

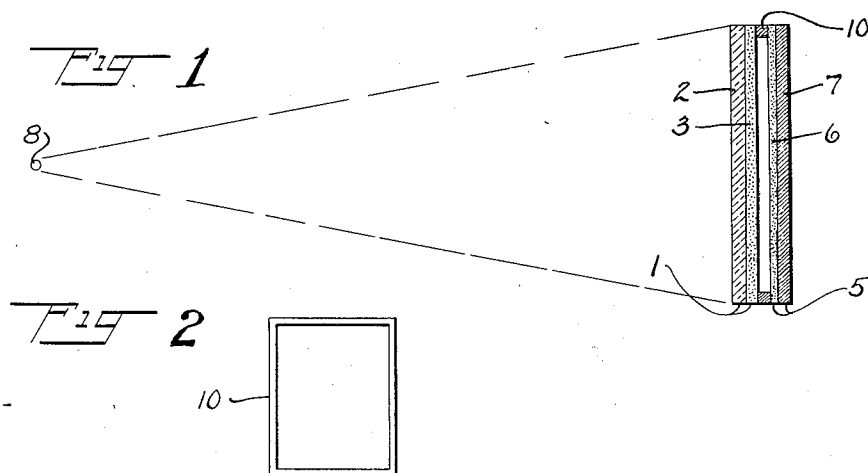
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PROCESS OF MAKING PHOTOMECHANICAL PRINTING PLATES

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PROCESS OF MAKING PHOTOMECHANICAL PRINTING PLATES.

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The invention relates to making photo-mechanical printing plates, and more especially to a novel method of simplifying and speeding up the making of such plates.

5 Objects and advantages of the invention will be set forth in part hereinafter and in part will be obvious herefrom, or may be learned by practice with the invention, the same being realized and attained by means of the instrumentalities and combinations pointed out in the appended claim.

The invention resides in the novel and useful step and process herein shown and described.

15 The accompanying drawings, referred to herein and constituting a part hereof, illustrate one embodiment of the invention, and together with the description, serve to explain the principles of the invention.

20 Of the drawings:

Fig. 1 is a diagrammatic view and

Fig. 2 is a detail of a spacer.

In certain lines of photo-engraving or photo-mechanical plate making, great speed is 25 requisite and concomitant therewith the maintenance of high quality of product. In various branches of the work, as for example the making of plates for daily newspapers, the saving of time, even to the fraction of a minute is very desirable, and usually essential, in order to illustrate the latest news. At the same time the plates must be of such quality as to produce good results under the well-known exacting and unfavorable conditions of newspaper illustration. 35

In other lines of work the saving of time is also very important, for these and other reasons. Also, in a plant turning out a large volume of work, the saving of even a very small amount of time in the making of each plate will very substantially increase the output of the plant with a given space, equipment and working force, thereby greatly increasing the efficiency of the plant. 40

45 In making photo-mechanical printing plates, it is essential to keep the light-sensitized surface of the plate entirely dry until after its exposure to the light through the negative, as otherwise the plate when developed is likely to be spotted or otherwise marred, and thereby rendered commercially unacceptable. 50

In the past the sensitized surface has been maintained in the dry state by thoroughly drying the liquid saturated image bearing lay-

er or coating of the negative before placing 55 the negative and the sensitized surface of the plate in printing contact relation to impress the image of the negative on the light sensitive surface of the plate. This drying of the negative is a relatively very slow and time consuming operation as it involves the drying of the saturated image bearing coating, as just explained. 60

I have invented a very simple process or step in the making of photo-mechanical plates 65 whereby the time consumed in drying negatives is entirely saved. This invention consists essentially in providing effectively, in various ways, a protective interposed dry surface between the light-sensitive surface of the plate and the wet negative or the wet image-bearing layer of the negative, and exposing the plate to the light through the negative while in the printing contact relation. 70

Thus the time of drying the plate is saved 75 and at the same time the sensitive surface of the plate is preserved from damage or impairment.

In Fig. 1 the negative 1 and the printing plate 5 are shown in printing contact relation but the sensitized surface 6 of the plate and the liquid saturated or impregnated coating 3 of the negative are kept just out of actual contact one with the other by a very thin spacing member 10. This is preferably an 80 open frame just within the edges of the plate and negative, as shown in Figs. 1 and 2. This frame is sufficiently thin that it does not impair the practical printing contact relation. That is, a sharp plate can be made from the 85 negative without employing parallel light rays. 90

In all these examples light producing means (shown diagrammatically) may be provided of any suitable or efficient form for use in 95 making a plate when the latter is in printing contact relation with the negative.

What I claim is:—

The process of making a photo-mechanical printing plate which comprises making a 100 negative, and bringing the wet, undried negative and a light-sensitized plate very close together, but not actually touching, the slight separation being effected by placing a very thin spacing frame therebetween. 105

In testimony whereof, I have signed my name to this specification.

FRANK T. POWERS.