Schultze on recovery from Tabes. (Archiv f. Psych. xii. p. 232).—Erb in his article on Tabes dorsalis (Ziemsen's Encycl. vol. xiii. p. 598, American edition) writes:—"But even where the disease is fully developed, we may, although very rarely, see recovery take place, or an improvement bordering on recovery. I am in possession of two cases which demonstrate this. In the one, there were lancinating pains, unsteadiness, weariness, and distinct ataxy of the legs, paresthesiae in the domain of the ulnar nerve, and vesical weakness. After the malady had lasted for several years, the patient recovered completely with the exception of slight vesical weakness; and for the past few years he has attended to his duties as a civil functionary without suffering any inconvenience."

This same patient came under Dr. Schultze's observation in June 1880, and the only symptoms of spinal disease that he presented were absence of the patellar reflex and a degree of paralysis of the bladder, with vesical catarrh. The gait was normal, and there were no disorders of sensibility. The patient died suddenly of corrosive poisoning, twelve years after the appearance of the initial symptoms, and eight years after the disappearance of the more prominent symptoms of tabes. Post mortem, there was found diffuse degeneration of the posterior columns in the lumbar region; degeneration of the outermost parts of Burdach's columns in the dorsal region (least marked in the lowest fourth of the dorsal portion of the cord); partial degeneration of Burdach's columns, especially of their outer portions, and slight affection of the columns of Goll in the cervical region.

This case shows that though most of the symptoms of tabes may disappear, the pathological appearances characteristic of the disease may still be present. It also lends support to the view that, even in the early stages of tabes, important organic changes are to be found, and proportionally discredits the theory of a purely symptomatic stage of the disease prior to the stage of organic change.

From a clinical standpoint there is no doubt that this case may
very fairly be looked upon as a case of tabes with almost complete recovery. And it may be argued that from an anatomical standpoint the absence of granule-cells, which generally appear in the earlier stages of atrophic processes, justifies the same conclusion; in other words, that we have to deal with simply the remains of an old degeneration, and not with an actually progressing degeneration. It must be remembered, however, that the absence of granule-cells is not a very reliable test in this matter, for, if the atrophy of nerve fibres develops slowly, granule-cells may not be found.

Schultze calls attention to several interesting features in this case: (1) Though there was lesion of the outer parts of the columns of Burdach in almost every part of the cord, there was not persistent ataxia. Schultze does not regard it as proved that degeneration of Burdach's columns causes ataxia, and he thinks that the results of this case, and also the fact that where there is extensive degeneration of the posterior columns the ataxia may spontaneously disappear, show that other inhibitory or reinforcing influences are operative in the production of ataxia besides the lesion which forms the spinal substratum. (2) The case teaches us that a moderate degree of degeneration in the posterior columns of the lumbar enlargement need not cause permanent anaesthesia or paresthesiae. (3) There was general atrophy of the cord, with diminution in the number of the nerve fibres. This atrophy, which is not usual in cases of tabes, was observed chiefly in the dorsal and lumbar parts of the cord, and was not confined to the posterior columns, but was also found in the lateral columns, and in the anterior cornua of the lumbar enlargement.

Wolff on a case of Tabes.—Wolff (Archiv f. Psych. Bd. xii. p. 44) reports a case of tabes with unusual clinical and pathological complications. The patient was a woman, aged 57. Her illness commenced with smarting pains in the lower extremities, and in a few weeks tremors of the upper extremities were observed when voluntary movements were made. Subsequently, ataxia of the lower limbs, paresthesiae, loss of the patellar reflex, occasional tension of the muscles of the limbs, incontinence of the urine and faeces, and decubitus, developed, and the patient died after an illness of 14 years. The occurrence of tremors of the upper extremities, along with the symptoms of tabes, rendered the diagnosis difficult. The case might have been a disseminated cerebro-spinal sclerosis in which the posterior columns were specially affected, or a multiple sclerosis with fascicular degeneration of the posterior columns,
or a sclerosis en plaques of the cord alone, with special complica-
tion of the posterior columns, or with fascicular degeneration of
these columns.

At the necropsy there was found fascicular degeneration of the
posterior columns, and in addition two foci of degeneration. The
larger focus was immediately below the cervical enlargement, and
implicated the anterior columns and portions of the lateral columns
and anterior cornua. The smaller focus was at the level of the third
cervical nerve, and affected the lateral columns only. There was
thus a combination of tabes dorsalis, with the simplest form of a
disseminated sclerosis of the cord. Whether the disease, in this
case, is to be regarded as primarily interstitial (a primary menin-
gitis) or parenchymatous, Wolff is unable to decide. Many facts
point in favour of the former view; e.g. the universal thickening
of the pia mater of the cord, the marginal degeneration found in
the medulla oblongata and in various parts of the posterior columns,
and the thickening of the ependyma in the upper part of the
medulla oblongata, where no degeneration was visible. On the
other hand, there was no local indication of a spinal meningitis,
such as pain along the vertebral column, rigidity, &c. Wolff
suggests that the disease of the posterior columns may have been
parenchymatous, while that of the two foci was of a meningo-
myelitic nature.

The tremor of the upper extremities Wolff attributes to the patch
of degeneration immediately below the cervical enlargement.

Schulz and Schultze on Acute Ascending Paralysis.—In
Landry's paralysis, or as it is better termed acute ascending
paralysis, the electrical excitability of the paralysed nerves and
muscles is normal. There are cases, though, which present the
general character of acute ascending paralysis but differ from it in
exhibiting a rapid diminution of the electrical excitability. In
this respect they resemble Duchenne's paralysis (poliomyelitis
anterior subacuta); but they are distinguished from it again by
the peculiar upward march of the paralysis, and by the fact that
disturbances of respiration and bulbar symptoms are regularly
present.

An example of this intermediate type is recorded by Schulz and
Schultze (see Archiv f. Psych. Bd. xii. p. 457) as occurring in a
man with a syphilitic history. After a lengthened prodromal stage
the disease rapidly developed, and terminated fatally in four
weeks. Diminution of electrical excitability and the reaction of
degeneration were only observed towards the end of the illness. There were also slight paresthesiae and transitory vesical weakness.

The post-mortem showed acute myelitis of the anterior cornua of the lateral columns (especially of the pyramidal tracts), and in some places, and to a less extent, of the anterior columns. The morbid appearances were found through the entire length of the spinal cord, and in the lower part of the medulla oblongata. Though the evidences of disease were most marked in the localities named, the whole cord showed signs of a degree of inflammation.

It will be seen that this case presents a further point of difference from the typical acute ascending paralysis in possessing such marked pathological features, for in the typical Landry's paralysis the pathological appearances are nil. The authors suggest that the acute ascending paralysis may perhaps represent the lightest form of a general spinal and bulbar inflammation, in which the lateral columns and the medulla are specially affected. In some cases the inflammation might be so slight that it would be very difficult of detection even by the best observers; in other cases there would be more decided evidences of inflammation. For example, in Eisenlohr's case of acute ascending paralysis, there were minute hæmorrhagic extravasations and small collections of white blood corpuscles and leucocytes in the medulla, and to a less extent in the cord. The authors mention a case that came under their own observation, in which, shortly before death, the facial nerve became paralysed, and its electrical excitability diminished; and in which the autopsy revealed meningitis and acute myelitis with swelling of the axis-cylinders through the whole length of the spinal chord, particularly in the lateral columns of the cervical and dorsal divisions of the chord. We may mention here another case of the authors' which shows by what gradations we may pass from Landry's to Duchenne's paralysis. Clinically the symptoms were those of Duchenne's paralysis, except that there were symptoms of disordered respiration, and the extent of the paralysis did not declare itself in the first few days. Pathologically there was a very intense poliomyelitis anterior, and a slight affection of the lateral columns, characterised by swelling of the axis-cylinders—the very opposite of the conditions found in the first-mentioned case, where the myelitis of the lateral columns was the prominent lesion, the poliomyelitis the less important lesion.

The authors observe that it will aid us in the diagnosis of these cases if we recollect what the first-mentioned case proves, that we
may have an acute poliomyelitis with myelitis of the lateral columns without spastic symptoms.

Senator on Bulbar Paralysis.—Hemianesthesia alternans has hitherto been regarded as a symptom pathognomonic of lesions of the pons. Recently, however, Senator has reported a case (see Archiv f. Psych. Bd. xi. p. 713) which shows that this symptom may be present though the lesion is confined to the medulla oblongata.

A man, aged 56, without losing consciousness was seized with an attack of vertigo. He had the greatest difficulty in swallowing, had a tendency to fall to the left side, had a feeling of cold in the left half of his face, and had an affection of speech which gave one the impression that he was suffering from some obstruction in the pharynx or larynx. There were no symptoms of motor paralysis, except that the tongue was protruded a little to the left, and the left eye appeared somewhat smaller than the right. The temperature was normal, but the pulse beat 120 per minute. Five days later he was seen by Senator. He was then complaining of difficulty in swallowing, of hunger, and of want of breath. Sensibility was almost completely lost in the left half of the face, and in the whole right half of the body, as well as in the right arm and leg. Attempts to swallow either liquids or solids caused hawking and choking, and the substance was returned, sometimes through the nostrils. The voice, once powerful and clear, had become a whisper, and there was still the inclination to fall to the left. The patellar tendon reflex was absent on both sides.

For a week there was little change in his condition. Examination with the laryngoscope showed partial paralysis of the vocal cords. The electro-cutaneous sensibility was either lost or very much diminished in the left face and in the right half of the body. The patient died of putrid bronchitis and broncho-pneumonia, after an illness of fourteen days in all.

The post-mortem revealed a small focus of softening in the outer portion of the left half of the medulla oblongata, and thrombosis of the left vertebral and posterior inferior cerebellar arteries. The greatest length of the focus was about 1 cm.; superiorly, it did not extend so far as the pons; inferiorly, it did not reach the level of the plane drawn through the calamus scriptorius. The greatest breadth of the focus was attained a little below the middle of the olivary body; here the restiform body and the contiguous portions of Burdach's column and of the lateral column, the ascending root of the fifth nerve, the motor nucleus of the vagus and a portion of
the fibre of the vagus, were all implicated. The olivary body, the root of the hypoglossus, and the nuclei of the hypoglossus and vagus were quite intact.

Senator remarks that the difficulty in swallowing, the snuffling speech (due to paralysis of the pharyngeal muscles), the altered voice, the rapid pulse, the hunger and the feeling of want of breath were all symptoms indicative in this case of lesion of the vagus nerve. The absence of vaso-motor disturbances (with the exception of a slight and transient lividity of the right arm), of polyuria and glycosuria, is worthy of note; as also the fact that there was no marked defect in the knowledge of the position and lie of the right extremities, notwithstanding the loss of ordinary sensibility in them.

Bernhardt on Athetosis. — The author (Archiv f. Psych. Bd. xii. p. 495) reports a case in which there were successively hemiplegia, hemichorea and athetosis. The observation is of special interest, in the first place as showing that hemichorea and other abnormal involuntary movements may develop as post-hemiplegic conditions, and in the second place as confirming Bernhardt's theory, that athetosis is merely a modified chorea.

The patient was a woman, aged 20. The nature of her first illness is unknown, but it commenced with swelling of the feet, and an affection of the speech which grew gradually worse; and in the course of a few weeks there was complete right hemiplegia and aphasia. Seven months after the commencement of her illness she was seen by Dr. Bernhardt, who observed that the right leg was dragged in walking; that the right hand and arm and upper arm were in continual, restless, rapid motion (chorea post-hemiplegica); that there was right hemianopsia; and that there was aphasia, the patient being unable to name objects or to select those named, or to repeat the names after any one.

Iodide of potassium was administered in large doses, and within five weeks a marked amelioration took place. The aphasia had greatly improved, and instead of the choreic movements of the whole arm there were only continual, slow, grasping movements of the fingers. In other words, the hemichorea had subsided into athetosis.

Three years afterwards, Bernhardt saw and examined the patient, and found her condition substantially the same. There was still athetosis and right hemianopsia. The patient continued to drag the right leg a little, and the symptoms of aphasia had not altogether disappeared.
Binswanger on Secondary Degenerations after Lesions of the Cortical Motor Centres.—Binswanger (Archiv f. Psych. Bd. xi. p. 727) reports the following cases to show that lesions of the motor portion of the cortex cerebri or of the adjacent portions of the medulla do not always cause secondary degenerations of the pyramidal strands. In each of the cases the basal ganglia and the internal capsule were found intact, and there was no trace of secondary degeneration of the pyramidal tracts either in the spinal cord or the brain.

(1) A man, aged 48, was seized in March, 1880, with an attack of convulsions. He had another attack in a month, and subsequently the convulsions returned about every ten days. They began in the right hand. In September he had three fits in one day. After this he had no more fits, but a weakness, first of the right arm, then of the face and leg, became noticeable, and gradually increased in degree, until, in November, there was complete right hemiplegia and aphasia. The sensibility of the paralysed limbs was carefully examined, and found intact. The man died on November 25. The post-mortem showed a small focus of softening at the place of junction of the second frontal convolution with the ascending frontal, and the adjacent part of the upper third of the ascending frontal convolution was soft and pulpy and of greyish-yellow colour. Underneath this softened cortex was a cavity, as large as a walnut, full of clear brown fluid, which was separated from the outer capsule and the roof of the lateral ventricle by a narrow strip of healthy medulla.

(2) A woman, aged 56, who had suffered for some months from headache and vertigo, and had had a slight and transient paralytic attack on the left side, was shortly afterwards seized with a second attack, and died in a few weeks. In this second attack there was complete paralysis of the left face and arm, and partial paralysis of the left leg. Post-mortem: the posterior parts of the superior and middle frontal convolutions, and the upper third of the ascending frontal convolution were found occupied by a tumour about the size of a hen's egg; and the cortex here was of abnormally dense consistence. In the medulla, outside the corpus striatum, and somewhat more anteriorly than the first tumour, was a second larger tumour, which was bounded superficially and deeply by a layer of softened brain substance.

(3) A woman, aged 50, who was operated on in April for carcinoma of the breast, soon afterwards had an attack of convulsions which affected the right arm and face, and was followed by
paralysis of the right arm and face and by some aphasic symptoms. The hemiplegia became completed before death. The patient died on June 25, and at the autopsy a tumour, almost as large as a hen’s egg, was found imbedded in the middle of the fissure of Rolando. The surrounding brain-substance was softened and discoloured.

Binswanger does not attempt to explain how it is that in some cases of lesion of the motor region there is, and in other cases is not, secondary degeneration of the pyramidal tracts.

W. J. Dodds, D.Sc.

Rumpf on the Treatment of Locomotor Ataxia with the Electric Brush. (Neurolog. Centralblatt, 1882, Nos. 1 and 2.)—The results obtained by the author are so striking that we should have felt incredulous had not they been related with full details by so competent an authority as Dr. Rumpf.

The first case was that of a man who, ten years before, had been attacked with the characteristic shooting pains. The usual symptoms manifested themselves in the course of time: extreme ataxia, anaesthesia and analgesia, abolition of reflexes, sense of fatigue, bladder disturbance, sleeplessness, &c. The electric brush was used along the back and legs, and very soon this brought about a considerable amelioration of the subjective symptoms, and the treatment persevered in for two months, when the patient declared himself prepared to resume his work. One year after this, Dr. Rumpf had the opportunity of showing him to the members of the Medical Society of Düsseldorf. The only symptom then present was the absence of the knee-jerk.

Dr. Rumpf stated that he had tried the brush in a series of cases successfully, though the results require time before they can be pronounced permanent. He described one, however, in which the patient had been in good condition for two years after a six weeks’ course of treatment. He had had lightning pains, paraesthesiae and ataxia, impotence and disturbed micturition. The knee-jerk was not abolished. All the symptoms disappeared except the sexual weakness.

Eulenburg on the Latency of the so-called “Tendon Reflex.” (Zeitschrift für Klinische Medicin, i. 1882.)—The author has measured the latency of the knee-jerk on more than 100 healthy individuals, and finds it to vary between 0.0016 and 0.032 of a second. These numbers are much smaller than those hitherto given. He calculates that the time necessary for a reflex