FOUR FRONTAL SINUSES.

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Through the courtesy of Mr. Burchell of the New York Eye and Ear Infirmary I am enabled to report on this interesting anomaly, which, to my knowledge, has not been described in the text-books.

In the skull, which otherwise presented no unusual anatomic features, there were present on each side of the frontal septum two sinuses, one posterior to the other, and each having a distinct and separate nasofrontal duct, which drained into the middle meatus of the nose. A complete bony septum separated the sinuses on each side.

It is conceivable that this anomaly might offer considerable difficulty to the surgeon in the diagnosis and treatment of suppurative conditions of the frontal sinus. If the anterior set only were involved, no unusual features would be present, but simultaneous involvement of the anterior and posterior frontal sinus would lead to a persistence of the suppurative condition even after the radical measures had been adopted, as the existence of additional sinuses would probably not be suspected. Should the condition be recognized by the surgeon, the proper treatment would still offer considerable difficulty. To reach the posterior sinuses by an intranasal operation would be very difficult, while a radical operation on the posterior frontal sinus might prove dangerous (unless it is certain that there is a posterior sinus) on account of the posterior location and the proximity of these sinuses to the frontal lobes of the brain.

It remains to be seen whether the x-rays will prove helpful in the recognition of this anomalous condition. At any rate, the possibility of the existence of these additional sinuses should always be borne in mind, especially in cases of prolonged suppuration.

Other anomalies which have come under my observation recently are:

1. No frontal sinuses.
2. Only one large frontal sinus on left side with its nasofrontal duct.
3. Three frontal sinuses; two to the right of the frontal septum situated laterally. These two sinuses were divided by a vertically situated bony septum extending from the anterior wall, roof and floor to the opening of the nasofrontal duct. Both sinuses on the left side emptied into one nasofrontal duct. The left frontal sinus showed no anomaly.

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USE OF NEBULIZER PRESSURE IN
SPHYGMOMANOMETER.

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I wish to call attention to the advantage of applying the compressed air in a common nebulizer to the sphygmomanometer. By applying the cut-off to the rubber tube of the sphygmomanometer and turning the pressure gauge down low the pressure can be controlled perfectly and the attention of the operator given to detecting the systolic and diastolic pressure of the pulse. The blood pressure apparatus should be placed on the nebulizer stand and the patient seated with the left side to the instrument. The air-cushion bandage should be ad-

justed to the left arm of the patient, the air pressure controlled with the right hand and the effect detected with the left hand. This plan does away with the necessity of pumping away with the right arm while trying to detect the fine variations of the pulse with the left. It also makes the storage bulb, which is forever bursting just at the critical moment, unnecessary.

AN ECONOMICAL METHOD OF MAKING
TUBERCULIN DILUTIONS.

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Making tuberculin dilutions by the usual methods entails taking a large quantity of tuberculin, 0.2 c.c., thereby making it possible to get but five diluted solutions from 1 c.c., and it is usual to measure it in a pipette of rather large caliber. I deem it worth while to present a more accurate and a more economical method.

The counting pipette for red blood corpuscles is used for measuring the quantity of tuberculin taken, but the tuberculin and diluent are not mixed in the cell of the pipette. My pipette holds 0.9 c.c. Having measured out that quantity of the diluent in a small graduate (5 c.c.), I draw tuberculin up to the mark (0.5) on the stem of the pipette and expel it into the sterile graduate containing the diluent. This gives me a dilution of 1 to 200. Adding to this four equal volumes of the diluent I have a 1 to 1,000 dilution, 0.2 c.c. of which serves as the recommended initial dose. A small sterile glass ball is dropped into the graduate and shaken for a few minutes to get an even mixture.

Far greater economy can be practiced by drawing the tuberculin up to the first mark on the stem of the pipette, in which case I get a dilution of 1 to 1,000 in 0.9 c.c. of the diluent, or only about enough for four doses without any waste. As the dilutions deteriorate in from ten days to two weeks, the practicability of this method to the man who has but one or a few patients under observation is obvious.

The technic is extremely simple and the accuracy of dilution superior to that obtained by using a large caliber pipette. By knotting the distal end of the rubber tube on the pipette it makes an efficient bulb.

606 Eitel Building.

The Exceptional Child.—The criminal, the insane and the neurasthenic in a certain sense are the waste material of civilization from which something useful can be produced if the effort be made while the material is still in the plastic period of childhood. The National Association for the Study and Education of Exceptional Children has been formed to make this effort. In addition to conducting a school for such children where experimental work can be carried out, the association has determined to extend its work by offering to teachers and others, who are fitted to profit by it, a course of instruction in the care and education of such children. A summer course for this purpose has been arranged to be held at the school from July 13 to Aug. 22, 1908. The course is to include both theoretical and practical instruction. The terms of admission are a previous course in psychology covering sixty hours, and three years' experience as a grade public school teacher or its equivalent. Further evidence of special fitness is required, which is to be determined by the educational manager. Further particulars may be had of the secretary of the National Association for the Study and Education of Exceptional Children, Watchung Crest, Plainfield, N. J.