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L. G. REYNOLDS.
MACHINE FOR LINING PAPER CARTONS.

APPLICATION FILED MAY 12, 1902.

NO MODEL.

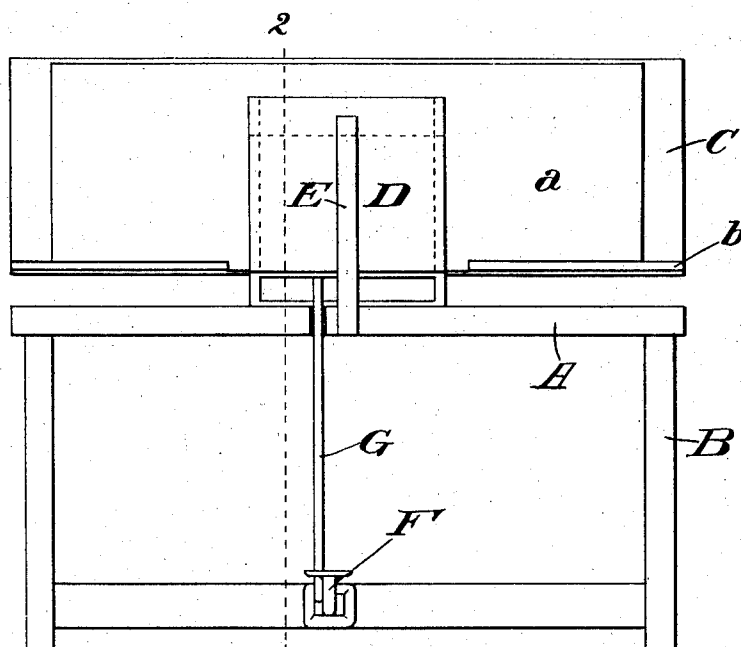


Fig. 1.

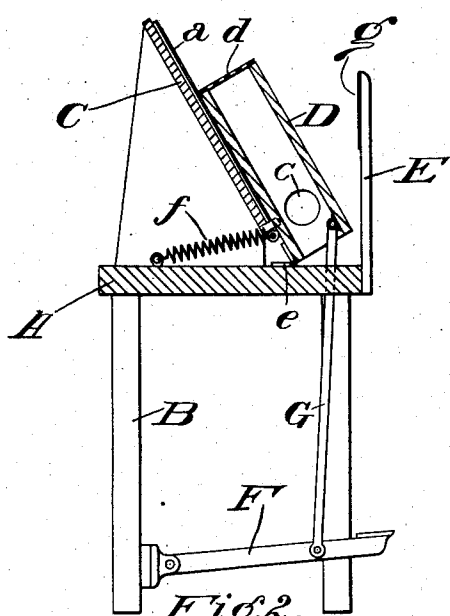


Fig. 2.

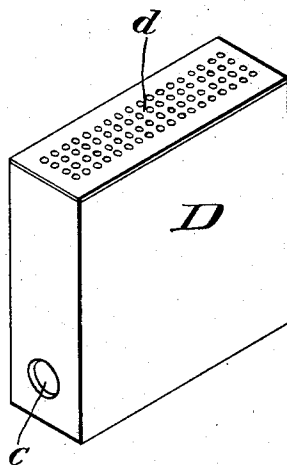


Fig. 3.

Witnesses

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MACHINE FOR LINING PAPER CARTONS.

SPECIFICATION forming part of Letters Patent No. 736,780, dated August 18, 1903.

Application filed May 12, 1902. Serial No. 106,930. (No model.)

To all whom it may concern:

Be it known that I, LEWIS G. REYNOLDS, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented a certain new and useful Machine for Lining Paper Cartons, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a certain novel and useful construction or apparatus for forming a lining for paper cartons by means of which an air-tight moisture-proof lining may be formed for the contents of paper cartons, such as are more particularly used for bakers' products, such as crackers, biscuits, wafers, and the like.

The purpose of my invention is to provide an apparatus by which the necessary moisture-proof lining may be formed independently of the carton and so that the lining shall be separable from the carton itself, but adapted to be opened for a partial or complete withdrawal of the contents of the package, without destroying or in any way damaging the interlining, so that the user can reseal the package and the contents can be kept in their original condition until they have been entirely consumed.

In the drawings, Figure 1 is a front elevation of my machine. Fig. 2 is a cross-section on the lines 2 2 of Fig. 1. Fig. 3 is a perspective view of the form upon which the carton-lining is folded.

A is a table supported by legs B at a convenient height for the operator, and upon this table is mounted the shelf C, inclined at a convenient angle for the subsequent operations. Upon this shelf C are placed the sheets of paper *a* suitable for the lining of the carton and held from sliding off the shelf by the ledge *b*.

B is a hollow block of wood or other suitable material of the size and shape of the carton to be lined. In order to allow the air to freely enter this block B, it is preferably left open at the base, provided with a large opening *c* in the ends near the bottom, and also provided with a perforated plate *d* across its top. This "former" D is hinged at its lower inner edge by the hinges *e* to the table-

top, while a coiled spring *f*, attached to the table and the former, normally holds the former against the shelf C, as shown in Fig. 2.

E is an upright strip of wood or other suitable material attached to the front edge of the table A and provided on its inner face with a cushion of rubber *g* or of other suitable material.

F is a foot-lever connected by the connecting-rod G with the former D, so that by depressing the foot-lever the former can be raised to contact with the strip E.

The machine is operated in the following manner: The foot-lever F is depressed and the sheets of flexible paper for the lining for the carton are placed on the shelf C, resting against the ledge *b*. The foot-lever is then released, and the coiled spring *f* carries the former D against the pile of sheets, as shown in Fig. 2. The operator then folds the uppermost sheet of flexible paper around the former, overlapping the edges on the front of the former, and the foot-lever is then depressed to bring the former against the strip E, which holds the sheet to the form, with the upper edge of the paper tube projecting beyond the face-plate *d* of the form. The operator then folds down onto the face-plate *d* the projecting portions of the paper tube to form a closed end therefor. The carton of the proper size to fit over the former D, which is open on one side, is then placed down over the former so as to insert the paper lining, which has been formed, as above described, within the carton, the foot-lever being slightly released to allow of this insertion. The operator then removes both the carton and the lining together, and the carton thus lined is ready for its contents. The former D is constructed as a mere hollow shell with the perforated face-plate *d* in order to permit the ready removal of the carton and lining from the former and to prevent any partial vacuum being formed, which would make it very difficult to remove the lining from the form.

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

1. In a machine for lining cartons, a table, a support for the lining-sheets, a form upon which to fold the sheets, hinged to the table, and an upright strip to hold the sheet when

folded around the form, substantially as shown and described.

2. In a machine for lining cartons, a table, a support for the lining-sheets, a form upon
5 which to fold the sheets hinged to the table, and an upright strip to hold the folded sheet, with spring and operating-lever to swing said form between the sheet-support and the upright, substantially as shown and described.
- 10 3. In a machine for lining cartons, a table, a support for the lining-sheets, a form upon

which to fold the sheets, hinged to the table, said form being hollow, with a perforated face-plate to permit a ready removal of the folded sheet, and an upright strip to hold the
15 sheet when folded around the form substantially as shown and described.

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Witnesses:

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