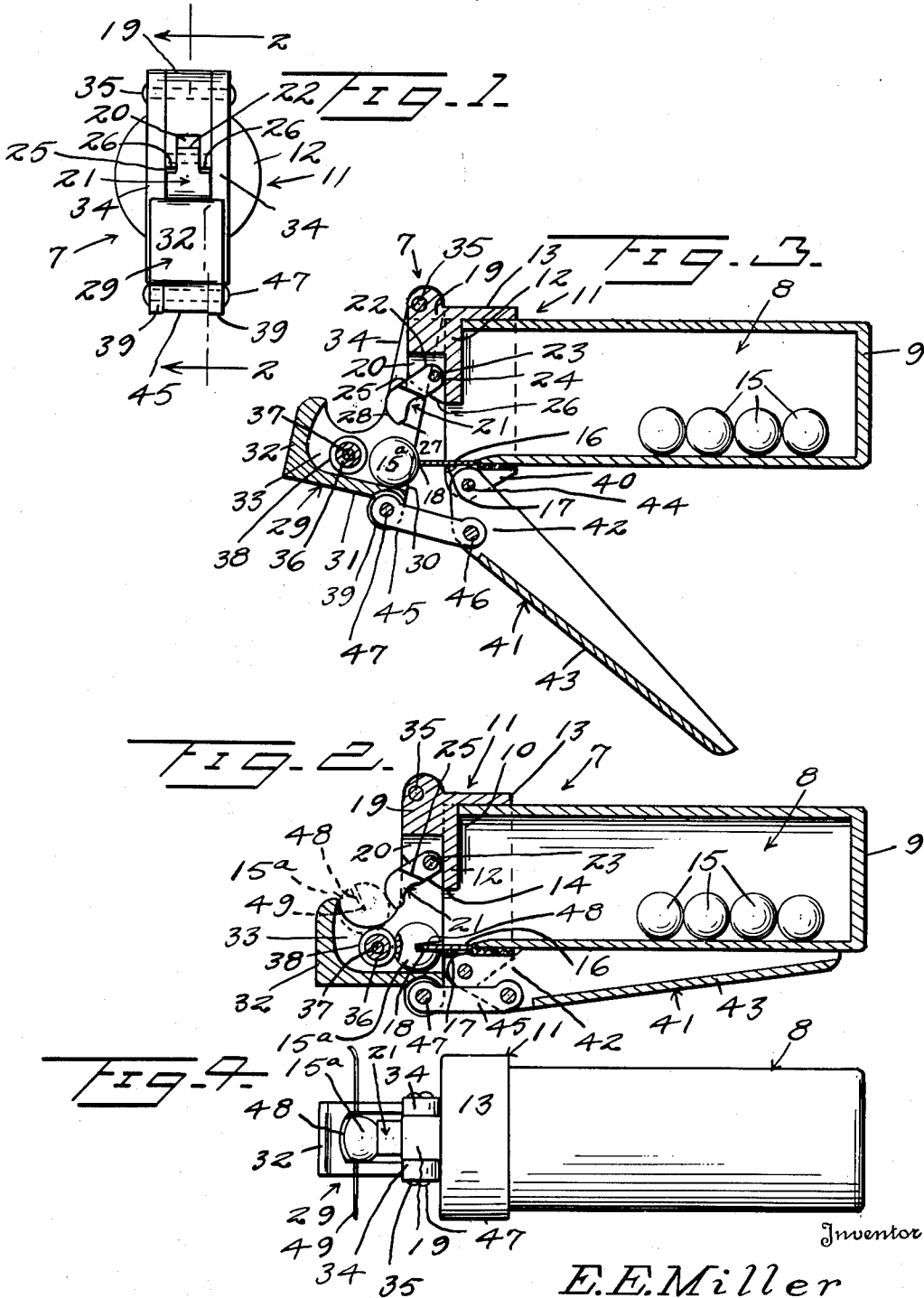


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SINKER SPLITTING AND SQUEEZING
DEVICE WITH MAGAZINE HANDLE
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**SINKER SPLITTING AND SQUEEZING DEVICE
WITH MAGAZINE HANDLE**

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7 Claims. (Cl. 7—14.1)

This invention relates to a novel unit for use by fishermen which may be readily carried in a garment pocket or tackle box and which provides a magazine for holding small spherical lead bodies or shots and additionally provides a mechanism, constituting a part of the magazine or connected thereto by means of which the individual shot are cut to form a notch therein and thereafter compressed to clamp a fishing line or leader element in the notch to thus secure the sinker to the line or leader.

More particularly, it is an aim of the present invention to provide a novel unit having a container part for holding shot and constituting a magazine and a closure member for an open end of said container part and which carries a manually actuated unit capable of cutting an incision or notch in a shot or small lead sphere and thereafter closing the notch for clamping the sinker which is formed from the shot to a fishing line or leader.

A further object of the invention is to provide a device of the aforescribed character of extremely simple construction capable of being very economically manufactured and sold and which will efficiently function for accomplishing its intended result and enable the rapid conversion of shot into sinkers and the rapid attachment of the formed sinker to a fishing line or leader.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, illustrating a presently preferred embodiment thereof, and wherein:

Figure 1 is a front elevational view of the sinker forming and attaching device in a closed position;

Figure 2 is a longitudinal sectional view thereof, taken substantially along a plane as indicated by the line 2—2 of Figure 1;

Figure 3 is a view similar to Figure 2 but showing the device in an open position, and

Figure 4 is a top plan view of the device, in a closed position.

Referring more specifically to the drawing, the sinker forming and attaching device in its entirety and comprising the invention is designated generally 7 and includes an elongated container body 8 having a closed end 9 and an open opposite end 10 and which additionally functions as a handle, as will hereinafter be described.

The device 7 also includes a cap 11 having an outer end wall 12 and an annular flange 13. The open end 10 of the container or magazine 8 fits snugly in the flange 13 of the cap 11, as by a press fit engagement, and the end wall 12 of the cap is disposed over the open end 10 of said container or magazine 8. The end wall 12 is provided with a dispensing opening 14 of a sufficient size so that a shot or sphere 15, contained in the magazine 8, may be dispensed by gravity from the magazine through said opening 14.

A blade 16 is suitably mounted in a part of the cap

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flange 13, as by soldering or welding, as indicated at 17. The blade 16 is disposed parallel to the longitudinal axis of the device 7 and projects outwardly from the cap 11 through a part of its opening 14 and has an outer cutting end 18. The cap 11 is provided with an ear or enlargement 19, which is preferably formed integral with and projects outwardly from the outer side of the end wall 12 and from a portion of the flange 13. The ear or enlargement 19 is disposed substantially in diametrical alignment with the opening 14 and blade 16 and remote therefrom. The ear or enlargement 19 is provided with a notch 20 which opens radially inward and also longitudinally outward relatively to the device 7, as illustrated in Figures 2 and 3. A dog 21 has a restricted upper end 22 which fits loosely in said notch 20 and which is pivotally connected to the ear 19, by a pivot pin 23 which extends loosely through said restricted end 22 and which is anchored in the ear 19, on opposite sides of the notch 20. The dog 21 has an inner substantially flat face portion 24 which is disposed inwardly with respect to and slightly below the axis of the pivot pin 23 and which normally bears against the outer side of a part of the wall 12 of cap 11 for supporting the dog 21 in a lowermost position, as illustrated in Figures 2 and 3, in which position said dog is inclined downwardly and outwardly relatively to the cap wall 12 from the pin 23. The dog 21 is provided with upwardly facing shoulders 25 on opposite sides of its restricted upper end 22, which engage outwardly and upwardly inclined bottom edge portions 26 of the ear 19, disposed on opposite sides of the notch 20, for limiting outward and upward swinging movement of the dog 21 from its lowermost position of Figures 2 and 3. The dog 21 has a downwardly facing bottom edge 27 and an outer end surface 28 which extends upwardly from said bottom edge and which faces downwardly and away from the cap 11.

A holder, designated generally 29, includes an open inner side 30, a bottom wall 31, an outer wall 32 and corresponding side walls 33. The side walls 33, adjacent the outer wall 32, extend only a short distance upwardly from the bottom wall 31, but said side walls 33 have elongated inner end portions 34 which extend upwardly a substantial distance above the level of the upper edge of the outer wall 32 and which provide laterally spaced hangers, the upper portions of which loosely straddle the ear 19 and the intermediate portions of which loosely straddle the dog 21, as best seen in Figures 1 and 4. A pivot pin 35 extends through and is journaled in aligned openings in the upper portions of the ear 19 and hanger members 34 for swingably mounting the holder 29 on said ear and on the cap 11, for swinging movement toward and away from the outer wall 12 of the cap. A roller 36 is disposed in the bottom portion of the holder 29 and is journaled on a small shaft or stem 37 the ends of which are anchored in the side walls 33, nearer the outer wall 32 than the open inner side 30 of said holder. The roller 36 is provided with a plurality of annular longitudinally spaced ribs 38, each of which is relatively thin in cross section at its periphery. The holder bottom 31, adjacent its inner end, is provided with a pair of transversely spaced aligned depending apertured ears 39.

The cap flange 13, in the portion thereof disposed outwardly with respect to the blade 16, is provided with an outwardly projecting ear 40. An elongated lever 41 of channel shape cross section has transversely spaced extensions 42 at one end thereof forming continuations of side portions thereof and which extend beyond the adjacent end of the intermediate portion 43 of said lever, as seen in Figures 2 and 3. The terminal portions of said lever extensions 42 loosely straddle the ear 40 and are

connected thereto by a pivot pin 44 which extends through the ear 40 and the extensions 42, and which is journaled in said extensions. One end of a rigid link 45 fits loosely between the extensions 42 and is pivotally connected to the lever 41 by a pivot pin 46 which extends through said link end and through the extensions 42 and which is journaled in the link. The pivot pin 46 is disposed between the pivot pin 44 and the adjacent end of the lever part 43 and is spaced a substantial distance from said pivot pin 44. The other end of the link 45 fits loosely between the ears 39 and is pivotally connected thereto by a pivot pin 47. The link 45, lever extensions 42 and the pivot pins 44, 46 and 47 combine to form a toggle joint.

From the foregoing it will be readily apparent that the cap or closure 11 with the parts carried thereby may be readily removed as a unit from the open end 10 of the container or magazine 8 for filling said container with lead spheres or shot 15, after which the cap 11 is re-applied to the open end of the container for closing said open end 10, except for the opening 14 of the cap 11. As previously stated, the cap may be retained in an applied position by a press fit engagement or in any other suitable manner.

To utilize the sinker forming and attaching device 7 for forming a sinker from one of the shot or spheres 15 and for attaching and securing the sinker thus formed to a fishing line or leader, assuming that all of the shot are within the container 8, that the device 7 is in a closed position as illustrated in Figures 1, 2 and 4, and in an upright position, the device 7 is first swung to substantially a horizontal position as illustrated in the drawing. The lever 41 is then swung downwardly and away from the container 8 from its position of Figure 2 to its position of Figure 3, so that the link 45 will swing the holder 29 outwardly and away from the cap wall 12 about its pivot 35. By then tilting the device 7 to a greater extent in a counterclockwise direction, as seen in Figure 3, one of the shot or spheres 15 can be caused to roll by gravity through the cap opening 14 longitudinally over the blade 16 and into the holder 29 to come to rest on the holder bottom 31 between the roller 36 and the cutting edge 18 of the blade 16, as illustrated by the shot 15a in Figure 3. With the palm of the hand engaging the container or magazine 8 and the fingers engaging around the lever 41, a gripping pressure is exerted for swinging the lever 41 on its pivot 44 toward the container 8 and back to its position of Figure 2, from its position of Figure 3. This movement of the lever 41 will exert a pull on the link 45 which will in turn pull the holder 29 toward the cap 11 and back to its position of Figure 2. As the shot 15a is disposed between the roller 36 and the cutting edge 18, when the holder 29 is thus swung toward the cap 11, the cutting edge 18 will cut into the shot 15a in a direction radially thereof to form an inwardly tapered notch 48 as shown in Figure 2. At the same time, portions of the sharp peripheral edges of the ribs 38 will bite into the shot 15a on the side thereof opposite to the notch 48, as seen at 49 in Figure 2 to anchor the shot 15a to the roller 36. The blade 16 is of uniform thickness and relatively thin from end-to-end thereof, so that when the lever 41 is thereafter swung downwardly toward its position of Figure 3, the notch 48 will readily slip out of engagement with said edge 18 due to the fact that it is impaled on the roller ribs 38. With the lever 41 swung downwardly slightly beyond its position of Figure 3, so that the blade edge 18 is completely disengaged from the shot 15a, and while the lever 41 is thus held in an open or extended position, the forward or left-hand end of the device 7 is swung downwardly sharply with a snapping action to cause the roller 36, with the shot 15a impaled thereon, to turn counterclockwise. When this occurs, the notched shot 15a will be revolved counterclockwise as seen in Figures 2 and 3 upwardly and away from the bottom wall 31 on which it is resting and out-

wardly until a portion of the shot comes into contact with the inner side of the outer wall 32, as illustrated in dotted lines in Figure 2 and in Figure 4. During this swinging movement of the shot 15a through an arc less than 180°, the shot will strike the lower end 27 of the dog 21 to cause said dog to swing upwardly and outwardly about its pivot 23, so that the shot 15a can pass therebeneath. When the shot 15a has assumed its dotted line position of Figure 2, it will have cleared the lower end 27 of the dog 21 so that said dog will swing downwardly by gravity back to its position of Figure 2. With the shot 15a disposed as seen in dotted lines in Figure 2 and as seen in Figure 4, the notch 48 thereof is inclined upwardly and outwardly and is disposed above the upper edges of adjacent portions of the side walls 33, as seen in Figure 2, so that a portion of a fishing line or leader 49 may be inserted downwardly into the notch 48, to locate the sinker 15a on a desired portion of said line or leader 49, this being accomplished while the holder 29 is still in its outwardly inclined position of Figure 3, relatively to the cap 11. The lever 41 is then swung toward the container 8 back to its position of Figure 2, in the same manner as previously described for cutting the notch 48 in the shot 15a, to return the holder 29 to its position of Figure 2. As the holder swings inwardly toward the cap wall 12, a portion of the sinker 15a moves into contact with the surface 23 of the dog 21 and accordingly the sinker 15a is compressed between said surface 28 and the outer wall 32 for closing the notch 48, which is located between said portions, for clamping the line or leader 49 in the sinker 15a. The line or leader 49 can then be pulled to disengage the sinker 15a from the ribs 38.

The aforescribed operation is completed before another shot 15 is discharged by gravity through the opening 14 into the position of the shot 15a as seen in Figure 3. Consequently, the device 7 can be held with its container 8 inclined downwardly from its open to its closed end while the aforescribed operations are accomplished and after a shot 15a has been initially dispensed into the holder 29.

The device 7 may be made in various sizes and for the purpose of clarity is illustrated on an enlarged scale relatively to the actual size of the device and as presently contemplated for one size of shot. However, the device 7 could be made as large or larger than the size as disclosed in the drawing particularly where larger shot or spheres 15 are to be utilized.

Various modifications and changes are contemplated and may obviously be resorted to, without departing from the spirit or scope of the invention as hereinafter defined by the appended claims.

I claim as my invention:

1. A device of the character described comprising an elongated container forming a magazine and handle and adapted to contain a plurality of shot, a holder member, means swingably supporting said holder member at one end thereof on an end of the magazine for swinging movement toward and away from said magazine end, said holder member having an inner side opening toward said magazine end and a bottom portion disposed remote from the swingably supported end thereof, link and lever means connecting a part of said aforementioned magazine end to the bottom portion of the holder member and including a lever swingably movable toward the magazine for actuating the link and lever means for moving the holder member toward said magazine end and swingable away from the magazine for swinging the holder member away from said magazine end, said magazine end being provided with a discharge opening located adjacent the bottom of the holder member and through which a shot is dispensable by gravity from the magazine into said bottom portion of the holder member, a blade fixed to and projecting from said magazine end and having an outer end defining a cutting edge, said cutting edge being disposed in the bottom portion of said holder member

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when the holder member is drawn inwardly toward the magazine, and a stop extending transversely across the bottom portion of the holder member between which and said cutting edge the shot is disposed, when the holder member is displaced away from the magazine, whereby said cutting edge will cut a notch radially into the shot when the holder member is swung toward the magazine and while the shot is disposed between the stop and said cutting edge.

2. A device as in claim 1, said stop comprising a roller having impaling means on the periphery thereof for anchoring the shot to the roller as the notch is cut therein and whereby the shot is withdrawn from engagement with the cutting edge by swinging movement of the holder member away from said magazine end, said roller being rotatable in the holder member in one direction for swinging the shot upwardly and away from the blade for positioning the notch thereof in an upwardly opening position to receive a fishing line or leader, a dog connected to and extending downwardly and outwardly from said magazine end, and said holder member having an outer end wall between which and said dog the notched portion of the shot is disposed when the shot is positioned to receive the fishing line or leader and between which parts said shot is compressed by swinging movement of the holder member toward said magazine end for closing the notch to clamp the fishing line or leader therein.

3. A device as in claim 1, said magazine comprising, a hollow body portion having a closed end and an open end, and a cap detachably mounted on and closing the open end of said body portion, said cap defining said aforementioned magazine end on which said holder member and link and lever means are swingably supported.

4. A device as in claim 1, said stop being rotatably mounted and including impaling means by which the shot is detachably anchored to said stop for disengagement from the blade and for swinging movement with the stop relatively to the holder member to position the notch of the shot in an upwardly opening position to receive a fishing line, and said magazine end and holder member having portions between which the notched part of the shot is disposed for closing the notch when the holder member is swung toward said magazine end.

5. A device of the character described comprising an elongated magazine adapted to contain a plurality of shot and forming a handle, said magazine including an end provided with a discharge opening for the shot, a holder member swingably supported on said magazine end for swinging movement toward and away from said magazine

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end in a direction substantially longitudinally of the magazine, said holder member having a bottom portion disposed to receive a shot discharged from the magazine through said discharge opening thereof, a blade fixed to and projecting from said magazine end having an outer end defining a cutting edge, a stop member disposed in the bottom portion of and carried by the holder member between which and said cutting edge a shot discharged from the magazine is lodged when the holder member is swung away from the magazine, and manually actuated means connecting the holder member and magazine for swinging the holder member toward and away from the magazine and whereby a notch is cut radially into the shot by the cutting edge of the blade when the holder member is displaced toward the magazine.

6. A device as in claim 5, said stop member being rotatably mounted in the holder member for rotation about an axis disposed transversely of the longitudinal axis of the magazine, said stop member including impaling means for anchoring the shot to the stop member as the notch is formed therein and whereby the shot is withdrawn from engagement with the blade by swinging movement of the holder member away from the magazine, said shot being swingable with the stop member relatively to the holder member to position the shot notch in an upwardly opening position above the bottom portion of the holder member, a dog connected to said magazine end extending downwardly and outwardly therefrom, said holder member having an outer wall between which and a part of said dog the notched portion of the shot is disposed for compressing the shot and closing the notch thereof when said holder member is swung toward the magazine.

7. A device as in claim 6, said dog being swingably mounted for swinging movement in the same direction as the holder member and being swingable outwardly to permit the shot to pass therebeneath into the last mentioned position thereof, and said dog having a stop portion engaging the magazine end for supporting the dog relatively to the magazine and in a position in engagement with the shot for cooperation with the outer wall of the holder member in closing the notch of the shot.

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