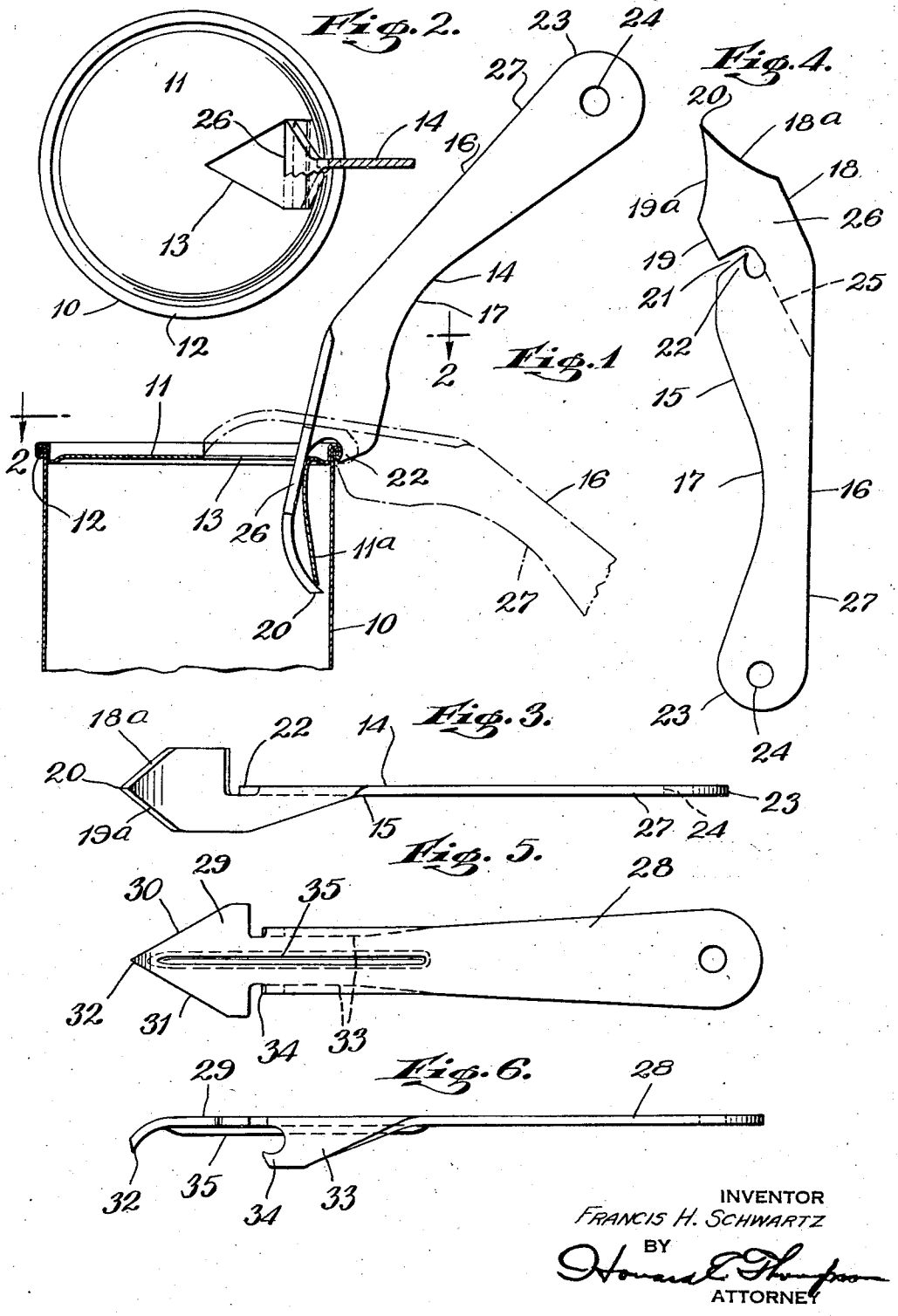
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CAN OPENER

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CAN OPENER

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This invention relates to devices for opening cans or for forming large discharge openings in one end wall of a can to facilitate the removal of the contents thereof, and especially a fluid content; and the object of the invention is to provide a can opener in the form of a long handle member, one end portion of which is cut out and fashioned to form an angularly disposed can engaging and piercing portion consisting of a V-shaped cutter end adapted to engage the top of the can to cut and bend a portion thereof inwardly into the can to form a relatively large discharge opening, and also a hook arranged at the inner end of the V-shaped cutter and projecting downwardly from the lower surface of the cutter and formed on the end portion of the handle member where it joins the cutter; a further object being to provide a tool of the class described, the cutter end portion of which is provided with a bead for reinforcing and strengthening the same, and which also operates to assist the inward turning and piercing of the cut out and bent portion of the container in the operation of forming the opening therein; and with these and other objects in view, the invention consists in a device of the class and for the purpose specified, which is simple in construction, efficient in use and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a sectional view through one end portion of a container indicating the method of using one of my improved devices in connection therewith.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a plan view of the tool detached.

Fig. 4 is a plan view of a blank from which the tool shown in Figs. 1 to 3 inclusive is formed.

Fig. 5 is a plan view of a modified form of tool; and,

Fig. 6 is a side edge view of the tool shown in Fig. 5.

For the purpose of illustrating one use of my invention, I have indicated in Fig. 1 of the drawing part of a can or container 10, one end wall 11 of which is attached to the side wall by a circumferential bead 12. In practice, I provide a tool which is designed to cut and form a relatively large opening 13 in the end wall 11 so as to facilitate the discharge of the contents of the can or container whenever desired. In this connection, it will be understood that the can may be used as a container for various types of fluids or semi-fluid materials, such as beverages, lubricating oils and the like or may contain such food products as peas, corn and the like which may be readily discharged through an opening of the kind illustrated.

In Figs. 1 to 3 inclusive, I have shown one form of can opening device 14 which is fashioned from a blank of the type indicated in Fig. 4 of the drawing. The blank consists of an elongated sheet of metal, one side wall 16 of which is straight throughout the major portion of its length and the other side wall 17 of which is curved. Both walls at one end portion of the blank have angularly extending parallel edges 18 and 19 which terminate in contracted edges 18*a*, 19*a* which, when the tool is completed, are ground to form cutting edges and a prong end portion 20. The straight edge 19 of the blank where it joins the side walls 17 is recessed as seen at 21 in such manner as to form a hook-shaped member 22, which member is adapted to engage the bead 12 of the can in the use of the tool, as later described. The other end portion of the blank is preferably rounded as seen at 23 and provided with an aperture 24 to facilitate hanging up the tool when not in use.

After fashioning a strip or sheet of metal in the form of the blank shown in Fig. 4, the resulting blank is then folded or bent substantially on the dotted line 25 to offset the tool head portion 26 with respect to the handle portion 27 in an outwardly and downwardly extending plane as well as transversely to the longitudinal plane of the handle member as clearly illustrated in Figs. 1 and 3 of the drawing. When so formed, the prong end 20 is arranged in longitudinal alinement with the handle portion 27 and with the hook 22 at one end thereof, and the side edges 18 and 19 are substantially parallel to the wide side edges of the handle member 27.

In the use of the tool, the same is placed in position upon the can or container in the manner indicated in dotted lines in Fig. 1 of the drawing, and the handle member 27 is moved upwardly to force the prong end 20 downwardly through the top wall 11, first operating to pierce said wall, and then to cut the V-shaped opening 13 therein by the beveled cutter edges 18*a*, 19*a*, in which operation, the cut out portion 11*a* of the top wall 11 is folded into the can adjacent the inner surface of the side wall thereof in the manner indicated in full lines in Fig. 1 of the drawing. In

the above operation, the hook member 22 engaging the bead 12 acts as a fulcrum around which the tool swings.

In Figs. 5 and 6 of the drawing, I have shown a modified form of construction, wherein an elongated strip of metal is fashioned to form a long handle member 28 terminating at one end in a head 29 having side walls 30, 31, and a prong end 32, it being understood at this time that both the prong end portion of the head 29 and that of the head 26 is curved outwardly and downwardly as clearly seen in Figs. 1 and 6 of the drawing. The side walls of the handle portion 28 are cut out and folded downwardly to form flanges 33 which terminate at their forward end portions in hook-shaped members 34 which are positioned at a point where the head 29 joins the handle member 28, and these hook-shaped portions are adapted to engage the bead 12 of the can. It is also preferred that the handle portion 28 and head 29 have a continuous bead 35 extending longitudinally thereof to reinforce and strengthen the tool, but this bead may be eliminated if the tool is hardened to give the desired strength and rigidity thereto.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A tool of the class described fashioned from an elongated sheet metal blank, one end of which is substantially V-shaped in form, one side of the blank adjacent the V-shaped end being fashioned to form a hook-shaped part extending into a recess portion of the blank, and said blank being folded along a diagonal line extending from said recess to the opposed side of the blank to arrange the V-shaped end portion of the blank in a plane transverse to the longitudinal plane of the remainder of the blank and with the side edges of said end portion projecting at opposite sides of the blank.

2. A tool of the class described fashioned from an elongated sheet metal blank, one end of which is substantially V-shaped in form, one side of the blank adjacent the V-shaped end being fashioned to form a hook-shaped part extending into a recess portion of the blank, said blank being folded along a diagonal line extending from said recess to the opposed side of the blank to arrange the V-shaped end portion of the blank in a plane transverse to the longitudinal plane of the remainder of the blank, and the pointed end of said V-shaped portion being arranged in alinement with the longitudinal plane of the blank when in its folded position.

3. A tool of the class described comprising an elongated strip of metal, one end portion of which is bent to form a head arranged angularly and transversely to the remainder or handle portion of said strip and projecting at opposite sides thereof, said head terminating at its free end in a V-shaped tool, the free pointed end of which is curved downwardly, and said handle portion where it joins said head having a hook-shaped member.

4. A tool of the class described comprising an elongated strip of metal, one end portion of which forms a handle member and the other end being fashioned to form a tool head consisting of a downwardly curved portion having beveled side edges contracting to form a pointed free end for said head, said tool head being of greater transverse dimensions than the handle member where it joins said handle member, the side edges of the head projecting at opposite sides of said handle member and the end portion of the handle member where it joins said tool head having a downwardly extending hook-shaped part.

5. A tool of the class described comprising an elongated strip of metal, one end portion of which forms a handle member and the other end being fashioned to form a tool head consisting of a downwardly curved portion having beveled side edges contracting to form a pointed free end for said head, said tool head being of greater transverse dimensions than the handle member where it joins said handle member, the side edges of the head projecting at opposite sides of said handle member and the end portion of the handle member where it joins said tool head having a downwardly extending hook-shaped part, and said head having a reinforcing rib arranged longitudinally thereof.

6. A tool for forming discharge openings in the end walls of containers having beaded edges at the periphery of said end walls, said tool comprising an elongated handle portion, a tool head at one end of the handle portion, said tool head where it joins said handle portion being of greater transverse dimensions than the handle portion and projecting at opposite sides thereof, the side edges of the tool head being contracted to form a pointed free end which is curved downwardly, the handle member where it joins said head having a hook-shaped part adapted to engage the beaded edge of the container and to form an axis in the swinging movement of the tool to force the pointed end of the tool head downwardly through one end portion of the container.

7. A tool for forming discharge openings in the end walls of containers having beaded edges at the periphery of said end walls, said tool comprising an elongated handle portion, a tool head at one end of the handle portion, said tool head where it joins said handle portion being of greater transverse dimensions than the handle portion and projecting at opposite sides thereof, the side edges of the tool head being contracted to form a pointed free end which is curved downwardly, the handle member where it joins said head having a hook-shaped part adapted to engage the beaded edge of the container and to form an axis in the swinging movement of the tool to force the pointed end of the tool head downwardly through one end portion of the container, and the side contracted edges of said tool head being sharpened to form cutter edges.

8. A tool of the class described comprising an elongated strip of sheet metal, one end portion of which is offset in the direction of one side edge of said strip, said offset end portion terminating in a tool head arranged transversely to the remainder of the strip and projecting at opposite sides thereof, the side edges of said head being contracted to the free end thereof to form a pronged end, and the pronged end portion of said tool head being curved downwardly.

9. A tool of the class described comprising an elongated strip of sheet metal, one end portion of which is offset in the direction of one side edge of said strip, said offset end portion terminating in a tool head arranged transversely to the remainder of the strip and projecting at opposite sides thereof, the side edges of said head being contracted to the free end thereof to form a pronged end, the pronged end portion of said tool head being curved downwardly, and the free end of said offset portion of the strip being provided adjacent the tool head with a hook-shaped

member arranged in longitudinal alinement with said pronged tool end.

10. A tool of the class described comprising an elongated strip of sheet metal, one end portion of which is offset in the direction of one side edge of said strip, said offset end portion terminating in a tool head arranged transversely to the remainder of the strip and projecting at opposite sides thereof, the side edges of said head being contracted to the free end thereof to form a pronged end, the pronged end portion of said tool head being curved downwardly, the free end of said offset portion of the strip being provided adjacent the tool head with a hook-shaped member arranged in longitudinal alinement with said pronged tool end, and said head joining one side edge of the offset portion of said strip throughout the length thereof.

11. A tool of the class described comprising an elongated strip of sheet metal, one end portion of which is offset in the direction of one side edge of said strip, said offset end portion terminating in a tool head arranged transversely to the remainder of the strip and projecting at opposite sides thereof, the side edges of said head being contracted to the free end thereof to form a pronged end, the pronged end portion of said tool head being curved downwardly, the free end of said offset portion of the strip being provided adjacent the tool head with a hook-shaped member arranged in longitudinal alinement with said pronged tool end, said head joining one side edge of the offset portion of said strip throughout the length thereof, and the side edges of said head inwardly of the contracted edges being straight and parallel.

12. A tool of the class described comprising an elongated strip of sheet metal, one end portion of which is offset in the direction of one side edge of said strip, said offset end portion terminating in a tool head arranged transversely to the remainder of the strip and projecting at opposite sides thereof, the side edges of said head being contracted to the free end thereof to form a pronged end, the pronged end portion of said tool head being curved downwardly, the free end of said offset portion of the strip being provided adjacent the tool head with a hook-shaped member arranged in longitudinal alinement with said pronged tool end, said head joining one side edge of the offset portion of said strip throughout the length thereof, the side edges of said head inwardly of the contracted edges being straight and parallel, and the contracted side edges of said head being beveled to form cutter edges.

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