

only "some of the bacilli" show metachromatism. This is erroneous, for after having worked with diphtheria bacilli daily for almost two years I can assure him that this striking reaction may be got with the Klebs-Löffler bacilli grown on and in media containing not a trace of glycerine. In 1889 already Babes¹ described metachromatism in diphtheria bacilli, and showed that it occurs in numerous other organisms, and this has been well known since then. Metachromatism apparently depends on what Fischer² calls "plasmolysis," and may be produced in many ways, and no doubt glycerine is strongly plasmolytic; salt and sugar solutions, however, will produce the same effect. But does Dr. Gossage really wish to persuade us that this reaction with methylene blue is so characteristic as to enable the merest tyro to distinguish the Klebs-Löffler bacillus from those that resemble it? This is a dangerous statement, and being incorrect cannot be allowed to pass without contradiction. Having described the metachromatism in diphtheria bacilli Babes mentions the same phenomenon as occurring with Ernst's xerosis bacillus, Fick's bacillus of the normal conjunctiva, and his own trachoma bacillus, all bacilli morphologically closely resembling the Klebs-Löffler organism. And this was in 1889. His pictures can be seen in the *Zeitschrift für Hygiene* for that year, and in 1895 he once more alludes to and pictures metachromatism in both true and false diphtheria bacilli.³ Other observers have also described it often enough in many forms of organisms resembling the diphtheria bacillus, and it can be constantly observed and easily produced. If the addition of glycerine in large quantities is likely to render the recognition of the Klebs-Löffler bacillus more speedy and more certain let the tyro not pin his faith on metachromatism. I have never used any other medium than serum or the Kanthack-Stephens medium—which, by the way, has not yet disappointed me—and continually observe metachromatism, sometimes in almost every bacillus on the cover-glass, sometimes in a few in each field, in false diphtheria bacilli as much and as little as in true ones. After some experience and after passing through the stage of dogmatism I have now reached the stage of scepticism, and do not allow that there is a single morphological or biological character, a single chemical or staining reaction of absolute and specific value, which will enable us to say with certainty that a bacillus resembling the Klebs-Löffler bacillus is or is not the true bacillus, that is, assuming that we are not biased by the clinical knowledge of the cases. Such being my belief, I have ventured to protect the tyro from a misconception, warning him against a test which depends on a phenomenon which may be produced with almost any organism in the presence of simple chemical substances. However characteristic metachromatism is—and, indeed, it is striking—it is not characteristic of the true diphtheria bacillus as compared with the false one; hence as a diagnostic test it is valueless.

St. Bartholomew's Hospital.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

DEAF-MUTISM AND GOITRE.

BY VAUGHAN PENDRED, M.R.C.S. ENG., L.R.C.P. LOND.,
LATE HOUSE SURGEON TO GUY'S HOSPITAL.

THE curious association of deaf-mutism and goitre occurring in two members of a large family has induced me to record these cases. Why this association? Perhaps some readers of THE LANCET may be able to throw some light on the cause of this combination of diseases: Absence of thyroid—cretinism; overgrowth of thyroid—deaf-mutism. I append the family history as recounted to me by the mother. The family is an Irish one, and the parents have been upwards of forty years resident in Durham. The father, aged sixty-six

years, and the mother, aged sixty-seven years, are alive and healthy. They have had ten children, five sons and five daughters. In an epidemic of small-pox twenty-five years ago the whole family was attacked with the exception of the younger of the deaf-mutes, and four males and one female died, although all had been vaccinated, and that recently, as they were children. The remaining son and two of the daughters are healthy and vigorous. The first goitre case is the first-born of the family—a spare woman now aged thirty-eight years. She is deaf and can only mumble indistinctly; little care has been taken to educate her and so she is imbecile. The goitre is a large multilobular hard tumour, the greater part on the right side of the neck; from time to time she suffers from dyspnoeic attacks. The growth was first observed after the small-pox—i.e., at thirteen years of age. The second surviving girl is now aged twenty-eight years, and is the fifth of the family; she is a small, spare, intelligent woman, her expression being in marked contrast to her sister's. She is not absolutely deaf and can mumble incoherently; her education has been attended to with so much success that she has been "in service." The tumour is larger than in the other case, but is of the same character; it has been growing for about fifteen years, and during the last year has caused both dyspnoea and dysphagia, which have become so urgent that I have sent her to-day to Newcastle Infirmary for operation.

Durham.

TEMPORARY ARREST IN THE GROWTH OF FINGER NAILS FOLLOWING COLLES' FRACTURE.

BY T. H. DAVISON, M.B., C.M. EDIN., D.P.H. CAMB.

ON Feb. 13th a fireman whilst at drill fell a distance of ten feet and fractured the end of his left radius. I treated the fracture with a pistol splint, the result being most satisfactory. Six weeks after the accident the patient noticed a transverse groove across the nails of the fingers only, that of the thumb being quite natural. The grooves have now nearly grown out with the growth of the nails. Why should the nail of the thumb have escaped? I have seen a considerable number of Colles' fractures, but have never observed a similar condition of things.

Brondesbury-road. N.W.

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

LONDON HOSPITAL.

TWO CASES OF PULMONARY ABSCESS TREATED BY OPERATION; REMARKS.

(Under the care of Dr. FREDERICK J. SMITH and Mr. FREDERICK TREVES.)

PULMONARY surgery has developed considerably during the last few years, along with other branches of special surgical procedures, but it has not yet become so common or so successful that the publication of individual cases has ceased to be of interest, and the following examples are therefore brought forward and are deserving of particular attention. Without the aid of the surgeon there can be little doubt but that these patients would have ultimately died, but there can be no doubt also that but for the careful and accurate diagnosis made beforehand such assistance would not have been rendered. From the small size of the cavities the physical signs were but slight, yet they were correctly localised. The operation in each was facilitated by the presence of adhesions of the pleura over the area of lung affected. Fenger and Hollister reported 6 cases, 1 of which recovered. Runeberg collected 11 cases of abscess of the lung for which the operation of pneumotomy was performed; 2 recovered, and in 3 the diagnosis was doubtful.

¹ *Zeitschrift für Hygiene*, 1889, vol. v., pp. 177-181 (see also drawings).

² *Untersuchungen über Bakterien: Jahrbucher für Wissenschaftliche Botanik*, Band xxvii., i.

³ *Zeitschrift für Hygiene*, 1895, vol. xx., p. 412 (see also drawings).