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THE APPLICATION OF GALVANISM IN THE EXTRACTION OF TEETH.

We subjoin an article on the above subject which we find in the *Dental News Letter*, and written by J. R. McCurdy, D. D. S., of Philadelphia. It is so much to the point and so completely coincides with our views and experience, that we deem it unnecessary to write a separate article.

For some months past, there has been in this city certain persons professing to extract teeth without pain, by the use of Galvanism, and about which we have received many letters of inquiry.

Sufficient interest was felt in the matter to induce the appointment of a committee by the "Franklin Institute" of Philadelphia, also one by the "Pennsylvania Association of Dental Surgeons," and from the report of the former we shall make some extracts, and the latter we hope to give entire elsewhere.

We had been of the opinion that the effect of the application of an electrical current to a tooth, would not lessen the amount of pain usually experienced in extractions, but simply change the character of that pain, yet causing more or less suffering; and we found similar opinions were entertained by one or more occupying prominent positions in the profession, consequently we had given but little attention to the matter; but now, from the increasing interest manifested by the profession as evidenced by personal and written inquiries made of us, and the position it has assumed, gives it an importance that requires some notice in our journal, and we propose, therefore, to give such facts in connexion with it as we have been able to collect.

Any agency that promises the alleviation of pain is to be sought after, and such an one is peculiarly desirable in the extraction of teeth; for how many there are whose health is impaired by retaining in their mouths diseased teeth and roots, rather than submit to the pain of extraction. If, therefore, by this process, the pain, if not entirely annulled, be only diminished, and that without the risk and dread sometimes attending the employment of the ordinary anæsthetics, much every way is accomplished; and for these very important considerations we trust the profession will test the matter thoroughly and report results.

The application is somewhat as follows:—The negative pole or wire of the ordinary electro-magnetic machine—which is a graduated battery—is attached to the forcep or one handle of it, and then placing the metallic handle of the other pole in the hand of the patient; by this means a circuit is at once formed, on the forceps coming in contact with the tooth. An additional appliance is used in the form of a small spring footboard, which interrupts the current, but by pressure of the foot upon it, the circuit is at once formed.*

This interruption is said to be desirable until the forcep is placed upon the tooth, when the circuit is formed and the extraction made at once.

One gentleman remarked to us that he often permitted the current to flow for a second or two before the attempt at extraction. It is given by another as his experience, that in a *protracted operation, the prolonged pain would overcome or neutralize the efforts of the electric current,* and that in such cases no exemption is afforded the patient by its use.

We witnessed the extraction of some ten teeth and roots from the mouth of an intelligent but nervous lady, whose features we watched closely throughout the operation, and who remarked that she "suffered very little pain from their extraction," and when complimented on her courage, said, in substance, that "she could not lay any claim to courage, for her endurance must be wholly attributed to the galvanism, which rendered the operation comparatively a painless one."

A peculiarity was noticeable in this case, viz:—The entire exemption from pain in the extraction of a molar tooth, the surrounding parts of which were very sensitive from being in a highly inflamed condition, and which rendered this exhibition of its effects very satisfactory. One thing, however, we could not fully understand, which was the shrinking of the patient on the application of the forceps, for, we reasoned, if no pain, why this indication of fear? But this was clearly explained to us in a subsequent experiment by another operator, (when we witnessed the extraction of several teeth and roots, the patient—a nervous female—asserting that she suffered very little pain,)

* We have a footboard so constructed that the electrical current is uninterrupted except by the pressure of the foot upon the spring. It cannot but be more convenient than the above method as it gives the operator the use of both feet; besides there is no danger of losing the current during an operation.—Ed. J. T.

by having the application made to our own mouth. The sensation, when the current was completed, being anything but agreeable, and somewhat similar in pungency to the application of fire, or a jet of flame to the living tissue, when we could readily understand why the pain of extraction would be neutralized to a very great extent under this influence, and were at once reminded of our former opinion of its merely changing the character of the pain. Still, had we any teeth requiring extraction, we should certainly test the battery, in the hope that we would be the gainer thereby.

From the report of the committee appointed by the Franklin Institute, we extract as follows:—

"One hundred and sixty-four teeth were extracted in the presence of the committee. * * * * *

"The committee is satisfied from the observation and experience of its members, that in a large majority of cases of extraction with this apparatus, *no pain whatever* is felt by the patient.

"To test the question whether the effect might not be simply mental, the circuit was broken without the patient being aware of it, when the usual pain was experienced, although, in the same patient, and on the same occasion, teeth had been removed, while the current was flowing, without causing pain. * * *

"The sensation produced by the passage of the current is not painful, it being so adjusted as to be *just perceptible* to the patient. The committee believes its use to be entirely without danger, and not likely to be followed by any unpleasant after effects. * * * The operator requires no new instrument except the battery and coil. * * * * *

"As to the theory of these very singular and unexpected results, the committee does not express an opinion; of the facts it is fully satisfied."

A gentleman out of the city, who felt a great desire to test it, reports:—

"I have extracted about 30 teeth since I returned, by the "Galvanic Process," with the most satisfactory results, some saying that it did not 'hurt a bit,' (to use their own language.)"

In the *Southern Medical and Surgical Journal* for June, we find a communication from D. S. Chase, M. D., D. D. S., detailing his experience in extracting "more than fifty teeth" with electricity, from which we extract as follows

"The *First Case* in which I tried it, I