May 12, 1942. J. A. HOFFMANN 2,282,473

COPY CHARACTER HOLDER

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Fig. 1

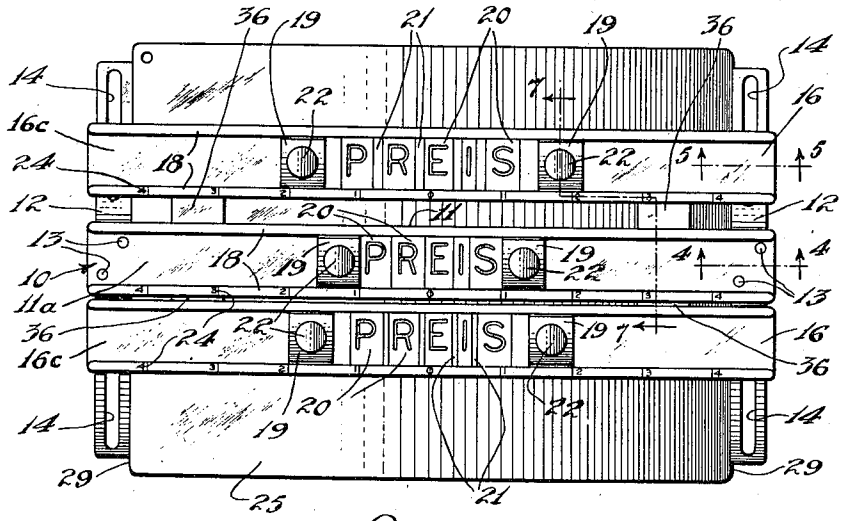
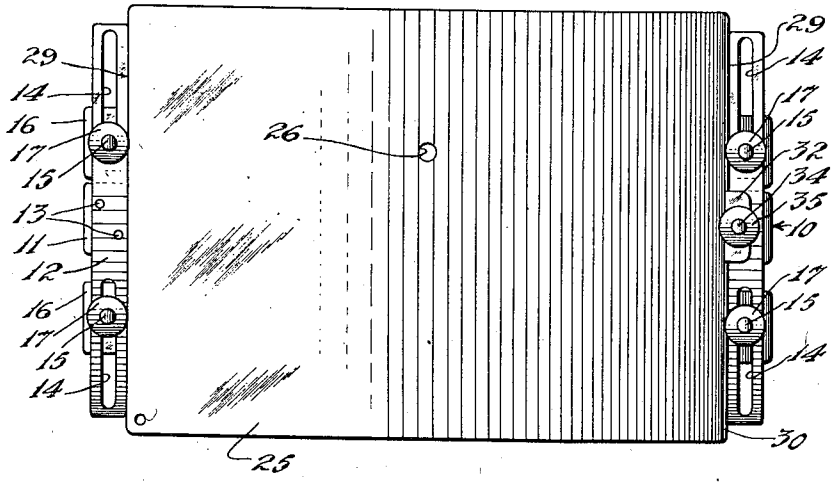


Fig. 2



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Fig. 3

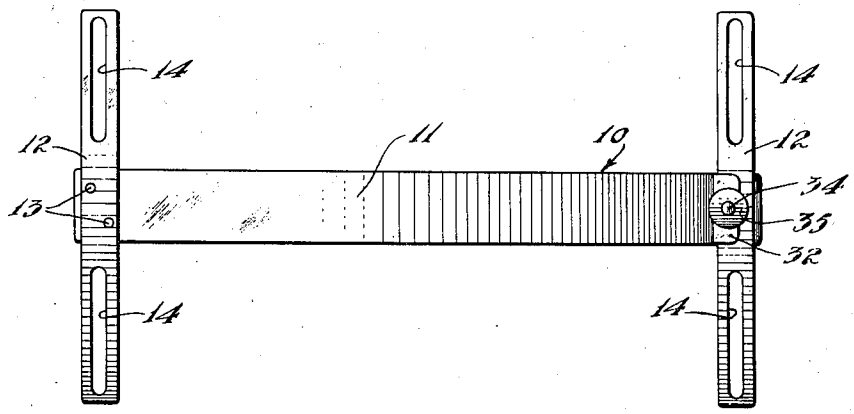


Fig. 4

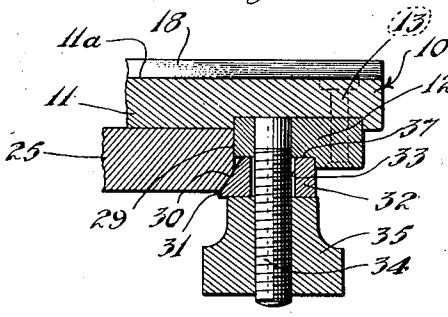


Fig. 5

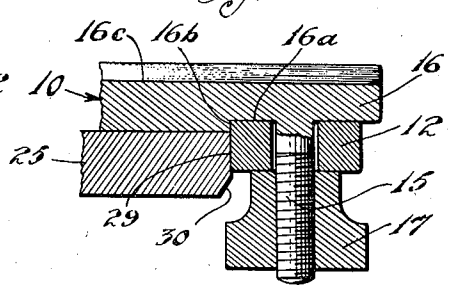


Fig. 6

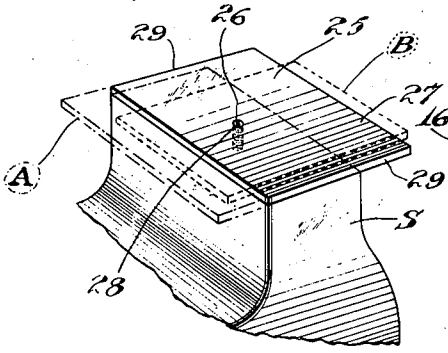
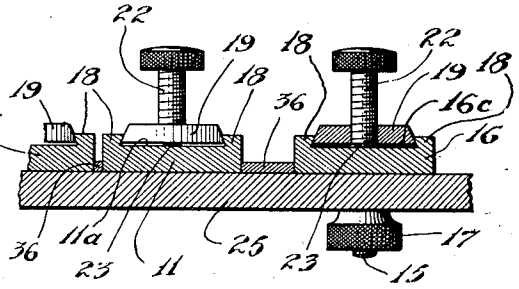


Fig. 7



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UNITED STATES PATENT OFFICE

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COPY CHARACTER HOLDER

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Application November 14, 1940, Serial No. 365,684

6 Claims. (Cl. 90—62)

This invention relates to engraving machines, and has particular reference to such machines wherein the pattern or model is usually composed of a plurality of lines of copy letters or characters arranged in predetermined relative juxtaposition to define a predetermined pattern or model which is traced by a stylus, the movement of the stylus being transmitted to a cutting tool for reproduction of the pattern or design on the work to be engraved.

The stylus and cutting tool are usually arranged on a pantograph, whereby the reproduction may be made in any desired predetermined scale.

The invention is directed particularly to the provision of a copy character holder for engraving machines provided with means for rapidly and accurately assembling the copy characters in predetermined relative juxtaposition to define the predetermined pattern.

A further object of the invention is to provide a copy character holder comprising a channeled member having secured thereto means for assembling a plurality of lines of copy characters in predetermined relative juxtaposition and having means for rapidly and easily securing the assembly to a copy character plate, and for rapidly removing the same from the plate and substituting any other desired predetermined copy characters thereon.

A further object of the invention is to provide a copy base plate provided with the assembly described above, adapted to be secured to the engraving machine standard in predetermined transversely offset position so that the copy character plate may be secured to the standard in more than one position relative to the engraving machine cutter for presenting different positions relative to the cutter.

In the accompanying drawings, wherein like letters and numerals represent like parts,

Fig. 1 is a top plan view of copy character holder embodying the invention,

Fig. 2 is a bottom plan view thereof,

Fig. 3 is a bottom plan view of the medial bar of the copy character holder embodying my invention,

Fig. 4 is a fragmentary, enlarged longitudinal sectional view taken on line 4—4 of Fig. 1 in the direction indicated by the arrows,

Fig. 5 is an enlarged longitudinal sectional view taken on line 5—5 of Fig. 1 in the direction indicated by the arrows,

Fig. 6 is a reduced perspective view of a copy base plate, shown in full lines secured in one position to the engraving machine standard, and shown in dotted lines as secured to the standard in a different transversely offset position, and

Fig. 7 is an enlarged fragmentary transverse sectional view taken on line 7—7 of Fig. 1 in the direction of the arrows.

In the drawings, Fig. 1 shows a copy character holder 10 embodying my invention and comprising, as shown in Figs. 1 and 3, an H-shaped member consisting of the bar 11 having a pair of end members 12 secured thereto by any suitable means, such as by rivets 13 passing through the bar 11 and members 12. The members 12 are provided with a plurality of longitudinal slots 14 adapted to freely receive the depending studs 15 which are preferably riveted or otherwise integrally secured to the channeled members 16, the lower ends of studs 15 being preferably threaded as shown in Fig. 5 for engagement by correspondingly threaded nuts 17 by means of which the channeled members 16 may be frictionally secured to the end members 12 in predetermined spaced relation thereto. To facilitate positioning of the members 16 on the end members 12 of bar 11, the members 16 are provided on the undersurfaces of the ends thereof with transverse recesses 16*a* defining shoulders 16*b* for abutting engagement with end members 12 as shown in Fig. 5. The bar 11, as shown cross-sectionally in Fig. 7, is provided with a pair of upstanding longitudinal walls 18, which are preferably recessed and define a longitudinal channel 11*a* for the reception of correspondingly designed latching members 19, which are used to secure the copy character letters 20 in the channel 11*a*, said copy character letters 20 being of similar cross-section to the latching members 19. Members 16 have similarly defined channels 16*c*; the copy characters 20 are positioned within the channels of members 11 and 16 either in abutting relation as in Fig. 1 in bar 11, or in spaced relation as in Fig. 1 in the members 16; in the latter case, the copy characters 20 are maintained in the desired predetermined relation within the members 16 by spacing elements 21 of the desired width and of the same general cross-section as the copy characters 20. The latching members 19 are preferably threaded for the reception of the threaded bolts 22, the lower ends 23 of which are adapted to bear against the channels as in Fig. 7 so that said latching members may be securely latched therein holding the copy character letters in the members 11 and 16 in predetermined arrangement as illustrated in Fig. 1. The members 11 and 16 may be provided with scale

markings 24 for facilitating the rapid positioning and assembling of the copy characters in the holder.

A base plate 25 (Fig. 6) is adapted to be secured to the engraving machine standard S in any desired or convenient manner, preferably, as shown in Figs. 2 and 6, by providing said base plate with an aperture 26 transversely offset from the center of said base plate, the latter being of greater width than the upper surface of the engraving machine standard S on which the base plate is secured whereby a portion 27 of the base plate will overlie the standard S either on the full line position indicated in Fig. 6 or in the dotted line positions A and B indicated in said figure. By this means, the location or juxtaposition of the copy character holder, on the engraving machine and therefor relative to the engraving machine cutter thereon may be readily varied as desired. The base plate 25 is preferably secured to the standard S by means of a bolt 28 passing through aperture 26 of said base plate and threaded into the standard as indicated in Fig. 6.

The lower longitudinal edges 29 of the base plate are bevelled as indicated at 30 in Figures 4 and 5, said bevelled edge 30 being adapted to be frictionally engaged by the complementarily bevelled edge 31 of the clamp member 32 of the copy character holder 10. The clamp member 32 is provided with an aperture 33 by means of which the clamp may be freely arranged on the stud 34 fixed to and depending from one of the end members 12 of the bar 11, said stud being preferably threaded at its lower end as indicated in Fig. 4 for the engagement by the threaded nut 35. By this means clamp member 32 may be drawn up against the bevelled longitudinal edge 30 of the plate 25 to secure the holder 10 and the various parts fixed thereto to the base plate 25.

By the arrangement described, I have provided a novel means for assembling a copy character pattern with the lines of copy characters arranged in the members 11 and 16 in predetermined relation juxtaposition. It will be obvious that any number of members 16 adapted to be accommodated by end members 12 may be added to the assembly in the manner described above and illustrated in the drawings.

If desired, a plurality of spacing members 36 may be positioned intermediate the adjacently disposed walls of the members 11 and 16 for the purpose of facilitating the rapid and accurate positioning of said members 16 before the tightening of the nuts 17 thereof. If desired one of the members 12 of bar 10 may be provided on the undersurface thereof, with a recessed portion 37 for the partial reception of the clamp member 32 as shown in Fig. 4. It will be noted that I have provided a copy character holder enabling the assembling of a plurality of lines of copy characters in pre-determined relative juxtaposition to define copy character patterns in a rapid and simple manner.

The end members 12 are preferably spaced a distance substantially equal to the length of the plate 25 so that the holder 10 may be transversely positioned on the plate 25 with the end members 12 in sliding, abutting engagement with the longitudinal edges 29 of said plate, so that when the holder 10 and the parts assembled thereon has been moved to the desired position on the plate 25, the holder may be positively secured to said plate by simply tightening the nut 35, drawing the clamp 32 up against the bevelled longitudinal edge 30 of the plate 25.

Although I have shown in the drawings, as one illustration of the invention, copy characters 20 secured within the channels of the members 11 and 16, the term "copy character" is not used in a limiting sense as the invention is adapted for use in the assembly of any copy pattern comprising a plurality of lines of matter to be traced and reproduced on engraving machines.

Having thus described my invention, what I claim is new and desire to secure by Letters Patent is:

1. A copy character holder for engraving machines comprising a bar for holding copy characters said bar being provided with a pair of upstanding longitudinal walls recessed to define a longitudinal channel, copy characters positioned in said channel, means engaging the channel to displaceably secure the copy character thereto and a pair of end members secured to said bar in spaced parallel relation, said end members being adapted to engage the edges of a base plate of an engraving machine, and clamping means carried by one of said end members adapted to engage said base plate for clamping the copy character holder thereto.

2. A copy character holder for engraving machines comprising a bar for holding copy characters and a pair of end members secured thereto in spaced parallel relation, said end members being adapted to engage the edges of a base plate of an engraving machine, a stud fixed to and depending from one of said end members, a clamp member carried by said stud and provided with a bevelled surface adapted to engage said base plate for clamping the copy character holder thereto and means engaging the stud and clamp member for positioning the bevelled surface of the clamp against the base plate to latch the bar thereto.

3. A copy character holder for engraving machines comprising a bar provided with means to secure copy characters thereto and having a pair of end members secured thereto in spaced parallel relation, one of said end members being provided on the undersurface thereof with a recessed portion, a stud fixed to and depending from said end member at the recessed portion thereof, and a clamp member carried by said stud and adapted to be received in said recessed portion and adapted to engage an engraving machine base plate for clamping the copy character holder thereto.

4. A copy character holder for engraving machines comprising a channelled bar, a pair of end members secured thereto in spaced parallel relation, said end members being adapted to engage the edges of a base plate of an engraving machine and being provided with longitudinal slots, and channeled members provided with depending means passing through said slots for removably securing said channeled members to the end members, said bar and channeled members having means to secure copy characters therein.

5. A copy character holder comprising a base plate having means to secure the same to an engraving machine standard, said base plate being provided with a longitudinal bevelled edge, an H-shaped copy character holder adapted to be positioned on said base plate in sliding abutting engagement with the longitudinal edges thereof, clamp means carried by said copy character holder and engaging said bevelled edge, and channel members adjustably secured to said copy character holder for securing a plurality of lines

of copy characters thereto in predetermined spaced relation.

6. A copy character holder for engraving machines comprising a bar for holding characters, a pair of end members secured thereto in spaced, parallel relation, said end members being adapted to engage the edges of a base plate of an engraving machine, a stud fixed to and depending from one of said end members, and a clamp member carried by said stud and adapted to engage the engraving machine base plate for clamping the copy character holder thereto.

JACOB A. HOFFMANN.