found here and there in groups of two and three. The blood-vessels are numerous and large all over, but specially so where the cellular element is predominant. There is a true cavernous tissue, chiefly venous. Around this cavernous zone and in the septa between the vessels one finds remains of old interstitial hæmorrhages. The fibro-cartilaginous part consists of fine connective tissue fibres forming a close network, or arranged in bundles of parallel fibres, containing in places small cartilaginous capsules. The cellular part consists of little round, oval, or much elongated cells, the round cells being about the size of white corpuscles. The tumour is therefore a hypertrophic growth, containing the tissue elements from which it originated. There is nothing to indicate the pathogenesis or etiology of the growth.

Tumours of this nature are less liable to cause severe hæmorrhage during operation than pure angiomata, recur less readily, and are less disposed to undergo malignant transformation. Nevertheless, one should always remember that simple tumours of the septum are always more liable to undergo malignant degeneration than those of other organs.

M. WAGNIER asked why M. Noquet did not prefer either electrolysis or the snare for the removal of the tumour.

M. NOQUET thought that with the galvano-caustic knife he could operate without causing any hæmorrhage, and in this he proved correct. Electrolysis would have taken longer, and would have been painful.

M. GOUGUENHEIM had removed several tumours of the septum, and had never seen consecutive hæmorrhage. He always used an iodoform gauze dressing. He had never seen recurrence of a malignant nature.

Arthur J. Hutchison (Trans.).

ABSTRACTS.

DIPHTHERIA, &c.

Baginsky, Adolf.—*The Antitoxin Treatment of Diphtheria in the Kaiser and Kaiserin Friedrich Children's Hospital in Berlin and Dr. Winter's Observations thereon.* "Med. Record," Aug. 8, 1896.

IN the first part of this paper a long quotation is given from Dr. Winter's address (*vide* JOURNAL OF LARYNGOLOGY, Oct., 1896), in which he showed that the statistics of the antitoxin treatment of diphtheria in the Kaiser and Kaiserin Friedrich Children's Hospital in Berlin did not give a true statement of the real results, but were obtained by manipulating both figures and patients. The points in Dr. Winter's paper are then taken up and proved to be incorrect. It appears that Dr. Winter's criticism of the methods adopted in the hospital is based on observations made during one short visit. "His observations and all his conclu-
"sions are incorrect, and are based on such faulty observations as to amount
"almost to misrepresentations."

In the second part of his paper Dr. Baginsky points out:—(1) That the good results obtained with antitoxin are due to the antitoxin, and not, as has often been

asserted, to the mildness of the prevailing epidemic. (2) That larger numbers of mild cases have not been treated in order to swell the favourable statistics, but that, on the contrary, the number of cases admitted has been considerably lessened, and the cases taken have been of the severest kind, yet the mortality has been considerably decreased and the percentage of discharged cured considerably increased: *e.g.*:—

Jan.,	1896.	Number discharged cured,		27;	died,	2, =	6·89	per cent.
Feb.	,,	,,	,,	25	,,	4, =	16	,,
March	,,	,,	,,	25	,,	3, =	10·71	,,
April	,,	,,	,,	25	,,	0, =	0	,,
May	,,	,,	,,	25	,,	3, =	10·71	,,
June	,,	,,	,,	20	,,	1, =	5	,,

Thus percentage mortality for these six months is about 8·22, instead of about 40 to 50 per cent. as it used to be. (3) That he has never seen any bad effects from antitoxin, used either curatively or prophylactically, except in two cases, which he will report in detail later on. (4) That some so-called antitoxins are quite inert; he uses only Aronson's and Behring's. (5) That the complications arising in many cases of diphtheria are to be treated *sec. art.*, and not left to run their own course simply because antitoxin has been used. *A. J. Hutchison.*

Bolton, B. Meade (Philadelphia).—*The Examination of Cultures from Cases of Suspected Diphtheria.* "The Med. and Surg. Reporter," June 27, 1896.

DURING the last seven months of 1895, 1421 primary and 1942 secondary cultures were examined, making a total of 3363 cultures.

Of the 1421 primary cultures, 1207 were made from the throats of persons showing clinical evidence of diphtheria, and 214 were made from the throats of healthy persons who had been exposed to infection. The diagnosis of diphtheria was made by the attending physician in 557 cases; in the remainder of the cases the physician either stated that the case was not diphtheria, or left the matter in doubt. In the 557 cases diagnosed as diphtheria, the bacteriological examination showed the presence of diphtheria bacilli in 507, or 90·2 per cent.

In 148 cases the physician stated that the disease was not diphtheria. The Klebs-Löffler bacillus was found in 40 of these cases, the clinical and bacteriological diagnosis agreeing consequently in 72·9 per cent. According to this, it would seem that in cases of angina which do not show sufficient evidence clinically to be called diphtheria, 27·1 per cent. have the same organism present that is usually found in clinically typical diphtheria. Those who call all anginæ caused by Löffler's bacillus diphtheria would regard these as mild or atypical cases of the disease.

If the 557 cases in which the physicians pronounced the disease diphtheria be taken with the 148 that could not be called diphtheria clinically, it will be found that the clinical and the bacteriological diagnosis agree in 86·4 per cent.

Cultures were taken in 214 cases from the throats of persons who had been exposed to diphtheria, but who presented no clinical symptoms. Of these, 89, *i.e.*, 41·5 per cent., showed the presence of the Klebs-Löffler bacillus; 95, *i.e.*, 44·3 per cent., did not show the bacillus, and the others were unsatisfactory. It seems, accordingly, that more than one-third of persons more or less exposed get the bacilli in their throats. It would be interesting to know how many of these persons subsequently develop the clinical symptoms of the disease. In 50 of these cases it was possible to determine that the bacillus persisted, on an average, for 13·3 days.

In 460 cases presenting clinical symptoms of diphtheria, the length of time that the bacilli were present, dating from the appearance of the first symptom to dis-

appearance of the bacilli, could be determined. It was found that this varied from 7 to 96 days, the average being 28·3 days, irrespective of treatment.

A. B. Kelly.

Borthwick, T., and **Irwin, H. O.** (Adelaide).—*Preliminary Note on the Bacteriology and Antitoxin Treatment of Diphtheria.* "Australasian Medical Gazette." June 20, 1896.

A BACTERIOLOGICAL examination was made in fifty throat cases, twenty-five of which proved to be diphtheria.

Of these twenty-five, fourteen were treated with antitoxin, with two deaths. In these fatal cases the serum was first injected on the sixth and seventh day respectively. In other two cases, however, recovery followed when the injection was not made until the sixth day, and in a third case until the ninth day.

In eight of the cases a rash followed the injection, appearing usually about the ninth day. In seven of these it was urticarial, and lasted from two to six days. In the other cases it was scarlatiniform and transitory.

The diagnosis was made correctly in twelve of the twenty-five cases, in five it was doubtful, and in eight the disease was said to be tonsillitis.

By "post examinations," the throats were proved to be free of infection in from four to twenty-eight days.

In one case in which antitoxin was not used the patient was reinfected in four weeks, and in another in which it was used there was recurrence in six weeks.

A. B. Kelly.

Flick, Lawrence F. (Philadelphia).—*Calomel a Specific in Diphtheria.* "The Medical and Surgical Reporter," June 13, 1896.

IN this paper five cases are described, in all of which diphtheria was diagnosed by bacteriological examination. As a result of the author's observations, he regards calomel as a specific in this disease. He usually begins with a sixtieth of a grain (rubbed up with sugar, and placed dry on the tongue) every fifteen minutes, and increases or decreases the dose according to the constitutional effects. Nasal insufflations of calomel—either pure, or with two parts of sugar of milk—are also employed.

He attributes the good effects obtained by the drug to its local germicidal action. The frequent repetition of the dose keeps up a constant sterilization of the soil, and the small quantity prevents undue constitutional effects. In no other way can be explained the failure of the action of the calomel upon the membrane of the nose when given by the mouth alone, and its speedy action upon the nose when used by insufflation.

A. B. Kelly.

Hennig (Königsberg, Pr.).—*On the Practical Value of the Diphtheria Bacillus.* "Volkmann's Klin. Vorträge," Nf. No. 157, 22 pp. Leipzig: Brettkorf & Hartel, 1896.

THE author has often observed that simple follicular anginas in which no diphtheria bacilli are found may be converted into grave septic anginas; that cases in which the bacilli are found may have a harmless course; ,that some cases of membrane on the tonsils and the velum are without the specific bacillus. Therefore the bacillus cannot be viewed as characteristic of diphtheria. Thirty-five cases were examined: in ten Loeffler's bacillus was found; in all the other cases other micro-organisms. Also specific paralyses followed sometimes cases in which no bacilli were found. Often virulent bacilli are found in the mouths of healthy persons. The author therefore believes that it is only practical to regard the clinical symptoms. Also the results of serum therapy are not at all convincing, and are not better than with

other treatment. With his simple treatment (ice, cleansing, aq. calcis, liq. ferri), the author had, in 1913 cases, 59 (equal to 3·08 per cent.) deaths.

Michael.

Kellock, T. H.—*Intubation versus Tracheotomy in Diphtheria.* "Lancet," Oct. 3, 1896.

CONSIDERS tracheotomy to be preferable to intubation, from a nursing point of view, in those cases where help cannot be obtained immediately during the first thirty-six hours, and when the obstruction in the first instance was severe. But he holds that the fact that, in the past, results of intubation instead of tracheotomy in diphtheria have been unsatisfactory is no argument against employing it in the future, now that in antitoxin serum we have such a valuable aid in the treatment of the disease itself. He, therefore, claims that when combined with the injection of antitoxin serum intubation has the following advantages over tracheotomy: (1) the operation can be performed more readily and with less assistance; (2) it does not need an anæsthetic; (3) the tube can be removed at an early date, leaving no wound, and no passage for the respired air except *per vias naturales*; (4) it does not require the patient being kept at any time in an artificially warmed and moistened atmosphere, and obviates the dangers to the lungs of unfiltered air being breathed straight in; and (5) it can be employed in cases where the parents or friends refuse leave for the "cutting operation." Tracheotomy has the advantage in those cases where there is a large amount of membrane below the larynx, and also in those cases mentioned above, where, from a nursing point of view, it is unsafe to leave a patient with an intubation tube in the larynx.

St Clair Thomson.

Loos (Graz).—*The Blood Serum of Healthy and Diphtheritic Children in its Relation to Diphtheria Toxin.* "Jahrbuch für Kinderheilk.," Band 42, Heft 3, 4.

THE author concludes:—Injections of heilserum increase the antitoxic power of the blood. This is proved by experiments in animals. The so-called prophylactic injections of blood serum do not produce an increase of the antitoxic power of the blood serum to any great extent. Natural diphtheria produces an increase of the antitoxic power after a longer period. During the disease, or shortly afterwards, examination of the blood serum shows no increase of the antitoxic power. In severe forms of the disease diphtheria toxin can be found in the blood by experiments on animals. A relation seems to exist between possibility of infection and the manner of its progress to the bulk of natural antitoxins. The natural antitoxic power lasts for a longer time. If the artificially-induced antitoxin has the same power it is not yet demonstrated. *Michael.*

Martin, Sidney.—*The Serum Treatment of Diphtheria.* "Lancet," Oct. 17, 1896.

THE essentials of treatment are: (1) a large dose of antitoxic serum, reckoning in normal units; (2) which must be given as early as possible in the disease; and (3) which must be given in one dose, and not subdivided. In cases of faucial and pharyngeal diphtheria local treatment is also employed, usually consisting of a steam spray of bicarbonate of soda (20 grains to the ounce) every four hours, and a similar spray of corrosive sublimate (1 in 2000), also every four hours, so that the throat is sprayed every two hours. If there is a nasal discharge, a douche of bicarbonate of soda is used, and in laryngeal cases a warm spray of the same solution is employed. At one time it was attempted to do without the local applications of antiseptics to the throat, but several cases of glandular abcesses of the neck occurred, so that the local applications were begun again, and no more

abscesses have occurred. The strength of the serum used is about 4000 units in five centigrammes, and as this is a convenient amount to inject into a child it is more serviceable than when forty centigrammes have to be given in order to administer 4000 normal units. Martin, now, never gives a dose of less than 4000 units, and more frequently he gives 8000. No bad results have been observed from the use of the antitoxin. The beneficial results have not only been seen in the tables of mortality, but are also observed at the bedside. (1) It stops the growth of the membrane. In an ordinary pharyngeal case the effect is not usually seen for twelve or even twenty-four hours, and during this time the membrane may even spread; at the end of this period the spread of the membrane ceases. (2) In no instance has it been observed that a case which was simply pharyngeal on admission became laryngeal, and necessitated tracheotomy. (3) No cases have proved fatal, unless they were severe on admission. (4) A day or two after the injection, patients usually lose that earthy pallor which is so frequent in diphtheria, and their natural colour in part returns. *St Clair Thomson.*

Monti (Wien). —*Further Contributions on the Application of Heilserum in Diphtheria.* "Archiv für Kinderheilk.," Bd. 21, Heft 1-3.

THE author describes a fibrinous form, a mixed phlegmonous form, and a septic gangrenous form, of diphtheria. He then reports on 104 cases—of which 72 are fibrinous, 26 mixed, and 6 gangrenous—treated during 1895 with heilserum. Of the 72 cases of the first form, 6 died; of the 26 of the second form, 10 died; of the 6 of the third class, 5 died. The author recommends this form of treatment. In 35 of the cases remote effects of the serum were observed. *Michael.*

Richards, Meredith.—*Post-Scarlatinal Diphtheria.* "Lancet," Sept. 26, 1896.

DIPHTHERIA and post-scarlatinal diphtheria are both much less common in the provinces than in London. Holds that there is nothing special or peculiar in the etiology of post-scarlatinal diphtheria, but that it simply depends on the amount and virulence of the diphtheria existing among the population from which the patients are derived. In the author's hospital, when cases of diphtheria were excluded during a period of eighteen months, although there was an average of three hundred to three hundred and fifty scarlet fever patients under treatment, no case of post-scarlatinal diphtheria was met with. But once it became the custom to also admit cases of diphtheria to the hospital, other outbreaks occurred amongst the patients convalescing from scarlatina. The fact that diffusion of diphtheria takes place as a rule during convalescence, is explained by the greater personal contact which then occurs between patients. *St Clair Thomson.*

Schmidt and **Pflanz** (Graz). —*Relation of Human Milk to Diphtheria Toxin.* "Wiener Klin. Woch.," 1896, No. 42.

THE author concludes: The alexins which are in the blood of the puerpera also enter the milk, but they are not in so large a proportion in the milk as in the blood; therefore a much larger quantity of milk must be applied to produce the same effect. Babies rarely are affected with diphtheria. It is a question if the newborn are immunized by congenital antitoxin or by the use of antitoxic milk; probably the immunity is produced by both circumstances. *Michael.*

Steigenberger.—*Collective Report on Serum Treatment of Diphtheria in Hungary.* "Pester Med. Chir. Presse," 1895, No. 18.

OF 279 cases of diphtheria, 214, equal to 76·7 per cent., were cured; 65, equal to 23·3 per cent., died. Of 175 cases treated exclusively with serum, 129, equal to 73·7 per cent., were cured; 46, equal to 26·3 per cent., died. *Michael.*

Wassermann.—*Personal Idiosyncrasy and Prophylaxis against Diphtheria.* "Zeitschrift fur Hygiene," Band 19.

THE author has mixed the blood of seventeen children and thirty-four adults with lethal doses of diphtheria toxin, and has injected it to guinea-pigs. He could prove that some persons have blood with strong antitoxic effects, whilst the serum of others has no antitoxic power at all. The difference in the existence of antitoxic substances in the blood causes the difference of liability to acquire diphtheria.

Michael.

Wassermann.—*Concentration of Diphtheria Antitoxins contained in the Milk of Immunized Animals.* "Zeitschrift für Hygiene," Band 18, 1894.

ONE HUNDRED AND FIFTY CENTIGRAMMES of the milk are mixed with thirty-three per cent. ammonium sulphate, filtered, dried, and dissolved in water. The solution thus obtained contains all the antitoxins of the milk. *Michael.*

Wilbur, Cressy L.—*Age and Sex Incidence of Mortality in Michigan from Diphtheria and from Croup during Twenty-five Years, 1870-94: a Statistic Study.* "The Journal of the Amer. Med. Assoc.," Aug. 15, 1896.

THE object of this paper is not to support or condemn the antitoxin or any other method of treatment of diphtheria, but rather to give an impartial account of the prevalence of diphtheria in Michigan, and one as accurate as the available statistics would permit, and so help in advancing our knowledge of this disease. "The study will chiefly show (1) the availability of mortality statistics known to be imperfect in certain directions for use in certain other directions, as evidenced by the constancy and clearness of their testimony; (2) the characteristic differences in the age and sex incidence of diphtheria and croup, and, inferentially, the inexpediency of confusing their statistics under the term 'diphtheria and croup' from a statistic point of view; (3) the desirability of ascertaining the causes, and, so far as practicable, of preventing the increased relative mortality from diphtheria of female children on reaching the age of five years and upwards."

The paper is too elaborate to permit of a satisfactory abstract being made, specially as it contains several long tables (one graphic); at the same time it is a paper that anyone interested in the statistics of diphtheria will find worthy of study.

A. J. Hutchison.

Wolf Moritz.—*Accessory Cavities of the Nose in Diphtheria, Measles, and Scarlet Fever.* "Zeitsch. fur Hygiene," Band 19, 1895.

IN twenty-two cases of diphtheria the author examined the accessory cavities of the nose. In all cases the Highmore antrum was affected, and in the greater number of cases the other accessory cavities also. The infection of the accessory cavities was in all cases bilateral. In twelve cases Loeffler's bacillus was found; in the rest streptococci. In five cases of measles and three of scarlet fever inflammation of the accessory cavities was found. *Michael.*

MOUTH, &c.

Egger.—*Two Cases of Velo-Palatine Insufficiency.* "Ann. des Mal. de l'Oreille et du Lar.," April, 1896.

THIS condition was described by Lermoyez (Annals, March, 1892) as a congenital anomaly—an arrested development in which the soft palate, though normal in appearance, is apparently too short, leading to insufficiency of closure of the upper