

(No Model.)

J. S. SÖDERIN.  
RULING PEN.

No. 485,358.

Patented Nov. 1, 1892.

Fig. 1

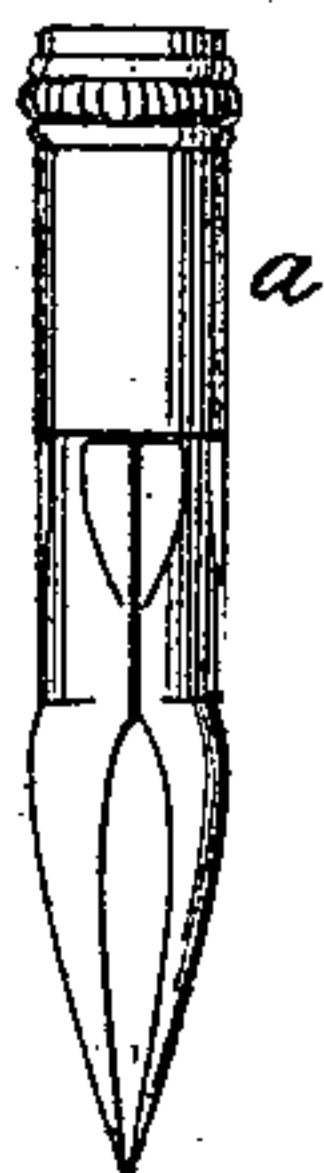


Fig. 2

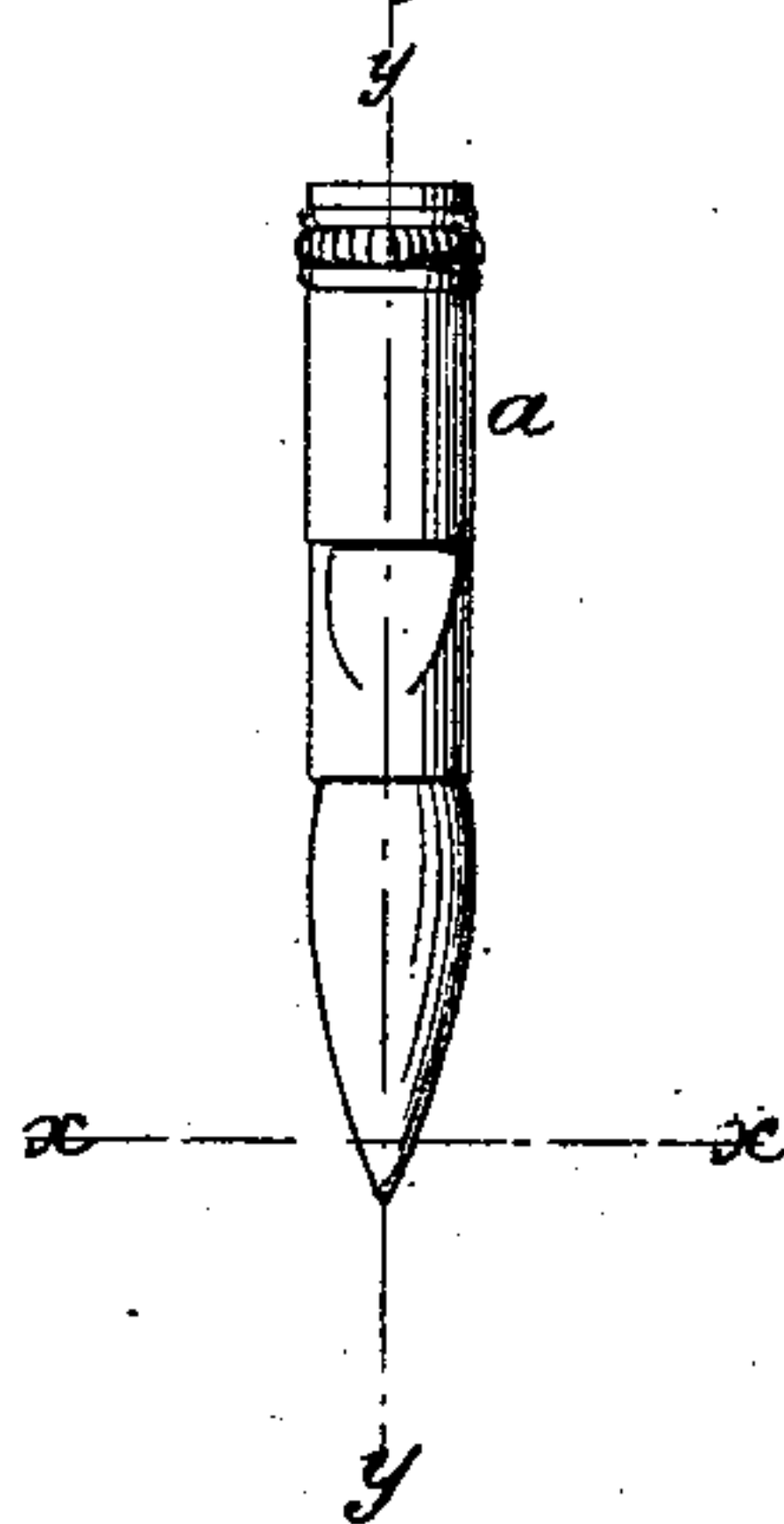


Fig. 3



Fig. 4

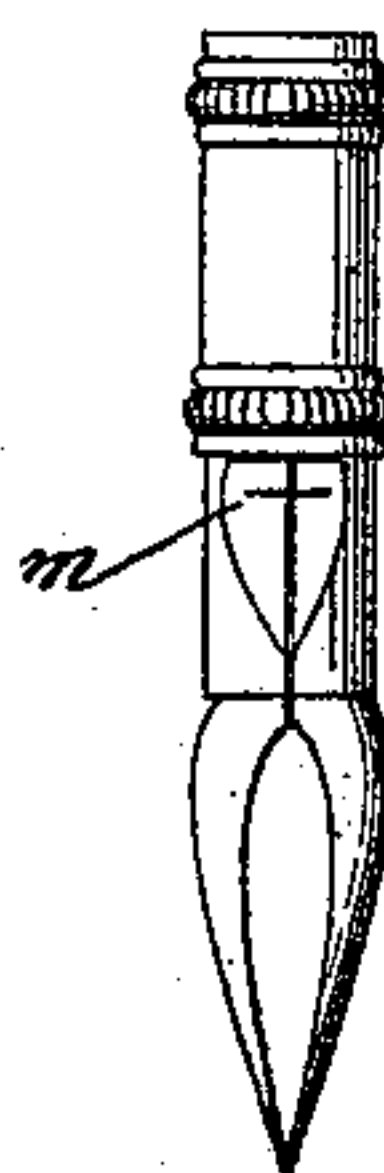


Fig. 5

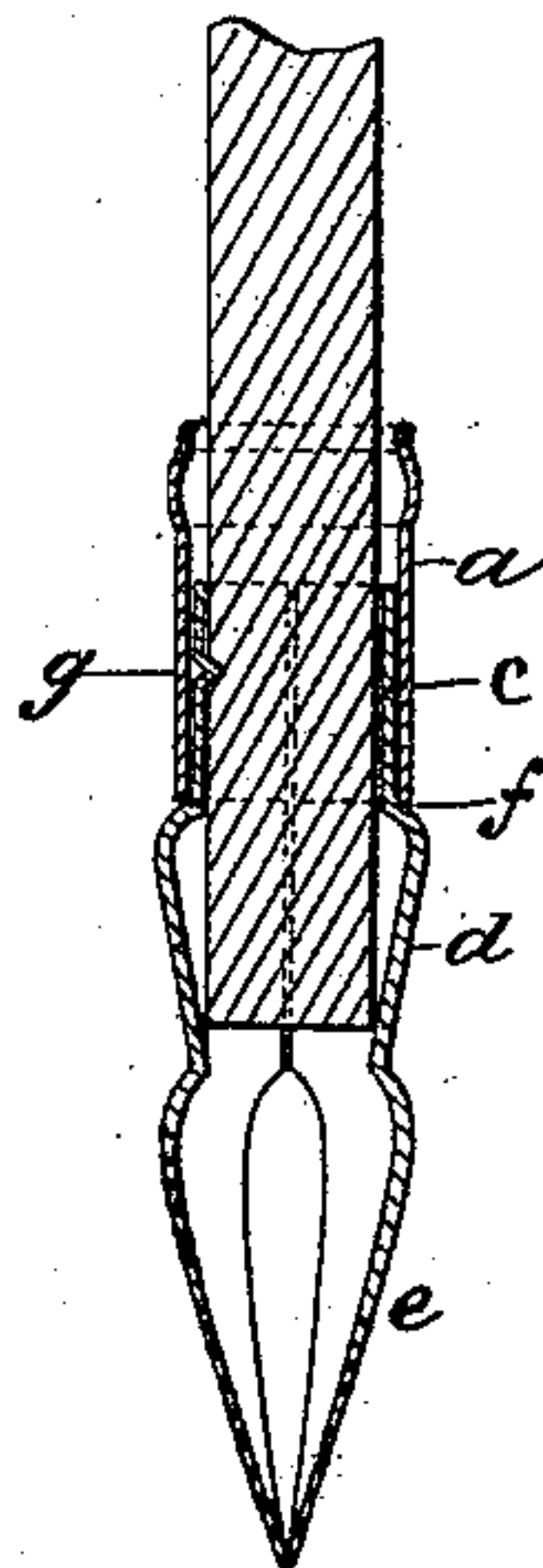


Fig. 6

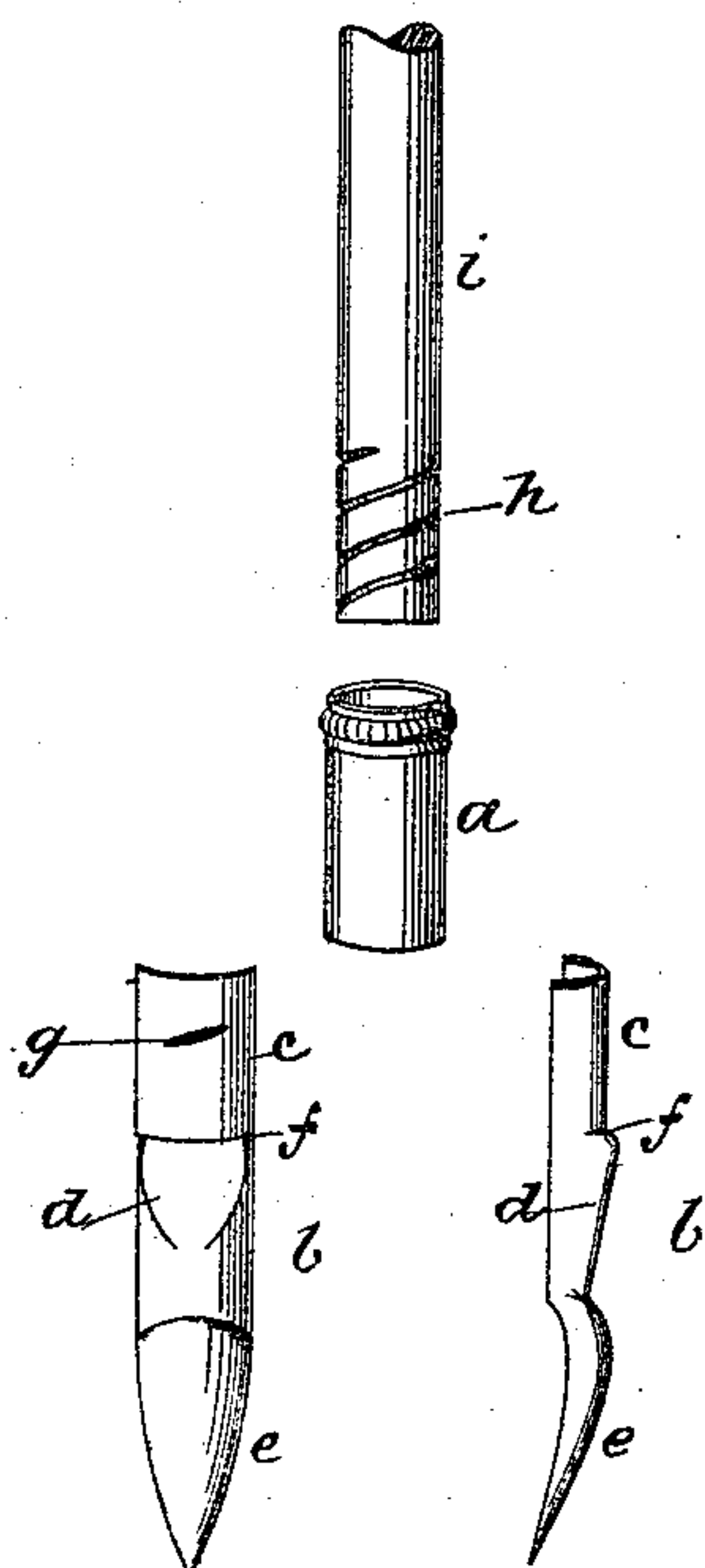


Fig. 7

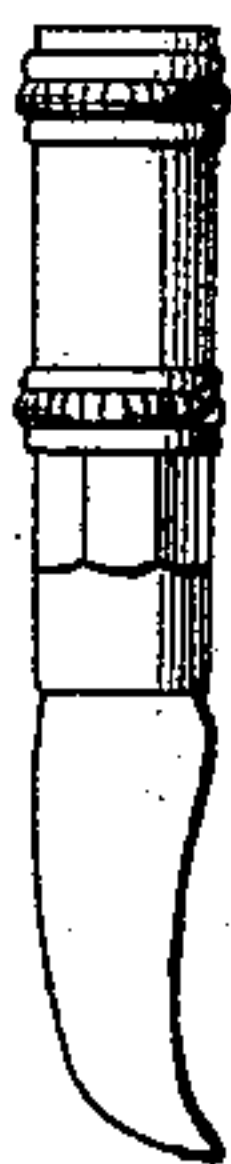


Fig. 8

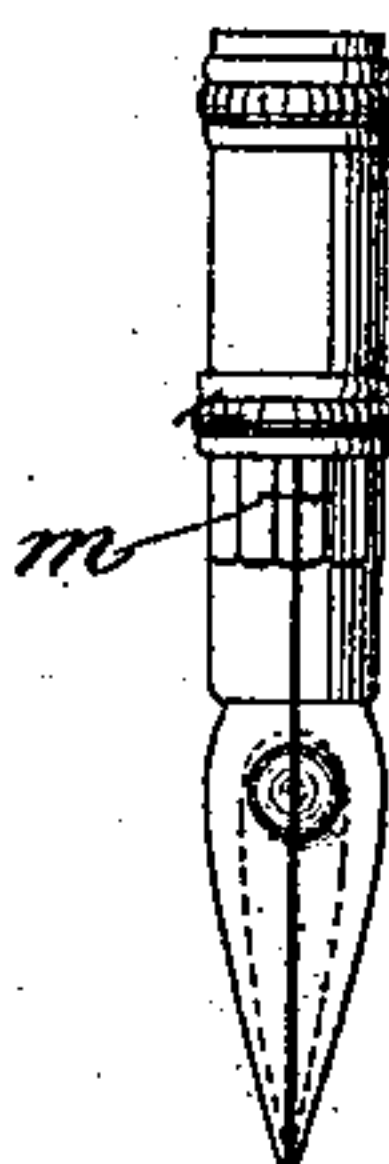


Fig. 9

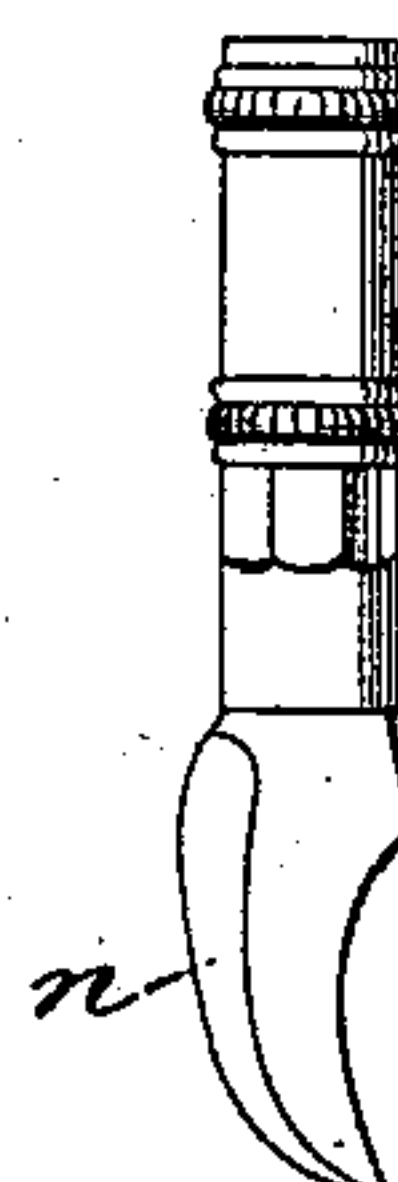


Fig. 10

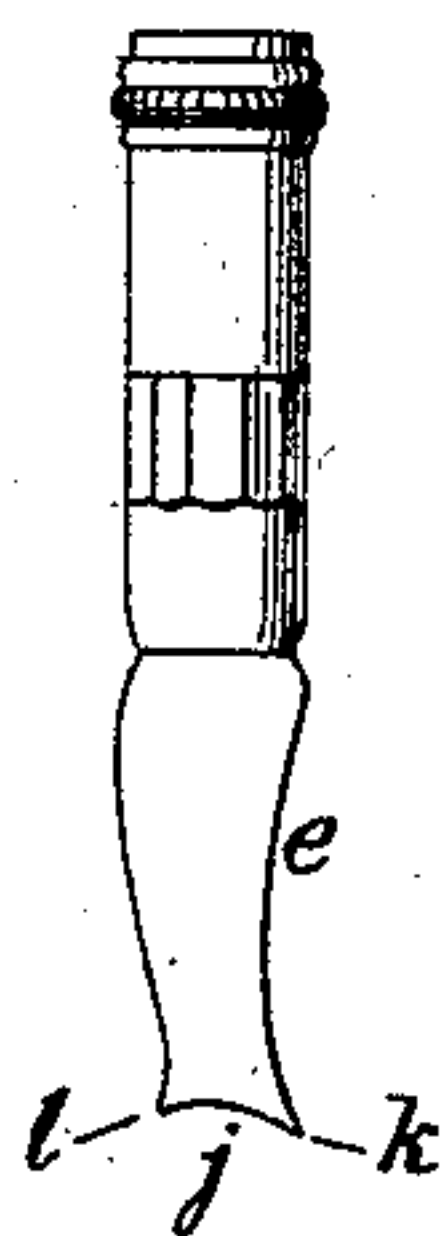
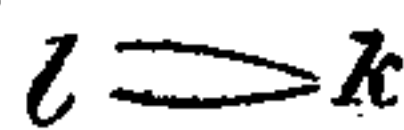


Fig. 11



Witnesses  
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Jonas S. Söderin

Inventor

By his Attorney A. W. Almqvist

# UNITED STATES PATENT OFFICE.

JONAS S. SÖDERIN, OF NEW YORK, N. Y., ASSIGNOR TO C. W. STUART, OF  
SAME PLACE.

## RULING-PEN.

SPECIFICATION forming part of Letters Patent No. 485,358, dated November 1, 1892.

Application filed April 11, 1891. Serial No. 388,459. (No model.)

*To all whom it may concern:*

Be it known that I, JONAS S. SÖDERIN, a citizen of Sweden, and a resident of New York city, State of New York, have invented a new and useful Improvement in Ruling-Pens, (which invention has been patented to me in no foreign countries,) of which the following is a specification.

My invention consists in improvements in the construction of drawing and ruling pens, as hereinafter described and claimed, the objects of which are to simplify and cheapen the construction; also, to facilitate the application of a simple wood handle, as a wood pencil or a wood staff having a rubber eraser, and the use of the same for adjusting the points, and also to adapt the points for graduating the lines without altering their adjustment, all as will now be particularly specified, reference being made to the accompanying drawings, in which—

Figures 1 and 2 are elevations of my improved pen without the handle in views at right angles to each other and with points of ordinary form. Fig. 3 is a transverse section on line  $x x$  of Fig. 2. Fig. 4 is a side elevation, same as Fig. 1, with a transverse slit to lessen the resilience of the parts, which are adjustable for graduating the points by spring action. Fig. 5 is a sectional elevation of the pen and handle on the line  $y y$  of Fig. 2, the points being of ordinary form. Fig. 6 is an elevation of the group of the several parts of the pen and handle separated; Figs. 7, 8, and 9, elevations showing one form of the graduated points, Figs. 8 and 9 showing the pen closed on the back edge. Fig. 10 is an elevation, and Fig. 11 an end view illustrating another form of graduated points.

I construct the pen in three sheet-metal parts, as the sleeve or socket  $a$  and the point-carrying legs or shanks  $b$ , the socket being a simple plain tube; or it may be beaded or knurled at one or both ends, if desired, and have ornaments such as may be produced in any of the well-known ways of producing such articles. The point-carrying legs or shanks  $b$  are stamped in dies, making the upper portions  $c$  in semicylindrical shape, the intermediate portions  $d$  of similar or approximate shape, with an outward bulge, forming

a shoulder  $f$  at the junction with part  $c$  and slightly convergent downward in part or in whole, and the point portions  $e$  in suitable spoon shape for such points, and the parts  $c$  are carefully proportioned in size relatively to the internal dimension of the socket, so that the two parts being placed together edge to edge they will enter the socket in such a close fit that they form connection therewith and with each other, by which they are effectually secured without other fastening, care being taken that the shoulders  $f$  of both parts abut against the end of the socket to gage the two points in proper relation to each other.

One of the parts  $b$  has an inwardly-projecting spiral rib  $g$  stamped in its upper semicylindrical portion  $c$ , which serves as a screw-thread to produce its counterpart thread  $h$  in the soft-wood handle  $i$  when forced and turned thereon for holding it and also for graduating the adjustment of the end of the handle in or out of the convergent intermediate portions  $d$  of the legs for adjusting the points to open or close them by turning the handle farther in or out, respectively.

In Figs. 4 and 8 I represent the legs made with short transverse slits  $m$ , cut in the edges of the intermediate portions  $d$  to render them more yielding to the opening action of the handle and increase the range of opening; but this may be used or not, as preferred.

While I prefer the cylindrical form for the socket and the upper portions of the legs, I may of course use the equilateral, hexagonal, or octagonal forms, and I consider such forms included in my invention.

The point-carrying legs will preferably be made of steel of a suitable grade for making fine, hard, and durable points. It is to be understood that the points are gaged or set so that they close together by their resilience and bear with some pressure, so as to retain ample power for closing whenever the handle is adjusted therefor. It will be seen that this improved construction is exceedingly cheap as compared with the ordinary construction of such instruments and at the same time it affords the production of instruments of equally as good quality as the more-expensive articles. Besides the points of ordinary



form I also construct my improved instruments with points graduated for light or heavy lines without adjustment, which I accomplish either by the broad double-pointed points, as in Figs. 10 and 11, which make two lines of different sizes, or by the curved points of Figs. 7, 8, and 9, which make fine or coarse lines of any grade or tapering thickness up to very heavy lines and also various individual lines, finer or coarser, according as the pen is held. It will of course be understood that all of these forms of pens are provided with the handle *i* and may also be provided with the rib, although the latter will not be required except when it is actually necessary to use the pen in an upright position, as is sometimes the case, when some means will have to be provided to allow of the pen making thick and thin lines while still in said upright position.

The device of Figs. 10 and 11 is produced by making the point parts *e* broad at the end and notching said ends as at *j*, so as to produce the pointed extremities *k* *l*, either of which may be used as the marking-points of the pen, according as the pen is held with extremities *k* or *l* on the paper, the extremities *k* being set close together and serving for making the finer lines, and extremities *l* being set wider apart for the heavier lines, and these extremities being prevented from closing together by the contact of extremities *l*.

The graduated pen of Figs. 7, 8, and 9 is produced by curving the points laterally edge-wise and making the parting space *n* between the convex edges of the pointed parts to widen gradually from the extremities forward, whereby the line is made fine or heavy according as the pen is held, so that the contact with the paper is made closer to or more distant from the extremities, and the line is graduated according as the pen is shifted more or less upright in the plane of the line while making it.

I claim—

1. In a drawing-pen, the point-carrying legs having the hollow semicylindrical upper portions, in combination with the holding-socket,

said semicylindrical portions being fitted relatively to said socket to be secured by inserting them therein, substantially as described.

2. In a drawing-pen, the point-carrying legs having the hollow semicylindrical upper portions and the intermediate bulged and shouldered portions, in combination with the holding-socket, said semicylindrical portions being fitted relatively to said socket to be secured by inserting them therein, substantially as described.

3. In a drawing-pen, the point-carrying legs having the hollow semicylindrical upper portions and intermediate bulged and shouldered and downwardly-converging portions, in combination with the holding-socket, said semicylindrical portions being fitted relatively to said socket to be secured by inserting them therein, substantially as described.

4. In a drawing-pen, a holding-socket, the point-carrying legs having the hollow semicylindrical upper portions tightly fitting in said socket, and a handle adjustably secured in said socket and arranged to act on the point-carrying legs, substantially as described.

5. In a drawing-pen, a holding-socket, the point-carrying legs having the hollow semicylindrical upper portions tightly fitting in said socket, the upper portion of one of said legs having an inwardly-projecting spiral rib, and a handle fitted in said socket, having a groove to engage with said rib and arranged to act on the point-carrying legs, substantially as described.

6. In a drawing-pen, the point-carrying legs having the semicylindrical upper portions, in combination with the socket and fitted therein as described, said legs having the transverse slits in the edges, as set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 8th day of December, 1890.

JONAS S. SÖDERIN.

Witnesses:

OTTO L. FALK,  
HENRY JAEGER.