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**The young man's book of amusement**

**Halifax, 1848**

The Decomposition of Water by Galvanism

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be well moistened; but the strength of the shock diminishes as it proceeds, in consequence of which the last person feels it much less violently than the first. After receiving the galvanic shock, a slight numbness of the part that has been exposed to it remains for some time.

The galvanic shock may also be conveniently given by immersing the hands or the feet into vessels containing a solution of salt, and bringing wires from each end of the battery into the liquid. If any other part of the body is intended to be operated upon, a sponge, moistened with salt-water and fastened to a metal plate connected with one end of the battery, may be applied to the part, and the hand or foot put into a vessel of the same liquid, connected by a wire with the other end of the battery. Small bits of sponge, or bits of leather, may be fastened to the end of the connecting wires, and made more or less moist as the delicacy of the part may require.

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#### *The Decomposition of Water by Galvanism.*

The most simple mode of performing this experiment, is to bring the wires coming from each end of the battery into a vessel of water. A profusion of bubbles of gas will appear to be given out from each wire, as far as they are immersed in the liquid. The nearer the wires are brought together, so as not to touch, the more rapidly the decomposition goes on. The gas produced from the wire coming from the

zinc end of the battery, if the wire be of gold or platina, is found as before mentioned, to be oxygen; but if the wire be of any more oxidable metal, no gas will appear, but the wire will be oxidated. The gas furnished by the wire from the copper end of the battery, of whatever kind of metal the wire may be, is pure hydrogen. If the immersed part of this, however, be previously oxidated, no gas will be observed for some time, the hydrogen being employed in reducing the oxide upon the surface. Both the gases are furnished by the decomposition of the water.

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*Powerful Batteries.*

Sir H. Davy's great voltaic battery consisted of two thousand double plates of copper and zinc of four inches square.

Each plate of Mr. Children's large galvanic battery consists of thirty-two square inches, and produced intense heat. Iron was instantaneously converted by it to blister steel, and diamond powder disappeared.

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*Galvanic Experiments on the Dead Body of a Criminal.*

The following interesting experiments, illustrative of the amazing powers of Galvanic operations, will be highly acceptable to the reader. The subject of these