and draw it backwards. The duct of Steno is entangled in the growth, and must be sacrificed. Professor Marshall, who is present with his dental engine, now divides the arch of the jaw, the nasal process, and the anterior root of the zygoma. With a thin chisel I divide the arch of the hard palate, and seizing the growth with lion-jaw forceps, readily bring it away. You see that it fills the antrum, without adhering to it except at its posterior and outer border. These places have therefore to be cleared out with the gouge-forceps and bone-scoop, and the cavity cauterized with crystalized chromic acid. Replacing the cheek by the aid of suitable sutures, we will return the patient to bed. The operation would have been more hopeful of permanent success had I seen the patient earlier.

Hair Mole of the Forehead.—This infant has an enormous hair mole extending from the transverse suture of the skull forwards and down over the whole right side of the forehead as far as to the upper border of the eyelid. The hair upon it is exceedingly thick, and darker than that on other parts of the scalp. However, the dark eyelashes show that, as the patient grows older, her hair will become black, and match that on the mole. The skin on the centre of the growth is nearly black with pigment, and thick and wrinkled.

The immense size of the mole renders it necessary to consider carefully the wisest way of dealing with it. No amount of electrolysis of hair bulbs will answer here. The following plan promises best: First I dissect the skin of the mole from the top of the eyelid and carefully take it away up to the place where the brow ought to be. We must now make an eyebrow, which I will do by cutting two arched incisions, leaving a strip of the mole between them to match the form and length of the brow on the opposite side. As we do not know exactly how the contraction of the wound in healing will affect the form and position of the new brow, I make it a little wider than is ultimately needed, so that at a future time I shall have room to trim it to an exact correspondence with its fellow. Now I will raise the skin above the arch, and dissect it off as high as is necessary to give her a forehead as high on this side as on the opposite part. I will not remove that part of the mole embraced in the limits of the hairy scalp because, as she grows older, it will match the rest of her hair in color, and by dressing it low on the forehead she will be able to cover nearly the whole cicatrix from view.

Having thus removed all that is necessary of the mole, I take from the outer side of the patient's thigh some thin shavings of skin and graft them upon the raw area, to assist the process of cicatrization, and improve the smoothness of the surface. In grafting for this purpose we shave the grafts very thin, but apply them in large pieces, from half an inch to an inch in length, which often adhere very perfectly. I have had them succeed an inch and a half in length. The result in this case will be to remove a hideous deformity, and to restore the patient to a reasonable degree of comeliness, and perhaps even to some measure of positive beauty.

ORIGINAL ARTICLES.

THE TREATMENT OF CICATRICES IN THE COLLUM UTERI AND IN THE ROOF OF THE VAGINA.¹

BY A. MARTIN, M.D.,

PROFESSOR IN THE BERLIN UNIVERSITY; CORRESPONDING MEMBER OF THE GYNÆCOLOGICAL SOCIETY OF BOSTON.

When, as long ago as 1862, and then more fully in 1874, Emmet indicated the operative treatment of rents in the cervix, which he considered as the sources of a whole series of gynecological maladies, these conditions had, up to this time, been very little observed. They had been recognized as the cause of a relatively infrequent eversion (L. Martin) or of an ectropium (Roser).

Emmet, on the other hand, regarded these rents as the sources of catarrhs of the cervix and of the *corpus uteri*. He emphasized the difficulty and even occasional impossibility of healing these catarrhs as long as the rent exists. He further pointed out that these scars are the source of long-continuing, ever-spreading irritation in the pelvis. Finally, he very particularly insisted that such rents hinder the proper development of the uterus, if it become pregnant, and that in consequence, in a great number of cases, abortion is occasioned by them, and that many women who habitually abort suffer from rents in the cervix. His proposition to heal these by operation, to perform trachelorrhaphy, excited very extraordinary notice at that time, since it occurred just when far more attention was being given to securing a widely-gaping aperture of the uterus, and the influence of the bilateral discussion was supreme.

Emmet's propositions made progress among the Americans very rapidly, considering all things; in Europe, however, it was quite the contrary, and this operation was received very doubtfully, especially in Germany, although at that time operative gynecology was in a state of active development. First there was opposed to the method of Emmet the general disinclination in Germany to favor operative interference with the *portio vaginalis*. Then the attempts which were made to perform trachelorrhaphy were not seldom followed by imperfect results; the old cicatricial formation soon showed itself again more or less, or, on the other hand, there was formed a stenosis, an evil which just at that time it seemed to be a duty to zealously overcome by dissections.

But even when, in Germany, the plastic operations on the *portio vaginalis* in great numbers were well received, and authors like Breisky, Spiegelberg, and Schröder, and among others the writer, busied themselves with this operation, the operation of Emmet remained a rarity. Although, perhaps not least by the recommendation of amputation of the *portio vaginalis* which I warmly advised in 1878, at the meeting of German Physicians and Naturalists in Cassel, as imperatively indicated for wider fields of usefulness, gynecology was led so far that excision and amputation of the lips of the *os uteri* were undertaken not solely on account of chronic metritis

¹ Read before the Boston Gynecological Society by E. W. Cushing, M.D., for the author, on December 10, 1885.

and malignant degeneration, and in Germany this operation became very frequent; yet, notwithstanding all this, strangely enough Emmet's operation did not come into the class of the frequent gynecological procedures. This seems somewhat strange to American authors, especially if, after a prolonged sojourn in Germany, they observe our daily work; and this impression is fully expressed in the late work by Bigelow ("Berlin a Medical Centre").

The cause of this peculiar state of things, however, is not at all that we do not recognize the importance of the cicatrices, that we regard the removal of the latter as anything difficult, or that the permanent results of our operative interference on the cervix were unsatisfactory; but the question was first considered whether the cervical rents are really the essential cause of the troubles on which Emmet insisted. The answer to this question is that we see cervical rents causing no symptoms too often to permit us to reply affirmatively. There are either, (1) *Catarrhal complications, i.e., affections of the mucous membrane*; or (2) *Peculiar and rare cicatricial formations*, which give importance to the cervical rents, and in such cases these should be attacked.

There is not the least doubt that we frequently find *catarrhs as complications of cervical rents*. But in such cases the catarrh is not dependent on the rent as such. It has either originated as an independent disease simultaneously with the injury of the cervix, or it has occurred there later. Doubtless, then, the symptoms of catarrh are much more prominent. The development of the glands of the area affected, and the increase in volume connected therewith, cause a protrusion of the diseased mucous membrane; the torn *os uteri* gapes, the cervical mucous membrane protrudes swollen, and with its hypersecretion and its hæmorrhages shows the well known and very typical appearance. The glandular new formation which we must recognize as the anatomical foundation of the erosions, according to C. Ruge's very significant investigations, also keeps spreading on the surface of the rent of the cicatricial tissue here developed, as it may also cover the whole surface of the *portio vaginalis* (see plates I.IX of B. Martin's Hand Atlas, edit. II of A. Martin). Undoubtedly these complications resist obstinately any therapeutic measures. This form of catarrh can only be healed by a careful treatment, so that such patients must frequently suffer very severely, and become chronic invalids.

Emmet prefers to cure this affection of the mucous membrane by patient local treatment, and then performing trachelorrhaphy. In Germany it is generally preferred, as it appears, to use a more energetic treatment of the affection of the mucous membrane, after some trial of what treatment with medicaments for a reasonable period can accomplish. In such a case, however, there is no object in making also a trachelorrhaphy as such. For it is better to combine the excision of the mucous membrane with that of the cervical cicatrices; amputate the vaginal portion. By this means, as a rule, a very well shaped new *portio* will be formed in place of the torn, everted, diseased one. The majority of cases of amputation,

according to the method of Hegar or Schröder, or as I do it as a rule, according to a plan combining both of these (see A. Martin's Pathology, Treatment and Diseases of Women, 1885, p. 285), gives a stump where, after completion of involution, very frequently the previous operation can be as little discovered as the alterations which led to the operation.

But in the few cases which heal thus typically there is moreover a proper aperture of the orifice with the lips of the *os uteri*, and a covering of flat epithelium. I have repeatedly endeavored to combine the typical Emmet's operation with excision of the diseased mucous membrane, and Schröder has also attempted this. For my part, however, I have given up this method completely, and in these cases I practice simply the typical amputation.

The cicatricial formation of rents in the cervix goes on and terminates in very different ways. It may so heal, corresponding to the quick changes in the cervical tissues, that scarcely any hardness and scarcely any cicatricial tissue can be distinguished, either by palpation or by the microscope. In other cases the cicatricial ramifications extend far beyond the immediate vicinity of the rent. Thence arises a displacement by contraction of the cervix, and also of the body of the uterus, which may disturb the physiological position and shape of these parts of the uterus in connection with respiration, and motion, and fulness of the adjacent organs, in connection with their changes during menstruation and pregnancy.

Severe consequences occur when the rent has extended into the *parametrium*, reaching the base of broad ligament and the roof of the vagina, and drawing them out of shape, and, in a unilateral affection, drawing the uterus as far as the wall of the pelvis, or in cases of bilateral cicatricial formation, fixes it in the middle of the floor of the pelvis. Such fixation shows its presence at every jar of the body, at every change of position of the uterus. On this account severe distress is occasioned in almost all stages of the development of the malady, frequently defying treatment by medicaments. Operative interference is called for in these cases, and with such indications we practice it with the best results.

Cicatricial formation limited to the cervix is commonly treated by us by the typical trachelorrhaphy of Emmet. The results of this operation correspond to the good success which Emmet himself reports from it. When the mucous membrane is healthy a good scar is formed, which in case of subsequent pregnancy neither shows itself as a hindrance to the development of the body of the uterus or cervix, nor during delivery is found to be a weak spot, easily torn in the external *os*.

In cases of extension of the cicatrices in the roof of the vagina I am accustomed to use a somewhat different procedure. I first separate the cicatricial tissue of the roof of the vagina and of the floor of the pelvis from the cervix uteri, and excise the former completely from its environment. Then, if the cervical mucous membrane be healthy, I refresh the scar in the cervix, and here also I remove thoroughly all cicatricial tissue. Then the sutures are put in in such a way that the wound, which was first round or

even gaping parallel to the median line of the floor of the pelvis, is united to form a scar running transversely through the roof of the vagina. This scar running transversely through the roof of the vagina terminates in the end of the cervical rent; the latter is closed either according to Emmet's plan, or, if there be at the same time disease of the mucous membrane, an amputation of the lips, excision of the erosions, and curetting of the mucous membrane of the uterine body is performed. The dissection of the cicatrix from the cervix is made with a pointed two-edged knife, and seems easy to perform when the parts are put properly on the stretch with the patient on her back and the vagina held well open by a Simon's speculum and Hegar's holders (see A. Martin's "Diseases of Women," p. 24, fig. 15). The wound gapes, often large arteries spurt (branches of the uterine artery), and require quick action in controlling the hæmorrhage; or on the other hand temporary ligation at the sides. The womb falls away from the wound by its own weight towards the median line in cases in which it has been distorted towards the side.

After sewing up the wound a normal configuration of the roof of the vagina is generally attained. Convalescence in the cases observed by me was attended by no difficulties. The final result, however, was surprising in the completeness of the removal of the severe symptoms which had accompanied these cicatricial contractions. One of my former assistants, Dr. Czempin, has undertaken the presentation of the detailed histories of the cases observed by me, so that I can refer to this work, which will soon appear, concerning the various particulars of the cases.

Berlin, October 8, 1885.

COCAINE AND OTHER ANODYNES IN OTOTOLOGY.¹

BY SETH S. BISHOP, M.D.,

BURGEON TO THE ILLINOIS CHARITABLE EYE AND EAR INFIRMARY, AND TO THE SOUTH SIDE FREE DISPENSARY.

Before considering the newest and greatest remedy for annihilating pain, it will be both interesting and profitable to take a brief survey of the past history of anodyne aural therapeutics. We sometimes look with pity on the semi-intelligent, yet unavailing efforts of dumb animals to relieve themselves of great burdens or pains. Similar sentiments are awakened by the scene which presents itself to our view as we look back into the darkness of the night of time, when the birth of the infant, Medicine, was attended only by the nurse of ignorance and the midwife of superstition. In the presence of the great evil, pain, which all feared and none could conquer, the sufferer's friends looked on, helpless to relieve, or adding to the unfortunate's horror by crude, disgusting and aggravating remedies. One can hardly believe the stories told of ancient practices until he reflects upon the superstitions of our own time. Even now I know of a man who drives a thriving business by administering lobelia to every deluded mortal who applies to him for

relief, and when the victim vomits, the mountebank exultingly points to the parts of liver which the patient is told he has ejected.

In view of our own observations of human weakness and credulity, we should be prepared to look with consideration upon many of the worse than useless practices of the ancients. To begin with Hippocrates: a deceptive treatment has been imputed to him which he probably never practised. He is cited as having recommended that "If any person have a pain in his ear, the physician should roll a bit of wool about his finger, and then pour some warm oil into the ear, and then, taking the wool in the hollow of his hand, he should hold it before the ear, in order to make the patient believe it has come out of it. In order to make the deception complete, the wool should be at once thrown into the fire." The procedure is not consistent with what we know of Hippocrates, and moreover was not necessary, for he himself recommended the instillation of warm water into the ear for the relief of pain, and this treatment was sufficiently effective to preclude the necessity of practicing such a deception. His warm water treatment is one commonly resorted to at this day, and has been advocated by numerous prominent authorities in medicine from his time to the present. Apollonius recommended burned opium and castoreum. Archigenes practiced venesection and warm baths to the ear. Galen recommended warm wolf's milk or pepper mixed with old oil for earache from cold; but for inflammatory earache he used fat of geese and hens, and for severe pain, a mixture of opium, musk and white of egg, also castoreum, or a solution of opium in thickly cooked juice of fruit. He took the precaution to use these remedies warm. Cælius Aurelianus employed leeches, cups, poultices and mustard plasters. Marcellus's refined taste was pleased with nothing short of frog's fat; and, to cap the climax of æsthetic culture, Serapion spurns the aid of a being so primitive in the scale of creation as the frog, and soars to the loftiest pinnacle of perfection in the world's evolution, declaring that the fat of woman, and that fat only, cures earache. His rule insists that the milk must be that of a woman who is nursing a female infant, if the patient be a boy.

So familiar is the subject that but brief mention need be made of modern anodyne treatment as applied to the ear. The popular domestic remedies are sweet oil, molasses, laudanum, roasted onion, glycerine and haarlem oil. The exceptions to be taken to these are that the oils are likely to become rancid and irritating, and the glycerine and haarlem oil are too stimulating. Moreover, the effects of most of these remedies are practically those of a poultice, namely: warmth and moisture, and are generally to be deprecated. Leeches afford more relief than any other topical treatment heretofore used by the profession. Morphia sulphate in the form of Magendie's solution sometimes relieves. I have been in the habit of prescribing it in 10-drop doses, warmed and instilled into the ear. I have found it more effectual when combined with atropia, of the strength of 4 grains of the atropia to the ounce of Magendie's solution. The warm breath, not blown, but breathed

¹ Read before the Chicago Society of Ophthalmology and Otology, February 9, 1886.