This invention relates to improvements in receptacle closures and cups and more particularly to the means for locking the closure to the receptacle.

A further object of the invention is to provide a locking means which is simple in construction and which may be operated by a simple turn of the closure.

A still further object of the invention is to provide means whereby the receptacle may be tightly sealed by the closure.

With the above, and other objects in view, the invention relates to the device and its parts and combinations, and all equivalents thereof.

In the accompanying drawing in which the same reference characters indicate the same parts in all of the views; Figure 1 is a central vertical sectional view of a fragment of a receptacle provided with the improved closure; Fig. 2 is a similar view of the receptacle with the closure removed therefrom and turned one quarter way around and being in full line; Fig. 3 is a side view of a fragment of a modified form of receptacle and closure, the closure being shown as withdrawn from the receptacle; and, Fig. 4 is a side view of another modified form of receptacle and closure, the closure being shown as withdrawn from the receptacle.

Referring to the drawing the numeral 5 indicates a receptacle which may be of any size or shape and adapted for various uses, and 6 the neck forming the opening or mouth 7 of the receptacle. Within the mouth of the receptacle, and disposed at diametrically opposite points thereof, are inwardly extending projections or knobs 8 embossed from the neck of the receptacle.

The closure may be in the form of a cup 9 provided with an annular rib or stop 10 adapted to limit the depth to which the closure may be inserted into the neck of the receptacle, and when used as a closure is inverted so that the mouth of the cup is lowermost. The closure is provided with a handle 11 for convenience when used as a cup. On the outside of the cup, near the lower edge thereof, are diagonal ribs 12, embossed therefrom and disposed at diametrically opposite points, and extending in opposite diagonal lines. The medial portion of the ribs 12 are positioned at a point from the annular rib 10 of the cup substantially equal to the distance the lower edge of the projections 8 are located from the upper edge of the closure so that when the closure is inserted into the mouth of the receptacle and turned, the diagonal ribs will engage the lower edge of the knobs and draw the annular rib of the closure tightly against the upper edge of the neck of the receptacle and hold the closure in locked engagement with the receptacle.

In the modified form shown in Fig. 3 of the drawing the knobs and diagonal ribs 12 are transposed and a sealing gasket 13 is placed beneath the annular rib of the cup to effect a watertight closure desirable in some forms of receptacles. The knobs and diagonal ribs are indicated in this modified form by the numerals 8 and 12 respectively.

The closure thus far described has been shown in connection with a dinner pail but it is to be understood that the closure is adapted for use with all kinds of receptacles such as tea pots, coffee pots and the like, in which it is desired to use a cover or stopper, and in Fig. 4 the closure is shown in connection with a kettle 14 and the closure 15 is slightly modified by omitting the cup feature and extending the diagonal ribs downwardly at an angle, as indicated by the numeral 16, to the lower edge of the closure to initially guide the projections above the diagonal ribs 12.

From the foregoing description it will be seen that a closure is provided which extends into the mouth of the receptacle and which may be securely sealed and locked thereto by a simple turn of the closure. The closure is unlocked by turning the closure in a direction opposite to that used in locking the closure. Also that this closure is affected without the locking means extending outwardly from the contour of the receptacle.

It is obvious that the closure may be modified in many respects by transposing the ribs and lugs, for instance a closure may be made by providing the cover with one rib and one knob and the receptacle likewise provided but oppositely disposed, or the receptacle
and closure may have but one knob and one rib each without departing from the spirit and scope of the invention. It is also obvious that the closure may be in the form of a cup or not, as desired.

What I claim as my invention is:

A receptacle closure, comprising a receptacle provided with inwardly extending knobs, and a closure provided with an annular stop and with outwardly extending diagonal locking ribs and with downwardly inclined guide ribs extending from the lower ends of the locking ribs to the lower edge of the closure, said guide ribs being positioned to engage the knobs and guide the closure to a position in which the locking ribs will engage the knobs and upon a partial revolution of the closure the said closure will be drawn into locked position with the annular stop engaging a portion of the receptacle.

In testimony whereof, I affix my signature, in presence of two witnesses.

RUDOLPH WEIMER.

Witnesses:

JOHN M. DETLING,

GEO. H. DETLING.