quently from the results of inherited taint than the other. According to my statistics of heredito-syphilitic iritis, the proportion between the sexes is sixteen females to five males; whilst, although not so great, the disproportion is still very definite in the same direction in the case of interstitial keratitis. A re-examination of these facts, and the collection of evidence on a larger scale, might possibly disclose some higher law, of which as yet we have no suspicion.

In referring to the re-examination of facts, I may perhaps be permitted to mention certain classes of facts which it is very desirable to collect. They are chiefly of a character which can be obtained only by those engaged in family practice. Our knowledge respecting some of the most important moot questions as to the natural history of inherited syphilis would be much helped, if all who came across cases belonging to any of the following categories would carefully record them.

Cases in which twins, one or other, or both, suffer from inherited syphilis. They should be followed up through as long a period as possible.

Cases in which women acquire syphilis during pregnancy: with especial attention to the question of the freedom of both parents from any former taint. In these cases, it is desired to ascertain the effect upon the previously healthy fetus of syphilis acquired by the mother at different periods of pregnancy.

All exceptions, or apparent exceptions, to Colles's law (that a sucking child cannot infect the nipple of its own mother).

All instances of children born alive with indications of syphilis upon them.

All cases of pemphigus infantum, or of other syphilitic eruptions, making their appearance during the first week of life.

And now, Mr. President and gentlemen, in conclusion, I have to thank you all heartily for the kind attention with which you have listened to my lectures. I have also to express my sense of indebtedness to those, not few in number, nor deficient in repute, who have added to the value of what I have said by the comments and new facts which they have published in the journals during the last few weeks. For the most part, the letters to which I refer have given support, not unneeded and often valuable, to the opinions which I have expressed. In other cases, where the comment has been more or less critical, I desire to take this opportunity of saying that I am equally grateful and desirous of profiting, but that at the same time I shall ask to be excused from controversy. On the difficult subject of the relationship between the infecting and non-infecting sore, I observe with regret that I have failed to make my meaning clear to all. I am willing in this failure to take a share of the blame, but only a share, for really I did my best.

This is, I believe, the third or perhaps the fourth time, that your Lettsomian lecturer has taken for his topic some subject in connection with syphilis. In 1859, Mr. Victor de Méric, in 1873, Mr. Lee, and in 1874, Dr. Broadbent, dealt with subjects more or less identical with those which I have ventured to discuss. In apology for what I have felt to be almost presumption in attempting to supplement the work of such men, I must allege the boundless and perennial interest of the subject. Nor will this be the last time, I trust, by many that the study of syphilis will engage the mind of your lecturer. We are as yet but on the threshold of its investigation, and discoveries of great importance await, I doubt not, the industry of observers yet to come. If in any small degree their labours should be helped by hints thrown out in the short course of lectures which I now close, my task, which has already had its pleasure in your approval, will then have received also its abundant reward.

[At the conclusion of the lecture, which was warmly applauded, it was proposed by Mr. Wm. Adams and seconded by Dr. Stephen Mackenzie that an expression of thanks be accorded to Mr. Hutchinson for his great and original research on the interesting and difficult questions which he had treated; further, to express the wish of the society to see them published in book form. After a few congratulatory remarks by the President, the proposition was adopted unanimously.]

PRESENTATION.—Mr. Oded Lowsley, of Reading, has been presented with a clock and a pair of bronze ornaments, the former bearing the following inscription:—"This clock, together with a pair of bronze ornaments, was presented to Oded Lowsley, Esq., M.R.C.S., L.S.A., by upwards of six hundred patients and a few friends of the Reading Medical Dispensary, upon his retirement from the position of one of its medical officers, and in remembrance of his kind and skilful treatment during a period of eleven years."

OBSERVATIONS

ON

THE PRACTICAL USES OF LANOLIN.

By OSCAR LIEBREICH, MD.,

Professor of Materia Medica in the University of Berlin.

FROM my investigations of the composition of the cholesterine fats found in keratinous tissues, I conjectured that the absorption into the skin would be best in the case of those fats which have their origin in keratin-bearing substances, as hair, epidermis, etc. The old theory, that the skin was only oiled from glandular secretion, did not harmonise with my research; and lanolin, upon my suggestion, is now being tested as to its efficacy in therapeutics as a new basis for salves and ointments. It possesses such peculiar properties, also noticed by Berthelot, that it becomes a matter of necessity to give a number of formulæ, in order that the druggist may more easily compound and dispense the remedy. It is also of importance to add other ingredients to make it more pliant, as it is a too sticky mass in itself to be employed alone; and, from the many trials which I made with different substances, as vaseline, paraffine, ointment, glycerine, oils, and fat for this purpose, I found the latter by far the best, as the others generally interfered with the absorbing qualities of lanolin.

I must also state that the many substances, under the name of pure wool-fat and wool-oil, which have found their way into the trade before and since the introduction of lanolin, are injurious, as they contain free acids and various animal substances.

I shall not fail to publish, in the near future, its more exact chemical composition; but for the present I may suggest the following tests for its purity in therapeutics.

1. A small quantity, on being heated in water over a water-bath, must show the absence of glycerine.

2. If a solution of caustic soda be added, ammonia must not be developed.

3. The fat, if a small portion be heated with water on a water-bath, must separate in oily drops without producing an emulsion. If the quantity employed be large, it must separate as a clear oil.

4. With blue litmus-paper, the reaction must not be acid.

5. For examination, if it be mixed or well rubbed with water upon a ground-glass plate with an iron spatula, the result must be a product containing over 100 per cent. of water; and, if the lanolin employed be pure, the kneaded mass will be sticky and paste-like, to which the spatula readily adheres, but, if impure, the mass will have a soap-like smoothness, from which the spatula readily glides.

6. On exposure, the upper surface of lanolin and all lanolin salves and ointments becomes darkened, due to the evaporation of water, and not to its decomposition.

7. It never becomes rancid, and its smell should remind one of wool.

My experience with the remedy, with that of other physicians, has been but limited, yet I do not hesitate to pronounce the results so far obtained most promising.

The first question which presented itself was, whether the skin would bear it well. From its use, in over 400 cases, in the hospital and private practice of Dr. Lassar, the dermatologist, no irritation of the skin was ever produced, a result which my own experience, during the years in which I have been experimenting with it, confirms. For this reason alone, it is to be highly recommended for massage, for which purpose I should suggest the formula No. 11.

It is true it is not as smooth as vaseline, but it has the advantage that the skin, after being rubbed dry with a cloth, still remains soft and pliable.

In cases where the epidermis is fissured, as, for instance, in chapped hands, the following recipe may be advantageously employed: that is, No. 11.

The parts affected, particularly the hands, are to be well washed with some good soap, and then to be thoroughly rinsed with water. Upon the moist surface a small quantity of the ointment is to be well rubbed in, and the parts afterwards to be wiped with a dry towel. The skin is left soft and supple, on account of the rapid absorption and retention of the lanolin; and, what is more remarkable, the hands are not greasy, yet the water flows from them as if oiled. Accordingly, it may be especially useful for the hands of surgeons

and obstetricians. Hands thus treated show a greater resistance to wards cold and water.

The influence produced upon the skin in seborrhoea sicca is remarkable. On combing the hair with a fine comb, the scales disappear rapidly. For this purpose, I should employ prescription No. 21, which may be somewhat varied according to the taste of the individual.

In pruritus ani, I have used lanolin with sulphur, with admirable results.

Dr. Lassar, in his polyclinic for skin-diseases, has found that psoriasis heals very easily and quickly, and without irritation, through the use of a 25 per cent. lanolin-chrysarobin ointment. It remains for the future to determine whether in all cases equally favourable results will be reported.

In connection with the lanolin-chrysarobin treatment, I had the opportunity of seeing an interesting and remarkable result obtained by Dr. Wende, of Buffalo, New York. The patient, a boy aged 13 years, from the polyclinic of Dr. G. Behrend, had tinea favosa over the greater part of his head. The case was of eight years' standing, and had resisted the most careful and thorough treatment. It was shown that the case was undoubtedly favus by Dr. Grawitz, assistant of Professor Virchow, who made a pure culture of the fungus, of material obtained from the head of the boy, and inoculated it on the left arm of Dr. Wende, where the most characteristic scutules appeared.¹ At first, only one-half of the head was treated in this manner. After a few applications, it showed marked improvement; and the advance was so rapid, that it was decided to treat the remaining half in a similar way. In twelve days, the case was apparently cured, and the treatment was for the present discontinued. The favus on the arm of Dr. Wende disappeared upon one application of a 10 per cent. and one 20 per cent. lanolin-chrysarobin ointment. Dr. Wende further informs me that a radical cure in herpes tonsurans, and in pityriasis versicolor, was produced with a 10 per cent. ointment.

Such fine results further illustrate how great a benefit was conferred by Squire upon the medical profession through the introduction of chrysarobin. Dr. Lassar employs salicylic lanolin in the treatment of eczema. This may answer well in many cases; but, inasmuch as water is not always tolerated in eczema, Dr. Wende recommended formula No. 3, the water to be expelled before applying. Lanolin is excellently adapted to form the basis for blue ointment; the mercury is found more minutely divided than I have ever before witnessed. Upon my request, my friend Geheimrath Mayer, in Aix-la-Chapelle, in connection with Geheimrath Brandis, made a thorough test of it. They consider it superior to other vehicles for this purpose. In no case did it show an inclination to produce eczema.

As can be seen from the formulae, no fat is required in compounding salves where fluid extracts are used; but I must especially warn against employing the full dose of toxic agents, as only one-half the dose is necessary. Thus a veratrine salve, consisting of fat 10 grains, veratrine 0.25 grain, produced no irritation on the skin; while a salve of lanolin 10 grains, veratrine 0.25 grain, was so strong that for five hours an intense burning sensation was perceptible on and about the point of application.

I annex the following formulae, which may be changed by the physician, as necessary.

1. R Argenti nitratis partem 1; lanolini partes 9. This ointment is somewhat solid; good to be spread on charpie.
2. R Cerussae partes 30; adipis partes 10; lanolini partes 80.
3. R Emplastri plumbi simplicis partes 50; olei olivarium partes 20; lanolini partes 30. This salve appears solid, but becomes pliant as soon as brought into contact with the skin. In eczema, it should be heated until the water has evaporated.
4. R Emplastri plumbi simplicis, lanolini partes aeq. As an ointment, this form is too solid, but useful as a plaster.
5. R Hydrarg. precipitati albi partes 10; adipis partes 10; lanoli i partes 80.
6. R Hydrarg. oxydati partes 10; lanolini partes 90. When used as an eye-salve add 30 per cent. of fat.
7. R Liquoris plumbi subacetatis partes 8; adipis partes 10; lanolini partes 80.
8. R Zinci oxydi partes 10; adipis partes 10; lanolini partes 80.
9. R Cinnabar partes 10; adipis partes 10; lanolini partes 80.
10. R Hydrargyri partes 50; lanolini partes 12; unguenti hydrarg. cinerei partes 2.5; sebi ovilli partes 25; lanolini partes 87.5, according to the formula of Dr. Dieterich.
11. R Potassii iodidi partes 20; aquae partes 10; adipis partes 20; lanolini partes 150.

¹ A full account of the case will be published by Dr. Wende.

12. R Cetacei partes 10; olei olivarum partes 30; lanolini partes 40; aquae rosarum partes 50.
13. R Iodoformi partes 10; adipis partes 10; lanolini partes 80.
14. R Chrysarobini partes 10 and 20; adipis partes 10; lanolini partes 80.
15. R Picis liquidii partes 20; lanolini partes 80.
16. R Balsami Peruviani partes 10; olei terebinthinae partes 20; lanolini partes 70.
17. R Acidi boracici partes 10; adipis partes 20; lanolini partes 70.
18. R Acidi carbolicici partes 5; adipis partes 5; lanolini partes 90.
19. R Acidi salicylicici partes 10; adipis partes 20; lanolini partes 70.
20. R Naphthol partes 5; adipis partes 10; lanolini partes 85.
21. R Lanolini, butyri cacao, aa partes 50; adipis suilli partes 5; olei rosarum gr. iij: a hair-pomade.

ABSTRACTS OF ERASMUS WILSON LECTURES ON EVOLUTION IN PATHOLOGY.

Delivered at the Royal College of Surgeons.

By J. BLAND SUTTON, F.R.C.S.,

Assistant Surgeon to the Middlesex Hospital, and Lecturer on Comparative Anatomy.

LECTURE I.—CORRELATION AND ITS EFFECTS.

DARWIN'S greatest disciple in this country, Professor Huxley, has enunciated the principles of evolution in the form of three laws. Firstly, there has been excess of development of some parts in relation to others; secondly, certain parts have undergone complete or partial suppression; and, thirdly, certain parts, which were originally distinct, have coalesced. Huxley uses the term "law" as a general statement of facts ascertained by observation. A good example for the illustration of these laws is the female generative organs. Many forms—for example, the cirripedia, land-mollusca, etc.—are provided with male and female organs, constituting hermaphroditism. Ascending the scale of animated beings, we find, although every animal possesses, at some period of embryonic life, male and female organs in a potential form; yet, normally, one set—either those peculiar to the male or those peculiar to the female sex—gain the ascendancy. This serves as an illustration of the first law; that is, there has been an excess of development.

Associated with this excess, we find suppression, or more or less complete disappearance of the opposite set of organs. Thus we obtain an excellent illustration of the second law. In the ichthyopsida (fishes and batrachians), and in sauropsida (reptiles and birds), the female generative ducts are, for the most part, represented by oviducts (Müllerian), quite separate, although in birds one usually disappears. In mammals, the representatives of the oviducts fuse in the middle line through a greater or lesser extent, and constitute a median uterus. This illustrates the third law, or coalescence of parts originally distinct.

My object in these lectures is to endeavour to show that the structural aberrations of animal bodies of which pathological anatomy takes cognisance follow the same laws, which, when expressed in the terminology peculiar to that science, may be reduced to two:

1. Correlation { (a) Hypertrophy.
(b) Atrophy.

2. Coalescence.

Correlation leads to abrogation of function, and gives rise to rudiments; these rudiments, or remnants, may serve as the germs of origin of many forms of cysts and neoplasms.

To anyone who has devoted serious attention to the matter, it must be evident that the term hypertrophy has come to be used by pathologists, physicians, and surgeons in an exceedingly indefinite manner, to include almost any kind of enlargement of the organs, limbs, or bones of the body, without that careful attention necessary to discriminate between simple overgrowth, functional enlargement, or increased size, the result of adventitious elements in the part affected. True hypertrophy may be defined as "the enlargement of an organ beyond its usual limits, as the result of increased function, or of some unusual condition of the corresponding or correlated organ." Before proceeding to discuss the question, it will be well to illustrate the definition