

end might rise to the height of a few inches above the highest part of the building. No plan can be more simple or effective than this; but there are some circumstances deduced from observation and experiment that are worthy of notice.

The rods should, if possible, be made of that substance which is the best conductor of electricity. The usefulness of a lightning-conductor will always depend upon its conducting power. Lead and copper are best able to transfer the electric agent; but as the fusing point of lead is much lower than that of copper, the latter metal is generally employed, and, in addition to this consideration, it is the better conductor.

In several instances accidents have been produced by conducting-rods of insufficient diameter; and it is equally dangerous to break their connexion, or, in other words, to erect one that is not perfectly uninterrupted. The latter statement is proved by the effect of electricity when it strikes an unprotected house, flying from one conductor to another, destroying all that may oppose its progress. About the middle of last century, the steeple of St. Bride's church, London, was struck with lightning, and in consequence of the large quantity of iron-work that had been employed in its erection, the electricity was attracted from one part to another, and much damage was done. It appears to have entered the vane, and was quietly transferred by the shaft on which it was supported; but then darting towards some cross iron bars, and from thence to the iron cramps which had been employed in its construction, shattered the stones as it passed along.

ELECTRICAL CONDITION OF THE ATMOSPHERE.

M. Monnier appears to have been the first person who observed that the electric excitement of the atmosphere is not confined to those periods when the phenomenon of lightning was observed. Sig. Beccaria afterward examined this subject with great care, and is of opinion that clouds, rain, hail, and other meteorological phenomena, are to be attributed to electricity. In support of this opinion he adduces several arguments, and among others states, that the presence of thunder, lightning, rain, hail, snow, and wind, at the same moment, shows their connexion with a common cause. It is probable that Beccaria's opinion will be ultimately