An intubation tube was threaded with platinum wire and used as a negative electrode. At 5 P.M. the tube was introduced into the larynx without difficulty, and the respiration at once became easy. The child was soon resuscitated, and after coughing out considerable softened membrane and ropy mucus, once more became conscious of its surroundings. The platinum wire was now insulated by passing it through a very small rubber tubing. The platinum wire projecting from the tubing was now attached to a twelve-cell McIntosh galvanic battery. The positive electrode consisted of the ordinary sponge, which was moistened with warm water. The sponge was placed over the larynx, and a current from ten cells employed. This current caused some pain and considerable redness of the skin under the sponge. The current was reduced to eight cells, which was borne more comfortably and was passed five minutes, during which time considerable mucus and softened membrane were expelled. The tube was now accidentally withdrawn and the respiration appeared very easy without it. The little patient, who had taken no nourishment for several hours, and but very little for two days, now drank eagerly two glasses of milk, and passed into a quiet sleep. At 7.30 P.M. I was again called and found the respiration becoming labored. The tube was reintroduced and electrolysis again performed in the same manner. A current from eight cells was first employed, and then from ten, the sitting lasting ten minutes and the current causing some discomfort. One could not doubt the effect of the current upon the false membrane, for it was rapidly detached and expelled in small patches, together with considerable ropy mucus. The tube was removed and the respiration was again comfortable. The child seemed bright and interested in those about her.

Nine P.M.—Sleeping soundly. Pulse 140, temperature 103°, respiration 32. The respiration, although noisy, was not labored. The voice, which had been suppressed and whispering before the operation, now became louder, and the cough, which had been smothered and husky, became stronger and clearer. The respiration as well as the voice and cough indicated swelling of the mucous membrane about the vocal cords, rather than the presence of membrane. At 10.30 P.M. gave tr. opium gr. vi *per os*, antipyrin gr. xii *per rectum*, and cold applications applied to the neck.

At 11.15 P.M. temperature 102, pulse 120°, respiration 32. The little patient took nourishment well and was left feeling quite comfortable.

At 2 A.M. I was again called and found the respiration labored and the dyspnoea well marked. Not feeling justified in experimenting further with the patient, electrolysis was not again employed. The intubation tube was introduced and left *in situ*, giving the child immediate relief. No membrane was expelled when the tube was introduced. There were now evidences of pneumonia, the respiration being rapid, although perfectly easy, the temperature high, and increased fremitus over both lungs.

Eleven A.M., pulse 150, temperature 105½°, respiration 40, taking nourishment fairly well, but restless

and very thirsty. Directions were given to sponge the child frequently with cold water, and antipyrin was given in 15 gr. doses, *per rectum*.

Three P.M., pulse 150, temperature 105½°, respiration 40. Growing weaker and taking but little nourishment. Five P.M., pulse 150, temperature 103°, respiration 60. The respiration, although rapid, is perfectly easy. The patient restless and refuses all nourishment. Nine P.M., pulse very rapid and feeble, temperature 104½°, respiration 64.

The little patient died at 2 A.M.

It was expected that the galvanic current would have little or no effect upon the false membrane, but we confidently hoped that it would relieve the congestion and swelling of the tissue. Contrary to expectation it certainly seemed, to one watching this case closely, that it had a most decided effect in loosening and detaching the membrane, but that the secondary effect was to increase the swelling and congestion.

In this connection the result of a few experiments may not be uninteresting. Wishing to observe the effect of the galvanic current upon the healthy larynx, two rabbits were subjected to electrolysis, with the assistance of Dr. Bütner. The first rabbit, a half-grown one, was given chloroform and the tube introduced into the larynx with considerable difficulty, on account of the small size of the mouth. The attachments were made and a current from eleven cells was passed for five minutes and the tube removed. Some dyspnoea followed the operation, but it was attributed to the rough usage to which the larynx was subjected, rather than to the effect of the current. The dyspnoea gradually subsided and the rabbit recovered.

The second rabbit was given a current from eight cells, in the same manner, and seemed to suffer no inconvenience.

No deductions can be drawn from the report of a single case, but we may express the hope that this subject may be still further investigated. It is possible that too strong a current was employed, or possibly the current was not of sufficient strength. It may be necessary to employ a current that will verge on cauterization, and employed with an anæsthetic. These queries, however, can only be answered after further investigation.

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TRANSPLANTATION OF TEETH.¹

BY WM. N. MORRISON, D.D.S.

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I will give the history of one very interesting case. In the *Missouri Dental Journal*, of July 15, 1882, is a paper by me upon this subject, and among other cases reported is a prospective case which presented itself last fall: A young lady of slight build, about 22 years of age, teeth not of extra quality, arch perfect, and articulation correct, except the left-erratum; read right- instead of left-side of the mouth;

¹ Read in the Section on Dental and Oral Surgery at the Thirty Seventh Annual Meeting of the American Medical Association.

superior canine, which was missing. The left-central was very loose. On careful examination I found it to be caused by the absorption of the root below the cervical line, by the crown of the canine, which lay horizontally in the process with its point to the median line, entirely across the root of the central, the latter being as thoroughly absorbed as though it was a deciduous tooth.

I had decided to extract both and transplant the canine to the socket of the central, after enlarging and deepening it to correspond to the root of the canine; after the canine had become fixed, if the crown could not be made to look as well as a central, I intended to cut it off and substitute a porcelain crown with a metallic pivot; but this heroic operation was indefinitely postponed by reason of the young lady being called home from our city.

This case is all the more wonderful from the fact that six dentists had already identified themselves with it; two of a neighboring city told her it had been broken off by blow or fall. Although previous to that decision one had constructed and adjusted regulating plates which were worn for months; exostosis being assigned as reason for enlargement; but a tooth never until I demonstrated it. Such was the case up to the time I first saw it, and gave my diagnosis and plan of operation. Other members of the patient's family had their favorite dentists, and she was taken to one and my plan duly explained and criticised; it was pronounced an impossible, impracticable and dangerous thing, but my diagnosis was pronounced correct so far as the canine was concerned, and its extraction was urged; to make this decision more forcible another was called in consultation, and they administered ether, and gouged away the process, exhausting themselves and the patient after breaking off a piece of the crown.

Further operations were postponed till some days later, when Dr. —, who was called to use his persuasive powers and hold her hands, renewed hostilities, but with no better success. About three weeks later she was taken by the above or by their order to Dr. —, who administered gas and extracted the canine, which was laid away to dry, and the patient assured that the central would grow firm again and be as useful as ever. When the root was entirely absorbed and the crown only suspended by slight attachment to the gum, the patient returned to her home, carrying with her the extracted canine trophy. All this occurred in the fall of 1881, and I had no knowledge of it until the discussion of my paper in the St. Louis Dental Society.

Now two years later, or three years after I first saw the case, the patient came to see if I would not transplant her right lower canine in the place of the upper central. The canine was condemned to extraction by another dentist, as its occlusion against the superior lateral was forcing the lateral out of place and making it assume an unsightly angle to the others. The central was hanging loosely to the gum and had been for three years, the other teeth supporting it laterally, and the lip and tongue antero-posteriorly; the patient was in constant dread of swallowing it, particularly at night. Contrary to the

opinion of my brother dentists in the society, and statistical evidence collected from best dentists all over the country, (see discussion of the paper, *Missouri Dental Journal*, page 247, July 15, 1882); the operation was performed; the loose tooth was removed and with a drill, (using cocaine). The process was opened up exactly in the track of the root which should have been there; at any rate I expected to find a piece of the root, but not a particle was there; with drill and fissure buri enlarged and deepened the socket quite to the floor of the nose, and antero-posteriorly from plate to plate; and remember the anterior plate was cicatricial bone and not any to spare at that, owing to former extractions of canine, above described; the teeth and general shape of the socket being now known. The right lower canine was extracted, and root vessels removed, and canal filled with gold wire, and a prominent contour filling built upon its distal face or long angle, with platinum gold, which made the median edge of the new right central which it was to be. The root was long, and instead of being round as its predecessor, was oval or flattened on the sides, it was a fortunate thing that there was a thin scale of plate left upon the labial side when the socket was enough enlarged to receive the root.

A black rubber splint capping the crowns was worn about four weeks, shielding that tooth from injury; no unusual results followed; it was speedily taken into fellowship without an unfavorable symptom. The right lower first bicuspid was much within the arch, and by forcing it out with a jack-screw it performed excellent service as a canine. By this operation, although not as good as the one first contemplated, this beautiful young lady is spared the uncomfortable and humiliating necessity of wearing an artificial appliance, and has her own home-grown natural teeth distributed where they will do the most good.

MEDICAL PROGRESS.

IODOFORM GAUZE IN GYNECOLOGY.—In *Volkmann's Sammlung*, No. 288, FRITSCH, of Breslau, gives the manifold uses to which he puts iodoform gauze in gynecological practice. A 10 to 50 per cent. article is made, and the former may be easily made stronger in iodoform by incorporating the gauze with more iodoform, either in powder or in solution with ether, or in form of a glycerole. Iodoform gauze should be the only substance used in making tampons. In aseptic cases these tampons may remain *in situ* for ten days without showing any signs of putrefaction. In making these tampons a strip of gauze five cm. broad and two m. long is cut off, folded upon itself fan-shape, and inserted by means of the hand or dressing forceps, the end being allowed to hang out of the vulva. Simply drawing on this end will unravel the tampon and remove it without pain or inconvenience. At the head of palliative cancer treatment he shows the great advantages of making use of iodoform gauze tampons. Formerly, in bleed-