Oct. 6, 1942. G. W. BRATCHER ET AL 2,297,684

SCRIBER

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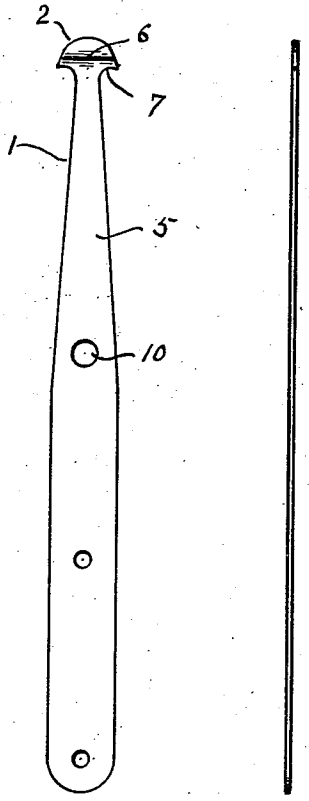


Fig. 1.

Fig. 2.

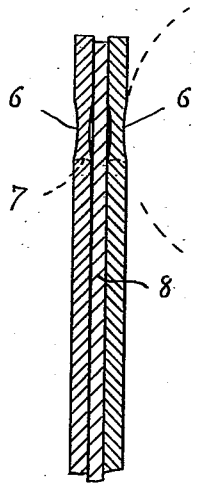


Fig. 4.

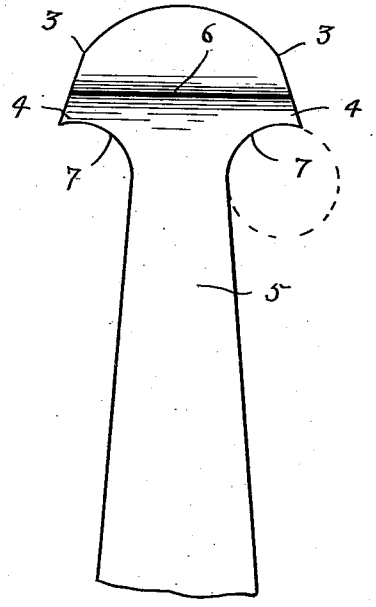


Fig. 5.

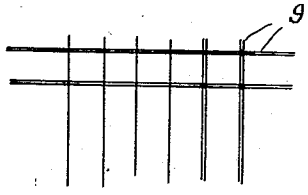


Fig. 6.

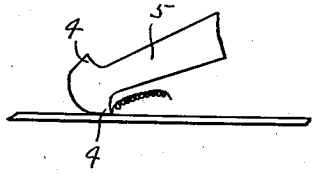


Fig. 3.

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SCRIBER

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Application May 23, 1941, Serial No. 394,892

3 Claims. (Cl. 33—32)

This invention relates to scribing tools, and has particular reference to one especially adapted for use in the removal of emulsion from the surface of films used in making contact impressions on zinc plates for photo-lithographic or photo-offset printing, and one which may be used for scribing lines on the zinc plate itself.

The principal object of the invention is to provide a more practical tool for this purpose and one which will make lines in the emulsion or on the plate having perfectly smooth edges with no ragged areas therein that might interfere with the reproduction of a perfect line.

Another object is to provide such a tool of fixed gage for the forming of lines of predetermined width.

Another object is to provide a tool for the forming of double or triple lines when desired.

Other objects and advantages of the invention will appear in the following description thereof.

Referring now to the accompanying drawing, forming part of this application, and wherein like reference characters indicate like parts:

Figure 1 is a side elevation of one of our improved scribing tools, as used, with the exception that a suitable handle may be riveted or otherwise attached thereto.

Figure 2 is an edge view of Figure 1.

Figure 3 is a view of the head of a scriber in action and illustrates the curling away from the cutting edge of the tool of the ribbon of the emulsion from a film.

Figure 4 is an enlarged longitudinal central sectional view of a double tool for the making of double lines.

Figure 5 is an enlarged elevation of the head end of the scriber, illustrating one concaved side thereof.

Figure 6 is simply a representation of the type of lines which may be accomplished on the film or plate by the scriber.

The instrument is formed of relatively thin, flat tool steel and of the form shown in Figure 1 which is a full-size side elevation of the instrument, the upper end of the handle portion tapering as indicated at 1 to the narrow neck immediately adjacent the head 2 of the instrument. The upper edge of the head is illustrated as being in the form of an arc of a circle though no particular shape thereof is essential. However, from the point indicated at 3 to the cutting edge of the tooth 4 the edge of the head is preferably straight, which provides convenience in placing the tool at the proper angle on the film or plate so that the cutting edge leads properly.

The sides 5 of the tool are generally perfectly flat, but from a short distance downwardly from the free end of the head portion to the teeth 4 the sides are slightly concaved, transversely, as clearly illustrated at 6, to provide the positive marginal terminus of said teeth. Furthermore, the edges of the portions, indicated at 7, leading from the cutting edge of the teeth to the shank, are also concaved, or hollow ground, for the purpose desired, being formed with a circular or spherical grinding tool.

Consequently it is apparent that the teeth 4 are formed by an acute angle, and the edge of one leg 7 of said angle being hollow ground, presents a sharp cutting edge at each side of each tooth 4, and which when drawn along the emulsion on a film insures the positive and clean cutting thereof to produce the perfect line desired therein.

Thus, with the exception of the slightly concaved portion on opposite sides of the head, the tool is flat so that two of the same may be placed side by side for the purpose of providing a double scribing tool as shown in Figure 4 of the drawing, and wherein an intermediate spacer strip, indicated at 8, is employed. This spacer strip may be of any desired width to provide the proper spacing between the two tools, when double lines, such as indicated at 9, may be made.

The doube headed feature of the tool has further novelty in that each cutting edge 4 thereof is of different width so that each tool is equipped to make either of two lines of different width. In most bookkeeping forms there are light and heavy lines and thus by providing the tool with different predetermined widths, at the cutting edges 4, one tool can produce either type of line desired. This feature is also true in the case of the single tool illustrated in Figures 1 and 2.

There is suggested in dotted lines the approximate position of grinding units for accomplishing the desired shape of the tool, and at 10 is illustrated a hole through the instrument for convenience in suspending the same when not in use.

Having thus described our invention, what we claim and desire to secure by Letters Patent, is:

1. A tool for scribing lines in the emulsion on the surface of films used in lithographic or offset printing, including a handle, a head having sides and edges issuing from one end of said handle, said sides being concaved on an axis at right angles to said tool axis, and a scribing tooth at one edge of said head, the leading face

of said scribing tooth being concaved both in longitudinal and transverse direction.

2. A tool for scribing lines in the emulsion on the surface of films used in lithographic or offset printing, including a handle, a head having sides and edges at one end of said handle, and a scribing tooth at one edge of said head, the leading face of said tooth being concaved both longitudinally and transversely.

3. A tooth for a tool for scribing lines in the emulsion on the surface of films used in lithographic or offset printing, comprising a scribing edge formed by the intersection of the edges of said tooth, the leading face of said tooth when scribing, being concaved both transversely and longitudinally.

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