from what he has seen, he thinks it probable that the epithelium of the tubules is the favourite seat of the bacilli in the kidney, just as the alveolar epithelium is in the lung. In that case, bacilli would be present in the urine, not merely when there were marked tubercular masses in the kidney, but also when the disease was but slightly advanced. From analogy, it is probable that the same is the case in the mammary glands, and bacilli might be present in the milk, even though the disease of the gland was not sufficiently advanced to be noticeable.

The staining solution employed was the Weigert-Ehrlich solution. The formula is—of a saturated watery solution of anilin, 100 parts; of a saturated alcoholic solution of the basic anilin dye (methyl-violet, gentian-violet, fuchsin), eleven parts. Mix and filter before use. Rapid staining is obtained by warming the solution. The specimens are then decolorised by immersion in nitric acid (one part to two of water), and stained in a suitable contrast dye. Very delicate sections are apt to be injured by immersion in the nitric acid. In this case, after staining them in the Weigert-Ehrlich fuchsin solution, they may be washed in distilled water, immersed in alcohol for a moment, and then placed in the following contrast stain for one to two hours: Distilled water, 100 cubic centimetres; saturated alcoholic solution of methylin-blue, 20 cubic centimetres; formic acid, 10 minims. Whenever it is possible, however, Ehrlich's original method is recommended, as being most rapid, most simple, and most satisfactory. By this method of staining, tubercle-bacilli and leprosy-bacilli remain red when the fuchsin solution is employed. Psorospermiae and the outer coat of some parasites also retain the red colour. Lichtheim has also stated that a micrococcus is frequently found in the faces, which reacts in a similar manner to the tubercle-bacillus.

ON A CASE OF LICHEN PSORIASIS AT THE BATH MINERAL WATER HOSPITAL.

By JOHN KENT SPENDER, M.D.Lond.,
Physician to the Hospital.

PERHAPS few things excite more interest among dermatologists than those apparently hybrid diseases which seem to prove a root of affinity behind quite a diverse outward show. Curiosity, no less than scientific exactness, prompts us to try and find out how old friends can put on such new faces; or rather, as in the present instance, how one can wear two faces at the same time. Now, lichen and psoriasis have been supposed to possess, not only a certain outward likeness, but some identities in their history and origin. Thus Mr. Jonathan Hutchinson, to whom we are indebted for a recent study of this subject (*Lectures on Clinical Surgery*, page 221), contends that we cannot be sure that psoriasis is never lichenoid in the very beginning. The question has two aspects, anatomical and pathological. The same dermal structures may be affected at one or more stages of lichen and psoriasis; and these stages may display such a similar behaviour in both diseases as to indicate a near or even a very close alliance. Of course, the far-off results of these morbid processes may be utterly different, and the intermediate phases may call for different local and general treatment; but like two lines which run in the same direction without being parallel, and intersect at only one given point, so lichen and psoriasis, at a certain period of their course, may wear a resemblance which requires a special experience to disentangle.

The distinction is plain, I hope, between a brief and casual identity of two skin-diseases, and the accidental concurrence of several skin-diseases in the same person (as eczema with lichen, scabies, or even psoriasis), in which there would necessarily be a blending together of the characters of the separate diseases.

I will now relate the case which is the key of these remarks. J. H., aged 44, living at Cirencester, was admitted into the Bath Mineral Water Hospital on October 7th, 1882. A man of middle stature, well nourished, and without apparent special diathesis. At eighteen years of age, a "dry scurf" came on the head and face," which continued for some years. Twelve years ago, the eruption "came out also on the arms and legs, and felt dry and hot." In October 1872, he became an in-patient of University College Hospital, under the late Dr. Tilbury Fox; and then the skin was affected on the outside of the arms and legs, on the face, and on different parts of the trunk (chiefly the back). He is clear that Dr. Fox called it "psoriasis"; and, after a frequent inunction with almond-oil, the man says that he was discharged "quite well" at the end of two months. In the course of the following year, a "scurf" came again on the head and face, and, during the next nine years,

this never entirely left him; gradually he became altogether worse, and, about two months before he came to our Mineral Water Hospital, "red spots broke out over the belly." When admitted, the outer surfaces of the arms and the legs were, a nearly uniform mass of psoriasis, and the back was almost as severely affected. The abdomen, especially on the left side, was covered with spots and patches of lichen. The spots were red, shining, and hardly at all scaly; the patches were of all shapes and sizes, some only an aggregate of spots, others much larger and with a transverse lineage, made up of infiltrated skin, and more or less covered with very fine scales. There could be no doubt that these patches were made up of confluent papules, for single papules were dotted all round their margins. There was no tendency to eczema, and no history of any "discharge." The true lichen groups of spots and patches were limited to the abdomen below the diaphragmatic line, and to the front and inside of both thighs; there was always some "itching" when the patient became heated by a little exercise, or after he had been in bed for a few hours. The local irritation was always worse when he felt "weak or out of spirits." The appetite was poor; the urine "rather thick at times," but it contained no albumen; the action of the bowels was regular. He had been always temperate in every way, but family anxieties had been a serious burden.

I ought to add that, when J. H. entered the hospital, his face had a glazed red appearance, suggestive of pityriasis rubra; and the scalp (he was rather bald) was covered with the fine floury dust of a non-inflammatory pityriasis, or of an old dried-up eczema.

There was one stage in this case during which the condition of the skin of the abdomen was represented with close fidelity by Plate XIII (*Lichen Ruber*) in Dr. Tilbury Fox's *Atlas of Skin-Diseases*.

The effect of hydrotherapeutic treatment was remarkable in several ways. Faithful to their ancient tradition, the Bath waters soon subdued the psoriasis proper; the scales cleared away, and the skin on the back and on the extensor surfaces of the limbs seemed invigorated with a new nutritional power. But the bathing seemed to have little control over that part of the eruption which might be correctly denominated lichen. We did much more good with the nightly inunction of a mixture of vaseline and sweet almond-oil; this allayed the pruritus, which had before seriously disturbed the man's sleep and otherwise injured the general health. The administration of arsenic was distinctly useful for a short time; it helped the baths in curing the psoriasis, and the only relic of this part of the skin-trouble when the patient was discharged from the hospital consisted in a few faint spots on the flexor side of the arms. The pruritic irritation of the lichen seemed to be increased when iron was combined with the arsenic; but the addition of lead ointment to the other external remedies was very beneficial. Simultaneously, the complexion of the face became nearly natural, and the "dust" on the scalp was much diminished.

A few days ago (January 16th), I had a letter from J. H., stating that the eruption (he means the "lichen") had extended "to the hips, up on the ribs, and down to the knees; it is exceedingly troublesome day and night. The irritation and heat are so bad, I can hardly bear my clothes." I sent him a prescription for an application composed of vaseline, calomel, and oxide of zinc.

I have had lately, in private practice, a case which illustrates the way in which accidental circumstances may cause different forms of skin-disease to succeed each other. A retired farmer, aged 80, very temperate in all his ways, became depressed and generally out of health at the beginning of this January. In a few days, there was an acute eruption of lichen over a large part of the body, but most severely, perhaps, on the upper arms, on the flexure side of the elbows, and about the wrists. There was a rough symmetry in the grouping of the papules, which were sufficiently red and multitudinous to deserve the name of lichen agrius. There was not so much pruritus as a general heat or smarting; and, as if to exhibit the eczematous or *boiling-over* process which any form of skin-congestion may undergo, a large vesicle was developed on the front of each wrist among a crowd of angry papules. After a few days, the lichenous eruption desquamated on the arms as cleanly and decisively as if it were the sequel of a specific fever. On January 21st, small bullæ of pemphigus were seen on the backs of both wrists and hands; presently also about the feet and ankles; and soon afterwards, very large bullæ formed on the legs, thighs, and forearms. There were grave adynamic symptoms at the same time. By careful treatment and good nursing, the patient is now (February 4th) pulling safely through.

Now, how are we to interpret this chain of curious phenomena? Do they form a series of what Sir W. Gull calls "nerve-vagaries"—a succession of nerve-storms, one disturbance effacing as soon as pos-

sible what went before, as if in a hurry to display its own signs? Or, according to a less transcendental view, we may regard different elements of skin-texture as affected by certain morbid influences, one after the other; and the wonder is, that a person at such an advanced age should be able to survive the shock of so many cutaneous lesions.

ON PHAGEDÆNIC CARBUNCLE.

By G. F. MASTERMAN, L.K.Q.C.P., M.R.C.S.I., Stourport.

SINCE the time of Harvey Ludlow, two forms of carbuncle have been recognised: one in which the sloughing does not extend, or very slightly, beyond the original area of the disease; the other, in which this process is accompanied by fresh peripheral mischief, the disease rapidly spreading from the spot where it first appeared, sometimes deeply, but generally limited by the superficial fascia, and attacking preferentially the skin of the face.

That there is some essential difference, not simply due to position, in the two forms of the disease, is generally admitted; but, in the numerous papers on the subject I have lately consulted, I have not found any reason given or suggested to account for it, although the treatment employed in the successful cases of the graver form—the use of perchloride of iron—gives, I think, the key.

Within the last twelve months, I have treated two cases of this facial—or, as I should prefer calling it, phagedænic—carbuncle (for it occasionally attacks and destroys the integument of other parts), and four of the disease of the ordinary type. Now, in the former two, I found strongly marked and obstinate albuminuria; whilst in the latter this condition was uniformly absent. In all the cases, the urine was loaded with lithates, and generally scanty when they first came under treatment; but throughout the progress of all, whether the urine were turbid or perfectly clear, this difference persisted. I found always abundance of albumen in the one, and none in the other, but not the slightest trace of sugar in any instance.

CASE I.—A lady, aged 36, mother of six children, in easy circumstances, but living close to a canal, of which the water was occasionally offensive in smell, had enjoyed, up to the time when the carbuncle appeared, excellent health, and had certainly shown no symptoms of renal disease. It was preceded by the usual *malaise*; and then a small hard nodule appeared in the skin at the centre of the posterior edge of the sterno-mastoid muscle; it became very painful, and within two days its nature was evident. I directed it to be well poulticed; gave an active purge; then quinine and iron; and, the following day, destroyed the whole thickness of the skin in the centre of the swelling by a bead of caustic potash fused in a loop of iron wire—a very convenient way of applying it to a small surface; and replaced the poultice. I had hitherto found this plan so perfectly successful in treating carbuncle, that I was surprised to find that the disease extended in spite of it. In four days, it had reached upwards to the ear, and almost down to the clavicle, as well as deeply in front of the muscle. I then asked Dr. Strange and Mr. Walsh of Worcester to see the case with me. Up to that day, I had not specially examined the urine; it was at first thick with urates; but, as it cleared after a few doses of the iron mixture, and appeared normal, it did not seem necessary. However, in anticipation of the question being raised, I tested for glycosuria, found no sugar, but a large amount of albumen. Dr. Strange was kind enough to administer chloroform; and I again and more thoroughly applied potassa fusa to the whole of the sloughing cavity, increased the dose of perchloride of iron, ordered complete rest in bed, and a dose of compound jalap powder every morning. In a few days, the albumen fell to one-eighth; the sloughing stopped, and healthy granulations appeared. The patient was then sent to Malvern, and was soon convalescent; but the albuminuria persisted for about a month afterwards, finally disappearing under the use of arsenic with the iron.

I then had three cases of the ordinary form of carbuncle in succession, each in the nape of the neck. They were treated as I have indicated, and all did well. I carefully examined the urine of each, day by day, but never found the slightest trace of albumen or sugar. After the skin over the centre of the swelling had been fairly destroyed by the caustic, the pain was relieved, the sloughs speedily separated, and the mischief never extended beyond the lump originally formed.

CASE II.—Last February, a farm-labourer came to me in an advanced stage of phagedænic carbuncle of the face; it extended from the chin to the angle of the jaw, and was rapidly nearing the orbit. The surface was ash-coloured in the centre, purple at the edges, and full of crater-like apertures, from which most offensive sanious pus

escaped. The urine was loaded with albumen, solidifying when boiled; and there was severe constitutional disturbance. I rubbed the whole of the diseased surface with a stick of potassa fusa until the skin was converted into a black gelatinous slough, which was washed away under a stream of water; sent the man to bed, and directed the same treatment as in the first case. Except for rather sharp hæmorrhage one day from the bared facial artery, there was nothing to interfere with the steady improvement which at once set in; and the wound healed with less scarring than I should have thought possible. The albuminuria was not finally got rid of for nearly two months, but it was quickly reduced to a small amount.

This month (May), I have been treating another, but a case of simple carbuncle of the face. The patient, a feeble cachectic-looking man, with a gouty mother, but only inferential evidence of that habit in himself, had two of the characteristic swellings on the cheek, which was swollen, brawny, and very painful throughout. The urine was very scanty, passed with some pain, and thick with urates, but did not contain a trace of albumen or sugar. In spite of the unpromising look of the cheek, the disease did not extend; the carbuncles, which were about two inches apart, did not even coalesce; and, as soon as the sloughs began to separate, the swelling of the cheek subsided.

Now, in looking through all the reports I could find on the subject, I have been particularly struck by the fact that, although glycosuria is generally mentioned as a cause, I have not found a single case where albuminuria is referred to either as a cause or an accompaniment. That it may be the cause of the difference between the two varieties of the disease, is, I think, most probable; but it cannot be looked upon as the result of it, from its persistence after the carbuncle has healed, nor, *a fortiori*, as a cause of the disease itself; else, amongst the many cases of albuminuria, acute and chronic, one sees, carbuncle should be of frequent occurrence, and the connection would have been made out long ago.* Probably the same dyscrasia which originates the phagedænic form of the disease leads to the escape of albumen also; and I am especially inclined to think so, because the most careful microscopic examination of the urine failed to yield me any evidence of renal mischief. The albumen seemed to drain away from some change in the blood, and not from any lesion in the uriniferous tubes. I may add that the pulse showed no tactile evidence of unusual pressure.

There was a case of carbuncle attacking the back reported in the JOURNAL about four months ago, which rapidly extended, and eventually killed the patient; and I noticed that no reference was made to the state of the urine, and that perchloride of iron was about the only recognised remedy not given. I have no doubt that, in this case, albuminuria existed.

In treating carbuncle, there is one point I insist upon—almost entirely withholding alcoholic stimulants. In Case I, in deference to my senior, Dr. Strange, wine was given; but I stipulated that it should be dry champagne only, and not much of that. I am sure, from the progress of many cases I have watched, that the time-honoured port-wine treatment simply retards the cure.

CLINICAL MEMORANDA.

DEATHS DURING THE ADMINISTRATION OF ANÆSTHETICS.

I HARDLY think I shall stand alone in my protest against such cases as Mr. W. Roger Williams quotes being put down as deaths (*bond fide*) from anæsthetics. Three at least of the six given ought, in fairness, to be left out of the calculation.

CASE I.—To place one drachm of chloroform (without measurement) on a piece of lint, press this closely over the mouth and nose, and then over this throw a towel, is, I think, courting a fatality. No wonder the anæsthesia was complete in less than three minutes, and no wonder the patient was asphyxiated. The administrator, not the anæsthetic, was at fault in this unfortunate case.

CASE II.—Does the writer think the induction of anæsthesia by chloroform was a wise procedure in this woman? To commence with, the heart must have been acting under the greatest difficulties, so that any shock or excitement might probably have been sufficient to stop it.

CASE IV.—There is, in this case, again room for doubt as to the share the anæsthetic had in bringing about the fatal result. In the writer's own history of the case, he says, "before she was well under

* As I have seen but these two cases in connection with albuminuria, it would be premature to express any more definite opinion as to their mutual bearing.