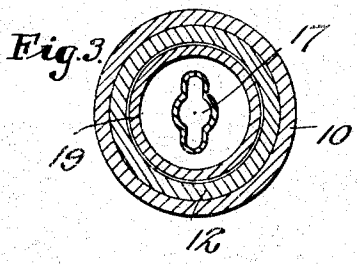
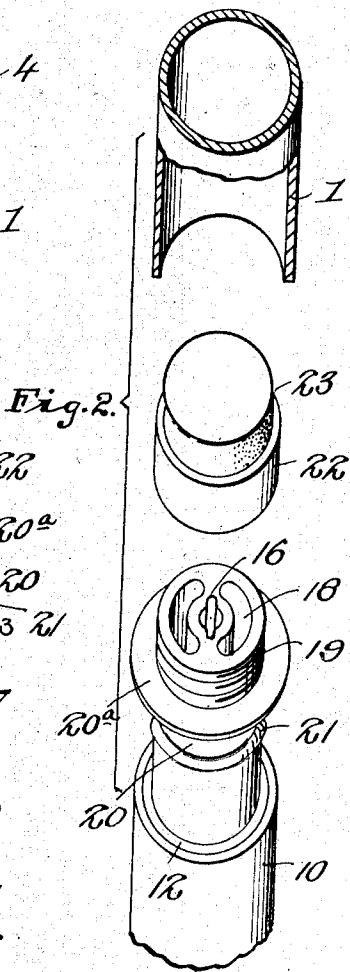
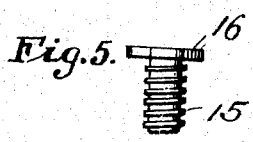
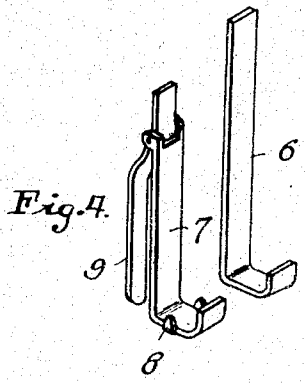
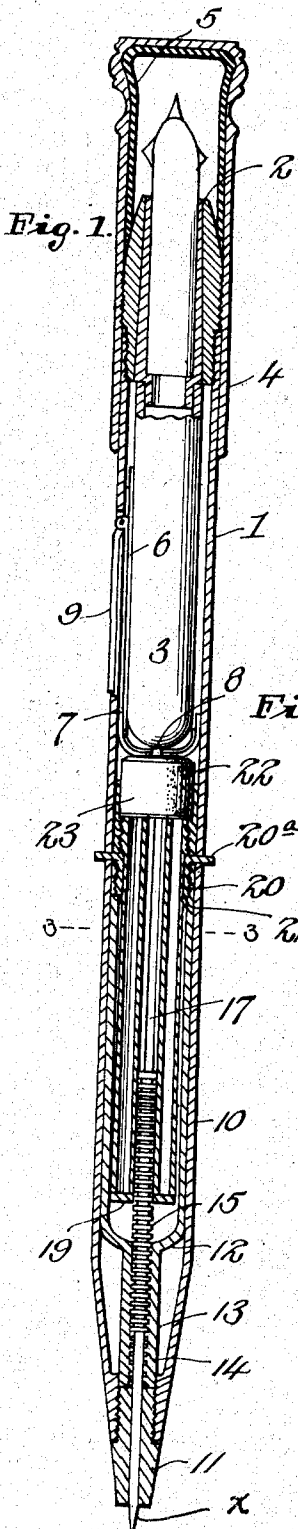


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C. S. NUDELMAN
COMBINATION WRITING IMPLEMENT
Filed May 14, 1923

1,526,365



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UNITED STATES PATENT OFFICE.

CHARLES S. NUDELMAN, OF CHICAGO, ILLINOIS.

COMBINATION WRITING IMPLEMENT.

Application filed May 14, 1923. Serial No. 638,788.

To all whom it may concern:

Be it known that I, CHARLES S. NUDELMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Combination Writing Implements, of which the following is a specification.

My invention has reference, in its broad aspect, to improvements in the construction of pens and pencils, and in the manner of associating the two together with a supplementary device such as an eraser, to provide a unitary, compact and effective pocket and desk accessory, and more particularly it is my purpose to devise a novel and improved automatic pencil, and to so modify the body thereof and its eraser appendage, that the same may be utilized as a detachable, unitary part of the modified barrel of an improved fountain pen.

Heretofore devices of this general character have been too intricate and fragile, or too radically changed from the conventional and accepted form of writing implement to fill a practical and useful purpose. My device, on the other hand, is simply and durably constructed and embodies all of the advantages attributed to its separate elements, while attaining additional advantages by their association together in a single and practical implement. Furthermore, while the various elements of my invention are designed primarily to be used in conjunction with each other, they may be detached from one another and used separately, or if one element becomes broken or deranged the remaining elements will not thereby be impaired. It is also my purpose to so form the various elements, that some complement others, thereby attaining with a relatively few number of parts many additional advantages.

Other, and equally important objects of my invention, though more briefly stated are; first, to provide an improved automatic pencil having means adapted to carry extra leads located in the body thereof, and wherein means are provided for facilitating the removal or replacement of any of its separate parts; second, to provide an improved cap for the pencil and lead container which is adapted to carry an eraser, or the like, and which serves also as a connecting unit between the pencil and the pen;

third, to provide a novel barrel for my fountain pen which is formed to embrace the cap portion of the pencil to provide a unitary and practical implement, and; fourth, to provide a novel spring member and guard for pumping writing fluid into the reservoir of the fountain pen, which spring member is reinforced by pressure normally exerted thereupon by the cap of the pencil.

The structural elements employed to accomplish the above and other results and objects will be hereinafter more fully described in detail and specifically pointed out in the claims appended hereunto and forming a part of this specification, but the scope of the invention may only be determined by the limits defined in the claims.

In the accompanying drawings, wherein is illustrated the preferred embodiment of my invention;—

Figure 1, is a longitudinal sectional view of the assembly of my device which shows to advantage the construction and relative disposition of its various elements and the separate parts thereof,

Figure 2, is an isometric projection of several of the parts of my device showing them detached from each other and in enlarged detail,

Figure 3, is a section taken on the line 3—3 of Figure 1,

Figure 4, is a perspective view of the spring member used to pump ink into the reservoir of my fountain pen, and

Figure 5, is an enlarged detail view of the head of my improved screw threaded lead follower for the pencil.

In the drawings wherein like characters of reference designate like or similar parts throughout the several views;—

The cylindrical barrel (1) of the fountain pen element of my device is formed with open ends, and what will be termed the forward end, is provided with internal screw threads for positively engaging corresponding screw threads on the head (2) of the fountain pen. Connected with the head (2) and extending within the barrel (1) is a resilient pouch (3) which serves as a reservoir for writing fluid and is preferably formed of rubber. A cap (4) is provided for enclosing the head of the pen when it is not in use, and all of the parts of the pen may be lined with an inherently non-corrosive material, such as hard-rubber, an

illustration of which is afforded by the partial lining (5) of the cap. It will be understood that the major portions of my entire device are designed to be formed of metal.

5 Mounted within the barrel (1) of the pen is a substantially hook shaped spring member (6) which is adapted to lie against the side and extend around the free end of the pouch (3) forming the ink reservoir. Embracing

10 the spring (6) and similarly shaped is a guard (7) which is provided with ears (8) for preventing lateral displacement of the spring. Pivotaly connected to the forward end of the guard is an operating lever (9)

15 which is arranged to force the spring against the ink pouch (3) to collapse the same, and the partial vacuum so created serves to draw ink within the pouch when the supply has been depleted.

20 The barrel (10) of the automatic pencil element of my device carries a removable tip (11) which is provided with a bore through which the lead (X) extends, and arranged within the barrel in frictional

25 engagement with its walls is a cylindrical member (12). The member (12) is formed with a relatively long terminal reduced portion (13) which is seated upon the base of the tip (11) in a recess provided in the inner walls of the barrel, and has formed

30 therein a screw threaded bore (14) within which the lead (X) extends. Operable within the bore (14) is a screw threaded lead follower (15) which is provided with

35 a head formed with opposed lugs (16) which engage within opposed grooves in the passage (17) formed in the lead chambers (18) of the cylindrical lead container (19). The container (19) is connected with the

40 member (12) by means of a collar (20) which is rotatably mounted upon the container (19) but positively engaged with the casing (12). Slidable movement of the collar (20) on the container is prevented by a

45 bead (21) and the portion of the container above the collar is exteriorly screw threaded to receive a cap (22) carrying an eraser, or the like, (23). The collar (20) is formed with an annular flange (20^a) which extends

50 outwardly from the barrel (10) to afford a finger grip wherewith to unscrew the collar to readily detach and remove the separate parts.

55 The cap (22) carrying the eraser, or the like (23) serves to retain extra leads in the lead chamber (18), and the free open end of the barrel (1) of the pen element is designed for frictional engagement with the cap to form a unitary and conventionally

60 formed pocket or desk accessory. The pen element may be removed from the pencil element by pulling the two apart, in which case the eraser may be used, the extra leads removed, or if desired, the elements may be

65 utilized separately. The eraser portion nor-

mally extends a sufficient distance within the barrel (1) to form a support for the spring (6), as shown in Figure 1; and to feed lead from the pencil, the pen element is rotated which rotates the container (19) through the medium of the cap (22), thereby translating such rotational movement into longitudinal movement of the lead follower (15).

75 While the operation of my invention is thought to be evident from the foregoing description, it is here pointed out that the various elements are so constructed and arranged with respect to each other that one element is normally operated through the medium of another, although each may be utilized to perform independently the functions attributed to it. Consequently, not only has a reduction in the number of parts of the device been attained, but those parts used are simple and effective, and all may be removed and cleaned or replaced with facility. Furthermore each part of my device has been designed to serve several functions, as for instance, the barrel of the pen as a means for rotating the lead follower of the pencil; the cap of the pencil as an eraser casing and a cover for the lead chamber, as well as a connecting member between the pencil and the pen, and; the container forming the lead chamber as an element in the operative process of feeding the lead from the pencil.

Having described my invention and its objects with such attention to detail as will thoroughly acquaint one skilled in the art with its construction and advantages, I claim—

1. An article of manufacture for use in the making of a combined pen, pencil, lead container and eraser holder, comprising relatively rotatable sections forming a barrel, a hollow supporting member carried in one of the sections and formed with a reduced end provided with a bore, a hollow, rotatable element arranged in the supporting member, a feed member mounted for sliding movement only in the rotatable member and extending within the bore of the supporting member, a collar carried by the supporting member and engaging the rotatable element, and a cap for the rotatable element adapted for engagement with the remaining section of the barrel whereby to hold said sections together.

2. An article of manufacture for use in the making of a combined pen, pencil, lead container and eraser holder, comprising relatively rotatable sections forming a barrel, a hollow, frictionally retained, supporting member carried in one of the sections and formed with a reduced end provided with a screw threaded bore, a hollow, rotatable element arranged in the supporting member, a screw threaded feed member mount-

ed for sliding movement only in the rotatable member and engaging the screw threads in the bore of the supporting member, a collar carried by the supporting member and engaging the rotatable element, and a cap for the rotatable element adapted for frictional engagement with the remaining section of the barrel whereby to hold said sections together.

3. An article of manufacture for use in the making of a combined pen, pencil, lead container and eraser holder, comprising relatively rotatable sections forming a barrel, a supporting member carried in one of the sections, a rotatable element arranged in the supporting member, a feed member slidably mounted in the rotatable element and rotatably mounted in the supporting member, and a cap for the rotatable element adapted for frictional engagement with the remaining section of the barrel whereby to

hold said sections together.

4. An article of manufacture for use in the making of a combined pen, pencil, lead container and eraser holder, comprising relatively rotatable sections forming a barrel, a frictionally retained supporting member carried in one of the sections and formed with a reduced end provided with a central bore, a hollow rotatable element arranged in the supporting member, a feed member mounted for sliding movement only in the rotatable member and extending through the bore of the supporting member, and a cap for the rotatable element adapted for frictional engagement with the remaining section of the barrel whereby to hold said sections together.

In testimony whereof I affix my signature hereto.

CHARLES S. NUDELMAN.