and recommends avoidance of too great regularity by healthy persons. He also discusses the influence of temperaments and idiosyncrasies; and points out that every one has a weak point in his constitution, to which he must especially attend, in order to ward off the diseases to which he is most liable.

But we must not omit to notice Galen, whose works exercised so enormous an influence on the medical practice of the whole world during many centuries. He was born at Pergamos, but travelled a great deal, and was appointed physician of the gymnasia at Rome. He is noted for his love of divisions and classifications. Thus he divides men into various classes, and assigns to each its diet. Therapeutic agents, too, he subdivides in a curious manner.

The doctrines of these fathers of medicine, mixed with the fancies of later times, were spread abroad over Europe by the Sicilian school, which was the offspring of the ancient Greek and Arabian medical schools. Its practice is handed down to us in a quaint Latin poem, in which a great deal of truth is mixed up with a great deal of trash, and in which we find bad therapeutics based upon faulty pathology. Thus we see that the experimental methods of Hippocrates and his successors were confused with a host of traditions derived from the Arabian alchemists, who had announced that they had found a substance that would cure all diseases and turn common metals into gold. This dangerous influence of the astrology and alchemy of the Arabian philosophers remained in the medical world up to the sixteenth century; and its effects continued much longer, so that the rational methods of treatment adopted by the ancient physicians were neglected, and diseases were treated, instead, by a number of supposed infallible remedies, of which the action was not at all investigated. And what do we find as the result of this change of practice? That epidemics raged with the most fearful intensity all over Europe—epidemics which were only known accidentally before, and which, finding favourable conditions for their spread in the utter neglect of hygienic observances, came from their natural seats in hot eastern countries, and committed unheard-of ravages in Europe. Look at the plague—that fearful epidemic of the eastern part of the Mediterranean: it is true that we have accounts of terrible visitations of it in Greece, and particularly of one which depopulated the city of Athens in the second year of the Peloponnesian war; but then remember that at this time the city was crowded to a fearful extent by the inhabitants of the country that Pericles had summoned into it; and it was at this juncture that the pest was introduced by a ship that entered the Piræus from Egypt. At various times, and particularly in the year of the city of Rome 389 (before the building of the aqueducts), the Roman capital was visited with the same calamity. But all this is nothing to the fearful visitations with which the whole of Europe was afflicted during the fourteenth, fifteenth, sixteenth, and seventeenth centuries.

In 1348, the plague appeared in Asia, Africa, and Europe; and actually slew, according to Froissart, forty-three millions of human beings. From this time, it cannot be said to have permanently ceased in Europe for centuries; it merely changed its sphere of action from one country to another. Between the seventh and the seventeenth centuries, England was actually invaded twenty times by this disease. Was any class of the population less attacked than the rest? Yes, the only part of the people who by their religious belief were obliged to follow, more or less strictly, a code of excellent hygienic regulations—the Jews—experienced so singular an immunity from these epidemics, that they were actually accused of causing them by spreading poisons in the air, and were burnt as wizards in almost all the countries of Europe. The last appearance of the pest in Europe was in 1719, when it was introduced into Marseilles by a ship that had been refused admittance into the port of Cagliari, in Sardinia. Even then, its course might probably have been stopped, had its malignant nature been recognised soon enough; but this was not the case, and more than ninety thousand persons were killed by it. After this, most energetic measures were taken to prevent its reintroduction into Marseilles; and it has not yet reappeared there. Here we have a clear case of the value of prevention. Sardinia was saved because the king refused the admission of the ship into the harbour of Cagliari; Marseilles was ravaged because such preventive measures were not taken.

From this time, public hygiene received still more attention in France, where, however, as early as 1350, Jean le Bon had instituted a sort of system of officers of health; and we find, towards the end of the eighteenth century, the Royal Society of Medicine founded, the reports of which contain valuable collections of facts relating to various departments of public health. Later on, the Council of Salubrity of Paris was founded, and took under its cognisance all questions relating to hygiene. Similar societies were founded in the other large towns, and thus by their reports an accurate account of the sanitary state of France was obtained in 1851.

In England, we are accustomed to manage such affairs in a less official manner than they are done abroad; and the result is, that improvements, although more difficult of introduction, are often more surely brought about with us than with our neighbours. It is certainly not because we are less hygienic in our habits than other nations, that we have so few books on hygiene, or that our medical schools have never looked upon it as a sister science with medicine; but because it seemed to take no special line; because it seemed to be so much everybody's business. Now, however, as we shall soon see, since the formation of the General Board of Health and of the Registrar-General's Office, such a mass of information with regard to the statistics and to the causes of disease has been obtained, that it seems necessary to make a special study of this science, and no longer to allow it to be taught accidentally, as an appendage to pathology or therapeutics.

[To be concluded.]

CLINICAL OBSERVATIONS ON DISEASES OF THE SKIN.

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ICHTHYOSIS.

THE least in frequency, but not in point of interest, of the squamous class of skin-affections, is Ichthyosis, a curious disease when seen in certain examples. The name, derived from a supposed resemblance which its scales bear to those of a fish, refers rather to their abundance than arrangement, as the absence of any imbricated method marks the complaint in every stage and variety. In many cases the scales are very thick, disposed as so many small squares, and often rendered dark, or nearly black, from constant exposure. They are especially developed in the immediate vicinity of the larger joints, as the elbows, hips, knees, and ankles; occasionally also are they found in the axillæ, and around the circumference of the nipple in females. A good illustration of ichthyosis is afforded in the following case of S. B., a girl 14 years of age, who was formerly an in-patient of the Skin Disease Hospital. The scales covered every part of the body, except the soles of the feet and the palms of the hand, where the skin was only rough; they were also absent on the ball of the thumb and the upper lip. Their greatest development was attained on the hips and elbows; but the neck, back, and chest, were severely attacked. The large scales, it may be noted, were, many of them, irregularly fissured, and others curled at their margins. Thickest on the knees, they existed as large flakes on the abdomen and the thighs. The forearms on either aspect were covered with dark rectangular scales, which became circular or oval towards the wrist, and slightly depressed in their centre. Such are the ordinary characters of ichthyosis. Many instances occur, however, no less typical than the preceding, from which they differ chiefly in the disposition of the scales. These are remarkable for their size and tenuity, as well as for the rapidity with which they are shed and again renewed. The skin also inclines to a reddish hue, as in the following case.

Barbara C., aged two years, was brought to the Hospital on August 21st, 1867. The skin was everywhere implicated; and, with the exception of the scalp, offered nearly the same appearances throughout. In this locality numerous masses of thick and hardened cuticle might be noticed attached either to the surface or scattered among the hair, which was no means deficient in quantity. Over the trunk and limbs generally, the skin was of a colour inclining to pink, and studded with flakes of epidermis, transparent as tissue-paper. On the loins, the latter were placed in nearly parallel rows, but in front no such regularity was maintained. About the elbows and knees the cutis was inclined to crack; and this result occasionally happened in winter from exposure. The hands were much swollen in either aspect; but this did not proceed from any infiltration of fluid in the subcutaneous tissue, as the skin yielded like a piece of parchment on the application of the least pressure; and was moreover smooth, and, as it were, tightly drawn. Nor was this condition confined to the hand, as several parts of the trunk were in like manner affected. The second and last phalanges of the three smaller fingers were altogether wanting in the left hand, while the first were reduced to conical stumps, covered with skin, and deficient in any semblance of a nail. This latter appendage, although present on the thumb and index finger of the left, and on all the digits of the right hand, was so irregular and distorted that it could no longer be recognised apart.

The same smoothness and swelling described on the hands was also seen on the dorsal aspect of the feet; and on the soles the last stage of cutaneous thickening was attained, the skin in this locality being of a

dark colour, and transversely but not deeply fissured. Only three toes were found on each foot; they were rudimentary, and the nails, as on the hands, were distinguished by great deformity.

The face showed at a glance the nature of the complaint in the retraction of the skin, causing eversion of the lower eyelids and the upper lip. In the ear, likewise, not only was the lobe connected to the adjoining part of the skin of the neck, but the back of the concha was partially attached to the skin over the temporal bone; and hence this part was far less free or moveable than in the natural state.

In a *third* kind, an intermediate stage is represented between what might be termed pityriasis and ordinary ichthyosis. It is a far more frequent species than those just described, and its scales are thinner and more abundantly diffused than in the latter affection. In common with the rest, this complaint is congenital, and as such it differs from hereditary psoriasis in not being declared, or at any rate most rarely so, at the time of puberty, or yet at a later age. The most usual period for its primary manifestation is from the third to the sixth month, and seldom is it delayed beyond the first year. It commences generally on the scalp and face—sometimes on the back, extending from thence over the whole surface, and varies from one to two or more years before its entire effect is accomplished. In some of the worst instances of its occurrence, it is associated from birth with a deficiency of the eyebrows and eyelashes; and in cases less pronounced these may be but partially present. Although at its origin the face is usually involved, the disease in its progress sometimes appears partially to forsake this part, and to become finally more confined on the loins and legs. The patient's garments or bed-clothes, as in psoriasis inveterata, will be constantly covered with numerous scales, which are regenerated almost as soon as shed. The skin everywhere feels preternaturally rough and dry, not excepting the hands and feet; and one distinguishing element of the complaint to be often noted consists in that absence of perspiration which, in cases of severity, would seem to be complete, the skin retaining its dry character even in the hottest day. As might be anticipated, the condition of the patient thus situated depends in no slight measure upon the seasons, the disease being found to yield to the influence of mild weather; while, on the other hand, it is readily affected or increased by cold. In winter, or in a piercing wind, the patient is pretty sure to suffer, particularly on any surface uncovered, as the face or fingers; or should he afterwards approach the fire or become otherwise heated, the same parts tingle and smart. A similar result will sometimes follow exposure to the sun's rays in summer; and, without flaying the skin, produce great irritation in such a locality as the face. In others, the feet around the heel are apt to become fissured and painful after walking, or much inconvenience is occasioned from the friction of the scales in front of the ankle or at the groin.

A yet lower type of ichthyosis—the lowest of all—I would beg to subjoin. The subjects of it are distinguished by a similar want of perspiratory action of the skin as in the last named, or by its limitation to some particular region. This may be, and most generally is, the palmar or plantar surface, or the axillæ, or the face and neck; and I have known a small space on the loins, or the front of the chest, the only part capable of secreting. Sometimes the spot thus selected constantly perspires, or it is only the great heat of summer which induces it to do so. Again, the presence of scales, although of so prominent a feature in all other forms of ichthyosis, is not remarked here; and scarcely can the hand, much less the eye, detect any appreciable difference in the integument from that of the normal state. Such patients are often remarkable for a redness or freshness, as it might be said, of the cheeks; and particularly is this noticeable after the least excitement or exertion. That these cases do in reality pertain to the class under our present consideration is sufficiently attested by the hereditary nature of the complaint, and by the evolution of its higher grades in other members of the same family; and not seldom its occurrence in direct descent. One complication, I must likewise add, almost always overlooked, deserves mention in this place—I mean its occasional association with prurigo. The latter is in many instances severe, and productive of the utmost annoyance to the patient, whom it may affect at any age—from early life to youth, and beyond it. Towards night especially exacerbations are wont to occur, as on approaching the fire, or the same takes place from exposure to cold. That this kind of prurigo is dependent upon the state of the skin itself, and not due to any parasitical influence, is, I think, proved to demonstration by the absence of any such exciting cause, and by the remedies successfully employed for its removal.

The total arrest of all sensible perspiration in ichthyosis, and its partial secretion only in some such modified forms of this complaint, offer an interesting subject for investigation with respect to the state of the urine. The result of certain experiments which I undertook some few years since on this question, and to which I would beg to refer the reader (*Diseases of the Skin*), pointed to the following conclusions. A consi-

derable increase in bulk was observed in the urine, which was only faintly acid, and of low specific gravity; the rate per cent. of urea was small, although its absolute amount remained nearly the same—a fact which militates against the usually received theory of the elimination by the skin of urea; lastly, the phosphoric and sulphuric acids were hardly if at all affected.

Most writers have dwelt on the greater frequency of ichthyosis in the male as compared with the female. My own observations, derived from no inconsiderable number of cases, rather incline the other way, and certainly do not support the opinion that ichthyosis is a special complaint of either sex. Instances have come under my notice of ichthyosis invading the male children only in one family, and in another the female; of its affecting both sexes, the offspring of the same parents; and again of its appearing in a single member alone. The hereditary nature of ichthyosis in some examples is unquestionable; and I have recorded one, in which there was evident proof of the direct transmission of this affection through six successive generations. Instead of proceeding in an immediate line, it will sometimes show itself in a collateral branch of the family; and cases are not rare in which, as far as can be ascertained, no claims of lineage are allowed.

Ichthyosis may exist in the fetus, and in a most aggravated stage. In these cases, the skin appears tightly stretched throughout, and over the trunk and limbs it is ruptured in transverse or parallel lines. The eyes are fixed in consequence of the rigid state of the limbs; so likewise are the lips, which are converted into hardened bands, and expose the gums; and no vestige of an external ear is seen. The entire body presents an assemblage of lozenge-shaped spaces or intervals, caused by a separation of the fibres of the cutis, sufficiently numerous and distinct to warrant the appellation of a "harlequin" fetus, which is allotted to it. The only museum, as far as I am aware, in the possession of this singular class is that of Guy's Hospital, which contains four excellent specimens of this singular deformity of the skin. Although it is to be regretted that no history is attached to them, I was fortunate in learning from Mr. Scarr of Bishop's Stortford, who presented one of the above preparations to the Hospital, that not only was the mother's labour in this instance perfectly natural, but the fetus lived for some seconds after its birth: it was the only one of several children that exhibited any indication of ichthyosis, and no hereditary trace could be obtained. I may add, that by the parent the complaint was attributed to a sudden and severe fright she experienced when attending a country fair at the time of quickening.

[To be concluded.]

CASES OF A BULLOUS ERUPTION APPARENTLY CONTAGIOUS.

By JAMES F. GOODHART, L.R.C.P.Lond.

SOME authorities on cutaneous diseases incline to the view that the discharge from all vesicular eruptions is more or less capable of communicating contagion. Few, however, if any, go so far as to declare that inoculation—from an eczema, for example—will produce a like affection; and I am not aware that there is any positive evidence on the point one way or the other. As bearing somewhat on this question, the cases described below, which have lately come under my notice, are not without interest.

CASE I.—Mrs. H. was confined with her third child on March 10th, 1870. The mother is a very healthy woman. The child was strong and healthy when born, and so continued for ten days. On March 21st, a large blister was noticed on the inner side of the great toe of the left foot. It was tense and shining, and contained opalescent serum.—March 22nd. Many fresh bullæ have appeared. They are scattered over the buttocks and back; there are some also in the axillæ and on the fingers; they vary much in size, some being very large and flaccid, others smaller, about half an inch in diameter, and distended. There is a slight red areola round the base of each. In many places, but more especially about the buttocks, the skin is covered with a thick papular rash. At the apices of such papules, small vesicles can be seen. The child is apparently in its normal health. It takes the breast well, and sleeps well.—March 24th. Fresh blebs are appearing daily. The mother describes them as rising up very rapidly, and as drying up almost as soon as they rupture. A thin crust covers the oldest crop. No sore is left behind when the bulla breaks. The skin is red and shining for a few hours after.

CASE II.—Eliza H., aged 2. A bleb in all respects like those on the infant came on the knee to-day (March 28th). It is of the size of a three-penny-piece.—March 30th. Several fresh blebs have appeared on the buttocks and on the right thigh. The face also has numerous small