The 1973 Prime Minister Definitives

by LEOPOLD BEAUDET

The current 1c to 6c definitive set featuring Canadian Prime Ministers was printed by the Canadian Bank Note Co. using line gravure. The stamps were printed in sheets of 600 arranged in three horizontal by two vertical panes of 100. Along with the 8c which was printed by the British American Bank Note Co. they were issued on October 17, 1973, to replace the Centennial definitives. The issue marked the first time that CBNC employed something other than line perforations; in fact, the method of perforation is almost unique in stamp production.

The pins on a one-row comb perforator are usually arranged to form a string of T's so that the overall pattern looks like a comb. The length of the comb is equal to that of the sheet and the length of the fingers to that of a single stamp. If a sheet is not moved the correct distance between successive strikes a misalignment will occur at the corner of the stamps being perforated, and this irregularity will be constant along the entire row of stamps in the sheet. Line perforation irregularities in contrast occur in haphazard fashion.

CBNC have not used this pin arrangement but rather a perforator whose pins form a string of H's — a double-sided comb with the fingers on each side equal to half the size of the stamp. This means that at each strike one complete horizontal row of holes is produced as well as half the vertical holes in the stamps immediately above and below the horizontal row. Any perforation misalignment will therefore appear as a spacing irregularity in the middle rather than at the corner of each stamp in the same row. I refer to this as "1 row H comb" to distinguish it from the more common "1 row T comb" perforation.

The first comb perforated commemoratives printed by CBNC, the 1974 Winter Sports issued Sept. 23, used this pin arrangement, although the sheet was rotated 90 degrees so that entire columns were perforated at each strike. Perforation misalignments (and they were frequent on this issue) appear along the horizontal perforations at the midpoint of each stamp. Other stamps perforated this way include the 1975 Water Sport semi-postals, the $1.00 and $2.00 Ashton-Potter Olympic stamps of 1975, the Subarctic Indians artifacts and way-of-life pair, the 8c Calgary Centennial, and the second 1975 Semi-postal set.

An extra twist was added in the case of the PM definitives because they were initially perforated using a 2 row H comb; that is, the comb consisted of two strings of H's one on top of the other. At each strike two horizontal rows of perforations were produced along with the vertical holes between them and half the vertical holes in the stamps immediately above the top row and below the bottom one. This means that any perforation misalignments will appear along the vertical perforations at the midpoint of the stamps in either but not both the even or odd rows of a pane.

To my knowledge this method of perforation has been used only once before in stamp production, *ie,* on some of the low values of the 1960 New Zealand definitive set (the so-called Chambon experimental perforations). These are listed in specialized catalogues (*eg*: Stanley Gibbons Elizabethan Catalogue), and blocks of six showing pronounced misalignments command a premium because the perforator was in use for only a brief period before being replaced by the more conventional T comb.

The perforations are quite helpful in plating the panes on the sheet because panes with misalignments in the even rows must come from the top and those with odd row misalignments from the bottom. This comes about as follows: the gutter separating the two rows of panes in the sheet is equal to the height of a stamp, and the

sheet is perforated before being guillotined. The first strike perforates the upper margin (seven holes in each column), the complete first rows of stamps, and the upper half of the second row of stamps (seven holes per column again). Any misalignments between strikes will therefore appear at the midpoint of the second and subsequent even rows. Working its way down the top half of the sheet, the perforator punches out the bottom half of the tenth row of stamps, the complete gutter, and the top half of the first row of stamps in the bottom three panes of the sheet. Thus any misalignments will appear in the odd rows of these panes. At its final strike the perforator punches out half the ninth row, all the tenth, and the bottom sheet margin. Consistent with this, panes with even row misalignments never have more than seven holes in the top margin but may have eight in the bottom depending upon how accurately the sheet was perforated and guillotined. Just the opposite holds for panes with odd row misalignments.

Switching attention now to the left and right sheet margins, the comb has four pins at the ends of each horizontal row which perforate the sheet margins to facilitate separation of the stamps. If there is a blank space in the left or right margin of a pane where a fifth hole should have been, then that margin is part of the sheet margin. If there are more than four holes in the right margin, the pane comes from the first or second column of the sheet, and similarly if there are more than four in the left, it comes from the second or third.

Another pointer of pane position is the length of the phosphor bars in the top and bottom margin. If the bars extended the same distance above the top row and below the bottom row of perforations, they would cover the equivalent of 2.75 perforation holes. This never occurs. For panes with even row misalignments the phosphor bars are consistently shifted toward the top, whereas for panes with odd row misalignments the opposite is true. In the dozens of panes and plate blocks I have examined, only one has not conformed to this rule.

Panes can therefore be plated using the phosphor bars rather than the perforations. This fact is significant because some time between June 1974 and April 1975, CBNC switched from a two row to a one row comb perforator. Unfortunately the gauge of both combs is identical (11.9 x 12.4) so the only way to differentiate them is to note whether misalignments occur in any row or just the even or odd. This test is not entirely satisfactory since theoretically it is inconclusive in the second case. However because misalignments are so frequent the chances of their appearing in only the even or odd rows of an entire pane perforated with a one row comb are very slight.

In most cases it isn't necessary to distinguish between the combs because different papers, readily identified with an ultra violet lamp are involved. Two exceptions will be noted.

An interesting variety has occurred on the one-row comb. During the printing of the 5c value on dull paper (paper No. 5b described later) one of the pins broke, and the result, of course, is evident in every row of the panes affected. The pin in question is the left-most horizontal one in the second column of stamps from panes in the third column of the sheet. So far only the 5c has been found thus. Missing pin varieties were common on Canadian line perforated stamps, and a missing pin has been seen on two issues printed by the British American Bank Note Co. which are harrow perforated (that is, a complete pane is perforated with one strike of the comb so that a missing pin appears once per pane always in the same location). However this is the first time that such a variety has occurred on a comb perforated stamp.

To be continued

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Part II

The various paper varieties are listed here in their chronological order. The dates correspond with my first knowledge of the existence of the paper, so that earlier examples of usage are possible. The degree of fluorescence is described as dull, low fluor, medium fluor, and high fluor with plus or minus signs denoting minor shade variations.

Although the designations are somewhat arbitrary, sorting papers should present no problem if the following guidelines are used. Plate 1 of the 3c, 5c and 6c is available only on the low fluor smooth paper (No. 1). Current stocks of the 2c, 4c and 6c at major post offices are likely to be on the dull smooth paper (No. 5). The dull 5c is available only on the dull shade (No. 5b). Finally for the 2c value the only smooth paper which fluoresces more than the low fluor is the high fluor (No. 2). Once these papers are identified the others should fall into place.

No. 1. Smooth low fluor

The initial printing of the 1c to 6c issued October 17, 1973, was on this paper. The precancelled stamps began appearing in February 1974. The 6c comes with 2-row (plate 1) or 1-row (plate 2) H comb perforation. Although plate 2 of the 6c became available from the philatelic bureau only in late March 1976, it appeared on the original low fluor paper (and two others) which, judging from post office stocks, had been obsolete for some time. This would indicate that the first printing from plate 2 took place early in 1975, a full year before the bureau began selling it.

1c, 2c, 3c, 4c, 5c, 6c: 2 row H comb; all available on plate 1.

6c: 1 row H comb; plate 2 available.

Precancelled stamps 1c, 3c, 5c, 6c: 2 row H comb.

No. 2. Smooth high fluor

Soon after it was issued, the 4c was reported on high fluor paper, and around May 1974, the 2c and 6c were also available at post offices. In mid-February 1976, the 5c belatedly appeared on this paper. Because the perforation is the original 2 row H comb rather than the 1 row which was noted as far back as April 1975, it seems fair to conclude that this printing was made at the same time as the 2c, 4c, and 6c but remained dormant in post office supply depots because it is a seldomly used value. In fact the 5c Centennial definitive could still be found in some large post offices in February 1976.

2c, 4c: 2 row H comb; plate 1 available.

5c, 6c: 2 row H comb; post office stock only.

Precancelled stamps 6c: 2 row H comb.

No. 3. Smooth medium fluor

In June 1974, the 6c appeared on a paper more fluorescent than No. 1 but much less than No. 2. Shortly thereafter the 4c also appeared and the 5c finally showed up in December 1975. Again the 6c is available with both perforations; it seems probable that the 2 row H comb stamps come from plate 1. Several fluorescent shades of the 6c exist.

6c: 2 row H comb; post office stock only.

6c: 1 row H comb; plate 2 available.

4c, 5c: perforation type unknown; post office stock only.

No. 4. Horizontally ribbed

In April and May 1975, the 1c, 2c, 4c, and 6c appeared on a pronounced horizontally ribbed paper. Initially the paper had a dull front and low fluorescent back, but soon afterwards fluorescent shades from low— to medium+ were observed on the gum side although the face remained dull. In an experiment, mint copies of the 2c, 4c, and 6c with medium fluor back were soaked in water to remove the gum. It was found that the back of the stamps turned to dull showing that the fluorescent shades are due *solely to the gum.* For the sake of completeness I list the shades I have found.

All stamps on this and subsequent papers are 1 row H comb perforated.

4a. Low- fluor on back
4c, 6c: post office stock only.
Precancelled stamps 6c.

4b. Low fluor back

1c, 4c: plate 1 available.
6c: plate 2 available.
2c: post office stock only.
Precancelled stamps 1c.

4c. Medium back
2c: post office stock only.

4d. Medium+ back
4c: plate 1 available.
6c: plate 2 available.

No. 5. Smooth dull paper

In June and July 1975, the 1c, 2c, and 4c appeared on a paper with almost no reaction to the lamp (dull +). In July the 6c and in October the 2c and 4c appeared on an even duller paper (dull-), both front and back. In January 1976, the 3c was found on the dull+ paper and in mid-February the 5c was found on the dull- paper. The 1c and 6c precancels appeared in December 1975 and February 1976 respectively.

February 1976 also marked the time when the most interesting reprint of the Prime Minister series was noted at a post office, and a subsequent check of post office records indicates that this reprint was supplied to them the previous December. On April 8, 1974, a 7c value was issued depicting Louis St. Laurent printed by the British American Bank Note Co. who have the contract for the 8c. Although the value filled no obvious postal need the stamp underwent a new printing, a printing with the unmistakable characteristics of the Canadian Bank Note Co. While BABNC and CBNC use the same perforation gauge, all the BABNC stamps printed by line gravure and photogravure are harrow perforated and the pin arrangement in the pane margin differs from that used by CBNC. In addition the phosphor bars on the BABNC printings of the 7c and 8c are slightly narrower than on the 1c to 6c values printed by CBNC, and they extend from the top to the bottom margin whereas those on the CBNC stamps stop short. Finally the gum used by each printer appears slightly different. It will be interesting to see how long it takes for the 7c with CBNC plate inscriptions to appear at the philatelic bureau in view of the time it took for plate 2 of the 6c to appear.

6a. Dull+ fluor
1c: plate 1 available.
2c, 3c, 4c, 7c: post office stock only.

5b. Dull- fluor
2c, 4c, 6c: post office stock only.
Precancelled stamps 1c, 6c.

I hope this article has shown that a careful study of such details as paper fluorescence, perforations, and phosphor bars, details which may seem insignificant and unworthy of attention, can unravel printing characteristics which would otherwise remain mysterious idiosyncrasies and reveal a fascinating philatelic story.

Correspondence is invited on this issue. My address is: Apt. 609, 158B McArthur Ave., Vanier, Ontario K1L 8C9.

I would like to acknowledge the help of Frank Smith who was instrumental in the discovery of the CBNC printing of the 7c value and the fluorescent characteristics of the gum used on the horizontally ribbed paper. He was also very helpful in establishing the dates when some of the paper varieties appeared.

I would also like to express my appreciation to the National Postal Museum for allowing me to study the proof sheets of these stamps.

Letter Sorting Mechanization in Canada

by SALLY S. TUNNICLIFF

Third in a Series

Contrary to the case of envelopes with yellow code bars, the envelopes with reddish code bars are not yet common. Reddish code bars are most often, but not exclusively, seen on envelopes from the government and other large volume mailers.

Besides color, the reddish bar-coded envelopes differ from the yellow-bar envelopes in two ways. First of all, each bar is composed of a vertical row of eight dots and second, there is no console number on the envelope. The coding machine, however, is identifiable by the pattern of bars at the far left.