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Your ref. :

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B12

Form 7110

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Dear Mr. Washington,

The manual system of classification developed and used at New Scotland Yard is a lengthy one to describe in a letter and I feel I can do no better than to refer you to a book, published by Her Majesty's Stationery Office, entitled "The Fingerprint system at Scotland Yard" by Frederick R. Cherrill. This describes the basic Henry system and goes onto explain how this system has been extended by using certain ridge counts and tracings in respect of more common primary groups to break down those primary classifications into smaller sub-groups.

About half of the fingerprint forms received in the National Fingerprint Collection, New Scotland Yard each year are linked to a previous record by use of a nominal index. Of the remainder, which have to be searched in this collection, about 5% are identified as having a previous record. This means that a tremendous effort in skill and manpower is required to show that 95% of those searched have no previous record if these cases are processed manually.

It was partly with this in mind that in 1964 a team from the Fingerprint Department and a team from the Home Office and Metropolitan Police Joint Automatic Data Processing Unit started work to find a computer system for the National Fingerprint Collection.

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It had been realised for some time that a vast amount of information on the fingerprint forms was not being used in the 'Henry' system. Group charts had gone part way into finding a use for this data but had stopped far short of the ultimate. An example of wasted data was in the whorl section. There all multi-delta patterns were grouped together as whorls and the only subdivisions in general use were the tracings I.M.O. and these were only used when they formed part of the Henry secondary and tertiary classification or where they had been incorporated in a group chart. Plain loops and nutant loops were grouped together under the general category of loops and the counts obtained from them were only of use when they appeared in the Henry classification or where a group chart was involved.

In the system now introduced, greater use has been made of this information.

Symbolic codings have been devised, new pattern definitions have been introduced in some cases and in other cases the definitions have been made more explicit. By doing this it is hoped that patterns will become more readily recognised. All counts have their own value and are not grouped together as in the chart system. Each finger is dealt with separately without reference to the others.

The way in which the system operates is that the whole of the Fingerprint Collection has been converted to an alpha numeric code which is contained on the Police National Computer. Each incoming set of fingerprints, not identified after reference to a nominal index is passed to an operator who codes each of the 10 fingers according to pattern type and ridge count (where applicable). The computer then scans the database and prints out details of any form(s) with a similar data format. The program governing this action makes an automatic tolerance allowance in respect of some pattern types and ridge counts.

Due to the increased pattern range and the greater use of counts in their own right, the possibility of error is increased. Accuracy in pattern recognition and in counting is of paramount importance but the system has been in operational use since 1976. We are satisfied that it works..

Yours faithfully,



M.P. O'Neill
Commander I/C
Fingerprint Branch