The following case (also quoted by Gubler) occurred in 1854 in Trousseau's service at the Hôtel Dieu of Paris. I give only a summary of the leading facts. The patient, a vaccinated subject, was attacked with confluent small-pox. During desquamation, she was seized with sudden and complete paralysis, and with less sensation in the lower extremities. The eruption, which was abundant, appeared on December 25th, and ran a normal course. On January 6th, she was convalescent, taking food, and able to leave her bed for two hours. On January 8th, she had loss of sensation and motion of the lower extremities and abdominal muscles, extending on both sides up to the breasts. The left superior extremity was likewise paralysed from the finger to the middle of the humerus. There was retention of urine. The respiration was very laborious and very rapid. On January 16th, there was orthopnea, exceedingly quick breathing, and acute pain when pressure was made over the dorsal region of the vertebral column. There were likewise lancinating spontaneous pains in the cervical region. There was almost complete motor paralysis and absolute insensibility of the left arm. The anaesthesia of the trunk was mostly on the left side, where it existed as high up as the nipple. There was a total loss of voluntary motor power in both lower extremities, retention of urine, and incontinence of the faeces. On January 18th, the patient died. On that day, there was an apparent amelioration in the state of the patient; but afterwards, a fatal suffocative attack supervened. At the necropsy, it seemed doubtful whether there was any cerebral congestion; and not the slightest alteration could be detected in the membranes or substance of the brain.

Most probably, had this patient died at a later stage of the paralysis, lesions of the nervous centres would have existed. The duration of the paralysis has to be taken into account when we come to estimate the pathological significance of lesions of the nervous centres in cases of paralysis following diphtheria, small-pox, fevers, and other acute diseases.

The following case bears a remarkable similarity to cases of paralysis following diphtheria and terminating in recovery. It occurred in 1859 in the Hôpital Lariboisière of Paris, under the care of Dr. Pidoux, by whom it was communicated to Gubler, who published it in the memoir (p. 548) from which I have extracted the preceding case.

The patient was an unmarried healthy man, twenty-five years of age, who had been vaccinated. During the period of desiccation, he became affected with snivelling, and the drinks he took were returned by the nose. The veil of the palate floated like a flabby inert mass. The patient, it must be remarked, had not had any notable sore-throat in the course of the small-pox or during the period of invasion. The affection of the palate was soon succeeded by acute pains accompanied by cramps in the left triceps femoris, and in a few days the right quadriceps femoris was similarly affected. These pains were succeeded by almost total paraplegia. Walking was impossible. For fifteen days the paralysis did not extend; but, at that date, both arms became simultaneously enfeebled. He was unable to lift a small weight, and could not squeeze an object placed in his hand. His strength was prostrate, and he was in a state of low spirits. The external treatment consisted in stimulating frictions and sulphur baths. The internal remedies employed were cinchona and coffee. There was a gradual return of power to the veil of the palate, then to the lower extremities, and lastly to the upper extremities. Recovery occupied rather more than two months. Ultimately the patient left the hospital strong and well. This case has many points of resemblance with the case of S. M., treated by me in the Hertford British Hospital.*

A case of small-pox has been published by Westphal in the *Berliner Klinische Wochenschrift* for 1872 (No. 47), in which there was paralysis. On dissection, there was found a state which the writer terms *disseminated myelitis*. A man, aged 32, was, after some preliminary symptoms, seized with small-pox on January 24th. The eruption was non-confluent and moderately abundant. On February 4th, there was incontinence of urine; next morning, on awaking, the patient found that he had numbness and complete motor paralysis of the left leg; on the following morning, the right leg was also paralysed; there was an inability to retain the faeces, and a death-stricken sensation in the abdomen. On February 10th, the patient was placed under the care of Dr. Levinstein, who found paralysis of the bladder, complete paralysis of both legs, and a great diminution in the sensibility. The muscles responded well to the influence of induction currents. Subsequently, the patient had cystitis and sloughing over the sacrum. He died on March 5th. At the autopsy, the membranes of the spinal cord were found free from lesion. The grey matter of the spinal cord was congested, and some sections of it in the lumbar

region presented, on the right and the left, dark spots of various shades. The right side of the spinal cord was of a decided grey colour and the left side had a dull reddish-brown appearance. A little higher up, some sections presented on both sides the same dingy reddish-brown. In the cervical region, the appearance of the spinal marrow was normal. There was no recognisable alteration in the white substance or in the roots of the nerves. The cerebral pia mater was in a slight degree oedematous. Nothing particular was observed in the brain. In the sciatic nerves, between the filaments, there was a very small amount of sanguineous infiltration. After placing the spinal cord in a solution of bichromate of potash, the morbidly affected parts were still recognisable by their modified colour. The changes observed in these parts were quite irregular. Sometimes the white and grey substances were affected at the same place; and sometimes one or other had alone undergone any change. Softened spots of the size of a pin's head were visible in about a centimetre of the grey substance of the superior thoracic region. At every point where there was a change of colour, either in the white or grey substance, there was a very large accumulation of fatty granulations. The ganglionic cells of the grey substance were intact, so far as could be ascertained. Westphal gives the name of *disseminated myelitis* to the lesions of the spinal marrow now described, and to this myelitis he attributes the paralysis.

Cases are recorded in which very similar lesions have been found on dissection in cases of diphtheritic paralysis. Oertel, in his work on *Diphtheria*, mentions a case, characterised by paralysis of both arms and both legs, in which the morbid appearances in the spinal cord appear to have been similar to those seen in the case described by Westphal, with this addition, that it was the site of numerous sanguineous exudations.

Dr. C. Morelli, in his essay on *Diphtheritic Paralysis*, as observed in Florence from 1861 to 1864, gives some most important dissections in cases of diphtheria in which analogous lesions were found in the spinal cord and nerves. They merit analysis and examination. Here I can only refer to them, and cite a remark of the author "The anatomico-histological changes found after death are inadequate to explain the various forms of diphtheritic paresis and paralysis, and leave it an open question whether the pathogenesis of the affection be not entirely due to the morbid cause of the diphtheria, and whether the paralysis does not proceed from the peripheries to the nervous centres. I do not agree with the author in thinking that there is any specific morbid cause of paralysis in diphtheria, but believe he is right in saying that the paralysis extends upwards.

A sufficient number of more or less typical cases have now been described, grouped, and briefly commented upon, to afford a reliable basis on which to found some pathological and therapeutical conclusions. Had space permitted, it would have been better to illustrate more amply some parts of the subject which I have touched upon, and to refer to others which I have not even been able to mention.

THE TRUE AND FALSE CROUP OF FRENCH PATHOLOGISTS.

By J. W. F. SMITH SHAND, M.D., Physician to the Royal Infirmary, Aberdeen.

THE recent discussion on French medical nomenclature has revealed a great amount of confusion and diversity of opinion as to the diseases which are described under the terms true and false croup. I think, however, that Dr. George Johnson has made good his point that "faux croup" is generally received by French authors as being an inflammatory affection, and, in confirmation of this, I will quote various passages from the work of MM. Riilliet and Barthez on *Diseases of Children* (Paris, 2nd edition, 1853).

In the first place, they describe "le croup" as "la diphthérie laryngée"; and, in giving a history of the disease, they refer to the services rendered by Bretonneau, and conclude by saying: "Les opinions du médecin de Tours ont été confirmées par les observations du docteur Guersant qui, en outre à l'exemple de Viehmann et avec M. Bretonneau, a nettement séparé du croup une affection que l'on confondait généralement en France avec la laryngite pseudo-membraneuse. Cette maladie, décrite d'abord par Millar sous le nom d'asthme, par M. Bretonneau sous celui d'angine striduleuse, et à laquelle Guersant a donné le nom de pseudo-croup ou de laryngite striduleuse, fera le sujet des pages suivantes" (vol. i, p. 345). In the following chapter, they take up the consideration of "laryngite spasmodique", and say that for many years this malady in France has been confounded with "le croup". They, therefore, think it necessary to warn the reader at the outset that the disease to which they have given the name of spasmodic

* The history of this case is given at page 487 of the number for October 17th, 1874.

laryngitis is no other than the laryngeal affection described as asthma by Millar and Wichmann; stridulous angina by Bretonneau; false croup and stridulous laryngitis by Guersant. Bretonneau considered it to consist of a catarrhal condition, and Guersant of a slight inflammation of the laryngeal mucous membrane. They, however, define it to be a complex condition in which is developed under the influence of catarrh a congestion or a laryngeal phlegmasia, associated with a spasmodic contraction of the muscles of the larynx.

In the second place, in vol. ii, p. 498, in the class of neuroses, they describe under the head of "convulsion interne (spasme de la glotte)" a disease which, they say, is known under the names of thymic asthma, Kopp's asthma, spasm of the glottis, laryngismus stridulus, etc.; and, when discussing the question of diagnosis, they arrange in a tabular form the distinctive features of "laryngite spasmodique" and "spasme de la glotte".

It is evident, therefore, that, by the terms false croup and stridulous laryngitis is implied an inflammatory condition, which Rilliet and Barthez, however, admit is always slight ("mais toujours légère"), and which, they say, many medical men have confounded, even of late years, with laryngismus stridulus.

THE CASE OF ARTHUR O'CONNOR.

By HARRINGTON TUKE, M.D., F.R.C.P.

THE case of Arthur O'Connor is a striking instance of the mistaken views frequently adopted by lawyers as to the value of medical evidence in cases of insanity, and also is an exceptionally strong example of the way in which an advocate, aiming at success, will do his utmost to discredit a medical witness, even although he feels the force of the facts upon which the expert has founded his opinion.

In April 1872, Arthur was arraigned for treason-felony. He had pleaded guilty before the Grand Jury; it is quite clear that he did so under a misapprehension. After some demur on the part of the Court, this plea was allowed to be withdrawn, and the trial proceeded.

The case rested almost entirely upon medical evidence. This was to the effect, that Arthur O'Connor had long been in ill health; his head had received a severe injury; since that time his disposition had changed. There was a strong hereditary predisposition to insanity: had had a sudden idea to shoot the Queen, but had abandoned that course for one of intimidation. He had intended to attack Her Majesty in St. Paul's Cathedral on the Day of Thanksgiving for the recovery of the Prince of Wales. Turned out of the cathedral at two in the morning, he had returned at eight; the crowd prevented his reaching it again, or getting near the Royal carriage. Persistently tracking the Queen, he at last got near her Majesty's person, climbing the iron railings of Buckingham Palace; he had time to present a pistol at the Queen's head before her attendants could arrest him. Upon him was found a coherent but insane document, purporting to be a pardon for the Fenian prisoners, and an order for O'Connor's own execution. Other insane documents were produced. These the counsel for the prosecution objected to receive.

I had seen the boy, at the request of his father, about three weeks previously, and found him to be clearly of unsound mind, entertaining insane opinions, that rendered him dangerous to others. In this view of the case I was strongly confirmed by Dr. Maudsley, who examined the boy with me, and also by Dr. Sabben, who saw him afterwards.

The paroxysm of insanity that led to his outrage seems to have lasted about six weeks, leaving him in his normal state of hypochondriasis and almost imbecility, with a tendency to recurrent attacks, in which he becomes dangerous. The subsequent history of his case entirely corroborates this diagnosis. While in Australia, this condition of insane hypochondriasis continued; and as to the state of his mind, it may be enough to mention that though at times fairly well, at others he had paroxysms of absolute mania. Among other eccentricities, he wrote letters to Her Majesty, one of which suggested that he should be made Poet Laureate in succession to Tennyson. On the occasion of the last Drawing-room, O'Connor was found in an excited condition, waiting, it is supposed, for Her Majesty, near the very same place at Buckingham Palace in which his former mad assault upon her was committed.

One of the Queen's physicians, and subsequently Dr. Tweedie, saw O'Connor with me before his arrest. The following is his own written account of his symptoms:

"Physical Symptoms. Back like ice; want of ability to swallow food. Sinking in Stomach. In cold weather one moment—deadly cold, the next burning hot—pains in the head—completely stupified by cold weather—Mental—want of rest—thought continually re-

volving upon religion. Visions at night of angels hurling men down precipices to die for ever because they had not given up all they loved and go and sell Bibles to the unconverted. Sense that unless I gave up the drama, witty and convivial Society, novel writing, and the world completely I should be everlastingly damned. In a word, one unceasing mania concerning Jesus Christ—the intellect warring with extreme views yet unable to crush the ever revolving mania. Sense of utter want of constitution and energy in comparison to what I ought to be.

"Naturally I am a poet loving the dramatic writers and poet of nature and at one time of my life, ere I become physically debilitated, quite unsusceptible to the present mania, which leaves me no rest day nor night. Of late my brain agony has terribly increased I awoke the other night raging to commit suicide; the idea occurred as a very delightful one, and just as I was about to spring from my bed to act upon it—it passed off and left me trembling all over and utterly horrified.

"Since then my feelings have risen to absolute madness continually and I know very well it is all physical disease, a dead liver or something of the kind. My home is very wretched, it is in fact a hell to me.

"Naturally I am devoured by energy, running in my walk, and in everything else, but when stupified by dyspepsia scarcely able to drag a foot."

The apparently unanswerable evidence of the insanity of O'Connor at the time of his outrage upon the Queen, was demolished by the Attorney-General in his cross-examination, mildly described in the *Times* as occasionally "caustic". This was done with great, but, it must now be admitted, with misapplied forensic ability; and, without hearing a single witness for the Crown, the jury stopped the case, and found that the prisoner was, and had always been, of sound mind. This, perhaps, also stopped the Attorney-General's speech—fortunately, perhaps, as I was his first subject since he had showered vituperation upon the Tichborne Claimant. The ultimate result of this trial should lead future counsel to pause before they utterly ignore experienced medical testimony, at all events, in the prosecution of cases of treason-felony. They may succeed in gaining a verdict, and for the moment overwhelming the physician with ridicule. But supposing, as time has proved in this case, they are in the wrong, hard labour and stripes, and a short imprisonment as a felon, are not likely to cure insanity; and the course taken by the Attorney-General might have imperilled the safety of the Sovereign. As it is, it has nearly led to her being seriously alarmed by the reappearance of the deranged and wild-looking young man near the royal carriage, in the same place where he had before eluded the watchfulness of her attendants.

Another result of the Attorney-General's "unfortunate" advocacy (I have to thank him for applying to my evidence and so "teaching me that word") has been that three years have been lost; Arthur O'Connor is at last committed to Hanwell Asylum. Under gentle care and treatment in his first attack, he might have recovered. He may do so now; but his chances are materially lessened.

The characteristic judgment and clemency of Her Majesty led to the remission of the hard labour and whipping to which O'Connor had been sentenced, and also to a shortening of the term of his imprisonment. If this had not been so, a curious incident would have illustrated the mistake of the law advisers of the Crown: some of the Fenian sympathisers seriously proposed to Mr. O'Connor that a procession should be formed to meet his son on his release, and to escort him with due honour to his father's home. It should be quite understood that Mr. O'Connor was entirely opposed to this absurd proposal. I have never noticed the caustic examination of the Attorney-General; nor shall I now, except upon one point—the one by which the jury, and indeed a large section of the public, were mainly misled. It is deserving of careful attention, because it constantly arises in criminal trials, and was in this of paramount importance.

The Attorney-General contrived to persuade the jury that, if they acted upon the medical evidence, the prisoner would be confined for life in Broadmoor Asylum as a criminal lunatic; whereas, if they took the legal view of the case, he would escape with a comparatively trivial and salutary punishment. Now, this was trebly "unfortunate". It was purely an *ad captandum* argument, and entirely irrelevant to the question of the truth of the evidence, which ought not to be, and was not, in any way biased by consideration of results. It, moreover, offered a temptation to the jury to do the wrong, that right might come of it. I was unfairly taunted with attempting to injure, while I was professing to assist. Now, stripped of forensic tinsel, the plain truth stands thus: the parents of the boy, who was then only 17 years of age, were convinced of his insanity, alarmed at his evidently dangerous condition, and most anxious to have for him any treatment that might permanently cure him; they were respectable people, who had been in a superior position, and