

UNITED STATES PATENT OFFICE.

LOUIS W. BURGESS, OF WHEATON, ILLINOIS:

PROCESS FOR MAKING CUTS.

1,155,128.

Specification of Letters Patent.

Patented Sept. 28, 1915.

No Drawing.

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To all whom it may concern:

Be it known that I, LOUIS W. BURGESS, a citizen of the United States, and a resident of Wheaton, in the county of Dupage and State of Illinois, have invented certain new and useful Improvements in Processes for Making Cuts, of which the following specification is a full, clear, and exact description, such as will enable others skilled in the art to which it pertains to practise and use the same.

My invention relates to the making of cuts for reproduction by printing in a press for newspapers, magazines, periodicals, and the like.

The primary object of my invention is the production of a cut that will reproduce a photographic positive in a clear and sharp manner, wherein the definition between the high-lights and shadows will be properly accentuated.

Further objects of my invention are the production of a clear cut in a simple manner so that the cost thereof will not materially add to the cost of the photographic positive, and which may be carried on or practised by workmen who are not experts in the art of photography.

The above and other objects I prefer to accomplish by the means and in the manner hereinafter fully described and as more particularly pointed out in the claims.

It is the practice of newspapers, magazines, and similar periodicals and publications, to make a half-tone cut through a screen directly from the positive photographic print, after first retouching the print in any desirable manner to accentuate the high-lights and shadows, or to cut out portions thereof not needed in the finished cut. The screen usually employed for this purpose is what is commercially known as a 120-line screen and has been found to be so well adapted for this use that it has become almost a standard among electrotypers. But this process involves the difficulty of making the cut through the 120-line screen and also carries with it such inaccuracies as may occur in the retouching into the final cut.

In carrying out my process I prefer to make a photographic negative enlargement of the positive photograph through a screen the line gage of which is much coarser than the screen usually employed and which is preferably a multiple thereof. For this purpose I propose to make this negative en-

largement through a 60-line or 40-line screen and the enlargement is so proportioned as to be preferably twice or three times the dimensions of the final print. A positive direct line print is made from this 60-line enlargement, which produces a picture composed of black and white areas of such size as to render them easily blocked out in the retouching process, and, after this 60-line print is developed and dried, it is adapted to be retouched by blocking out with white or black ink the portions it is desired to correct, cut out, or accentuate in the finished print. A direct photograph of the size desired for the cut is then made from this retouched enlargement, which is the basis for the final cut. It will be seen that such a direct photograph constitutes areas of black and white which has all the characteristics of a line cut including the clearness and sharpness thereof. It will also be understood that inaccuracies that may have occurred in retouching will be minimized in the reduction so as to be rendered unnoticeable in the cut.

In practising my process I prefer to make the screen photograph twice or three times larger than the final cut is desired, and in so doing I employ a screen either twice or three times coarser than the ordinary screen of 120-mesh. The result thereof is that while I obtain a final photograph and cut of materially increased sharpness the squares thereof are of the same size as half-tones made through a 120-line screen, and my cut therefore has, with the increased clearness obtained through my process, the same general texture and fineness of a half-tone made with a 120-line screen.

While I have herein described a specific manner of carrying out my invention, it of course will be obvious to others skilled in the art, that various modifications thereof are possible without materially departing from the spirit of my invention. For example, a negative enlargement may be made and the same retouched in lieu of the print enlargement above described, and the reduction made directly from the retouched negative instead of first making the print therefrom. I therefore desire it understood that all such modifications or refinements are contemplated within the scope of my invention as expressed in the following claims.

What I claim as new is:—

1. The process of making a cut comprising the making of a photograph through a

screen of coarse mesh, the retouching of said coarse mesh photograph, and the photographic reduction of the retouched coarse mesh photograph to the size required for the cut.

2. The process of making a cut comprising the making of an enlarged photograph through a screen of coarse mesh, the retouching of said coarse mesh photograph, and the photographic reduction of the retouched coarse mesh photograph to the size required for the cut.

3. The process of making a cut comprising the making of a photograph through a screen of coarse mesh a number of times larger than the final cut desired, the retouching of said coarse mesh photograph, and the photographic reduction of the re-

touched coarse mesh photograph to the size required for the cut.

4. The process of making a cut comprising the making of a photograph through a screen of coarse mesh a number of times larger than the final cut desired, the retouching of said coarse mesh photograph, and the multiple photographic reduction of the retouched coarse mesh photograph to the size required for the cut.

In witness whereof I have hereunto set my hand at Chicago, Cook county, Illinois, this 11th day of November, 1914, in the presence of two witnesses.

LOUIS W. BURGESS.

Witnesses:

E. K. LUNDY, Jr.,

WM. HAROLD EICHELMAN.