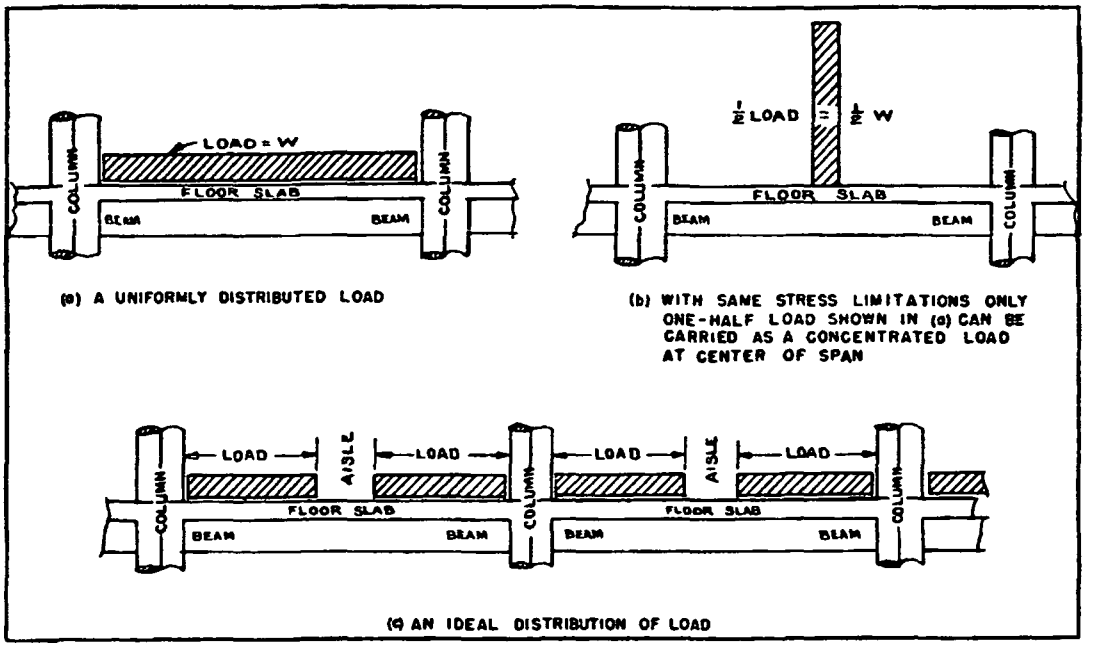


FIG 16–8 —Various types of loadings Changing the location of a load changes the total load a floor can carry

organic solvents, however, cause trouble because of their solvent effect on bituminous fillers and coatings

To reduce tracking of mud and dirt into a building, moisture-absorbing mats or runners can be installed at entrances

Special flooring

Special types of flooring are necessary where fires or explosions may occur Spark-resistant and conductive flooring should be specified where flammable vapors, dusts, or gases are present

Conductive floor resistance (as measured between two electrodes placed 3 ft apart at any points on the floor) may vary from not less than 25,000 ohms to not more than 1,000,000 ohms, according to NFPA's *Inhalation Anesthetics Code*, Standard No 56A, to assure protection against electric shock and still provide for removal of static These floors can be grounded at two or more points by means of copper strips stapled to the material or copper wires imbedded in it

In areas where welding is done regularly and in oven, furnace, boiler and similar areas, noncombustible flooring should be installed.

Openings in floors should be protected by railings or barriers at exposed edges, or otherwise guarded There should be a top rail, intermediate rail, and toeboard, according to American National Standard A12 1, *Safety Requirements for Floor and Wall Openings, Railings, and Toe Boards* Sheeting or woven wire can be installed around the opening to prevent material from falling in

Floor loads

Floors should be designed for carrying anticipated loads safely A registered structural engineer should be consulted Also check American National Standard A58 1, *Building Code Requirements for Minimum Design Loads in Buildings and Other Structures*

Fig 16–8 presents some floor loading fundamentals The ideal load is uniformly distributed over the floor area (as shown in A) The same load concentrated at the center of the span (shown in B) will require twice the structural strength Conversely stated—if a floor is designed for a given uniform load, only one-half this amount can be concentrated at