

NEW YORK BOARD FIRE UNDERWRITERS, Boreel-building, No. 115 Broadway, New York, rooms Nos. 32 to 38. The New York Board of Fire Underwriters at a meeting held this day (Jan. 12, 1882) adopted the following standard for electric light wires, lamps, etc., in lieu of former standard:

CAPACITY OF CONDUCTORS (for Arc Lights).—The conductor must have a weight per running foot at least equal to that of the wire (or parallel group of wires), constituting the main circuit of the magnetic regulator of the electric lamps, or of the armature of the machine employed, whichever of these is the largest. **For Incandescent Lights.**—Wherever a connection is made between a larger and a smaller conductor at the entrance to or within a building, some approved automatic device must be introduced in the circuit of the smaller conductor, whereby it shall be interrupted whenever the current passing through it is in excess of its safe carrying capacity. The safe carrying capacity of a wire is that current which it will convey without becoming painfully warm when grasped in the closed hand.

INSULATION.—All wires, machines and lamps to be so mounted and secured as to insure complete and continuous insulation, with the exception of those parts (such as portions of the lamps or machines for example), where insulation is impossible, and in this case accidental contact with exterior objects must be prevented by appropriate screens or the like. In no case must "ground circuits" be employed, or any portion of the system be allowed to come into conducting connection with the earth through water or gas pipes or otherwise. Exposed wires must be covered with at least two coatings, one of insulating material next the wire, of a thickness and material approved by the Board, and another outside of this, of a material calculated to protect the former from abrasion or other mechanical injury. Where there is a possible exposure to water, the first or second coating must be impervious to that fluid. Wherever electricity is carried into a building by conductors from an exterior source, a "cut out" must be provided at a point as near as possible to the entrance to such building. The outgoing and returning wires for Arc Lights should enter and leave each building at points at least one foot from each other. The wires passing through the exterior walls of a building should be firmly encased in substantial tubes of non-conducting material, not liable to absorb moisture, and placed in such a manner as to prevent rain water from entering the building along the wire. In running along walls and the like, wires should be rigidly attached to the same by non-conducting fastenings (the wires themselves being well insulated), and should not be hung from projecting insulators in loose loops. All wires should be placed at a distance of eight inches for Arc Lights and two and one-half inches for Incandescent Lights from each other, and wherever they approach any other wire or conducting body capable of furnishing another circuit or ground connection, they must be rigidly secured and separated from the same by some continuous solid non-conductor, such as dry wood, of at least one-half inch in thickness. Wherever wires are carried through walls, floors or partitions in buildings, they must be surrounded by a special insulating tube of substantial material. All joints in wires must be made in such a manner as to secure a perfect and durable contact. Continuous wires (without joints) to be used as far as possible.

GLOBES.—Arc Lights must be protected by glass globes, enclosed at the bottom to prevent the fall of ignited particles, and where inflammable materials are present below the lamps, a wire netting must be added to keep the parts of the globe in place in case of its fracture during use. All broken and cracked globes to be at once replaced by perfect globes. In show windows and other places where inflammable materials are near the lights, spark arrestors shall be placed at the top of the globes.

AUTOMATIC SHUNT.—Wherever a current of such high electro-motive force is employed that if concentrated on one lamp of the series, it would produce an arc capable of destroying or fusing parts of such lamp, an automatic switch must be introduced in each lamp by which it will be thrown out of circuit before the arc approaches any such dangerous extent. Companies furnishing electricity from central stations must enter into an agreement with the New York Board of Fire Underwriters, binding themselves to test their lines for ground connections at least *once* every day (and preferable three times per day), and to report the result of such tests to the Board weekly. Means by which those in charge of the dynamo-electric machines will be warned of any excessive flow of current, or means whereby the same will be automatically checked, must in all cases be provided.
