

No. 860.962.

PATENTED JULY 23, 1907.

G. W. BUTTERWORTH.

PEN.

APPLICATION FILED JULY 25, 1906.

Fig. 1.

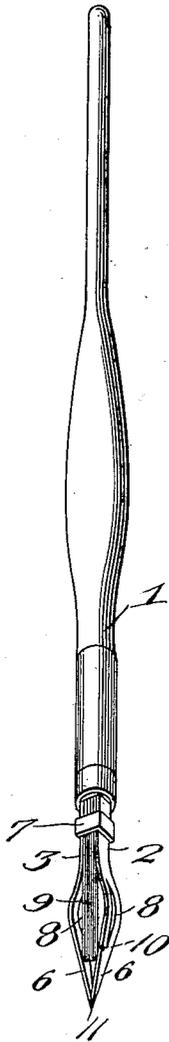


Fig. 2.

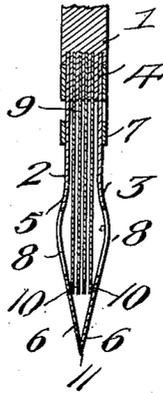
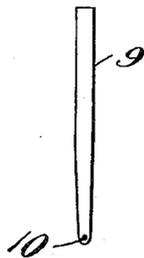


Fig. 3.



Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

CAREY W. BUTTERWORTH, OF MILFORD, VIRGINIA, ASSIGNOR OF ONE-HALF TO LAWRENCE E. MARTIN, OF BOWLING GREEN, VIRGINIA.

PEN.

No. 860,962.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CAREY W. BUTTERWORTH, a citizen of the United States, residing at Milford, in the county of Caroline and State of Virginia, have invented new and useful Improvements in Pens, of which the following is a specification.

The invention relates to an improvement in pens of the reservoir type, constructed so as to be capable of use for writing or drafting purposes.

10 The main object of the present invention is the provision of a pen of simple construction and adjustable to vary the size of the written line, a reservoir of peculiar type being formed to receive a supply of ink for feeding to the pen point.

15 The invention will be described in the following specification, reference being had particularly to the accompanying drawings, in which:—

Figure 1 is a perspective view of a pen constructed in accordance with my invention, Fig. 2 is a vertical central section through the pen and a portion of the stock, Fig. 3 is a side elevation of one of the pen bows, Fig. 4 is an elevation of one of the reservoir strips.

Referring to the drawing my improved pen comprises a stock 1 which may be of any desired size, shape or material, as the detailed construction thereof forms no particular part of the present invention. The pen proper comprises duplicate bows 2 and 3, each constructed of a single length of spring material having a reduced shank 4, and a relatively wider blade portion 5, the latter projecting from the shank in alinement therewith for a short distance and then being bent into V form beyond the plane of said shank, the leg of the V forming the terminal of the pen, as 6, being of greater length than the remaining leg, so that its free end terminates some distance inward beyond the plane of the shank. The leg 6 of the blade is of gradually reduced width longitudinally, so that its free end provides practically a point. The bows are secured to the stock in spaced relation, by inserting the shanks thereof in suitably formed recesses in the stock end, the relative positions of the bows being such that under normal conditions the free ends thereof are maintained in spaced relation. A collar 7 encircles the bows intermediate their connection with the pen stock and the V formation in the blades.

45 The collar is mounted for movement longitudinally of said portion of the bows, so that the free ends thereof may be brought into contact or held in desired spaced relation, as is obvious in pens of this construction. Each of the bows is formed with a longitudinally arranged opening 8, disposed wholly in the V formed section thereof, and preferably of a length to include a section of each of the legs of the V. The space included between the V bends of the bows is adapted to form a reservoir, and in this reservoir I arrange a series of strips

9 which are of elongated form and fixedly secured at 55 their upper ends in the pen stock between the bow shanks. The strips, of which there may be any desired number, are arranged in parallel spaced relation, and are of such length that their lower free ends terminate about midway between the free ends of the bows and 60 the apex of their V bends. The strips are ordinarily arranged in comparatively close relation, and are each formed at their free ends with an opening 10, as clearly shown in Fig. 4.

In use the reservoir of the pen is filled or practically 65 filled by dipping the pen in the ordinary manner, the spaces between the respective strips also receiving a supply of ink which is normally held therein by the well known law of capillary attraction, the opening 10 providing for a free circulation of the fluid between the 70 strips when dipping the pen. The writing point 11, formed, of course, by the free ends of the bows is adjusted to the size of line desired by moving the collar 7 to space said bow ends the desired distance apart. The openings 8 in the bows provide for admitting the fluid 75 to the reservoir in the initial dipping and also in directing any fluid, which may have accumulated on the outer side of the bows, into the reservoir. The strips 9 serve to provide for the reception and retention of an additional supply of fluid beyond what would be ordinarily retained in the reservoir proper, the outer strips 80 or those next the bows serving further to direct the fluid within the reservoir onto the contiguous surfaces of the bows.

The pen is equally serviceable for writing or drafting, 85 as the thickness of the lines may be adjusted as desired, while the flexibility of the bows provides for such shading as may be necessary in usual writing. The pen is further useful for manifolding as the direct bearing of its point insures a degree of pressure which will result 90 in a clear copy by the use of the ordinary carbon for manifolding paper.

The bows and strips may be constructed of any desired material, though it is preferred, of course, that they be made of any of the well known materials which 95 will not corrode in the use intended. By the use of the strips 9 a dipping of the pen in the ink reservoir to a very slight extent will be found sufficient for practically filling the reservoir owing to the capillary action of the strips. 100

Having thus described the invention what is claimed as new, is:—

1. A pen comprising bowed members with their bowed portions arranged in spaced relation oppositely extended to include a reservoir therebetween, and a series of independent strips projecting in spaced parallel relation within the reservoir. 105

2. A pen comprising duplicate bowed members maintained in spaced relation with their free ends arranged for

- contact to provide a writing point, the bowed portions of said members being oppositely disposed to provide a reservoir, and a series of independent strips maintained in spaced relation within the reservoir.
- 5 3. A pen comprising a pen stock, a nib secured thereto, said nib comprising duplicate bowed members secured to the stock and projecting therefrom in spaced parallel relation, the bowed portion of the members being oppositely disposed to provide a reservoir therebetween, a collar embracing said members and movable with relation thereto, said collar serving to increase or decrease the distance between the members, and a series of independent strips secured in the pen stock between the members and projecting in spaced parallel relation within the reservoir.
- 10 4. A pen comprising a pen stock, a nib secured thereto, said nib comprising duplicate bowed members secured to
- 15

the stock and projecting therefrom in spaced relation, the bowed portions of said members being oppositely disposed to provide a reservoir therebetween, a collar embracing said members and movable with relation thereto, said collar serving to increase or decrease the distance between the members, and a series of strips secured to the stock and projecting within the reservoir, said strips being maintained in spaced parallel relation and each formed with an opening at the end within the reservoir.

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In testimony whereof, I affix my signature in presence of two witnesses.

CAREY W. BUTTERWORTH.

Witnesses:

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RICHARD G. MONCURE.