To all whom it may concern:  

Be it known that I, William E. Taylor, a citizen of the United States, residing in Eastport, in the County of Washington and State of Maine, have invented a new and useful Improvement in Roll-Side Key-Opening Cans, of which the following is a specification.

My invention relates to key opening cans. The object of my invention is to provide a key opening can of a simple and efficient construction, in which the can will open easily and conveniently and with certainty and reliability or without danger of failure, in which the cans will open from the side and in such manner that the fish or other contents of the can may be slipped out in a solid block or cake without mutilation or mussing, in which the liquid contents of the can may be retained therein without spilling after the can has been opened, when desired, which will be of such construction that both heads of the can, or both top and bottom may be secured to the body by double seams without solder, and which will open with equal facility, however the key may be applied to the lip or tongue, and thus render it impossible to apply the key wrong end to, and thereby cause failure to open as often happens with roll top key opening cans and other cans now in use, and in which also in opening the cans, the lines of separation or tearing will always truly and accurately follow the scores or weakened lines and not tend to depart therefrom as frequently happens in key opening cans now in use.

My invention consists in the means I employ to practically accomplish in a simple unitary structure or can, these objects or results as herein shown and described and more particularly specified in the claims.

In the accompanying drawing forming a part of this specification, Figure 1 is an end elevation of a roll side key opening can embodying my invention. Fig. 2 is a horizontal section on line 2—2 of Fig. 1. Fig. 3 is a cross section on line 3—3 of Fig. 2. Fig. 4 is a detail front elevation showing the can after being opened. Fig. 5 is an enlarged detail vertical section on line 5—5 of Fig. 2. Fig. 6 is an end elevation illustrating a modification in which the projecting tongue or lip is omitted, and a puncture tongue or lip employed in place of a projecting one.

In the drawing I have illustrated my invention as applied to a rectangular sardine can with rounded corners, it being specially adapted for sardine can use.

In said drawing, 1 represents the body of a can, the same having a soldered lap side seam 2, and a lip or tongue 3 externally projecting beyond the lap seam, for the reception of the key 4 to start the winding. The top and bottom heads 5 of the can each have a countersunk wall 6 forming snugly within the end of the can body, and a seaming flange 7 which is interfolded into a double seam 8 with the seaming flange 9 of the body. The roll side 10 of the can extends along one of the longitudinal sides of the can and partially along the adjacent ends or around the curved corners 11 of the can, so that when the roll side 10 is rolled about the key 4 in opening the can, the fish or other solid contents of the can may be then slipped out in a solid block or cake, and so that also the liquid contents of the can may be retained therein without spilling after the can has been opened, when desired, which will be of such construction that both heads of the can, or both top and bottom may be secured to the body by double seams without solder, and which will open with equal facility, however the key may be applied to the lip or tongue, and thus render it impossible to apply the key wrong end to, and thereby cause failure to open as often happens with roll top key opening cans and other cans now in use, and in which also in opening the cans, the lines of separation or tearing will always truly and accurately follow the scores or weakened lines and not tend to depart therefrom as frequently happens in key opening cans now in use.

My invention consists in the means I employ to practically accomplish in a simple unitary structure or can, these objects or results as herein shown and described and more particularly specified in the claims.

To enable the fish or other solid contents of the can to be slipped out in a solid, unmutilated cake or block through the open side after the can has been opened by winding the roll side about the key, the scores or weakened lines 12 are located outside of or beyond the inner edges 13 of the double seam 8 which unites each of the heads 5 to the can body, so that the pits or inner edges of the double seams will serve as guides for the lines of tear or separation in opening the can by winding the roll side 10 about the key, and so that these seams will also serve as rigid supports for the stock or sheet metal outside of the scores or weakened lines which bound the roll side to further facilitate the opening or tearing operation.

To enable the fish or other solid contents of the can to be slipped out in a solid, unmutilated cake or block through the open side after the can has been opened by winding the roll side about the key, the scores or weakened lines 12 are located outside of or beyond the inner edges 13 of the countersunk wall 6 so that the opening in the side of the can will be of greater width than the distance between the inner faces of the top and bottom heads 5, 5 of the can. In other words, each of the scores or weakened lines is between the shoulder or inner edge 14 formed by the countersunk wall 6 and the pit or inner edge 13 of the double seam 8.
This particular combination and arrangement of the internal or inside fitting countersunk wall 6 of the can heads 5 and of the external double seams 8 and of the scores or weakened lines 12 not only causes the opening produced by the roll side to be of greater extent in the side of the can body than the space between the can heads 5, 5, and thus to enable the contents to be removed in a solid block; but it also serves a very important function in opening the can, as the internal walls or shoulders 6 afford a very strong and rigid support directly opposite the lines of tear in opening the can by winding the roll side about the can by winding the roll side about the key. The scores or weakened lines 12 between the double seams 8 and the inner faces of the can heads preferably have converging portions 16 at the projecting lip or tongue portion 3 of the can body near the side seam 2 thereof to give the lip or tongue 3 a narrower or somewhat pointed end, as will be readily understood from Fig. 1 of the drawing.

In the modification illustrated in Fig. 6, the lap side seam 2 is located near the middle of one end of the can body, and the externally projecting lip or tongue 3 to receive the slot of the key is omitted; and the can body instead is provided with a puncture lip or tongue 17 adapted to be cut or ruptured at the apex 18 formed by the crossing scores or weakened lines 19 with a sharp pointed or sharp edged key. With this exception, the construction shown in Fig. 6 is the same as that illustrated in Figs. 1 to 5. The overlapping members of the lap seam 2 of the can body are preferably furnished with the customary indentations or holding devices 20.

The roll side 10 of the can body preferably is in or extends across one of the longer sides of the rectangular can body instead of in or across one of its shorter sides, although a clear opening of the full cross sectional interior size of the can is obviously produced by my invention, whichever of the four sides of the can body be removed by winding the roll side about the key.

In practicing my invention, whatever the shape or form of the can body to which it is applied, the scores or weakened lines of the roll side should be made long or extensive enough to produce a clear opening in the can body—one of the full size of the contents of the can—so that the contents may, if solid, be removed or slipped out of the can in a solid, unmutilated cake or block.

I claim:

1. A roll side key opening can comprising a can body, can heads having countersunk walls fitting inside the can body, external double seams uniting the can heads to the can body, said can body having a roll side, and at each edge of said roll side a weakened line between the adjacent inner face of said can heads and the double seam uniting such head to the can body, said countersunk walls and said double seams supporting the metal of the can body on opposite sides adjacent to said weakened lines, substantially as specified.

2. The combination with can heads having countersunk walls, of a can body provided with a roll side wider than the space between the can heads, said can body having scores at the edges of said roll side, said can body and can heads having external double seams closely adjacent to said scores, said countersunk walls and said double seams supporting the metal of the can body on opposite sides adjacent to said weakened lines, and said roll side of the can body having an externally projecting lip at one extremity thereof adjacent to the side seam of the can body, substantially as specified.

WILLIAM E. TAYLOR.

Witnesses:
L. H. NEwCOMB,
J. E. SULLIVAN.