

arguments that was used by the advocates of this test against the old tests of the Board of Trade was that, as the known percentage of colour-blind persons in the community was at least 4 per cent., a test that detected only a little over 1 per cent. must be inefficient. But it will be seen from the above figures that the percentage of those rejected has not been increased since the alteration in the method of testing.

In addition to this inefficiency to detect colour-blind persons there is another strong objection to this test—namely, that normal-sighted persons are extremely likely to be rejected by it. It was never suggested that other than colour-blind persons were rejected by the older tests. Those who criticised the tests always declared that they were not stringent enough. It will therefore be seen that the test is more inefficient than that previously used. Of those who were rejected as colour-blind in 1895 twenty-one appealed and eight were found to have been wrongly rejected. I may also mention that another passed at a date later than that of the issue of the report. Of those rejected in 1896 twelve appealed and five were found to be normal sighted.

It has always seemed to me an anomaly that in testing the colour perception of an individual we should ignore colour names as Holmgren says that we should do. I contend that it is absolutely necessary that the person to be tested should pick out the colours as colours and not as shades. It is not necessary that he should know the names applied to nondescript colours but only the names of the fundamental colours—red, yellow, green, and blue. If we test a person without making him clearly understand that he is to match the wool by its colour and not by any other quality we are very likely to reject normal sighted persons as colour-blind. A man who names a green light as red must either be colour-blind or dangerously ignorant of colours. I have never met with a case of the latter kind and doubt whether it could be met with in the class of men tested. The Board of Trade have used a test for colour ignorance for the last two years and four months, but no failure to pass the test has been reported.

Another strong objection to this test is that the range of vision to the red end of the spectrum may be considerably shortened, so much so that the person may not be able to distinguish red from black and yet be able to pass the test with ease, as it is obvious that this will not prevent him from matching a light green wool with other green wools. I am convinced that a wool test alone, though in my Classification Test I have been able to obviate many of the difficulties, can never be perfectly satisfactory, therefore I would strongly urge that supplemental tests, including a properly constructed lantern, are absolutely necessary for the efficient detection of colour blindness.

I am, Sirs, yours faithfully,

F. W. EDRIDGE-GREEN, M.D. Durh., F.R.C.S. Eng.

Hendon.

THE PROPOSED UNIVERSITY OF WESTMINSTER.

To the Editors of THE LANCET.

SIRS,—Will you permit me to state in your columns that I have withdrawn my name from the committee which is promoting the "Westminster University" scheme?

I am, Sirs, your obedient servant,

H. B. DONKIN, M.D. Oxon.

Harley-street, W., Dec. 14th, 1897.

"A NOTE ON CYCLING."

To the Editors of THE LANCET.

SIRS,—The letters which my "Note on Cycling" elicited are useful contributions to the subject. Mr. Offord asks whether the forward position may not hamper the breathing power. I do not find the vital capacity, as tested by the spirometer, to be less in this than in the upright position. Mr. Offord's suggestion that the seat should be modified so as to afford some support to the back is worth considering by those who hold that the upright position is the proper one. Dr. Clayton Jones wisely points out that there are two kinds of forward position—(1) that in which the back is kept straight, the pelvis being rotated forwards at the hip-joints; and (2) that in which the back is hunched; and he prefers the former, both from the point of view of appearance and efficiency. Mr. Gidley has no objection to this method though he seems on the whole to recommend the

upright position. Like Dr. Clayton Jones he objects, and that strongly, to hunching the back. The great objection to the forward position with rigid, straight spine seems to me to be that it does not rest the back, and to my eye it is ugly. I do not, however, strongly insist upon these points in the face of so great an authority as Mr. Gidley. If one with his large experience lends his support to a particular method of sitting it is difficult to believe that it can be a wrong one. I quite recognise the danger which those who ride with the back hunched run of becoming round-shouldered, but this tendency can quite easily be overcome by suitable exercises. Finally, I would observe that the ability of a man of such great stature as Mr. Gidley to stand a long time without fatigue is no disproof of my contention that tall people are more easily fatigued by standing than short people. It is rather the exception to the rule and testifies to Mr. Gidley's exceptional physique.

I am, Sirs, yours faithfully,

Wimpole-street, Dec. 14th, 1897.

HARRY CAMPBELL.

THE SMOKE NUISANCE.

To the Editors of THE LANCET.

SIRS,—Having noticed an article on the smoke nuisance in Manchester and Salford in THE LANCET of Dec. 4th I write to say that I have had it under observation by the exposure of blue litmus papers in the open air. These have been used like ozone papers placed hanging in a perforated tin can by a clip, so that the air and wind passes freely about them. The tin can is about six inches or so high and four inches broad with a deep flanged lid to which the clip is attached, and it is placed on the window sill of the bedroom and has its base weighted. The scale of 1.5 of discolouration is adopted and the papers have been recorded and re-clipped morning and evening so as to get the daily ranges. The litmus becomes nearly bleached in Manchester now and then or No. 5, but its usual degree was No. 4 and for the night exposure it came to only 2-3, depending on the weather. The decrease at night will be laid to the damping down of engine and factory fires and the cessation of railway traffic at the stations when the inferior coal only is burnt containing more sulphur than domestic coal. The nature of the adulteration of the air of manufacturing cities was investigated by Dr. Angus Smith thirty or forty years ago and papers on the subject are to be seen in the Transactions of the Literary and Philosophical Society of Manchester. More recently Dr. Bailey and Dr. Cohen have been examining the subject and they find that the air contains coal gases and sulphuric and hydrochloric acid vapours besides solid organic and mineral matters which are in due course deposited. It would be very desirable that some reports should be published of cases of illness caused or aggravated by the town smoke as there must be many such occasions amongst suburban dwellers by travelling by underground railways. The opinions hitherto given about its unhealthiness have been of a vague class and calling it a nuisance simply without stating symptoms or organic lesions or mortality if any amongst the citizens. There can be little doubt of the deleterious effect of smoke air upon vegetation as is to be seen in the city parks and gardens in the suburbs.

I am, Sirs, yours faithfully,

W. G. BLACK, F.R.C.S. Edin., L.S.A.,

Surgeon-Major A.M.S. (retired), Member of the Sanitary Institute.
Edinburgh, Dec. 5th, 1897.

THE OPTIMUM REACTION OF CULTURE BOUILLON IN SERUM DIAGNOSIS OF TYPHOID FEVER BY THE DRIED BLOOD METHOD.

To the Editors of THE LANCET.

SIRS,—I wish to prevent readers of THE LANCET being misled by a mistake which escaped correction in some copies of a circular recently issued by the Board of Health of the Province of Quebec.¹ Instead of from 5 to 6 per cent. acid to phenol-phthalein, stated to be the optimum reaction of bouillon used for the typhoid test, it should read from 3 to 4 per cent. I employ myself by preference 3.5 per cent. for peptone meat bouillon. The exact reading of the end-point varies somewhat with the observer and considerably with the temperature of the solution. The proportion of peptone

¹ THE LANCET, Nov. 13th, 1897, p. 1264.