Dec. 27, 1932. I. D. TEFFT 1,892,181

DESK SET STRUCTURE

Filed Feb. 1, 1932

Fig. 1.

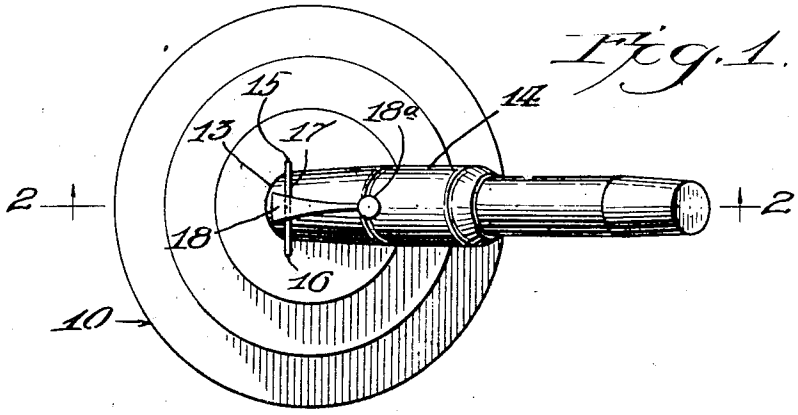


Fig. 2.

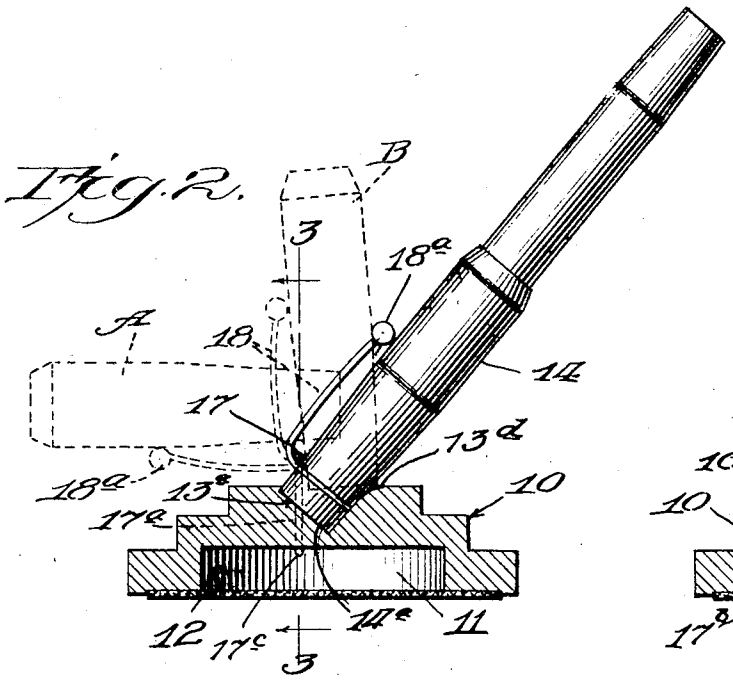


Fig. 3.

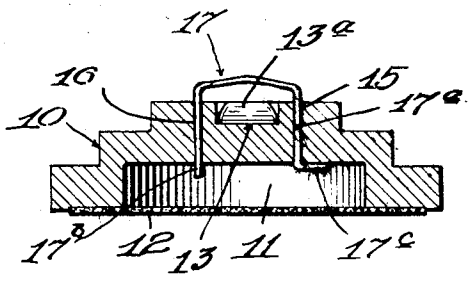
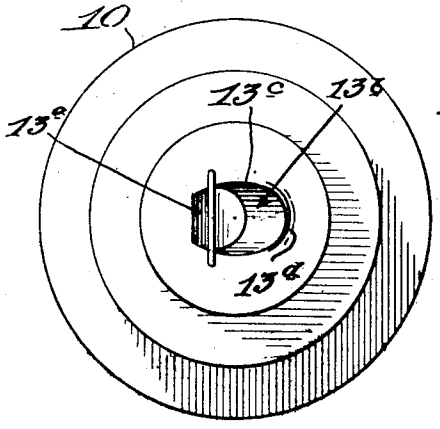


Fig. 4.



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UNITED STATES PATENT OFFICE

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DESK SET STRUCTURE

Application filed February 1, 1932. Serial No. 590,177.

My invention relates to desk sets of that character including a base adapted to rest flat-wise upon a desk, or a like surface, for supporting a writing instrument (such as a fountain pen or pencil) in position for ready use, and it has to do more particularly with novel base structure therefor.

The primary object of my invention is to provide a simple and inexpensive structure of the foregoing character adapted for ready and quick conversion of an ordinary pocket-type fountain pen unit into a desk set unit and vice versa, wherefor a single fountain pen unit may efficiently serve for both pocket and desk set purposes.

A further object is to provide a base structure to which the ordinary cap of a fountain pen may be releasably attached for supporting the fountain pen in an upright condition for desk set use, which cap serves the purpose of the bowl or receptacle usually employed in devices of this character.

Additional objects are to provide a so-called bowl-less or receptacle-less desk set; to provide support means cooperative with the cap-carried clip of the fountain pen for supporting the cap in position to receive and hold the fountain pen in upright condition with its writing point downward; to provide an arrangement of the foregoing character which does not require the manipulation of any fastening means to secure the parts in operative position or to disassemble the same; and to provide a structure embodying but few parts which may be inexpensively manufactured and assembled.

Other objects and advantages will become apparent as this description progresses and by reference to the drawing wherein,—

Figure 1 is a top plan view of an assembled desk set structure embodying my invention;

Fig. 2 is a section, partially in elevation, through the structure shown in Fig. 1, and illustrating different approximate positions which the pen cap may assume in applying the same to the base structure;

Fig. 3 is a section taken substantially at right angles to Fig. 2, the pen and cap assembly being omitted; and

Fig. 4 is a plan view of the structure shown in Fig. 3.

It will be understood that while my invention is adapted particularly to fountain pen desk set structure, the assembled unit may also well serve the purpose of supporting a pencil or other writing instrument.

Referring particularly to the form of structure shown in the drawing, it comprises a one-piece, circular base 10 which may be die-cast or formed in any other suitable manner from an inexpensive material. The base shown in the drawing is of a plural diameter character but it is obvious that this shape is dependent merely upon choice and the base may take any desired shape inclusive of the features hereinafter pointed out. For sake of lightness in weight, the base may be cored out, providing a bottom opening 11, which opening is covered by a piece of felt, or other suitable material, 12, which is adapted to prevent marring of the surface upon which the base may rest.

In desk set structures it is customary to include a receiving-receptacle which is attached to the base for receiving and supporting the writing instrument. According to my invention this receptacle is eliminated and the ordinary detachable cap of the fountain pen is employed for this purpose. This feature involves a problem of attaching and supporting the cap upon the base and I accomplish this cooperatively with the cap-carried clip of the fountain pen as follows: The fountain pen illustrated is of a Parker type and the top face of the base 10 is provided with a socket or pocket 13 of general V-shape having a wall contour approximating the contour of the closed end of the fountain pen cap 14. More particularly, the V-shaped seat is provided with a flat-surface, part-circular bottom 13^a disposed at an angle with respect to the axis of the base against which the flat end 14^a of the pen cap is adapted to seat; and the side wall surface 13^b thereof is of semi-annular form bulging slightly at 13^c so as to receive and uniformly fit to the end portion of the cap 14 adjacent its flat end 14^a. The seat surface 13^d extends away from the surface 13^a at approximately right angles so that with the end 14^a of the cap resting

against the surface 13ª the cap is supported approximately in the position shown in Figures 1 and 2. It will be understood, however, that the angular relationship of the seat surfaces 13ª and 13ᵇ, as well as the relative shapes of these surfaces, may be varied to suit the particular requirements of the user in the use of his fountain pen with the base 10. For example, the end portions of various caps may vary in shape and the shape of the seat surfaces may be accordingly varied without departing from my invention.

To secure the cap 14 upon the base 10, I preferably employ the following:

The base, on opposite sides of the seat 13, is provided with openings 15 and 16, both of which extend from the top face of the base into the bottom opening 11. These openings 15 and 16, for use with the cap shown in the drawing, are located, preferably, at the approximate position indicated in Figs. 3 and 4 to one side of the apex of the V-shaped socket 13, wherefore in the use of the structure now to be described, the cap 14 is held firmly under tension in the position shown in Fig. 2, and without looseness in the assembly employed. This securement of the cap is accomplished by the use of an inverted U-shaped spring member 17, the legs 17ª and 17ᵇ of which, respectively, are mounted in the base openings 15 and 16. Both of these legs, preferably, extend through the base into the bottom opening 11 and the end of the leg 17ª is turned over against the top wall of the opening 11, preventing withdrawal of the spring 17. The spring leg 17ª is, preferably, secured (in any desired manner) against downward movement in its opening 15. This securement may be effected by interlocking the turned over end 17ᶜ of this leg with the base in some suitable manner, or some suitable adhesive material or the like may be applied to the spring leg 17ª in its application to the base to effect this result, or this spring leg may be soldered in place. The other spring leg 17ᵇ is free in its opening 16 to move up and down. The base of the spring 17 bridges the socket 13 to one side of the apex of the latter and it tapers inwardly from its legs, providing a depressed or bowed central portion adapted to receive and hold the fountain pen cap-clip 18 in a centered position and against lateral displacement. The base of this base portion is such as to guide the pen cap into and hold it in substantially the position shown in Figs. 1 and 2.

In the use of the base structure, the owner of the ordinary pocket fountain pen removes the cap 14 of the same and turns it to substantially the dotted line position indicated at A in Fig. 2. The cap is then moved in such a way as to pass the base of the spring member 17 between the end 18ª of the clip and the side wall of the cap to substantially the position A shown in Fig. 2 wherein the closed end of the clip and the spring 17 are in abutting relation. In this position the spring 17 and clip serve as a bearing unit about which the cap 14 is rotated toward the full line position of Fig. 2. In this rotation the cap and base assume an intermediate position indicated by the dotted line position B of Fig. 2 wherein the end edge 14ª of the cap opposite the clip-spring bearing engages the top of the base approximately at the outer edge 13ᵈ of the semi-annular seat surface 13ᵇ. Upon further rotary movement of the cap from the position B of Fig. 2, the clip-spring side of the cap is slightly raised due to the leverage action of the parts, raising the spring 17 and placing it under tension. This action permits the end edge 14ª of the cap, which was originally seated at 13ᵈ to slip into the socket 13 and ride inwardly along the inclined wall 13ᵇ thereof until the flat end of the cap rests against the flat seat 13ª. It will be noted that during the foregoing movement the spring 17 is first raised and then lowered, wherefore the spring 17 constitutes a reciprocable axis upon which the cap rotates. It will be further noted that the axis of rotation of these parts is normally farther away from the end edge 14ª of the cap than from any part of the surface of socket 13. It will, therefore, be seen that during the cap movement, and while the cap is in its mounted position, the spring 17 is under tension and the relative centers and positions of the parts above described are such that the cap will be held in this position until pressure is applied to move the cap in the opposite direction and toward the position A of Fig. 2. It will also be appreciated that the relationship just described may be varied to suit conditions of use as, for example, where the position of the clip with respect to the closed end of the cap varies,—all of which may be done without departing from my invention.

In the foregoing the objects and advantages of my invention hereinabove more particularly stated will be obvious; and it is to be understood that while I have shown only one form of structure embodying my invention, other changes in details and arrangements of parts may be made without departing from the scope and spirit of my invention as defined by the claims which follow.

I claim:

1. In structure of the class described, a base having a seat-pocket in its top surface, and a spring member supported by said base and extending across said pocket, said spring member being capable of yielding movement toward and from said pocket.

2. In structure of the class described, a base having a V-shaped socket in its top surface, and a spring member yieldable toward and from said socket supported by said base and bridging said socket.

3. In structure of the class described, a base

having an open top socket in its top surface, a spring member supported by said base and bridging said socket above the latter, said member having its mid-portion bowed at approximately the central portion of said socket.

4. In structure of the class described, a base having a socket in its top surface, an inverted U-shaped spring member having one of its legs secured in said base and its other leg freely movable in said base with the U-base of said member bridging said socket.

5. In structure of the class described, a base having a V-shaped socket in its top surface, a spring member carried by said base and extending across said socket above said base at a point to one side of the apex of said socket.

6. In structure of the class described, a base having a socket with a flat surface extending inwardly from the top of the base at an angle and another annular surface extending from the bottom of said flat surface outwardly to the top of said base at approximately right angles to said flat surface, and spring means carried by said base and bridging said socket.

7. Desk set structure comprising a base having a socket in its top, a spring member carried by said base and bridging said socket, a cap member having a closed end and an open end adapted to receive the writing point of a writing instrument, and means carried by the closed end of said cap member and engageable with said spring member for interlocking said cap with said spring member and for holding the closed end of said cap seated in said socket.

8. Desk set structure comprising a base having an open top socket in its upper face, a spring member supported by said base and bridging said socket, a cap member having a closed end adapted to be seated in said socket, and an open end adapted to receive the writing point of the writing instrument, and a clip member carried by said cap and releasably engageable with said spring member for securing said cap in said socket.

9. Desk set structure comprising a base having an open top socket in its upper face, a spring member supported by said base adjacent said socket, a cap member having a closed end adapted to be seated in said socket, and an open end adapted to receive the writing point of the writing instrument, said socket being shaped similarly to the closed end of said cap and having its longitudinal median line projected at an angle to the vertical, and a clip member carried by the closed end portion of said cap and releasably engageable with said spring member without manipulation of additional fastening means for securing said cap in said socket.

10. Desk set structure comprising a base having a socket in its upper face, a cap member having a closed end adapted to be seated in said socket and an open end adapted to receive the writing point of the writing instrument, and interconnecting means between said cap and base by which said cap is releasably secured in said socket by merely engaging said means and rotating said cap upon said base.

11. Desk set structure comprising a base having a socket in its upper face, a cap member having a closed end adapted to be seated in said socket and an open end adapted to receive the writing point of the writing instrument, a spring axis member mounted on said base over said socket, and means carried by said cap releasably engageable with said spring axis member for rotation of said cap above said base to secure said cap in said socket.

12. Desk set structure comprising a base having a socket in its upper face, a cap member having a closed end adapted to be seated in said socket and an open end adapted to receive the writing point of the writing instrument, a spring axis member mounted on said base near said socket, and a clip member rotatably and releasably engageable with said spring axis member for rotation of said receptacle about said spring axis member to releasably secure and hold said receptacle in place.

13. Desk set structure comprising a base having a socket in its upper surface, a cap member, and means for releasably mounting said cap member in said socket which includes a spring member carried by said base and bridging said socket, and a member carried at one side by the socket-received end of said cap member and rotatably engageable with said spring member, the distance between the point of engagement of said spring member with said cap-carried member and any part of said socket being less than the distance between the point of engagement of said spring member with said cap carried member and the end edge of said cap diametrically-opposed to said cap carried member.

14. Desk set structure comprising a base having a socket in its upper surface, a cap member, and means for releasably mounting said cap member in said socket which includes a spring member carried by said base and bridging said socket, and a member carried at one side by the socket-received end of said cap member and rotatably engageable with said spring member, the axis of rotation of the rotatable parts being farther away from the end edge of said cap diametrically opposed to said cap carried member than from any part of the surface of said socket.

15. In structure of the class described, the combination with a pen cap having a securement clip attached to the closed end portion thereof, of means releasably supporting said cap for support of the writing instrument for

desk set use comprising a base having a socket in its upper face adapted to receive the closed end of said cap, and a spring member carried by said base and bridging said socket and over which said clip may be passed to confine said spring member between said cap and clip, securement of said cap being effected by rotating said cap about said base with said spring member serving as the axis of rotation.

16. In structure of the class described, the combination with a pen cap having a securement clip attached to the closed end portion thereof, of means releasably supporting said cap for support of the writing instrument for desk set use comprising a base having a socket in its upper face adapted to receive the closed end of said cap, said socket having a shape similar to that of the received-end of said cap with its longitudinal median line extending at an angle to the vertical, and a spring member supported by said base and adapted to be rotatably engaged with said clip adjacent the attached end of the latter.

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