intestinal fever is compounded of two distinct elements, it is equally certain that what is gained on the one hand, in the way of predisposition, is more than lost on the other by the extinction or dispersion of the poison through the operation of natural causes. So that the total effect, far from being in excess of the full power of the specific poison which the sewer receives, falls, in reality, immeasurably below it. As this, however, is a point of speculative interest only, it is one on which I need not dwell further here.

Illustrations OF HOSPITAL PRACTICE: METROPOLITAN AND PROVINCIAL.

ST. GEORGE'S HOSPITAL.

A CASE OF EXCISION OF THE KNEE-JOINT.

Under the care of PRESCOTT HEWETT, Esq.

[Reported by EDGCOMBE VENNING, Esq., Surgical Registrar.]

WILLIAM B., aged 11, was admitted into the Hospital in February last, having four months previously been struck by a stone, behind, and about two inches above the left knee-joint. He did not feel much pain at the time; but the following day the joint became painful and swollen, and thus it remained up to the time of his admission; at which time, in addition to the general swelling of the joint, there was great pain, and that more especially over the inner side of the head of the tibia. No fluctuation could be felt; but there was great tenderness on pressure in this region; and the limb started very much at night. The movements of the joints were considerably impeded, both as to extension and flexion. The constitutional symptoms were very severe. A generous diet was given, and a ham-splint was applied, and cold lotion to the knee. From this time, notwithstanding all treatment, the disease of the joint progressed slowly but surely. Suppuration made its appearance. Various abscesses were opened at different times. Matters went on from bad to worse, and a consultation was held; at which it was determined that the joint should be excised, as the boy's general health was beginning to suffer from the long continued drain.

The operation was performed by Mr. Hewett on July 25th. A semilunar incision having been made from the inner to the outer side of the joint, the soft parts were dissected upwards, the patella was then cut away, the lateral ligaments freely divided, and the condyles of the femur thrust forwards; the diseased parts were then removed with a common saw, care being taken not to injure the epiphyseal cartilage. The condyles of the tibia were dealt with in the same way; after which, the cut surfaces of the bones were without much difficulty placed in good apposition, the soft parts being brought together with sutures, and the limb put into one of Matthews' swinging splints. During the whole of the operation but one artery required a ligature.

The examination of the parts which had been removed, showed extensive disease; the synovial membrane throughout being thickened and pulpy; the cartilages in many places eaten away by ulceration; and the bony structure softened, vascular, and infiltrated with strumous deposit.

The day after the operation, the boy's countenance was much improved; he had had a much better night than for some time past; and had suffered very little

pain; and, altogether, was going on as comfortably as possible. He was ordered a liberal diet, and some wine. Henceforth, the boy's general health improved rapidly; consolidation of the parts went on steadily; and he was discharged from the hospital on October 29th, three months after the operation, with solid union between the ends of the bones, and the operation-wound entirely healed; but the two old wounds, which had been made in order to evacuate pus before the operation, and which seemed to be connected with carious bone, still discharged a little.

On his leaving the hospital, there was only an inch and a half difference in length between the two limbs.

SOUTH STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.

REPORT OF CASES.

By VINCENT JACKSON, Esq., Resident Surgeon, and
late House Surgeon to University College
Hospital.

I.—LARGE PIECE OF IRON LODGED IN THE EYE; DE- STRUCTION OF THE GLOBE; REMOVAL FOUR YEARS AFTERWARDS.

S. H., aged 16, was brought to the hospital October 10, 1861. His father said that for the last week he had been complaining of pain in both eyes, but especially the right. I was also informed by the parent that, four years since, whilst engaged in a manufactory, he suddenly received a blow on the right eye, and from that time had lost the sight in it. Immediately after the accident, he was seen by a medical man. No minute exploration of the eye was made. He continued under medical care for some time; but deriving little benefit, he discontinued it. From the time of the injury up to the period when I saw him, there had been constant pain in the right eye, as well as over the brow. A slight purulent discharge had also been noticed from it. Laterly, the left eye had become weak and painful at times; and it was especially on this account that I saw him. On opening the lids of the right eye, I saw a granulating projecting surface, with a central depression, and suspecting the nature of the case, I fixed the lids apart with the wire-speculum, and then passed a probe into the depression; its point quickly struck against a hard body, and this, after a little trouble, I extracted. It consisted of an almond-shaped rough piece of iron, weighing twenty-six grains, and measuring in length seven-eighths and in breadth three-eighths of an inch. Very little irritation followed its removal; and the boy was discharged cured in a very short time.

REMARKS. At the time of the accident, I suppose, the projectile must have penetrated the eye deeply, and probably lodged in the vitreous body, and behind the eye; at all events, it must have been beyond the curtain of the iris, or it would have been seen on examination. I think the case is a very good illustration of the line of practice required; for the persistence of the pain, and the continuance of purulent discharge, combined with an evident cleft in the disorganised eye, could lead to no other conclusion than that some foreign body or substance was the cause of it, and that, considering the photophobia and increasing asthenopia in the left eye, the sooner such foreign substance was removed the better.

II.—DISLOCATION BACKWARDS OF THE LEFT HIP; RE- DUCTION BY MANIPULATION, WITHOUT CHLOROFORM.

T. M. R., aged 32, was admitted May 31, 1861; occupation, a collier. Just two hours previous to admission, the patient, whilst working in a coal-pit, received a large piece of earth on his back; he was immediately forced down, and he found himself unable to move. The pa-

tient is a very tall man, six feet two inches in height, and of average muscular development.

After carefully examining the left hip, it was evident that the head of the femur was dislocated backwards. I had the man placed on his back on a strong bed, and then steadied by an assistant. I now seized the left leg just above the ankle, and flexed it on the thigh, and the thigh on the abdomen; the thigh was then well abducted with the left hand, the leg at the same time being well turned inwards. Immediately, a loud snap assured me that the reduction was effected, and replacing the limb on the couch, it was clear that the head of the femur had returned to the acetabulum. A long splint was, for a short time, applied to the limb, and the man was soon enabled to be discharged.

Original Communications.

ON RINGWORM AND VEGETABLE PARASITES.

By THOMAS HILLIER, M.D.Lond., Assistant-Physician to the Hospital for Sick Children.

[Read before the North London Medical Society.]

THE term *Ringworm*, like many other old medical terms especially those which become popularised, has been made to denote two or more distinct affections, and has thus become vague and inexact. It has been sometimes used to include all that writers have classed together under the head of *porrigo*; by which they mean any contagious disease of the scalp. In this sense, it includes *favus*, *tinea tonsurans*, *tinea decalvans*, or *alopecia areata*, and some forms of *impetigo*. In my opinion, the word had better be abandoned, or else confined to *tinea tonsurans* and *herpes circinatus*; in which, together with the contagious character, there is generally the peculiar circular arrangement from which the name has been derived. In this latter sense, it appears to be a very convenient term, and in this manner I am about to use it. I include under it what may be called ringworm of the scalp, and ringworm of the body, face, and limbs. The different names under which these have been described are most numerous, and at times perplexing. Thus, *tinea tonsurans*, *tinea tonsdens*, *tinea proper*, *porrigo furfurans*, *porrigo tonsoria*, *porrigo scutellata*, *porrigo decalvans* (Gibert), *herpes tonsurans* (Cazenave), *trichophyton tonsurans*, *trichonosis furfuracea*, *rhizo-phyto-alopecia*, and common or scurfy ringworm, are all names for the ringworm of the scalp; whilst for the ringworm of the body there are the names *herpes circinatus*, *trichophytie circinée*, and *erythema marginatum*.

The pathology of *tinea tonsurans* was involved in great obscurity till within the last few years, and is still a subject on which considerable differences of opinion exist. It was formerly universally supposed to be due to some constitutional malady, and probably allied to scrofula. In 1844, M. Gruby first described the fungus, which is now generally believed to be the determining cause of the disease. It was named *trichophyton tonsurans* in 1846, by M. Malmsten, a Swede. The peculiarity of the fungus is the great number, the small size and roundness of its sporules, which infiltrate the hairs, causing their fibres to split up, and destroying their structure, so that they become brittle, thickened, opaque, and darker in colour. It also grows in abundance on the epidermic cells, causing their desquamation. The lining of the hair follicles is also infiltrated with them, and thus the follicle becomes more prominent.

The fungus is said to commence its growth between the layers of the epidermis, and near the orifice of the

hair-follicle. Besides the spores, which are most numerous, there are seen at times a few tubes of mycelium, especially at the first outbreak of the disease. The hair follicle is not permanently injured, so that baldness is not commonly left after the cure of the disease. M. Bazin describes a third stage, in which suppuration is set up, and pus being a parasiticide, the sporules are not then to be discovered. In this stage, it may be confounded, he says, with *favus*. I have never met with cases of this description. Sometimes, it is true, I have seen a few pustules produced by the application of strong irritants, but never any thick scab, such as would bear the most remote resemblance to *favus*. This third stage appears to me to be introduced mainly with the object of including *sycosis* under the same head.

In the present day, Mr. Erasmus Wilson still maintains that the disease does not depend on a fungus, but is a change in the nutrition of the hair, a granular degeneration of the hair, depending on constitutional causes, never proceeding from contagion. The microscopical characters and the history of the disease are so unmistakable that, to an unbiassed observer, the question appears to me not to admit of dispute.

With reference to contagion, the disease has been transmitted by inoculation, and it frequently spreads in schools and families. There is no doubt that, to propagate the disease, a favourable soil is required as well as the seeds; that it will not readily attack the scalps of adults; that it flourishes more on the heads of some children than of others. The first change is probably a disorder in the secretion of the hair-follicle. It appears to flourish more on the heads of tuberculous and scrofulous, than of healthy children; of twenty-five cases of which I took notes at St. Pancras Workhouse, ten were of the tuberculous diathesis, two decidedly scrofulous; and there was a decided preponderance of light-haired, clear-skinned children. Two were rickety; about half of them were in good health. They were not suffering from the want of suitable food. It would seem that certain atmospheric conditions favour its occurrence. In St. Pancras Workhouse, there is frequently an almost entire absence of the disease for two or three years, and then, for several months, every second or third child in the building gets attacked by it, whilst all external conditions and the class of children remain the same.

Are the two forms of ringworm one and the same disease occurring in different parts? MM. Robin, Bazin, and Hardy, recent French writers on the subject, answer in the affirmative, and include under the same head *sycosis*, or *mentagra*. Dr. Anderson, who has recently published a book on this subject, is a disciple of Bazin. Mr. Hutchinson classes *tinea tonsurans* and *herpes circinatus* together as one disease.

True *sycosis* is not a common disease in London. It attacks the beard and whiskers, and is attended with a pustular eruption, and a good deal of induration and swelling. The hairs are the seat of a fungus, stated by Bazin and others to be the *trichophyton*. It was originally described by Gruby as *microsporion mentagraphytes*. The induration, swelling, and pustulation, which accompany this form of the disease depend, says Bazin, only on the different degree of irritability of the part which is attacked.

Dr. Jenner maintains that *tinea tonsurans* and *herpes circinatus* are distinct diseases. There is no doubt that they bear a very close relation to each other, and that they not uncommonly occur on the same subject. Dr. Jenner allows that rings of *herpes circinatus* may exist on the forehead and nape, and, where they encroach on the hairy scalp, after a time become true *tinea* over that extent of their circumference. In order to have true *tinea* you must have the fungus, so that the spores will be seen on microscopic examination; this is the essence of the disease. The fungus is certainly to be seen in