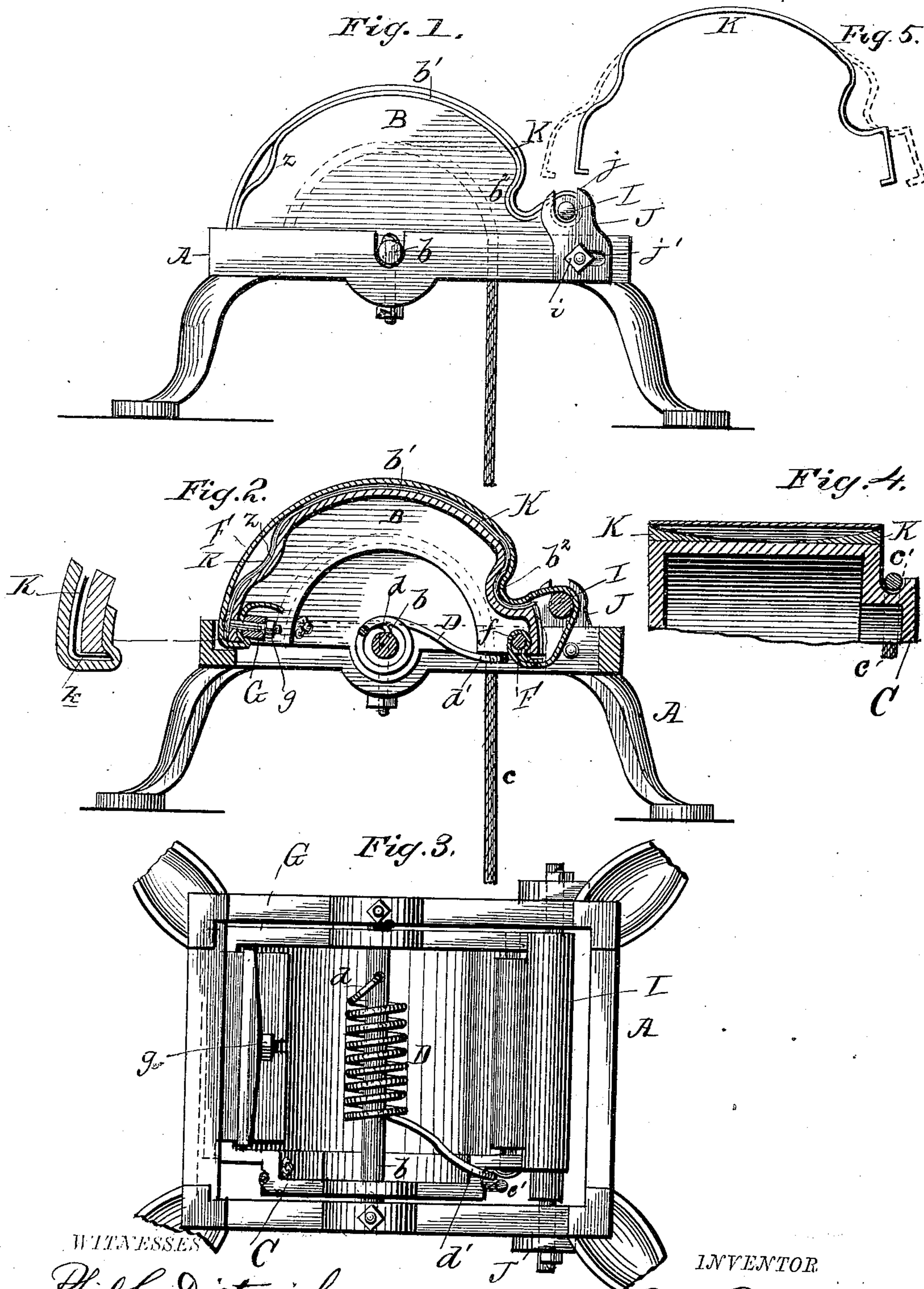


(No Model.)

F. D. KLOTTS.
CIGAR MACHINE.

No. 309,860.

Patented Dec. 30, 1884.



WITNESSES

Phil C. Dietrich.
Geo H. Wells

INVENTOR

Frank D. Klotts.
by H. K. Layman
Attorney

UNITED STATES PATENT OFFICE.

FRANK D. KLOTTS, OF COLUMBUS, OHIO, ASSIGNOR OF ONE-HALF TO
SAMUEL R. KLOTTS, OF SAME PLACE.

CIGAR-MACHINE.

SPECIFICATION forming part of Letters Patent No. 309,860, dated December 30, 1884.

Application filed February 8, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRANK D. KLOTTS, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Cigar-Machines; and I do 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 ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to cigar-machines; and
15 the novelty consists in the construction, arrangement, and adaptation of parts, as will be more fully hereinafter set forth, and specifically pointed out in the claims.

This invention is designed as an improvement upon that class of cigar-machines in which an oscillating former serves in connection with a rolling apron, the former being operated by a treadle; and the essential features of novelty consist in the construction of the former, the
25 location of the retracting-spring, and means for adjusting the apron to give different sizes to the cigar, and in removable form-strips, which allow the operator to vary the shape of cigars at will, all of which features are fully
30 illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation; Fig. 2, a vertical section; Fig. 3, a bottom plan view, and
35 Fig. 4 a detail cross-section. Fig. 5 is a detail view of one of the form-strips, showing it in dotted lines expanded to receive the former.

Referring to the drawings, in which similar letters of reference indicate like parts in all the
40 figures, A designates the frame, in which is journaled the shaft *b* of the former B. This former is a shell of hollow semi-cylindrical form—that is to say, has a concavo-convex contour, with a portion, *b'*, made in the arc of a circle, and a pocket, *b²*—the former oscillating
45 loosely on the stationary shaft *b* as it is impelled by the treadle-rope *c*, which works in a guide, *c'*, formed in the hub C. One end, *d*, of a spring, D, is secured to the shaft *b*, while the other end
50 of said spring bears against one side of the

former B, and serves to retract it to a normal position after the rolling of each cigar. One end of an apron, F, is secured to a rod, *f*, and the opposite end is held by an adjusting-bar, G, secured within the concavity of the
55 former, and when the proper adjustment of the apron has been attained the bar G is secured by a set or pinching screw, *g*. The apron F passes over a roller, I, operating in journals *j* in brackets J, having slots *j'*, and these brackets may be adjusted upon the frame, so as to
60 carry the roller I nearer to or farther away from the former, to accommodate different sizes of cigars, and to be fixed in any desired location by nut or screw *i*. 65

K designates removable spring form-strips of general contour corresponding with that of the convex surface of the former B, and of wedge shape in cross-section. (See Fig. 4.)
70 These are of such proper metal that they may be sprung upon one or both sides of the former, according as the shape of the cigar to be rolled may suggest. These form-strips are preferably
75 of steel or other spring metal, and when expanded may be readily passed over the former. When the expanding force is released, the form-strips, by reason of their inherent spring
80 action, will embrace the former, a portion of each strip taking hold in the pocket *b²*, and the opposite end taking hold over the back lower edge of the former, as seen at *k*, Fig. 2, or in the pocket marked *z*. This spring force
85 is generally sufficient to hold the form-strips in place; but screws or other additional securing means may be employed. They may be of different sizes and be secured in any proper
and approved manner.

Oscillating formers serving in relation to an apron, a treadle, and a retracting-spring have
90 before been used; but in this invention I attach importance to the hollow form of that device, allowing, as it does, the spring D, as well as the adjusting-bar G, to be housed within its concavity. The spring form-strips K are readily
95 forced over either side of the former under the apron, and will ordinarily hold in place by their inherent spring action; but a screw may be employed to secure them, if desired.

Modifications in details of construction may
100 be made without departing from the principle

or sacrificing the advantages of my invention, the essential features of which will be readily understood by those skilled in the art.

Having thus fully described the invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a cigar-machine, the rocking former B, consisting of a shell having a convex face, combined with treadle-connections, and a retracting-spring located or housed within the shell, as herein specified.

2. In a cigar-machine, the combination of the shell or former B, as described, the apron F, bar G, and a retracting-spring, the bar and spring being located within the former, as herein specified.

3. The combination, with the hollow former B, apron F, and adjusting-bar G, located within the shell or former, of the adjustable roller I, all constructed and arranged and operating as and for the purpose set forth.

4. In combination with the former B, the form-strips K, made of spring metal and wedge shape in cross-section, adapted to be sprung upon the former, as and for the purposes set forth.

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

FRANK D. KLOTTS.

Witnesses:

H. CLAY SMITH,
E. H. WELLS.