several venereal sores about 8 years ago; one of these was a hard chancre. This was followed by secondaries, such as sore-throats, alopecia, mucous patches and eruptions. About seven years ago he suffered from what he calls acute articular rheumatism. His joints were swollen and painful for three months and the disease disabled him altogether for about six months. Last September he experienced severe pains in his left thigh which he considered rheumatic. After the application of some liniment he discovered that not only was his thigh smaller and weaker, but that his left eye was also turned inward and that he saw double. A two months' stay in the hospital brought about much improvement and subsequent treatment at the Illinois Eye and Ear Infirmary completed the cure. The condition of the thigh, however, has remained unchanged.

He now comes to the hospital on account of severe pains in the entire right half of his face, which affect principally the right ear, but also involves the lower maxillary region. For a week he suffered constant pain, which even a tooth extraction failed to relieve.

Examination.—The patient is a small, poorly nourished man of middle age, who talks rather rapidly and stammers considerably. His face presents a typical peripheral facial paralysis. The wrinkles on the right half of his forehead have disappeared, the right eye does not wink, the right half of the face has lost all expression, the right corner of the mouth droops, while the left is drawn up high. When he attempts to wrinkle his brow the right half remains motionless. Sniffing is only done with the left half of the nose, in speaking only the left half of the mouth functionates, and in an attempt to uncover the upper teeth, only the left side responds.

In an effort to close the eyes, Bell's phenomenon is elicited on the paralyzed half of the face, to-wit: the affected lid fails to completely cover the eye-ball, and, instead, the latter turns upward and outward so as to hide the iris.

The pupils are equal and react well to light and in accommodation. While there is subjective pain in the region of the ear, there is no tenderness over the mastoid, and objective sensory disturbances can not be elicited. No signs of external or middle ear disease can be found. There is no nerve-deafness. The tongue is protruded in a straight line. Taste is markedly impaired in the anterior two-thirds of the right half of the tongue. The post-cervical and inguinal glands are slightly enlarged.

The left thigh is considerably smaller than the right, and its strength is greatly reduced. There is tenderness at the point of exit of the sciatic nerve. When the sciatic is put on the stretch there is some pain. The thigh muscles on the left side are soft and flabby and present distinct atrophy.

On the middle third of the right leg there is an old scar of about the size of a half dollar, which has pigmented edges and a parchment like center, evidently the remains of a tertiary syphilid. There is a distinct perforation of the soft palate, painless, and therefore unknown to the patient, probably syphilitic in origin. The grip in both hands is about equal and normal. Sensation is nowhere disturbed. The superficial reflexes are present everywhere. McCarthy's reflex is absent on the right side. The deep reflexes are normal in the upper extremities. Kneejerk is exaggerated on right side, and considerably reduced on the left side. The Achilles jerk is present bilaterally, but somewhat less marked on the left side. Gait is about normal. Co-ordination shows nothing abnormal. The eye-grounds are normal.

Large doses of mercurial inunctions and of potassium iodid up to 12 drams daily failed to produce any decided improvement during a course of treatment of two months' duration. The only change noted was a disappearance of the pain in the trigeminus region, which can not positively be attributed to the antisyphilitic treatment. The patient has now left the hospital and treatment had to be discontinued.

SUMMARY.

We find in this patient, with undoubted syphilitic antecedents and with the positive stigmata of syphilis, a right trigeminus neuralgia, a right-sided peripheral facial neuritis, neuritis of the left sciatic and left an-

terior crural nerves. These various nerve affections must be ascribed to syphilis, as we are unacquainted with any other single etiologic factor capable of producing such irregular nerve lesions.

100 State Street.

A METHOD OF TREATING FRACTURES OF THE SUPERIOR MAXILLA.*

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Although the body of the superior maxilla is not frequently broken, the surgeon occasionally finds fractures of the processes as the result of direct violence. The alveolar arch may be broken by a heavy fist blow, and the deformity which results is many times considerable and difficult to maintain in proper reduction. The ingenuity of the operator who treats these conditions in emergency practice is often taxed to the utmost. While it may be necessary for him at times to call a skilled dentist to his assistance, still it will be possible for him to treat nearly all these fractures single handed.

I have previously laid stress on the fact that the oral functions should be maintained in fractures of the jaws. To reduce properly and to immobilize the fragments, to retain the power of speech and the ability to take food, and to avoid the dangers of sepsis by providing for strict oral hygiene, are the conditions which the surgeon must meet.

Fig. 1.—Plan of interdental splint.

It will hardly be essential to discuss previous methods which have been employed in fractures of the superior maxilla. While the literature on methods of retention in lower-jaw fractures is voluminous, that on fractures of the upper jaw is most meager and is limited to refined appliances which have been successfully employed by dentists, but which are outside the scope of the general surgeon.

The necessity for a simple, practical method of treatment was made manifest by the following case:

J. M., a laborer, aged 40, was assaulted by footpads. He received a heavy blow directly on the lips from the fist of one of his assailants. He was knocked down and remained unconscious for some time. He did not present himself at my service in the surgical dispensary of the University of California until two days after the injury. When first seen by Dr. Henry Horn and myself he was in a pitiable condition. His upper lip and gums were lacerated and greatly swollen. The upper two middle incisors and left lateral incisor were displaced downward about one centimeter, the alveolar arch being fractured. The teeth were loose in their sockets and the fragment of the alveolus bearing the three teeth could be moved up and down as if on a hinge. There was a large amount of clotted blood about the roots of these teeth.

In such fractures as this, Malgaigne's dictum is to be remembered. "In all complicated fractures of the upper jaw," he says, "there is one principle which surgeons can not too much study, namely, that all fragments, however slightly adherent they may be, ought to be

* Read before the San Francisco County Medical Society, 1905.

most carefully preserved, and they will be found to unite with wonderful ease." The advice is sound, for the blood supply of this region is very rich and the vitality of the bone is great. Although necrosis of small fragments sometimes takes place, it is the exception and not the rule. We, therefore, determined to save the much displaced teeth and the alveolar fragment.

The patient was given an anesthetic, the fracture reduced and a temporary dressing applied. This consisted of an interdental portion, made of a thin, narrow piece of wood, maintained in position by dental compound molded over the incisor teeth and supported by the headpiece to be presently described. This held in position very well, but was replaced on the next day by the permanent apparatus.

This splint consists of a head piece, which is the suggestion of Dr. Horn, and an interdental plate of aluminum, the two parts being united by means of two strong rubber bands. The fracture is held reduced and an out-

Figure 2.

line of the curve of the upper teeth obtained. This is best accomplished by making an impression in dental compound, softened by immersion in hot water. Sheet aluminum of No. 20 thickness is then taken and the pattern (Fig. 1) laid out on it. The curve corresponds with that of the incisor and canine teeth, and the width should be a little greater than the widest part exhibited by the impression. The two lateral arms are one centimeter in width and four centimeters in length and emerge from the body of the splint at a point about opposite the canine and bicuspid teeth, the object being that these arms shall not exert pressure on the corners of the mouth.

The splint is then cut out by means of a pair of heavy shears. The lateral pieces are cut, as shown by the dotted lines, so that they may be turned up, thus form-

ing the sides of a narrow curved gutter. Before this is done, however, it will be best to reinforce the apparatus by an extra piece, cut so as to conform with the base and arms of the splint. Over this extra piece the side pieces can be easily turned up by means of a pair of small pliers. The base can also be reinforced by a piece of heavy wire, bent so as to conform with the posterior curve of the splint. The tops and sides are then trimmed and the reinforced arms protected by wrapping with narrow adhesive plaster. The sides of the gutter should not extend so high as to interfere with the gums.

The head piece is made of heavy wire or whalebone, neatly shaped. It should be well padded and wound with adhesive plaster or a narrow roller bandage. The band is prevented from slipping downward by means of two strips of muslin bandage, crossing at right angles. Two heavy rubber bands are looped over the head band so that they run just to the outer sides of the eyes.

The interdental splint is placed in hot water, and the gutter filled with softened dental compound. It is then clapped on the teeth, pressed up firmly and maintained in position by slipping the rubber bands over the projecting arms. There is a tendency for the head piece to work forward, and this should be guarded against by fastening a bandage to the band above the occiput, then carrying the ends down and tying them securely well under the chin. The elastic pressure is most satisfactory. The splint does not loosen and has given us no trouble. The interdental gutter may be carried back beyond the projecting arms, so as to embrace all the upper teeth if desired.

The progress of this case was excellent. The mouth was kept clean by an antiseptic solution and the splint was frequently removed and cleaned by boiling. Union was found to be quite firm in twenty days and the patient was discharged five weeks after beginning treatment.

751 Sutter Street.

AN AMERICAN MEDICAL ASSURANCE.

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There are three chief purposes subserved by the American Medical Association—the advancement of science, the promotion of sociability, and the strengthening of the material interests of the members of the profession. The first purpose is accomplished with much success by the activities of the Association and its subordinate societies. The second purpose is inevitably aided by the meetings that are so frequently held and so well attended. But the third purpose, so far as collective action is considered, is generally neglected except by a very few local associations.

It is self-evident that any plan that improves the financial welfare of physicians and that has the aid and sanction of the American Medical Association must conduce to the creation of strong fraternal relations among the members and thus consolidate the Association itself. The feeling of brotherhood would be quickened by the knowledge that the misfortunes of our fellow-members are not matters of indifference to us, and that we, as an Association, are willing and able to furnish means of alleviating some of the unhappy experiences that may come to a worthy physician in the course of his life.

The foregoing are some of the reasons for suggesting that the American Medical Association should sanction the institution of a life-assurance company of strictly