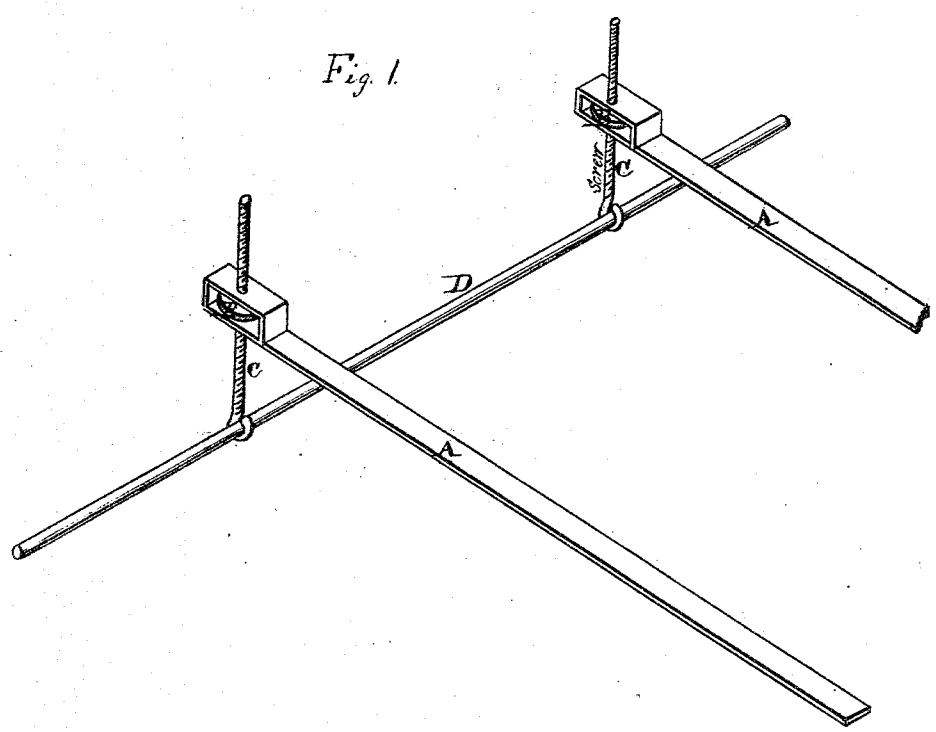


J. Stewart,
Ruling Machine.

No. 109267.

Patented Nov. 13, 1870.

Fig. 1.



Witnesses
J. A. Lehmann.
President

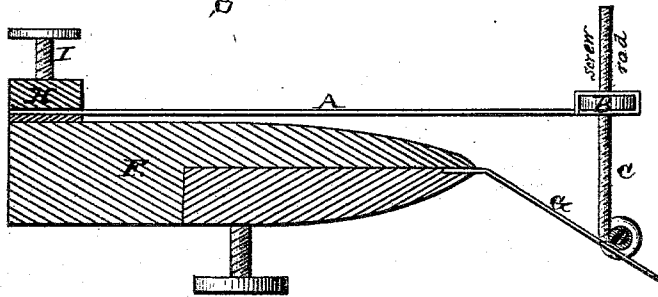
Inventor.
Jas. Stewart

J. Stewart,
Rolling Machine.

No. 109267.

Patented Nov. 15. 1870.

Fig. 2.



Witnesses

R. L. Hanna
L. E. Quarts

Inventor

Jas Stewart

United States Patent Office.

JAMES STEWART, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 109,267, dated November 15, 1870.

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 STEWART, of Washington city, District of Columbia, have invented certain new and useful Improvements in Devices for Ruling Paper; and I hereby declare the following to be a full, true, and exact description of the same, reference being had to the accompanying drawing and the letters of reference marked thereon.

To enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation.

Figure 1 is a perspective view of my device, and

Figure 2 represents a part of a ruling-machine, to which my improvement is attached.

Letter A represents the extension bars, by means of which the rod D is secured to the machine.

The rear ends of these bars are fastened or clamped to the pen-beam F of the machine in any suitable manner, while the front ends extend outward, and are so shaped or formed that the thumb-screws B are held securely in place.

Extending upward through both the thumb-screws and the ends of the extension bars are the screw-rods C, by means of which the long rod D is lowered and raised at pleasure.

The rod D consists of a straight bar of iron or

heavy wire, and passes through the lower ends of the screw-rods C, and serves the double purpose of pressing the pens G upon the paper and of preventing the ends of the paper from curling upward.

The extension bars A should be slightly elastic, so as to allow the pens to give in case of meeting with any obstruction.

Pivoted over the top of the ruling-machine is a clamp, E, which holds the pens G.

Attached to the top of this clamp there is a long slat or bar, H, governed by the thumb-screws I.

The rear ends of the extension bars are clamped between the pieces F and H, while the front ones holding the screw-rods C, extend outward over the pens G, and press the rod D upon them with any desired degree of pressure.

Having thus described my invention,

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

The combination of the extension bars A, thumb-screws B, screw-rods C, and rod D, when all are arranged to operate substantially as described.

JAMES STEWART.

Witnesses:

F. A. LEHMANN,
THOS. S. MERCER.