

Vision and work : the results obtained at a recruiting office / by Freeland Fergus.

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*Vision and work—the results obtained at a recruiting
office.*

By FREELAND FERGUS.

THE Workmen's Compensation Act of 1906 was, perhaps, the first incident in our national life to call attention prominently to what may be styled the economics of eyesight. Immediately on the passing of that Act I became very busily engaged in cases of defective eyesight coming up for compensation. For some years I was largely employed as ophthalmic adviser to a number of insurance companies, particularly to the Scottish Mine Owners' Insurance Company, and thus did a great deal of work of this special kind, continuing to do so till I was appointed one of the ophthalmic referees for the county of Lanark. From that moment I determined to give up all insurance appointments, as I felt it to be extremely invidious to be assessing a case in a court on one day and to be giving evidence, perhaps in that same court, or in some other, on a following day. Thus, for a number of years before the war broke out, any work that I did

was entirely as a referee. I should like, however, briefly to mention that I summed up the results of these few years of work in short contributions made to the British Medical Association, one of them at its Toronto meeting, the other at its meeting in Belfast, when I was asked to be the opener of a discussion on the subject. Since the war began I have been able to make numerous observations, the supply of patients coming from two separate sources. In the first place, as ophthalmic surgeon to the 4th Scottish General Hospital I have made the ophthalmic examination of recruits and soldiers undergoing training. In most of these cases a note has been made of the civil occupation of the soldier or recruit before he entered His Majesty's Service. A careful examination has been made of every patient coming before me in the 4th Scottish Hospital. I think I can say with all truthfulness that I personally have given these patients the same overhaul that I would have given to patients in my own rooms.

But another, even more prolific, field of observation was opened to me. There can be no doubt whatever that large numbers of men were passed into the Service in the early days of the recruiting who should never have been there at all. I just mention three whom I saw in the same week in the consulting-room of the 4th Scottish General Hospital. One of them, a man over thirty, had well-marked congenital cataract, visual acuteness much less than $\frac{6}{60}$, and that man had been, as a Highland soldier, in the firing-line. This may seem an extreme case, but it is by no means the worst. On the very same day there came a man entirely blind of one eye—a condition of affairs which had been present for a considerable number of years. The other eye had 20 dioptries of myopia, and in the fundus of this remaining eye there was marked choroidal atrophy. This man also had been passed for general service. The third case was that of a soldier serving as an orderly with the R.A.M.C., who had, according to retinoscopic inspection, not less than 36 dioptries of myopia in each eye with a considerable

staphyloma towards the macula. This patient was also seen by my friend, Major Hugh Walker, who confirmed the diagnosis as regards the extremeness of the error.

As already indicated, in the autumn of 1915 the War Office took steps to have matters improved. I was asked to do the work for one of the Glasgow Boards honorarily, and I continued steadily all through the year 1916 to see these recruits. It was no easy task, for every patient had to be examined precisely as a private patient would have been examined. Every patient was examined with the ophthalmometer, with direct ophthalmoscopic examination and with trial lenses, and I made a suggestion to the Scottish Command that, in future, recruiting officers should invariably write on the medical history sheet a prescription for glasses where the sight was defective. I felt that by so doing valuable time would be saved, for I hoped that a young recruit would enter the Army with his prescription on his medical history sheet, and thus be properly classified as regards his eyesight at once. I saw more than 1600 recruits in that year, and entered the prescription on the medical history sheet of every one of these men when it was necessary to do so. Duplicates were made of 1200 of these examinations and duly filed, and it is that material which I respectfully wish to submit in this communication. It must be said, however, that a very considerable number of them are not available for use, as the notes are too imperfect.

Before entering further on the matter, there are one or two general observations which I would like to make. In the first place, I do not think any mathematical formula can be given connecting visual acuteness with visual efficiency. I am well aware that learned attempts have been made to connote these two things, and I venture to think that if the problem were at all solvable two British ophthalmic surgeons, who have both made valuable contributions, would have arrived at satisfactory results. Sir George Berry, of Edinburgh, and Mr. Percival, of Newcastle-on-Tyne, have each made

valuable contributions. But with all possible respect to the great authority which must always belong to anything said by these gentlemen, I venture to say that from that point of view the problem is insolvable. I believe it was the late Prof. Peter Guthrie Tait who once enunciated the proposition that it is quite impossible to express by mathematical formula anything which depends upon human volition, and I agree with that statement. To my mind the problem, from a strictly mathematical point of view, is insolvable. What a man with defective sight can do depends on his mentality, depends upon his resourcefulness, and is not necessarily a function of his visual acuteness. Let me quote one or two extreme cases. I have seen a perfectly blind man go into a railway station, proceed to the booking-office, take a ticket, then walk along a platform and enter a carriage of the train by which he intended to travel. I have also known a blind man who was an excellent card player, and who also on one occasion during a heavy snowstorm climbed out upon the leads of his own house to shovel off the snow.

Now, on the other hand, I have known blind people who could not leave their own houses unless accompanied by someone with eyesight. Yet so far as visual acuteness is concerned, in all these cases the visual acuteness was *nil*. I venture to think that such instances abundantly show how impossible it is to evaluate working efficiency in terms of visual acuteness. In the Toronto paper already referred to, I mentioned the case of a young lad with retinitis pigmentosa, the visual acuteness being about $\frac{1}{60}$ in each eye, who yet was actively employed at the face of a coal-pit. The visual efficiency of that man would be put down as *nil*, and yet he was earning full wages as a collier. It would, of course, be grossly wrong in any judicial proceedings to say that because such a case occurred that any blind man was fit for work at the bottom of a coalpit. Were I acting as assessor in a case of that sort I certainly would advise the presiding Judge that, in my opinion, the individual was not fit for any

form of work below ground. For these reasons, as already indicated, I beg with every possible respect to suggest that working efficiency cannot be expressed in terms of visual acuteness.

However this may be, better results may be obtained from the actuarial side. I have no intimacy whatever with actuarial science, but it seems to me that some results may be obtained by the collection of sufficiently large statistics. It is with this idea in view that I venture to place some of the statistics which I have obtained before those interested. The number of observations given in this paper is relatively not large, and I would be the last man in the world to found anything upon them; still, I venture to think that they are suggestive. There can be no doubt that many men whose vision, in the opinion of most of us, absolutely unsuits them for military service, have been able in years past to do satisfactory work in civil life. Take but one example. A carter with 15 dioptries of myopia in both eyes for many years earned good wages as a carter. He was called up for duty, and I reported that a man with 15 dioptries of myopia was not a man who should be in the Army. The President of the Medical Board objected to that view, and not unnaturally. He said if a man were able for carting in civil life surely he could do something in the Army. Well, if you select a very special employment in the Army and keep him to that, he may do well enough, but there is always this consideration—that a man who has for years worked at an employment does it almost mechanically and very nearly without eyesight. He does not use his visual acuteness at all, but that function which I call his form-sense, and to which I shall refer immediately. Take him from work with which he has been familiar for many years, and put him in entirely new conditions to do work which he has never done before in a place or places with which he is entirely unfamiliar, he cannot be expected to do it successfully. I could not help thinking that men with extreme errors of that kind might be of considerable value to the

country in civil life, but that they would be practically useless for military careers. I could not but express the opinion that a man engaged in carting with 15 dioptries of myopia, and doing it well, was likely to be of more service to the country than the same man in a labour battalion. That, however, is scarcely for me to say. The ultimate responsibility for the answer which must be given to such a question rests with the military authorities at Headquarters. Their opinion, of course, is final, and it ought to be well informed.

There is another remark that I should like to make, and that is as to the difference between visual acuteness and the form-sense. I think I first pointed out the extreme importance of this differentiation when I was examined before the Royal Commission on Seamen's Eyesight. Unfortunately, in text-books the two are regarded as synonymous, and they are not. Visual acuteness is purely a macular function; the form-sense is a function of the entire field of vision. Most manual work depends upon the form-sense and not upon the visual acuteness. Elsewhere I have already drawn attention to what I call the field of visual acuteness. It is easily illustrated in the following manner: If an individual be asked to look at a word at the centre of a page of print, he will find that he can read the letters exactly at the point of fixation, and those occupying the projection of a very small angular aperture in its immediate neighbourhood. Some years ago I had special letters printed for the examination of the field of visual acuteness and examined a number of students and others, and found that on the average the field of visual acuteness subtended an angle of a very few degrees at the first nodal point of the eye. I do not admit that the function of visual acuteness, in the strict sense of the term, extends beyond the macular region, but in other parts of the field of vision the form-sense comes directly into play.

An easy method of showing the difference between visual acuteness and the form-sense is as follows:

If the observer sits in a room and fixes distinctly a particular word in the middle of a page of printing, he will find that he sees a few letters quite distinctly in the immediate neighbourhood of that word, but none others on that page. He can, however, without taking his eyes off the word which is used for the point of fixation, tell perfectly well the shapes and forms of all the common objects in the room. To the macular fixation, which gives him power of reading, I confine the name visual acuteness. To the other function, which enables him to detect the forms and shapes of all objects in his neighbourhood, I confine the other phrase—form-sense. How long I have done so I cannot say, for I find that in my Toronto paper, already referred to, I have regarded the two as synonymous. They are not, and must be carefully distinguished. As already indicated, I made that point quite clear when I gave evidence before the Royal Commission on Sailors' Eyesight. One source of confusion must be carefully guarded against. With the retina, outside of the macular area, it is possible to recognise by the form-sense the form of a chair or a table or other article in the room. Now, it is equally possible to recognise, say, four broad lines arranged in the form of the letter **E**. That, however, is not visual acuteness in the strict sense of the term. You might scatter objects of that sort all over the periphery of the field of vision and be able to see them all simultaneously. Therein it differs from visual acuteness, because, for a particular page of ordinary letterpress printing, it is only the letters in the macular part of the field that are recognised, and none others.

And here, perhaps, a little digression may be allowed. Since toric lenses have been introduced, a number of spectacle vendors, in certain advertisements in various publications, show that a person provided with a toric lens has equal visual acuteness for all parts of the field of vision. That would be possible only if the whole of each retina were a mass of maculæ, which it is not. It only shows that, although a certain number of spectacle sellers

have made considerable progress in carrying out scientifically the behests of ophthalmic surgeons, yet that there are still some of them who know next to nothing of the function of vision. An advertisement of that kind does not show a scientific fact; it merely shows the ignorance of the advertiser. This is not the proper place to enter into a discussion of toric lenses, but from experiments which I have carried out, I think it can be shown that when the lenses are thin, toric lenses have no advantage whatever over the ordinary spherical or spherocylindrical. For thick lenses, of course, the matter is different, and one of the great services which Mr. Percival, of Newcastle-on-Tyne, has rendered to ophthalmic science is his classic paper on meniscus lenses for the after-treatment of cataract patients. Quite recently I have seen advertisements by different firms, representing an individual provided with one of their special toric lenses, seeing letters equally clearly and simultaneously straight in front and at angular apertures of about forty degrees above and forty degrees below the central line of fixation, which condition could only be realised if the individual fitted were the unfortunate possessor of three maculæ.

Now, as already indicated, for most manual work it is the form-sense that is used and not the visual acuteness, and that is an element which, to my way of thinking, renders it impossible to form a mathematical formula connecting vision with working efficiency. For example, navigation very largely is a matter of the form-sense. It is quite true that visual acuteness sometimes must be used. A man may have to read the soundings on a chart, or he may have to read an indicator or take out figures from logarithmic tables. All these are processes which require visual acuteness, but the work of the look-out is almost entirely done by the form-sense. An officer of the watch, while looking straight in front of him, may become aware, not by that small part of the field of vision which is associated with visual acuteness, but by some other part in which there is form-sense, that there is on the horizon,

say, an island, or a lighthouse, or another ship. No doubt he will likely turn that part of the field of vision which is possessed of visual acuteness on this new object, but he need not necessarily do so, and, in fact, if he is intent on the first object, he may content himself with bestowing what is called the tail of his eye to the second. There is scarcely any form of purely manual labour where visual acuteness is required. It is all but entirely done by the form-sense. A man does not necessarily use his visual acuteness when wheeling a barrow or when using a pick or a hammer, or when employing almost any implement of agriculture. In the Toronto paper already referred to, I mentioned the case of a collier, with 15 dioptries of myopia and visual acuteness of only $\frac{1}{30}$, who had worked for many years, earning full wages, and who had not the remotest idea that there was anything wrong with his sight till he tried to get employment in the service of a railway company. For other cases of a perfectly similar nature I may refer to the same paper, which was published in the *British Medical Journal*, vol. ii, 1906, pp. 1865-1866. Finally, in walking along a street, a man, for the most part, reads the signs and the names of the streets by his visual acuteness, but he almost invariably avoids his fellow-men who are walking on the same thoroughfare by his form-sense and not by his visual acuteness. Those parts of the field of vision which have the form-sense have also the sense of projection.

One other preliminary remark I wish to make. When I began to test recruits I desired to establish a relationship between the amount of myopia present in a particular eye and the visual acuteness. I admit at once, of course, that a man cannot be an efficient soldier without good visual acuteness, and it seemed to me an important matter, in view of cases of possible malingering, to determine what degree of myopia, in an eye otherwise perfectly healthy, would give a visual acuteness of $\frac{6}{60}$ or less. The method I took to solve this question was an easy one. I selected from the wards of the hospital a considerable number of

patients who were not in on account of any defective eyesight, and I took those of them who had in each eye $\frac{6}{6}$ of visual acuteness or better, and whose refraction, as determined by the ophthalmometer and direct examination with the ophthalmoscope, was approximately emmetropic. I placed in front of such eyes convex lenses, and in something like thirty observations I found that a plus 3 in front of such an eye reduced the visual acuteness to $\frac{6}{60}$. There is no doubt, of course, that that does not give the eye exactly 3 dioptries of myopia, but it does it so approximately as to make the figure of some value. I have since discovered that in myopic persons that result is fairly accurate. You will all but invariably find that, given a person with not more than 3 dioptries of myopia and a perfectly healthy fundus free from all choroidal disease, the patient has apparently a visual acuteness of $\frac{6}{60}$. I think probably that it is not, in the strict sense of the term, visual acuteness, but that such a person has the form-sense sufficiently to read the largest of Snellen's scale. Lesser amounts of myopia give, of course, better vision. If a man had 3 dioptries of myopia or under it, and did not have apparent visual acuteness of $\frac{6}{60}$, that would raise in my mind a suspicion that the answers were not being fairly and exactly given. And here I think it right to say that the number of men who deliberately malingered was extremely small. I did not take accurate figures of the amount, but I would be surprised if it amounted, for the examinations which I made, to more than a fraction of 1 per cent. There was all but invariably something tangible to account for the difficulty of vision. It must also be remembered that the 1600 recruits whom I saw were only the men concerning whose vision the Medical Board had difficulty. They were a mere fraction of the number that appeared before the recruiting authorities in the Glasgow area.

OCCUPATION.	Ophthalmometer readings.	Vision without glasses.	Correction and vision obtained.	Remarks.
Marine stoker	R. $2\frac{1}{2}$ W. $3\frac{1}{2}$ W.	R. $\frac{6}{60}$ L. $\frac{6}{36}$	R. S. -10, C. -2.3, A. $15\frac{6}{36}$ L. Cyl. -4, A. $170\frac{6}{12}$	Stoked C.P.R. boats for last eight years.
House painter	1 $\frac{1}{2}$ W.	$\frac{6}{12}$	W. +1, A. $100\frac{6}{9}$	Incipient cataract in left.
Coachman	3 W.	$\frac{6}{14}$	Does not take glass	—
Drawer in colliery	$2\frac{1}{2}$ W.	$\frac{6}{20}$	S. -2.75, C. -2, A. $170\frac{6}{18}$	Correction made under
Spirit salesman	$1\frac{1}{2}$ A. $1\frac{1}{2}$ W.	$\frac{6}{24}$	S. -1, C. -1.5, A. $100\frac{6}{18}$	homatropine.
Storeman in ship-yard	S.A.	$\frac{6}{60}$	S. +4.5, $\frac{6}{9}$	No cylindrical correction taken.
Not noted	$1\frac{1}{2}$ W.	$\frac{6}{36}$	S. -2, C. -1.5, A. $180\frac{6}{18}$	—
Boiler fireman	nil	$\frac{6}{60}$	S. -10, $\frac{6}{12}$	—
Fireclay manufacturer	1 W. $2\frac{1}{2}$ O.	$\frac{6}{24}$	C. -2.5, A. $160\frac{6}{9}$	—
Marine stoker	$1\frac{1}{2}$ W. $2\frac{1}{2}$ A.	$\frac{6}{60}$	C. +2, A. $170\frac{6}{18}$	—
Cook	1 W.	$\frac{6}{60}$	C. -1.5, A. $10\frac{6}{12}$	—
Salesman	S.W.	$\frac{6}{60}$	S. -16, $\frac{6}{36}$	—
Sheet iron worker	nil	$\frac{6}{60}$	S. +1, $\frac{6}{9}$	No cylinder taken in right.
Tailor	nil	$\frac{6}{24}$	S. -1, $\frac{6}{9}$	—
Belt maker	nil	$\frac{6}{60}$	Above -12	This man works with glasses.
Apprentice caulker	—	$\frac{6}{9}$	S. -12, V. not noted	Fundus changes in left eye.
Clerk	S.A.	$\frac{6}{60}$	S. -2, C. -0.5, A. $90\frac{6}{6}$	One-eyed man, caulker.
Sawmill labourer	—	$\frac{6}{60}$	C. +3.5, A. $100\frac{6}{18}$	Tobacco amblyopia. No difficulty for work.
Clerk	$3\frac{1}{2}$ W.	$\frac{6}{24}$	—	Left eye blind; right 12 D. of myopia.
Metal dealer	—	—	C. -A. $80\frac{6}{12}$	—
Gas-worker	nil	$\frac{6}{60}$	S. +7, $\frac{6}{18}$	Left eye nearly blind from squint.
Engineer	—	$\frac{6}{60}$	S. +4, $\frac{6}{18}$	Phlyctenular conjunctivitis; was rejected at first.
"	S.W.	$\frac{6}{36}$	S. -2.5, $\frac{6}{18}$	Right eye practically blind from squint.
Shipbroker	nil	$\frac{6}{60}$	No improvement	—

Shop assistant	2½ A.	2 A.	6/36	6/36	6/36	C. + 2.5, A. 160, 1/8 S. - 2, V. 6/18	S. + 1, C. + 2.5, A. 35, 1/2	—	Left practically blind from nebula.
Fireman	I.	I.	6/36	6/36	6/36	—	—	—	Does not take cylinders.
Hospital steward	1½ W.	1½ W.	< 6/60	< 6/60	< 6/60	S. + 5.0, 6/6	S. + 5.0, 6/6	—	—
Blacksmith	2 W.	2½ W.	6/36	6/36	6/36	C. + 2, A. 90, 2/4	C. + 2.5, A. 100, 1/2	—	—
Labourer	1½ W.	1½ A.	6/36	6/36	6/36	S. - 5.0, C. - 1.5, A. 20, 1/2	S. - 5.0, C. 1, A. 90, 1/2	—	—
Munition worker	nil	1 A.	1/2	1/2	1/2	C. + 0.5, A. 180, 6/6	C. + 1.5, A. 180, 6/6	—	—
Spirit salesman	3½ W.	4 W.	6/36	6/36	6/36	C. + 3, A. 100, 6/6	C. + 4, A. 90, 6/6	—	Very defective in one eye.
Upholsterer	nil	nil	6/60	6/60	6/60	S. - 16, 1/8, letters	S. - 16, V. 1/8, letters	—	—
Riveter	2 W.	2 W.	6/18	6/18	6/18	S. + 1, C. + 2, A. 90, 6/6	S. + 1, C. + 2, A. 90, V. 6/6	—	—
Tobacco cutter	—	—	—	—	—	—	—	—	Right eye blind from separation of retina, left myopia; 14 D.
Mercantile clerk	3½ W.	3½ W.	6/60	6/60	6/60	S. + 2.5, C. + 3.5, A. 105, 6/6	S. + 3, C. + 3.5, A. 75, V. 6/6	—	—
Printer	2½ W.	nil	6/60	6/60	6/60	S. - 2, C. - 2.5, A. 10, V. 1/2	nil	—	—
Grocer	nil	nil	6/36	6/36	6/36	Not improved	—	—	Amblyopia of right due to squint.
Sawmill labourer	S.A.	S.A.	6/24	6/24	6/24	S. + 4, 1/8	No improvement	—	Amblyopia of left due to squint.
Violinist	S.A.	nil	< 6/60	< 6/60	< 6/60	S. - 7, C. - 0.75, A. 100, 6/6	S. - 8, C. - 0.5, A. 90, 1/2	—	Squint in left eye.
Labourer	S.W.	S.W.	< 6/60	< 6/60	< 6/60	—	No improvement	—	Marked choroidal changes.
Platelayer	—	—	< 6/60	< 6/60	< 6/60	S. - 18, < 6/60	S. - 20, < 6/60	—	—
Driver in coalpit	1 A.	½ A.	6/60	6/60	6/60	S. - 5.5, C. - 2, A. 100, V. 6/6	S. - 4.5, C. - 1, A. 80, V. 6/6	—	—
Tramcar conductor	1 W.	nil	6/60	6/60	6/60	S. - 4, C. - 1, A. 15, 1/8	S. - 2, 6/6	—	—
Tinsmith	1½ W.	nil	< 6/60	< 6/60	< 6/60	S. - 8, 6/6	S. - 10, 2/4	—	—
Spirit salesman	—	—	< 6/60	< 6/60	< 6/60	—	—	—	High myopia in right; vision not improved by glass.
Stevodore's labourer	1½ W.	nil	6/24	6/24	6/24	S. + 4.5, Cyl. + 1, A. 90, 6/6	S. + 6, 6/6	—	Squint in left eye.
Insurance agent	5.0 A.	5.0 A.	< 6/60	< 6/60	< 6/60	—	—	—	Errors extreme; about S. - 10. C. - 5.0.
Music hall artist	2½ W.	0.5 W.	< 6/60	< 6/60	< 6/60	Not improved	—	—	—
Commercial traveller	nil	nil	6/36	6/36	6/36	S. - 3, 6/6	S. - 2.5, 6/6	—	—
Clerk	—	—	—	—	—	—	—	—	Right eye blind from degeneration cataract.
Salesman	2½ O.	2½ O.	6/36	6/36	6/36	C. + 2.5, A. 40, 1/8	S. + 1, C. + 2.5, A. 165, 1/8	—	—
Book salesman	1½ W.	1½ W.	6/60	6/60	6/60	S. - 2.5, 6/6	S. - 2, C. - 0.5, A. 90, 6/6	—	—

Occupation.	Ophthalmometer readings.		Vision without glasses.		Correction and vision obtained.		Remarks.
	R.	L.	R.	L.	R.	L.	
Bonded storeman.	nil	nil	$\frac{6}{12}$	$\frac{6}{60}$	S. +2, V. $\frac{6}{36}$	S. +4, V. $\frac{6}{18}$	—
Dock labourer.	S.W.	S.W.	$\frac{6}{12}$	$\frac{6}{24}$	S. -5.0, $\frac{6}{36}$	S. -2, $\frac{6}{18}$	—
Telegraph linesman	—	—	$\frac{6}{12}$	nil	—	—	Lost sight of left eye 16 years ago.
Salesman	S.W.	S.W.	$\frac{6}{24}$	$\frac{6}{12}$	Not improved	Cyl. 0.75, A. 180, $\frac{6}{6}$	—
Shipping clerk	—	—	nil	$\frac{6}{18}$	"	Cyl. +2.5, $\frac{6}{6}$	—
Ship caulker	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	"	S. -7, $\frac{6}{18}$	—
Engine fitter	$\frac{1}{2}$ W.	$\frac{1}{2}$ W.	$\frac{6}{60}$	$\frac{6}{60}$	S. -6, C. -0.75, A. 180, $\frac{6}{18}$	S. -6, C. -0.75, A. 180, $\frac{6}{18}$	—
Cabinet maker	3 W.	3 W.	$\frac{6}{36}$	nil	C. +3.25, A. 95, $\frac{6}{18}$	No improvement	—
Shipyard labourer	—	—	$\frac{6}{36}$	$\frac{6}{36}$	Not improved	Not improved	There is a nebula on cornea of each eye.
Collier	—	—	$\frac{6}{60}$	$\frac{6}{60}$	—	—	In each eye about 18 D of myopia with staphyloma. Has worked as a collier below ground for 16 years. In left H. = 6 D. Eye practically blind.
Sawmill labourer	nil	$1\frac{1}{2}$ W.	$\frac{6}{60}$	$\frac{6}{60}$	—	Not improved	—
Picture - frame maker	3 W.	2 W.	$\frac{6}{24}$	$\frac{6}{60}$	C. -3, A. 20, $\frac{6}{18}$	S. -2.75, C. -2, A. 175, V. $\frac{6}{18}$	—
Private	nil	nil	$\frac{6}{60}$	$\frac{6}{9}$	E. nearly	E. nearly	Squint in right eye.
Tea salesman	1 O.	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. -4, $\frac{6}{6}$	S. -3, $\frac{6}{18}$	—
Working tailor	1 W.	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. -5.0, $\frac{6}{34}$	S. +5.0, $\frac{6}{6}$	Opacity in each lens.
Electrician	nil	nil	$\frac{6}{60}$	$\frac{6}{18}$	No improvement	S. +5.0 gives $\frac{6}{18}$	—
Motor driver	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	—	S. -3, C. -1.5, A. 15, V. $\frac{6}{18}$	—
Navy	1 W.	$1\frac{1}{2}$ W.	$\frac{6}{60}$	$\frac{6}{60}$	S. -5.0, C. -1, A. 160, $\frac{6}{9}$	Not improved	—
Labourer	S.A.	$1\frac{1}{2}$ A.	$\frac{6}{60}$	$\frac{6}{60}$	Not improved	Not improved	Diagnosed as a case of tobacco amblyopia.
Jobbing cutler	$1\frac{1}{2}$ W.	$1\frac{1}{2}$ W.	$\frac{6}{18}$	$\frac{6}{18}$	S. -0.5, C. -1.75, A. 15, V. $\frac{6}{9}$	C. -1.5, A. 10, V. $\frac{6}{9}$	—
Stonemason	1 A.	$2\frac{1}{2}$ O.	$\frac{6}{12}$	$\frac{6}{60}$	C. -1, A. 105, V. $\frac{6}{6}$	S. -1, C. -2, A. 160, $\frac{6}{18}$	—
Labourer	4 W.	$4\frac{1}{2}$ W.	$\frac{6}{36}$	$\frac{6}{18}$	S. +2, C. -4, A. 15, $\frac{6}{12}$	S. +0.5, C. -4.5, A. 20, V. $\frac{6}{9}$	—
Carter	2 A.	1 A.	$\frac{6}{36}$	$\frac{6}{36}$	No improvement	No improvement	Nebula on each cornea.

Cinema operator	nil	nil	< $\frac{6}{80}$	$\frac{6}{80}$	No improvement	No improvement	No fundus changes. About 3 D. of H. in right and about 1 in left. Probably malingering.
Sawyer	2½	1½	$\frac{6}{36}$	$\frac{6}{24}$	S.-1, C.-3, A. 10, $\frac{6}{12}$	C.-1.5, A. 175	—
Cinema traveller	1½ W.	nil	$\frac{6}{36}$	$\frac{6}{60}$	S.+5.5, C.+2, A. 20, $\frac{6}{8}$	S.+7, $\frac{6}{12}$	—
Mason	1½ W.	nil	$\frac{6}{60}$	$\frac{6}{60}$	C.+2, A. 90, V. $\frac{6}{24}$	No improvement	—
Dispatch clerk	1½ W.	2½ W.	$\frac{6}{60}$	< $\frac{6}{80}$	S.-5.0, V. $\frac{6}{18}$	S.-14, C.-2.5, A. 15, $\frac{6}{60}$	Staphyloma in L. Cyl. not taken in the R.
Shipyard labourer	1½ A.	nil	< $\frac{6}{60}$	< $\frac{6}{60}$	S.-7, C.-1.5, A. 90, $\frac{6}{18}$	S.-16, $\frac{6}{18}$	—
Warehouseman	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	S.-6, $\frac{6}{24}$	—	—
Miner	2 A.	nil	$\frac{6}{36}$	$\frac{6}{60}$	Not improved	—	Squint in early life.
Labourer	1.5 W.	1.5 W.	< $\frac{6}{60}$	< $\frac{6}{60}$	S.-3, C.-1.25, A. 10, $\frac{6}{24}$	S.-3, Cyl.-1.5, A. 170, $\frac{6}{12}$	—
Baker	—	3.5 W.	< $\frac{6}{60}$	$\frac{6}{18}$	Not improved	5+2, C.+3.5, A. 90, $\frac{6}{12}$	Atrophy in right optic nerve.
Tailor	nil	nil	$\frac{6}{36}$	$\frac{6}{60}$	S.-3, $\frac{6}{6}$	S.-4, $\frac{6}{8}$	—
Iron worker	nil	nil	$\frac{6}{60}$	$\frac{6}{18}$	No glass improves	S.+4, $\frac{6}{6}$	Probably squint amblyopia.
Warehouseman	1 with	nil	$\frac{6}{60}$	$\frac{6}{60}$	S.-8, C.-1.5, A. 180, $\frac{6}{24}$	S.-7, $\frac{6}{18}$	—
Coal salesman	—	—	—	—	—	—	High myopia in right. Cataract in left. Left eye nearly blind.
Pit-head labourer	S.A.	S.A.	$\frac{6}{60}$	$\frac{6}{36}$	S.-2, C.-0.75, A. 90, $\frac{6}{6}$	S.-2, O.-0.75, A. 90, $\frac{6}{6}$	—
Quarryman	S.W.	S.W.	$\frac{6}{60}$	$\frac{6}{60}$	S.-3, $\frac{6}{18}$	—	—
Locksmith	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	—	No glass improves	—
Pit drainer	0.5 A.	3.5 A.	$\frac{6}{36}$	$\frac{6}{60}$	S.+3, C.+1, A. 180, $\frac{6}{18}$	S.+3, C.+4, A. 10, $\frac{6}{36}$	—
Plasterer	2.5 W.	nil	$\frac{6}{36}$	$\frac{6}{24}$	C.+2.5, A. 95, $\frac{6}{6}$	C.+0.75, A. 180, $\frac{6}{6}$	—
Labourer	S.A.	S.A.	$\frac{6}{24}$	$\frac{6}{36}$	S.-1.5, C.-1, A. 90, $\frac{6}{12}$	S.-2, Cyl.-1, A. 90, $\frac{6}{12}$	—
"	2 W.	2 W.	< $\frac{6}{60}$	< $\frac{6}{60}$	S.-4, C.-2, A. 5, $\frac{6}{18}$	S.-5.0, C.-2, A. 5, $\frac{6}{18}$	—
Storekeeper	nil	nil	$\frac{6}{36}$	$\frac{6}{18}$	S.+2.5, $\frac{6}{6}$	S.+1, $\frac{6}{6}$	—
Woodwork labourer	—	—	< $\frac{6}{60}$	< $\frac{6}{60}$	—	—	More than 10 D. of myopia in each.
Barman	1.5 W.	1 W.	$\frac{6}{60}$	$\frac{6}{12}$	Not improved	S.+1, $\frac{6}{6}$	Fundus changes in right due to injury.
Spirit salesman	2 W.	2 W.	$\frac{6}{12}$	$\frac{6}{12}$	S.+1.5, C.+2, A. 90, $\frac{6}{6}$	S.+3, C.+2, A. 90, $\frac{6}{6}$	—
Clerk	0.5 W.	1 W.	$\frac{6}{24}$	$\frac{6}{34}$	S.-1.5, C.-0.5, A. 180, $\frac{6}{6}$	S.-1.5, C.-0.75, A. 180, $\frac{6}{6}$	—
"	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	S.-2, $\frac{6}{6}$	S.-2, $\frac{6}{6}$	—
Horseman	4 W.	3 W.	$\frac{6}{24}$	$\frac{6}{34}$	S.+2, C.-4, A. 175, $\frac{6}{6}$	S.+2, C.-2.5, A. 5, $\frac{6}{18}$	—
Hammerman	2.5 W.	1 W.	< $\frac{6}{60}$	< $\frac{6}{60}$	Not improved	C.+1, A. 90, V. $\frac{6}{6}$	One-eyed man working as hammerman.

Occupation.	Ophthalmometer readings.		Vision without glasses.		Correction and vision obtained.		Remarks.
	R.	L.	R.	L.	R.	L.	
Labourer, shipyard	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. -2.5, $\frac{6}{6}$	S. -2.5, $\frac{6}{6}$	Served for six years with Royal Irish Rifles.
Pithead runner	1½ A.	1½ A.	$<\frac{6}{60}$	$<\frac{6}{60}$	No improvement	No improvement	About 16 D. myopia in each.
Labourer	2½ W.	2 W.	$\frac{6}{36}$	$\frac{6}{36}$	S. +1, C. +3, A. 100, $\frac{6}{12}$	S. +1, C. -2, A. 75, $\frac{6}{9}$	—
Pictureframe maker	2 W.	1 W.	$\frac{6}{24}$	$\frac{6}{36}$	S. +4, C. +1, A. 95, $\frac{6}{9}$	S. +5.0, $\frac{6}{9}$	—
Recruit.	1½ W.	1½ W.	$\frac{6}{18}$	$\frac{6}{24}$	S. -0.5, C. -1.5, A. 180, $\frac{6}{9}$	S. -1, C. -1.5, A. 180, $\frac{6}{9}$	Has about 18 D. of myopia in each, with choroidal destruction. Has no difficulty at his work.
Carter	—	—	$<\frac{6}{60}$	$<\frac{6}{60}$	—	—	—
Mercantile clerk	2 W.	2 W.	$\frac{6}{24}$	$\frac{6}{18}$	C. -2.5, A. 10, $\frac{6}{9}$	C. -2, A. 180, $\frac{6}{9}$	—
Ship stoker	nil	nil	$<\frac{6}{60}$	$<\frac{6}{60}$	S. -14, $\frac{6}{24}$	S. -14, $\frac{6}{24}$	—
Janitor in office	S.W.	nil	$\frac{6}{36}$	$\frac{6}{36}$	Not improved	S. +4, C. +1, A. 165, $\frac{6}{9}$	Drives without glasses.
Chaufeur	2½ A.	2½ A.	$\frac{6}{36}$	$\frac{6}{36}$	S. -1.5, C. +3.5, A. 10, $\frac{6}{18}$	S. -2, C. +3.5, A. 10, $\frac{6}{12}$	Squint in left eye.
Ploughman	nil	nil	$<\frac{6}{60}$	$<\frac{6}{60}$	—	No improvement	Traces of old iritis in both; worse in left.
Joiner	1 O.	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. +5.0, $\frac{6}{12}$	S. +4, $\frac{6}{24}$	—
Butcher	nil	nil	$<\frac{6}{60}$	$\frac{6}{9}$	S. -12, $\frac{6}{24}$	—	Left eye very high myopia with fundus changes.
Flower vendor	—	—	$\frac{6}{24}$	$<\frac{6}{60}$	S. -4 improves	No improvement	—
Slater	3.5 W.	1 W.	$\frac{6}{60}$	$\frac{6}{24}$	Not improved	S. -1, C. +1.5, A. 100, $\frac{6}{18}$	Retinitis pigmentosa in each eye, with high myopia.
Labourer	—	—	$<\frac{6}{60}$	$<\frac{6}{60}$	" "	Not improved	—
"	1.5 A.	S.A.	$\frac{6}{36}$	$\frac{6}{24}$	S. +1, C. +1.75, A. 170, $\frac{6}{18}$	S. +1, O. +0.75, A. 170, $\frac{6}{12}$	Diagnosed as tobacco amblyopia.
Coal salesman	—	—	$\frac{6}{60}$	$\frac{6}{60}$	Not improved	Not improved	—
Goods checker	S.W.	nil	$<\frac{6}{60}$	$<\frac{6}{60}$	Sph. -4, V. $\frac{6}{6}$	"	—
Bootmaker	3 W.	2 W.	$\frac{6}{36}$	$\frac{6}{18}$	Not improved	S. +1, C. +1.5, A. 90, $\frac{6}{12}$	—
Wheelwright	2.5 A.	S.A.	$\frac{6}{36}$	$\frac{6}{36}$	C. +2.5, A. 180, $\frac{6}{9}$	C. +1, A. 180, $\frac{6}{9}$	—
Labourer	—	—	$<\frac{6}{60}$	$<\frac{6}{60}$	—	—	Practically blind in left eye from squint.
Labourer in boat-yard	1 A.	2 A.	$\frac{6}{60}$	$\frac{6}{36}$	S. -4, C. -1, A. 90, $\frac{6}{18}$	S. -2, C. -1.5, A. 90, $\frac{6}{9}$	—

Munition worker	3 W.	1.5 W.	$\frac{6}{36}$	$\frac{6}{36}$	S. -2, C. -3, A. 180, V. $\frac{6}{12}$	S. -1.5, C. -2, A. 160, $\frac{6}{12}$	—	Left quite blind from injury 12 years ago.
Carter	—	—	$\frac{6}{60}$	$\frac{6}{60}$	—	—	—	Right blind from choroiditis.
Labourer	—	1.5 W.	nil	nil	Blind	S. -4, C. -1.5, A. 80, $\frac{6}{18}$	Practically blind	Nerve atrophy in left eye, probably congenital.
"	—	—	$\frac{6}{12}$	$\frac{6}{12}$	—	—	—	—
General dealer	nil	—	$\frac{6}{36}$	$\frac{6}{36}$	S. -1.5, $\frac{6}{9}$	S. -2, $\frac{6}{9}$	S. -2, C. +1.5, A. 90, $\frac{6}{9}$	Marked squint of left. Only one eye used for fixation.
Packer	S.W.	1.5 W.	$\frac{6}{18}$	$\frac{6}{18}$	—	—	—	Squint in right eye.
Dentist	nil	nil	$\frac{6}{36}$	$\frac{6}{36}$	Not improved	S. -5.0, $\frac{6}{9}$	—	High hypermetropia in both; squint in left.
Metal polisher	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. -10, $\frac{6}{24}$	Not improved	—	—
Labourer	—	—	$\frac{6}{60}$	$\frac{6}{60}$	—	—	—	—
Scavenger	nil	2 W.	—	—	C. -2.5, A. 15, $\frac{6}{12}$	C. +2, A. 90, $\frac{6}{36}$	—	Opacity on left cornea.
Boot finisher	2.5 W.	2.5 W.	$\frac{6}{24}$	$\frac{6}{24}$	S. -7, $\frac{6}{24}$	C. -3, A. 170, $\frac{6}{12}$	—	—
Ship's steward	nil	3.5 W.	$\frac{6}{60}$	$\frac{6}{60}$	S. +4, $\frac{6}{9}$	S. -8, C. -3, A. 170, $\frac{6}{24}$	—	—
Newsagent	nil	1 A.	$\frac{6}{18}$	$\frac{6}{18}$	S. -6, $\frac{6}{24}$	S. +4, C. -1, A. 90, $\frac{6}{24}$	—	—
Car conductor	nil	nil	$\frac{6}{36}$	$\frac{6}{36}$	—	S. -5.0, $\frac{6}{24}$	—	—
Tailor	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	—	—	—	Has strabismus in right. No difficulty in seeing.
Paper box maker	2 W.	S.W.	$\frac{6}{60}$	$\frac{6}{60}$	S. -2, C. -2, A. 175, $\frac{6}{9}$	S. -3, C. -0.5, A. 180, $\frac{6}{9}$	—	—
Music teacher	0.5 A.	0.5 A.	$\frac{6}{60}$	$\frac{6}{60}$	S. -2, C. -0.75, A. 90, $\frac{6}{9}$	S. -2, C. -0.75, A. 90, $\frac{6}{9}$	—	—
Packer	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. -5.5, $\frac{6}{24}$	S. -8, $\frac{6}{36}$	—	—
Ploughman	—	—	$\frac{6}{60}$	$\frac{6}{60}$	—	—	—	Defect in right, due to squint in early life.
Sorting clerk, P.O.	2.5 W.	2.0	$\frac{6}{24}$	$\frac{6}{24}$	S. -1, C. -2.5, A. 120, $\frac{6}{12}$	S. -1, C. -2, A. 55, $\frac{6}{21}$	—	—
Labourer	S.W.	S.W.	$\frac{6}{24}$	$\frac{6}{24}$	S. -4, $\frac{6}{9}$	S. +4, $\frac{6}{9}$	—	Left eye high hypermetropia and practically blind.
Shorthand writer	1 W.	1 W.	$\frac{6}{18}$	$\frac{6}{18}$	—	—	—	—
P.O. clerk	3 W.	1.5 W.	$\frac{6}{36}$	$\frac{6}{36}$	C. +3, A. 85, $\frac{6}{9}$	C. +1.75, A. 105, $\frac{6}{9}$	—	Opacity of L. cornea. Has worked for many years with only one eye.
Shoemaker	—	—	$\frac{6}{60}$	$\frac{6}{60}$	—	—	—	—
Machinist	1.5 W.	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. -5.0, $\frac{6}{24}$	S. -5.0, $\frac{6}{24}$	—	Tests for simulated blindness show R. practically blind.
Scavenger	1.5 O.	1.5 W.	$\frac{6}{60}$	$\frac{6}{60}$	—	S. +4, C. -1.25, A. 100, $\frac{6}{24}$	—	—
Electrician	1.5 W.	1.5 W.	$\frac{6}{24}$	$\frac{6}{24}$	S. -1, C. +1.5, A. 110, $\frac{6}{18}$	S. +1, C. +1.5, A. 75, $\frac{6}{18}$	—	—

Occupation.	Ophthalmometer readings.		Vision without glasses.		Correction and vision obtained.		Remarks.
	R.	L.	R.	L.	R.	L.	
Rigger's assistant	S.W.	S.W.	$\frac{6}{60}$	$\frac{6}{60}$	S. -3, $\frac{6}{6}$	S. -3, $\frac{6}{9}$	—
Shipyard labourer	1 A.	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. -2, C. -1, A. 90, $\frac{6}{9}$	Practically blind	—
Carter . . .	1 A.	2.5 A.	$\frac{6}{12}$	$\frac{6}{36}$	S. -0.5, C. -1, A. 100, $\frac{6}{9}$	S. -0.5, C. -1.5, A. 80, $\frac{6}{9}$	—
Ship's steward	3 W.	3 W.	$\frac{6}{36}$	$\frac{6}{36}$	S. +2, C. +3, A. 105, $\frac{6}{18}$	S. +2.25, C. +3, A. 95, $\frac{6}{18}$	—
Labourer . . .	1.5 W.	nil	$\frac{12}{36}$	$\frac{12}{36}$	No improvement	—	—
Clerk . . .	1.5 W.	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. -2, C. -2, A. 10, $\frac{6}{6}$	S. -4, $\frac{6}{9}$	—
Chemist . . .	1.5 W.	S.W.	$\frac{6}{36}$	$\frac{6}{60}$	S. -2, C. -1, A. 170, $\frac{6}{18}$	S. -2, $\frac{6}{18}$	—
Student . . .	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. -4, $\frac{6}{6}$	S. -4, $\frac{6}{6}$	—
Telephone linesman	2 $\frac{3}{4}$	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. +2, C. -2.5, A. 15, $\frac{6}{18}$	—	One-eyed man working as linesman.
Watchmaker . . .	1.5 A.	2.5 W.	$\frac{6}{36}$	$\frac{6}{36}$	S. -1.5, C. -3, A. 100, $\frac{6}{18}$	S. -0.75, C. -3, A. 30, $\frac{6}{12}$	—
Surveyor . . .	nil	nil	$\frac{6}{36}$	$\frac{6}{36}$	S. -4, $\frac{6}{6}$	S. -4.5, $\frac{6}{6}$	—
Labourer . . .	1.5 A.	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. +5.0, C. +1.5, A. 170, $\frac{6}{18}$	S. +6, $\frac{6}{24}$	—
Spirit salesman . . .	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. -10, $\frac{6}{18}$	S. -8, $\frac{6}{18}$	—
Painter . . .	2.50	1.5 O.	$\frac{6}{36}$	$\frac{6}{24}$	S. -2, C. -2.5, A. 130, $\frac{6}{36}$	C. +1.5, A. 35, $\frac{6}{9}$	—
Printer . . .	S.W.	S.W.	$\frac{6}{60}$	$\frac{6}{60}$	S. -12, $\frac{6}{18}$	S. -14, $\frac{6}{18}$	—
Holder-on (riveter)	—	—	$\frac{6}{60}$	$\frac{6}{36}$	In this case myopia of about 6 D. in right and 4 in left	—	—
Farmer . . .	S.W.	S.W.	$\frac{6}{24}$	$\frac{6}{24}$	S. -3.5, C. -1, $\frac{6}{18}$	S. -4, $\frac{6}{9}$	—
Vanman . . .	1 W.	2 O.	$\frac{6}{60}$	$\frac{6}{60}$	S. -6, $\frac{6}{24}$	S. -5.0, C. -2, A. 155, $\frac{6}{24}$	—
Joiner . . .	2.5 W.	2.5 W.	$\frac{6}{60}$	$\frac{6}{18}$	S. +1, C. +2.5, $\frac{6}{18}$	C. +3, A. 100, $\frac{6}{18}$	—
Colliery fireman . . .	1 A.	1 A.	$\frac{6}{36}$	$\frac{6}{12}$	S. +1, C. -1.5, A. 100, $\frac{6}{12}$	C. +1, A. 170, $\frac{6}{6}$	—
Fisherman . . .	S.A.	S.A.	$\frac{6}{60}$	$\frac{6}{60}$	Myopia 16 D.	Myopia 16 D.	—
Labourer . . .	4 W.	2.5 W.	$\frac{6}{60}$	$\frac{6}{60}$	Right not improved	S. -1, C. +2, A. 90, $\frac{6}{24}$	Corneal opacity in right.
Joiner (apprentice)	—	—	$\frac{6}{36}$	$\frac{6}{36}$	C. -3, A. 95, $\frac{6}{12}$	S. -1, C. -3, A. 90, $\frac{6}{12}$	—
Packer . . .	nil	nil	$\frac{6}{36}$	$\frac{6}{36}$	S. -2, $\frac{6}{12}$	S. -2, $\frac{6}{12}$	Nebula on each cornea.
Dock labourer . . .	3.5 W.	3.5 W.	$\frac{6}{24}$	$\frac{6}{24}$	C. +3.5, A. 105, $\frac{6}{18}$	C. +3.5, A. 85, $\frac{6}{18}$	—
	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	Myopia 14 D.	Myopia 16 D. 1	Choroiditis in each. Works without glasses.
Coal merchant . . .	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. -14, $\frac{6}{30}$	S. -12, $\frac{6}{24}$	—
Butcher . . .	nil	1 W.	$\frac{6}{60}$	$\frac{6}{36}$	S. -5, $\frac{6}{18}$	S. -4, C. -1, A. 180, $\frac{6}{12}$	—
" . . .	2 W.	2 W.	$\frac{6}{60}$	$\frac{6}{60}$	S. -8, C. -2, A. 70, $\frac{6}{36}$	S. -7.4, C. -2, A. 165, $\frac{6}{18}$	—
Baker . . .	1 A.	0.5 A.	$\frac{6}{60}$	$\frac{6}{60}$	S. -7, C. -2, A. 90, $\frac{6}{12}$	S. -8, C. -1, A. 90, $\frac{6}{6}$	—
Dock labourer . . .	nil	nil	$\frac{6}{60}$	$\frac{6}{60}$	S. -4, $\frac{6}{12}$	S. -3, $\frac{6}{9}$	Has already served in the Army.

House painter	—	—	$\frac{6}{60}$	Not improved	—	Has always been practically blind in left, yet able to paint.
Saw miller	nil	nil	$\frac{6}{36}$	Improves to $\frac{6}{12}$	—	High hypermetropia in right. Practically man with only one useful eye.
Printer	2 A.	2 A.	$\frac{6}{36}$	S. -3.5, $\frac{6}{12}$	Not improved	Man with only one useful eye as printer.
Clerk	S.A.	S.A.	$< \frac{6}{60}$	S. -3.5, $\frac{6}{12}$	S. -3.5, C. -0.75, A. 90, $\frac{6}{9}$	—
Merchant	1 A.	S.A.	$\frac{6}{24}$	S. -2, C. -0.75, A. 90, $\frac{6}{9}$	S. -2, C. -0.75, A. 90, $\frac{6}{9}$	—
Spirit salesman	1.5 W.	1 W.	$< \frac{6}{60}$	S. -4, C. -1.5, A. 165, $\frac{6}{12}$	S. -2, C. -1, A. 15, $\frac{6}{9}$	—
Blacksmith	2.5 W.	S.W.	$\frac{6}{36}$	S. -1, C. -2.5, A. 30, $\frac{6}{9}$	Practically emmetropic	—
Sorting clerk	2.5 W.	nil	$\frac{6}{24}$	S. -1, C. -2.25, A. 10, $\frac{6}{9}$	C. +2, A. 180, $\frac{6}{36}$	Has extreme congenital nystagmus.
Carter	3 A.	2 A.	$\frac{6}{24}$	C. +3, A. 180, $\frac{6}{36}$	—	—
Labourer	nil	nil	$< \frac{6}{60}$	S. -10, $\frac{6}{24}$	S. -14, $\frac{6}{24}$	—
Carter	S.W.	S.W.	$< \frac{6}{60}$	S. +5.0, $\frac{6}{18}$	S. +5.0, $\frac{6}{18}$	—
Grocer's assistant	S.W.	2.5 W.	$\frac{6}{24}$	C. +4, A. 105, $\frac{6}{9}$	C. -2, A. 75, $\frac{6}{9}$	—
Clerk	2 W.	1 W.	$\frac{6}{60}$	C. +2, A. 95, $\frac{6}{18}$	Not improved	—
Pithead worker	2 W.	2.5 W.	$< \frac{6}{60}$	C. -2, A. 180, $\frac{6}{36}$	C. -2, A. 180, $\frac{6}{36}$	Albino, as are also two brothers.
—	2 W.	1 W.	$\frac{6}{60}$	S. -14, C. -1.5, A. 15, $\frac{6}{18}$	S. -14, C. -1.5, A. 20, $\frac{6}{18}$	—
Buffer	3.5 W.	3.5 W.	$\frac{6}{24}$	C. -3.5, A. 10, $\frac{6}{18}$	C. -3.5, A. 10, $\frac{6}{9}$	Extensive changes in macula of left.
Spirit salesman	—	—	nil	—	—	—
Van driver	1 W.	S.A.	$\frac{6}{36}$	S. -3, C. -0.75, A. 180, $\frac{6}{9}$	S. -3.5, C. -0.75, A. 90, $\frac{6}{9}$	Optic nerve atrophy in both.
Dock labourer	S.W.	S.W.	$\frac{6}{36}$	Not improved	Not improved	—
Joiner	—	—	—	Blind	Emmetropic	—
Seaman	1.5 A.	1.5 A.	$\frac{6}{24}$	S. -1, C. -1, A. 90, $\frac{6}{12}$	C. -2, A. 80, $\frac{6}{18}$	—
Student (engineering)	nil	nil	$\frac{6}{60}$	S. -3, $\frac{6}{6}$	S. -3, $\frac{6}{6}$	—
Rivet maker	S.W.	S.W.	$< \frac{6}{60}$	Practically blind	S. -5.0, $\frac{6}{18}$	—
Grocer	nil	1.5 O.	$\frac{6}{12}$	S. -1, $\frac{6}{9}$	C. -1.5, A. 60, $\frac{6}{6}$	—
Insurance manager	1 W.	1 W.	$< \frac{6}{60}$	S. -8, C. -1, A. 180, $\frac{6}{6}$	S. -9, C. -1, A. 170, $\frac{6}{9}$	Strabismus in left.
Scavenger	—	—	$\frac{6}{24}$	—	Practically blind	—
Labourer	2.5 W.	2.5 W.	$\frac{6}{36}$	S. -1.5, C. +2.5, A. 105, $\frac{6}{12}$	C. +2.5, A. 75, $\frac{6}{9}$	—
Dairyman	S.W.	S.W.	$< \frac{6}{60}$	High myopia, not improved	Practically blind	Left lens removed for cataract.

Occupation.	Ophthalmometer readings.		Vision without glasses.		Correction and vision obtained.		Remarks.
Clerk	R.	L.	R.	L.	R.	L.	Opacity on posterior surface of each lens, with vitreous opacities.
Weaver	S.A.	nil	$\frac{6}{36}$	$\frac{6}{36}$	S. -2.75, O. -0.5, A. 90, $\frac{6}{6}$	S. -2.5, $\frac{6}{6}$	
Engine attendant	3.5 W.	3.5 W.	$\frac{6}{36}$	$\frac{6}{36}$	C. +3, A. 100, $\frac{6}{18}$	C. +3, A. 100, $\frac{6}{18}$	Right practically blind.
Blacksmith	nil	nil	$\frac{6}{36}$	$\frac{6}{36}$	Not improved	S. -4, $\frac{6}{6}$	
Carter	nil	nil	$\frac{6}{36}$	$\frac{6}{36}$	S. +6, $\frac{6}{6}$	S. +6, $\frac{6}{18}$	Left eye practically blind from choroiditis.
Labourer	nil	nil	$\frac{6}{36}$	$\frac{6}{36}$	—	—	
Chemist	3 W.	3 W.	$\frac{6}{36}$	$\frac{6}{36}$	C. -2.5, A. 1.0, $\frac{6}{18}$	C. -2.5, A. 10, $\frac{6}{18}$	Macular disease in right.
Vannan	S.W.	1.5 W.	$\frac{6}{36}$	$\frac{6}{36}$	No improvement	C. -1.5, A. 150, $\frac{6}{18}$	
Warehouseman	nil	nil	$\frac{6}{36}$	$\frac{6}{36}$	S. -18, $\frac{6}{36}$	S. -10, $\frac{6}{24}$	—
Clothing salesman	nil	nil	$\frac{6}{36}$	$\frac{6}{36}$	S. -14, $\frac{6}{24}$	S. -14, $\frac{6}{18}$	
Dock labourer	S.A.	S.O.	$\frac{6}{36}$	$\frac{6}{36}$	S. -3.5, C. -0.75, A. 90, $\frac{6}{4}$	S. -3, C. -0.75, A. 60, $\frac{6}{18}$	—
Saddler	nil	1.5 W.	$\frac{6}{36}$	$\frac{6}{36}$	S. -10, $\frac{6}{18}$	S. -8, C. -1.5, A. 180, $\frac{6}{18}$	
Street repairer	1.5 W.	1.5 W.	$\frac{6}{36}$	$\frac{6}{36}$	S. -3, C. -1.5, A. 170, $\frac{6}{18}$	S. -16, C. -1.5, A. 170, $\frac{6}{24}$	—
Motor driver	1 W.	1 W.	$\frac{6}{36}$	$\frac{6}{36}$	No improvement	S. -7, $\frac{6}{18}$	
House painter	nil	nil	$\frac{6}{36}$	$\frac{6}{36}$	S. -4, $\frac{6}{6}$	S. -4, $\frac{6}{6}$	Cataract in right.
Storeman	nil	nil	$\frac{6}{36}$	$\frac{6}{36}$	S. +6, $\frac{6}{18}$	S. +6, $\frac{6}{18}$	
Law clerk	S.A.	0.5 A.	$\frac{6}{36}$	$\frac{6}{36}$	S. -2, C. -0.5, A. 90, $\frac{6}{6}$	S. -2, C. -1.25, A. 90, $\frac{6}{6}$	Very high myopia in left.
Chauffeur	nil	1 W.	$\frac{6}{36}$	$\frac{6}{36}$	No improvement	No improvement	
Leather salesman	nil	nil	$\frac{6}{36}$	$\frac{6}{36}$	No improvement	S. +4, $\frac{6}{6}$	Extreme hypermetropia in left.
Baker	—	—	$\frac{6}{9}$	—	—	Left eye practically blind	
Shipyard labourer	irreg.	irreg.	$\frac{6}{36}$	$\frac{6}{36}$	No improvement	No improvement	Had squint in left in childhood.
Warehouseman	S.W.	S.W.	$\frac{6}{36}$	$\frac{6}{36}$	S. -1, $\frac{6}{6}$	S. -1, $\frac{6}{6}$	
Railway porter	1 W.	3 W.	$\frac{6}{36}$	$\frac{6}{36}$	Does not take C.	S. -1, C. -3, A. 180, $\frac{6}{18}$	Nebula on each cornea, result of ulceration.
Mercantile clerk	1.5 W.	—	$\frac{6}{36}$	—	C. -1.5, A. 20, $\frac{6}{18}$	—	
Stationer	S.W.	S.W.	$\frac{6}{18}$	$\frac{6}{18}$	S. +3, $\frac{6}{6}$	No improvement	Left eye blind for many years.
							Squint of left.

N.B.—With exception of the clerks almost all the above worked without glasses.

From the above tables it is apparent that men with very defective sight have worked at a large variety of occupations. It is right to remark that, with the exception of men employed in clerical work, scarcely a single man included in the above tables used glasses for his work. Thus we have chauffeurs, stokers, carters, labourers, hammermen, with extremely defective vision, in many cases with only one useful eye, working quite comfortably without glasses.

It is to be noted that the following conventions apply to the above tables. In the table of ophthalmometric readings "A." stands for against; in the tables for corrections "A." stands for axis. In the tables for ophthalmometric readings "W." stands for with; "I." for irregular; "O." for oblique. "S." in the ophthalmometric tables stands for slightly; in the tables for corrections it stands for spherical, and "C." in these last-mentioned tables for cylindrical.

