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OPHTHALMIC CASES SEEN DURING A PERIOD
OF FOUR YEARS IN THE R.A.M.C.

BY

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THE following statistical report gives an analysis of the ophthalmic cases seen by one specialist during an uninterrupted period in the R.A.M.C. of four years, from the beginning of May, 1915.

It comprises cases seen at the Military Hospital, Colchester, chiefly out-patients and a few in-door; in-door patients at the Military Hospital, Bethnal Green; out-patients at No. 2 London General Hospital, Chelsea; and out-patients seen during the last weeks of service at No. 4 London General Hospital, Denmark Hill.

As the method of examination was identical in each hospital, the cases may be grouped as a whole, and local conditions will be described as they arise.

The totals are the following :

Colchester, 25 months :

New cases, out-patients	6,489	
Further attendances	4,200	
In-patients	276	
	—	10,965

Bethnal Green, 4 months :

In-patients	251	
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Chelsea, 17 months :

New cases, out-patients	5,758	
Further attendances	1,642	
	—	7,400

Chelsea, casual out-patients, and Denmark

Hill, new cases, 2 months	409	
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Total	<u>19,025</u>
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Spectacles prescribed or ordered	<u>2,422</u>
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Artificial eyes supplied, Chelsea and Denmark Hill	<u>1,469</u>
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Colchester.—An ophthalmic department at the Military Hospital, Colchester, did not exist when I was posted there at the beginning of May, 1915, and as no M.O. at the time was deputed specially to attend to eye cases, they were entrusted to me. As soon as it became known that these cases could be dealt with at the hospital, the M.O.'s attached to the various regiments in the garrison began to send up men for visual tests or treatment, and these patients formed the nucleus of a clinique which, as the numbers show, increased to such an extent that an out-patients' department had to be provided for eye-cases. In addition, the services of a second ophthalmologist were required at intermittent periods.

By October, 1915, the out-patient department had justified its existence, and was officially recognized by my being accorded the status of ophthalmic specialist to the Colchester district.

The in-door cases were scattered throughout the hospital at first. Occasionally four or five beds were found in one ward, but it was not till July, 1916, that part of a hut was set apart for eye-cases requiring in-door treatment. This accounts for the small number of in-patients, and reference to this will be found below.

The Ophthalmic Centre was opened in March, 1916.

In October, 1916, I was appointed inspector of Ophthalmic Centres in the Eastern Command, the system initiated at Colchester apparently having proved worthy of adoption by the other eighteen Centres in the Command. My responsibilities in this direction ceased with my transfer to the London District at the end of May, 1917.

The Colchester District comprises the three counties of East Anglia, and men were sent in from the scores of stations in this part of the country. Serious cases admitted from convoys to attached Auxiliary Hospitals had to be reported at once and were attended to on the spot or transferred to the Hospital if they could be moved. In this way control was exercised over a very wide area.

Indoor Patients—Colchester

Affections of lids and lacrymal apparatus	...	65
Cornea		34
Iris and ciliary body		12
Lens		8
Vitreous		5
Choroid		3
Retina		12
Optic nerve		3
Medical examinations		36
Refractive anomalies		14
Wounds and injuries		82
Gas		2
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		276

This analysis refers only to men admitted between July 3, 1916, and May 25, 1917, the period during which beds were set apart for ophthalmic cases. In the preceding fourteen months these cases were not segregated, and many were undergoing treatment for diseases other than ophthalmic. They were not regarded purely as eye-cases and no special records were kept. Further, in these earlier months, and indeed throughout the entire period, men with affections of the lids and lacrymal apparatus, cornea, and iris were dealt with as out-patients. This practice had to be adopted as a measure of expediency, and explains why, out of a total of 6,765 in- and out-patients, only 276, or 4·03 per cent., received in-door treatment. It was a time of great pressure on the accommodation owing to the large convoys that were constantly arriving.

There is little to note in the first three groups of the above table. Only one case of gonorrhoeal infection of the conjunctiva was seen, contracted innocently by an N.C.O. who was splashed in the face with urine from a soldier whom he was attempting to restrain from making water in a hut. There was a small ulcer of the cornea and some iritis, but the eye was saved, and the vision of 6/18 had every prospect of improvement. The vision of the unaffected eye was normal.

At this time ruptures of the choroid had not made their appearance in the numbers that they did later on, only two being found in ward patients.

There were five cases of albuminuric retinitis, in one of which the visual defect was the first symptom. An effort was made to examine the nephritis cases in the medical wards, but constant pressure of work in the out-patient department prevented this being carried out as systematically as would have been desirable.

A case of brain tumour was admitted, having been sent up first as an out-patient, when double papilloedema was detected.

Under *Medical Examinations* came those cases on the medical side in which an ophthalmoscopic examination was requested.

The refraction anomalies occurred in men who had come from a distance and could not get back to their quarters the same night.

Wounds and Injuries were chiefly external injuries (28) and the same number applies to eyes excised before admission. Enucleation was performed in two cases, each of which had had an eyeball ruptured while the patient was on manoeuvres in the neighbourhood.

There were four cases of a foreign body located by X rays in the globe. Enucleation was performed in two; the third refused operation; and the fourth had vision of 6/9 in the injured eye. A fragment of copper from a detonator had penetrated the sclerotic and was clearly seen in the vitreous.

Cases requiring the magnet fortunately did not occur, there being no appliance of the kind at hand.

Out-Patients—Colchester

Affections of lids and lacrymal apparatus ...	407
Cornea ...	477
Iris and ciliary body ...	111
Lens ...	229
Vitreous ...	54
Choroid ...	230
Retina ...	78
Optic nerve ...	125
Medical examinations ...	160
Nystagmus ...	48
Anomalies of refraction ...	3446
Wounds and injuries ...	283
Examinations for commissions ...	166
No treatment necessary ...	627
Examinations not completed ...	48
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Total new cases ...	6489
Further attendances for dressings, etc. ...	4200
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Total ...	10689
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Spectacles prescribed or ordered from A.S.D. ...	1078
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From this table it will be seen that affections of the lids and lacrymal apparatus, cornea, and anomalies of refraction made up the bulk of the cases, while wounds formed a comparatively small group. Some explanation is provided by a consideration of the period under review. At its beginning, i.e., in May, 1915, the incessant demand for men no doubt relaxed or suspended the examination of the eyes, and men with chronic conditions of the lids and cornea, and others with extreme degrees of refractive errors, were enlisted. In addition to these, there were units composed of men who had seen service overseas and had been sent home on account of defective vision. Among them were Territorials who had volunteered early in the war; myopes and spectacle-wearers whose vision had not been severely tested; others were reservists whom the rigours of the first winter had broken down. These swelled the numbers of corneal nebulae (271), the varieties of cataract other than traumatic (see the table below), choroidal affections (200) and optic atrophy (75).

Affections of the Lens

Congenital cataract	...	...	...	88	
Senile cataract	...	...	...	30	
Polar cataract	...	...	...	10	
Traumatic or concussion cataract	...	...	...	60	
Dislocation of lens	...	...	...	9	
Aphakia	...	...	...	32	
Total	...	...	...	229	Ratio 3.52 per cent.

Affections of the Choroid

Choroiditis	...	...	...	93	
Choroiditis disseminata	...	...	...	25	
Choroiditis, degenerative	...	...	...	74	
Choroido-retinitis	...	...	...	8	
Albinism	...	...	...	2	
Rupture and trauma	...	...	...	28	
Total	...	...	...	230	Ratio 3.54 per cent.

Affections of the Retina

Retinitis	...	...	...	9	
Retinitis pigmentosa	...	...	...	11	
Retinitis albuminurica	...	...	...	5	
Retinitis haemorrhagica	...	...	...	5	
Detachment	...	...	...	35	
Concussion	...	...	...	13	
Total	...	...	...	78	Ratio 1.20 per cent.

Affections of the Optic Nerve

Optic neuritis	17	
Optic atrophy	75	
Toxic neuritis	14	
Embolism and thrombosis	1	
Congenital defects	18	
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Total	125	Ratio 1·92 per cent.

Subjective and Central Defects and Medical Examinations comprised those cases in which the Medical Officers requested an ophthalmoscopic examination which might throw light upon the diagnosis.

The above lists established a strong presumption that permanent organic lesions had existed before enlistment, and emphasized the necessity of an ophthalmic examination in the case of all recruits whose distant vision was not better than 6/24.

Anomalies of refraction will be discussed as a whole along with those of the 2nd London General Hospital.

Reference, however, may be made to the number of cases of *Nystagmus*, which, in the four years under review, amounted to 87. It is questionable whether any military advantage is gained by the enlistment of men with so obvious, and in these instances, so incurable a defect, due in their case to pathological conditions and not to occupation.

Injuries—Colchester

External injuries... ..	80	
Irido-dialysis	3	
Optical iridectomy	5	
Traumatic paresis iridis	1	
F.B. and abrasions of cornea	39	
Wound of globe	12	
F.B. in globe	13	
Wound of orbit	10	
Phthisis bulbi	1	
Primary enucleation	7	
Previous „	112	
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	283	Ratio 4·36 per cent.

The more severe of these were seen at out-lying Auxiliary Hospitals, and dealt with on the spot.

Previous enucleations were included for the reason that most of the sockets needed treatment of some kind, but cases requiring

extensive plastic operations did not attend. They were sent to Epsom, where also men were fitted with artificial eyes.

Bethnal Green Military Hospital

Cases seen from May 15, 1917, to September 27, 1917.

Affections of lids and lacrymal apparatus	...	...	7
Cornea	...	...	10
Iris and ciliary body	...	...	4
Lens	...	...	13
Vitreous	...	...	3
Choroid	...	...	19
Retina	...	...	19
Optic nerve	...	...	3
Medical examinations	...	...	31
Nystagmus	...	...	1
Anomalies of refraction	...	...	50
Wounds and injuries	...	...	30
Gas	...	...	44
Aneurism	...	...	1
No treatment necessary	...	...	16
Total	...	...	251

There was no established eye department here. The out-patients were men sent from Mile End Military Hospital for an opinion or treatment, or men on leave who strayed into the Military Hospital nearest their homes. The in-patients were attended to in the various wards, but no remarks are called for except in the case of those suffering from the effects of *gas*.

The reports that follow apply to all cases of this nature seen by the writer, irrespective of the hospital.

Report on Gas Cases

Bethnal Green.—Forty-four cases were reported by the Staff for special examination and treatment.

The dates when the men were affected ranged from July 10 to September 7, 1917. The place of origin was France. The gas was called indiscriminately "mustard" or "new" or "shell." In three instances the men could not give it a name.

The hour when the exposure occurred in most cases was between 11 p.m. and 3 a.m. Some men were asleep at the time and could not be warned. Two men were exposed at 5 p.m. and two between 8.30 and 9 p.m.

The mask was stated to have been worn at the moment of

exposure in 19 cases. In 22 cases it was not worn. In three the men could not say definitely whether it was on or off.

In two cases acute conjunctivitis set in immediately. From four to eight hours was the period that elapsed before the eyes became irritable with severe conjunctivitis, oedema of the lids, and photophobia. This condition—called by the men “complete blindness”—persisted for two to eight days, and when seen at Bethnal Green, it had reached the sub-acute stage. In most there was photophobia and lacrymation. In one case there were subconjunctival haemorrhages. In two the corneae were clouded. One of these was a man of 39 years of age in the R.E. Railways, and there was a suspicion of old keratitis which had been lit up by the irritation.

In the other—a syphilitic subject—there was choroiditis of old standing in one eye, with lental and vitreous opacities. He was admitted five days after being gassed, with much oedema of the lids and purulent conjunctivitis, which cleared up in 48 hours. The effects of gas, if gas was the cause, were not severe, for the man was able to tolerate repeated ophthalmoscopic examinations beginning a few days after admission. This circumstance, taken in conjunction with the rapid disappearance of the purulent conjunctivitis, seemed to indicate an element of artefact, which subsequently was proved to be present.

Styes developed in two cases in the same ward, possibly by secondary infection.

Owing to the cases being discharged to Auxiliary Hospitals as soon as they could be moved, many were lost sight of before a record of the vision could be taken and an ophthalmoscopic examination made. This however was done in 19 cases, but nothing abnormal was found beyond an occasional refractive error of low degree.

The iris was not involved in any case.

The treatment consisted of copious douches of a saturated solution of bicarbonate of soda or normal saline. On admission, this was followed by a drop of a 1 per cent. solution of atropin, and the routine practice was to use a weak solution of sulphate of zinc or of nitrate of silver as eye-drops as the individual case indicated.

Much relief was obtained from adrenalin, 1 in 1,000, and this instilled in the morning lasted throughout the day. No reaction was noted.

Chelsea.—The gas cases seen in the out-patient eye department at No. 2 London General Hospital from October, 1, 1917, to February 28, 1919, numbered 69 out of a total for the 17 months of 5,758 new cases. They were chiefly sent in from outside hospitals for suggestions as to treatment, and, with one or two exceptions, all were convalescent.

One man was sent in as a gas case, with no symptoms present. He was about to be discharged after three months in hospital for quite a trivial wound. An examination of his papers did not disclose anything about gas, but the word "gas" had been added to his Field Medical Card, in a handwriting and with a pencil quite different from those of the Medical Officer who signed it. There was nothing whatever the matter with his eyes, and the inference was that this part of the diagnosis was his own.

It is difficult to discriminate between a pure gas conjunctivitis and one that is an artefact when the convalescent stage is reached. A man may deliberately expose himself by discarding his mask in the dark. On inquiry it was found that some preferred to take their chance unprotected, as they said the apparatus prevented their seeing where they were going. They complained that they were rendered blindfold at critical moments by mud or wet on the eye-pieces, or by condensation on their spectacles if they were wearing them.

"Moral suasion" was effective in some cases, and the peremptory order to remove goggles or eye-shade, delivered when least it was expected, sometimes was the turning-point in chronic cases.

Report of the work of the ophthalmic out-patient department and Ophthalmic Centre, No. 44, 2nd London General Hospital, Chelsea, from October 1, 1917, to February 28, 1919.

The sphere of the Department comprised the whole area of the London District, extending from Purfleet to Richmond, and including the Guards' Depôts at Windsor and Caterham.

Walking cases were sent up for an opinion from Bethnal Green, Mile End, Hampstead, Tooting, Fulham, Springfield, Richmond Park, Dollis Hill, and other Military Hospitals, while Wimbledon Camp and the various scattered centres of the R.A.S.C. and Labour Centres provided considerable numbers.

Cot cases were seen when necessary at Bethnal Green Military Hospital, and at the Prince of Wales's Hospital for Officers.

Candidates for Woolwich and Sandhurst were tested from time to time, and a large number of examinations were carried out on the Medical Appeal Board for Officers at Adastral House.

The entire work of the out-patient department was under my charge between the above dates.

For statistical purposes the end of February was fixed as the termination of the period, demobilization of the ophthalmic section of the Hospital having begun on March 1. After that date some cases were still seen there, but these have been included in the return for Denmark Hill, which took over the Chelsea Ophthalmic Centre.

Summary of Out-door Cases.—Chelsea*

Affections of lids and lacrymal apparatus	260
Cornea	365
Iris and ciliary body	106
Lens	235
Vitreous	92
Choroid	263
Retina	118
Optic nerve	89
Subjective and central defects	29
Medical examinations	122
Nystagmus	35
Anomalies of refraction	2,072
Injuries	177
Enucleations	1,132
Gas	69
Aneurism	1
Exostosis	1
No treatment necessary	592
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Total new cases	5,758
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Second and further attendances	1,642
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Grand total	7,400
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Spectacles ordered	1,290
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Artificial eyes issued	1,367
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Under *Cornea* the number of cases of nebulae was 230 or 3.99 per cent. of the total new cases.

Affections of Lids, Lacrymal Apparatus, Iris, and Ciliary Body do not call for special remark.

* The figures for the months of October, November, and December, 1917, in the table below were included in the return for the 39 months mentioned on page 5 of *Statistical Reports*, No. 3, "Analysis of 8,670 Ophthalmic cases, etc.," dated January, 1919. But in spite of this overlapping, the total figures during the period when I was at Chelsea, viz., from October 1, 1917 to February 28, 1919 are given, as the present Report deals with my personal experience of ophthalmology in the Army, without reference to any particular hospitals.

Details of Affections of the Lens

Congenital cataract	...	...	80	
Senile	...	...	11	
Polar	...	...	7	
Traumatic and concussion	...	...	88	
Dislocation of lens	...	...	3	
Aphakia	...	...	46	
Total	...	...	235	Ratio 4.08 per cent.

The numbers under *Traumatic Cataract* and *Aphakia* refer to cases sent in for an opinion and report, and not to any extent to cases in the wards of the Hospital.

Details of Affections of the Choroid

Choroiditis	...	...	61	
„ disseminata	...	...	19	
„ degenerative	...	...	89	
Choroido-retinitis	...	...	20	
Rupture and trauma	...	...	74	
Total	...	...	263	Ratio 4.56 per cent.

There were a few cases of *Choroiditis* seen soon after dimness of vision was complained of, probably due to tubercle. The cases of degeneration were for the most part extreme degrees of myopia in which glasses had never been worn. The comparatively large number of traumatic cases indicates the stage that the War had reached. Several dated back to 1915 and were found in men who had continued in the Army.

Details of Affections of the Retina

Retinitis	...	...	17	
„ pigmentosa	...	...	19	
„ albuminurica	...	...	2	
„ haemorrhagica	...	...	2	
Detachment of retina	...	...	46	
Concussion	„	...	32	
Total	...	...	118	Ratio 2.04 per cent.

Several of the cases of *Detachment* could not be assigned to any cause, but the majority and the instances of *Concussion* were referable to wounds received in the War.

Details of Affections of the Optic Nerve

Optic neuritis	...	...	...	14	
„ atrophy	...	...	...	34	
Toxic neuritis	...	...	...	9	
Embolism and thrombosis	...	...	...	3	
Congenital defects	...	...	...	29	
Total	...	...	...	89	Ratio 1.54 per cent.

These cases were relatively fewer than might have been expected, but the probability is that they, and others of a similar kind, had already been weeded out of the Army. Compare the numbers noted at Colchester.

The *Congenital Defects* were for the most part opaque nerve fibres, and there were two or three cases of "holes" on the disc.

Subjective and Central Defects and *Medical Examinations* included those cases sent in for an ophthalmoscopic examination and report. When anything abnormal was discovered in the latter group, it was classed under the ophthalmological heading to which it belonged.

Nystagmus has already been commented upon.

It is convenient to take *Anomalies of Refraction* noted at Colchester along with those of Chelsea, for reference has to be made to each as an ophthalmic centre. The cases fall into two divisions as the following tables show.

Anomalies of Vision, Symptomatic, Mechanical, and Motor

	Colchester.	Chelsea.
Ciliary spasm	12	5
Asthenopia	38	35
Amblyopia in one eye	159	167
Strabismus	146	79
Total	355	286

Uncomplicated Refractive Errors

	Colchester.	Chelsea.
H. and H.As.... 861	Ratio 13.26	394 Ratio 6.84
M. and M.As. 1,927	29.69	923 16.03
Mixed As. ... 156	2.40	158 2.74
Presbyopia ... 147	2.26	311 5.40
Totals... 3,091	47.61	1,786 31.01

The ratio is calculated on the total number of new cases at each hospital.

These cases cover two distinct periods: (1) that which preceded the establishment of the Army Spectacle Depot, i.e., up to March, 1916, and (2) the period that followed, which again is subdivided into (a) the period during which the strength of glasses issuable was strictly limited, and (b) the subsequent period when these limits were extended, to the material advantage of the soldier and in no less degree to that of the ophthalmologist. The authority for this extension was A.C.I. 1371, dated September 6, 1917, with an additional amendment, A.C.I. 654, dated June 11, 1918.

In the period immediately preceding the creation of the A.S.D., i.e., before March, 1916, the machinery in existence for the supply of glasses consisted of oval frames and loose spherical lenses, the glazing and fitting being carried out in the Department.

When the A.S.D. came on the scene, matters improved, and cylinders could be prescribed; but the limits in the strength of glasses issuable tied the hands of the ophthalmic surgeon.

With the ultimate extension of the limit no correction in reason was refused, provided that it made the patient efficient for military purposes, the only ground to justify the issue of spectacles.

The comparative tables of the refractions at Colchester and Chelsea are significant. The ratios show that in the Chelsea period the cases of hypermetropia, with or without astigmatism, and myopia, with or without astigmatism, had diminished by one-half; that mixed astigmatism remained about constant; but that presbyopia had more than doubled. These results can be interpreted in various ways.

(1) In the earlier period men with refractive errors requiring correction for military purposes were enlisted without much regard for their visual acuity.

(2) The absence of facilities for providing cylinders up to March, 1916, brought to notice a large number of men who had never worn glasses, and who had failed in musketry.

(3) The constitution of the Army, under varying conditions of enlistment, may also afford some explanation.

(4) The establishment of Ophthalmic Centres and the issue of spectacles to men already in the Army, gradually reduced the number of men requiring to be provided, while a fair proportion of young recruits had already obtained glasses for their civil occupations.

(5) The increase in presbyopia is accounted for by the fact that middle-aged men in the Army had grown older, and also by the raising of the military age for home service.

Spectacles ordered or prescribed

Colchester	...	1078	Ratio	16.61 per cent.
Chelsea	...	1290	„	22.40 per cent.

These ratios may be lower than those of other Ophthalmic Centres, but as an ophthalmoscopic examination was made in every case, many pathological conditions, hitherto unsuspected, were discovered. The low ratio at Colchester is due to the absence of the facilities which were provided by the A.S.D. at a later date, and partly to the strength of the glasses.

The *Injuries* recorded numbered 177, or 3·07 of the new cases. They were chiefly of a minor character, the more serious cases being dealt with in another department.

Enucleations are included for the reason that it would have complicated the returns to have made a change in the system of statistics employed from the beginning. Many of the men came for treatment of the remaining eye, and a note was made of peculiarities or defects of the socket for reference afterwards.

Artificial Eyes issued numbered 1,367, a large increase having taken place when the Centre was extended to issue these appliances. Breakages were incessant, and in one month amounted to 30 per cent. of the month's total. Cases in which no treatment was necessary were those of men who had become alarmed because of some imaginary or trifling defect, and only wanted reassuring, or who did not require glasses for military purposes. Under this heading, also, were men with good vision, sent up for an opinion by Travelling Medical Boards. A complete examination of necessity was made in every instance.

Denmark Hill.—Although the 2nd London General Hospital was officially closed on February 28, 1919, a number of casual ophthalmic cases attended during the greater part of March, and 38 artificial eyes were issued. These cases are included for convenience in the figures for the 4th London General Hospital, Denmark Hill, to which I was attached for duty till the end of April, when I concluded my fourth year of service.

Chelsea (March) and Denmark Hill (April, 1919)

Affections of lids and lacrymal apparatus ...	...	24
Cornea	...	38
Iris	...	5
Lens	...	9
Vitreous	...	2
Choroid	...	16
Retina	...	10
Optic nerve	...	7
Subjective and central defects	...	7
Medical examinations	...	10
Nystagmus	...	3
Anomalies of refraction	...	108

Wounds and injuries	...	...	...	...	118
No treatment necessary	...	...	...	...	52
Total new cases	...	...	...	...	409
Spectacles ordered	...	...	...	...	54
Artificial eyes issued	...	...	...	...	102

Final Summary—Four Years

					Ratio.
Affections of lids and lacrymal apparatus	763	5·79			
Cornea	924	7·01			
Iris	238	1·81			
Lens	494	3·75			
Vitreous	156	1·18			
Choroid	531	4·03			
Retina	237	1·81			
Optic nerve	227	1·72			
Subjective and central defects	111	0·84			
Medical examinations	282	2·14			
Nystagmus	87	0·66			
Anomalies of vision, amblyopia, etc.	677	5·13			
Refractive errors	5013	38·03			
Wounds and injuries	1822	13·83			
Gas	115	0·86			
Aneurism	2	0·02			
Exostosis	1				
Examinations for commissions	166	1·26			
No treatment necessary	1289	9·77			
Examinations incomplete	48	0·36			
Total new cases	13183	100·00			
Other attendances	5842				
Grand total	19025				
Spectacles prescribed	2422	18·37			
Artificial eyes issued	1469				

In the above table the ratios are those of the new cases and not of the grand total, and this remark applies similarly to the spectacles prescribed.

Here, also, a distinction was drawn between uncomplicated refractive errors, and symptomatic, mechanical, and motor anomalies of vision.

SUPPURATION AFTER CATARACT EXTRACTION SUCCESSFULLY TREATED

BY

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BIRMINGHAM. COVENTRY.

It is only rarely that an eye which has definitely commenced to suppurate after a cataract operation can be saved, and we therefore feel that the following example should be placed on record.

E. H., aged 32 years, was admitted to the Birmingham Eye Hospital, and on April 17, 1917, the right lens was extracted by the combined operation. The patient squeezed badly and vitreous was lost. At the first dressing the eye was somewhat injected, and in spite of treatment this increased. On April 28 there was a line of pus along the lips of the incision, and a mass of septic exudate was seen leading from the wound well into the anterior chamber. An anaesthetic was administered and the wound thoroughly cauterized with the actual cautery. The hot wire was drawn along the line of the section and allowed to burn well into the anterior chamber till the aqueous was evacuated; it was used in the most drastic fashion. A sub-conjunctival injection of oxy-cyanide of mercury of the strength of 1 : 5,000 was given, and 10 cubic centimetres of anti-streptococcal serum was injected under the skin of the abdomen. A culture was made from the lips of the incision and a pure growth of pneumococci was obtained.

The effect of this treatment was almost magical, and in a few days the eye was out of danger.

On September 29, the eye was examined and found to be free from any injection. The upper segment of the cornea showed a dense nebula like an exaggerated arcus senilis. There were some fine posterior synechiae and a dense capsule.

Eventually the capsule was needled and an acuity of 6/18 was obtained. In January, 1918, the left lens was extracted. Again the patient squeezed badly and vitreous presented. The lens was removed with the spoon, and more vitreous escaped. In spite of these drawbacks the ultimate vision was 6/18.

This case shows that it is always worth while to treat such a case however hopeless it may appear to be; but we think that to be of any value the actual cautery must be employed with energy.