The arcuate groove **40** permits the outer shell **30** to distort significantly inwardly without requiring equivalent distortion of the inner shell **60**. Due to the fact that the internal thread **62** of the inner shell **60** stiffens the inner shell **60** substantially, the amount of force required to be applied to achieve the same amount of radial distortion of the lugs **50** and **52** is lessened.

The closure **10** is made from any suitable closure material, such as, for example, integrally-molded polypropylene. Further, due to the fact that less material is used in forming the closure **10**, production costs are lowered. Due further to the fact that less material is used, each closure manufactured according to the preferred embodiment of the present invention weighs less than a representative closure of the prior art. Even further, due to the fact that the arcuate groove **40** reduces the amount of material comprising a closure manufactured according to the preferred embodiment of the present invention requires less time to cool, overall manufacturing time thereof is reduced.

In another embodiment of the present invention as shown in FIG. **4**, the arcuate groove includes a plurality of arcuate groove sections **100** which cooperate to form a discontinuous circular groove **140**.

In yet another embodiment of the present invention as shown in FIG. **5**, the closure **10** includes a pair of opposed locking lugs **50***a* and **52***a* projecting outwardly from an outer surface of the outer shell **30** which are sized to engage a pair of locking lugs provided on an exterior surface of a container (not shown). Alternatively, the locking lugs **50***a* and **52***a* may project inwardly from an inner surface of the outer shell **30**.

The foregoing detailed description is given primarily for clearness and understanding and no unnecessary limitations are to be understood therefrom for modifications will become obvious to those skilled in the art upon reading this disclosure and may be made without departing from the spirit of the present invention.

I claim:

1. A closure, comprising:

a top wall having an outer diameter;

an outer shell depending downwardly from a lower surface of said top wall;

an inner shell depending downwardly from said lower surface and disposed concentrically with and spaced inwardly from said outer shell; and,

an arcuate groove disposed in an upper surface of said top wall depending downwardly towards said inner shell.

2. A closure according to claim **1**, wherein:

said inner shell includes an inner surface having an internal thread provided thereon.

3. A closure according to claim **1**, wherein:

said outer shell includes a pair of lugs projecting downwardly from an end of said outer shell opposite said top wall.

4. A closure according to claim **1**, wherein:

said outer shell includes a pair of lugs projecting outwardly from an outer surface of said outer shell near an end of said outer shell opposite said top wall.

5. The closure according to claim **1**, said arcuate groove being a plurality of arcuate groove sections forming a discontinuous arcuate groove.

6. The closure according to claim **1**, said arcuate groove being continuous along an upper surface of said top wall.

* * * * *