(Model.)

J. H. J. HAINES.

PROCESS OF CANNING FOOD.

No. 411,436. Patented Sept. 24, 1889.

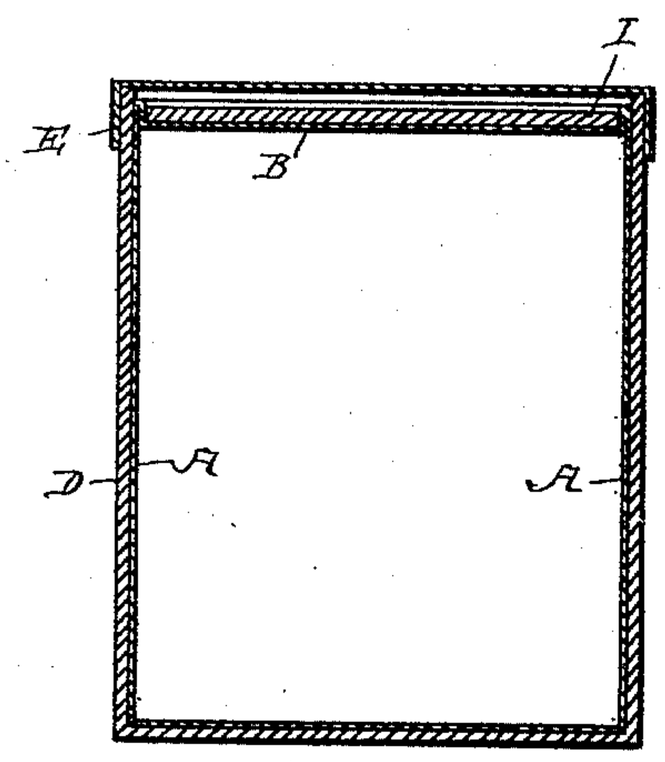

Fig. 1.

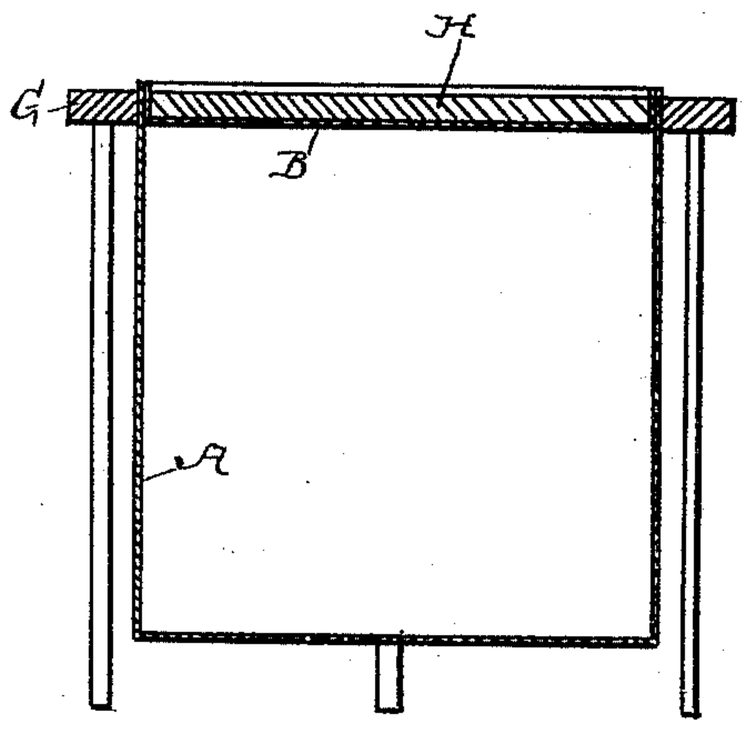

Fig. 2.

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By his Attorney
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UNITED STATES PATENT OFFICE.

JOHN H. J. HAINES, OF FLUSHING, NEW YORK.

PROCESS OF CANNING FOOD.

SPECIFICATION forming part of Letters Patent No. 411,436, dated September 24, 1889.

Application filed November 10, 1888. Serial No. 290,421. (Model.)

To all whom it may concern:

Be it known that I, JOHN H. J. HAINES, a citizen of the United States, and a resident of Flushing, in the county of Queens and State of New York, have invented a certain new and useful Process of Canning Alimentary Substances, of which the following is a specification.

In the manufacture of canned goods it has been heretofore proposed to employ tinned iron or other material comprising, essentially, a base of some inferior metal, having a coating or lining directly attached to it and composed of tin or some other material which will not act injuriously upon the contents of the can. It has also been proposed to make packing cases or cans for various materials from wood, paper, or pasteboard, having an interior lining of thin metal secured in place therein, the joints for the interior lining being ordinarily formed by compressing the edges of the sheets or pieces making up such lining together.

The form of can last described is not adapted to the canning of alimentary substances—such as fruits and vegetables—which ordinarily require that the can itself should be highly heated, in order to drive off moisture or air from the contents preliminarily to the sealing of the can.

In the forms of can first mentioned the metal lining is firmly attached to the baser metal; but the latter very often becomes exposed and spoils the contents of the package, and in the process of canning the lining of tin and the iron body are necessarily heated together.

My invention relates to the improvement hereinafter described in putting up alimentary substances in cans having a thin metal-foil lining for the body of the can; and it consists, essentially, in making the thin metal-foil lining and the can separately, placing the substance to be canned into the metal-foil lining or capsule of tin or other metal which will not act injuriously on the contents, sealing the same by fusing the edges of the foil-sheets together, and then placing the metal lining and contents into the body of the can.

Figure 1 is a vertical section of a complete can manufactured according to the process forming my invention. Fig. 2 is a vertical section of an apparatus which may be employed in the process.

Referring to Fig. 1, A indicates the metal-foil lining, which may be formed in one or several pieces, as desired, and which is closed at its head by a sheet of foil, (indicated at B.)

D indicates the body of the can, which may be made of paper, pasteboard, wood, or any other desired material, and is provided with a screw-cap or otherwise attached cover, (indicated at E.)

The body of the can or pasteboard or other suitable material may be formed in any desired way. The lining of metal, in which the substance to be preserved is immediately contained, is made separately, being constructed, either in two pieces or in one, as a capsule whose bottom and sides are integral with one another, and the contents of the package—as fruit or vegetables—are placed in such capsule, and the cover-plate of tin-foil is united thereto by the device shown in Fig. 2, in which G indicates a ring, of any desired material, mounted on suitable standards, and H a central plate or ring adapted to clasp the upturned edge of the covering-disk and the upper edge of the body of the capsule between itself and the outer ring G. The edges of the cover and the body are left projecting slightly, so that by passing a heated soldering-iron over the exposed edges the cover and body may be united together and a good seal formed through the fusion together of the melted edges. After the fruit or other substance has thus been inclosed in the metal-foil lining, such lining, with its contents, may be heated, for the purpose of driving off any contained air or moisture, after the manner usually adopted in the case of tinned-iron cans or vessels. The latter operation having been completed and the package sealed, it may be readily introduced into the body or exterior wall of the can made of paper, cardboard, or other suitable material, the latter operation completing the process.

I do not limit myself to the use of tin-foil, but may use any other desired metal adapted to be sealed by the process described. The process of forming a joint between two surfaces of metal foil through the fusion of exposed clamped edges I do not herein claim.

In order to protect the joint against rupt-

ure from the movement of the contents of the capsule or lining, I employ, as shown in Fig. 1, a disk I, which is fitted tightly into the concavity in the head and compresses or holds the joint firmly against the inner wall of the exterior case.

I do not claim herein, broadly, a tin-foil package.

I do not claim in this application the method or process of putting up alimentary or other substances in paper or other cans having metal-foil linings, consisting in forming the complete metal-foil lining around the substance to be packed and then completing the body of the can or package, of paper or other material, with the complete sealed lining inclosed therein, as this forms the subject of another application for patent filed by me June 21, 1889, Serial No. 315,100; but

I claim—

The herein-described method of canning alimentary substances in paper or pasteboard cans having metal-foil linings, consisting in forming the lining and the paper or pasteboard body separately, inclosing the material in the metal foil, sealing the same by fusion of the metal-foil edges together, subjecting the lining and contents to the proper heat, and, finally, applying the body of the can to the lining, as and for the purpose described.

Signed at New York, in the county of New York and State of New York, this 5th day of November, A. D. 1888.

JOHN H. J. HAINES.

Witnesses:
WM. H. CAPEL,
HUGO KOELKER.