

No. 649,254.

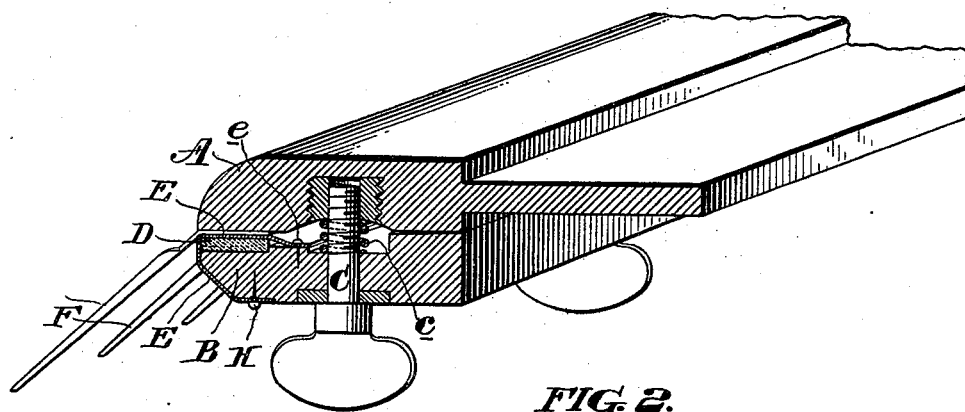
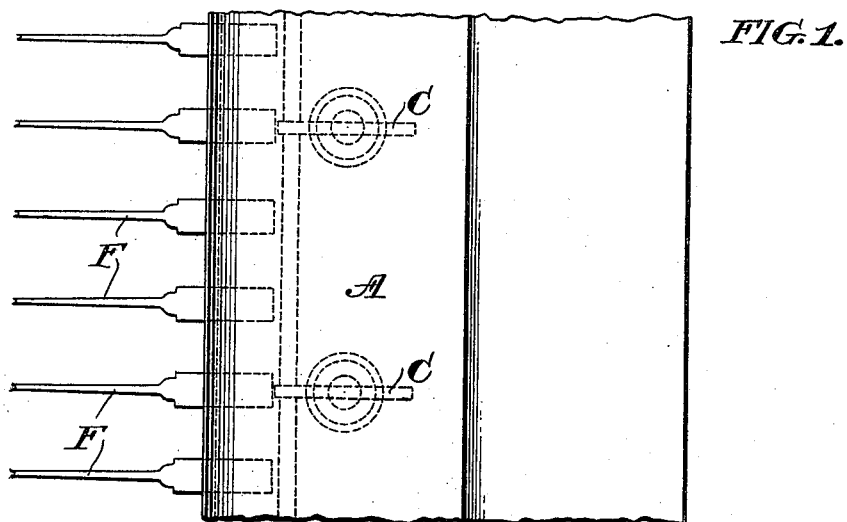
Patented May 8, 1900.

C. M. NEEL.

PEN CLAMP FOR RULING MACHINES.

(Application filed Jan. 27, 1900.)

(No Model.)



Witnesses:
Henry D. Tracy
R. M. Kelly.

Inventor:
Chas. M. Neel
By *[Signature]*
[Signature]

UNITED STATES PATENT OFFICE.

CHARLES M. NEEL, OF PHILADELPHIA, PENNSYLVANIA.

PEN-CLAMP FOR RULING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 649,254, dated May 8, 1900.

Application filed January 27, 1900. Serial No. 2,985. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. NEEL, of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Pen-Clamps for Ruling-Machines, of which the following is a specification.

My invention has reference to pen-clamps for ruling-machines; and it consists of certain improvements set forth in the following specification and shown in the accompanying drawings, which form a part thereof.

The object of my invention is to provide a suitable pen clamp or holder for ruling-machines which shall have the capacity of adapting itself to pens of different thickness and at the same time embody durability and simplicity of construction.

In carrying out my invention I employ the usual clamping-bars and screws, and to one of these bars I apply my improved jaw, which comprises a longitudinal strip of elastic material or rubber and a covering or shield of thin flexible metal—such, for example, as spring-brass—which protects the rubber from the ink and objectionable pressures or indentations at specific places. The metallic shield yields under the clamping action sufficiently to enable a series of pens, which may be of slightly-different thickness, to be properly clamped and held against displacement.

My invention will be better understood by reference to the accompanying drawings, in which—

Figure 1 is a plan view of my improved pen-clamp for ruling-machines, and Fig. 2 is a perspective view of same with part in section.

A is the upper and B the lower clamp-bar, and these have their forward ends rounded, as shown, to constitute the clamping parts or jaws. The two bars are drawn toward each other in clamping by the screws C of the well-known construction. Springs *c* may be employed to open the clamp when the bars are released by the screws C.

F represents the ruling-pens, and have their upper end made flat and adapted to be clamped between the bars A B at their forward edges.

The forward upper surface or jaw of the lower bar B is provided with a longitudinal

strip of rubber or other elastic material D, and over this is placed a shield or covering E of thin metal. The shield preferably completely covers the rubber and is secured to the top of the bar B to the rear of the rubber, as shown at *c*. The forward part of the shield E is carried over the front edge of the jaw and then under and secured to the bar at H. It will be seen that this construction gives the metal shield capacity for a slight vertical movement at its forward part under the action of the rubber and clamping-bars. In practice the upper bar and jaw A is held rigid in the machine, and the lower bar and jaw B is the movable one.

In the operation of clamping the pens F the shield E is first pressed against the under surfaces of the pens, and a continued upward movement applied to the bar B causes the rubber D to be compressed and apply the requisite clamping pressure to the shield. Under this action the lower and forward portion of the shield slightly separates from the wood of the bar B, as will be readily understood. The metal of the shield should be made sufficiently thin to secure the necessary elasticity; and in practice I prefer to make it of thin brass. In this manner the elasticity of the shield is sufficient to readily compensate for any irregularity in the thickness of the pens, so that a thick and thin pen may be clamped adjacent without difficulty.

By causing the pen to be directly clamped by metal in place of by rubber the pen is firmly held against displacement. The shielding of the rubber from the action of the ink greatly insures its life and elasticity. Furthermore, the construction is such that it is easily cleaned, as the ink may be readily wiped from the metal shield E. Any other form of spring structure may be employed in place of the rubber, if so desired.

It is evident that the elastic clamping features may be duplicated by being placed upon each of the jaws, though in practice it is found amply sufficient to place them upon one jaw only, and preferably the lower jaw.

While I prefer to have the shield extend completely over the forward top and bottom parts of the jaw, it is evident that my invention may be modified by omitting the lower extension of this shield.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a pen-clamp for ruling-machines, the combination of the clamping-bars, means for drawing them together to produce a clamping action, a rubber strip arranged along the clamping-face of one of said bars, and a metallic shield or covering attached to the jaw and extending over and in front of the rubber strip so as to completely shield it.

2. In a pen-clamp for ruling-machines, the combination of the clamping-bars, means for drawing them together to produce a clamping action, a rubber strip arranged along the clamping-face of one of said bars, and a metallic shield or covering attached to the jaw and extending over and in front of the rubber strip so as to completely shield it, and in which the said metallic shield is extended entirely over the front portion or clamping part of the bar and attached to the face thereof opposite to that supporting the rubber strip.

3. In a pen-clamp for ruling-machines, the combination of the upper and lower clamping-

bars, means for drawing the bars together, a rubber strip arranged along the upper and forward face of the lower bar, and a flexible metal shield attached to the lower bar and extending over the rubber strip.

4. In a pen-clamp for ruling-machines, the combination of two clamping-bars, means for drawing said bars together, and a yielding jaw for one of said bars consisting of rubber covered with a flexible metallic clamping-surface.

5. In a pen-clamp for ruling-machines, the combination of two clamping-bars, means for drawing said bars together, a flexible metallic strip arranged along the clamping-surface of one of said bars so as to be capable of yielding under pressure, and a spring or elastic structure arranged between said metallic strip and bar.

In testimony of which invention I hereunto set my hand.

CHAS. M. NEEL.

Witnesses:

ERNEST HOWARD HUNTER,
JOSEPH W. KENWORTHY.