rails. External cables pass through apertures at the right-hand end of the cabinet at the bottom, and are connected to terminals at the top of the right-hand bay. The layout of the power-supply cabinet is described fully in Chapter II (see also fig. 2.13).

## COMPUTING CABINET

5. The computing cabinet is similar in external appearance to the power-supply cabinet. It has a floor loading of 80 lb per square foot. The first (left-hand) bay, to which the desk is fixed, contains the drum, the monitor unit, and four rows of packages: the other two bays each contain ten rows of packages. The monitor and drum are mounted on sliders so that they can be drawn clear of the cabinet for inspection, the monitor through the left-hand end of the cabinet over the desk, and the drum towards the rear. The packages are mounted vertically in rows between pairs of cast-alloy shelves in the front section of the cabinet. Packages in the same bay are interconnected by wiring between the socket pins in the back section. The base section of the cabinet contains fans and heater transformers: the upper section, between the tops of the doors and the roof, contains the inter-bay power wiring and protective circuitry. Cables from the power-supply cabinet are connected to a terminal board on the right-hand end of the computing cabinet: the standard input and output equipment and the high-voltage controls on the engineer's panel on the desk are connected by cables and plugs to Plessey sockets on the left-hand end of the cabinet.

### Front Section

6. The packages are in rows of up to twenty. The four rows in bay 1 are numbered 10 to 13 in order from the top; the ten rows in bay 2 and the ten in bay 3 are numbered 20 to 29 and 30 to 39 respectively. The package positions in the rows are designated by the letters

C D E F G H J K L M P Q R S T U V W X Y Z

from left to right as seen from the front of the cabinet. Letters B, I, N and O are omitted. Letters A and Z are used for bay-to-bay interconnectors, which are moulded plugs of the same type as those used on the packages.

7. The spacing between the packages is the same as the width of the valve platforms; consequently the cooling-air stream is split into two parts, one of which flows over the valves, and the other over the rest of the package. Thus the crystals and nickel lines, which are fitted to the main portion of the package, are isolated from the hot air stream over the valves. Dummy packages fitted with valve platforms must be inserted in all vacant positions to prevent the two air streams from intermingling. Fig. 1.1 shows a plan of the package layout. Two coloured buttons are let into the rack above each package position to indicate the type of package to be inserted. The colour code used, which is similar to the resistor colour code, is given at the beginning of this chapter. Notice that two lengths of nickel line (package type 6) are used in Pegasus. Most of the packages of this type are 42 digits long; but there are four 35-digit lines. The digit length is engraved on the adjusting screw, which projects through the valve platform. Packages of types 6, 16, 18 and 20 require screening plates on each side; there are grooves in the racks to take these, and they must be fitted and bolted to the back plates before the packages are inserted.