

### DECISION OF THE COMMISSIONER

IN THE MATTER of a request for a review by the Commissioner of Patents of the Examiner's Final Action under Section 47 of the Patent Rules (Prior to the Amendment by Order-in-Council P.C. 1970-728 effective June 1, 1970).

AND

IN THE MATTER OF a patent application serial number 850,482 filed May 31, 1962 for an invention entitled:

LINE SEQUENTIAL COLOR XEROGRAPHY

Patent Agent for Applicant: Messrs. Gowling & Henderson,  
Ottawa, Ontario.

This decision deals with a request for a review by the Commissioner of Patents of the Examiner's Final Action rejecting claims 1-4 inclusive, of Application No. 850,482. This request was made in accordance with Section 47(3) of the Patent Rules (prior to amendment by Order-In-Council P.C. 1970 - 728 effective June 1, 1970), dated May 8, 1970.

The Patent Appeal Board has reviewed the prosecution of this application and the facts are as follows:

Application No. 850,482, filed May 31, 1962 in the name of W.E. Bixby relates to Line Sequential Color Xerography and more particular to a method of image reproduction comprising prismatically breaking a light image pattern into spectra bands, and illuminating a sensitive xerographic plate with said spectra bands to form a corresponding electrostatic latent image.

The examiner reported on the application on April 22, 1964. because the search for prior art had revealed no pertinent references the objections made were confined to informalities under Sections 25 and 22(2) of the Patent Rules. Rule 39 was also invoked.

The applicant responded October 22, 1964, listing the references cited during examination of the corresponding application filed in U.S.A. The disclosure and claims were amended to meet the examiners rejection and to comply with the Rules. The prior art was discussed in detail by the applicant and allowance of the amended claims was urged.



The examiner's report of August 15, 1967 refused claims 1-4 and 19 as being too broad and failing to define over two publications made of record in the applicant's response noted above. Claims 3, 10 and 13 were also rejected as inexplicit under Section 36(2) of the Patent Act, on formal grounds.

The applicant's response of February 8, 1968, amended claims 3, 10 and 13 and added new claims 12-21 and 31-37 and argued for allowance thereof on the basis that the prior art microdispersion systems were confined to the photographic art only, and had not been applied to xerography until this application. It was also pointed out that microdispersion had never achieved practical development in photography.

The examiner's action of May 7, 1968, divided the claims into six groups of different subject matter and indicated how the claims must be restricted to one invention under Section 38(2) of the Patent Act and Section 60(1) of the Patent Rules. Claim 28 was also rejected on formal grounds.

The applicant's response of October 31, 1968, cancelled all but two groups of subject matter including claim 28, thus satisfying the requirements of the previous examiner's report.

The fourth examiner's report of February 14, 1969, applied prior art including the following references:

RCA Review: Sept. 1958, Rydz  
U.S.A. Patent 2,278,940 Apr. 7, 1942, Murphy  
Canadian Patent 357,742 May 12, 1936, Prienerstorfer  
Canadian Patent 93,040 May 9, 1905, Drac

Claims 1-5 were refused as being too broad and failing to define patentable subject matter over the references. These claims were also refused as being obvious to use prismatic color separation techniques for color separation in electro-photographic processes such as xerography.

The applicant's response of May 12, 1969 traversed the examiner's rejection and argued that the Rydz reference is experimental and does not clearly teach that photograph and xerography are analogous arts and that claims 1-5 are neither anticipated by, nor obvious, in view of the references. It was further argued that it was unwarranted to combine references from non-analogous arts.

The examiner's report of June 24, 1969, again rejected claims 1-5 on the above cited references and pointed out that electro-photographic methods are taught by the Rydz reference, which are analogous to xerography, that Rydz uses a color separation technique using filters to provide tristimulus information and color strip development in the electro-



photographic process. The examiner holds that it is obvious to replace the colour separation techniques of Rydz with prismatic separation techniques of Drac, Murphy or Preinerstorfer.

The applicant's response of September 19, 1969, traversed the above rejection and stated that the claims rejected are not anticipated by a single reference and that the references have been improperly combined to reject on obviousness. Applicant contended that the combination of references is unobvious and inoperable, and non-anticipative. The applicant reviewed each reference in detail and argued the reasons why the alleged combinations are inoperable.

The last examiner's report was issued February 1, 1970 under Rule 46 and was made "final". This report was essentially a repetition of that of June 24, 1969, with the exception that only claims 1-4 were refused.

On May 8, 1970 the applicant requested a review of prosecution by the Commissioner of Patents. The applicant presented arguments traversing the Final Rejection, which are a reiteration of those presented in the response of September 19, 1968, with a more detailed analysis of the references. It might be noted that at no time did the examiner reject on anticipation or lack of novelty.

Upon review and careful consideration of the grounds for rejection set forth by the examiner, as well as all the arguments presented by the applicant, I am satisfied that the rejection of claims 1-4 is well-founded.

A basic point at issue appears to be: Is it obvious to apply certain specific photographic exposure techniques, in particular the color separation technique, to electro-photographic processes e.g. xerography?

A review of the prior art shows that Rydz et al (R.C.A. Review, September 1958) discloses an electrographic process for the preparation of color prints. Color separation techniques by color filters are discussed (pages 473-477). This color separation process provides color information in the form of tristimulus values for every area in a scene.

Drac (Canadian Patent No. 93,040), discloses a method of producing three negatives, each one representing a different color. The image is separated by prisms and lenses.

Murphy (U.S. Patent No. 2,278,940) discloses means for producing pictures in color by employing a dispersion prism for directing light from the picture to be reproduced to different light sensitive elements. Electrical signals are



modulated in accordance with the light received by the light sensitive elements. The modulated signals control paint guns, which paint a color picture corresponding to the original picture.

Preinerstorfer (Canadian Patent No. 357,742) teaches production and reproduction of colored photographs, especially motion picture photography. The light image pattern is prismatically broken into spectra bands which are projected onto a photographic layer.

Claim 1 of the application reads:

A method of image reproduction comprising prismatically breaking a light image pattern into spectra bands, and illuminating a sensitive xerographic plate with said spectra bands to form a corresponding electrostatic latent image.

It is obvious that this claim reads on the Rydz et al except for the color separation technique (prismatic).

Is there an inventive step in using a prism to break a light image pattern into spectra bands in this situation? Rydz uses a filter technique. There are other ways of breaking a light image pattern. In the three patents referred to above, the light image pattern is prismatically broken into spectra bands.

The applicant contends that "there can be no analogy drawn between photographic processes and those concerned with xerography" (Applicant's letter of May 8, 1970, page 7). However, the proceedings of the IRE (Institute of Radio Engineers) differ on this, and in their "Standards on Electrostatic-graphic Devices, 1961" (approved April 14, 1960) page 619, March 1961 Proceedings, define "xerography" as "That branch of electrostatic electro-photography which employs a photoconductive insulating medium... for producing a visible record". Further it is known to apply some photographic exposure techniques such as exposure by lens systems, contact exposure and scanning to xerographic plates. It merely involves the substitution of one photo-sensitive (xerographic) recording medium for another (photographic). It is obvious that exposure times, required light intensities, spectral responses, etc. will vary with the characteristics of the medium. It is also obvious that one would obtain an electrostatic latent image in electro-photography whereas a latent chemical image results in photography. I therefore find the analogy drawn between photographic processes and those concerned with xerography to be proper.

Claims 2-4 include the further step of developing the latent image. This step is required if one is to perceive a



visible image. Claim 2 sets forth the development step in such broad terms of desired result as to fail to define over three-color development procedure of structured images described in Rydz et al. Claim 3 is directed to an obvious step. Claim 4 dependent upon claim 3 merely sets forth an apparatus limitation already provided in Preinerstorfer.

Claims 1-4 are not specific claims and are indeed couched in very broad terms. The substitution of the prismatic technique as claimed does not perform or effect some new function or result with the elements of the combination.

In view of the cited references I am satisfied that it is an obvious step to merely replace the color separation techniques as used by Rydz et al, with a well-known prismatic color dispersion technique as taught by Drac, Preinerstorfer or Murphy and arrive at the broad solution of the method of image reproduction as defined in claims 1-4.

I find the subject matter of the claims do not exhibit inventive ingenuity in view of the prior art and the rejection of the examiner is upheld. Claims 1-4 stand rejected.

R. E. Thomas,  
Chairman, Patent Appeal Board

I agree with the findings of the Patent Appeal Board. The rejection of claims 1-4 is upheld. Prosecution of the application will be resumed on the basis of the remaining claims in due course.

Decision Accordingly,

A.M. Laidlaw,  
Commissioner of Patents.

Dated at Ottawa,  
Ontario, this 3rd  
day of November, 1970