

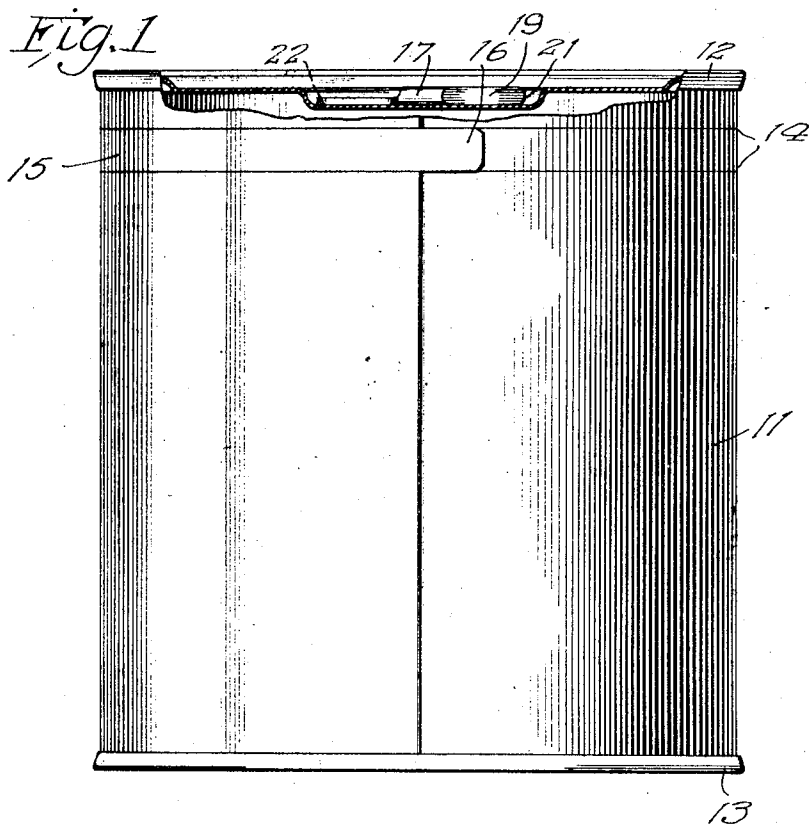
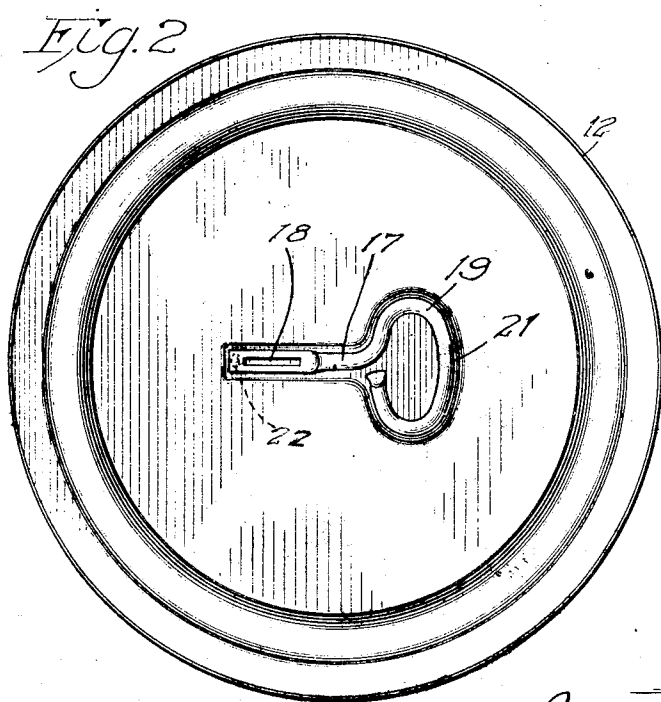
Nov. 6, 1928.

1,690,800

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ATTACHING KEY TO KEY OPENING CAN

Filed Feb. 2, 1922



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UNITED STATES PATENT OFFICE.

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ATTACHING KEY TO KEY-OPENING CAN.

Application filed February 2, 1922. Serial No. 533,688.

This invention relates to key-opening cans, and has for its principal object the provision of new and improved means for securing the key to the can during transit and up
5 until the time it is desired to employ the key to open the can by the consumer. While the invention will be hereinafter described in connection with a tearing strip can, i. e., a can provided with an encircling part set off by
10 score lines, to be engaged by the key to sever the top from the body, it will be readily manifest that the invention has ready use also in connection with cans of other key opening character.

15 Prior to my invention it has generally been the custom, where it is desired to fasten the key to the can so that it may safely reach the consumer, to attach it with a drop of solder, or with or by a metal clip, both of which
20 arrangements have been found to be more or less insecure and of uneven holding power. My present invention contemplates the attachment of the key by welding it over a restricted area or minute spot, an operation
25 which may be readily controlled to give the desired uniformity of carefully calculated holding power.

Other objects and advantages of the invention will be apparent as the same is better understood from the following description,
30 which, taken in connection with the accompanying drawings discloses a preferred embodiment thereof.

Referring to the drawings,

35 Figure 1 is a side elevation of a construction embodying my present invention; and Fig. 2 is a top plan view thereof.

For the purpose of illustrating my present invention, I have shown on the drawing a can
40 11 having a top 12 and a bottom 13, both double seamed to the body. The body is provided near the top with two encircling score lines 14, defining between them a tearing strip 15 which extends out from the seam at one side
45 into a tongue 16. This tongue is adapted to be engaged by a key 17 of usual or preferred form, having, in the present instance, a slot 18 to receive the tongue 16 and a curved handle 19 to be grasped by the consumer to tear
50 away the strip 15 by rotation of the key.

In the present embodiment of the invention I store the key in a depression 21 formed in the cover. The key is placed in this depression and is electrically spot welded at 22 and
55 throughout a confined area, thereby fusing

contacting portions of the key and of the can which fused portions mingle with each other, and on cooling securely unite the key with the can. This area is preferably located beneath
60 the extremity of the shank or operative portion of the key so that the handle portion 19 may be lifted giving the key a lever action that will break away the key and permit ready removal of the key.

The result of the use of my invention is, ordinarily, that said interfused parts cannot
65 be separated from each other and the key can detach itself or be removed only by breaking out the fused part of the tin plate or by breaking off the key. In this respect there is a radical difference between my improvement and the case where a key is attached by solder. The use of solder for this purpose is not commercially practicable on account of the undue
70 expense of solder and labor, and the large amount of solder which must be used to make the key secure so that it will not be accidentally detached and lost from the can. But if
75 a key has been, by considerable care and labor, attached by solder to the can the solder must itself be broken to release the key. The solder covers so much area of the tin plate that a portion of the latter cannot be torn out, and the solder will not adhere to the plain iron of
80 the key, so that solder must be piled up to a point over or above the greatest diameter of the key so as to grasp and retain the key. It results from these facts that it is difficult to break this necessary amount of solder and detach the key.
85

It is thought that the invention and many of its attendant advantages will be apparent from the foregoing without further description, and it will be apparent that various
90 changes can be made in the construction and arrangement of the parts without departing from the spirit or scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment of the invention.
95

I claim:

1. A key-opening can and a key therefor, said key being attached to said can by interfused portions of the key and of the can respectively.
100

2. A key-opening can and a key therefor, said key being attached to said can by a welding of the key to the can throughout a confined area located only at the end of said key.
105

3. A key-opening can and a key therefor,
110

said key being attached to said can by a welding of the key to the can throughout a confined area located only at the operative end of said key, whereby to permit the handle of said key to be engaged and pulled, with the key acting as a lever, to break the key away from the can when the key is desired for use.

said key being attached to said can by interfused portions of the key and of the can respectively, said interfused portions being of limited area so that the key may be removed by breaking out the fused portion of the tin plate of said can.

4. A key-opening can and a key therefor,

JAMES A. STEWART.