

possessed by the search for truth, of a mind keenly observant, accurate in detail, yet apt to generalise, and many of whose generalisations had taken rank as discoveries. For already in the "seventies" you could hardly open a book on any department of medical science without finding Hutchinson referred to. His temperament was balanced, candid, and free from prejudice; he made no mystery of his teaching, but was ready to expound all he knew; and one felt in listening to him that here was a man on the frontiers of science always pushing out into fresh areas of knowledge. His language was lucid and precise, spiced every now and then with dry humour or with a reference to his favourite poet Browning. He made his points clearly, and his frequent "I repeat," though it may have become a mannerism in his later years, helped to make effectual impressions upon the student mind.

It was his habit in his systematic lectures on surgery often to pick out on entering the theatre one of his auditors and to ask him questions, and under cover of these questions and of the discussion of incorrect answers to build up his theme for the day. Certainly, it was a method which fixed the attention of his hearers. Students were an unruly lot in those days, and many of our lecturers were uncivilly treated or had practical jokes played upon them—some we almost declined to hear. One of the lecturers on physiology—peace to his memory—the men had no respect for; he could not keep order, and the theatre was sometimes a bear garden. But no pranks disturbed the calm progress of "Jonathan's" discourse. It is said that once, and once only, a trick had been played with the preparations he was showing. It was never repeated.

Upon not a few subjects Hutchinson spoke as a master. It was our fault entirely if we, his pupils, did not attain to a full grasp of the subject of syphilis, its stages, its symptoms and manifold disguises, and their treatment. He read a paper before the Hunterian Society early in the "seventies," which laid down the treatment of the secondary stage of the disease, and I remember well the cases in the London Hospital on which it was based. We very seldom see now the physical wrecks, due either to syphilis or ill-judged mercurial remedies, which were then not uncommon. And if the effects of this scourge in the community are to-day much lightened, whilst we may be glad to ascribe this, in part, to an improved standard of morals, much is also due to the fuller understanding of the disease and its treatment, and in this Hutchinson had a part surely not second to that of any worker in this country. Of his researches in skin and eye diseases I do not speak.

Few men have been so fully absorbed by their quest of knowledge, or have so effectually trained their powers of observation. Like John Hunter he took note of the whole animal world. Birds, flowers, fossils—he was something of an expert in all. History attracted him, and was expressed in his "space for time" chronologies, or displayed by series of portraits. On education and social topics he had thought much, and he had a plan for State bounties upon children, intended to promote their increase, as the chief wealth of a nation.

The influence of Hutchinson upon several generations of students was great, and in this way it has passed on into other lives, communicating to them his own appetite for knowledge, unsatisfied with the moderate repast which is enough for most men. They learned also his clinical instinct, his attitude towards disease—a close and patient observation of nature, scrupulous and accurate record, and how upon these may be built up the theory of a morbid process.

Perhaps as in the case of Darwin some sides of his nature may have been less developed; there was little of emotion or enthusiasm, but there was the power of a master mind, and not a few will unite with me in owing much of any professional success that has attended them to the teaching and example of Jonathan Hutchinson.

I am, Sir, yours faithfully,

June 30th, 1913.

R. HINGSTON FOX.

To the Editor of THE LANCET.

SIR,—In your obituary notice in to-day's issue of THE LANCET of the late Sir Jonathan Hutchinson, F.R.S., as regards the medical aspect of his useful life and his ruling principle of searching every subject for Truth you rightly say that much must necessarily be omitted about his past attainments, but I trust you may again be able to

allude to other manifestations of his well-stored mind and his desire to impart his knowledge for the good of mankind.

His free Sunday lectures, in his museum at Haslemere, upon every possible subject—scientific, in every branch, especially geology, astronomy, and botany; social, in its development and many problems; moral, in its past and present; education, in its proper aim and method; topics of the day; the character and works of good citizens, artists, and public men; the lives of poets and their sayings—all these were the most delightful and instructive treats to listen to, delivered in the most charming, intensive, logical, and convincing manner; and every one of his sayings was Truth itself, and they have only been fully confirmed by lapse of time, as many instances might show. His "Nature Rambles," too, about his grounds were a revelation of the beauty and purposes of structure and function in the works of the Great Creator.

His "Home University," which he edited in monthly parts, was most instructive and admirable, but pressure of time unfortunately forbade him continuing it more than a year. No man made so much or so good a use of great talents, or did more for the real benefit of the world, and in a modest way, too.

His obituary card, devoid of "mourning," was characteristic:—

In loving Memory of  
Jonathan Hutchinson, F.R.S.,  
Who died at "The Library," Inval, Haslemere,  
the Twenty-third of June, 1913,  
in his 85th year.

"I thirst for Truth,  
But shall not drink it till I reach the Source."

"What though the radiance which was once so bright  
Be now for ever taken from my sight,  
Though nothing can bring back the hour  
Of splendour in the grass, and glory in the flower;  
We will grieve not, rather find  
Strength in what remains behind—  
In the primal sympathy  
Which having been, must ever be;  
In the soothing thoughts that spring  
Out of human suffering;  
In the faith that looks through death;  
In years that bring the philosophic mind."

I am, Sir, yours faithfully,

Winchester, June 28th, 1913.

W. MORTON HARMAN.

## THE NEW NAME OF THE THRUSH FUNGUS.

To the Editor of THE LANCET.

SIR,—Recently there has been a disposition to bring into use a new name for this organism—endomyces albicans. Dr. Aldo Castellani used it in his communication on tropical bronchomycosis,<sup>1</sup> and again in his paper at the meeting of the British Medical Association last summer. It has now appeared in a text-book. There is already confusion enough, and the new name induced me to examine the fungus again in six typical cases of thrush in young infants.

*Nature of the organism.*—Unusual pleomorphism is proved by the many names (including sporotrichum) which have been applied to it. The thready, branching, septated hyphæ seen on mucous membranes suggested its oidium-like character. Three type forms had the name oidium in the past. The grape vine mildew is the oidium of Link (1809). The mould of sour milk was the oidium lactis of Fresenius (1850). The thrush fungus was the oidium albicans of Robin (1853). In the first and second erect, aerial hyphæ—the simplest form of conidiophore—are always present, but botanists distinguish between these two, and the first, being the oldest, alone retains the name oidium. The second is now oospora lactis, the genotype of the group which includes streptothrix forms, the powdery surface on cultures of the latter being well known.

Cultures of the thrush fungus never have aerial hyphæ, but are always smooth like yeast. About 1870 Reess was also impressed by the yeast-like cells so abundant in cultures and the scarcity or absence of hyphæ. Also, he thought he saw, or actually did see, endospores; pure cultures were not so common then. So he referred it to saccharomyces, and the name S. albicans is still sometimes used. After the introduction of pure culture methods endospores were not

<sup>1</sup> THE LANCET, Jan. 6th, 1912, p. 13.

found. Besides, under certain conditions its mycelial form was much too pronounced for any unicellular budding fungus. Thus it was ejected from *saccharomyces* once and for all. Meanwhile Hausen's work on *Monilia candida* had thrown light on the life-history of these organisms, and when Zopf in 1890 referred the thrush fungus to *monilia* every competent observer accepted the name *M. albicans*.

It only remains to say that Vuillemin, of Nancy, reported to the Academy of Sciences of Paris<sup>2</sup> his rediscovery of endospores, and referred it to endomyces. It may be explained that an endomyces bears much the same relation to a *monilia* that a *saccharomyces* does to a torula—the one forms endogenous spores and the other does not. Practically this is the dividing line between fungi imperfecti and the higher fungi. Mlle. Daireuva, of the same medical school of Nancy, confirmed Vuillemin's observations in her thesis in the following year (1899). With this exception, and for 14 years, neither Vuillemin nor anybody else has seen endospores in cultures of the thrush fungus.<sup>3</sup>

The point has been missed that Vuillemin's organism is not the typical thrush organism at all. He describes it as neither fermenting sugar nor liquefying gelatin. In every one of six typical cases examined recently the organism present was a pathogenic, gelatine-liquefying, maltose-fermenting *monilia* in cultures of which yeast conidia predominate always and hyphæ are often suppressed. The same organism is not uncommon in the mouths of adults. Through the kindness of Mr. K. W. Goadby I obtained cultures of two yeasts described by him as pathogenic in the gums. Both are identical with this thrush fungus.

Mr. A. G. R. Foulerton has described a pathogenic yeast which he isolated from a sore throat.<sup>4</sup> His description and the excellent microphotograph by Mr. Barnard are in every respect applicable to the thrush fungus.

In conclusion, if it is admitted that Vuillemin discovered a pathogenic endomyces, it is certain that in thrush no such organism is commonly present. For obvious reasons Zopf's nomenclature has not yet fallen into disuse.

I am, Sir, yours faithfully,

ROBERT CRAIK, M.D. Glasg.

Uxbridge-road, Ealing, W., June 30th, 1913.

## BREAST FEEDING AND GALACTAGOGUES.

To the Editor of THE LANCET.

SIR,—In THE LANCET of June 14th, in an article on Breast Feeding, Dr. David Forsyth states: "With no means of increasing or modifying the natural supply (of milk) bottle feeding is the first and only resource when an infant fails to thrive on breast milk." In a leading article on this subject in the same issue the statement is made: "We have no knowledge of any drug which will influence the secretion of milk."

Notwithstanding the fact that these are probably the commonly accepted opinions of the profession at large, I venture to state that in lactagol (a dry extract of cotton seed) the profession has a safe and reliable means not only of increasing in amount breast milk deficient in quantity, but also of appreciably raising its fat ratio.

This conclusion I have reached as the result of a series of experiments carried out on some 40 cases at Queen Charlotte's Hospital and in private during the past year. In view of my highly satisfactory experiences with lactagol, I feel that I cannot allow to pass unchallenged the general statement that "We have no knowledge of any drug which will influence the secretion of milk."

I am, Sir, yours faithfully,

Chelsea, June 20th, 1913.

HUGH H. RIDDLE, M.D.

\* \* In a laboratory report in THE LANCET of Sept. 7th, 1912, we alluded, when giving the analysis of lactagol, to experiments brought to our notice which went to show that this substance improved the quantity and quality of milk secreted, and suggested further trials being made.—ED. L.

<sup>2</sup> Comptes Rendus, 1898.

<sup>3</sup> Guillaumond, Les Levures (1912), p. 497.

<sup>4</sup> Experimental Blastomycosis, Journal of Pathology and Bacteriology, 1899.

## MEDICAL PRACTICE UNDER THE INSURANCE ACT.

(BY OUR SPECIAL COMMISSIONER.)

(Continued from p. 1567.)

### XIV.—BLACKPOOL AND ITS CROWDS OF TEMPORARY RESIDENTS.

#### *The Fluctuating Population of Blackpool.*

IN its way Blackpool is one of the most extraordinary places in England. As everyone knows, it is the great holiday ground of the working classes who throng the crowded manufacturing towns of Lancashire and Yorkshire. It has been told over and over again—but is none the less true—that during all the year many a mill hand and factory worker sets aside so many pence or shillings a week so that for one week in the year he shall have a thorough holiday regardless of expense. This resolve not to count the cost applies not merely to eating, drinking, and going to shows, but, should illness supervene, the money is sometimes offered to the medical attendant in the same lavish manner. The social and economic conditions brought about by the influx of such guests are obvious. There are no manufactories, no mills, no special industries at Blackpool. Nevertheless, the residential population is set down in the Census of 1911 at 58,376, and it is now supposed to have increased to about 64,000. There are 14,012 dwellings, which are nearly all occupied; but when we are told that the average population is 4.5 per house, such a figure conveys quite a wrong impression. Many of the houses are practically empty except for a brief period during the year. During that season quite small houses will take in 20, 30, or even 40 visitors, and the reception of visitors constitutes the one great and all-pervading industry of Blackpool. Blackpool is not perhaps peculiar here—one has heard the same story about other seaside resorts—but the position exists in a very aggravated form. No one seems to know positively how many visitors go to Blackpool in the course of the year, but the general impression is that all told they must number close upon three millions; and it is calculated that on the August Bank Holiday, what with the day trippers and others, there are quite a quarter of a million strangers in Blackpool. When by the side of these enormous figures it is noted that the Blackpool Insurance Committee has only about 14,000 insured persons on their books, it will be seen at once that the residential population constitutes but a small problem when compared with that created by the presence of so many visitors. The position is intensified by the fact that nearly all these visitors come, of course, during the three months of July, August, and September; and as these are the three months when certain epidemic conditions (for instance, epidemic diarrhoea) and illnesses caused by impurity of food are most likely to occur, it will be seen that Blackpool may well present some problems to the medical man and sanitarian.

#### *How Workmen's Holidays Affect the Medical Practitioner.*

The three million visitors, it is calculated, spend on an average £1 each in the town. If this seems a small sum it must be borne in mind that a great number are day trippers who only remain a few hours. For those who stop longer each of the principal manufacturing towns has a week of its own. Thus this year Bolton will be in residence at the beginning of July and Oldham at the end of August. During the holiday week special trains are run from the particular town, the money it has taken a year to save is drawn the day before, and all the workers with their families start off in grand style, many driving triumphantly to the station in cabs. During their absence their town must seem strangely silent and deserted, while the return is in many cases not so brilliant in its features as the exodus had been. There rarely remains any money for cabs. The luggage, which at the departure was piled on cabs regardless of expense, is now left somewhere in or near the railway station, and the smallest child sits on the heap to guard it, while the stronger members go backwards and forwards carrying the articles home one by one. The streets which had been deserted are peopled again with the returning and penniless holiday-makers, the shops all expect to give credit, and the medical man had to do the same in most cases. The position now