Dec. 2, 1930. W. F. BENSON 1,783,772

DESK SET

Filed June 13, 1928

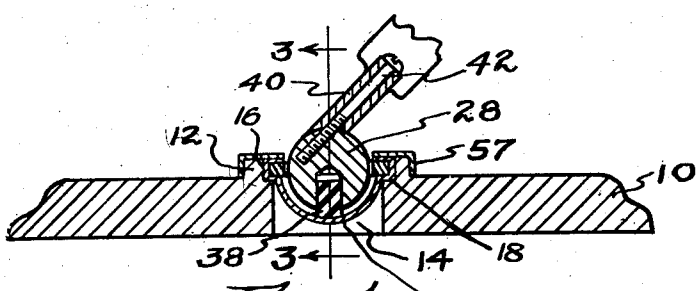


Fig. 1

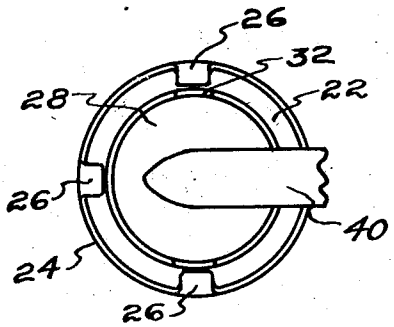


Fig. 2

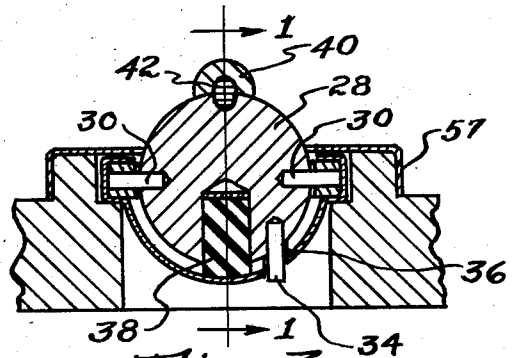


Fig. 3

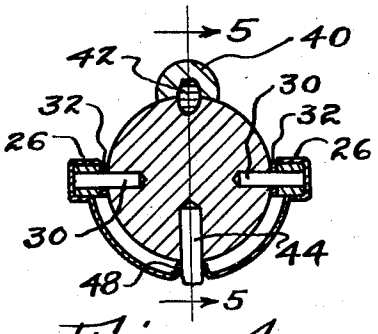


Fig. 4

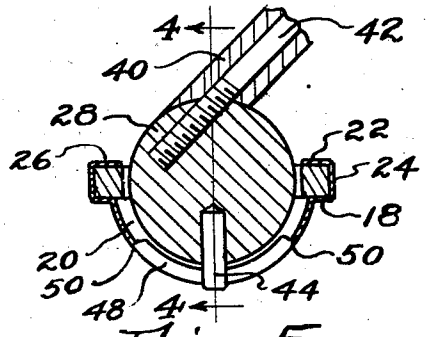


Fig. 5

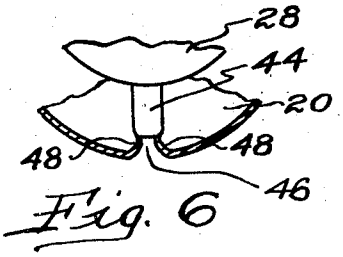


Fig. 6

INVENTOR.

Walter F. Benson

Patented Dec. 2, 1930 1,783,772

UNITED STATES PATENT OFFICE

WALTER F. BENSON, OF ST. PAUL, MINNESOTA

DESK SET

Application filed June 13, 1928. Serial No. 285,160½.

The invention relates, generally, to improvement in desk sets, and the invention has reference, more particularly, for a desk set of the type used to hold fountain pens. The invention is an improvement of a device of the same general purpose shown in the United States applications filed by me December 23, 1927, Serial No. 242,035, and May 31, 1928, Serial No. 281,939.

The invention has for its principal object, to provide a desk set having frictional means to retain the pen holding tube in any position, and allow for a full universal movement of the pen holding tube.

It is a further object of this invention to provide a desk set, having frictional means that will hold the pen retaining tube upright, and that will not interfere with a free radial movement of said retaining tube.

It is another object of this invention to provide a desk set that may be cheaply constructed from material readily obtainable.

It is also an object of this invention to provide a tube holding support that will allow a full universal movement of a pen holder.

Other objects of this invention, not at this time particularly enumerated, will be clearly understood from the following detailed description of the same.

With the various objects of this invention in view the same consists, primarily in the novel desk set for holding fountain pens hereinafter set forth, and the invention consists, furthermore, in the novel arrangements and combinations of the various devices and parts, as well as in the details of the construction thereof, all of which will be hereinafter more fully described in the following specifications, and then finally embodied in the claims appended thereto.

The invention is clearly illustrated in the accompanying drawing, in which:—

Fig. 1, is a sectional view of the desk set on line 1—1—Fig. 3.

Fig. 2, is a plan view of the ball and cup assembly.

Fig. 3, is a sectional view on line 3—3—Fig. 1.

Fig. 4, is a sectional view taken on line 4—4—Fig. 5.

Fig. 5, is a sectional view taken on line 5—5—Fig. 4.

Fig. 6, is a view of the stop pin and cup before assembling.

As shown in the drawings, I provide a suitable base 10, having a diametrical extension 12 on its upper side, a hole 14 passing through the extension 12 and the base 10. The upper inner edge of the diametrical extension 12 is rabbeted to provide an annular groove 16, for the shoulder 18 of the cup 20. The ring 22 is pressed into the enlarged portion 24, of the cup 20, and is held in place by the lugs 26. The ball 28 is hingedly connected to the ring 22, by the pivot pins 30—30, and these form an axis for the ball to turn on. A washer 32 is placed on the pin 30 on opposite sides of the ball to prevent the ball from touching the inside wall of the ring. The ball 28 is also provided with a stop pin 34 extending downward from the ball through a groove 36 of the cup 20, the ends of said groove acting as limits for the movement of the pin 34. The ball is held in position by a resilient plug 38, entering the ball radially and extending outward therefrom to engage the inner wall of the cup 20. The pen holding member 40 is secured to the ball 28 by a screw 42, said screw having threaded means for engaging said ball.

In the form shown in Figs. 4, 5 and 6, the ball 28 is provided with a stop pin 44, to slide in the slot 46 of the cup 20. The sides 48—48 of the slot 46 are formed to give a frictional resistance against the movement of the pin 44, in the groove 46. The sides 48—48 of the groove are formed as shown in Fig. 6. In assembling the groove 46 is sprung open and the pin 44 forced into the groove. The ends 50—50, of the groove 46, act to limit the movement of the stop pin 44, and thereby limiting the movement of the pen holding member 40.

New and novel improvements are made in the method of holding the ball in operative position and limiting the movement thereof.

Novel means are also provided to prevent

the ball from being scratched while turning in the socket, the washers placed on the pivot pins preventing the ball from touching the socket while swinging. This also prevents the gold from wearing off the ball.

It will, of course, be understood that various changes may be made in the form, details, proportions and arrangements of the parts, without departing from the scope of my invention, which generally stated, consists of a device capable of carrying out the objects above set forth, such as shown, described and defined in the appending claims.

I claim—

1. A desk set including a base having a hollow part formed with an interior annular groove, a cup disposed in said hollow part and having an annular shoulder seated in said groove so as to be rotatable therein, said cup having an elongated slot in its bottom and having an annular seat adjacent its top, a ring in said seat, a ball in the ring, diametrically opposed pins carried by the ring and extending into the ball to pivotally support same, a stop pin carried by the ball and engaged in said slot of the cup and with the end walls defining the slot to limit pivotal movement of the ball, and a pen holder carried by the ball.

2. A desk set including a base having a hollow part formed with an interior annular groove, a cup disposed in said hollow part and having an annular shoulder seated in said groove so as to be rotatable therein, said cup having an elongated slot in its bottom and having an annular seat adjacent its top, a ring in said seat, a ball in the ring, means to pivotally connect the ball to the ring, means carried by the ball and engaged in said slot to limit pivotal movement of the ball, and a pen holder carried by the ball.

3. A desk set including a base having a hollow part, a cup in the hollow part having a slot in its bottom, a ball in the cup, means to pivotally connect the ball to the cup, a stop pin carried by the ball and disposed in the slot and being engageable with the end walls defining the slot so as to limit pivotal movement of the ball, and a pen holder carried by the ball.

4. A desk set including a base having a hollow part, a cup in the hollow part, means to rotatably mount the cup, a ball in the cup, means to pivotally connect the ball to the cup, a pen holder carried by the ball, said cup having a slotted bottom, and a pin carried by the ball and having frictional engagement with the side walls defining the slot so as to hold the ball against movement except by the expenditure of force applied thereto.

In testimony whereof, I affix my signature.

WALTER F. BENSON.