94; the arm warm; feels languid; skin moist; urine high-coloured, and depositing lateritious sediment; the arm and hand rather swollen. Used the antiphlogistic treatment.

10. Better in all respects; the swelling subsiding; the numbness less; pulse in the radial and ulnar arteries stronger, but less frequent.

11. Pulse 74; skin moist; limb warm; removed the dressing; wound looking healthy, and discharging good healthy pus.

12. Pulse 74; feels languid; bowels constipated; urine of a good colour; tongue clean; no fever. An aperient mixture was given, which produced great relief.

13. Pulse 70; patient feels very weak. To have beef-tea and decoction of bark, with aromatic confection.

14. Much better. Bark continued.

15. Pulse 70; wound healing fast; the discharge is a good healthy pus; appetite improved. Allowed chicken, wine, and porter.

16. Much better; the upper ligature came away this morning.

18. Pulse 74; wound nearly healed: the second ligature has come away; the state of the arm, which from its position was very crooked and stiff, is much improved, and he can flex the joint with greater ease.

25. The wound is quite healed; the arm nearly of its usual size; no numbness in the arm or hand; the fingers rather stiff, but can flex them much better.

In six months after the operation the patient could use a dung-prong, and his arm and hand are now nearly as straight and strong as ever.

EXTRAVASATION OF URINE.

SLOUGHING OF PENIS AND SCROTUM.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—Should you deem the following case of sufficient interest to occupy a page of your valuable Journal, I would beg the favour of its insertion. It appears to me valuable, as showing the restorative powers of nature under apparently hopeless circumstances.

I am, gentlemen,

Your obedient servant,

J. MAJOR BROWN, M.R.C.S.

Kineton, Warwickshire,

Nov. 10, 1841.

R. R—, æt. 56, a man of robust form, but formerly intemperate habits, and who had suffered for many years from difficulty in passing water, came under my care on the evening of August 25th, 1841. He had passed no water for three days, when he was brought a distance of five miles to Kineton, in a common cart. When visited, his sufferings from retention of urine were very great; bladder enormously distended; penis very much swelled, in a state of erection, and infiltrated with fluid; scrotum also very much swelled, and evidently distended with fluid, the whole parts in a high state of inflammation. All

attempts at passing a catheter failed, the instrument at once and without effort passing into the scrotum, distended with fluid, and presenting at the skin. The case was a clear one; the urethra had given way, causing effusion at this part. A free incision was made into the scrotum, where the catheter was felt, and about three ounces of offensive urine evacuated; a sedative lotion was applied, and a full anodyne given.

August 26.—In the morning the patient was much the same; pulse 130; tongue brown and dry; the factor in the room almost intolerable; bladder as much distended as before; penis and scrotum enormously swelled, dark coloured; the urgency to relieve the bladder very great; no more urine had escaped through the wound in the scrotum. In this state of things all attempts at catheterism being still unsuccessful, and the case extremely urgent, I punctured the bladder with a trocar above the pubes, and let out two pints and a half of high-coloured offensive urine, and made free incisions again in the penis and scrotum, which bled profusely, and gave great relief. In the evening he was much easier, the urine coming away freely through the canula left in the wound above the pubes.

27. Much the same; belly tender, chiefly on the left side, where an abscess seemed to be forming; tongue dry and brown; penis and scrotum swelled and livid-coloured; wounds on the penis disposed to slough. Ordered a yeast poultice to the parts, and a purge.

29. Rather better; factor less; the abscess in the left iliac region had broken and discharged; urine passed freely through the wound. Ordered to take nourishment freely, porter, and a mixture of Sp. ammon. c. Tinct. hyosiam. et Camphor. The yeast poultice continued as the parts were improving; pain in the belly much less. He continued in the same state as regards the bladder, but daily improving in health; and as there did not appear any probability but that sloughing of the penis and scrotum must take place, no further attempts at catheterism were made until the 4th of September, when the disposition to slough had ceased, and the swelling was much subdued. All attempts were however unsuccessful; notwithstanding the greatest caution, the catheter slipped again into the scrotum, or (upon giving it another direction to avoid this false passage) when, from the apparent direction and distance it had passed, we concluded it must have gone into the bladder, it was felt beneath the integuments on the left side of the abdomen, above the pubis, in the situation of the abscess previously mentioned. The patient continued to improve rapidly; the urine came through the wound in the scrotum, which, when the swelling had subsided, was found to be immediately beneath the scrotum, in the perineum. He was directed to sit up, to favour the passage of urine through that orifice, and to try to retain his water.

On the 10th September, the wound in the abdomen had healed; he could retain his water for three or four hours, and pass it at will through the orifice in the perineum; to show me which, at my desire that he should try to pass water, he did so, and passed two or three ounces in a stream. He was quite recovered in health, no incontinence of water, no sloughing had taken place, and the man was contented with his state.

In about three weeks I found, to my great surprise, that he could pass his urine through the natural course of the urethra, the false passage being healed; and he continues well, passing his urine in the ordinary way.

ON THE BEST METHOD OF EXAMINING THE AUDITORY APPARATUS.

By P. MENIERE,

PHYSICIAN TO THE ROYAL DEAF AND DUMB INSTITUTION, PARIS.

No. II.

(Continued from vol. ii. p. 450.)

EUSTACHIAN TUBE.

FROM the deep and well-protected situation of the middle ear, it would appear to be free from the influences of those causes which act injuriously on the auditory apparatus; yet from the delicate nature of the organs which are contained in it, the circumstance of its being lined with mucous membrane, and its free communication with the external air, this portion of the apparatus is subject to various lesions. Observation teaches us that a majority of diseases of the ear depend on organic affections of this mucous membrane, of the bones of the ear, or of the membranous and bony tissues which compose the mastoid cells. Now, to attain any accurate knowledge of these different disorders, we must evidently have recourse to such a method of examination as shall permit us to ascertain exactly the state of parts in the interior of the ear.

The cavity of the tympanum communicates, in an indirect manner, with the external air, at the summit of the pharynx, behind the nasal fossæ; hence any disease of these latter parts must necessarily influence the function of hearing, and we should always be careful to examine minutely the isthmus faucium, upper part of the pharynx, and nasal fossæ, in order to ascertain the state of the mucous membrane which lines them; in fact the mucous membrane of the pharynx bears the same relation to several diseases of the ear that the conjunctiva does to those of the eye.

The cavity of the tympanum always contains a certain quantity of air and mucus, which are constantly conveyed, during a state of health, through the Eustachian tube, or the lining mucous membrane; any obstacle to the passage of air, or an over-secretion of mucus, will modify the natural condition of the auditory apparatus, and disturb its functions.

But how are we to discover the changes here alluded to? how determine that the Eustachian tube is obstructed or obliterated? How can we ascertain whether the cavity of the tympanum contains too much mucus or not? It is impossible to discover the nature of any disease of the ear (except those connected with the external meatus) unless we examine the Eustachian tubes and cavity of the tympanum. This, then, is a most important point of practice, and I shall therefore discuss, successively, the various means which are employed for the purpose.

Everybody must, at one time or another, have felt the air penetrating through the Eustachian tube into the cavity of the tympanum; in a healthy

state this is scarcely perceived; the acts of deglutition, spitting, blowing the nose, &c., must force the air into the tube, and produce a constant change of air in the cavity of the tympanum. But occasionally the air is shut up in the cavity, becomes rarefied or altered, and the hearing is more or less impaired. When this occurs, we must employ certain means for restoring the free circulation of air. Observation of what passes in our own persons will point out the proper treatment. For example, a slight degree of deafness arises during the existence of coryza; the patient makes a strong effort of expiration, (the mouth and nose being closed,) and the dulness of hearing immediately disappears. I would particularly insist on this fact, because it appears to me that we do not turn it to the advantage of which it is susceptible.

Two circumstances chiefly influence the passage of air through the Eustachian tube; these are the motions of the lower jaw while being depressed, and the contractions of the pharynx. Whenever we feel the air pass through the tube into the cavity of the tympanum, it is in consequence of sneezing, yawning, blowing the nose, &c.; and by a voluntary performance of these acts we can always, with a little attention and practice, succeed in renewing the air in the cavity. Many people are unable to do even this; but it is easy to teach them; and I consider it to be the first, perhaps the most important, method of exploring the middle ear.

Whenever a patient is affected with deafness from lesion of the tympanic cavity, we should inquire into the effects produced on the ear by blowing the nose, yawning, sneezing, &c. These have generally a certain influence on deafness arising from a catarrhal affection of the tube or cavity, and the patient will inform us that he felt something particular in the ear while he was blowing the nose, &c. We can easily make him repeat the acts just mentioned, in our presence; and I have often succeeded in producing an instantaneous amelioration of the hearing, by directing the patient to expire strongly while the mouth and nose were closed. Long experience, besides, has confirmed the utility of sternutatory remedies in diseases of the ear, and we can readily understand their mode of action.

The power of introducing air into the cavity of the tympanum is greatly increased by practice, and many people are able to remove a temporary infirmity by this means alone; it will not always, however, suffice to close the mouth and nostrils; the patient should then attempt to swallow at the same time, or incline the head backwards or forwards. In many cases, I have been compelled to place the point of the index finger on the orifice of the external meatus, and communicate motion to that portion of air which is contained in the cavity of the tympanum. In some patients the mucous membrane of the nares is constantly tumefied, and covered with a thick secretion; this condition may be combated by various remedies, and by changing the position of the head we may succeed in removing the secretion from the orifice of the tube, when a strong expiration will drive the air into the cavity of the tympanum.

Although the mode of examination now pointed out is often attended with considerable advantage, there are cases in which we find it necessary to explore the tube with instruments, but I seldom