A. Hathaway
Ruling Pen.

No. 85,525. Patented Jan. 5, 1869.

Fig. 1.

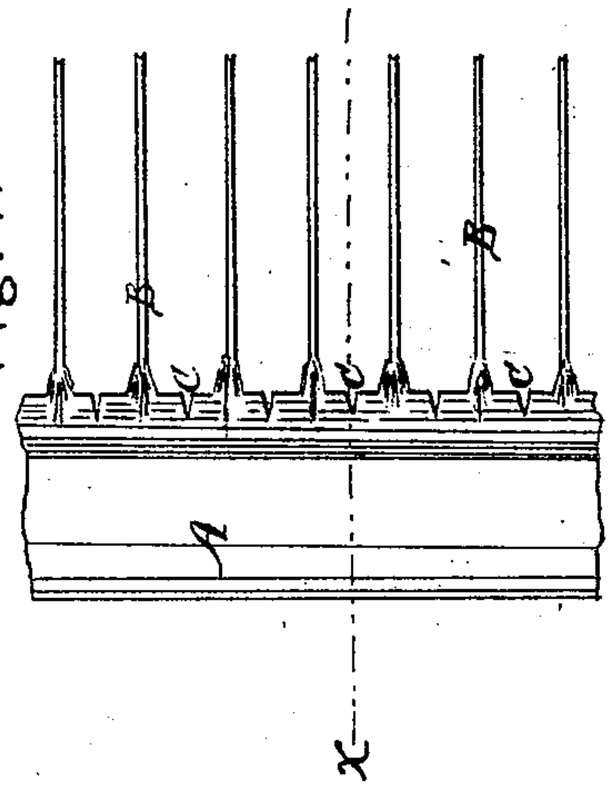

Fig. 2.

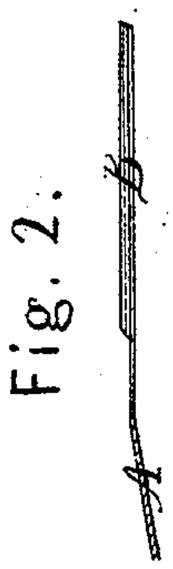

Fig. 3.

Witnesses

Chas F. Clausen
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Inventor

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by
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his attys

United States Patent Office.

ALFRED HATHAWAY, OF CHARLESTOWN, MASSACHUSETTS.

Letters Patent No. 85,525, *dated January* 5, 1869.

IMPROVEMENT IN RULING-PENS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ALFRED HATHAWAY, of Charlestown, in the county of Middlesex, and State of Massachusetts, have invented a new and useful Improvement in Ruling-Pens; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a front elevation.

Figure 2 is a section on the line *x*–*x*.

Figure 3 is a section of the plate from which the pen is cut.

My improvement relates to that class of pens used by stationers in ruling paper, and consists in making such pens from a sheet of metal, having that portion, from which the points of the pens are to be cut, reduced to any desired degree of tenuity by the removal of the metal while in sheet, the object being to secure a pen with sufficient strength and stiffness, yet with a point as fine as may be required by the most delicate description of work, all as hereinafter more fully set forth.

The pens are cut from a sheet of brass, or other suitable metal, formed, as shown at D in fig. 3, being very thin in the middle section, from which the points of the pens are cut, and thicker near the edges, in that part from which the body of the pens is formed.

The pens are cut from the metal sheet D, point to point, and folded with their edges together, as shown in fig. 1.

The sheet, between the points or pens, is cut away, so as to form a square edge, and a narrow slit is cut at C C, between the pens.

The back is bent in the usual manner, to attach it to the frame in such manner as to give the proper angle to the pens.

This pen is distinguished from all others in this, that in the ordinary ruling-pens the backs are made double, by the application of a second thickness of metal for a portion of their length, for the purpose of support, the points only being left of a single thickness of the rolled sheet-metal.

The metal of which the points are made is of even thickness throughout, and the limit of the fineness of these common pens is fixed by the thinness of the rolled metal to be found in the market.

The double back, moreover, by capillary attraction, draws in ink between the plates which compose it, and the rapid corrosion and destruction of the pen ensue.

In my improved pens, on the contrary, there being but a single thickness of metal employed, no such accumulation of ink can occur. The requisite strength is secured by using metal as thick as may be necessary to insure it, and any degree of fineness can be given to the points by the previous reduction of that portion of the sheet of metal from which they are cut.

The slits C form divisions between the pens, guiding the ink from the fountains towards the pens, and preventing its accumulation in drops.

What I claim as my invention, and desire to secure by Letters Patent, is—

Machine-ruling-pens, made from a sheet of metal having that portion, from which the points of the pens are cut, previously reduced to any required degree of tenuity, by the removal of the redundant metal, while in sheet, substantially in the manner described.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ALFRED HATHAWAY.

Witnesses:

WILLIAM ROGERS,

CHAS. J. ELLIS.