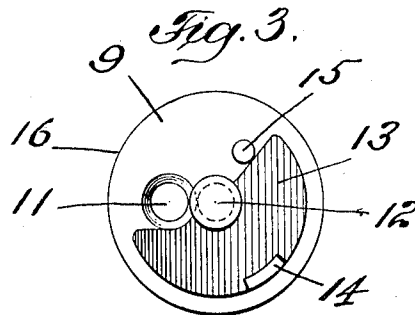
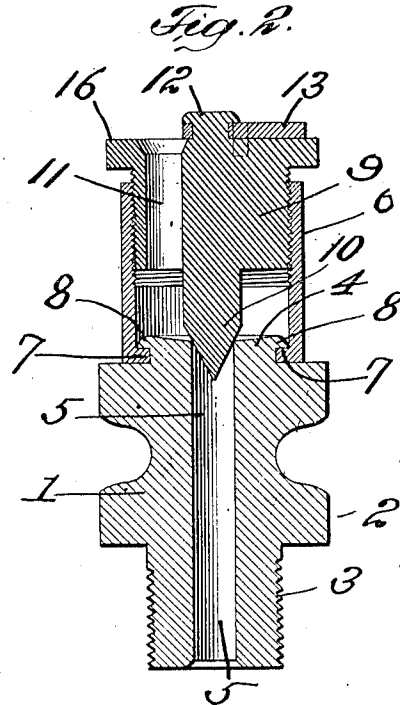
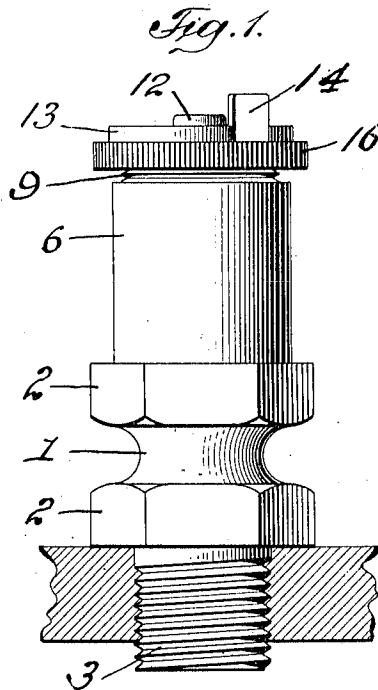


C. W. BECK.
GAS ENGINE PRIMING CUP.

APPLICATION FILED JAN. 9, 1911. RENEWED MAR. 7, 1912.

1,040,996.

Patented Oct. 15, 1912.



Witnesses:
Julius H. Smith
F. R. Miller.

Inventor
Charles W. Beck
By *Attorneys*
Daniel Davis

UNITED STATES PATENT OFFICE.

CHARLES W. BECK, OF ROCKVILLE CENTER, NEW YORK.

GAS-ENGINE PRIMING-CUP.

1,040,996.

Specification for Design.

Patented Oct. 15, 1912.

Application filed January 9, 1911, Serial No. 601,501. Renewed March 7, 1912. Serial No. 682,090.

To all whom it may concern:

Be it known that I, CHARLES W. BECK, a citizen of the United States, and resident of Rockville Center, county of Nassau, and State of New York, have invented certain new and useful Improvements in Gas-Engine Priming-Cups, of which the following is a specification.

The main object of this invention is to provide a simple, compact priming cup for use on gas engine cylinders, and to so construct said cup that it will be simple and cheap to manufacture.

Another object of the invention is to provide a priming cup with a closure device carrying a needle valve at its inner end adapted to seat on the margin of the outlet from the priming cup into the engine cylinder, said closure device serving as a means for closing the outer end of the cup and also as a means for sealing the outlet from the cup into the cylinder.

Another object of the invention is to provide the priming cup with a closure device through which the cup may be charged, whereby the priming charge may be delivered into the cup whether the opening from the cup into the cylinder be open or closed.

Another object of the invention is to provide the closure device with an aperture extending longitudinally through it, and to mount on said closure device a means for closing the outer end of said aperture, whereby the priming cup may be charged through the closure device, the aperture therein then closed, and the closure device then operated to open the passage from the cup into the engine cylinder.

Other objects and advantages of the invention will appear hereinafter.

In the drawings, Figure 1 is a side elevation of the priming cup; Fig. 2 a longitudinal vertical sectional view thereof; and Fig. 3 a plan view.

Referring to the various parts by numerals 1 designates the base of the cup which is formed with a wrench portion 2, and the reduced, externally threaded, portion 3 which is adapted to be screwed into a correspondingly threaded aperture in the engine cylinder. The outer end of the base is formed with an upwardly extending, centrally disposed, reduced portion 4; and said base is also formed with a central priming aperture as at 5.

The priming cup proper 6 is preferably formed of a shell or short section of tubing having an inwardly extending annular flange 7 at its lower end, said flange being adapted to rest upon the upper surface of the base and to be rigidly held to the base by the outwardly turned flange 8 on the upper end of the extension 4 of the base. In constructing the device the extension 4 is of the same diameter throughout and is flanged or expanded outwardly to embrace the flange on the lower end of the cup 6. This produces a strong and satisfactory device. The cup 6 is internally threaded and receives a correspondingly threaded closure plug 9. From the center of the under side of this plug extends a needle valve 10, the tapered portion of which is arranged to seat on the upper margin of the aperture 5 and to seal the outlet from the cup into the engine cylinder. The closure plug 9 is of such length that a chamber of the desired capacity will be formed within the cup. Through the closure plug is formed a charging aperture 11 which is enlarged at its upper end to facilitate the entrance therein of the nozzle of a charging can or other vessel, so that the priming charge of gasoline may be poured through the closure plug aperture into the chamber of the priming cup.

Pivotaly mounted upon a central stud 12 formed integral with the closure plug is a slide 13. This slide is formed with a finger piece 14 and is arranged to come to a stop against a stop pin 15, one edge of said slide contacting with the said pin when the slide is in position to open the charging aperture 11, and the other edge of said slide contacting with said pin when the slide is in position to cover the charging aperture. It will, of course, be understood that any suitable means may be employed for closing the charging aperture in the closure plug. The closure plug is formed at its upper end with an outwardly extending annular flange 16 which is milled or otherwise roughened to enable it to be readily grasped and rotated.

The operation of the device is manifest, but may be briefly described as follows: The closure plug may be first turned inwardly by means of the milled flange 16 to seat the needle valve 10 and thereby close the outlet from the priming cup into the cylinder. The slide 13 may then be swung on its pivot

to uncover the charging aperture 11, thereby permitting the priming charge to be poured into the priming cup through said aperture. The slide 13 may then be moved to close the charging aperture, and the closure plug turned outwardly to unseat the valve 10 and permit the charge to enter the cylinder. The valve 10 may then be again seated to prevent the escape of gas from the cylinder.

10 It is manifest that I provide a double sealing means for the priming cup; that is to say the needle valve 10 and the closure slide 13; and that the needle valve will seat directly against the pressure of the gas in the engine cylinder. When said valve is seated no gas can escape from the cylinder. The closure slide 13 also serves as a means for excluding dust and dirt from the priming cup, thereby insuring a clean charge of gasolene for the priming operation.

20 Having now fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A priming cup comprising a base having a longitudinally extending priming aperture, a cup secured to the top of said base, a closure plug for said cup, a valve carried by said plug and adapted to seat on the margin of the priming aperture of the base to close said aperture, a charging aperture in the plug, and means for closing the said charging aperture.

2. A priming cup comprising a base having a longitudinally extending priming aperture, a cup secured to the top of said base, a closure plug for said cup, a valve carried by said plug and adapted to seat on the margin of the priming aperture of the base to close said aperture, a charging aperture in the plug, and means carried by the closure plug for closing the outer end of the charging aperture.

3. A priming cup comprising a base having a longitudinally extending priming aperture, a cup secured to the top of said base, a closure plug for said cup, a valve carried by said plug and adapted to seat on the margin of the priming aperture of the base to close said aperture, a charging aperture in the plug, and a pivoted cover slide carried by the closure plug on the top thereof for closing the outer end of the charging aperture.

4. A priming cup comprising a base formed with a priming aperture and with an extension at its upper end, a cup formed of a cylindrical shell having an inwardly turned annular flange at its lower end, the extension of the base extending into the cup and being enlarged at its upper end to interlock it with the flange on the cup to rigidly

secure said cup to the base, a closure plug threaded in the cup and formed with a needle valve at its inner end adapted to close the outer end of the priming aperture in the base, and with a charging aperture through said plug, and a closure device carried by the plug and adapted to close the outer end of the charging aperture.

5. A priming cup comprising a base formed with a longitudinally extending priming aperture and with a cup at the upper end of the base, a closure plug for said cup, a valve carried by said plug and adapted to close the priming aperture of the base, a charging aperture in the plug, and means for closing said charging aperture.

6. A priming cup comprising a base or body part having a longitudinally extending priming aperture, a cup at the upper end of said body part, a closure plug for said cup carrying a valve adapted to close the priming aperture, said plug being formed with a charging aperture and a cover plate carried by the plug and adapted to close said charging aperture.

7. A priming cup formed with a priming aperture and a chamber to hold the priming fluid, a longitudinally movable closure for said chamber carrying a valve adapted to close the priming aperture, said closure being formed with a charging aperture, and a closure device carried by the plug and adapted to close the said charging aperture.

8. A priming cup comprising a base formed with a priming aperture and with an extension at its upper end, a cup formed of a cylindrical shell having an inwardly turned annular flange at its lower end, the extension of the base extending into the cup and being enlarged at its upper end to interlock it with the flange on the cup to rigidly secure said cup to the base, and a closure plug threaded in the cup and formed with a valve at its inner end adapted to close the outer end of the priming aperture in the base.

9. A priming cup comprising a base or body part having a longitudinally extending priming aperture, a cup at the upper end of said body part, a closure plug for said cup moving longitudinally therein and carrying a valve adapted to seat on the marginal edge of the priming aperture to close said aperture.

In testimony whereof I hereunto affix my signature in the presence of two witnesses this 7th day of January, 1911.

CHARLES W. BECK.

Witnesses:

F. R. MILLER,
A. E. PETERSON.