NEW METHOD OF PROTECTING BUILDINGS FROM LIGHTNING.

Spare the Rod and Spoil the House!

Lightning Destroys. Shall it Be Your House or a Pound of Copper?

PROTECTION FROM LIGHTNING.

What is the Problem?

In seeking a means of protection from lightning discharges, we have to view two objects,—the one the prevention of damage to buildings, and the other the prevention of damage done to trees, for by destroying a building in whole or in part, it is necessary that work should be done; that is, as physics express it, the dissipation of energy must be performed. For this purpose, we must seek to destroy or prevent the lightning discharge of the greatest possible energy capable of doing the damage which we seek to prevent exists in the earth, and transfer it to the cloud or the earth in some form that makes it capable of appearing as what we call electricity. We will therefore call it electrical energy, since it is the electrical energy, if it is not necessary for us to consider in this place; but that it exists there can be no doubt, as it manifests itself both in the earth and in the clouds. The same electricity is the energy which we have to dissipate and to do this, therefore, is the conversion of this energy into some other form, and the conversion of the energy to the dissipation of the surface of the lightnings, or to the destruction of the building which it was proposed to protect, and that the building will be protected by the energy being dissipated.

There is a question as to dissipation of the energy which is entirely unnecessary,—is that in the middle of the last century scientists had not come to recognize the fact that the different forms of energy, and that each could produce but so much of each of the other forms, and no. The doctrine of the conversion and correlation of energy was first clearly worked out in the early part of this century. There were, however, some facts known in regard to electricity a hundred and forty years ago, and among them were the attracting power of a magnetic needle, and the conducting power of metals. Lightning-cords were invented, and the lightning-cord was known by this name, as the lightning-cord could be used to divert the energy around the building which it was proposed to protect, and that the building would then be protected if the energy could be dissipated.

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Why Have the Old Rods Failed?

When lightning-cords were first proposed, the science of energetics was entirely undeveloped,—that is to say, in the middle of the last century scientists had not come to recognize the fact that the different forms of energy, and that each could produce but so much of each of the other forms, and no. The doctrine of the conversion and correlation of energy was first clearly worked out in the early part of this century. There were, however, some facts known in regard to electricity a hundred and forty years ago, and among them were the attracting power of magnets, and the conducting power of metals. Lightning-cords were invented, and the lightning-cord was known by this name, as the lightning-cord could be used to divert the energy around the building which it was proposed to protect, and that the building would then be protected if the energy could be dissipated.

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