The numbers in part 3 may be 16, 8, 4, 2, or 1 corresponding to the digits in a five-digit binary number, for example, 10101 in binary, meaning one 16, plus no 8, plus one 4, plus no 2, plus one 1, or 21 in decimal. Now you may say: "But I thought Simon was a machine that handled only numbers of two binary digits." That is true at any one time; but it is quite possible to get Simon to take care of one pair of binary digits on one machine cycle, then on the next machine cycle to take care of a second pair of binary digits, and then on the third cycle to take care of a third pair of binary digits, and so on. This is one of the changes made in August, 1950.

The table on page 58 is a list of the part 1 or letter abbreviations in Fig. 4 and some explanation of them, giving the names of the group of relays the letters stand for, and the purpose of that group of relays.

Looking at the diagrams, we can see this same main grouping expressed roughly in the red boundary lines. The black boundary lines, on the other hand, group together relays that have exactly the same function, whose coils were wired in parallel to provide a sufficient number of contacts. At the time when we bought up 24-volt d.c. war-surplus relays to construct our little computer, it seemed the best we could do was to get relays that had one single-throw contact and two double-throw contacts. For example, in the upper left-hand corner, the diagram shows two paralleled relays to give enough contacts for computer register 4, and second digit (the digit expressing twos in binary notation). Naturally it would be much more efficient as far as space is concerned to use relays with the proper number of contacts in each case, but this would of course rule out the surplus market as a source of relays. In any case, Simon's layout might look rather different, depending on what particular relays happen to be most available.

(To be continued)