

the body between the two conductors. This form is rarely used.

2nd. *The galvanic*, or as it is sometimes called *the constant or continuous current*.—This form is the result of chemical action, or rather decomposition, and is generated in a cell, battery, or pile, where two metals, an electro-negative and an electro-positive, are brought together in an exciting solution. This current produces no shock to the patient, unless broken or interrupted, which may be done either by the rheotome or by an interrupting handle. If weak, the current produces little or no pain; if, however, it be strong, it causes a tingling, burning feeling at the point of contact with the electrodes. If very strong, it becomes unbearable. The characteristics of this form of electricity are comparatively low "intensity" in its action on nerves and muscles, but a large amount of quantity. It produces results on temperature, chemical and thermic, far beyond static and Faradic electricity.

3rd. *Faradic Electricity*.—This form of electricity is of very high tension, having almost no chemical action or any direct effect on the temperature. It produces no burning or tingling as with the galvanic. It produces contractions of the muscles, and has a decided effect on the nerves of sensation and motion. It is an induced current and is of momentary existence, but these momentary currents may be repeated slowly or quickly. It exists only at the moment of making or breaking the galvanic current, or at the moment of making or unmaking a magnetic condition in a piece of metal. Having given a slight sketch of the various kinds of electricity, I shall now mention some rules on the modes or methods in which this remedy is used, as, without a proper knowledge of its administration, more harm than good may be done.

Rule 1st.—The positive pole is less irritating, we therefore place the negative pole in general faradization at the feet or coccyx, or at the pit of the stomach in central galvanization, the positive being applied to the head, neck, spine and other sensitive parts.

Rule 2nd.—In cases where the sedative effects of electricity are indicated, the positive pole is preferable, being less irritating.

Rule 3rd.—Where the stimulating effects are

indicated, use the negative pole as being the more irritating.

Rule 4th.—Dose of electricity, *i. e.*, the strength of the current and length of *séance*, depends greatly on the size and quality of electrodes, the method of application whether local or general. A short *séance* of general faradization or central galvanization will have a much greater general effect than a long *séance* of local electrization. If local, a short mild application to the head will produce results (whether beneficial or harmful) that would never occur in one ever so prolonged and strong to the extremities.

Now, not having any definite measure, we to a great extent depend on the sensations of the patient; (*i. e.*) if strong currents are borne without uneasiness they are indicated, if only mild ones are easily borne, use mild. A long *séance* with a mild current is much more beneficial than a short one with a strong current. Sudden shocks, especially with a strong current, often do harm. When using the galvanic current do not allow the electrodes to stay too long in one spot, or a tedious ulceration may be the result. The good effects of electricity may be roughly stated as follows:—

1st. Relief of pain.

2nd. Improvement in the pulse.

3rd. Do do temperature.

4th. Do do digestion.

5th. Do do nutrition.

6th. Increase of appetite.

7th. Quieting effect and tendency to sleep.

Gentle perspiration is an evidence of the proper application of electricity, but profuse perspiration shows an excess of irritation, and indicates that harm has been done instead of good.

If the current be too prolonged or too severe the patient is apt to suffer from disagreeable symptoms, (*e. g.*) dizziness, heaviness, oppression, headache, soreness, exhaustion, and a sort of undefinable nervousness. Messrs. Beard and Rockwell give a very exhaustive article in their work on the differences between the galvanic and faradic currents and the special advantages of each, from which I condense the following:

The advantages of the galvanic over the faradic are:

1st. "A greater power of overcoming resistance. It therefore affects the brain, spinal