

deeper bronchi, was fished out and streaked on the blood agar plate. Only those sputum cultures are reported as positive which give many colonies of meningococci, these being in most instances the predominating organisms. All cultures diagnosed as positive were agglutinated in a dilution of 1:100 or higher of a polyvalent antimeningococcus serum, control tests with normal horse serum giving no agglutination. Fermentation tests with strains from these carriers gave results typical of meningococci.

In Table 1, the relative incidence of positive cultures are summarized. The apparently large number of negative cultures from the nasopharynx is what would be expected for two reasons: First, a large percentage of newly isolated carriers will give negative cultures within a few days, and secondly, many chronic carriers give intermittent negative cultures. An analysis of Table 3 brings out the fact that a greater number of carriers persist as such after six weeks in those groups in which other parts than the nasopharynx give positive cultures.

#### CONCLUSIONS

The nasopharynx is the most common seat of meningococci in carriers, but the carrier state persists longer, the wider the distribution of meningococci in the upper respiratory tract. The number of positive cultures from other sources than the nasopharynx seems sufficient to warrant the taking of cultures from other parts than only the nasopharynx.

### **Clinical Notes, Suggestions, and New Instruments**

#### CARE OF THE EYES OF THE PATIENT DURING ETHERIZATION

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It is fortunate that conjunctivitis is an infrequent post-anesthetic complication as, when it occurs, the pain resulting from the conjunctivitis is likely to be so severe as to outweigh any other discomfort that may follow the operation. Conjunctivitis is supposed to follow exposure of the eyes to ether vapor, or to result from the spilling of the liquid anesthetic on them. In the anesthetic literature, mention of this question is limited to directions for covering the eyes with a towel, gauze handkerchief, or a strip of rubber tissue for the purpose of protection from the anesthetic vapor. In cases in which these precautions have been carefully taken, conjunctivitis occasionally develops. In a series of 3,000 cases of ether anesthesia by the open method in which the eyes were not covered, although they were exposed to the ether vapor and although liquid ether was without doubt accidentally spilled over the eyes in some cases, no conjunctivitis has occurred.

If the anesthetist allows a drop of liquid ether to be placed in his own eye, no severe reaction follows. Ethyl chlorid is equally harmless to the eye. If a quantity of liquid ether is accidentally spilled over the uncovered but closed eyes of the anesthetized patient, conjunctivitis does not usually follow. When the towel or gauze covering the eyes becomes saturated with ether and remains in this condition, a severe conjunctivitis will probably result. In case the patient's eyes do not completely close during anesthesia, or are held open by a carelessly applied protective covering, conjunctivitis is very likely to occur. There can be no doubt that the precautions usually taken to avoid postanesthetic conjunctivitis in reality increase the danger and often are the sole cause of the trouble.

The only conclusion to be drawn is that, during general anesthesia, the eyes should not be covered. If liquid ether

is accidentally spilled over the eyes, they may be washed with saline solution or sterile water, or the lids may be carefully dried with soft gauze. The lids should be closed during anesthesia. In the cases in which there is tendency for them to remain open, they should be frequently closed with the tip of the finger. The lid reflex may be frequently tested with the finger tip and at the same time the condition of the pupil noted. The unclean and unnecessary practice of touching the conjunctiva to elicit the corneal reflex should rarely if ever be indulged in. By this simple technic, the eyes may be safeguarded during general anesthesia.

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#### DISLOCATION OF THE MIDDLE CUNEIFORM BONE

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Dislocation of the middle cuneiform bone occurs so rarely that instances of its occurrence should be reported. Its rarity adds to the difficulty of recognizing the condition; but

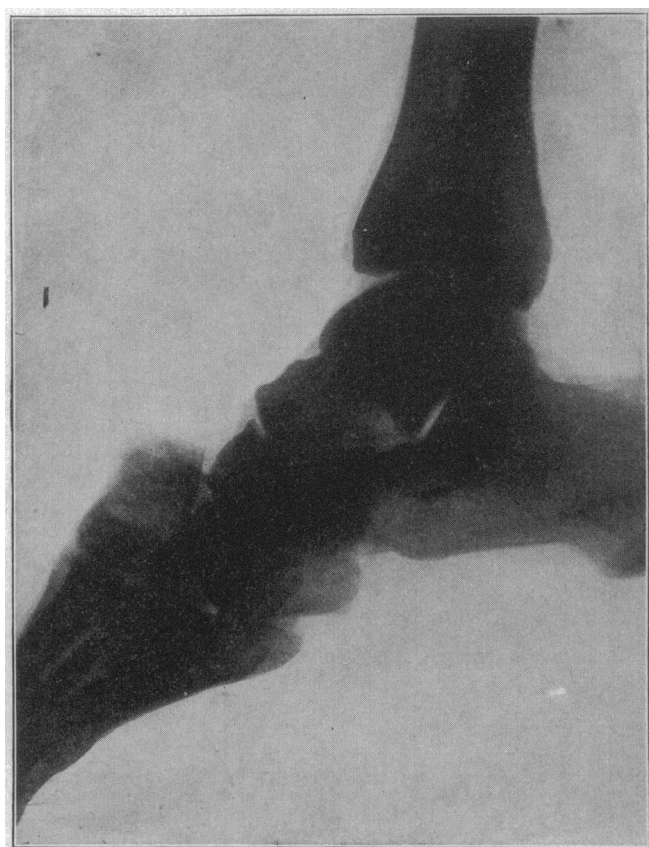


Fig. 1.—Dislocation of the middle cuneiform bone of the left foot.

unless it is recognized, impaired usefulness of the foot will result. Stimson<sup>1</sup> was able to collect only seven instances of separate dislocations of the middle cuneiform bone, and eleven of fractures. All three cuneiform bones have been displaced together, and the second and third likewise.

March 2, 1917, V. G. E., aged 28, a railway conductor, while wearing a pair of heavy work shoes with extra thick, double soles, had his left foot run over by an empty dump car. The skin was not lacerated, but there was a bony protuberance on the dorsal surface, over the situation of the middle cuneiform. A diagnosis of dislocation of this bone was confirmed by roentgenoscopy. Failing to reduce the dislocation, first without an anesthetic and then with one, I made an incision over the protuberance, and skidded the bone back into position on a pry, when the torn ligaments were sutured together. The

1. Stimson, L. A.: *A Practical Treatise on Fractures and Dislocations*, Ed. 7, Philadelphia, Lea and Febiger, 1912, p. 914.

wound healed without infection. It was three months after the accident before any weight was permitted to be borne on the foot, that the ligaments might have ample opportunity to regain sufficient strength to bear the weight of the body with impunity.

I saw the patient eight months after the accident, when he was walking perfectly and without pain or discomfort, the foot appearing quite normal again, without having shown any tendency to the breaking of the arch.

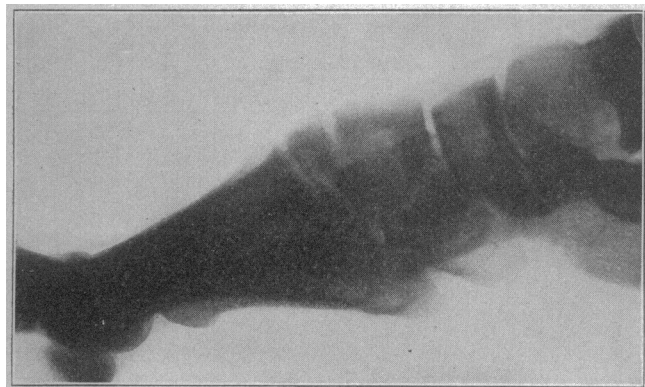


Fig. 2.—Evidence of a slight tendency toward the gliding of the middle cuneiform bone out of position, after reduction, which was overcome by compresses.

The foot is so wonderfully supported by ligaments and tendons that nothing but a powerful force can dislocate a bone situated as the middle cuneiform is. Such a force is usually so great that the foot is crushed rather than the bone dislocated.

During the healing process, there was a constant tendency for the middle cuneiform bone to be wedged out of its normal position, which was manifest by its increasing prominence on the dorsum of the foot; however, by the application of compresses, it was kept in position until the ligaments had sufficiently united to hold it in place.

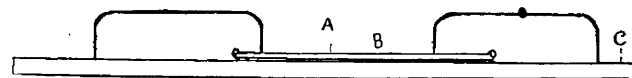
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#### A SIMPLE AND RELIABLE METHOD OF MAKING PARTIAL-TENSION PLATES

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Although there are many methods for making anaerobic plate cultures that give good results, there are few described for partial-tension plates. Wherry and Oliver<sup>1</sup> have devised a technic which they thus describe:

In making partial-tension plates we have inverted the inoculated plate upon a glass plate on which is fastened (with a small piece of plasticine) a smaller open Petri dish containing a freshly inoculated culture of *B. subtilis*. The inverted dish should be high enough to avoid any contact with the smaller dish. The edges of the inverted dish are then sealed with plasticine as recommended by Lentz<sup>2</sup> for the growth of anaerobes. Plates made in this way and sealed to pieces of window glass of suitable size may be stacked in the incubator.



Apparatus for use in investigations of the adaptation of organisms to various oxygen tensions: A, glass tube; B, Petri dish; C, glass plate.

In the use of this method as a routine in an investigation of the adaptation of certain organisms to various oxygen tensions, a number of serious objections were noted. Especially when relatively soft mediums were used, the water of condensation collected on the glass plate, became inoculated with *B. subtilis*, and unless great care was taken the culture was invariably contaminated. When it was necessary to add a fresh culture of *B. subtilis* to maintain the proper tension,

the Petri dish containing the culture had to be lifted and exposed to further chance of contamination.

To avoid these difficulties the following method was devised: A small notch was ground (with a round file) in the edge of a standard Petri dish, which was sterilized and marked. The plate culture made in the usual way, in one of these dishes, was inverted on a glass plate so that the notch fitted over a small piece of glass tubing which had been fastened to the glass with dental sticky wax. The edges of the plate were then sealed with the same material. A similar plate was inoculated with *B. subtilis* and inverted over the other end of the glass tube on the same glass plate. It was also sealed with sticky wax.

This method may also be used for anaerobic cultures by placing the pyrogallic potassium hydroxid mixture in the second plate instead of the medium containing the *B. subtilis* growth.

If this technic is used, no contamination by *B. subtilis* is likely. The *B. subtilis* culture may be renewed as often as desired without disturbing the original culture.

#### FRACTURE OF THE NECK OF THE FEMUR IN A CHILD

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On account of the rarity of fracture of the neck of the femur in children, this case is reported.

Oct. 5, 1917, a well developed boy, aged 9 years, was admitted to my service in the Cook County Hospital with the complaint of "interference with gait following trauma of the left hip." Two months before, he had fallen from a roof a distance of 15 feet, striking on his left side. After three weeks in bed he was allowed to walk.

There was no pain after his period in bed, but he walked with an obvious limp. This was his condition when he came to the hospital.



Fracture of the neck of the femur in a child.

The examination disclosed about one-half inch of shortening and a relatively high trochanter with almost normal movement of the joint. The roentgen ray cleared up the diagnosis. A plaster-of-Paris spica was applied, and recumbency advised, as the character of the union was in doubt.

7 West Madison Street.

**Publicity and Power.**—Publicity is the punch in public health work.—Cumberland (Md.) *Health Bulletin*.

1. Wherry and Oliver: Jour. Infect. Dis., 1916, **19**, 288.  
2. Lentz: Centralbl. f. Bakteriöl., Orig., 1910, **53**, 358.