

## **Technical Notes on *Stars and Stripes* (1939), *Boogie Doodle* (1940), *Dots* (1940), *Loops* (1940), *Mail Early for Christmas* (1941), *V for Victory* (1941), *Hen Hop* (1942)**

### **The Visuals**

The visuals of the above films were drawn directly on clear 35 mm film with pen and India ink. This produced a black-line image original (first generation). From this was made a clear-line-image-on-black print (second generation), and then from this a black-line-image-on-clear print (third generation).

The second and third generation prints were used to make colour prints on a now defunct 2-colour black & white separation process (Warner Colour System). This process used two dyes, red and blue; two passes were needed to make the final colour print.

Printing the second generation print (clear image on black ground) with the red dye produced a red linear image on a clear ground. Then, with a second pass, using the third generation print (black-image-on-clear) printing for the blue dye produced a blue background with an unexposed linear image.

The final result was a red linear image on a blue ground.

If the red and blue dyes overlapped the result was black; if they underlapped the result was clear. By slightly horizontally off-setting the printing of the 2<sup>nd</sup> & 3<sup>rd</sup> generations with each other, the red-line image developed a black edge on one side and a clear edge on the other side. This off-setting method was used in several of the above films.

In *Mail Early for Christmas* panning and zooming backgrounds, shot originally in black and white, were superimposed on the linear images.

### **The Soundtrack & Synchronization**

The soundtracks of the above films (with the exception of *Dots* & *Loops*) were recorded prior to the visuals. For synchronization in all such cases, the soundtrack was then threaded on the sound head of a moviola with blank leader on the picture head. With both running interlocked (often at slower than normal speed), the musical beats, phrases and sentences, were tapped out on the blank leader with grease pencil. The leader was then run through a frame-counter and the distances in terms of frames between grease pencil marks measured as an accumulating total, from which the number of frames between each beat could be derived.

These measurements were written down on a “dope-sheet” which provided all information necessary for synchronization (where needed) of the visuals with the sound. This is, of course, one of the usual standard practices for synchronizing animation to pre-recorded soundtrack.

The soundtrack for *Dots & Loops* was drawn and painted directly on 35 mm film. See separate Technical Notes for this.\*

Norman McLaren (1985)

## **Technical Notes on *Five for Four* (1942), *Dollar Dance* (1943), *Hoppity Pop* (1946)**

### Visuals

The visuals of these three films were made in the same way as the seven films grouped under *Stars and Stripes*, except that a 3-colour black-and-white separation process, rather similar to Technicolor, was used (VITA-COLOR, now defunct). Its dyes were yellow, magenta and cyan.

Three parallel originals were prepared as the separations; in the case of *Hoppity Pop*, with different images on each separation. For *Five for Four* one of the separation carried photographed black and white panning backgrounds.

### Soundtrack

In all three films the music came before making the visuals. *Five for Four* used boogie-woogie piano lifted from a disc. *Dollar Dance* had a special score written by L. Applebaum with lyrics by N. McLaren and Guy Glover. The old-fashioned calliope track for *Hoppity Pop* was found in the NFB music library.

Norman McLaren (1985)

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\* Footnote : Handmade Soundtrack