

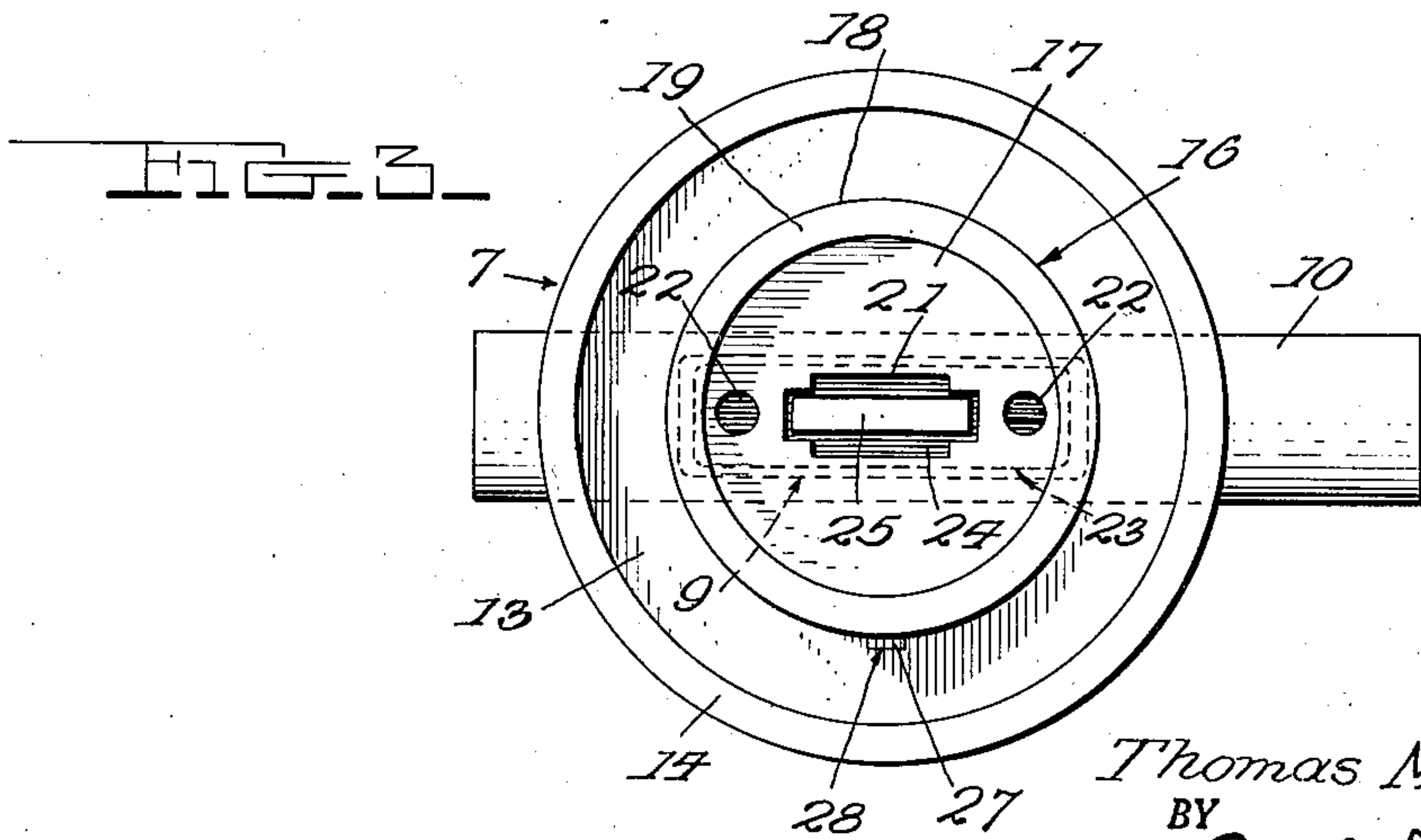
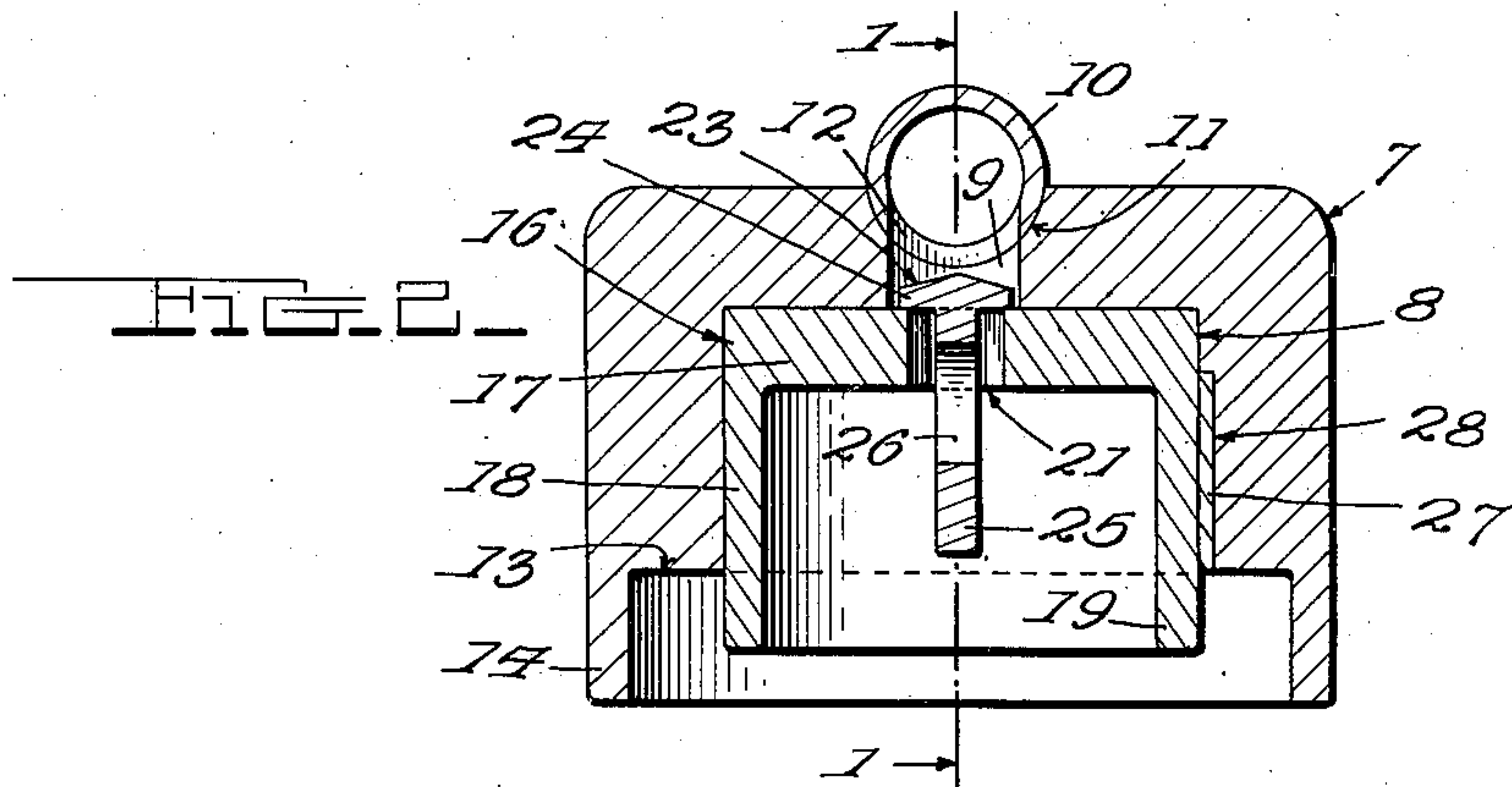
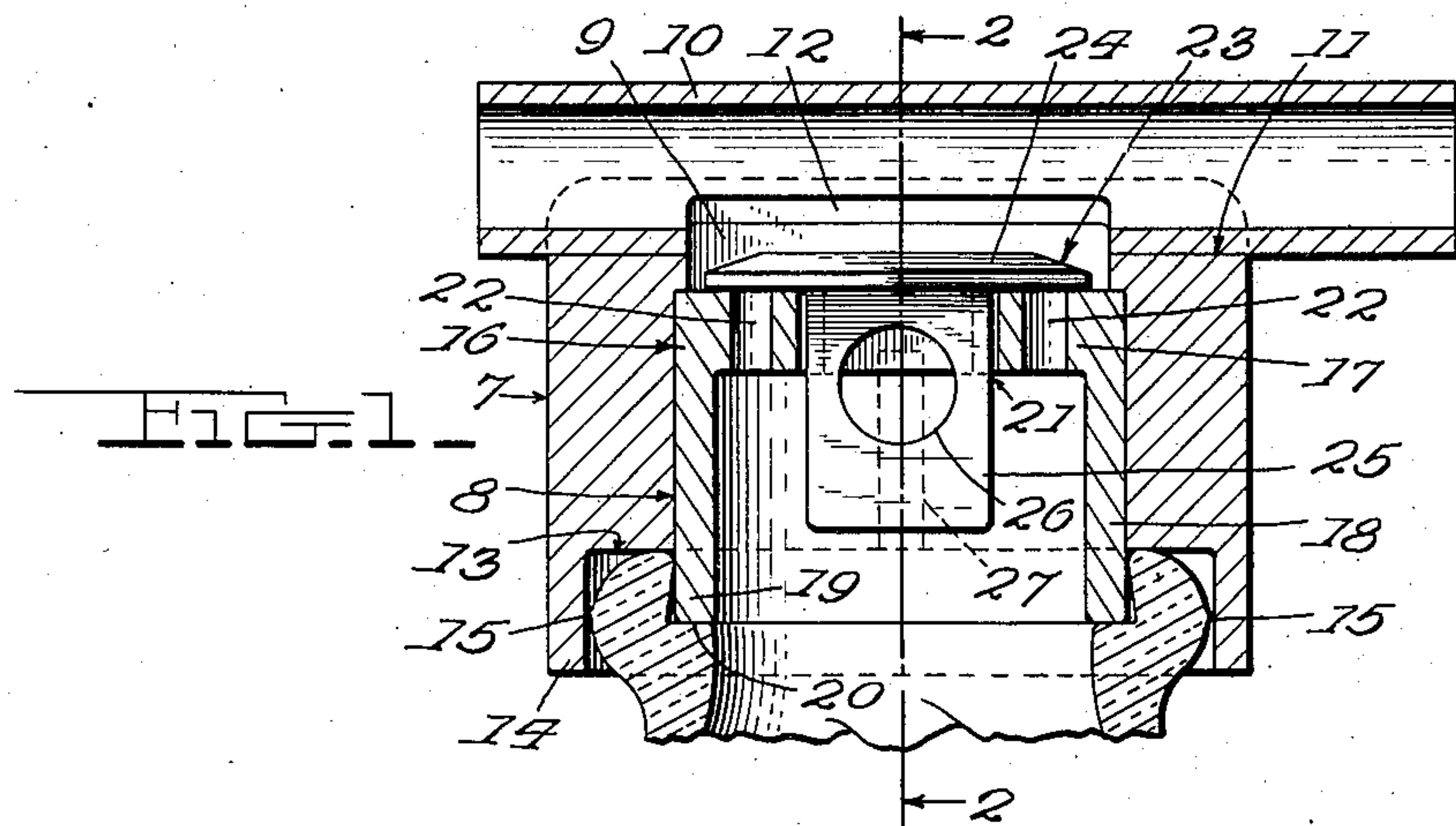
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**2,483,784**

**POURING CAP**

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## UNITED STATES PATENT OFFICE

2,483,784

## POURING CAP

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2 Claims. (Cl. 215-74)

1

The invention aims to provide a novel convenient, advantageous and durable pouring cap for connection with a milk bottle or other container, to seal the container against entrance of air after initial opening, and to permit easy and controlled pouring of liquid from the container when desired.

In carrying out the above end, a further object is to provide a novel construction which may be quickly and easily disassembled for thorough cleaning.

A still further object is to provide a comparatively simple device which may be expeditiously manufactured and profitably sold at a reasonable price.

Figure 1 of the accompanying drawings is a vertical sectional view, partly in elevation, cut substantially on line 1-1 of Fig. 2, illustrating one form of the invention.

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

Fig. 3 is a lower end view of the device shown in Figs. 1 and 2.

Preferences have been disclosed in the drawings and will be rather specifically described, but attention is invited to the possibility of making variations within the scope of the invention as claimed.

In the form of construction shown in Figs. 1, 2 and 3, the numeral 7 denotes a preferably cylindrical body formed from comparatively hard rubber or any other preferred material, such as a modern plastic. This body, in the present disclosure, is formed with a socket 8 which opens through the lower end of said body, and the upper portion 9 of said socket is of reduced slot-like form. This socket portion 9 communicates with the interior of a tube 10 which is unitarily connected with the body 7 and virtually forms a part thereof. The tube 10 is secured in a groove 11 in the major portion of the body and is formed with a slot 12 registering with the upper portion 9 of the socket 8. Either end of the tube 10 may constitute a liquid outlet for discharging the liquid from a container with which the device is connected, and the other end of said tube will then constitute an air inlet for admitting air to the container during the discharge of liquid. It will thus be seen that if the air-admitting end of the tube be closed with the thumb or one finger, the discharge of liquid will be stopped, providing for easy control of liquid discharge.

Around the open lower end of the socket 8, the body 7 is formed with an annular downwardly facing surface 13, and at the outer edge of said surface 13, said body is formed with an integral

2

cylindrical downwardly projecting flange 14. In the present showing, the surface 13 is intended to rest upon the neck of a milk bottle (Fig. 1), and the flange 14 is intended to frictionally grip the outer periphery of the upper portion of said neck. The average milk bottle neck possesses a small peripheral ridge 15 near its upper end, due to the method of molding the bottle, and the flange 14 will so engage this ridge as to securely hold the body 7 upon the bottle.

A downwardly removable insert 16 occupies the major portion of the socket 8 and in the present disclosure comprises a top disk 17 and a cylindrical side wall 18 unitarily connected with said top disk. The lower end 19 of the side wall 18 projects downwardly below the annular surface 13 to provide a second downwardly projecting cylindrical flange at the inner edge of said surface 13. This flange is intended for reception within the upper end of a milk bottle neck and is shaped to fit tightly upon the usual cap seat 20 as shown in Fig. 1.

The disk 17 is formed with a diametrically extending slot 21 and with openings 22 at the ends of said slot, said openings and slot extending from the upper to the lower side of said disk. A gravity-seated valve 23 is normally so positioned as to close the slot 21 and openings 22 as seen in Fig. 1, but when the bottle and the attachment are properly tilted, said valve 23 will unseat. Then, air enters the container through one end of the tube 10, one of the openings 22 and the space surrounded by the side wall 18, and liquid from the container discharges through this space, the other of the openings 22, and the other end of the tube 10. The valve 23 comprises an elongated head 24 in the socket portion 9 which constitutes the valve chamber, and a downwardly projecting stem 25 integral with said head 24, said stem being slidably and non-rotatably received in the slot 21. If desired, this stem may have an opening 26 but this is not essential. The flat-sided stem 25 and the slot 21 coact in preventing turning of the valve 23 with respect to the insert 16, and this insert is held against turning within the body 7, by means of a vertical rib or key 27 secured to the wall 18 and slidable in a groove 28 in the body. The entire insert 16 is preferably held in place by friction and may thus be readily removed to permit removal of the valve 23 and access to all parts for thorough cleaning.

From the foregoing taken in connection with the accompanying drawings, it will be seen that novel and advantageous provision has been disclosed for carrying out the desired ends, and while



3

preferences have been illustrated, attention is again invited to the possibility of making variations within the scope of the invention as claimed. All parts are preferably formed from comparatively hard rubber or other suitable plastic, but any suitable material or materials may be used.

I claim:

1. A pouring cap for milk bottles having an internal closure supporting shoulder, said cap comprising a body having a closed upper end and a recess extending upwardly from its lower end, said recess having a lower portion of a diameter to fit tightly on the mouth of a milk bottle, a median portion of substantially the same diameter as the outer diameter of the said closure supporting shoulder, said recess further having an upper valve receiving portion of less area than the median portion, a transverse tube communicating with the last mentioned portion of the recess and having one end constituting an air inlet and the other end constituting a fluid outlet, a valve seat slidably supported in the median portion of the recess and a gravity activated valve in said valve receiving portion of the recess.

2. A pouring cap for milk bottles having an internal closure supporting shoulder, said cap comprising a body having a closed upper end and a recess extending upwardly from its lower end, said recess having a lower portion of a diameter to fit tightly on the mouth of a milk bottle, a median portion of substantially the same diameter as the outer diameter of the said closure sup-

4

porting shoulder, said recess further having an upper valve receiving portion of less area than the median portion, a transverse tube communicating with the last mentioned portion of the recess and having one end constituting an air inlet and the other end constituting a fluid outlet, a valve seat slidably supported in the median portion of the recess and a gravity activated valve in said valve receiving portion of the recess, said tube being longitudinally slotted on its under side to communicate with the valve receiving portion of the recess, said valve being of elongated form and shaped to open into the slot in said tube and seat on said valve seat, and means to hold said elongated valve in alinement with said tube.

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#### REFERENCES CITED

The following references are of record in the file of this patent:

#### UNITED STATES PATENTS

Number	Name	Date
341,660	Kerr	May 11, 1886
350,353	Deverall	Oct. 5, 1886
1,181,602	Luckenbill	May 2, 1916
1,488,969	Babinet	Apr. 1, 1924
2,017,036	Brady	Oct. 15, 1935
2,080,215	Patterson	May 11, 1937
2,081,833	Nuss	May 25, 1937
2,351,138	Lueck	June 13, 1944