2 Sheets—Sheet 1.

F. SOENNECKEN.

Multiple-Pen.

No. 209,722. Patented Nov. 5, 1878.

Fig. 1

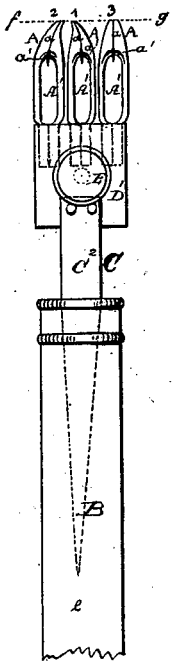


Fig. 2

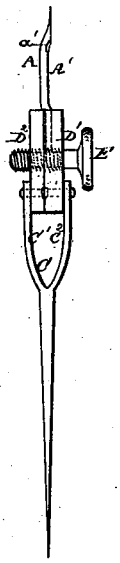


Fig. 3

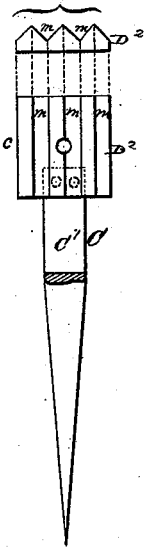


Fig. 5

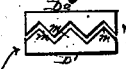


Fig. 4

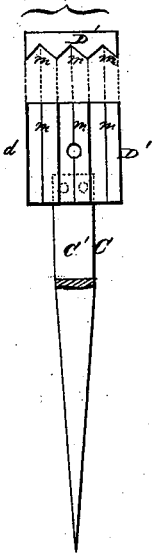


Fig. 17.

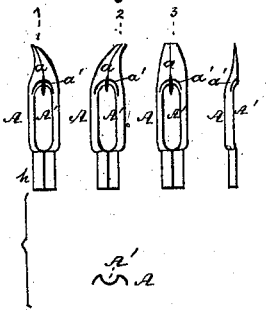


Fig. 20.

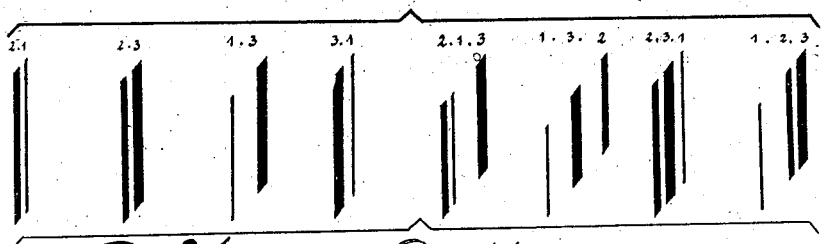


Fig. 21.

WITNESSES:

W. C. Brookes

Chas C. Stetson

INVENTOR:

F. Soennecken

by his attorney T. D. Stetson

New York

F. SOENNECKEN.

Multiple-Pen.

No. 209,722. Patented Nov. 5, 1878.

Fig. 6.

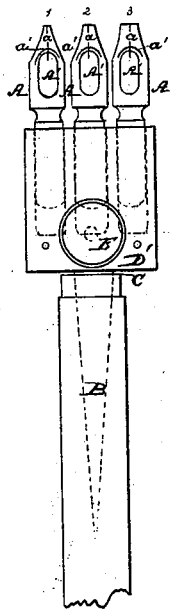


Fig. 7.

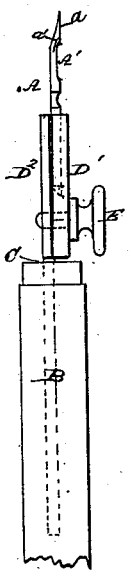


Fig. 8.

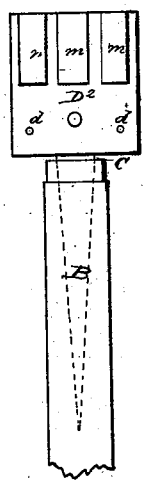


Fig. 9.

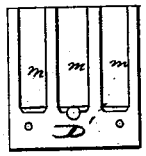


Fig. 10.

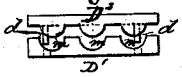


Fig. 18.

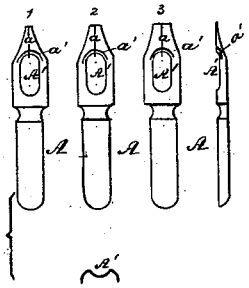


Fig. 19.

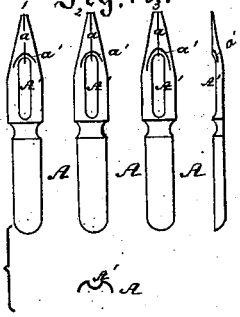


Fig. 11.

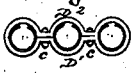


Fig. 14.

Fig. 12.

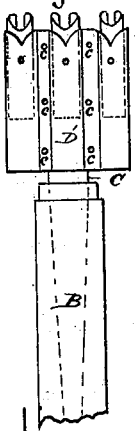


Fig. 13.

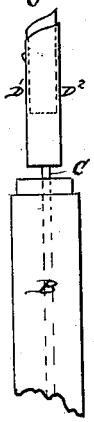


Fig. 15

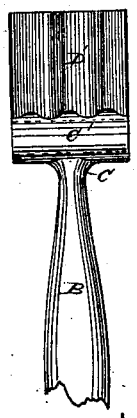
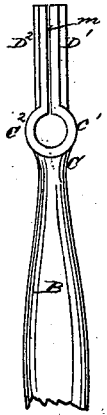


Fig. 16.



WITNESSES:

W. C. Brookes

Chas. C. Stetson

INVENTOR:

F. Soennecken

by his attorney F. C. Stetson

New York

UNITED STATES PATENT OFFICE.

FREDERICK SOENNECKEN, OF BONN-ON-THE-RHINE, PRUSSIA, GERMANY.

IMPROVEMENT IN MULTIPLE PENS.

Specification forming part of Letters Patent No. **209,722**, dated November 5, 1878; application filed June 5, 1878.

To all whom it may concern:

Be it known that I, FREDERICK SOENNECKEN, of Bonn, in Rhenish Prussia, Germany, have invented certain new and useful Improvements relating to Writing-Instruments, of which the following is a specification:

My improvements are intended for use mainly in connection with certain improvements which I have devised in the style of writing known as "round writing;" but they may be used also for other purposes. I do not confine the invention to any particular use.

The improvements relate both to the pens and to the holding means by which they are manipulated. The pens and their holding means may be varied in form and within a wide range of sizes; but they possess certain important features which must be present to attain success.

The holders are adapted to carry two or more pens at once, holding them side by side under such conditions that each shall make its proper line. Both or all may be replenished by dipping in the ordinary manner. One dip suffices to fill both or all the pens.

In the back of each pen is a considerable depression or dish, which is adapted to receive and retain a quantity of ink. The split in the pen extends up from the point into this reservoir of ink. Furthermore, it spreads or branches in or at the edge of such reservoir, with the effect to more uniformly and reliably receive and conduct down the ink.

I have devised a holder having two jaws, which press respectively on the front and back faces of the several pens. Each is formed with seats adapted to firmly hold the several pens in their separate and proper positions.

In the most complete form of the device I provide a screw or analogous means for opening and closing the jaws in the holder. The jaws may be operated by spring force without such screw, but not as well.

The accompanying drawings form a part of this specification, and represent what I consider the best means of carrying out the invention.

Figure 1 is a top view, and Fig. 2 a side view, showing my pens held in my holding device for use. Figs. 3, 4, and 5 represent the jaws detached. Fig. 3 represents the lower jaw; Fig. 4, the upper jaw; and Fig. 5 is an end view of both applied together. Figs. 6 to 10, inclusive, represent similar views of a modification. Figs. 11 to 13 and 14 to 16 show still two other modifications. Fig. 17 shows a set of crooked pens adapted to make lines of different widths. Fig. 18 represents a set of straight pens adapted to make lines of different widths. Fig. 19 represents still further modifications.

In each of these series, 17, 18, and 19, there are presented a view of the top, or, as I term it, "the back" of the set of pens, while on the right is a side view of one of the pens, and below this a cross-section through the pen in the middle of the ink-cavity. The remaining figures are illustrative diagrams which need but little description. They show the effect of various numbers and characters of my pens associated together in different ways in the holder.

Similar letters of reference indicate corresponding parts in all the figures.

The apparatus represented is adapted to carry three pens. Each of the several pens is marked A. They may vary in form, and particularly in the width of the points. My pens are particularly well adapted to write with wide points, and each of such form is so moderately elastic that the line is but little, if at all, heavier with the downstroke than with the upstroke. In the back of each pen is a considerable cavity, A′, with a corresponding swell in the front. The split *a* in the pen extends up from the point into this depression or ink-cavity A′. The split is also branched, as indicated by *a′*, at the edge of the reservoir A′. In dipping the pens to replenish them with ink, care should be taken to dip sufficiently deep to immerse the cavities A′ and allow them to be filled or partially filled with ink. A liberal quantity of ink will also adhere to the under or front surface around the swell A′. In the act of writing the branches *a′* of the split *a* receive the ink liberally from both the front and back faces and conduct it down the split *a*.

One important effect which I ascribe to the branches *a′* of the split *a* is to produce a uniform and even outflow of ink during the up-

strokes as well as during the downstroke of the pen.

Referring to Figs. 1 to 10, the portion of the holding-instrument which is held by the operator is marked B. To the lower end are affixed, by a neck or shank, C, two jaws, D^1 D^2, properly grooved on their inner faces to adapt them to the bodies of the pens. These grooves for the pens are marked *m*. They are carefully adapted to the sizes and forms of the pens which they are intended to hold, so as to grasp and hold each firmly.

E is a screw having a large milled head, which is inserted loosely through the upper part, D^1, and is tapped through the lower part or jaw, D^2. In Fig. 1 the jaws are connected by elastic arms C^1 C^2.

In the slight modifications shown in Fig. 6, one jaw, D^1, may be fixed either rigidly or elastically to the handle B, while the other part or jaw, D^2, is, in effect, hinged to the part D^1 by two pins, *d*, which extend from the part D^1 through holes in the part D^2. These pins allow the jaw D^2 to increase and diminish its distance from the jaw D^1 while held rigidly in other directions.

The seats for the several pens are marked *m*. These seats in the part D^1 are concave, and in the part D^2 are convex, the form being carefully adapted to the form of the corresponding portions of the pens. I can make that part of my pens of a curved section, like the corresponding part of a quill—the form usually adopted in this part of a metallic pen; but I prefer an angular section, as indicated in Figs. 1, 2, 3, 4, 5, 14, 15, 16, and 17.

Whatever the section of the pen, the seats *m* being correspondingly formed, the jaws D^1 D^2, being closed on the pens tightly, hold them rigidly. When it shall be necessary to set a pen farther forward or backward in the holder—in other words, to allow it to protrude beyond the jaws to a greater or less extent—it may be moved when the hold of the jaws is slackened by properly operating the screw E. When all is right the screw E should be tightened, so as to hold the pens against possible moving in the holder.

I can, if preferred, unite the two jaws D^1 D^2 to one piece, as represented in Figs. 11 to 13, and produce the necessary pressure for holding the pens by springs only.

D^1 D^2 is one metal tube, drawn first round and then in the peculiar shape represented, the opposite walls of the tube being fastened rigidly by two or more rivets, *c c*, so as to form in effect three separate tubes, each of which is to receive one of the pens, these latter being held firmly in one position by means of inner split tubes, each similar in construction to the corresponding parts of ordinary pen-holders, which answer here, though less perfectly, the same purpose as, in the first two forms, the lower jaw, D^2, in connection with the screw E. In Figs. 14 to 16 the jaws D^1 D^2 are separated again; but they equally hold the pens only by the elasticity of the material itself, without any means of tightening the hold.

With a little practice a skillful penman can produce very attractive and almost marvelous effects by means of my improvements. Fancy letters and flourishes, which otherwise would require much time and care, become as easy as common writing. I prefer that the pen be held at a considerable inclination, and with the holder pointing to the right of the right shoulder of the user. Some of the effects are shown in the specimen writing at Figs. 20 and 21.

I may repeat that I have invented the improved device irrespective of its use for this particular style of writing, and irrespective of the mode described of replenishing the cavities A′ with the writing-fluid. I consider it practicable to replenish the pens by a set of camel-hair pencils or other convenient instruments, which may be dipped in the ink and touched on the backs of the pens at intervals. The filling may be effected by similarly operating with a single brush, going and returning each time to supply the proper quantity to each cavity. I believe it practicable to so operate with different brushes and supply the pens with different inks, varying in strength or in color, or both. I can thus present red, blue, and black, or two shades of the same color.

I can, by increasing the width of my holding means D^1 D^2, increase the number of pens indefinitely. To secure successful work, the points of the different pens should all be in one straight line, and, if beveled off obliquely to one or the other side, the pens must be correspondingly set out to different distances from the holder.

I can use pens with the points bent to either side, so as to bring the lines nearer together. I can introduce various other modifications. One obvious one is to use the well-known double-pointed pens in place of one or more of the pens in my holder, thus correspondingly increasing the number of lines written at one operation.

The clamping-screw E facilitates the exchanging of pens in a holder and the adjusting of the pens to project to different distances as required to make the most successful work in any instance, while it allows the hold on the pens to be made very firm when the right positions are attained; but for many purposes the other forms represented will suffice.

My clamps D^1 D^2, with the pinching means E, will obviously allow for wide variations in the thickness of the shanks of the pens. I can use one of my pens, A, singly in the same holder by leaving the other seats empty or filling the others with dummies; but I esteem it preferable, where only one of my pens is to be used, to employ a holder of the ordinary description.

I claim as my invention—

1. The portable writing-instrument de-

scribed, having the clamps D^1 D^2 mounted on the holder B, with their inner faces grooved or undulated, as shown, and provided with two or more pens having cavities A′ for retaining ink, as and for the purposes herein specified.

2. A portable writing or marking instrument, having a holder, B, clamps D^1 D^2, with undulated inner faces, and a single clamping-screw, E, serving to compress the clamps upon the pens A, as and for the purposes herein specified.

In testimony whereof I have hereunto set my name in presence of two subscribing witnesses.

FREDERICK SOENNECKEN.

Witnesses:

ALBERT ELLZBACHER,

ADOLF BEINHAUER.