SECTION 9.

EQUIPMENT AREAS INCLUDING COLUMNS

1. GENERAL.

1.1 Where column spacing along the main axis of an equipment area varies from a multiple of 6′6″, make every endeavour to locate the greatest number of racks in the area based on standard aisle and passageway dimensions.

To achieve this:-

(i) Layout the floor area to accommodate the maximum number of rows using standard aisle spacing and neglecting the locations of the columns.

(ii) Then layout the maximum number of racks in every row, again neglecting the location of columns. In no circumstance should there be more than seven 4′6″ racks in any one row.

(iii) Then examine the plan to determine the number of racks which must be excluded due to the positions of columns.

(iv) Finally place the subscribers′ line equipment racks in groups to a fixed pattern so that the minimum number of interferences are caused by the columns.

In some instances, a number of trial locations will need to be made before arriving at the most suitable grouping arrangements.

1.2 Having determined the best arrangement of racks, examine the layouts for the siting of the various racks of equipment. This examination should take into account the arrangements indicated in Section 10 (Layouts of 2000 Type Equipment) and the details included in the Sections 11 and 12 dealing with the provision of passageways and aisles.

2. COLUMNS IN MAIN PASSAGEWAYS.

2.1 Fig. 1 shows the method of determining rack layouts where columns can be sited in the central longitudinal passageway.

The uniform grouping of racking can be arranged provided that -

(i) Suitable grouping can be obtained in Group A and Group B.

(ii) The main passageway is not more than 5 ft. Wide.

(iii) The Y dimension is not less than 2 ft.

(iv) The equipment ladder tracks can be fully utilised.

(v) Where required, the X dimension will permit staff access to the appropriate aisle rows.

3. COLUMNS LOCATED IN EQUIPMENT AREAS.

3.1 Fig. 2 shows the positions into which columns may be located in respect to equipment rows. The column shown in position A, that is, at the end of a wiring aisle, does not introduce any layout difficulty.

The column shown in position B, that is, at the end of an equipment aisle, should be avoided -

(i) If it completely blocks entry to the equipment aisle; or

(ii) If it restricts the complete movement of the ladder in the aisle.

Should the column in position B obstruct an equipment aisle, it may be necessary to delete the 4'6" racks marked X and Y. The space left by their exclusion can be used for the installation of racks such as routiner controls, traffic recorders, etc.

The position of column C is acceptable providing the face of the column -

(i) Does not extend beyond the guard rail on the equipment side of the rack, or the projection is not sufficient to prevent the movement of the ladder past the column face.

(ii) Does not extend into the wiring aisle to such an extent that it restricts access to the wiring of the rack in the adjacent row.

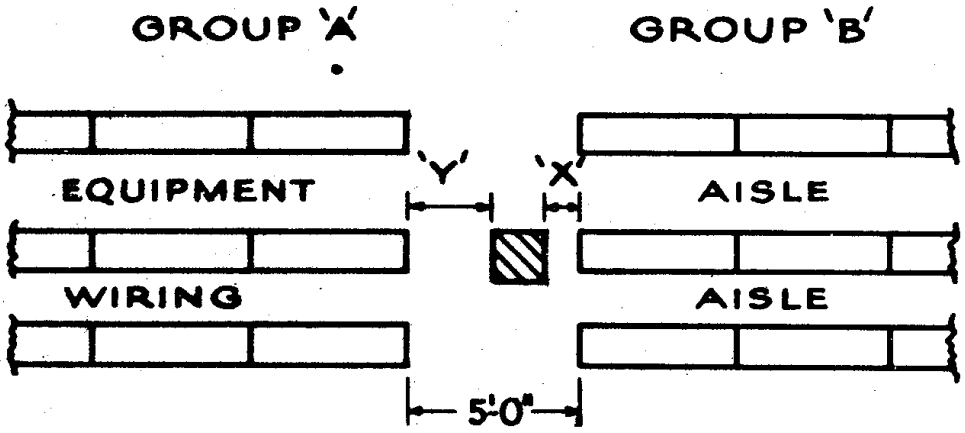
If the projection into the wiring aisle prevents easy working conditions on the wiring side of the adjacent rack, it may be desirable to exclude that rack from the row.

The column shown in position D where it projects into the equipment aisle should be avoided and alternative layouts introduced.

The equipment aisle marked E, if obstructed by the projection of a column into the aisle, may be selected as a transverse passage.

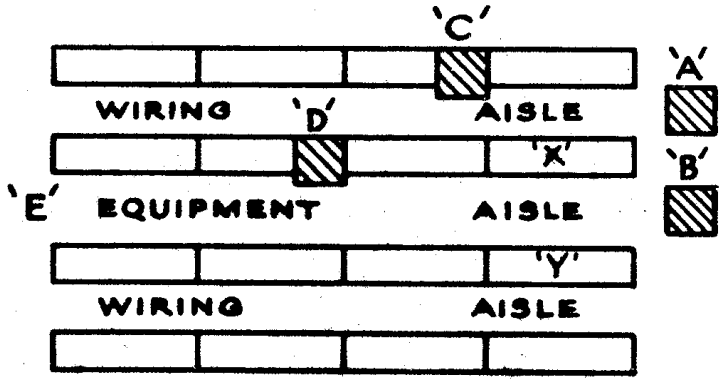
4. CONCLUSION.

4.1 Make every effort in laying out racks in areas restricted by columns to retain the standard equipment aisle dimensions. If an adjustment to an aisle spacing is required, it should be made, wherever possible, in the width of the wiring aisle. If an adjustment to an equipment aisle is necessary, confine it to those positions where transverse passageways are provided.



RACK LAYOUT WITH COLUMNS IN PASSAGEWAYS.

FIG. 1.



COLUMN POSITIONS IN EQUIPMENT ROWS.

FIG. 2.