July 8, 1924. 1,500,426

S. H. TOWNSEND

COMBINATION PENCIL CASE AND STYLUS

Filed Aug. 14, 1923

Fig. 1.

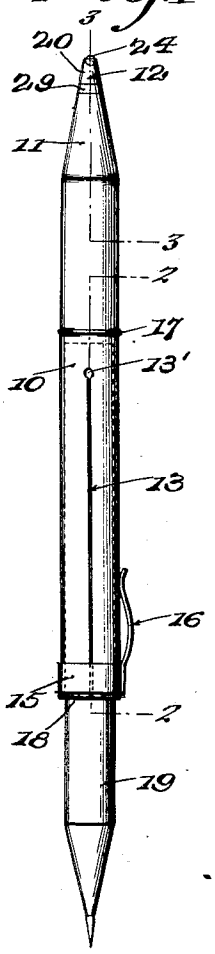


Fig. 2.

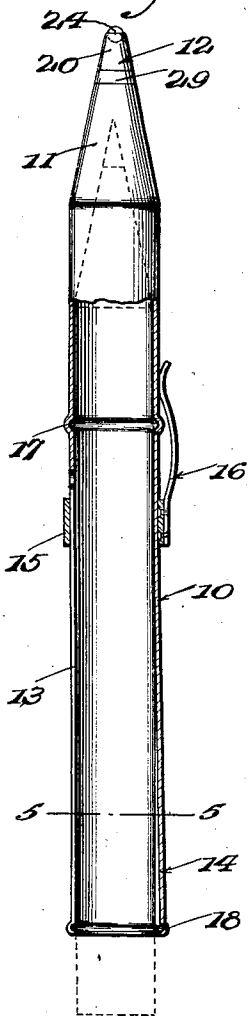


Fig. 3.

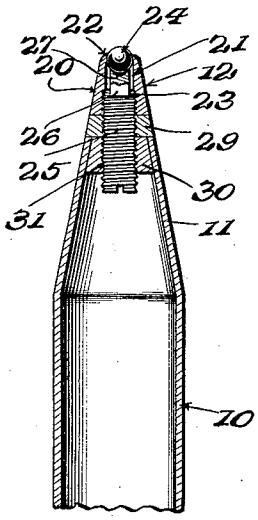


Fig. 4.

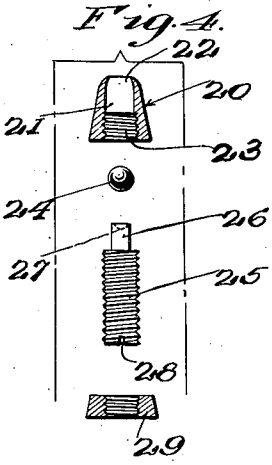
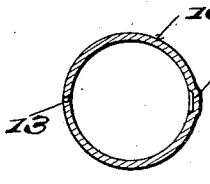


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

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COMBINATION PENCIL CASE AND STYLUS.

Application filed August 14, 1923. Serial No. 657,396.

To all whom it may concern:

Be it known that I, SEWELL HOMER TOWNSEND, a citizen of the United States, and a resident of Bucklin, in the county of Linn and State of Missouri, have invented certain new and useful Improvements in Combination Pencil Cases and Styli, of which the following is a specification.

This invention relates to a combination pencil case and stylus.

The object of the invention is to provide a device of this character having embedded therein a stylus effective to make a clear and sharp impression while susceptible of smooth manipulation or operation and also having a pencil mounted therein and adapted to be selectively disposed in operative or inoperative position and to be releasably though securely held in either position.

Other objects and advantages of the invention reside in certain novel featurs of the construction, combination and arrangement of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawings forming part of this specification, and in which:

Figure 1 is a view in elevation, showing the preferred embodiment of the invention and illustrating the pencil positioned for use;

Figure 2 is a view partly in elevation and partly in section on line 2—2 of Figure 1, the pencil being shown in dotted lines and in inoperative position;

Figure 3 is a fragmentary view in section on line 3—3 of Figure 1;

Figure 4 is a group view, partly in section and partly in elevation, showing parts of the tip prior to assembly; and

Figure 5 is a view in section on line 5—5 of Figure 2.

Referring to the drawings wherein for the sake of illustration is shown the preferred embodiment of the invention the numeral 10 designates a barrel which preferably comprises a cylinder of resilient metal, one end of which is tapered, as at 11. The tapered end 11 of the pencil carries a ball bearing stylus, designated at 12 as will be hereinafter more fully described. The opposite end of the barrel is open, as clearly shown in Figure 2. The barrel 10 is provided with a slot 13 which extends longitudinally thereof from a point intermediate the ends of the barrel to and through the open end of the barrel and the inner end of the slot communicates with an opening 13′ which is slightly larger than the slot. Adjacent the open end of the barrel and opposite the slot 13 the barrel is provided with a ridge 14 which gradually inclines away from the longitudinal axis of the barrel as it approaches the open end of the barrel. A band or ring 15 is slidably mounted on the outer periphery of the barrel and has suitably secured thereto a clasp 16. The band 15 is prevented from falling or sliding off the barrel by means of annular ribs or ridges 17 and 18 which are rolled or otherwise formed in the metal of the barrel, after the band 15 has been placed thereon.

A pencil, designated at 19, is provided and is mounted within the barrel 10. As shown in full lines in Figure 1 the pencil may be disposed with its point extending from the barrel or as indicated in dotted lines in Figure 2, it may be positioned with its point located within the barrel. The pencil is securely held in either position by the coaction of the clamping band 15 and the ridge 16 of the barrel 10 for as the band 15 is slid toward the open end of the barrel 10 it rides up on the ridge 14 and compresses the barrel into engagement with the pencil, the inner periphery of the surface of the barrel frictionally engaging the pencil at such time in either position of the same. When it is desired to change the position of the pencil the band 15 is slid in position as shown in Figure 2, at which time it is disengaged from the ridge 14 so as to permit the resilient barrel to expand and move out of frictional engagement with the pencil. When the band 15 is engaged with the ridge it not only serves to hold the pencil in position but is itself held in position and as shown in Figure 1 it engages the annular rib 18. At such time it affords a firm support for the clasp 16 which is engageable with the pocket to hold the device therein when the same is not in use.

The ball bearing stylus 12 is made up of a tip 20 having an opening 21 extending lengthwise thereof and through the outer as well as its inner end. The outer end of the tip around the opening 21 is swaged inwardly or otherwise formed to provide a ball receiving socket 22 and the wall of the opening 21 adjacent the inner end of the tip is internally threaded, as indicated at

23. A ball 24 is mounted in the socket 22 provided therefor in the tip and has a small portion thereof projecting beyond the tip. As shown in Figure 3 the opening 21 is larger than the ball so as to permit of ready assembly of the same with the tip. An externally threaded stem 25 is provided and in the assembly one end thereof has threaded engagement with the internal threads 23 of the tip 20. The end of the stem 25 engages with the tip 20 is formed with a reduced extension 26 and the outer end of the extension 26 is cupped or concaved, as at 27, to provide a bearing or surface engageable with a portion of the ball. The contour or formation of the concavity 27 is such that it provides a space or recess between a part of its wall and the ball adapted to receive graphite or other lubricant. It is obvious also that graphite may be provided in the space between the outer periphery of the reduced extension 26 and the inner wall or opening 21 if found desirable. The end of the stem 25 opposite the reduced extension 26 is formed with a diametrically extending slot 28 adapted to receive a screw driver or other tool to facilitate turning of the stem. In assembling the parts of the tip the ball 24 is first placed in the tip so as to rest on the socket 22 and while so positioned the stem 25 is threaded into the tip until the bearing 27 of its reduced extension 26 comes into engagement with the ball to position the same properly in its socket 22 and to hold the same snugly and firmly in place. Of course the parts are so adjusted that the ball is not bound or held tightly but is merely maintained properly in position on its seat or socket. This adjustment is preserved by threading on the stem 25 a lock washer 29, the lock washer having threaded engagement with the stem and also engaging the inner end wall of the tip. With the parts thus assembled a considerable portion of the stem 25 projects beyond the lock washer and this portion is utilized to connect or lock the tip on the barrel. In order to carry out this latter purpose a plug 30 is fitted and secured in the end of the reduced portion 11 of the barrel and the plug 30 is provided with an axial and internally threaded opening 31 with which the stem 25 h threaded engagement, as shown in Figure The stylus thus provided has a wide rang of uses although it is especially adapted along with the pencil and other structure of the invention for the use of telegraph-telephone operators since it enables ready and easy copying of train orders which as well known must be copied in duplicate or triplicate. With this stylus a clear and sharp impression may be made upon the original as well as upon the carbons with an easy, smooth and gliding movement and at the same time the pencil is always at hand and available whenever it may be needed.

I claim:

1. In a device of the character described, a barrel having a plug at one end provided with an internally threaded opening, a tip having a socket at its outer end and internally threaded at its inner end, an externally threaded stem having threaded engagement with the internal threads of the tip and of the plug, and a lock washer threaded on the stem between the tip and the barrel.

2. In a device of the character described, a barrel having a plug at one end provided with an internally threaded opening, a tip having a socket at its outer end and internally threaded at its inner end, an externally threaded stem having threaded engagement with the internal threads of the tip and of the plug, to connect the tip to the barrel and also serving to hold the ball in position in the socket.

3. In a device of the character described, a tip having at one end a ball receiving socket provided with an opening, a ball arranged in the socket and having a portion projecting through and beyond said opening, said tip being internally threaded at the end thereof opposite said socket, an externally threaded stem engaged with the internally threaded portion of the tip and having a reduced extension provided with a concaved outer end engaging the ball to maintain the same in proper position in its socket, and a lock washer threaded on the stem and engageable with the tip.

SEWELL HOMER TOWNSEND.