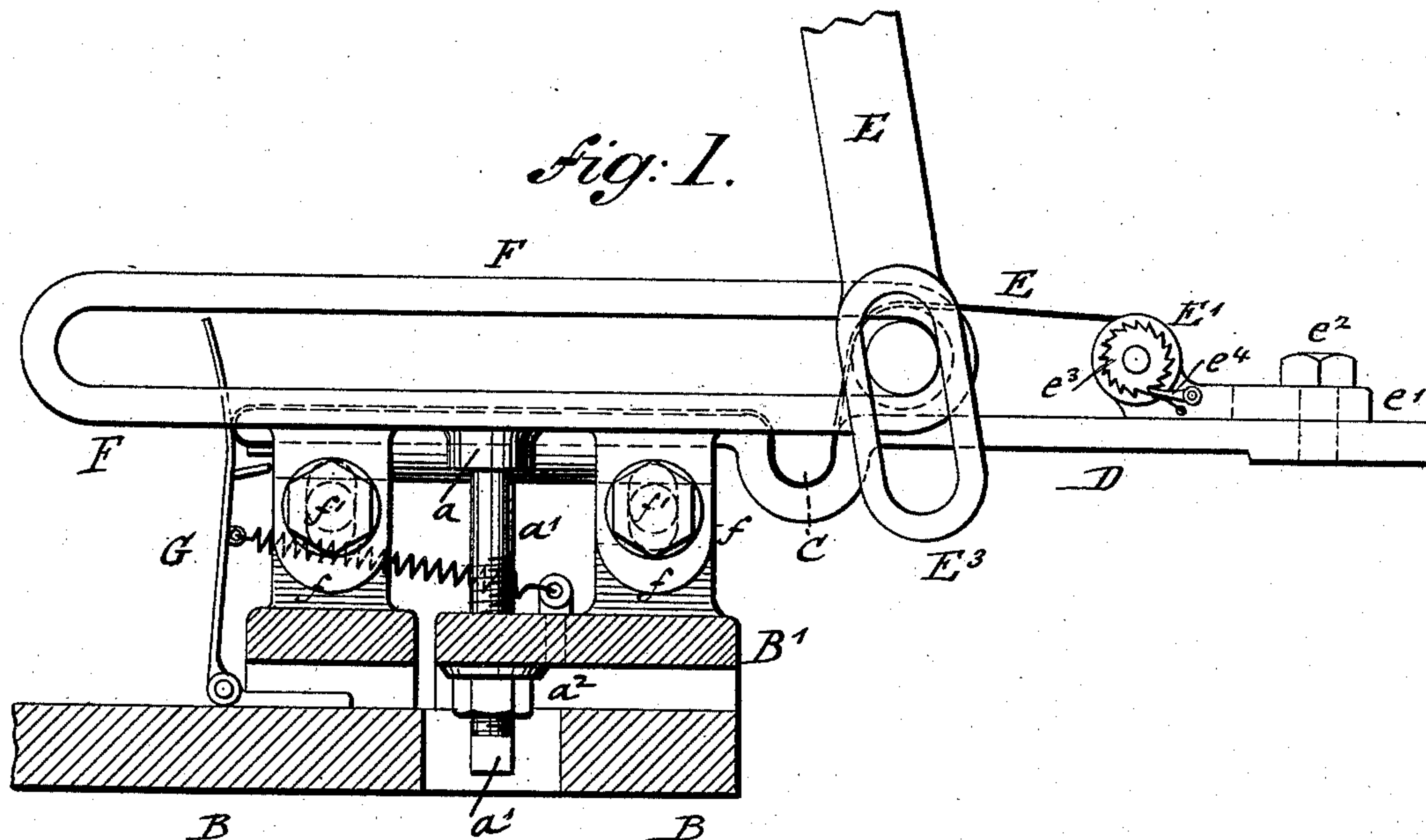
(No Model.)

2 Sheets—Sheet 1.

F. J. HAGEN.
CIGAR BUNCHING MACHINE.

No. 411,919.

Patented Oct. 1, 1889.



Witnesses
A. Schehl.
Carl Kern

Inventor
Ferdinand J. Hagen
By his Attorney, *George Raegen*

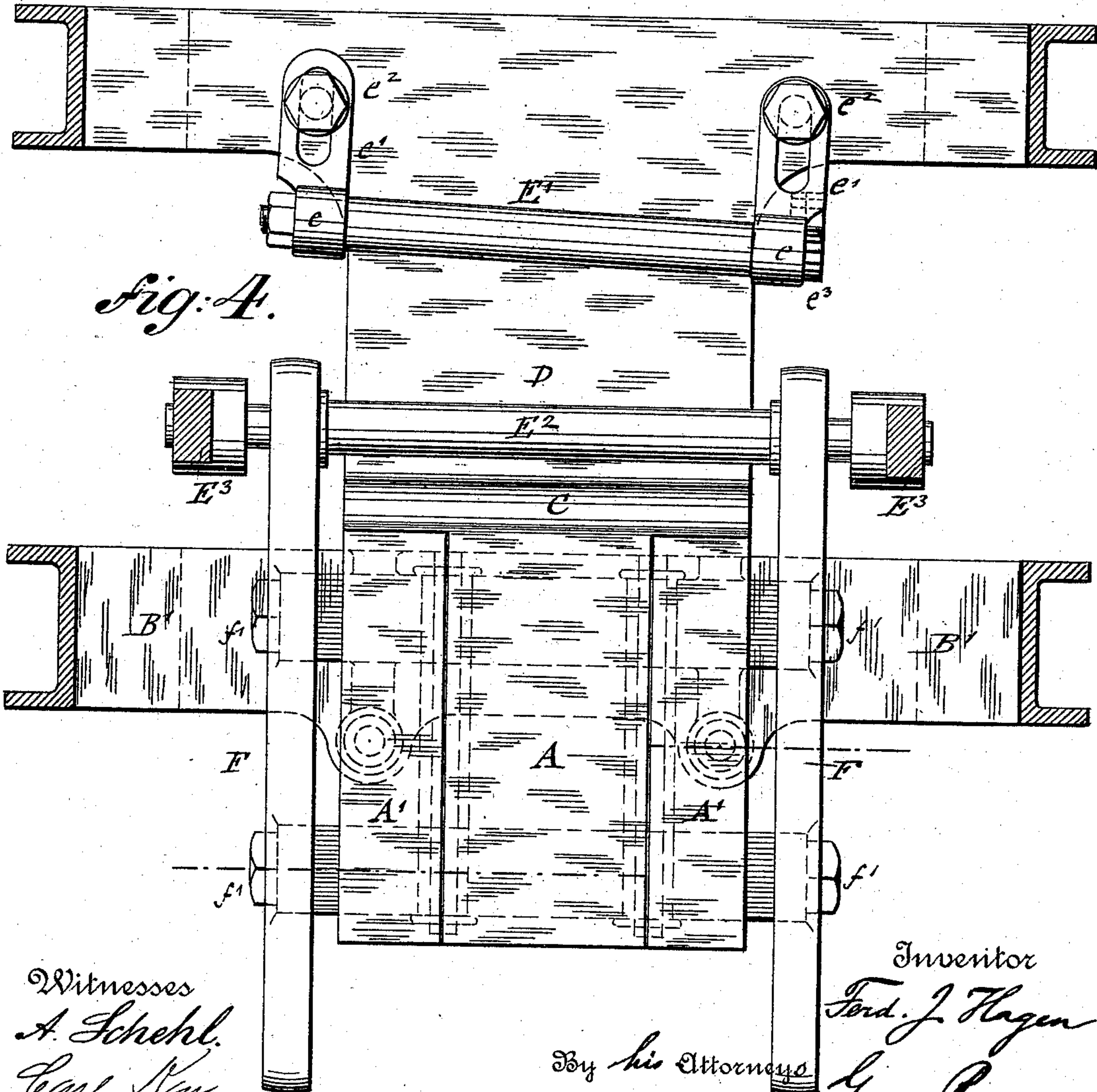
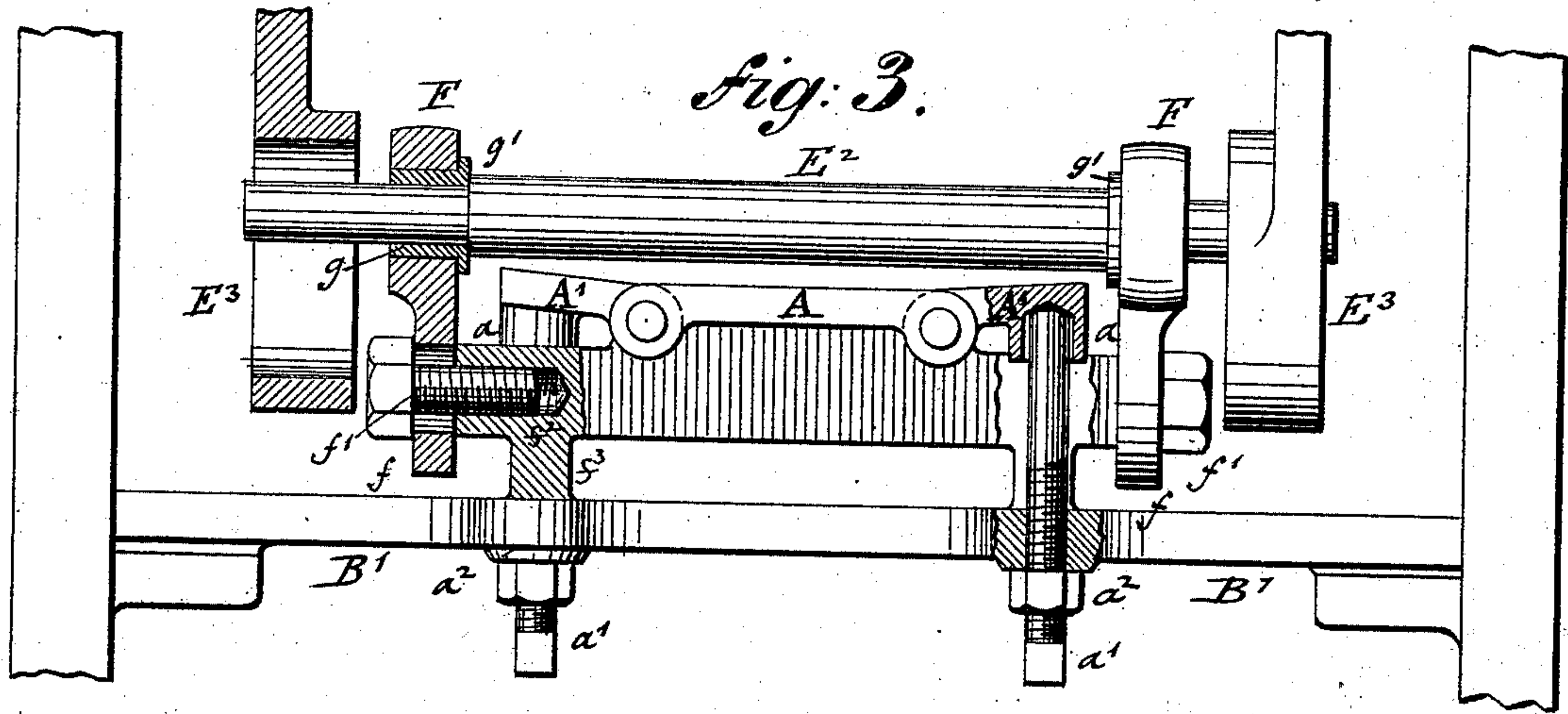
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Carl Kuy

Inventor
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By his Attorneys
L. J. Reger.

UNITED STATES PATENT OFFICE.

FERDINAND J. HAGEN, OF NEW YORK, N. Y.

CIGAR-BUNCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 411,919, dated October 1, 1889.

Application filed October 1, 1888. Serial No. 286,884. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND J. HAGEN, of the city, county, and State of New York, have invented certain new and useful Improvements in Cigar-Bunching Machines, of which the following is a specification.

This invention relates to an improved machine for rolling cigar-bunches of all sizes and shapes ready to be placed in the mold.

In the accompanying drawings, Figure 1 represents a side elevation, partly in section, of my improved machine for rolling cigar-bunches. Fig. 2 is a vertical longitudinal section; Fig. 3, a front elevation with parts in sections and other parts broken off; and Fig. 4 is a plan of the same, with the rolling-apron removed.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the stationary middle portion of the rolling-table of my improved cigar-bunch-rolling machine. To the sides of the stationary middle portion A are hinged side portions A', which are provided at their under sides with sockets *a*, that are engaged by the upper conical or rounded-off ends of adjusting-screws *a'*. The screws *a'* pass through threaded holes of a transverse bridge B', that is supported on a platform B. The adjusting-screws *a'* are retained in position on the bridge B' by jam-nuts *a*² below the same, as shown in Figs. 1 and 2. The lower ends of the screws *a'* below the jam-nuts *a*² are made square for the purpose of applying a key for adjusting the screws and raising or lowering thereby the hinged side portions A' of the rolling-table. By means of the adjusting-screws *a'* the hinged side portions A' can be adjusted to a more or less obtuse angle toward the stationary middle portion A, according to the shape of the filler to be rolled into the binder. At the rear end of the stationary middle portion A and hinged side portions A' of the rolling-table is arranged a transverse pocket C, and back of the latter a horizontal table D, which is on a level with the stationary middle portion A and made integral with the same and the pocket C. A rolling-apron E is attached to an apron-tightening roller E', which is supported in bearings *e* of slotted bracket-pieces *e'*, that are so adjusted by clamping-screws *e*² in such a manner that the roller E' can be set either parallel to or at any

suitable angle of inclination to the transverse pocket C of the table, so as to give the rolling-apron the required degree of fullness as required by the shape of the filler. The shaft of the roller E is provided with a ratchet-wheel *e*³ at one end, that is engaged by a spring-pawl *e*⁴, pivoted to the supporting bracket-piece *e'*, said ratchet-wheel and pawl serving to adjust the length of the apron and impart the proper tension to the same. The front end of the apron is passed over the front end of the table A, and attached by a transverse strip to the under side of the same, as shown in Fig. 2. A bight-forming roller E² is moved over the tables D and A A' below the apron E, and engaged by the slotted ends of a forked operating-lever E³, to which reciprocating motion is imparted by suitable mechanism. The roller E² is guided in slotted side frames F, which are adjusted by slotted lugs *f* on clamp-screws *f'*, that engage threaded sockets *f*² of transverse ribs *f*³, each integral with the middle table A.

The side guide-frames F have to be capable of vertical adjustment, so that the roller E² can always pass above the hinged side portions A' of the rolling-table, whatever be their inclination toward the middle portion A. The rolling-apron E and roller E² can thus be set in connection with the hinged side portion A' for rolling any shape of bunch into the binder.

When the tobacco forming a filler has been transferred into the bight of the apron, which bight is formed in the pocket C of the rolling-table, the forward motion of the roller E² takes place. As the binder has been placed on the apron in front of the bight, the filler is then rolled into the binder by the forward motion of the roller in the usual manner until the bunch is finally delivered to the hinged and spring-actuated fingers G at the front end of the rolling-table, from which it is removed by the attendant for being placed in the mold. During the backward motion of the roller E² the fingers G are returned to their normal position at the front end of the table and the roller to its initial position back of the bight of the apron, as shown in Fig. 2. The bight of the apron E is then ready to receive the next filler. By the forward motion of the roller the next bunch is formed, and so on.

To reduce the friction of the shaft of the roller E² with the guide-frames F, the former

is provided with loosely-turning thimbles *g* at those parts within the guide-frames. These thimbles *g* are provided with flanges *g'* between the inner edge of the guide-frames *F* and the roller *E*², as shown in Fig. 3, so that the latter cannot shift laterally in the guide-frames *F*.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

10 1. The combination of a table for rolling cigar-bunches, comprising a middle portion and side portions hinged to swing upward, adjusters to hold the side portions in inclined positions, and a rolling-apron.

15 2. The combination of a table for rolling cigar-bunches, comprising a middle portion and side portions hinged to swing upward, adjusters to hold the side portions in inclined

positions, a rolling-apron, a reciprocating bight-forming roller, and vertically-adjustable guides for said roller.

3. The combination of a table for rolling cigar-bunches, comprising a middle portion provided with a transverse pocket and side portions hinged to swing upward, adjusters to hold the side portions in inclined positions, a rolling-apron, a reciprocating bight-forming roller, and vertically-adjustable guides for said roller.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

FERDINAND J. HAGEN.

Witnesses:

PAUL GOEPEL,
MARTIN PETRY.