relays; thus current is diverted from the relay, which becomes de-energised. Provision is made for fitting up to thirty DC fuses at the top of each bay and up to twenty AC fuses at the bottom. The thirty DC fuses in bays 2 and 3 correspond to each of the three HT supplies to each of the ten rows of packages. In bay 1 there is a fuse for each HT supply to each of four rows of packages and to the desk equipment, and an additional fuse in the 200V line to the lamp panel above the monitor; there is also a fuse in this bay for each bias supply (+13V, -4V, -10V, and -20V), and two fuses for the auxiliary drum-servo power-supply outputs (+300V and -150V). The AC fuses in bays 2 and 3 comprise one for each heater transformer and one for the fans. Bay 1 contains five heater fuses, a fuse for each of the regulated and unregulated phases to the desk and a fuse each for the inputs to the auxiliary drum-servo power unit and the monitor power unit.

29. Alarm relays RL1, RL3, and RL5 (fig. 2-3) are associated with the AC fuses. If one or more of these relays is de-energised an indicator lamp on the engineer's panel lights up and relay RL9 in bay 2 is de-energised, switching off all the supplies to the computing equipment and inhibiting the drum write circuits. Alarm relay RL13 (fig. 2-4) is associated with the bias fuses and the auxiliary power unit output fuses. Should any of those fuses 'blow', relay RL9 becomes de-energised as before and alarm fuse indicator lamp ILP9 lights up.

Relays RL2, RL4 and RL6 are energised by the regulated supplies. They are associated with the main HT supply fuses and the regulated AC supply fuses to the heater transformers. RL14 is operated by the +200 volt HT fuse supplying packages 27R and 27S (fig. 2.7). If one or more of relays 2,4 and 6 are de-energised or RL14 is energised by failure of the appropriate fuse; RL8 will be de-energised. This will inhibit drum write circuits and switch off computer HT supplies.

Figs. 2.11 and figs. 2.16 together provide the complete plan of power and control circuitry in the basic installation. Fig. 2.16 also includes the additional interconnections required for a refrigerated version of the Pegasus computer. This subject is dealt with in chapter VII.

## CABINET LAYOUT

30. The layout of the power-supply cabinet is shown in Figs 2.13. The right-hand bay contains principally the AC-control equipment. Input cables pass through an aperture at the bottom of this bay up to the isolator and suppressors at the top. The output cables, from the tagboard at the top of the bay, also pass through this aperture. The rectifiers and DC-control equipment are housed in the left-hand bay; the main connections between the two bays are made on the terminal boards at the back, the small terminal board at the front being used for connections from the HT smoothing capacitors to the stabilisers and control amplifiers.