considered to be completed? It is just time to begin the work again.

Fourthly, as 70 per cent. of the Army ophthalmic work is refractions and as the amount of eye operative work undertaken is almost negligible at the present, and will remain so until a second front is formed, why not employ supervised opticians who are capable of doing refraction work when there are obviously insufficient ophthalmic surgeons to perform the large volume of this work promptly and thus prevent soldiers from being immobilised in Base Depots whilst awaiting refraction and glasses.

I had the privilege of working with and observing the organisation of many Allied Ophthalmic Units in the Middle East for eighteen months and, without prejudice, I am certain that the staffing and organisation of the ophthalmic units of the Australian General Hospitals and Australian Optical Workshops are, for the purposes of this war and its winning, by far the most practical and efficient I have met. The refraction work is done well by opticians, the outpatient waiting list surprisingly low, the supply of spectacles speedy and reliable, and I attribute these facts to the discriminating use of the services of trained and registered opticians, all under the surveillance of ophthalmic surgeons. There is one ophthalmic surgeon and one optician to each Australian General Hospital, with one Australian Optical Workshop (staffed by two opticians under medical supervision) to approximately every two hospitals. It is not ideal and would not be contemplated in civil practice, but we are fighting a deadly war and every service must run efficiently and speedily. To suggest that the services of these opticians should be dispensed with (thus producing an obvious slowing-up of the eye service) in order to save the practices of ophthalmic surgeons after the war is beyond my conception and I simply reply that, if we lose this war, there will be no payable practices for any eye surgeons whatsoever, throughout the Empire.

I therefore submit the Australian system to your readers and leave for their consideration the excellent results of such a service.

Yours faithfully,

J. BRUCE HAMILTON,
Major.

7th AUSTRALIAN GENERAL
HOSPITAL, A.I.F., July 12, 1942.

TWO CASES OF ORTHOPTIC INTEREST

To the Editors of THE BRITISH JOURNAL OF OPHTHALMOLOGY.

DEAR SIRS,—With reference to the article entitled "Two Cases of Orthoptic Interest" by E. B. Alabaster, C. Rudd and M. Tree, which appeared in your last number, it appears that the two cases
quoted are certainly "of interest," but, I think, hardly in the direction that the authors would wish.

They have described the clinical course of two illustrative cases, implying that orthoptic treatment was probably of doubtful value in the first case, and that although no such treatment was given in the second case, the absence of ocular symptoms, in spite of the displacement of the eyeball, was an astonishing fact.

Both cases call for comment. I venture to suggest that as the authors present them, they show a misconception of the scope of orthoptic treatment, a lack of appreciation of the value of the simple cover test as an aid to demonstrate the presence of single binocular vision, and an inability to grasp the fact that mechanical displacement of the eyeball is not necessarily accompanied by a deviation of the visual axes when looking straight ahead.

The first case quoted is one of periodic convergent squint of the accommodational type associated with hypermetropic astigmatism, for which the most important treatment is obviously the correction of the error of refraction, as was in fact carried out. If in such a case the eyes are "straight" when glasses are worn, i.e. if single binocular vision is present, as can be demonstrated by means of the properly applied cover test, then the normal development of the binocular reflexes will in most cases occur whether orthoptic treatment is employed or not, provided that the glasses are worn habitually.

Orthoptic treatment, however, is in such instances of great value in helping to overcome the tendency for ocular neglect (or suppression), in helping to stabilise the binocular reflexes, and in teaching the patient "control," so that deviation of the visual axes does not take place, even periodically, or on such occasions when the glasses are not worn.

It should be remembered that the presence of an angle of deviation of +6 (or even as much as +15) as measured by the Synoptophore, or as demonstrated by means of the Maddox Rod does not imply that the patient has a manifest squint. The power of fusion and the ability to overcome the "convergence tendency" may enable a patient with a large degree of latent deviation to obtain single binocular vision quite easily.

The orthoptic report, of the first case quoted, dated November 25, 1937 (after a course of orthoptic treatment which commenced in February, 1935) states "Fusion ir5°, and abduction to 0°;" which sounds a satisfactory state of affairs: and yet in the next sentence one reads "... it was decided that further orthoptic treatment should be discontinued and the case was discharged as a cosmetic result." I would venture to suggest that at this stage, and no doubt even before orthoptic treatment was given, the patient probably had single binocular vision (except when periodically squinting), although the authors give no evidence to substantiate or...
disprove this. The result, therefore, far from being merely "cosmetic" was in fact probably a good functional one. It was only necessary for the "passage of time" to elapse, with the natural further refinement of the binocular reflexes before full stereoscopic vision developed and a further decrease in the angle of deviation occurred, as measured on the Synoptophore, before the final pronouncement of a "cure" could be made. (As Chavasse* aptly states "leave 'em alone and they'll come home."

The value of giving any one case a course of orthoptic treatment comprising as many as 197 more or less consecutive visits is a point that is open to question, but at the end of that period to pronounce the case merely as a "cosmetic cure" could only indicate that the time spent on the treatment was employed to little purpose!

In the second case it would seem obvious that orthoptic treatment was certainly not indicated. In spite of the displacement of the right eye the Maddox Rod test showed the presence of Orthophoria when the patient looked straight ahead.

This case clearly demonstrates, that mechanical displacement of the eyeball is not necessarily associated with deviation of the visual axes, and therefore not necessarily associated with heterophoria or heterotropia.

It is entirely a question as to whether the "displacement" of the eyeball is, or is not, associated with a disproportionate tilting of the eyeball causing a loss of the correct directional alignment of the visual axes. If the eyeball is merely displaced without any "disproportionate tilting" no deviation occurs, either latent or manifest, and no abnormality of binocular vision need be expected.

The amount of "displacement" does not of necessity bear any relationship to the phenomenon of deviation, a large amount of displacement may occur without any deviation of the visual axes, on the other hand a small amount of displacement may be accompanied by a large degree of deviation.

It, however, often happens that in the case of a displaced eyeball, such as is described, heterophoria may occur when vertical or horizontal movements are undertaken, in which case the strong power of binocular vision present is frequently sufficient to overcome the latent deviation, especially if it is unnecessary for such movements to be exercised for any length of time. On the other hand, if the deviation is too great for this to occur "Monocular neglect" may take place when such movements are carried out and in this way diplopia avoided.

The case as quoted is a type that is not uncommon, in which the eyeball is displaced as a whole downwards, slightly backwards and tilted somewhat backwards causing a relative paresis of depression and of elevation. The more successful treatment is the reduction of the fracture of the floor of the orbit, carried out shortly after the

*Chavasse, F. B. (1939).—Worth's Squint.
injury, so that the normal anatomical relations of the part may be restored.

On the subject of ocular deviation and binocular vision in general there appears to be a tendency for vagueness of thought, procrastination and indecision, due largely to a lack of detailed clinical examination, and the article discussed in the letter, although giving an admirable clinical description of two interesting cases, rather than helping to clarify the subject, appears to make something which is simple appear to be complicated.

Yours truly,

T. KEITH LYLE.

42, CHARLES STREET,
BERKELEY SQUARE, W. 1.
July 30, 1942.

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NOTES

We understand that Major H. B. Stallard has been mentioned in Despatches for devotion to duty and for service of exceptional merit.

Ophthalmology is well represented in a recent list of eleven distinguished medical men to have been elected Honorary Fellows of the Royal Society of Medicine by the award to Sir John Parsons, F.R.S., and to Sir Henry Lindo Ferguson, of Otago, New Zealand.

The Leslie Dana Gold Medal

It was announced on May 30, in New York City that the award of the Leslie Dana Gold Medal for the current year had been made to Lewis H. Carris, Director Emeritus of the National Society for the prevention of blindness.

Post-graduate Lectures in Ophthalmology at Glasgow

The usual Autumn course of lectures has been arranged as follows:—Wednesday, September 9, Professor Riddell—"Certain Aspects of Retinal Function"; Wednesday, September 16, Dr. Paul Bacsich—"Comparative Anatomy of the Retina"; Wednesday, September 23, Professor Loewenstein—"Lipoidal Changes in the Retina"; Wednesday, September 30, Professor Ballantyne—"Pathology of the Retinal Veins"; Thursday, October 1, Mr. Eugene Wolff—"Normal Histology of the Retina"; Friday, October 2, Mr. Eugene Wolff—"Pathological Histology of the Retina."

Special Notice

We are asked by the Ministry of Information to state that the fact that goods made of raw materials in short supply owing to war conditions are advertised in this journal should not be taken as an indication that they are necessarily available for export.