This invention relates to container lid locks, and more particularly to improvements in lid locks for garbage containers and the like.

There have been numerous prior devices designed for locking the lid to a garbage container, but these prior devices have been unwieldy, bulky, and not easily removable from the refuse container lid.

The device of the present invention provides a lid lock means for a garbage container which is easily installed and may be quickly detached and applied to suitable similar container lids as desired. The present invention further comprises a positive locking action for securing the lid of a container to the container and maintaining the lid in locked condition when the container is tilted or overturned, retaining the refuse material within the container. The present invention additionally provides a lid lock which may be quickly disengaged to facilitate the removal of the lid from the refuse container.

The principal object of the present invention is to provide means for locking a lid to a refuse container.

Another object of the present invention is to provide locking means for refuse container lids comprising means for positive locking engagement with a refuse container.

A further object of the present invention is to provide an easily disengageable locking means for securing a lid to a refuse container.

Another object of the present invention is to provide spring urged means for a refuse container lid lock.

A further object of the present invention is to provide removable locking means for refuse container lids; and another object of the present invention is to generally improve the design, construction and efficiency of lid locking means for refuse containers.

The means by which the foregoing and other objects of the present invention are accomplished and the manner of their accomplishment will be readily understood from the following specification upon reference to the accompanying drawings in which:

FIG. 1 is a plan view of the device affixed to the lid of a garbage can.

FIG. 2 is a fragmentary view of the device of FIG. 1.

FIG. 3 is a fragmentary side elevational view of the device of FIG. 1 in disengaged position; and

FIG. 4 is an enlarged fragmentary vertical cross sectional view of the device of FIG. 1 with parts broken away as taken on the line IV—IV of FIG. 1.

Referring now to the drawings in which the various parts are indicated by numerals, the device of the present invention comprises a garbage can lid lock 11, provided with a pair of diametrically oppositely spaced tunnel-like shields 13, 15, attachment flanges 16 integrally connected to the lowermost portion of the shields 13, 15, substantially coextensive in length with the respective shields 13, 15, and extending outwardly therefrom. The lid lock 11 is further provided with substantially rectangularly configured plates 17, 18 in underlying adjacency with the flanges 16 of the shields 13, 15 attached thereto by screws or like fastening means, extending outwardly from the shields 13, 15 to provide attachment means for the flanges 19 of a pair of collars 21, 23 in abutting alinement with the distal ends of the shields 13, 15. The collars 21, 23 are further provided with laterally disposed pivot means 25, 27 to carry the lock rods 29, 31. The lock rods 29, 31, carried by the pivot means 25, 27 mounted on the collars 21, 23, extend axially inwardly from the collars 21, 23 into the inner chambers of the shields 13, 15. The lock rods 29, 31 are provided with substantially arcuate end portions 33, 35 extending arcuately downwardly from the pivot means 25, 27 and away from the collars 21, 23.

The present invention further comprises a pair of coil springs 37, 39 within the collars 21, 23 underlying the lock rods 29, 31, and in overlying adjacency with the base plates 17, 18. The spring 37 is disposed centrally below the rod 29, slightly inwardly of the pivot means 25, and is provided with a base leg 40 in abutment with the base plate 17, and an upper leg 41 bearing against the lock rod 29, urging the rod 29 upwardly toward the top of the shield 13. The upper leg 41 is provided with a deformed tip 42 extending perpendicularly upwardly away from the upper leg 41 into embraceable engagement with an orifice 43 formed in the rod 29, to maintain the spring 37 and the upper leg 41 in substantially linear alinement with the rod 29. The embraceable engagement of the upper leg 41 and the lock rod 29 further prevents the spring 37 from shifting out of contact with the lock rod 29.

The spring 39 is similarly provided with a base leg 45 in abutment with the base plate 17, an upper leg 47 in underlying adjacency with the lock rod 31, and an upstanding tip 48 carried by the upper leg 47 in embraceable engagement with an orifice 49 carried by the lock rod 31.

The present invention further comprises a substantially arcuately elongated release bar 51 spanning across a central portion of a garbage can lid 53, between the shield 13 and the shield 15. The release bar 51 is provided at one of its ends with an imperforate flat section 55 partially tangential to the arcuate release bar 51, and at its opposite end with an apertured flat section 57 similarly partially tangential to the arcuate release bar 51. The flat section 55 is provided with a depending skirt 59 having a central opening 60 embracing the lock rod 31 and slidably connected thereto. The apertured flat section 57 is similarly provided with a depending skirt 61 having a central opening 62 encircling the lock rod 29 and slidably attached thereto.

It will thus be readily seen, upon reference to the drawings, and more particularly to FIG. 4 of the drawings that in the locked position the spring urged rods 29, 31 are moved angularly upwardly within the shields 13, 15 pivotally urging the arcuate end portions 33, 35 swingably inwardly into abutting engagement with the peripheral bead 69 on the garbage can 71. When it is desired to unlock the lid 53 from the can 71, the release bar 51 is depressed downwardly toward the lid handle 65, urging the slidably attached lock rods 29, 31, against the spring action allowing the arcuate end portions 33, 35, to rotate about the pivots 25, 27 disengaging the ends of the semi-circular sections from abutting contact with the peripheral bead 69 on the can 71.

The cover band 73 of the garbage can lid 53 is provided with a pair of axially opposite holes 75, somewhat larger in diameter than the arcuate end portions 33, 35, to permit the arcuate ends to move therethrough into abutting contact with the undersurface of the peripheral bead 69 of the can 71 to effect a positive locking of the can lid 53 to the garbage can.

The flanges 16 carried by the respective shields 13, 15 are provided with screws or similar fasteners for attaching the present invention to a conventional refuse container lid. The present invention may be removed from the refuse container lid by removing the screws from the flanges 16 of the lock 11 to permit the attachment of the device to another refuse container lid.
I claim:
1. Means for detachably locking a removable lid to a refuse container in which said container adjacent its upper end includes a peripheral outwardly extending bead, and said lid seats upon the upper end of said container,
   (A) said locking means comprising
      (1) a release bar spanning across and spaced above said lid substantially across the center of said lid,
      (2) rods respectively articulated at one end to the opposite ends of said bar
         (a) respectively extending oppositely from said release bar substantially in axial alignment with said bar,
         (b) said bar ends being spaced from the center of said lid,
   (3) arcuate end portions connected to and depending from the other ends of said rods,
   (B) spring means mounted on said lid spaced away from the center of said lid and adjacent the periphery of the lid,
      (1) said spring means connected to said rods intermediate said bar and said arcuate ends, 
      (2) resiliently connecting said bar and rods to the top of said lid, urging said bar upwardly away from said lid,
   (C) means pivotally connecting said rods to said lid intermediate the connection of said springs to said rods and the connection of said arcuate ends to said rods, said springs urging said arcuate ends toward engagement with said container bead, such engagement locking said lid to said container,
   (D) said release bar being depressible toward said lid against the urging of said springs, depression of said bar moving said rods about said pivots to move said arcuate ends away from container bead engagement and freeing said lid for removal from said container.

2. Means in accordance with claim 1, in which said lid includes a depending cover band surrounding said container bead and depending therebelow, said cover band being apertured in alignment with said arcuate ends for passage of said arcuate ends into bead engagement.
3. Means in accordance with claim 1, which include oppositely extending shield means covering said rods and said connections, said shield means being spaced apart at their inner ends, said release bar spanning across the space between said shields for manual depressing engagement.
4. Means in accordance with claim 1, in which said lid includes a centrally disposed, upstanding handle underlying said release bar, said bar and handle cooperating to provide a grip for handling said lid and locking means.
5. Means in accordance with claim 1, in which said locking means is detachably connected to said lid.

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