ribs. The preliminary steps which I have described having paved the way for local retrocession, the thorax becomes gradually depressed with the progress of excavation. Exceptions to this rule are sometimes seen in which no marked depression is occasioned even by large cavities. In rare cases, as in the specimen which I place before you, the whole upper lobe may be completely excavated, and so adherent to the chest-wall, that for a long period the chest may present no striking collapse. In this special case, the lower part of the lung was completely adherent and hyperdistended, and the absence of fibrosis argued a more moderate degree of pleural irritation than usually accompanies excavation so superficial and so extensive.

Collapse of the thorax has its final limits in the perfect approximation of the ribs. When contact has occurred between the latter, any further retraction of cavities must entirely depend upon the fibrous shrinking of the lung itself. In fibroid phthisis, this shrinking attains a remarkable degree. At the base, owing to the yielding nature of the diaphragm, a retraction of the lung and a contraction of the cavities are specially favoured; and the most usual result of the contraction of large cavities in this situation is a shortening of the thoracic space, in consequence of which the position of the liver, the stomach, the spleen, and other viscera may suffer appreciable alterations.

Neither the shrinking to which I have alluded, nor the secondary hypertrophy, can occur without some disturbance of the normal relations between the visceral and the parietal surfaces of the pleura; and, conversely, rigid pleural adhesions are detrimental, not only as opposing contraction of the cavities, but as preventing the free expansion of the healthy tissue, and its gradual insinuation between the pleura and the wall of the cavity. In the diagrams and specimens before you, the extent to which the spongy tissue may expand is strikingly shown by the

Fig. 6.—Band-like Adhesions of Pleura, strictly limited to Surface corresponding to Excavation.

length of the band connecting the retracting cavity with the pleura. In these cases, adhesion was strictly limited to the point at which the cavity originally approached the surface. Extensive adhesions around this point would have rendered such a result impossible. It follows that the existence of adhesion over the healthy parts of the lung forms a most important element in our diagnosis. Especially important is the question as to adhesions of the inferior surface. I need not insist upon the value of an unfettered respiratory mobility of the diaphragm. Adhesions cannot fail more or less to lessen the latter; but the anatomical alterations which they introduce into the lung are not less important. It will presently be shown that adhesions to the diaphragm invariably restrict the area of the base, and consequently curtail the breathing surface of the lung.

In compensation for these great disadvantages, the only benefit accruing from pleural adhesions in respect of the contraction of cavities is the growth of fibrous tissue, to which I have incidentally referred. The remarkable thickness sometimes acquired by the pleural membrane, by filling up superfluous space, enables the lung to shrink to a smaller size; or it may ultimately exert a directly constricting pressure. My own views as to the mode of origin of this thickening do not materially differ from those expressed by Dr. Douglas Powell, in his work on *Consumption* (pages 17-19). Pleural adhesions having formed, the respiratory movements of the chest and the shrinking of the excavated lung lead to a stretching of the young fibrous tissue: hence the transverse striation plainly seen after death in the adhesions.

In harmony with this explanation, those parts are usually the seat of the greatest pleural thickening, where falling-in of the chest meets with the greatest difficulty. In the ordinary apex-excavations, the thickest pad of fibrous tissue occurs in the axillary region, coinciding with the greatest convexity of the ribs. Fibrous tissue is not the only substance employed by nature as a stop-gap. Very frequently fat is produced, in appreciable quantities, in the retro-pleural tissue. This I have often

observed over the site of contracting cavities. (See Fig. 7.) The favourite situation is the internal surface of the ribs, as originally pointed out to me by Dr. R. E. Thompson. A contracted lung, removed from the chest in connection with the adherent pleura, usually presents deep parallel grooves, which alternate with prominent ridges,

Fig. 7.—Transverse direction of the Fibres of thickened Pleura covering contracting Cavity. Deposition of Fat between the Ribs and the Pleura. C. Contracting Cavity. P. Thickened and adherent Pleura. F. Deposits of Fat beneath Ribs (R.).

suggesting an analogy with the costal indentations of a pneumonic lung, but in reality presenting the exact counterpart of this condition. In pneumonia, the groove corresponds to the bed of a rib; in the contracted lung, the position of the rib is marked in relief, and that of the intercostal space by a depression. The retraction of the fibrosed lung readily draws inwards the soft parts; but a similar in-bending of the rib is clearly impossible: in this situation the visceral layer of the pleura retreats from the periosteum, and the interval between pleura and bone is filled by fat.

[To be continued.]

REMARKS ON BALD TINEA TONSURANS AND VEGETABLE PARASITES.

By ROBERT LIVEING, M.D., F.R.C.P.,

Physician to the Department for Skin-Diseases at the Middlesex Hospital.

ON several occasions, I have called attention to the occurrence of smooth bald patches in tinea tonsurans, exactly resembling alopecia areata. I have also mentioned the fact that when, in these cases, one patch becomes quite bald, the others quickly follow suit. A remarkable example of this has lately come under my observation. Two brothers have been under my care for some time past with ordinary well marked tinea tonsurans, with abundance of the trichophyton. Their parents objected to vigorous treatment, and therefore mild remedies only have been used, which have not at any time produced the slightest soreness. The elder boy had six or seven separate spots of tinea tonsurans, and, during the last fortnight, every one of these spots, great and small, has become perfectly bald, smooth, and shining, with a well defined margin of healthy hair. What I wish especially to call attention to is, (1) the suddenness of the change, (2) that the bald spots are strictly confined to patches previously affected with tinea tonsurans, not a trace of baldness existing on any other part of the head. In this instance, there is not a stump nor a hair to be found, though, when I previously saw him, the patches were thickly covered with stumps and hairs. In other cases of this kind that I have met with, it has been generally possible to find one or two stumps left either on or at the margin of the patch, by the microscopic examination of which the nature of the case could be determined. When the baldness is as perfect as it is in this instance, we may probably regard it as a spontaneous cure. In the younger boy, the tinea tonsurans has run an ordinary course. It is somewhat difficult to say whether we should regard a case of this kind as one of true alopecia areata following on tinea tonsurans, or as a peculiar and exceptional feature in tinea tonsurans itself. Nor do I think the question of much importance, provided that we remember that infection is not always removed; or, in other words, that the denudation is not in every case so complete as to remove all the stumps affected with the *Trichophyton tonsurans*. A want of knowledge of this fact has, in past times, led to two mistakes: the one, that alopecia areata is a *parasitic* disease; and the other, that it is *occasionally contagious*.

It has been pointed out by several observers that, in almost all chronic scaly affections of the skin, one can, by a diligent examination of the scales under the microscope, find the spores of a vegetable parasite commonly called *Torula vulgaris*. I can quite confirm this fact from my own observations. I would remark, however, that those who are not aware of it are sometimes misled into the belief that they have discovered a parasitic disease, when, in truth, they have only found *Torula vulgaris*, which is quite harmless, and which is a consequence rather than a cause of the disease. An example of this lately came under my observation in the case of a lady about thirty years of age, who had suffered nearly all her life from a well known chronic folliculitis of the eyebrows and scalp depending on constitutional causes; the skin was scaly, and the hairs fell out before they had arrived at maturity. She was told by two medical men abroad, who had examined the scales and hair under the microscope, that the cause of the disease was a vegetable parasite; the result of the treatment was, however, not satisfactory. When she subsequently came under my notice, it was not very difficult to find here and there *Torula vulgaris* in the scales attached to the hairs, but the hairs themselves were quite free; the mistake was thus easily explained. I have met with several other examples of similar mistakes.

With regard to an affection of the skin which I have described as a form of circinate lichen, and which has been supposed by some observers to be pityriasis versicolor, and of course of parasitic origin, I would remark that a very careful series of observations, extending over several years, quite satisfied me that the two diseases are quite distinct. I am quite prepared to admit that, when pityriasis versicolor becomes a little inflamed, as it sometimes does in those who happen to have a tendency to eczema, it bears a close superficial resemblance in appearance to this variety of lichen circinatus; but the microscopical characters of the two are always quite distinct. As to the name circinate lichen, I lay no stress on it whatever; I adopted it to avoid the introduction of a new name; the disease has, however, since been described under a new name.

I hold that it is now quite out of our power to alter to any considerable extent our nomenclature of skin-diseases, however much we may object to some of the terms in use. Many objectionable synonyms will gradually drop out of use; and this is nearly all the improvement we can expect. The most vigorous efforts have been made to get rid of the name typhoid fever; but the word is still as much used as ever. The story of the emperor who failed in an attempt to change a quantity in a Latin word should not be forgotten by the inventors of new names for old diseases.

SEWER-GAS AND PUERPERAL SEPTICÆMIA.

By JOHN C. FERRIER, M.D.Lond.

IN the number of the BRITISH MEDICAL JOURNAL for March 10th, Dr. Playfair refers, in his "Note on the Sanitary Condition of Bagshot Park," to the causation of puerperal septicæmia by sewer-gas. The following cases seem interesting, as showing this connection.

CASE I.—Mrs. S., a multipara, was confined on the morning of February 2nd, 1881. Labour was normal; the child was at full time, and living. A few hours later, I found her feverish, but the temperature was not noted. The next day, she had headache and slight abdominal pains; temperature 102.2° Fahr. She continued ill for more than five weeks (until March 10th), with symptoms of blood-poisoning. The temperature was sometimes very high—over 105° on one occasion. After the illness had lasted a few days, she had pleurisy on the left side; and, towards the end of the attack, abscesses formed in the axilla, groin, labia, and gluteal region. There was no sore-throat and no pelvic inflammation. The lochia were not at any time very offensive. There were only slight rigors, and milk was secreted for some days. She recovered. Two or three weeks before her confinement, the water-pipes being frozen, the trap of the water-closet became blocked; and Mrs. S., while directing the removal of the obstruction, got a strong whiff of sewer-gas, and exclaimed at the time that she was afraid it would give her diphtheria. She was not seen medically before her confinement; but her husband said she had been feverish and ill for a week before it took place, and that she "felt so hot in bed that he was obliged to move away from her." There was no history of exposure to any other poison than sewer-gas. In the same house, two years before, several of her children had diphtheria from defective drains; but these were put to rights, and there was no further trouble until the water-supply was cut off by the frost.

CASE II.—Mrs. H., a multipara, was confined prematurely, at seven months, on July 22nd, 1881. The child lived one day, and died cyanosed. She was ill for several days before confinement, with

pyrexia and abdominal pains. There was no local trouble to account for it. The day before confinement her temperature was 103°. Afterwards, she was better and less feverish for a day or two; but the temperature was never normal. She soon became much worse, and had severe rigors nearly every day; one wrist-joint became red and swollen, also the first metatarso-phalangeal joint of one foot. There was no throat-trouble; the lochia were not offensive. Milk was secreted for some time, and required belladonna to stop it. She died on August 25th, one month and six days after confinement. There were not any cases of infectious disease in the house, nor could any fault be found with the sanitary arrangements. But, a short time before her illness, Mrs. H. had noticed a strong smell from a sewer, while she was out walking.

In both cases, the illness commenced before confinement; local mischief only showed itself after the pyrexia had gone on for some days; and there was nothing in the history, symptoms, or progress of either case to lead me to suspect that any other poison than sewer-gas had been at work.

THE THERAPEUTICAL ACTION OF ACONITE.

By EDWARD J. TILT, M.D.

ACONITINE has attracted so much attention of late, that I will mention how large a dose of tincture of aconite (*B.P.*) was given by me in a very severe case of cerebral neuralgia, to a highly nervous lady, at the change of life. One or two attacks occurred about every week; and the attacks of pain were so severe that she was obliged to stop in bed, and in a dark room, for two or three days—the pain being sometimes accompanied by vomiting, oftener by salivation. There was but little dark-coloured urine passed at the beginning of the attack, and it ended by an abundant flow of limpid urine. The liability to these attacks has now lasted twelve years, and they still occur. What was suggested by Dr. Handfield Jones, Dr. Russell Reynolds, and Dr. Ogle had not the slightest effect on the attacks. The application of six leeches to the temples shortened them; going out of town kept them in abeyance, once for six weeks; and the only medicine that did the same was aconite. The patient took the tincture of aconite, in an aromatic infusion, for sixteen weeks, beginning with five drops, and gradually increasing the dose till she took twenty-five drops, three times a day. That dose caused so great a sense of fulness in the throat, and of tingling and numbness of the tongue, that I lowered it to twenty drops, three times a day, which caused only slight physiological effects. The remedy kept off the attacks for two, three, and once for four weeks; but it did not in the least diminish the intensity of the attacks. I therefore thought a sixteen weeks' trial of a dangerous medicine sufficient, and gave up its use.

As I am not aware that tincture of aconite has ever been given in such large doses, I will add that the prescription was made up at a respectable druggist's in Kensington, and that I am quite sure my patient took the doses I have mentioned. Whether my patient's idiosyncrasy made her able to bear large doses of aconite, or whether there was something wrong in the tincture, I cannot say; but I should follow the same course in a similar case. Dr. Greenhalgh told me he once nearly lost a patient, to whom he had ordered an enema containing nine drops of tincture of aconite.

NEW METHOD OF URETHRAL IRRIGATION.

By WALTER WHITEHEAD, F.R.C.S.E., F.R.S.Ed.,

Surgeon to the Manchester Royal Infirmary.

IRRIGATION, judiciously employed in suitable cases and at a proper stage of the complaint, is unquestionably a valuable adjunct to the treatment of gonorrhœa. In the first place, the prolonged stream of water effectually removes the inflammatory products of the disease, which obstinately and intimately adhere to the surface of the urethra, and protect the mucous membrane from the immediate influence of the remedies we endeavour to bring into action, either through the urine medicated by the administration of balsamic drugs, or by the more direct influence of antiblennorrhagic injections. The tenacity with which the secretions adhere has, no doubt, much to do with the difficulties encountered in the treatment of gonorrhœa. It must be remembered that the urethra in health is an elastic tube tolerant of reasonable dilatation; but when invaded by inflammatory changes, it is converted into a comparatively unyielding tube, intolerant of any force having a tendency to expand its calibre; consequently, irrigation, to be safe and successful, must be conducted on a principle consistent with the laws of hydrostatic pressure; and as we propose to use irrigation in a disease which involves conditions opposed to distension, it is required that the mode of