Aug. 22, 1950 L. G. SEILER 2,520,068

CAN PUNCH AND DRAIN

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Fig. 1.

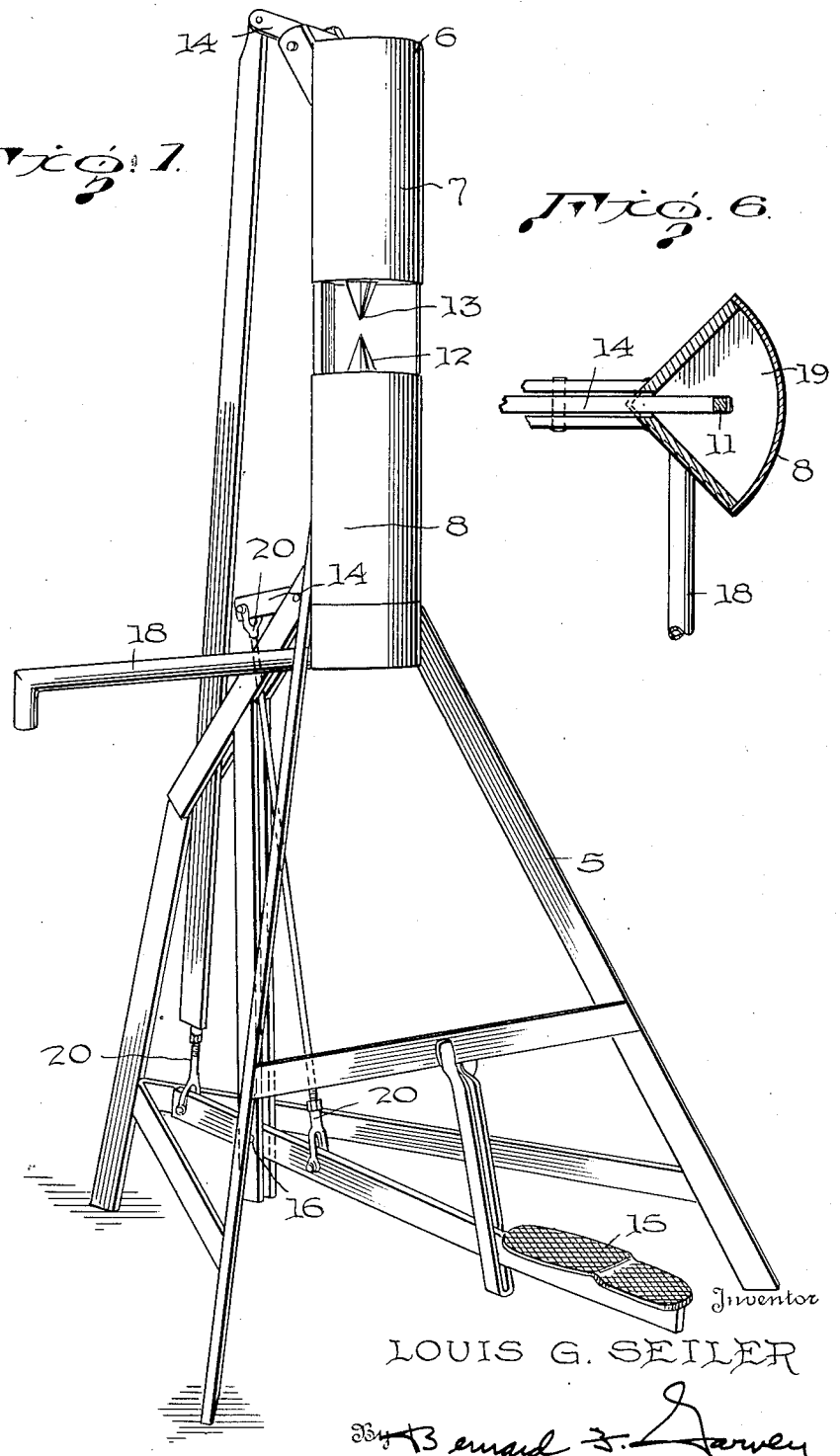


Fig. 6.

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Fig. 2.

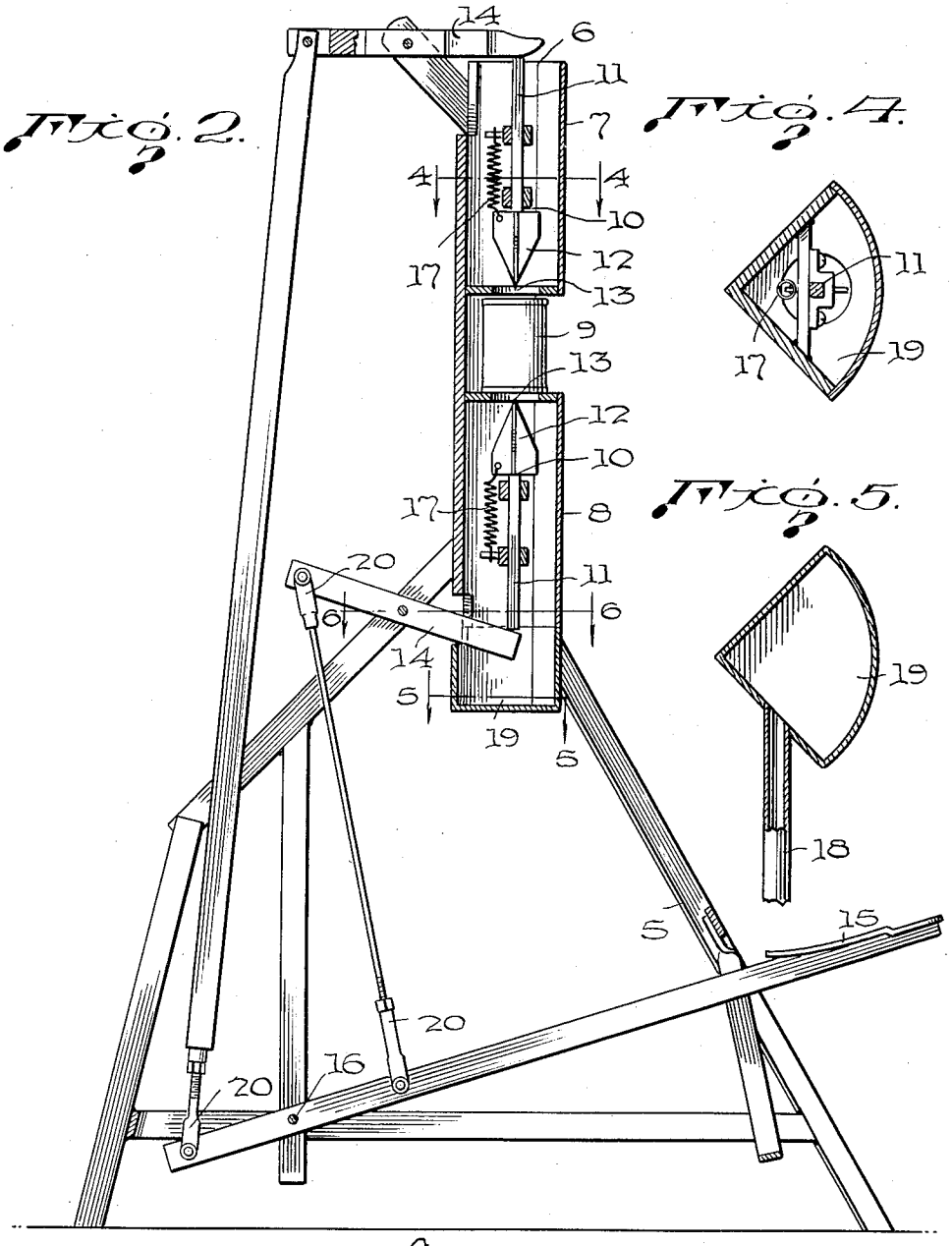


Fig. 4.

Fig. 5.

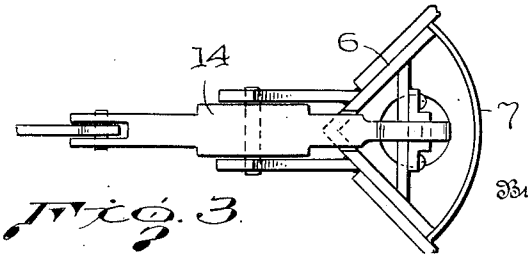


Fig. 3.

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UNITED STATES PATENT OFFICE

2,520,068

CAN PUNCH AND DRAIN

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Application April 7, 1945, Serial No. 587,140

2 Claims. (Cl. 222—86)

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The present invention consists of a can punch and drain, an object of which is to provide a machine of simple construction which will simultaneously puncture both ends of a can with equal application of pressure on the opposite ends to effect expeditious opening of the can and dispensing of its contents.

It is also within the contemplation of this invention to provide relatively movable puncturing blades in a plane coincident with the axis of the can to positively insure a clean-cut incision of identical design, applied with equal force to both ends of the can.

Other objects of the invention are to provide a foot operated mechanism for simultaneously moving cutting blades into engagement with the opposite ends of the can; to provide suitable means for supporting the can without possibility of displacement during the can puncturing or incising operation; and to eliminate possibility of the contents of the can being casually displaced; to provide a combination puncturing means and drain for intercepting the contents of the can and carrying it off to a point remote from the can puncturing mechanism; and to provide suitable housing for the puncturing blades and their appurtenances.

Other objects of the invention will be apparent from the following description of the preferred form of the invention, taken in connection with the accompanying drawings; wherein

Figure 1 is a perspective view of a can punch and drain, constructed in accordance with the present invention;

Figure 2 is a vertical sectional view taken through the vertically aligned casing in which the puncturing elements are mounted, with a can shown between the casing, in side elevation;

Figure 3 is a top plan view of the device;

Figure 4 is a horizontal sectional view taken on the line 4—4 of Figure 2, looking in the direction of the arrows;

Figure 5 is a similar view taken on the line 5—5 of Figure 2, looking in the direction of the arrows; and

Figure 6 is also a horizontal sectional view taken on the line 6—6 of Figure 2, looking in the direction of the arrows.

The device of this invention includes a supporting frame 5 with a superstructure generally designated 6, having upper and lower housings 7 and 8 which are adapted to receive, therebetween, a can 9.

Mounted in each of the housings 7 and 8 is a can cutter or puncturer, generally designated 10.

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The cutter consists of a shaft 11 equipped with a plurality of blades 12 which taper to a point 13, the blades, if desired, being detachably engaged with the shaft. Each of the shafts 11 is slidably mounted in brackets formed in the housings 7 and 8. The free ends of the shafts are engaged by levers 14 which, in turn, are operatively connected to a foot pedal 15. The foot pedal 15 is pivotally mounted, as indicated at 16, on the frame 5. As is apparent, pressure on the pedal 15 simultaneously urges the upper blade downwardly and the lower blade upwardly for engagement with the opposite ends of the can 9 at precisely the same instant. As soon as pressure is released from the pedal 15, the blades are retracted by springs 17, housed in the casings 7 and 8.

For the purpose of carrying off the contents of the can to a point remote from the puncture unit, I employ a conduit 18, the inner end of which communicates with a sump 19 formed in the bottom of the lower casing 8. The outer end of the conduit 18 is preferably bent at right angles for convenience in dispensing the contents of the can into a suitable container.

The levers 14 may be connected to the foot pedal 15 in any suitable manner by rods or bars such as illustrated to advantage in Figure 2. I prefer, however, to mount, at some suitable point between the foot pedal 15 and the levers 14, adjustments to permit varying of the throw of the levers. I have found that bifurcated brackets 20 may be advantageously used to perform this function.

The device of the present invention is of simple construction and may be moved from place to place with facility and operated by unskilled labor. I have found, after much experiment with the machine, that the precision instant puncturing of the can is of the essence of importance in expediting dispensing of the can contents and in effecting a complete evacuation of the contents. With the device of the present invention, I have also found that the ends of the can are severed to the point that the lines of the incisions radiate to the walls of the can, in order to facilitate collapse of the can.

While I have herein shown a preferred embodiment of the invention, I am of course aware that various changes may be made within the scope of the claims hereto appended.

What I claim is:

1. In a can puncturing device, a support, longitudinally spaced, axially aligned stationary casings mounted on said support providing a can

holding compartment therebetween, axially aligned guides mounted in the casings, puncturing blades normally retracted within said casings provided with shanks having a sliding fit in said guides and movable through the casings toward and away from one another, resilient devices connected with said blades normally urging the latter in a direction away from one another, and manually operable means conected with said puncturing blades for simultaneously urging the latter toward one another for puncturing a receptacle placed on the support between said casings.

2. In a receptacle puncturing device, a support, opposed guides mounted on the support in axial alignment and spaced from one another, puncturing blades constrained by said guides to move toward and away from one another, spring devices connected with said blades yieldably urging the latter in a direction away from one another, actuator means connected with the blades for urging the latter toward one another in opposition to said spring devices, and means on the support in proximity to one of said blades to receive and carry off the contents of a receptacle pierced by said blades.

LOUIS G. SEILER.

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