

by doing a trachelorrhaphy. I do not think any man ever did that. I do not doubt his veracity, but I doubt his judgment. While most of us here to-day are exclusively surgeons, yet we are sufficiently versed in medicine to know that salicylate of soda is not the only remedy for rheumatism. Free purgation, rest in bed, warmth applied to the affected part, and restricted diet are well-recognized methods of treatment for this disease. Nearly all patent medicines for the cure of rheumatism contain violent purges. It is probable that Dr. Johnstone prepared his case for operation with a free purge, that after operation she was confined to bed for a number of days, and kept on a restricted diet. It seems to me that it is more reasonable to attribute the cure of the rheumatism to these measures than to the uniting of a lacerated cervix.

DR. C. H. HUGHES (closing the discussion)—The one very important point that has been broached is the question of promising too much. That, I think, is the trouble with gynecology and sometimes with neurology. I have always endeavored to guard against this whenever I advise an operation, as I have often had the opportunity to do. I have never made the mistake of saying that the operation would certainly cure. Another great difficulty in both departments of medicine, especially in surgery, is the amateur, the gentleman who comes straight from college and practices gynecology. We often have to encounter him and his self-confident counsel.

It was stated here to-day that gynecological procedures would cure insanity. It is always a mistake to say that any procedure will cure insanity. Neurology and psychiatry look upon insanity as the product of one or more generations of disease. They consider the neuropathic factor as the predisposing cause. Heredity is another factor. Neurologists all acknowledge that disease of the uterus and its adnexa, or any transmitted irritation, may act as an exciting cause if long enough continued. We then have insanity connected with uterine trouble. The gynecologist who will tell his patient that she will get well after an operation, is likely to make an error of judgment, although sometimes he may be making a correct statement. My rule in advising people is always the same. I tell them that this thing is a source of irritation, that if I had it I would get rid of it in order to give myself the best chance. I have always been very careful not to commit myself as to the outcome of the trouble. I have seen a trifacial neuralgia which ultimately recovered by persistent treatment, and yet after the patient had recovered I was surprised to find mental aberration set in. I had to treat her for two months before she began to recover. She had been gynecologically treated some years before that and the people blamed the gynecologist for the insanity.

DR. E. C. CARPENTER (closing the discussion)—My position with regard to giving the insane woman the same chance as the sane I still hold as tenable, because I regard the mental part of the disease so serious a matter that even where local disease is only a probable element, the patient should have the opportunity of having that cause removed.

DR. EDWIN RICKETTS (closing the discussion)—I will admit that Dr. Zinke's criticism that gallstones sometimes recover is correct, but I am quite sure that he would not take the chance on any pus-tube. Nevertheless, we know that some neglected cases of pus-tube empty themselves and recover and yet we do not stop to advocate the removal of pus-tubes. As to Dr. Eastman's remark, I want to call his attention to the fact that there is quite a difference between bile escaping from a fistulous opening and that coming through the anus. That is probably responsible for his sulphid of mercury.

DR. HENRY O. MARCY (closing the discussion)—A consultation took place, more than sixty years ago in London, between Sir Benjamin Brodie and Dr. Thomas Watson, who wrote the most excellent text-books on medicine and therapeutics, the standard works for a generation. The great surgeon, Sir Benjamin, asked the famous physician to first give his opinion. Dr. Watson replied:

"It is good medical practice to remove the cause of irritation, if possible, and then trust that the irritation itself will cease." Therefore you see that we, in this closing period of

the century, are not very much wiser than those men of the earlier time. I wish to refer to certain of the points not brought out in regard to Dr. Bucke's report. Quite a number of years ago he and I discussed the relation of nervous and mental diseases as often dependent on pathologic conditions of the reproductive organs. He said: "I will examine the 500 women under my care and ascertain how many, if any, are the subjects of pelvic diseases." The results have been published and he is now the most enthusiastic gynecologist I know. Cured, 40 per cent.; greatly improved, 30 per cent.; making 70 per cent. benefited by operative procedure. I suppose Dr. Bucke would say that he had removed the cause of irritation and therefore the patient recovered. I have asked superintendent after superintendent of the asylums what they knew of the pelvic diseases of the women under their care; the answer has been invariably a negative one. The multiplied testimony of to-day goes on record to show that the gynecologist and neurologist are in a common service, removing causes of irritation, believing that the mechanics of the great human machine, restored to its normal equilibrium, will permit the execution of its normal functions.

THE RELATION OF SURGERY TO DIABETES,*

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There exists an intimate relation between diabetes and surgery, principally due to the fact that diabetics are prone to gangrene, and this intimacy, in my opinion, is rendered especially dangerous from the fact that its existence is too often carelessly dealt with, and a great many men have failed to appreciate its importance until they have seen a gangrene follow an operation in which there was apparently nothing present to result in any such course, and it certainly seems to me that insufficient importance is attached to this subject. So far as I have been able to learn, not very much has been written and the standard text-books say but very little. Erichsen makes no reference to diabetic gangrene; I quote the following from "The American Text-book of Surgery," and it is practically all it says: "Individuals suffering from diabetes are frequently attacked with gangrene. Operations on these patients are supposed to be frequently followed by gangrene, and it is advised by some authorities to abstain from operating on these cases if possible. A more extended experience with aseptic surgery, however, will probably not sustain these views."

In Dennis' "System of Surgery," the author admits that diabetic patients are liable to suffer from gangrene, and gives as the reason the fact that the tissues in these patients are weak and are probably in a condition favorable to the growth of germs. He states that the mere presence of sugar does not cause gangrene, but claims that it is due to the accompanying arteriosclerosis. The "International Text-book of Surgery," which has just been published, says nothing in addition to the foregoing. Dr. C. Von Norden makes the following statement: "Wounds of the skin, also deeper wounds, heal more slowly in diabetics." Infection gains access more readily, granulations incline to necrosis, and he thinks that former reports of an unfavorable course of wounds in diabetic subjects are due to infection caused by imperfect surgical technique; he claims that with the asepsis and antiseptics of to-day this has been entirely changed, and that the results are now such that no distinction need be made between diabetics and non-diabetics so far as operating is concerned.

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Dr. Naunyn, in an article on "Diabetes Mellitus," makes the statement that "Septic infection increases the glycosuria, and that in cases of carbuncle, phlegmon, and gangrene the glycosuria at once diminishes and frequently disappears after the abscess has been opened, or the gangrenous member has been removed."

Legroux reports an interesting case. The patient suffered from diabetes insipidus, without a trace of sugar in the urine. He received an injury to the leg, which would not heal, and the wound became gangrenous, and then it was found that the urine contained considerable sugar. This author holds the same views as Von Norden in regard to wounds in diabetics, viz., that with anti-diabetic diet and with thorough asepsis and antisepsis the wounds do as well as in non-diabetics; but admits that in fractures the bones in diabetics unite with difficulty. Taking the foregoing as a sample of the literature on the subject, it appears to me that, while there is a direct relation between diabetes and gangrene, the connecting link has not yet been discovered. It is true that these patients often have arteriosclerosis, and other conditions frequently coexist which favor the development of gangrene; still, it is also a fact that gangrene often develops in a case where the only apparent reason therefor is that the patient has diabetes. These are the reasons which in my mind render it advisable to connect diabetes and gangrene in the relation of cause and effect. Two years ago I operated on a patient 58 years of age, for gangrene of the great toe, who also had glycosuria to a marked degree. His general condition was fairly good and he was attending to his work until the condition of his toe forced him to bed. His arteries were moderately atheromatous. In this case I made the mistake of not amputating sufficiently high, as I operated near the proximal end of the metatarsal bone. My object in selecting that point was the fact that experience has taught me to leave the tarsal and carpal joints alone when possible, and in this particular case the foot outside of this toe was apparently in good condition. But whether I was too conservative or not, the fact remains that gangrene promptly set in, and I lost no time in advising an amputation just below the knee, to which the patient readily assented. Anticipating sloughing, I left the flaps long, and the wound open. Gangrene developed in the flaps and they sloughed away, leaving the bone slightly exposed. Finally the wound began to granulate, and I distinctly remember that the healing process went on much more rapidly under the influence of hot charcoal poultices. These I first applied to hasten the slough, and after that I tried nearly everything, such as aristol, iodoform, balsam peru, etc., but nothing stimulated the granulations as these poultices. Since then I have often found that in indolent granulating wounds this treatment gives good satisfaction. This patient to-day is wearing an artificial limb and his general condition is fairly good.

About one year ago, I had a case of phimosis occurring in a man 50 years of age; the foreskin was tight and indurated. I circumcised him and gangrene promptly developed at the seat of the operation; a circumscribed spot also developed on the scrotum, which rapidly spread and caused his death in a few days. This man's arteries were in fairly good condition; his general condition was not good; his urine was loaded with sugar and he claimed to have had diabetes several years. Still he was not confined to his house, but was out most of the time. This is one of the cases which causes me to believe that there is some obscure but certain reason why gangrene so often develops in these cases. Another peculiarity

in these patients is the effect which an operation has on them, so far as their glycosuria is concerned, which is not uniform. In the majority of cases the amount of sugar in the urine diminishes as it did in the first case I mentioned, but in other cases the glycosuria increases after an operation, and these patients often die with diabetic coma.

I remember a case in which I amputated in the middle of the forearm for gangrene of the hand occurring in a case of diabetes. The patient was a woman of 45 years of age, and the first suspicion that she had diabetes was when I examined her urine, and she had previously been seen by two medical gentlemen who had simply diagnosed "gangrene of the hand," and without any hesitation advised amputation. Her arteries were in good condition, and certainly not in a condition which would warrant one in attributing the gangrene to any disease of the vessels. After the operation the glycosuria increased and she promptly died, with diabetic coma. This may have been a coincidence; her death by diabetic coma may have been due at that time, and the fact that she had been subjected to an operation may have had no bearing on the result, but I believe that the condition was brought about, at least that it was hastened, by the operation.

The symptoms and signs of diabetic gangrene are so generally well known that it is not necessary to dwell upon them, but the question naturally arises: what shall we do in these cases? Here, as elsewhere, we have to be governed by circumstances, but there are a few rules which I believe it well to follow, and I base them upon the belief that, regardless of asepsis, antisepsis, anti-diabetic diet or anything else, there exists a tendency in diabetic patients toward gangrene. Diabetics are not favorable subjects for anesthesia; and the number of cases that have been reported in which the glycosuria was increased after an operation, and several cases in which death resulted from diabetic coma, cause me to feel that we should always make a broad distinction, so far as operating is concerned, between diabetic and non-diabetic subjects. I make it a practice to observe the following rules:

1. I would not operate on any patient suffering from diabetes without first explaining either to the patient or some one in authority the possibilities which might follow.

2. I would refuse to operate on an elderly diabetic subject for any of the simple affections, such as benign tumors, etc., unless there was some special reason for operating, and it is certainly a good rule to always examine the urine in any case of gangrene occurring in elderly people.

3. In the painful, rapidly-spreading gangrene which often occurs in these cases, and which is bound to cause their death if left alone, I believe in prompt and high amputation. As a rule, I wait until a line of demarcation forms; but in some cases, although the line has not formed, one can judge fairly well about how high it is going by the appearance, and in such a case I would operate before the line had actually formed. Some of these cases are inoperable; they may have complete gangrene of the foot, and the leg may be in good condition. Again, the leg may be indurated and boggy, and this condition may extend as high as the knee or above it, and it would be poor judgment to operate on such a case. Another class of cases is the dry, comparatively painless gangrene which often affects the toes in these patients. These cases will often run their course and be cast off,

and as a rule they should be left alone, so far as operations are concerned.

Furuncles and carbuncles frequently occur in diabetic patients. The furuncles will usually succumb to the general treatment for diabetes. In the case of carbuncles, however, surgical treatment such as hot applications and the knife at the proper time are required.

FRACTURE OF THE SUPERIOR MAXILLA IN A MAN 70 YEARS OLD, WITH RECOVERY.*

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The subject of fractures of the superior maxilla must always be of interest to some of the profession. As a general rule, perhaps the injury comes first to the general surgeon, who may or may not call in a skilled dentist to assist him. In many instances, I am afraid a general practitioner is not as well informed in the treatment as he should be from a dental standpoint, and it is not to be wondered at when we consult our text-books or journals of surgery on the subject—the information being exceedingly meager and ancient. It may again be asked: Is the dental surgeon, unless doubly qualified,¹ capable of taking entire charge of such cases, especially as the injury is usually severe and may have complications, as shock, hemorrhage, meningitis and septicemia? The position of a dentist has recently been decided in at least one of the states by the courts. The

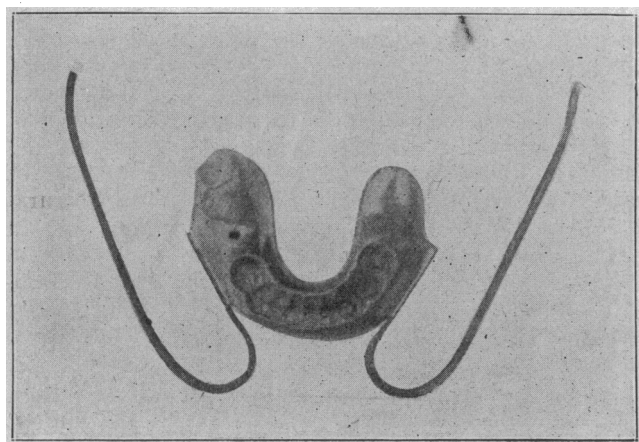


FIG. 1.—Lower Surface of Splint for Mandible to fit in and Holes to Wash Through.

court maintained that by using the title "dental surgeon" or "dentist," he has the right to treat such cases without fear of being judged unqualified or incompetent. By some, the question of not treating the case in consultation with a dentist and surgeon would be considered wrong. It may be asked if our dental schools are wise in not requiring a better course in oral surgery, with operative demonstrations on cadavers, etc., and at least giving a good training, so that a qualified dentist would be able to treat intelligently the usual class of cases belonging to the head and neck, and not consider a "tooth" as the only occupant of a patient's head.

As I previously mentioned, the literature is meager on the subject of such cases. Is it from the rarity of such injuries? Possibly not, for in looking over the reports and bibliography, I soon came to the conclusion that more cases might be found if considerable time could be given, for the classification is so mixed as to

make it nearly impossible to avail oneself of those reported. Almost every variety of heading must be looked under, viz., "face, maxillary, maxilla, malar, jaws, crushing injuries, dislocations, nasal bones and surgery." One case I found, by accident, under "Typhoidal Widal Reaction" in the *Index Medicus*. Dr. John S. Marshall, in his work on "Injuries and Surgical Diseases of the Mouth and Jaws," 1897, reported a similar scarcity, finding only 19 cases in the literature within his reach. To these I can add 14 more in the literature I was able to obtain; and one case besides that came under the care of Dr. Bertha E. Bush and myself. I will here give a brief summary of one of the reported cases, to show some of the difficulties in treating it.²

J. W., aged 38, injured by the bursting of an emery wheel. Fractures of left malar, nose, and four distinct comminuted fractures of the superior maxilla, two transverse, one in the middle line of mouth and separation of nearly all of the alveoli containing the teeth and a depression of the same of about ½ inch. Seen in a semi-comatose state, in which he remained for hours. Hemorrhage free and shock. On the third day a vulcanite splint was attempted after the manner of the Gunning pattern, patient being etherized for the purpose. The plate had to be removed, as the fragments would not stay well in position at the end of the week. After consideration, ether was again given on the tenth day and the bones drilled, silver wire being used to coaptate the bones; a roller bandage and chin support were used. Liquid was given through a tube, and the mouth was washed twice a day with listerin. The wires were removed the fortieth day, the union being perfect. Patient talked and chewed fairly well, but the range of jaw

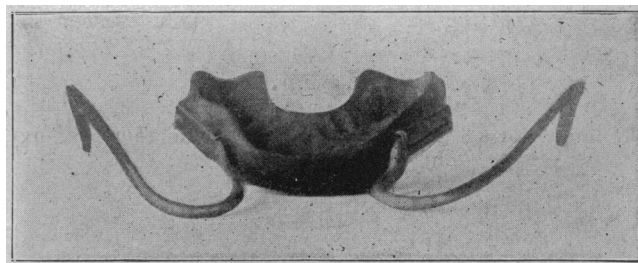


FIG. 2.—Anterior View and Upper Jaw Surface. Marshall Splint.

motion was naturally lessened and there was loss of smell and taste.

To the cases already reported I wish to add one recent one which came under my care during the past year. It is as follows:

On Sept. 14, 1899, A. B., aged 71 years, a man of strong physique, good health and habits, received a fall of 25 feet while examining a building. He was standing on a ladder which gave way and went to the ground under him. The patient fell forward, striking his face on one of the rounds of the ladder, nearly transversely at the level of the end of the nose, and also sustaining numerous bruises about the neck and shoulders and a sprain of the left wrist. He walked unaided into a house near by, and though considerably shocked was at no time unconscious. The immediate hemorrhage was very profuse from nose and mouth and continued about one hour. Dr. F. Keefer, who examined the face before much swelling had occurred, and Dr. Bertha E. Bush, of Chicago, found the upper alveolar margin and teeth freely movable en masse up and down as if upon a plate, though the mucous membrane of the mouth was intact except at the upper lip. The nasal and malar bones seemed uninjured and there was no orbital hemorrhage. The vomer, palate and inferior turbinated bones were

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¹ Possessing a medical and dental qualification.

² Staples, A. F.: *Railway Surgeon*. Chicago, 1898-9, pp. 133-135.