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H. H. BRIDGE

PRIMING DEVICE

Filed April 4, 1923

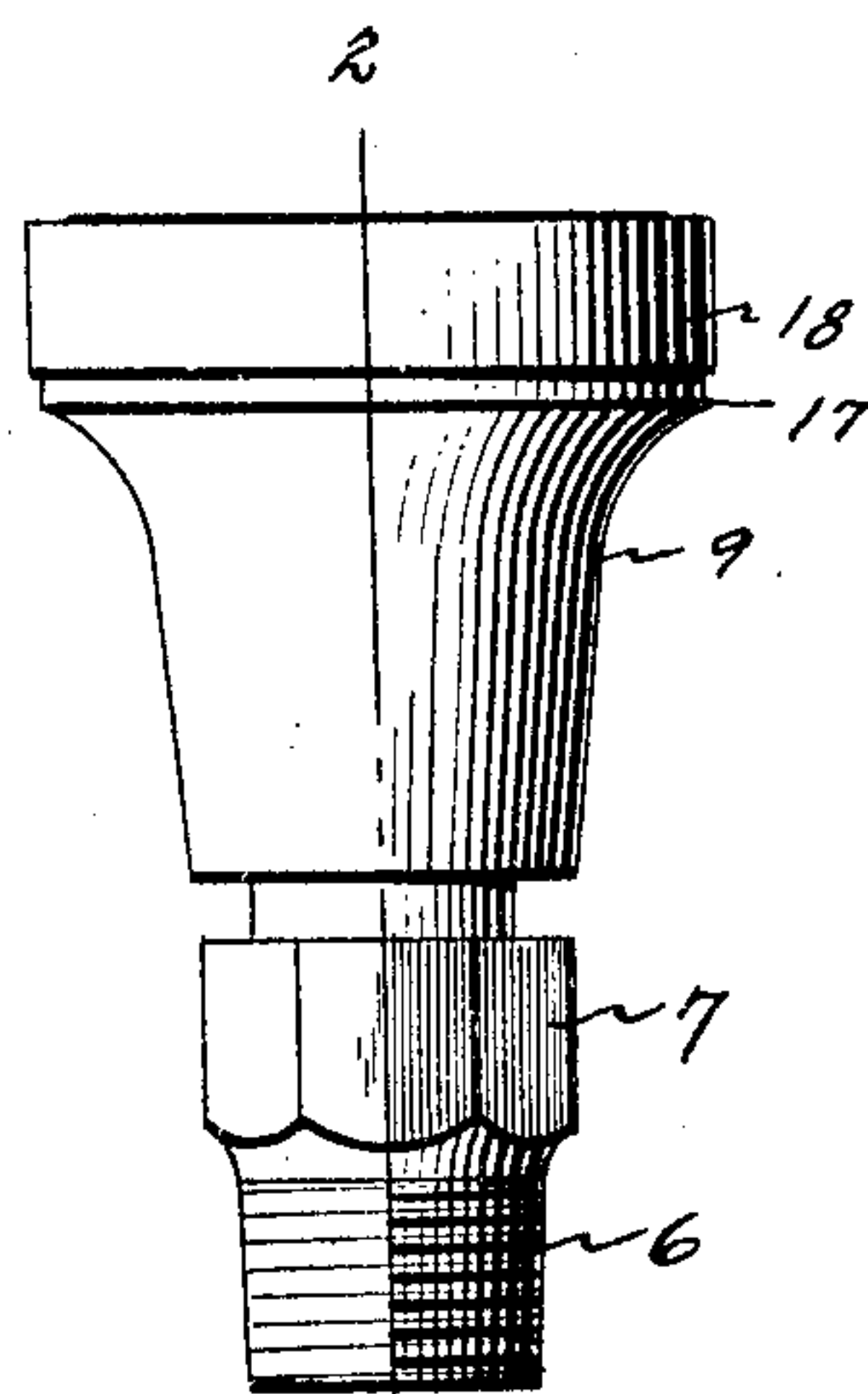


Fig. 1

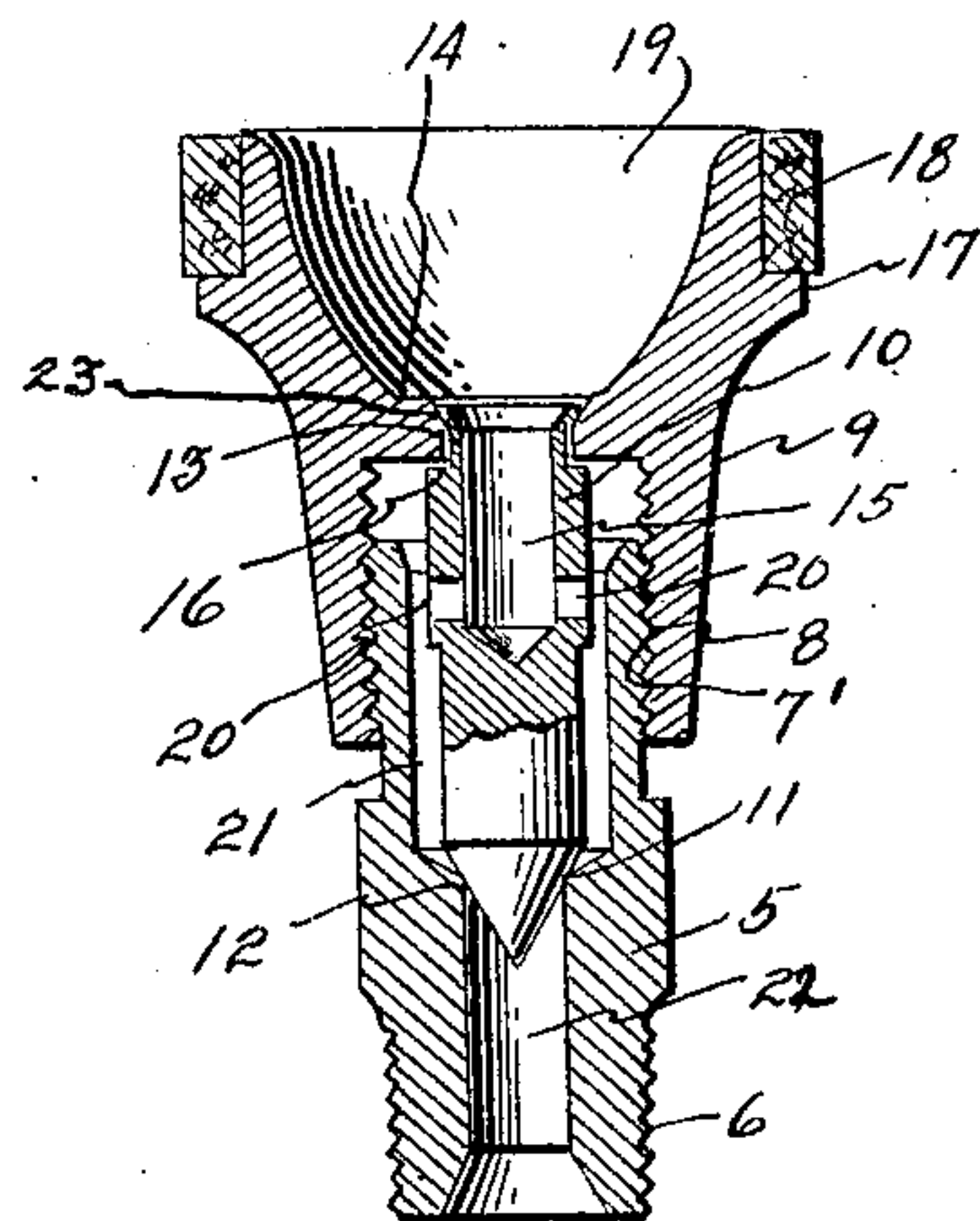


Fig. 2

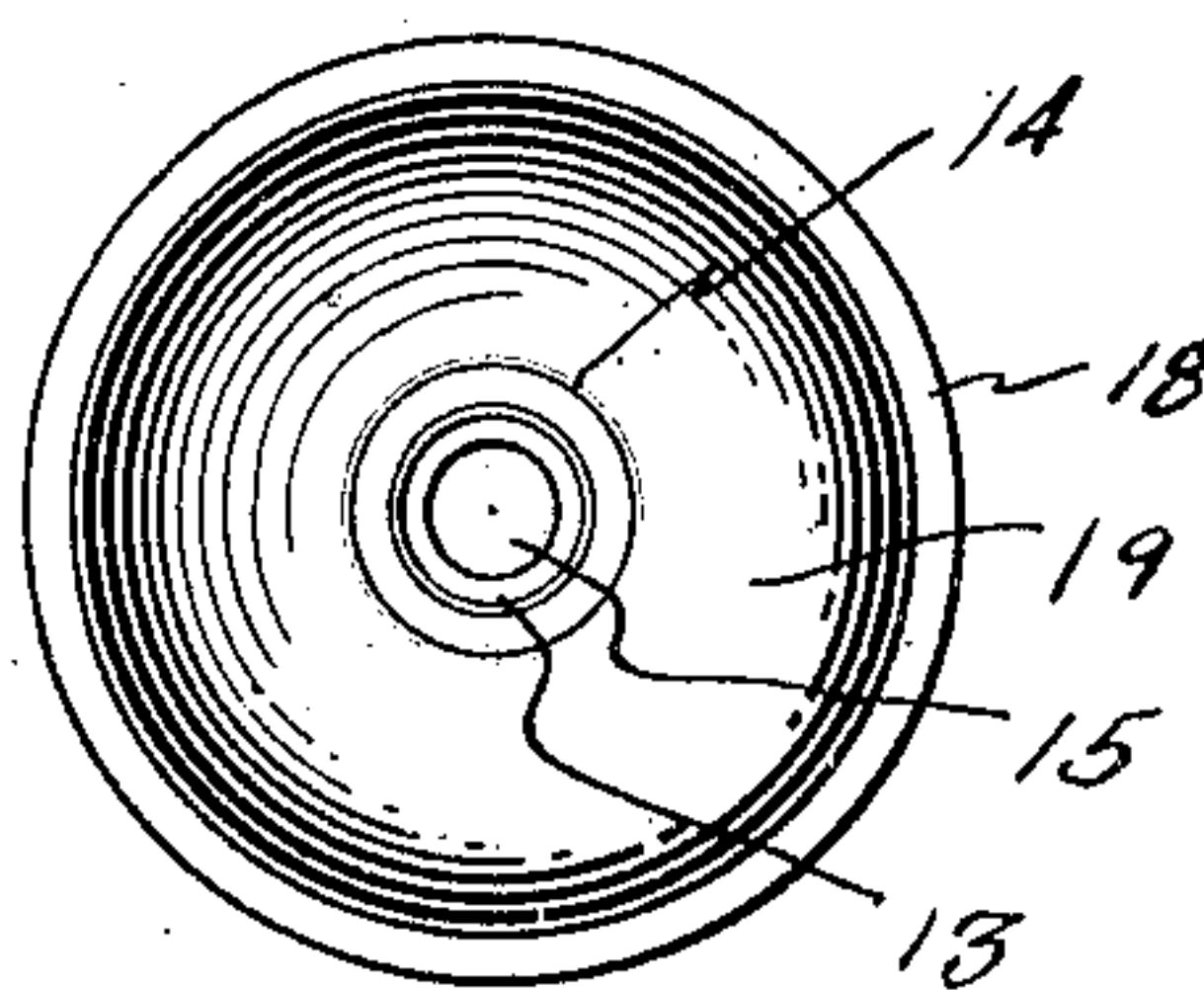


Fig. 3

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PRIMING DEVICE.

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My invention relates to priming devices and more particularly to devices adapted to be screwed into a cylinder head of an automobile whereby gasoline may be fed there-
5 through directly into the cylinders in order to make possible the starting of the motor under adverse conditions.

It is an object of my invention to provide a priming device of the class described hav-
10 ing novel means for mounting the needle valve which opens and closes the primer with the cylinder of the engine.

It is a further object of my invention to provide such a priming device having means
15 thereon whereby the operator may handle the same in ordinary operation without danger of burning his fingers.

A further object of my invention is to provide simple and economical means for flow-
20 ing fuel from the priming cup proper into the receptacle adjacent the needle valve.

With these and other objects in view, my invention consists in the arrangement, combination and construction of the various
25 parts of my improved device as described in my specification, claimed in my claims and shown in the accompanying drawings in which:

Fig. 1 is a side elevation of my improved
30 device.

Fig. 2 is a sectional view taken on line 2-2 of Fig. 1.

Fig. 3 is a top or plan view of my improved device.

35 In the construction of my improved device, I provide a body member 5 having screw threads 6 on the bottom thereof adapted to be screwed into a screw threaded hole in the cylinder head of an internal combustion engine, said body member having
40 a hexagon portion 7 intermediate its ends whereby force may be exerted thereon in order to rigidly secure the body member in the cylinder block.

45 The upper portion of the body member 5 is provided with screw threads 7' adapted to cooperate with screw threads 8 provided on the inner side of a cup 9 so that the said cup 9 may be assembled on the body mem-
50 ber 5.

I further provide a needle valve stem 10 having a tapered end 12 adapted to seat against the opening 11 provided in the body member 5 and secured at its upper end by
55 passing the same through an aperture 13 provided in the web 14 extending across the

cup member 9 and then spinning the top of the needle valve stem 10 (it being noted that an aperture 15 is provided therein) so
60 as to form a tapered shoulder 23 to securely hold the same against downward movement. A shoulder 16 intermediate the ends of the needle valve stem 10 bears against the bottom of the web 14 on the cup member 9.

It will be noted that the needle valve stem
65 10 is thus secured in a manner which will permit a slight movement in all directions so as to permit a self centering action of the tapered portion 11 thereof against the
70 seat 12.

The cup 9 is provided at its upper end with a shoulder 17 and a fibre strip 18 is
75 press fitted around the top thereof and bearing against the shoulder 17. The material at the top of the cup may then be spun so
80 as to slightly embed the same in the fibre 18 or to cause the same to slightly overlie the top inner edge of the fibre 18 and thus secure it in place. In this manner when the operator desires to screw the cup member
85 9 on or off he does so by grasping the fibre ring 18 and thus obviates any possibility of burning his fingers when the motor is hot.

In practical operation, gasoline or other
85 suitable fuel is poured into the bowl 19 of the cup member 9 and flows through the aperture 15 and the cross threaded openings 20 in the needle valve stem 10 into the chamber 21 provided in the body member 5. Then the cup member 9 may be screwed upwardly
90 so as to lift the tapered portion 11 and permit the fuel to flow out through the opening 22 in the body member 5 into the cylinder.

It is obvious that various changes may
95 be made in the construction and operating mechanisms of my improved device without departing from the spirit of my invention and it is my intention to cover by my claims such changes as may be reasonably included
100 within the scope thereof.

What I claim is:

1. A priming device of the class described, comprising a liquid receptacle including a
105 body member and a cup member, said cup member having a stem loosely held therein against displacement, an opening in the top of said stem and an opening in the side thereof communicating with said first open-
110 ing whereby liquid may flow through said top opening and out said side opening, means on the lower end of said stem for closing

the bottom of the body member and means for opening the bottom of said body member to permit the flow of liquid therefrom.

2. A priming device of the class described
5 comprising a liquid receptacle including a body member and a cup member, said cup member having a web extended across its area, a stem loosely held in said web against displacement, an opening in the top of said
10 stem and an opening in the side thereof communicating with said first opening whereby liquid may flow through said top opening and out said side opening, means on the lower end of said stem for closing the bot-
15 tom of said body member and means for opening the bottom of said body member to permit the flow of liquid therefrom.

3. A priming device of the class described, comprising a receptacle including a body
20 member and a cup member, said cup member having a web extended across its area, an opening in said web and a stem extended through said web, said stem having an aperture in its upper end and a shoulder dis-

posed around the bottom of the edges of 25 the opening in said web, the edges of the stem at its upper end being bent over to thus secure said stem in said cup member, and means whereby said stem may control the escape of fluid through the bottom of the 30 cup member.

4. A priming device of the class described, comprising a receptacle including a body member and a cup member, said cup mem- 35 ber having a web extended across its area, an opening in said web and a stem extended through said web, said stem having an aperture in its upper end and a shoulder disposed around the bottom of the edges of 40 the opening in said web, the edges of the stem at its upper end being bent over to thus secure said stem in said cup member, said stem further having a side opening communicating with said aperture in the 45 upper end, and means whereby said stem may control the escape of fluid through the bottom of the cup member.

HERBERT H. BRIDGE.