THE VISION OF THE SOLDIER; WITH SPECIAL REFERENCE TO MALINGERING.

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I.—VISION IN THE ARMY.¹

Since August 4, 1914, we have been called upon, times out of number, to reconsider views which in earlier days had been put to the proof and accepted as sound in the light of experience. We have been forced to devise means for meeting a host of conditions which the mind, in its wildest moments of exaltation or depression, could not have conceived. We have been driven by inexorable circumstances to recognize, however reluctantly, that potentiality in the nation is not to be measured by a fixed standard of attraction, but solely by the function which calls it into play.

In ante-bellum days, "peace" was conventional and relative rather than definite and explicit, for with its duties of policing the frontiers of vast territories of the Empire, the British Army enjoyed only rare moments of suspense from military operations. At all times there was an Expeditionary Force in readiness, equipped for operations in some back-area of the Empire. Some little adventure on the Indian frontier, in the Sudan, in Africa, was taken as a matter of course and forgotten, only to be recalled later on by the sight of an unfamiliar ribbon on the tunic of a soldier of the Regular Army. But it needed war on a scale unconceived and inconceivable to awaken the mind of man to the merest glimpse of its actualities and stern demands.

In time of peace, owing to the extent of the Empire, it was necessary to maintain an Army which consisted of men in a high state of physical efficiency. There were good reasons for this. Operations carried out thousands of miles from home, remote from a base, were hampered by men who reported sick, and consequently the examination of the recruit was infinitely more searching than any laid down by the most exacting life assurance office.

The military needs of the Empire demanded a standardized type of man-at-arms, and for her eternal pride she got it, and it was an army of volunteers.

Not all enlisted for the sake of their country or because of esprit de

¹ In this Chapter is incorporated some of the material of my paper, "Conditions affecting Standards of Vision in an Army," Trans. Ophth. Soc., vol. xxxvii, 1917. See also "Methods of examining the Vision of Recruits," etc., Journal of the Royal Army Medical Corps, April, 1916.
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corps. This will not be challenged, and the bearing of the statement will be obvious in a moment. Recruits came from military schools, from the families of men who themselves were soldiers; many had been born in the regiment on the strength, and regarded soldiering as their ultimate, their pre-ordained destiny. Others were bitten with the spirit of curiosity and wished to see the world; with them fighting was an after-thought. Not a few found refuge from the dun, from the discomforts of home, from the varium et mutabile femina. Thus the voluntary system brought together strange, ill-assorted, apparently incompatible elements, but with one predominant characteristic in each, namely, physical efficiency. Latitude was allowed for the possibility of an immature youth being trained to an improved condition of development after a few months in the Army, but the sight test was stringent, and men who otherwise might have shaped well were rejected because of this.

It has to be remembered that under a voluntary system men came forward because they wished to be soldiers. It was a hardship to them if they were rejected, and they were not disposed to obstruct the medical officer in the examination. Thus men with definite visual defects occasionally succeeded in slipping through by just reaching the standard. The willing recruit was aware that it was in his own interest to make light of or conceal a physical defect, though the examination was of so searching a character that concealment was practically impossible. It was equally in the interest of the country that there should be no room in the army for men who were actually, or likely to become, ineffectives, and therefore we were free to select the men best fitted for military purposes.

With conscription, on the other hand, the character of the recruit, in a very large number of instances, was different. Every day provided him with object lessons of the hardships which were before him, and it is not to be wondered at that the less worthy were tempted to resort to evasions.

Let us now examine the method of other countries, but first it must be made clear that no brief is held for the voluntary or the compulsory system of recruiting. Conditions which would insist on the one might discountenance the other. The objective, the terrain, the issue at stake, alone must arbitrate. To put the matter briefly, conscription is a matter of latitude and longitude; of geography, in fact. With this borne in mind it will be clear that a nation whose frontiers are shared in common with another and possibly unfriendly and jealous nation, operates in a military sense within its own boundaries. Its roads, railways and transport are adapted for swift movements within its legitimate perimeter; consequently a man who reports sick or becomes a casualty has no great distance to travel for treatment, and his place is filled. Waste of human material, therefore, within a circumscribed dominion can be discounted. But as we have seen, nay, as we have been taught, there is no frontier now that is impregnable, none that is inviolate.

An army raised for home defence, with no concerns overseas, has but
one vital spot to defend, and when the blow is aimed at the heart of the realm, the existence of every subject is at stake. Compulsory service, then, becomes logical and imperative, and of necessity the physical standard cannot be exacting. War on the door-step is a different affair from a punitive expedition in Tibet. Arguments and theories go down before questions of personal safety, of national security and honour. The psychology of the combatant has been searchingly examined. Possibly time, that ultimate inquisitor, may draw aside the veil for the gaze of future generations and reveal in due perspective the two conflicting elements—man's endeavour ruthlessly to destroy all that stands in his way, and the human effort to build up manhood out of the wreckage of man.

When a nation organized its compulsory service for offensive operations at no great distance from its threshold or for home defence, it was not in a position to enforce a high level of physical efficiency all round; its problem was to develop and train the men it had to an average standard, selecting the finer types for its corps d'élite. Every lad knew that when he reached a certain age he would enter the army whether he liked it or not. He was brought up with this idea in his mind, and it had an immense influence on his mental outlook. He realized that one day he would be caught up in the intricacies of the machine, and that there was no escape. Hence there were always to be found men prepared to shirk their obligations by all manner of devices, particularly when the rigours of training, even in peace-time, were related by those who had just experienced them.

Under the voluntary system this tendency prevailed to a much less extent in the British Army; although in every batch there were men who would be dissatisfied no matter in what environment they were placed. Nothing throws a more significant light on the conditions prevailing in a voluntary as distinguished from a conscript army than the fact that while the continental text-books and journals on military ophthalmology devote a large amount of space to malingering, and describe an infinite number of tests for its detection, our British text-books on the eye have little to say on the subject. Far from this being a reproach, it is a matter about which we should be proud, but it warns us that the time has come when we must take thought for the future.

As to the necessity for a high and invariable standard, no undue strain on the imagination is demanded when the extent of the Empire is considered. So long as the supply of men requisite for the Army on its peace-footing could be obtained in spite of severe tests, it would have been the merest folly to have enlisted men who were liable to break down even in a single function. The visually defective was a drag upon his company, and could always plead excuses. He was a difficult person to deal with on the range, and even if he could have been made efficient with spectacles, it may be asked where were eye specialists and appliances to be found at such stations as North China, Egypt, Bermuda, Straits Settlements, Gibraltar, Ceylon, South China, Jamaica, Mauritius, West Africa, Malta, South
Africa, and India. No doubt civilian help was available almost everywhere, but in actual warfare a myope with broken spectacles was a casualty, if only a minor one. He was more than a nuisance; he was a hindrance if he could not see more than five yards ahead.

The problem was to reduce the sick-roll to a minimum and to eliminate every possible source of weakness that might contribute to it. The high visual standard, therefore, was justified, and it would have been wasteful to have allowed a man who had any defect whatsoever to proceed overseas.

The amazing shooting of the original Expeditionary Force in the earlier days of the war, when almost every man was a marksman, and the endurance of that heroic first (and only) line are triumphant testimony to the soundness of the War Office policy of selection, organization, and training.

It will be convenient at this stage to examine the standards of vision as they came to be altered from time to time.

We need not go farther back than 1906, for the standard laid down in that year was in force up to and during the earlier weeks of the war. It was the following:—

(a) A recruit had to read $\frac{4}{5}$ with each eye separately without glasses, or, as an alternative—

(b) $\frac{6}{5}$ with one eye without glasses and $\frac{6}{5}$ with the other without glasses.

This was the standard for all units, with the exception of the Corps of Army Schoolmasters, whose vision had to be "good."

This held up to September 30, 1914, when the standard was amended and the following was found in force:—

(a) $\frac{9}{10}$ with each eye separately without glasses.

(b) $\frac{6}{5}$ with the right without glasses and not less than $\frac{6}{5}$ with the left without glasses.

(c) $\frac{6}{5}$ with the left without glasses and not less than $\frac{6}{5}$ with the right without glasses.

This (c) was requisite for the Army Service Corps, Royal Army Medical Corps, Army Ordinance Corps, and drivers of the Royal Artillery and Royal Engineers. It was adopted in 1912.

The second of these: (b) was subsequently reduced to R. $\frac{6}{5}$, L. $\frac{6}{5}$, without glasses. The earliest reference to this change that I can find is in the War Office Letter of September 30, 1915. This was the minimum for recruits till A.C.I. 211, dated February 4, 1917, thus:—

(1) (a) If a man's vision is $\frac{6}{5}$ in one eye without glasses, and his right eye can be brought up to $\frac{6}{5}$ with glasses, he will be considered fit for category A.

(b) If a man has lost one eye or has completely lost the sight of one eye, he will not be considered fit for category A.

This was cancelled by A.C.I. 421 of April 21, 1918, and the following substituted:—
(II) If a recruit can read *without glasses* not less than \( \frac{6}{12} \) with each eye, he may be accepted for category A without examination by an ophthalmic specialist. If the vision is below this standard, the recruit shall be sent for examination to an ophthalmic specialist.

(III) Category A: Vision R. or L. \( \frac{6}{10} \) without glasses, and not less than \( \frac{6}{12} \) with the worse eye, provided that the vision of one eye can be brought to \( \frac{6}{12} \) with glasses and that the visual fields are good.

Category B(i) Vision of the better or only eye without glasses not less than \( \frac{6}{8} \), provided that it is improved with glasses to \( \frac{6}{8} \).

Category B(ii) Vision of the better or only eye with or without glasses must be not less than \( \frac{6}{9} \). This is laid down as the lowest standard for any form of military service.

We have now to go back and examine these standards. Between August 4 and September 30, 1914, a large number of Territorials, whose vision was not tested, went overseas and took part in immemorial engagements. Those who survived were examined and the visually defectives sent home. But when the experiences of the early months of the war roused the nation to the stern necessity of enlisting every man capable of bearing arms, the tests for vision were ignored in the case of thousands who came forward either voluntarily or under some form of national service. In consequence large numbers of men with visual defects joined the colours, only to be thrown back on the hands of their commanding officers or medical officers who were at their wits' end to devise a means for utilizing them. Many, aware of their visual disability, deliberately took advantage of this laxity, and succeeded in passing into the Army in order to salve their consciences in the hope of being discharged as soon as their musketry training brought their defect to light.

Before the war had been in progress twelve months, the few ophthalmologists on home service were overwhelmed with cases of all kinds, and were helpless to dispose of men whose refractive error could be corrected, there being no department in existence for the gratuitous supply of spectacles till March, 1916.

One winter of trench warfare had sufficed to satisfy the appetite for soldiering in many instances, while rumours of the conditions that had filtered through were not encouraging to those who rated their personal comfort higher than their country’s need. With them any pretext which might provide an escape was seized upon, and visual defects, whether real or assumed, made their unwelcome appearance.

As the gaps in the ranks grew, it was clear that only by a profound national conviction could security be guaranteed, and one scheme after another was resorted to in order to awaken from their indifference those who were content to stand by and complacently let others bear the country’s burden.
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The attempts to stay out of the army, or to resist compulsion even in its most tolerant guise, called into being new methods of evasion, and the task of the country was not relieved and simplified by the attitude of those moral malingerers whose mental short-sightedness called for a remedy somewhat more heroic than a pair of spectacles. The demand for men, difficult even in its most obvious course, was not rendered less complicated by well-meaning but somewhat hastily considered efforts to obtain a lowering of the standard of vision. It was urged that were we to adopt the continental system of allowing a test with spectacles, numbers of men, excluded on account of vision, would be enlisted and the call to the colours would, to a considerable degree, be answered. It was whispered, 'too, that the Allies were pressing our authorities in this direction.

Those of our own people who took this view, which theoretically or academically appeared admirable, had not informed themselves of the fact that, at the actual moment of their agitation, all tests of vision laid down in the regulations had gone by the board, and that we were without any visual standard at all. That this was so was shown by the emphasis contained in War Office Letters which were issued from time to time, enjoining a strict adherence to the earlier standards laid down.

The fact was overlooked by those who were pleading for a lower standard that the wide extent of our operations was of itself a barrier to the insistence of a low and invariable standard, even though it were aided by such a fragile appliance as a pair of spectacles. Further, they took no account of gas masks, of mud, of rain, of constant wet, and the vigour with which they argued their point suggested that they had ignored one vital element in the problem, even if they had been able to speak with authority upon it, namely, the psychology of the soldier.

Those who had studied the soldier, especially him of the new armies earlier in the campaign, regarded with dismay the introduction on a huge scale of any scheme for the provision of spectacles, and it is significant that in the ophthalmic literature which has appeared since March, 1916, the date when the issue of spectacles became practical and all but obligatory, no ophthalmologist has come forward to discuss it save in terms of condemnation.

It is pretty certain that no matter the urgency of the time and the vital necessity for obtaining every available man, the acceptance, if not the insistence upon the adoption, of continental standards, gave many unwilling recruits and soldiers an easy mode of escape, and that in thousands of instances the spectacle-test suggested the loophole.

Conscription, it will be said, was to us a new aspect of military service, and it brought with it unexpected obstacles which had to be surmounted by machinery hastily improvised; again it will be said that as an experiment the spectacle-issue worked well, and with reservations this will be admitted frankly. But the question yet to be determined is whether
in the end the Army was the better—under the unforeseen and unusual conditions for a system which hitherto we had not been obliged to consider,—a system, moreover, which was appropriate as well as essential in the case of armies formed by conscription.

We may not yet be wholly done with conscription—we may yet have to see it organized and developed in such forms as will meet national aims and adjusted to satisfy national conditions and idiosyncrasies, but along with the thousands of pensioners who for years to come will prefer their claims, there will ever be those who may be trusted to make the most, and the worst, of their visual disabilities.

The civilian hospital patient in quest of aids for his defective vision gives the ophthalmologist every help in his power, he co-operates with him so that the result may be good and thereby his worldly circumstances improved. This unfortunately cannot be said of those who deliberately exploit their defects in spite of every effort to help them, and when once it is demonstrated to them that they have a physical defect, that defect becomes a grievance, and nothing will eradicate it. Therefore it is imperative that those whose appeals are legitimate and well-founded shall not suffer through the dissatisfaction and importunities of others less morally-stable, and a sharp line will come to be drawn between those who welcome the help at hand, and those who, while declining it in one breath, demand something more than its equivalent in the next.

II.—The Ordinary Test.

It is of the utmost consequence that the tests of a soldier's vision should be carried out under conditions which impress him with their seriousness and necessity. The man who deliberately sets out to deceive is not a fool in a broad sense: He is a fool only because he pits his ignorance and cunning against the scientific alertness of the examiner, but he is quick enough to note the surroundings and to take advantage of every opportunity.

It is not recommended that the test-types should be hung in a passage in a bad light, or even in a scullery. The room in which the examination is carried out should be equipped for the purpose, and well-found in every detail. Makeshifts proclaim the bungler, and the ophthalmologist emphatically is not in that category. An ophthalmoscopic lamp-bracket that can never be depended on to remain in a fixed position is a sign of inefficiency somewhere. Therefore it is inadvisable to allow the potential malingering, or even the willing soldier, the opportunity for making adverse comments. There should be nothing which he can complain about or criticize.

The test-types and their lighting should fulfil the conditions advised by the Council of British Ophthalmologists, and should be of the dimensions laid down by Snellen, and printed on a matt white surface. The War

Office "issue" is covered with varnish, and this is apt to turn a dirty brown after a time. There should be sets of confusion types, made by cutting up two or three sheets of type and rearranging their order. Cards should be at hand with one letter at the top as $\frac{6}{5}$, and not $\frac{6}{5}$, in imitation of the usual card. Men do not understand the size of the letters and go according to the number of lines. By this arrangement a man who has been coached to read only the two top lines so as to be placed in a low category, reads $\frac{6}{4}$ which passes him into the higher one.

Some Snellen types have the serifs much too numerous. The tails to the right of the E should be blocked out with flake white. In some A's the cross line is too near the top, so that there is not enough white in the triangle above it. A sound rule is that as far as is consistent with legibility, the amount of black should not greatly exceed the amount of white in the twenty-five units. There is no object in making the test-types too difficult.

For Russian Jews who stated that they could read only Russian, not Hebrew, characters, I constructed a special card on the Snellen scale. From $\frac{6}{5}$ to $\frac{1}{5}$ the letters used were those peculiar to Russian, but $\frac{6}{5}$ was made up of letters which were common in appearance to English and Russian founts, but had different names. Thus our C, P, E, H, X, Y and L (very like our lower case b when seen some way off), are in Russian, S, R, Yea, N, Khah, OO, and Yairee. If a man off his guard identified these by their English names, it was clear that he did know the English alphabet, and possibly a good deal more. These men were most difficult to deal with, and a smattering of Yiddish went a long way.

As it is just as important to obtain for the Army men with good visual acuity as it is to trap the malingering, every provision should be made to carry out the test with the utmost fairness to all. A candidate for Woolwich or Sandhurst would have a legitimate cause for complaint and a sound case for appeal were he rejected on account of vision after a test in a basement room, with grimy cards, and the light in his eyes.

Men have boasted that they have passed the test by learning the types by heart. Not much credence may be placed in their statement, but to prevent such a chance a card can be made up of letters cut from different sheets. Men have been known to pass by means of a simple device, practised when the medical officer is occupied with his papers, and merely listening when he ought to be observing as well. The man is told to cover his left eye and read. He puts his left hand over his left eye, which is defective. He is then told to cover his right eye. He raises his right arm and with his right hand again covers his left eye, reading still with the right eye. The use of the arms conveys the deception. To prevent such a trick, the medical officer should hold a card close to the man's nose.

Again, the full distance of six metres or twenty feet should be adhered to. In many a room the utmost distance, even when taken diagonally, is
below this, and thousands of men, whose vision was recorded on their Medical History Sheets (B. 178) as \( \frac{6}{6} \) in each eye when taken at the short distance, now claim that their sight, \( \frac{6}{12} \), as it actually was then, has deteriorated owing to military service.

Hurry, carelessness, lack of precision, and every vice that can creep into visual tests, add thousands of pounds to the yearly pensions bill.

It will be seen that there is no great mystery connected with the recording of a man's vision, and the system can be mastered in a few minutes. This remark, however, applies only to those cases in which the vision is \( \frac{6}{6} \) or better. When it does not reach this, an ophthalmoscopic examination should be made on the spot, or the man put back for the opinion of a specialist. It is more satisfactory to complete the record at one sitting, and to proceed with the ophthalmoscope at once. At this stage it is quite as important for military purposes to discover the possible cause of an alleged defect, and so to confirm the good faith of the man under examination, as it is to check a deliberately false statement.

A rapid method, therefore, may be put in practice when the alleged vision is stated as \( \frac{6}{12} \) or worse. For this purpose a blank disk is employed with a pin-hole in the centre through which the man is told to look. If he is willing and if no organic disease is present, he ought by this means to see \( \frac{6}{9} \) at least, even though he may have 3 or 4 D. of myopia. If he does not admit any improvement with this disc, some abnormality of the media or fundus is present, or he is malingering.

(This pin-hole diaphragm is referred to later in connection with musketry.)

It should be a strict point of honour, no matter how suspicious a man's manner may be, never to charge him with malingering until the case is proved. Again and again men have been branded thus on the strength of want of intelligence or vacant expression, whose inability to see better was due to myopia or myopic astigmatism. High myopes are met with in every station of life, and when they have neglected to provide themselves with correct spectacles, or have had to put up with makeshifts, they develop a characteristic "gaze" which may be construed as betokening stupidity. The ophthalmoscopic examination, then, is made as much in the interests of the soldier as of the Service and a little experience will determine whether his statement is consistent with the approximate estimate of any refractive error present.

In order to see if the admitted vision threw any light on the amount of myopia, I worked out a series of exhaustive calculations\(^1\) which may be partially summarized as follows, it being understood that the figures are only means.

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\(^1\) See Trans. Ophth. Soc. for 1918, p. 254, to which the reader is referred for details of the system employed.
Admitted vision, \( \frac{1}{10} \); mean refractive error ... \(-1.50\) D.

\( \frac{2}{10} \); \( \frac{3}{10} \); ... a shade over \(-2.00\) D.

\( \frac{4}{10} \); \( \frac{5}{10} \); ... just under \(-2.50\) D.

\( \frac{6}{10} \); \( \frac{7}{10} \); ... a shade over \(-3.50\) D.

The aim of the examination is secured and the man is protected against a serious charge when there is refractive or pathological evidence to confirm his statement. An approximate correction of a refractive error is all that is required at the recruiting office, provided that it raises the vision to the minimum standard, the man being put back for a more deliberate measurement and the prescribing of the suitable spectacles. But when there are corneal nebule, opacities in lens or vitreous, gross changes in the fundi or nystagmus, it is unreasonable to look for a high degree of visual efficiency, and the facts should be recorded. To repeat what I have said elsewhere, one medical officer may find tubercle bacillus; another may not. One medical officer may find albuminuria, another may not. One medical officer may chance upon a fleeting cardiac derangement, which has vanished before the next examiner applies his stethoscope. But a man with anterior polar cataract in each, with retinitis pigmentosa with optic atrophy, with ruptured choroid, with retinal detachment in one eye and traumatic cataract in the other, with posterior synechiae in each—the catalogue is endless—such a man has a definite, incontrovertible, and, above all, a visible lesion, which should relegate him for the rest of his life to such civilian duties as his vision will allow him to perform. He is not for the Army, and whatever help he may gain by attendance at a civil hospital, the Army is not for him.\(^1\)

When, however, there is nothing to account for the alleged vision, the examiner is face to face with a very different order of things, he has to deal with a class of mind which has to be studied possibly with some science, but mainly if not wholly with mother-wit.

But first let us follow up the refractive error. We will assume that the error has been determined approximately, and that the man has been referred back as likely to be made efficient with spectacles. With intelligent men who have had the wisdom to provide themselves with spectacles for their occupation in civil life, there is no difficulty. But one device must not be overlooked. It sometimes happens that a man who is anxious to evade the test arms himself with a pair of spectacles which are not his correction, or anything near it, hoping by displaying them to impose upon the examiner. The discrepancy between the refractive error, if any, and the strength of the lenses will summarily explode that fiction.

Some time in 1916 there was an amazing "run" on spectacles of any kind in a small town, in anticipation of the forthcoming visit of a travelling

\(^1\) See *Trans. Ophth. Soc.*, 1917, p. 361. The conditions mentioned were found in men who had been in the Army under three months.
Recruiting Board; and a pair of glasses, bought for sixpence off a barrow in Petticoat Lane on a Sunday morning, has puzzled many an examiner not yet initiated into the Sacred Rites.

The genuineness of the spectacles with which a man has provided himself in civil life can be confirmed simply by ascertaining what he sees with them. If a myope does not see more than \( \frac{4}{6} \) with his correction, it is probable that it is a compromise for constant use, and he will doubtless see \( \frac{6}{6} \) at least with its strength increased by a trial lens of \(-1\) to \(-2\) D. placed in front of it. Similarly if a hypermetrope does not see with his spectacles beyond \( \frac{6}{6} \) the inference is that they have been prescribed for near work, and a reduction of their strength, checked by the opthalmoscope, will bear this out. Spectacles obtained privately give a good correction as a rule.

It is a different matter, however, when glasses have never been worn for an obvious error. Here the question arises whether it is wise to correct it at all, or to leave the man alone with \( \frac{4}{6} \) or \( \frac{6}{6} \). It must be remembered that it is not every soldier who is eager to have his sight improved. Many prefer to remain in a low category with their defect, and are on the defensive when their vision is brought up to normal. The question cannot be settled by rule of thumb; each case must be judged on its merits. The man's character should be studied, and the opinion of his commanding officer or company officer obtained. A smart and willing soldier is always an asset and an influence for good, and no pains are thrown away if his vision can be improved. Those who refuse glasses in order to stay in a lower category might be placed in the category for which they would be fit were they to accept spectacles. The mere test with trial-lenses demonstrates to the man that a means is at hand for aiding him to see normally. The examiner cannot estimate the amount of improvement with the correction: he has to accept the man's word, and the precision of a measurement may defeat the end in view by suggesting a course of deception which nothing can stop.

Sufficient importance is not attached on all sides to the reports of specialists, and often the specialists themselves are to blame for not using language or terminology adapted to the special needs of the case. It is useless, for instance, to write, "R.E. \( \frac{4}{6} \), L.E. \( \frac{6}{6} \). No improvement. Vision very defective." A bald statement of this kind entails a further examination by another specialist, who draws his own conclusions as to the efficiency of his colleague. A report should convey all that is necessary to the Board without the Board having to see the man himself. Reports get lost or are tossed aside by medical officers, too indifferent to study them. The writer once heard a report of his on a case of detachment of the retina, drafted with the most complete detail, described impertinently as "some rigmarole." If this attitude were general, it would save an infinite amount of labour, often heart-breaking, were all visual tests dispensed with.
Every record of a soldier's visual tests should be preserved so as to obviate repeated examinations by specialists, and thereby deny him the advantage of a liberal education in the art of deception. It is suggested that the result should be stamped on a strip of aluminium, in the style of the identity disk, which should form part of the man's kit. At present spectacles, as an "appliance," are not reckoned among the soldier's belongings which are issued to him.

Again, from the point of view of economics, a searching examination should be made of every instance of visual defect discovered on enlistment, and a note made of the minutest detail. It is idle to assert that a progressive disease like retinitis pigmentosa, for instance, is due to, or even aggravated by, military service, but if it has been overlooked on enlistment, with a by no means improbable vision of $\frac{1}{2}$ or better in each, "aggravation" must be admitted, and a higher scale of pension adjudged, to be paid out of the public purse, to which the examiner himself has to contribute.

In the haste and confusion of a recruiting station working under pressure, there is no time for the exact and leisurely work which the ophthalmologist carries out in his hospital and private practice. A man who is passed into the Army with an undetected, permanent, pathological defect, is entitled to the claim of aggravation, but the thousands of pounds which will be handed over to such cases would assuredly have been saved had it been possible to obtain a staff large enough to cope with the numbers, and a department fully equipped for the purpose for which it existed.

In view of claims for pensions, the urgency of making a thorough examination of every man with vision below $\frac{1}{2}$ can best be emphasized by figures. Out of 13,000 eye cases seen in four years with an ophthalmoscopic examination invariably made, excluding war injuries, the following were found:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Cases</th>
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<tbody>
<tr>
<td>Congenital cataract</td>
<td>193</td>
</tr>
<tr>
<td>Senile cataract</td>
<td>41</td>
</tr>
<tr>
<td>Vitreous opacities</td>
<td>120</td>
</tr>
<tr>
<td>Corneal nebulese</td>
<td>590</td>
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<tr>
<td>Choroiditis in various forms</td>
<td>417</td>
</tr>
<tr>
<td>Retinitis pigmentosa</td>
<td>31</td>
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<tr>
<td>Optic atrophy</td>
<td>114</td>
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<tr>
<td>Nystagmus</td>
<td>87</td>
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<tr>
<td>Refraction errors</td>
<td>5,013</td>
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There may be abnormalities in favour of the patient, and these have to be investigated with the greatest accuracy from the economic as well as the moral point of view. It must also be kept in mind that latent or healed lesions may be lit up by the hardships of active service. Caution should be taken in investigating these, not only that blame may not fall upon an innocent man, but also that a career of exaggeration or deceit,
William Wallace

may not be suggested by a tactless remark or by an overheard discussion of the case with another medical officer. It may be a matter for serious consideration as to how much a man should be told of the technical side of his defect, and the patience and consideration given to his case may be misconstrued. In this respect there is a vast difference between military and civil practice, diagnosis alone being called for in the recruiting office or on the Medical Board, and not treatment as well.

(To be continued.)