with the physical signs of this adenopathy under the influence of proper treatment.

7. The compression of the laryngeal nerve by enlarged glands explains the cases of aphonia, generally transitory, but which I have seen to persist more than four years after an attack of whooping-cough in the case of a lady, who exhibited all the signs of an enlargement of the left bronchial glands, and I had made the diagnosis of paralysis of the left vocal cord before it was ascertained by laryngoscopic examination.

I will conclude by relating a case which seems to me strong evidence in favour of the theory of which I undertake to be the champion. A physician presented to me one of his children affected, he said, with whooping-cough recurring for the third time in the space of one year. I immediately suggested a doubt of its being a true whooping-cough. The child was attacked for the first time in a country residence on the Seine; the place was very damp. At the end of four months, the cough had lost nothing of its violence and frequency. The child was sent to the bracing air of St. Germain; and after a few weeks the cough had completely disappeared. One month after his cure, he returned to his country place, and soon he began again to cough and to vomit. Having tried in vain a great many modes of treatment, his father decided on sending him back to St. Germain, where he was cured for the second time as rapidly as the first. After some months spent in this wholesome locality, the young fellow went to Rouen to a house built on piles on the bank of the river. There again, under the influence of damp (which is known to be favourable to glandular affections), the child had again all the symptoms of whooping-cough; and after these symptoms had continued for several months, the father brought back the patient to Paris, that he might be examined by me. I perceived a dull sound in the region corresponding to the bronchial glands; I found at the same time that, at the apex of the chest, the inspiratory murmur was rough, weak, acute, followed by a protracted blowing expiration, particularly near the spine. I sent the boy to a place where he could enjoy dry and pure air; I prescribed applications of tincture of iodine in the upper part of the thorax near the median line. He was ordered to take alternatively Bourboule water and syrup of bark with iodide of potassium; and to have exercise and good food. In a very short time, the child was thoroughly and definitely cured.

It is very probable, not to say more, to the persistence of bronchial adenopathy that must be attributed those relapses of whooping-cough, not less than the whooping-cough lasting an unusual time. If such be the case, those false whooping-coughs must not be contagious. Trusting in the accuracy of my views on this point, I allowed a child of my own family affected with one of those protracted whooping-coughs, lasting over six months, to remain with her newborn sister, for whom the disease would have been very probably fatal had it been contagious. However, I do not pretend to represent my conduct in this case, which was determined by particular circumstances, as a rule to be followed. It must be remembered that, if contagious diseases rarely return in a short space of time, this relapse is not absolutely impossible; it is sometimes observed in eruptive fever, and I could not affirm that in whooping-cough this exception may never occur.

ON SOME POINTS CONNECTED WITH THE DIAGNOSIS AND TREATMENT OF SCABIES.

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OF all the diseases of the skin, scabies is the one most frequently overlooked in *private practice*. Amongst the poor, we always expect to meet with it, but it is otherwise when we have to deal with the upper classes, and much more conclusive evidence of its nature is required than would be readily accepted in the case of a pauper or hospital patient. The medical man not expecting to meet with it, is, so to speak, off his guard; moreover, even if he suspect scabies, he is naturally disinclined to tell a lady, for example, that she has the "itch", and consequently he too frequently gives her, if I may use the expression, the benefit of the doubt, and treats as simple eczema what really is scabies. The complete absence of any history, or, indeed, any likelihood of contagion, deters him from forming a right diagnosis. The social position of his patient is his stumbling-block. I refer, of course, only to those cases where the diagnostic signs of the disease are not well marked.

In order to avoid mistakes, it is well to know the circumstances under which the disease is generally contracted. Every medical man knows that it is most frequently introduced into families by one of the servants, and in any suspected case he always very properly examines all the servants; but if he fail to find any scabies amongst them, he is

generally unable to account for its appearance. Now, I wish to point out a fact which I have noted for a long time past, and that is, that every autumn I have an unusual accession of patients suffering from scabies, and that these patients have usually been travelling on the Continent. I am now quite satisfied that the disease is not unfrequently caught in this way. I am not able to offer any information in detail as to how it is contracted abroad, but of the fact I am quite sure.

There are certain mistakes often made with regard to the *diagnosis* and *treatment* of scabies, which I find repeated with great regularity, and which I propose to point out. With regard to the diagnosis, errors often occur under the following circumstances. 1. A person, we will suppose, has suffered from time to time from attacks of eczema of the hands or elsewhere, and his medical adviser knows the fact; this person contracts scabies; what can be more natural than that his medical attendant should overlook it? The patient himself believes that he has, perhaps, a more obstinate attack of eczema than usual, but nothing more, and he is at first not surprised that he does not get well under the usual treatment. 2. In children, scabies in an early stage is often masked by a copious eruption of urticaria, and attention is naturally drawn to the more striking features of the eruption, the cause being overlooked; this mistake may be made by anyone, even the most careful, but it is generally soon corrected. 3. It is not very uncommon to meet with well-marked cases of scabies in which the hands and wrists are free from eruption; and, if the medical man be not aware of this, he is apt to be misled by it. I attribute this occasional freedom of the hands from eruption to the present very common use of more or less medicated soaps. In nearly all the instances of the kind that I have met with, I have been able to trace the cause to this source. In the case of hospital patients, the same results have been produced by certain occupations. In all doubtful cases of scabies in males, the *lower part of the abdomen, buttocks, and penis* should be examined; the appearance on the skin of the penis is very characteristic. In women, where a thorough examination is more difficult, we should especially look out for eruption about the *mammæ* and *axillæ*. In young children, the hands sometimes escape for a time, while the feet and buttocks are early attacked. 4. A very common error occurs in the following way. A patient suffering from an eruption consults a medical man, who believes it to be the itch, and orders accordingly the sulphur ointment of the *Pharmacopœia* to be well rubbed in; the patient, wishing to get rid of his trouble as fast as possible, carries out the treatment very vigorously; he is probably much better after the first and second application, but he soon begins to get, as he thinks, worse; the eruption extends and becomes more copious, and the more he applies the ointment the more he suffers; after a time, he returns to the medical man, who finds him covered with an irritable eczematous eruption; and, as he now fails to find anything distinctive of itch, he is apt to think that he has made a mistake. But the fact is that he has probably made no mistake, except that of prescribing a very strong ointment, which his patient has used too freely, and thus, while he has cured the scabies, he has produced a great amount of artificial eczema by the process of cure.

With regard to the *treatment* of scabies, errors sometimes occur. The one which is by far the most common, I have already indicated above, namely, that of using a sulphur ointment too strong, and of continuing its use too long. Of all remedies, not one is so effective as sulphur ointment properly applied. An ointment half the strength of that of the *British Pharmacopœia* is quite strong enough, and the best time to use it is at night, when it should be rubbed all over the body, except the head, but especially on the hands, buttocks, and lower part of the abdomen, and then the underclothing used during the previous day, namely, socks, gloves, drawers, and jersey should be worn during the night; this thoroughly disinfects the clothes, and at the same time keeps the ointment well applied to the skin. In the morning, a warm bath may be taken, and no treatment followed during the day. For three nights the process should be repeated, but never longer; subsequently a little ointment should be well rubbed on the hands, wrists, and buttocks for a few nights. All treatment should then be discontinued for at least a week, when, if necessary, it may be repeated for one or two nights, or a milder ointment might be used. It is sometimes difficult to say whether a case of scabies is cured or not; under these circumstances, it is very convenient to use an ointment which does not irritate or annoy the patient by its disagreeable smell, and which at the same time will complete the cure. A most excellent ointment of this kind is made with balsam of Peru (3j ad 5j). The styrax ointment is also thoroughly effective, but less agreeable.

With regard to sulphur baths, I would say that they are not nearly as effective as sulphur ointments. I lately ordered sulphur baths (as being more agreeable than ointment) for a pupil of my own who was suffering from scabies; he took six or seven, and then came to me much better,

but not cured; I advised more baths, but did not see him again. He had in all about fifteen baths, and then went home to the country thinking himself cured; unfortunately he was not, and he conveyed scabies to his family. This is not the first time that I have found sulphur baths fail. They are, however, useful under certain circumstances; it may, for example, be very inconvenient to apply sulphur ointment at night. Again, in cases where there is much secondary eczema set up with extensive excoriations, the application of sulphur ointment is very irritating. Under these circumstances, it is very useful to begin with a few baths, which generally produce an excellent effect; this may be followed up by the application of ointment to those regions known to be specially affected.

Lastly, with regard to disinfecting outer clothes and bedding, it can be easily done by sulphur fumigation or baking. In all cases of long standing, the clothes and blankets, etc., should be disinfected, but it is never necessary to extend this to the bed itself.

COLOUR-BLINDNESS: ITS EXAMINATION AND PREVALENCE.

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I MUCH regret that I could not be present at the meeting in Cork to hear or take part in the discussion on colour-blindness, which was opened by Mr. Swanzy in a paper "On Examination for Colour-blindness", published in the JOURNAL of October 4th. In this paper, Mr. Swanzy refers to a short communication made by me to the *Lancet* of January 13th, 1877, "On the Prevalence of Colour-blindness", and he says: "Mr. Herbert Page does not specify the method he used in making his investigations; but it is evident from his general remarks, that it is some plan by which the individual is called on to give the correct name to a colour placed before him, and I have shown how completely unreliable any such method must be."

My paper was written after the occurrence of a terrible accident on the Great Northern Railway, which gave rise to a correspondence in the daily press as to the probability of that and many other accidents having been caused by some one individual having been colour-blind. As often happens under such circumstances, some of the writers expressed what I believed to be exaggerated notions of the frequency of colour-blindness. The object of that paper, therefore, was to point out how essential it is in examination for colour-blindness to pay due regard to the wondrous ignorance of the names of colours which prevails amongst uneducated persons, and that there is great risk, indeed, of including examples of simple ignorance of names amongst cases of colour-blindness when they are really not so. On this ground, I saw very grave reasons for doubting the statistics of Professor Wilson; for it seemed to me impossible, and indeed it seems so now, for anyone to run, as he did, through a large number of persons, unable, as he said, "to make other than a rapid examination of each individual", and not avoid making many mistakes.

I entirely agree with Mr. Swanzy, that the method of examination by making an individual give the correct name to a colour placed before him is "completely unreliable" for the discovery of true colour-blindness. Such was the method which, up to the time when I wrote in the *Lancet*, I had very largely—though not exclusively—employed, having supplemented it in doubtful cases by confronting the individual with more than one example or shade of a particular colour. It is my belief that no one of those thus passed by me into the railway service was not perfectly and safely competent to appreciate the colours ordinarily used as signals. Certainly "no one would desire to travel by a railway train, the engine-driver of which was red-green blind"; but I, for one, should have no objection whatever to travel with a colour-blind engine-driver, so long as he knew and could recognise—no matter by what sense—the colours indicative of danger, of caution, or the reverse. Fog may come and snow may fall, and the lights are hidden from the man with normal vision as from the colour-blind. Colour-signals are altogether inadequate on such occasions, and therefore "fog-signals" are adopted which appeal to the sense of sound. It is, indeed, a question whether, in foggy weather, some such signal as the "fog-horn", with which Professor Tyndall made experiments, might not with advantage be employed.

During the last two years, while additional interest has been shown in the investigation of colour-blindness by numerous observers, I have altogether disregarded names, and have required the candidate to group together, in my presence, a small number of coloured cards, in all twenty-two, comprising five shades of blue and violet, seven of red and orange, six of green, and four of yellow and buff. This method, closely allied to that of Holmgren, is adequate, I think, to detect any case of real colour-blindness, and fulfils, it seems to me, the conditions of a good test which Mr. Swanzy has laid down. I have further examined every doubtful case with Stilling's coloured letters and grounds. By this double method I have examined exactly two hundred men, devoting to each doubtful case periods of time varying from ten to forty-five minutes, and sparing no pains to eliminate all cases of mere ignorance of names, and of another class about which I have here more to say. In these two hundred, I have found one case, and one only, of true colour-blindness, and that red-green.

Another and not lesser danger—not absent even from the admirable and popular method of Holmgren—in an examination, is that it may attempt far too much, and that there may be included amongst the colour-blind those who lack nothing more than the sense and power of appreciating colours, never having taken the trouble to observe them. Over and over again, persons with an extensive vocabulary of names, which they shoot at random at particular colours, have been unable to match colours—for this simple reason, as they have said, that they have "never had anything to do with colours", or "have never taken notice of them", or "have never thought of them": regardless or utterly unobservant of the colours on all sides around them, or even of the colour to be found in their own dress. To expect such persons to sort delicate tints of saffron, puce, lavender, or salmon, would be as absurd as to expect an untutored ear to appreciate and distinguish all the subtle varieties of note and tone which combine to make the richest melodies of Beethoven or Wagner. I have known instances where this want of appreciation, amounting to almost total blindness to colours, has been very quickly overcome by a little attention to them. A lad could not name the coloured squares; he could not sort the coloured worsted; but, after four weeks' self-education, he was able to do both perfectly well. Because uneducated and unlearned men cannot sort Holmgren's skeins is, to my mind, the very poorest evidence of their being colour-blind. Not three weeks ago, a man was before me who had a defect of this kind in an extreme degree, made evident by an examination of thirty-five minutes. Had he been left to himself to sort Holmgren's worsted, how great is the chance that he would have been regarded as colour-blind! Investigators seem agreed that colour-blindness is much less frequent amongst women. Why? Because from their youngest days women have "had to do" with colours in the petty adornments of millinery and dress; and it is only from lack of the same opportunities of cultivating it that men's sense of colour is inferior to theirs.

Within the last three years, the London and North-Western Railway Company has instituted an annual examination by district inspectors of all its engine-drivers as to sight and colour-blindness. Doubtful cases are sent for closer examination to the various surgeons of the company. In those so sent to myself, I have found one case of red-green blindness. This I detected by Stilling's tests, before I adopted the double method which has been described. The man had been an engine-driver for very many years. He persisted in his knowledge of the signal-colours; but he was obviously red-green blind. When discharged from his place, he admitted he was perfectly unable to distinguish these two colours.

Not less strongly than those who have expressed their views on the subject, am I convinced of the vital moment of examining railway-servants and sailors for sight and colour-blindness; but I would again lay stress upon the importance of duly recognising the two classes of persons whom I have named, who may easily vitiate any statistics. So numerous are they, and so much time and care are requisite for their discovery, that I look with more than suspicion upon all statistics which have been drawn from the examination of hundreds of persons in a short space of time; and I still hold to the opinion which I expressed, that "true colour-blindness, such as Dalton had, is but very rarely to be found among males in this country".

If we are to arrive at any right estimate of the average of true colour-blindness, our examinations must be made amongst those who neither by lack of education nor by want of observation and cultivation can be included in the classes to which I have specially referred. The meeting of the British Medical Association at Cambridge next year will draw together from all parts of the kingdom about 1,000 or 1,500 members of our profession. Let each one of these be examined with every precaution that science can command or experience suggest, and let us see what proportion of this large body is really colour-blind.