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

**Halifax, 1848**

The Effect of Galvanis upon Living Animals

[urn:nbn:de:bsz:31-100120](https://nbn-resolving.org/urn:nbn:de:bsz:31-100120)

*Galvanic Experiment with Frogs.\**

Frogs have been found the most convenient subjects for galvanic operations. Galvani prepared these animals by skinning their legs when recently dead, (they are usually killed by decapitation,) and leaving the legs attached to a small part of the spine, but separated from the rest of the body. Any other limb may be prepared in a similar manner, viz. the limb is deprived of its integuments, and the nerve which belongs to it is partly laid bare. The strongest contractions are produced when the galvanic electricity is caused to pass through the nerve to the muscles. Frogs which have been galvanized, very quickly become putrid.

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*The Effect of Galvanism upon Living Animals.*

*The following Experiments, which are not attended with any circumstances that can wound the feelings of humanity, may be easily made to shew the action of voltaic electricity on living animals.*

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\* Perhaps most of those who try galvanic experiments merely for the purpose of amusement, would choose to dispense with the operations of decapitating and skinning frogs. It may therefore be observed, that an ample proof of the power of galvanism over the dead animal muscle, may be obtained by galvanizing any animal killed for domestic use. It will only be necessary to point the wires from the battery, and to penetrate the skin with them, at the two parts between which a communication is intended to be made.

*Experiment on a Frog.*

Place a living frog upon a plate of zinc wetted with water, and paste a slip of tin-foil, or a shilling, also wetted with water, upon the back of a frog. If now a communication be formed between the zinc and the tin-foil, by means of a wire, or other piece of metal, the frog will be violently convulsed, and jump off the plate.

*Experiment with a Leech.*

Those animals can only be convulsed by galvanism which possess distinct limbs and muscles; yet reptiles may be shewn to be affected by it: thus if a leech or a worm be laid upon a plate of zinc, and surrounded at a little distance by pieces of silver, for example half-crowns, every time the animal touches one of the pieces of silver, it will be observed to draw itself back.

*Experiment on a Flounder.*

Take a live flounder, and put it on a pewter plate, or upon a large piece of zinc, wetted with water, upon its back; or place the fish upon its back, and apply the coin to its cheek or breast, then touch the plate or zinc with a wire, and apply the other extremity of the wire to a piece of silver, violent contractions will

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