J. H. Bruce.

Ruling Mach.

No. 93,409. Patented Aug. 10, 1869.

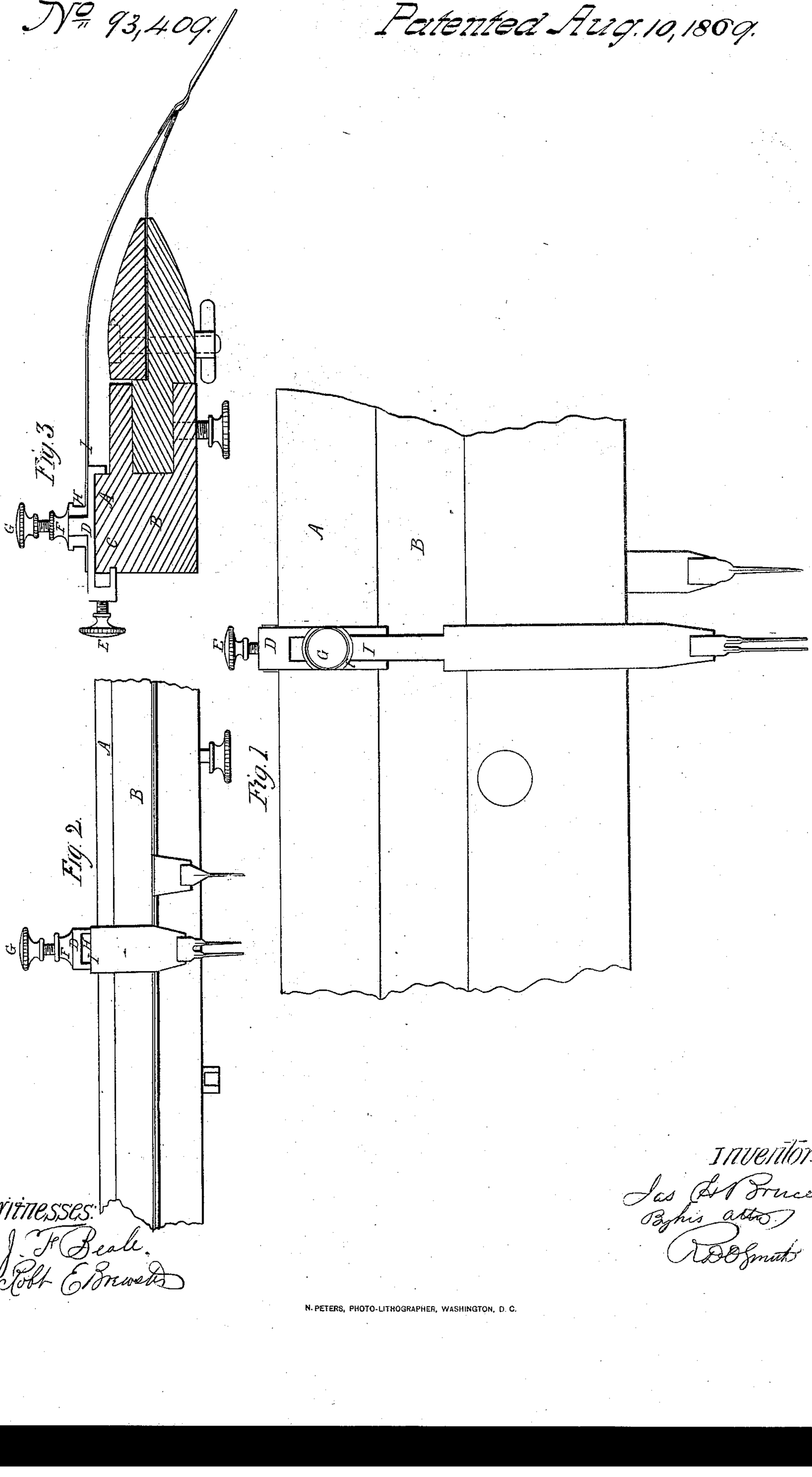

Fig. 1

Fig. 2.

Fig. 3

Witnesses:
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JAMES H. BRUCE, OF NASHVILLE, TENNESSEE.

Letters Patent No. 93,409, *dated August* 10, 1869.

IMPROVEMENT IN RULING-MACHINES.

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, JAMES H. BRUCE, of Nashville, in the county of Davidson, and State of Tennessee, have invented a new and useful Improvement in Extension Pen-Holders for Ruling-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of my apparatus.

Figure 2 is a front elevation of the same.

Figure 3 is a side or end elevation of the same.

Hitherto the only mode of securing extension-pens in ruling-machines has been by means of a strip running the entire length of the pen-beam, and clamped down upon the same by means of several thumb-screws, inserted through the strip into said beam. The shanks of the extension-pens were inserted under said strip, and were all secured by tightening the above-mentioned thumb-screws. By these means the entire row of pens, of whatever number it might consist, was secured by the same clamping-device.

The extension-pens are used principally for the purpose of ruling division-lines of some kind at the same time that the ordinary guide-lines are being ruled, in ink of a different color, and as their arrangement is arbitrary, it often follows that one or another of the clamping-screws prevents a proper arrangement of the pen.

The only remedy in such case is in changing the position of the line, or in placing the pen obliquely over the table, in which latter case it will fail to produce a satisfactory line.

The number of extension-pens required on any job is seldom large, but their arrangement is extremely various; and to obviate the above-named difficulties, which are extremely inconvenient, I have devised a way of overcoming them, which consists in an independent clamp for each pen, said clamp being movable upon the pen-beam, and capable of being fixed at the exact point required, there being no obstacles to interfere.

That others may understand the construction and operation of my invention, I will particularly describe it; but I do not wish to be understood as confining myself to the precise details of construction shown, but only to the principles of operation, whereby the pen may be set at any point without encountering any obstacles whatever.

Instead of a loose clamping-strip, I put a strip, A, solidly upon the pen-beam B, and make a groove, C, on one of its edges, which serves as a sort of guide to keep the clamp D in place.

The clamp D consists of two parts—the carriage, which slides upon the pen-beam, and the clamp, which holds the pen. These are both provided with screw-fastenings, to hold them in place, and the same screw may be made to perform both of these offices, though I prefer to make them separate.

The carriage slides upon the strip A, and its ends are turned down, so as to embrace the edges of said strip.

The thumb-screw E bears against the edge of the strip A, and when it is brought into action, the carriage is stopped and secured at that point.

The pen-clamp is located upon the top of the carriage, and consists of a perforated post, F, and thumb-screw G, the tang I of the pen being inserted through the perforation H, and secured by the screw G.

By means of the above-described device, or one substantially the same, the pen may be independently adjusted. It may be moved from one end of the beam B to the other, and secured at any point, there being no obstacles to prevent, and when not in use it may be entirely removed from the machine.

During an adjustment of the pen in position, its position in the clamp will be unchanged, while in the modes of adjustment hitherto in use, the pen required an adjustment not only in respect to lateral position, but also in regard to position upon the paper, to secure a flow of ink.

Having now described my invention,

What I claim as new, is—

1. An independent clamp for each extension-pen, substantially as and for the purpose set forth.

2. The clamp D, constructed as described, in combination with the strip A and beam B of a ruling-machine.

J. H. BRUCE.

Witnesses:

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