to adopt it; the common incisions must then be made, but the disease will thus continue for a length of time.

M. Jules Cloquet has proposed to allow a large gum-elastic catheter to remain in the sinus, and says that he has found this method very useful. It will, however, frequently fail. Whatever method we employ, the abscess will remain stationary after a certain time. You must then have recourse to compression, but if the latter do not produce evident benefit within a few days, and the edges of the incisions become flaccid and ill-conditioned, you must abandon it, and inject the decoction of bark, or a weak solution of tincture of iodine, or the sulphuric acid injection, recommended by Sir A. Cooper. For the treatment of deep-seated abscess of the breast, a great variety of means have been employed internally; but I shall speak only of those which have been sanctioned by experience, and which I have tried myself. The following is the result of experiments made by me, with the different methods of treatment:—Several patients were treated by simple purgatives, repeated frequently, during a period of ten to twenty days; in other cases I tried emetics, or emetico-cathartic remedies. Others, again, were treated with the tincture of colchicum, in the dose of one to two drachms during the day; others with the tincture of iodine, or iodine baths, or calomel, in various doses. The conclusion to which I come is, that no remedy, taken singly, merits the encomiums bestowed upon it by certain practitioners. Tartar emetic, in small or large doses, has been recommended by MM. Kennedy, Beatty, and Lever, in England. I administered four, six, eight, ten grains of tartar emetic, by spoonfuls, in the twenty-four hours, to several patients, but, as you must have observed, the effects were far from being so favourable as those announced by the English practitioners; the emetic was continued from three to eight days, without influencing the progress of the disease.

Glandular Abscess.—There are two species of glandular abscess of the mamma. In one variety the disease commences in the lactiferous canals; hence we usually observe this form in nurses and puerperal women, but it may occur at the critical age. It often commences with retention of the milk; the distended canal is irritated, inflames, and becomes converted into a cyst furnishing pus. In the second species the inflammation commences in the cellular tissue of the gland. Several of these abscesses commonly exist at the same time, and they are small; I have seen thirty-three of them in the same gland. In rare cases, however, the abscess is single, and extends round the nipple. Glandular abscess, Gentlemen, is by far the most frequent form that we meet with in practice; indeed, we may say that they are the origin of almost every abscess observed in nurses, pregnant and puerperal women, except those depending on external injuries. The disease is evidently connected with the secretion of milk; and hence you may ask if these abscesses are more frequent in women who suckle than in women who do not. Many writers pretend that suckling the infant acts as a preservative against this species of abscess. This I think is a manifest error; experience proves that nurses are much more frequently attacked by mammary abscess than women who do not nurse. In the latter the breast ceases to

secrete much milk in eight to fourteen days, and is thus withdrawn from a source of constant irritation; but nurses are subject to an exciting cause of abscess during ten to fifteen months.

The distinguishing signs of parenchymatous abscess of the breast are not easily discovered. In the commencement the whole breast is swollen, and the seat of deep, lancinating pain; in six to twelve days afterwards various knotty tumours are felt in the substance of the gland, and at a later period some of these tumours soften; the usual seat of the abscess is round the areola.

The progress of this species of abscess is much slower than that of either of the two already described; in their *treatment*, your first care must be to suspend the process of suckling; the milk is always mixed with pus, and unfit for the nourishment of the infant. As I have said, the superficial and deep-seated abscesses require to be opened freely, but you cannot employ the same measure here; when the abscess shows evident signs of fluctuation, it may be opened by a small incision or puncture, except in cases of very extensive abscess, where the opening must be proportionately free. A piece of lint must then be placed between the edges of the incision, and emollient poultices applied. Afterwards, when the abscess becomes chronic, and this often occurs, you must have recourse to methodical compression. The local treatment will, in most cases, require the aid of general means, for this species of abscess is peculiarly obstinate. You must, therefore, endeavour to suspend the secretion of milk by appropriate remedies. For this purpose you may try preparations of iodine, small doses of calomel, purgatives, or tartar emetic. When the secretion of milk has been suspended, your local remedies will act with increased force, and a cure is soon obtained.

CASE OF FRACTURE OF THE NECK OF THE THIGH-BONE.

By F. A. BULLEY, Esq.,

Surgeon to the Royal Berkshire Hospital, Reading.

Thomas Cripps, aged 79, a poor man who gained his livelihood by thatching, was admitted into the Royal Berkshire Hospital, on Friday, March 25, in consequence of his having received an injury from a fall from a ladder, while working at his trade. From what I could understand from the persons who brought him, it seemed that he had fallen from a considerable height upon his left side, striking the prominence of the trochanter major upon some pebble pavement underneath the outhouse, the roof of which he had been repairing. Considering his advanced age he was a healthy-looking man, and, as far as I could ascertain, he had never (beyond occasional attacks of rheumatism from exposure to weather) been subject to any material illness, and he had lived a very temperate, and, indeed, abstemious life. The accident had happened on the previous Tuesday, but owing to the prejudice of his friends, and his own supposition that the injury was not so severe as to require much assistance, this delay of four days occurred before it

was thought necessary to procure his admission into the hospital.

On examination, the following appearances of injury presented themselves. He was, and had been, from the time of the receipt of the accident, unable to bear upon the affected limb, the attempt to do so causing intolerable pain. He could, however, with the assistance of his hands in lifting it, flex it to a considerable extent upon the trunk, while lying on his back in bed, without experiencing any particular uneasiness in the part. The affected limb had become shortened to the extent of about an inch, and was everted, but it was easily rolled inwards into its natural position. It was, however, impossible, or at least difficult, without great violence, to extend the limb so as to make it appear of the same length as the other sound one. There was an extensive ecchymosis of the integument round the joint, involving the skin of the nates and scrotum, of an extremely dark purple colour, like what is usually observed to follow sprains in very old persons. The limb could be rotated to some extent, both inwards and outwards, without much pain; this latter movement producing a grating or rubbing sensation, but very indistinct, and not at all resembling the feeling of crepitus commonly discernible in fractures of the neck of the bone. On pressing rather strongly with the fingers upon the posterior part of the trochanter major, a movement, as if this posterior portion of the trochanter had been detached from the shaft of the femur, was perceptible when the limb was in a quiescent state, but when it was flexed, or rotated, this feeling was not communicated, but only the dull rubbing or grinding sensation which I have described.

On account of the existing ecchymosis, and some little pain which the examination had produced, the limb was at first laid upon pillows in a flexed position, and allowed to remain so for two or three days; I then (the pain having left him) thought that I might use with advantage an apparatus constructed on the same principle as Boyer's, with an endless screw, having a foot piece or shoe working upon it for the purpose of keeping up permanent extension; but as I found it was utterly impossible, by any mechanical means, to draw out the shortened limb to its natural length, without injurious compression of the perineum by the padded girth, and as he felt otherwise very uneasy from its application, it was relinquished, and Amesbury's double-inclined plane was substituted in its stead; he, however, soon became weary even of this, and he was ultimately placed, without any restriction of the limb (with the exception of firmly binding it to the other to prevent eversion), upon one of the double-inclined plane beds of the hospital, with which he expressed himself as quite satisfied, and felt comfortable and easy.

April 8. He has remained upon the inclined plane bed, since the last report, without any more constraint upon the fractured limb than has been mentioned. There is now no pain or uneasiness in the situation of the fracture, and he says that he can flex the limb with the assistance of his hands to a considerable extent. He has done this, however, contrary to my express wishes, but still thinking that his inability to stand arose only from one of his old attacks of rheumatism, he prided himself on his fancied improve-

ment, and had constantly amused himself by bending and extending his leg in this manner; I have mentioned this, to show the small amount of pain which attended the serious injury which was afterwards found to have occurred to the bone.

9. On visiting him this morning, I found that he had been attacked last evening with symptoms of bronchial inflammation and diarrhoea. He had had some wandering in his sleep, and was very feverish this morning and delirious, and had a drooping dispirited appearance, with a constant rattling cough; some medicines were ordered, which slightly relieved these symptoms, but towards evening he became worse, and he passed a restless feverish night.

11. On visiting the hospital this morning, I found that he died a short time before my arrival, his symptoms having continued to increase since I had seen him the evening before.

Post-mortem Examination of the Limb.—The subcutaneous ecchymosis had disappeared before his death, but a considerable quantity of blood had remained diffused among the muscles surrounding the fractured portion of the bone. The capsular ligament was entire, but it was somewhat thicker than natural, owing probably to the effects of the rheumatic inflammation in the joint to which he had been subject. On cutting through the capsule, the neck of the bone, which was somewhat thicker and shorter than common, was found to be uninjured, the fracture not having in the slightest degree encroached upon this portion of the bone. The head and cervix of the bone had been obliquely separated from the shaft, just at the root of the trochanter minor, and had passed downwards into the cancellous structure of the bone, which they were enabled to do, owing to the posterior portion of the trochanter major having been broken off, opening as it were to receive them.

The fracture of the trochanter major commenced exactly in the centre of its upper part, and, passing downwards through the length of the trochanter, the fissure wound inwards, and terminated at a little distance below the trochanter minor, which was included in the fractured piece,

It was the movement of this portion of the bone, which I felt during the lifetime of the patient, when I pressed my fingers strongly on the posterior part of the trochanter, while the limb was still and straight, but which was not observed when it was flexed, owing, as I now found, to the fractured neck passing (when flexure was attempted after death) lower down into the cancellous structure, and wedging out, and making immovable, this fractured portion, the movement of which was before so clearly distinguished.

On partially removing the fractured portion of the bone, the cancellous structure was found to have been hollowed out, as if by the attrition of the fractured neck within it, which had been caused by the patient injudiciously moving the limb, which had at the same time interrupted the reparative process, and a complete hollow had been formed at this part. The spongy texture itself was not more vascular than is commonly seen after a fracture has occurred a few days. The outer shell of the bone was, however, remarkably thin, and the medullary cavity, for some distance down the shaft, was somewhat larger than is usual in persons even of a very advanced age.

I could now discover what had prevented the extension of the limb; owing to this excavated condition of the cancellated interior of the bone, the upper and fore part of the trochanter major, which had not been broken, had been drawn inwards by the muscles inserted at its root, and had closed upon the end of the fractured neck after it had passed downwards, below it, and on endeavouring to extend the limb after death, the neck of the bone catching under this firm portion of the trochanter prevented the extension of the limb, and I found that I was unable, even after the muscles were removed, to cause the trochanter to pass over the fractured end of the cervix without applying more force than would have been justifiable in the lifetime of the patient. The thorax was not examined.

REMARKS.

I have recorded the foregoing case, as I thought it illustrative of a species of fracture of the femur which has not often been noticed by surgical writers. Sir Astley Cooper, in his admirable work on Fractures, mentions a somewhat similar one, and from what I can make out from his remarks, it was considered at the time he wrote to be of a very unusual character. The case in question had been under the care of Mr. Travers, in St. Thomas's Hospital, who, after the death of the patient, sent Sir A. Cooper the preparation of the parts, of which Sir A. C. speaks as follows:—"Mr. Travers having sent me the bone, the following are the appearances of this curious case:—The head and cervix had been separated from the trochanter major and body of the bone. The upper part of the thigh bone was obliquely split, so as to receive the cervix femoris into the cancelli. This fracture of the thigh bone separated the posterior portion of the trochanter major from the body of the thigh bone, and the trochanter minor was removed with it. An union had taken place between the fractured portions of the trochanter at a slight distance from each other, and thus a hollow was left, into which the cervix femoris was received, and it had not yet become united by ossific deposit, as the man had not lived sufficiently long for firm consolidation under his reduced state, for upon maceration, the neck of the bone had free play in the cavity in which it had been received, and from which it could not be removed."

Thus far, with the exception of the partial union which had taken place in the instance related by this distinguished observer, and the difference of the age of the patient, these cases closely resemble each other.

Sir A. Cooper relates two or three other cases, but, as they were complicated with fracture of the neck of the bone, and so far materially differ, it is unnecessary to refer to them here.

There are two or three circumstances in the case I have detailed which may not be considered as entirely void of interest. There can be no doubt, I think, that the fracture was occasioned by a direct force acting immediately upon the posterior portion of the trochanter major. The detachment or splitting off of this portion of the bone, through the direct medium of the blow, would, by suddenly breaking up the connection of the greater part of the cervix with the shaft, deprive the neck of the bone of its support, and allow it to pass into the cancellous structure, which would naturally open to receive it. A shorten-

ing of the limb would therefore immediately take place, principally through the action of the muscles, which would now act upon the unsupported limb, and draw the lower portion of the bone over the truncated and somewhat pointed end of the neck, the fractured portion of the shaft opening, as I have said before, to receive it; and it might also be occasioned in a measure by any injudicious attempts of the patient to walk upon the limb after the accident. With regard to the frequency of this particular accident, I am of opinion that it happens much more often in males, from the application of a direct force, than is generally supposed, and although my experience is limited, I believe, from what I have had an opportunity of observing, that some of those cases which have been considered as cases of bony union of the neck of the femur in men, have been in reality nothing more than modifications of cases of this description, circumstances and the prejudices against post-mortem inquiries preventing the discovery of the truth. These remarks do not apply to the neck of the bone in women, who, from the difference in the natural figure of the bone, may be considered more liable to fractures of this part than to the particular kind of fracture I have described, which, I believe, rarely happens to females, except from direct violence. I have, however, a case under my care at this time, which I consider of a somewhat similar character, in an elderly lady, who fell down while crossing her drawing-room, and struck her hip upon the floor. A shortening of the limb was the result, which it seemed almost impossible to overcome. But I felt an indistinct movement of the cervix, with eversion and all the general symptoms of fracture of some portion of the bone detached from the shaft, as I pressed upon it strongly with my fingers, without moving the limb. The limb was placed in a straight position. Circumstances connected with her general health, and some degree of concussion of the spine, which simultaneously occurred, were not favourable to the cure at first, but now, nine weeks from the receipt of the accident, she has recovered a tolerably strong voluntary movement of the limb, and I have every reason to believe partial consolidation has occurred; the condition of the spine, however, will, I fear, prevent her rising from her bed again, so as to enable me to judge whether consolidation has so far progressed as to allow her to stand upon the limb, but my impression is, that the union is now almost complete.

With regard to the diagnosis of this accident—with the exception of the sensation of movement of the fractured portion of the trochanter on firm pressure—the signs and appearances differ but little from those observed in what is commonly called fracture of the neck of the bone within the capsule. The shortening and eversion are the same, perhaps there is a little more pain on rotation outwards, because the action of rotating the sound shaft of the bone would tend to separate it from the fractured portion, which could not of course move with it, and thus pain would be produced; it must also be considered that the part is more surrounded by muscles, and nervous filaments abound in the neighbourhood of the fractured ends of the bone, which is not immediately the case in fracture of the cervix. There was apparently, however, not much pain in the case I have described; but he was a

man of dull sensibility, and moreover very courageous, so that I could not, in fact, ascertain the actual amount of pain he suffered, which was, I think, greater than it seemed.

In respect of the treatment, I am disposed to think that the straight position would be the best adapted to ensure consolidation. I found after death, when I attempted to flex the limb, that this movement occasioned the end of the cervix to pass farther down into the cancellous structure of the bone, and it is obvious on reflection that such would be the case mechanically, and it must be understood that the double inclined plane bed, on which I placed the patient, was so arranged as to render his position very little different from the straight one, which I consider to be the best. Eversion of the limb should be of course prevented. Lastly, in considering what was the proximate cause of the patient's death, it was clear that it was not the direct result of the accident, although the shock produced upon the system might go far to hasten it in so old a man, and I believe that death not unfrequently follows these injuries. But the injury did not seem to occasion so great a shock as I should have thought it might, and had it not been for the bronchitis, which I conceive to have been accidental, I believe that consolidation would have taken place, and I should not have had an opportunity, at least at present, of recording its result.

CASE
OF
UNUSUAL SLOWNESS OF PULSE,
WITH REMARKS.*

By T. B. PEACOCK,

Late House Surgeon of the Chester Infirmary, Pathologist
to the Edinburgh Royal Infirmary.

The gentleman, who is the subject of this communication, first came under my notice in June, 1838; he was then 70 years of age, and enjoyed good health, with the exception of labouring under a remarkable slowness of pulse, of which he gave the following account:—He had attained the age of 60 without suffering from any serious indisposition, and had led a most active life, having been thirty-eight years in the army, and during a considerable portion of this time a non-commissioned officer in one of the regiments of guards, in which he performed the campaigns of the Peninsula, and was present at Waterloo. Since leaving the army, he had spent much of his time in the quieter kinds of field sports. About six years before the date of my seeing him, he was seized with an attack which was regarded as apopleptic by his medical attendant, for which he was bled with advantage; after this, his pulse was usually quicker than it had been when in health, and occasionally interrupted; he suffered from palpitation and uneasiness in the region of the heart, and a sensation which he described as a feeling of something rushing to the top of the head. About two years after the first appearance of these symptoms, he suddenly became faint while engaged in making some slight exertion, and fell down in a state of insensibility; on recovering

his recollection, the feeling of faintness and languor was still felt, and continued some time, and he found his pulse beating only 25 to 30 times in the minute, a rate which, with little variation, it had retained for the last four years. I counted his pulse, and it beat steadily, and with perfect regularity, 28 times in the minute. This, he informed me, he regarded as the healthy standard. Occasionally, under the operation of depressing causes, as over fatigue by muscular exertion, it fell below that point, beating only 20 times, and on one occasion only 18 times in the minute; under these circumstances, the languor and feeling of rushing to the head and faintness came on; on the other hand, excitement of any kind, unusual bodily exertion, taking one or two glasses of wine, or, more frequently, mental excitement, gave rise to increased frequency of pulse, when it would beat 32 or 34, and this was uniformly attended with feeling of oppression and feverishness.

For three years after the change in the rate of his pulse, he was liable to occasional attacks of syncope; for the last twelve months he had, however, been free from them, and during the whole time had been in a pretty good state of health, and capable of taking an ordinary amount of exercise. His general appearance was that of a person of greater strength and activity than most at the same period of life, and though upwards of six feet in height, so far from being in any degree bent by age, his gait was remarkably erect.

My first impression, on feeling his pulse at the wrist, was, that the case would prove to be one of those described by Laennec, in which the alternate cardiac pulsations are so weak as not to be propagated to the distant arteries. On the hand being, however, applied over the region of the heart, its pulsations were found to correspond with those in the radial artery; the sounds of the heart did not present anything unusual, and were heard most distinctly between the sixth and seventh ribs; the first was short, and terminated rather abruptly by the second; the action of the heart was perfectly regular, and its impulse rather powerful, the pulse at the wrist being also not deficient in strength; percussion did not indicate any increased size of the organ, and was good over the rest of the thorax except on the right side, where the liver was found to advance considerably into the cavity of the chest. The respiration was natural as to frequency, and was performed with ease, except when he was engaged in unusual bodily exertion; no indications of any cerebral disease were present. In consequence of absence from home I did not again see him till 1840; during the interval, he informed me, he had but once suffered from an attack of faintness, after which he was left languid and oppressed, and incapable of much exertion for some time; with this exception, his health had been good, and he had been able to follow his usual occupations. His pulse I now found somewhat slower than before, beating only 26 times in the minute. On examination of the chest, the sounds of the heart were still natural, or nearly so, giving evidence of some degree of hypertrophy, with more or less dilatation of the left side, but with no valvular disease. On occasion of our first interview I had recommended the adoption of a moderately

* Read before the Royal Medical Society.