(No Model.)

O. HAMMERSTEIN.

CIGAR MACHINE.

No. 261,849. Patented Aug. 1, 1882.

Fig: 1

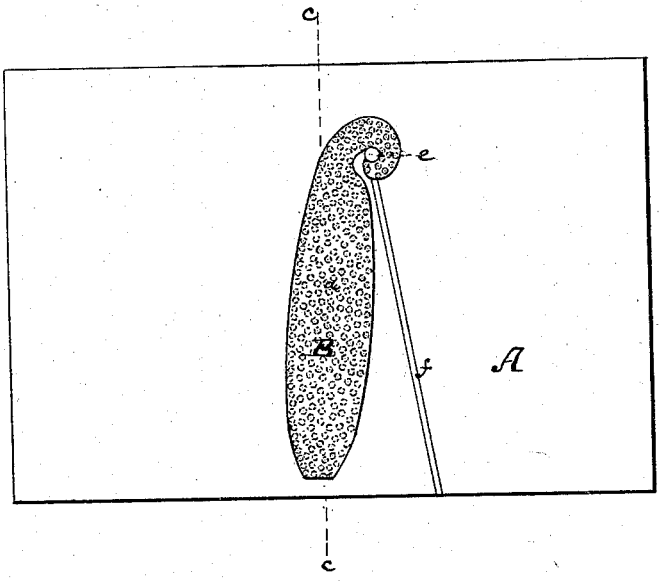

Fig: 2

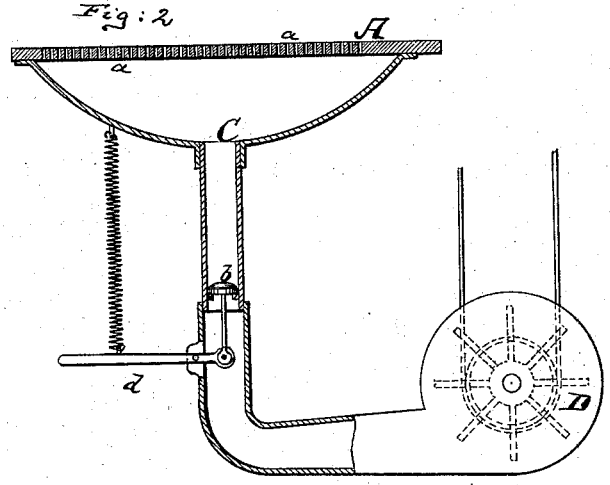

Fig: 3

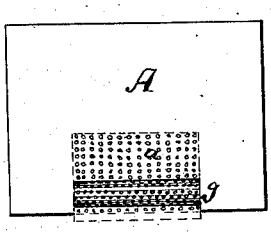

Fig: 4

Witnesses:
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UNITED STATES PATENT OFFICE.

OSCAR HAMMERSTEIN, OF NEW YORK, N. Y., ASSIGNOR TO MALVINE HAMMERSTEIN, OF SAME PLACE.

CIGAR-MACHINE.

SPECIFICATION forming part of Letters Patent No. 261,849, dated August 1, 1882.

Application filed December 7, 1881. (No model.)

To all whom it may concern:

Be it known that I, OSCAR HAMMERSTEIN, of New York, in the county and State of New York, have invented an Improvement in Machines for Making Cigars and Cigarettes and for analogous purposes, of which the following is a specification.

Figure 1 is a plan or top view of the table of my improved machine. Fig. 2 is a vertical transverse section of the same on the plane of the line *c c*, Fig. 1. Fig. 3 is a plan view of a modification thereof, and Fig. 4 a vertical cross-section of the same.

The object of this invention is to produce means for holding the wrappers of cigars and cigarettes in place on a table before and at the time such wrappers are being applied as coverings to cigars or cigarettes.

Heretofore it has been customary for cigar-makers to apply the wrappers by first rolling them around the lower portion of the cigars, and then, when the point of the cigar was nearly reached, cutting the unrolled end of the wrapper to its proper form and rolling it around the point of the cigar. The cutting of the wrapper, being by hand, was never very exact, so that usually a projecting portion remained that had to be bitten or cut off by the cigar-maker. In this act of applying, the wrappers were frequently exposed to such strain that they were torn to pieces, and considerable loss resulted from this cause alone.

In machines for making cigars wrappers previously cut to the proper form by machinery have been proposed; but none of the machines known to me succeeded in applying wrappers to the cigars.

My invention consists in perforating the table on which the wrapper is placed, and in combining it with a fan or air suction or propelling apparatus, which through the perforations of the table will suck the wrapper tightly to its place and hold it immediately before and while it is being put around the cigar. The same system of invention is applicable to the covering of cigarettes.

The letter A in the drawings represents the slab of a table, which slab is perforated with fine holes, as shown at *a a*, at the place where the wrapper B is to be placed upon it. These perforations *a* lead into a conduit, C, which communicates with a fan, D, or equivalent air-propelling apparatus, which apparatus, when set in motion, will draw the air toward it through the pipe C and through the apertures *a*. A valve, *b*, is placed in the conduit C, and closes the same at a suitable point between the table A and the fan D, and this valve is connected with a suitable hand or foot lever, *d*, which, when depressed or moved on its pivot, will raise the valve and permit the fan to draw air through the apertures of the table. The surface of the table A, where the wrapper is to be placed upon it, is preferably painted to indicate the precise location for the wrapper, so that when the wrapper B has been cut out by suitable means into the requisite form, as indicated in Fig. 1, the operator can readily place it upon the part of the table that is marked for its reception, and when so placed the wrapper will cover all, or nearly all, the apertures *a* in the table. The operator then touches the lever *d*, and immediately the suction of the air drawn through the pipe C will cause the wrapper to be held to the table with sufficient force to maintain it in position, and yet sufficiently loose to allow it to be easily rolled or wrapped around a cigar. For more correctly locating the wrapper, and also to facilitate its application to the cigar, a projecting hub or pin, *e*, may be secured to the surface of the table A at a point where the curled end of the wrapper will surround it, as shown, and from this pin *e* a line or gage-mark, *f*, should by preference extend to the front edge of the table to indicate to the operator the line along which the end of the cigar should be moved in applying the wrapper. The wrapper being thus held by suction to the table, the operator takes the bunch which is the filler and binder of the cigar and rolls it over the wrapper, taking hold of the front end of the wrapper, so as to insure its being lifted. By continuing to roll the cigar the wrapper will be gradually applied around it. When the point of the cigar is reached the cigar is not only rolled, but also carried in part around the hub *e*, so as to insure its proper application to the cigar. By

this means the tearing of the wrapper is entirely avoided, and consequent waste prevented and equal form and appearance of all the cigars pertaining to one lot assured. The application of the wrapper no longer requires the exercise of skill, as any ordinary operator will be able with little instruction to properly and perfectly apply it to the cigar with the aid of my machine.

The invention is equally applicable to the covering of cigarettes, as indicated in Figs. 3 and 4, in which case the table A has the series of perforations *a*, that communicate with the suction apparatus, and is grooved at *g*, so that the covering paper or tobacco may be placed upon the perforated portion, and when suction is applied this covering will be partly drawn into the groove, thus forming a cavity into which the loose tobacco for the cigarette can be placed, whereupon the wrapper can be readily rolled around such tobacco.

It will be seen that the principal feature of my invention is the holding of the wrapper to the table on which it is to be rolled by the pressure of the atmospheric air, since the suction applied to the lower side of such wrapper is but the removal of pressure from below to insure the retention of the wrapper by atmospheric pressure.

I do not wish to limit myself to the holding of the wrapper by suction, as it may be held in place by air-pressure artificially applied to its surface from above; nor do I wish to limit myself to the application of my invention to a flat plate or table, as the invention is equally applicable to cylindrical structures perforated in substantially the same manner.

The invention can be used to advantage for covering packages of all kinds, such as lozenge-packages and the like.

I do not claim holding part of a bag on a table by suction, nor applying suction to part of a bag or wrapper and opposing air-pressure to another part thereof. By holding the entire wrapper by suction it is smoothed, and does not require to be pulled in wrapping it.

I claim—

1. The process herein described of applying a cigar-wrapper to and around the filler, which process consists in holding the wrapper by air-pressure flat on a perforated table, and in thereupon gradually rolling it around the filler, the unrolled portion being meanwhile held to the table by air-pressure, substantially as specified.

2. The table A, having holes *a* disposed in an area of the form of the wrapper of a cigar or cigarette, in combination with the conduit C and air-propelling apparatus D, all arranged to hold the entire wrapper on said table by suction, substantially as specified.

3. The perforated table A, combined with apparatus for creating suction of air through the perforations, and combined with the projecting pin *e*, substantially as described.

4. The table A, having apertures *a*, that lead to the air-suction apparatus, in combination with the projecting pin *e* and gage *f*, substantially as specified.

5. A table, A, perforated and combined with air-suction apparatus, and provided with the depression or groove *g*, substantially as specified.

OSCAR HAMMERSTEIN.

Witnesses:
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