

April 9, 1929.

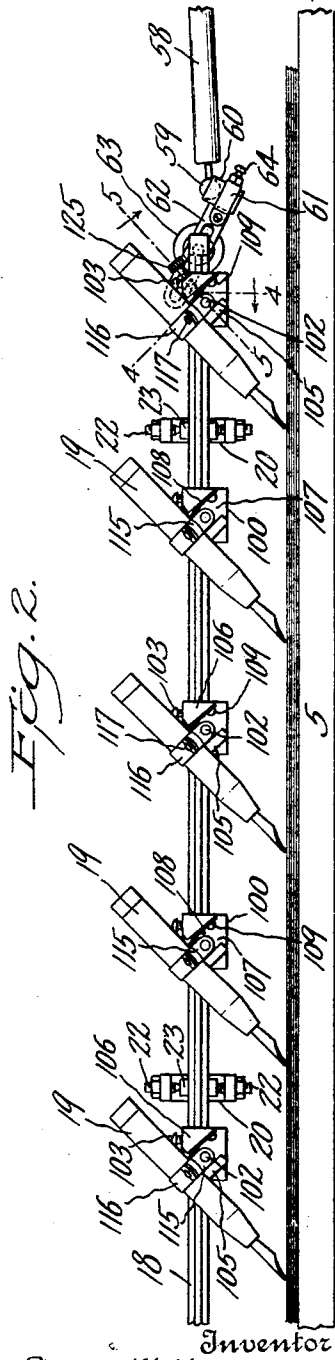
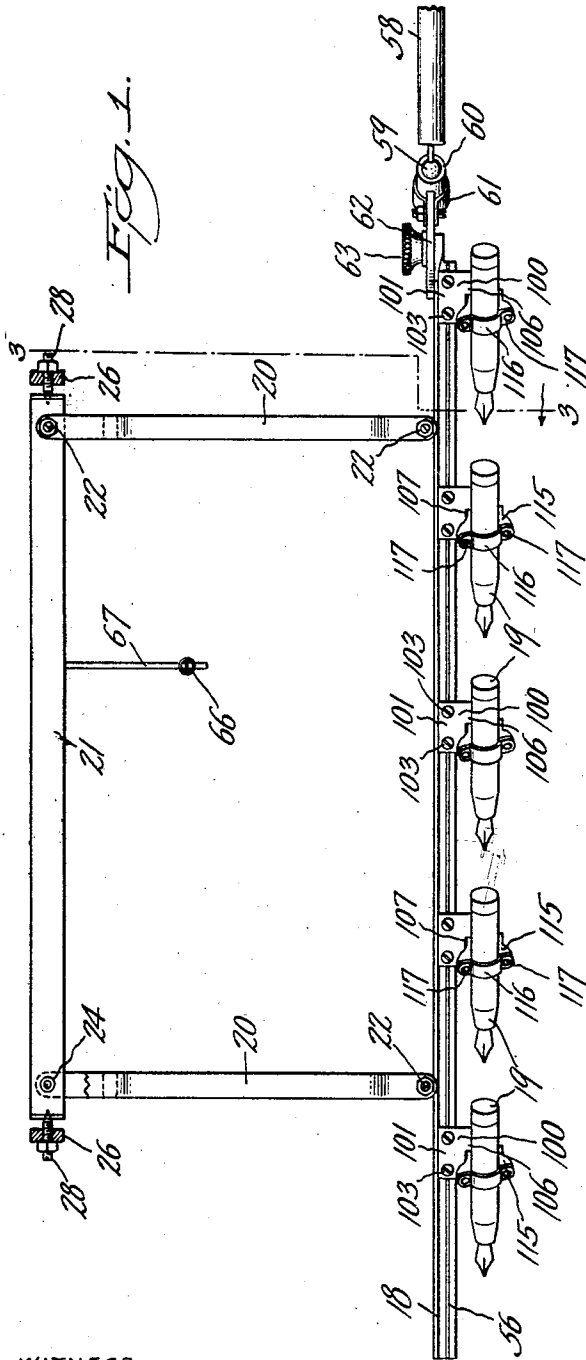
D. W. HEMMING

1,708,671

MACHINE FOR WRITING A PLURALITY OF SIGNATURES

Filed Nov. 22, 1927

2 Sheets-Sheet 1



WITNESS

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2 Sheets-Sheet 2

Fig. 3.

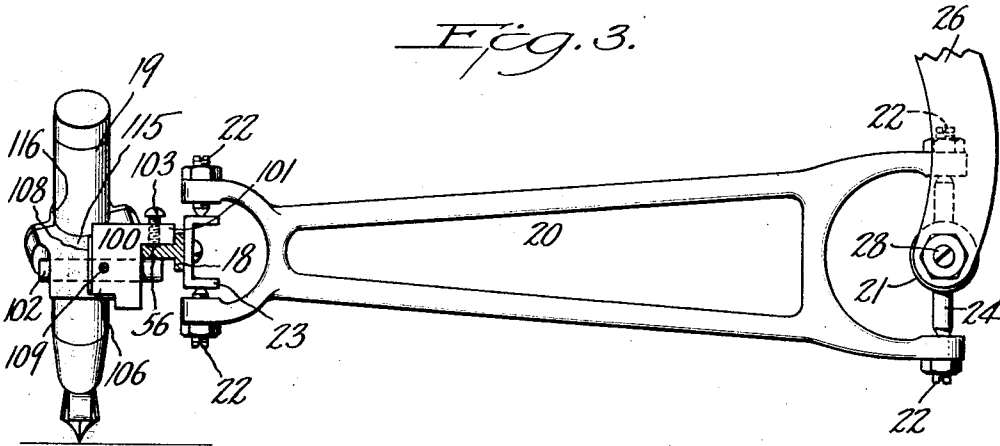


Fig. 4.

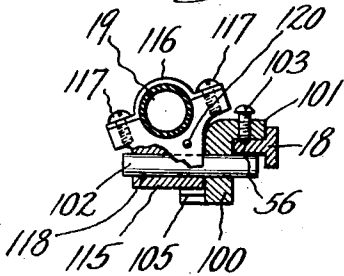


Fig. 5.

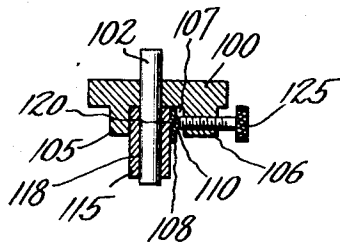
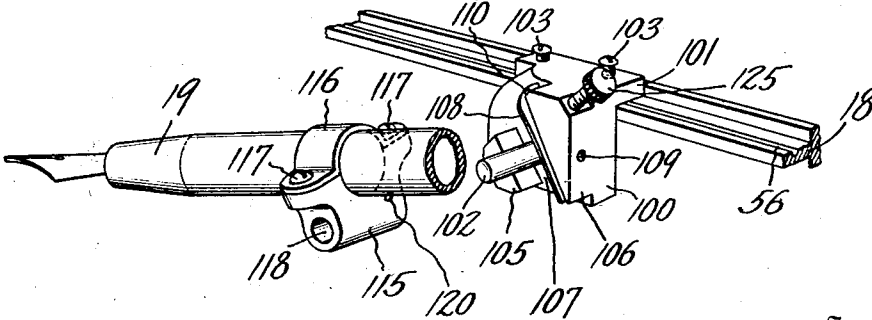


Fig. 6.



WITNESS

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UNITED STATES PATENT OFFICE.

DANIEL W. HEMMING, OF WOODCLIFF, NEW JERSEY, ASSIGNOR TO THE SIGNATURE COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

MACHINE FOR WRITING A PLURALITY OF SIGNATURES.

Application filed November 22, 1927. Serial No. 234,967.

The present invention relates to improvements in machines for simultaneously writing a plurality of original signatures, the invention being particularly directed to the means for mounting the writing pens upon the pen bars of such machines.

The mounting of the fountain pens or other writing members upon the pen bars of a plural writing machine must afford an independent yield for each writing member so that all of the writing members will act uniformly irrespective of any slight irregularities in the surface of the checks or other documents being inscribed, also there must be convenience for removing the pens from the pen bars for readily filling the pen barrels and such removability must provide for the return of the pens to their accurately adjusted operative position upon the pen bars, and finally it is very desirable to include in the mounting for the master pen means for readily adjusting the degree of yield of that pen to suit the touch and style of writing of individual operators.

These desirable characteristics are included in the present invention in which each of the pens or writing members has adjustably secured to it a clamping yoke formed with a transverse bearing socket designed to receive a bearing pin or trunnion projecting laterally from an angular bracket that is adjustably mounted upon the pen bar. This bracket upon the pen bar is formed with two laterally projecting integral lugs or shoulders between which the pen supporting pin or trunnion projects, and by which the pen clamp carrying the pen is limited in its rocking motion upon the pin or trunnion. One of these integral lugs or shoulders carries a small leaf spring which rests against the rear face of the pen clamp above the pin or trunnion and yieldingly holds the clamp in engagement with the other lug or shoulder, and yields more or less during the writing operation to ensure uniformity of action of the individual pens. This cushioning leaf spring serves an additional function as a delicate spring latch for holding the pen clamp in position upon the pin or trunnion, the face of the clamp having a slight rib or projection which rests normally in a groove or depression in the face of the spring for holding the clamp in position. This combined cushioning and latch-

ing spring enables an operator to slip the clamp off of the journal pin or trunnion for the convenience of refilling of the pen, it being unnecessary to remove the clamp from the pen for this refilling operation whereby the pen may be quickly returned to operative position in its exact adjustment after it has been filled.

The pen mounting just described applies to all of the pens of a plural writing machine, whether the machine be a large machine of two or more pen bars and a large number of writing members or the simpler form of machine in which there is only one pen bar mounted upon properly supported and poised pantographic arms. In addition to these features, the mounting for the master pen which is especially observed and directed by the operator, is preferably provided with an adjusting screw acting upon the cushioning and latching spring to take up more or less of the yield of the spring so that the operator can readily effect an adjustment to secure the degree of yield that he prefers.

In order that the invention may be fully understood it will first be described with reference to the accompanying drawings and the patentable novelty more particularly pointed out in the annexed claims.

In said drawings:

Figure 1 is a plan view of a pantographically mounted pen bar of a plural writing machine embodying the pen mountings of the present invention;

Figure 2 is a side elevation of the same;

Figure 3 is an end elevation, partly in transverse section, of the same;

Figure 4 is a detail transverse sectional view of one of the improved pen mountings;

Figure 5 is a detail horizontal sectional view of the same;

Figure 6 is a detail perspective view of the master pen mounting showing the pen clamp separated from the supporting bracket of the pen bar.

The accompanying drawings illustrate the present invention as applied to a multiple writing machine of the type covered by Patent No. 1,080,347, dated December 2, 1913, but I would have it understood at the outset that this invention is not limited to this specific type of machine, but is applicable to other forms of multiple writing machines

in which a pen bar is mounted for universal horizontal movement above a writing bed or table.

In the particular type of machine illustrated a pen bar 18 of T-shaped cross-section is suitably hung for universal horizontal movement on a pair of parallel links 20, the mounting of which will be clear from the description and illustration in the Patent No. 1,080,347, above referred to. The parts of the mechanism common to that shown in said patent and not specifically referred to herein are identified by the same reference numeral used in said patent.

The improved pen mountings to which the present invention relates comprises adjustable brackets mounted upon the pen bar and relatively movable pen clamps carrying the pens or writing members and detachably mounted upon said brackets with provision for proper yielding action in operation and ready removability.

Each of the pen supporting brackets comprises a body portion 100 having a right angle flange 101 and a trunnion pin 102 which extends through the body portion 100 below and parallel with the flange 101 forming a socket for the reception of the horizontal web portion of the pen bar 18. The flange 101 carries two set screws 103 which engage the longitudinal slot 56 in the pen bar 18 and serve to clamp the bracket in the desired adjusted position upon the pen bar. By relatively adjusting the two screws 103 the bracket 100 moving upon the pin 102 as a fulcrum can be caused to assume the desired angular relation upon the pen bar in the same manner as the mounting bracket in the structure covered by the above named patent.

This bracket 100 is formed upon its outer face with integral lugs or flanges 105, 106 suitably spaced to provide a channel 107 between them. The pin or trunnion member 102 projects outwardly from bracket 100 in this channel 107 approximately midway between lugs or flanges 105, 106.

Secured to the inner inclined face of the lug or flange 106 is a short leaf spring 108 fastened at its lower end by screw 109 and formed with a slight groove or depression 110 near its upper free end.

Each pen or writing member has adjustably secured upon its barrel a pen clamp consisting of a yoke 115 and a strap 116 secured to the yoke by screws 117 and confining the barrel of the pen or writing member between them. This yoke 115 of the pen clamp is bored transversely at 118 to receive the pin or trunnion 102 of the bracket 100, the inner face of yoke 115 being properly shaped to fit snugly against the outer face of bracket 100 between lugs or shoulders 105, 106. The pen clamp yoke is slightly thinner than the width of the channel 107 between lugs or

flanges 105, 106, whereby the pen clamp can rock to a limited degree upon the pin or trunnion 102. A small lug or projection 120 on the rear face of the pen clamp yoke 115 is designed to rest in the groove or depression 110 of spring 108 to constitute a delicate latch for maintaining the pen clamp in its operative position upon the pin or trunnion 102. In this position the spring 108 tends to hold the pen clamp pressed forwardly against the lug or flange 105 of bracket 100, but yields in the writing operation under pressure of the operator as the pen moves over slight inequalities in the surface of the documents being inscribed.

The above described pen mounting is common to all of the pens of the plural writing machine. In addition to the described features, the mounting for the master pen or that nearest the pilot handle by which the machine is operated, is preferably provided with an additional adjusting screw 125 shown in detail of Figures 5 and 6 of the drawing, said screw passing through the lug or flange 106 and engaging the leaf spring 108 so that the yield of this spring upon the pen mounting for the master pen can be regulated to a nicety to suit the touch and manner of writing of the operator.

In addition to the advantageous yielding mounting for the pens or writing members in a plural writing machine, the improved pen mounting offers means for the ready removal of the pens from their mounting for the purpose of filling when the writing pens are, as usual, in the form of fountain pens. The pen clamps can be easily slipped off of their supporting pins or trunnions and filled in a convenient manner without the removal of the pen clamps from the pen barrels, and afterward returned to their operative position without altering the accurate adjustment of the parts. The springs carried by the brackets upon the pen bar serve the double function of yieldingly holding the pens to their work and affording a simple spring latch for preventing accidental displacement of the pen clamps upon their journal pins or trunnions. In the removal of the master pen adjacent the pilot handle it is desirable to loosen up the tension adjusting screw before attempting the removal of the pen clamp from the bracket.

I claim:—

1. In a machine of the character described, the combination of a pen mounting bracket member adapted to be secured to a pen bar, a detachable pen clamp carrying a writing member mounted upon said bracket, and a spring interposed between said bracket and said pen clamp serving the double function of cushioning the movement of the pen clamp upon the bracket and of latching the clamp in operative position upon the bracket.
2. In a machine of the character described, 130

the combination of a bracket adapted to be mounted upon a pen bar and formed with the spaced laterally projecting trunnion and lug, a pen clamp carrying a writing member and formed with a socket removably mounted upon said trunnion alongside of said lug, and a spring carried by said lug and engaging said pen clamp for cushioning its movement upon said trunnion.

3. In a machine of the character described, the combination of a pen mounting bracket adapted to be mounted upon a pen bar and formed with a laterally projecting trunnion and two spaced lugs upon opposite sides of said trunnion, a pen clamp carrying a writing member and formed with a journal socket removably mounted upon and pivoting on said trunnion, said lugs limiting the pivotal movement of said pen clamp in two directions, and a spring carried by one of said lugs and engaging said pen clamp for cushioning its movement upon the bracket trunnion.

4. In a machine of the character described,

the combination of a bracket adapted to be mounted upon a pen bar and formed with a laterally projecting trunnion, a pen clamp carrying a writing member and formed with a bearing socket removably mounted upon said trunnion, and a spring carried by said bracket and engaging said pen clamp for cushioning its movement upon said trunnion, said spring being formed with a groove or recess and said pen clamp carrying a lug or projection which engages the groove or recess of the spring.

5. In a machine of the character described, the combination of a bracket adapted to be mounted upon a pen bar and formed with a laterally projecting trunnion, a pen clamp carrying a writing member and formed with a bearing socket removably mounted upon said trunnion, a spring carried by said bracket and engaging said pen clamp for cushioning its movement upon said trunnion, and a tension adjusting screw threaded in said bracket and engaging said spring.

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