This invention relates to the electric wiring of buildings and particularly relatively large buildings having a plurality of stories each containing a plurality of rooms.

The feeders of many such buildings are inadequate to carry enough power to meet the present electric load demand per room resulting from the development of modern electric appliances. In these buildings the feeders and branch circuits are sometimes built into the construction of the building so that they cannot be enlarged or augmented. When the building construction incorporates channeling or pocketing for the installation of the feeders and distributing boxes, the proportions of the channeling and pocketing are sometimes inadequate to permit rewiring adequate to provide enough extra power.

Because of the above the tenants of such buildings are more or less deprived of the use of modern electric appliances. One particularly good illustration of this is provided by electric air conditioning units of the type designed for installation in the windows of buildings which were not constructed initially to include this modern contribution to human efficiency and comfort during hot weather. An appliance of this type represents a substantial electrical load to the wiring of buildings and in many instances the original wiring system prevents complete modernization of an old building by the installation in such an appliance in the window of each of the rooms because the wiring system cannot meet the electric power handling requirements.

One of the objects which led to the development of the present invention was to adequately overcome the problem presented hereinabove in the case of the described kind of building. In some cases existing buildings may literally permit rewiring so that more power can be provided per room, but are open to the objection that their construction makes such rewiring excessively expensive. Another object was to provide for carrying sufficient electric power to each room of a multiple story building, in which an electric wiring system is already installed, in a relatively inexpensive manner which is acceptable from both safety and efficiency viewpoints. Other objects may be inferred from the following.

A specific example of the present invention is illustrated by the accompanying drawings in which:

Figure 1 shows a corner portion of a large multiple story building incorporating the present invention;

Figure 2 is an enlargement of a detail; and

Figure 3 is a cross-section taken on the line 3—3 in Figure 2.

In this example a building having walls 1 and 2 is shown by way of a corner portion only. This building has a plurality of stories each including a plurality of rooms having windows 3. Its electric wiring system is to be assumed as being built into the building and inadequate to meet the desired electric load demand per room throughout the various stories of the building. For example, the feeders or branch circuits, or both, may not be large enough to provide for the usual load per room when increased by the demand of an air conditioning appliance installed in the window of each room. Furthermore, the building construction is to be assumed as prohibiting or not economically permitting the installation of adequate feeders and branch circuits. In other words, the illustrated building presents the problem previously discussed.

The present invention solves the problem by a novel external weather-proof wiring system combined with the building.

This external system includes at least one vertical electric conduit 4 installed on and supported by the outside of the wall 1 and extending past a plurality of its floors represented by the various vertically aligned windows. Distributing boxes 5 are interposed in the conduit 4 at each of the stories and horizontal conduit 6 is installed on and supported by the outside of the wall 1 and extends from the boxes past the various windows representing the rooms of each story. The conduit 6 may extend around the corner and along the wall 2 in the manner illustrated. More than one vertical conduit 4 may be used.

As each of any number of the windows 3, past which a horizontal conduit 6 extends, an outlet box 7 is connected with the conduit 6. As shown by Figure 3 the outlet box 7 is located on the inside of the building with the conduit 6 extending through the building wall to the box 7, this type of installation being relatively inexpensive. However, the outlet box may be located on the outside of the window.

An electric feeder 8 extends through the vertical conduit, and branch circuits 9 connect with this feeder inside of the distributing boxes 5 and extend through the horizontal conduit. The necessary fuses may be located in these boxes. The branch circuits 9 connect with receptacles 10 installed in each of the outlet boxes 7. The horizontal conduit 6 is shown as connecting with the various outlet boxes 7 by way of branch arms 6a through which the branch circuits extend.
In the foregoing fashion electric power is carried to each of the rooms throughout the stories of the building in a fashion acceptable in practically all places. A window-installed air conditioning appliance 11 may be placed in some or all of the many rooms with the plug 12 of its extension wire 13 inserted in the adjacent one of the receptacles 7. The bottom end of the vertical conduit 4 may connect with a suitable service entrance of either the external or internal type. Since an air condition appliance of the type described customarily is electrically rated for use with the conventional 15-amp, branch circuit, the described arrangement is generally acceptable. Electric conduit is considered as acceptable for external use in practically all localities.

It is now apparent that the present invention successfully accomplishes the objectives that led to its development. Its use permits the air conditioning of many buildings now deprived of this modern feature because of the inadequacy of their wiring systems. Hospitals, hotels and office buildings are examples of the types of buildings which may be benefited.

A similar conduit system may also be used to distribute electric power throughout a building at locations otherwise than at windows. For example, the branch conduits 62 may be passed directly through windowless walls or at locations spaced from windows. The circuits and equipment involved may incorporate electric transformers, electric current rectifiers and other elements or devices.

I claim:

1. In a building having a plurality of stories each including a plurality of rooms having windows and electric air conditioning units installed in said windows with said building having a built-in electric wiring system having feeders inadequate to meet the electric load demand per room when the loads of said units are added to the normal value thereof, and, in combination with said building, feeder means independent of said first-named feeders and comprising vertical electric conduit installed on the outside of said building and extending past a plurality of its floors, distributing boxes interposed in said conduit at each of said stories, horizontal conduit installed on the outside of said building and extending from said boxes past said windows, outlets interposed in said horizontal conduit adjacent to said windows, a feeder extending through said vertical conduit, and branch circuits connecting with said feeder at said boxes and extending through said horizontal conduit and said outlets and connecting with said units, said outlets being on the inside of said building and said horizontal conduit having branch arms extending through the wall of said building to said outlets.

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