adults. I refer to the very common cases of infants who from error in diet or unknown causes, rapidly fall away in flesh, have vomiting, purging, and an aphthous state of mouth. In such cases, the nurse's opinion that the thrush has gone "through them" is not altogether erroneous, for I have seen the stomach and intestines show evident signs of morbid action, and the œsophagus covered with an adherent white secretion like that of the mouth, and corresponding very closely to a plate given in Cruveilhier's "Morbid Anatomy" under the head of "Muguet."—*Med. Times & Gaz.*, Sept. 2, 1865.

15. *Malignant Pustule*.—At the meeting of the Academy of Sciences on June 19th, M. Cl. Bernard presented a paper by M. DAVAINÉ on the nature of the malignant pustule. The object of the author was to bring forward additional proof of the identity of the disease with the *charbon* of animals, as shown by the presence in both of the filiform organisms called by him *bacteridia*. In September, 1864, he, in conjunction with M. Raimbert, communicated to the Academy a case of malignant pustule in which *bacteridia* were present; and he now had some additional instances to adduce. Two pustules, removed on the second or third day of their development,¹ were immediately placed in a solution of chromic acid, and thus hardened. On placing very thin sections in a solution of caustic potash, the cutaneous elements were removed while the *bacteridia* were left. In both instances, these organisms were located in the rete mucosum, underneath the superficial layer of epithelium; they were arranged in groups, separated by collections of normal epithelial cells, with which the masses of *bacteridia* at their outer part became gradually blended. No other pathological element was discovered in the pustules.

Malignant pustule, M. Davaine observes, is a disease primarily of local origin, and may within the first two or three days, be arrested by removal and by cauterization; but, if this be not done, the constitution becomes affected. This succession of phenomena is explained by the anatomical constitution of the pustule. At first the *bacteridia*, developed in the non-vascular epidermic tissue, are isolated and may be destroyed; but, if left, they soon reach the true skin, from which they are carried into the circulation by the lymphatics and blood-vessels. In support of this view, M. Davaine relates the case of a man who was admitted into the Hôtel Dieu under M. Grisolé. On June 3d, he perceived a malignant pustule on his neck; and on the 6th he died, in spite of the application of corrosive sublimate and the actual cautery. On *post-mortem* examination, made on June 8th, there was observed: cadaveric rigidity; absence of putrefaction or gangrene; œdema of the subcutaneous cellular tissue of the chest, extending to the mediastina; partial congestion and sanguineous effusion at the apex of the left lung; sanguineous engorgement of the liver: enlargement and softening of the spleen; and black, fluid, diffuent blood in the heart and large vessels. The blood in the heart contained a large number of *bacteridia*. M. Davaine inoculated a guinea-pig with a drop of this blood: in two days the animal died, and its blood was found to contain an immense number of *bacteridia*.—*Brit. Med. Journ.*, Sept. 9, 1865, from *Gaz. Méd. de Paris*, July 1, 1865.

16. *Animal Parasite Diseases of the Skin*.—Dr. BALMANNO SQUIRE, in a communication made to the British Medical Association, states that the diseases produced by epizoa "are not only of extremely common occurrence, but are some of them most obstinate. That they are so prevalent, is doubtless owing to their contagiousness; and their character for obstinacy is due solely to their cause, in the majority of instances, having been hitherto unknown.

"Many cases of urticaria, more especially of chronic urticaria, of eczema, of prurigo, of lichen, and of impetigo, or rather of diseases that pass by these names, are as distinct in their etiology and pathology, as well as in the treatment that they require, from cases of these affections properly so-called, as they well can be; since, in place of being of constitutional origin, they depend essentially on the presence of an animal parasite on the skin.

¹ Dr. Mauvezin, says M. Devaine, has in many instances obtained successful results by removing the pustules and cauterizing the wound.

"Often an acute eruption, having apparently all the characters of urticaria, after having been steadily and perseveringly treated as if it were dependent on gastro-intestinal disorder, is found to remain unchanged, or to have become worse, rather than better. No disease is looked on as more hopeless than chronic urticaria; and prurigo senilis has ever been an *opprobrium medicinae*. These last two diseases, indeed, well deserve the serious attention of all who are engaged in the practice of medicine. They are certainly common enough to render it most desirable that their origin and nature should be generally understood; and they are at least severe enough, both as regards the degree of distress they occasion and the length of time over which their course usually extends, to make it advisable that some more efficient means should be employed for their relief than what are generally thought to be the appropriate remedies for them.

"Many of the most intractable cases of eczema and of impetigo of the scalp—intractable only so long as they are treated on the assumption of their being of constitutional origin—might readily and speedily be got rid of; and many ingenious theories that have been broached on the subject of contagious impetigo might be dispensed with, if the influence exercised by animal parasites in the causation of these diseases were properly appreciated. Many obstinate cases of lichen, too, if separated in like manner from the category of constitutional affections, would be found much more amenable to treatment than they are generally thought to be.

"The limits of a short paper precluding any detail on the etiology, diagnosis, and treatment of this important class of cutaneous diseases, Mr. Squire would only here point out their claims to a more attentive consideration than they have yet received, and mention some of the results at which he had arrived.

"Cases of acute urticaria are sometimes occasioned solely by the presence of the *acarus scabiei* in the epidermis. The author was not aware that this fact had as yet attracted the attention of other observers. He referred to cases where the skin of the person affected, instead of presenting the ordinary appearances of scabies, was covered with a copious eruption of urticaria—apparently, at first sight, the only phenomenon present. There were no signs of gastro-intestinal disturbance; no history either of any previous attack, or of any of the ordinary causes of urticaria having been present. On searching, in these cases, for some other cause, the acarus was discovered, and the condition of the acarian furrows corresponded to the duration of the eruption.

"He had also seen cases of urticaria in which the cause of the eruption had been set down to gastro-intestinal disturbance, but which, as a more careful examination proved, were really produced by the *pulex penetrans*.

"In many cases of scabies, too, he had known a copious eruption of eczema to form so prominent a symptom, that the patient has been treated without success, for chronic eczema; whereas, if its origin had been rightly apprehended, the affection need never have been prolonged sufficiently to entitle it to the name of chronic.

"A large proportion of the cases of eczema and of impetigo of the scalp, that occur in private as well as in public practice, are, the author had had occasion to notice, due to the *pediculus capitis*. At least, this parasite is often present; and, as soon as it is destroyed, the disease ceases, without the employment of any further means.

"Many cases of lichen—affecting the temples and the upper part of the back of the neck—he had found to be due to the same cause.

"The great majority of the cases of chronic urticaria that he had met with, and all cases that he had yet investigated (amounting to a large number) of prurigo senilis, were due to the *pediculus corporis*. The 'prurigo senilis' was not restricted to old persons, though more common with them than with the middle-aged or young; for Mr. Squire had seen it in a child of four years old. Nor did he include under the title the various forms of circumscribed prurigo occurring in old persons, and regarded generally as equally hopeless with prurigo senilis commonly so-called.

"These local varieties of prurigo, though in many cases the result of a lichenous or eczematous affection happening in the localities, are in the majority

of cases merely sympathetic with, and symptomatic of, visceral derangement. Thus, if a careful inquiry be instituted, prurigo podicis will be found to depend on hæmorrhoids, prolapsus ani, fistula or fissure of the rectum, on accumulation of feces in the sigmoid flexure, dysentery, intestinal worms, or the presence of some other irritating cause in some portion of the intestine. Prurigo pudendi muliebris—a no less distressing and inveterate affection—is similarly symptomatic of some abnormal condition of the vagina or uterus; while prurigo scroti is occasioned either by psoriasis or eczema of the part in the great majority of instances.”—*Brit. Med. Journ.*, Sept. 2, 1865.

17. *Degeneracy of Vaccine Lymph by Frequent Transmission.*—On this subject the most contradictory opinions have been expressed. Mr. T. M. HARDING has fairly discussed the question in an article in the *Medical Times and Gazette* (Sept. 23, 1865).

He shows that the constitutional manifestations produced by vaccination, either direct from the cow or after a few transmissions as described by the early vaccinators, were much more severe than are observed at the present day from vaccine matter now employed. Hence he thinks it “a fair conclusion that the constitutional symptoms produced by inoculation with matter derived directly from the cow or from persons who have casually derived the disease from the cow are much severer than those produced by the current lymph of the present day.”

Mr. H. then inquires whether the protective efficacy of vaccination has diminished?

He states that when vaccination was first introduced by Jenner, that, to demonstrate its efficacy, the vaccinated were exposed to smallpox infection and inoculated with variolous matter, without taking the latter disease. He observes: “If it had been possible in the first few years after 1798 to find one fatal case of smallpox after vaccination, would the operation ever have made way with the public? Yet now it would be easy to find not one, or ten, or a hundred, but thousands of deaths after vaccination. What explanation more rational or more probable can be offered, than that the vaccine virus has undergone some change during its repeated transmissions that has in some way diminished its power, especially when we consider that the local manifestations and constitutional symptoms are also modified, and, in fact, diminished? There is another reason why we should have expected *à priori* that this would occur. Inoculation of smallpox itself is known to be followed by a gradual diminution of intensity, so that in time the matter is no longer capable of producing the disease.”

Mr. H. advocates a renewal of the lymph. “I do not recommend,” he says, “the general and indiscriminate employment of primary lymph; its effects upon some constitutions are too violent, it requires to be passed through some constitutions properly selected by competent judges before it acquires sufficient mildness to be appropriated for general use. I think that many repeated renewals of lymph could be effected in this way, so as in a short time to completely supersede the lymph now employed, and such a recourse to the parent stock for renewal of lymph may be had periodically, so as to maintain the action of the lymph to the standard of Dr. Jenner. Such a course would materially improve the condition of the people of this kingdom, so far as their immunity from smallpox is concerned; but, after all the care, cases of post-vaccinal smallpox will occur. Let it be remembered, then, that vaccination does not confer an absolute, but a relative, immunity from smallpox, and the more complete the vaccination—that is, as regards the purity and strength of the virus and the number of punctures—the more complete the immunity.”

18. *Assimilation of Fat in Consumption.*—Dr. HORACE DOBELL, in his “third report of cases treated with Pancreatic Emulsion” (*Lancet*, Nov. 11 and 18, 1865), offers the following explanation of the frequent failure of our attempts to keep up that favourable change which so often occurs in consumptive cases when cod-liver oil is first administered:—

“We all know how constantly it happens that a consumptive patient makes