

It has also been experimentally determined that the amount of oxygen or of a similar substance, and not the metal, determines the amount of electricity in the galvanic action.

The action of a battery may, therefore, be explained as follows: If the liquid in a voltaic cell be vibrating each time a condensing vibration occurs, the oxygen will leave the hydrogen and combine with the zinc. This action will check the vibrations of the liquid, and produce a vibration in the zinc, which will tend to expand in all directions and traverse substances suited to its nature. The liquid, on the other hand, will absorb a vibratory force equal to what it has lost by the oxygen combining with the zinc.

If the liquid is heated, then, because heat is a vibratory force, the vibrations become more rapid or powerful, or of greater number, and the action of the battery is, therefore, increased, which, experimentally, is known to be the case.

Good authorities are inclined to the belief that this view of the battery is supported by the following circumstances: Water and some other liquids are mechanically carried through non-conducting, porous substances by galvanic action, and, when water is mechanically forced through such substances, galvanic action is produced. Mechanical force and galvanic action are, therefore, directly convertible.

The stratified form of the electric light in vacuum tubes is an effect similar to the nodal points in the vibrations of sound. The passage of the current of a powerful secondary battery can produce both sounds and nodal points in an ignited platinum wire.

The scientist, Priestley, has also noticed a difference in the tone of Leyden jars when discharging, which he attributes to the surface of the jars, as well as the amount of charge, so that electricity has been connected with sound long before the present time.—*Electrical Review*.

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MAXIMS are the condensed good sense of nations.—*McIntosh*.