Transactions of the Congress. If the Editorial Committee decide that the paper shall appear in abstract only, the writer may publish the full paper elsewhere.

(7) Reprints of papers appearing in the Transactions may be obtained by authors at their own expense from the printers, and must be ordered direct from the printers on receipt of the proofs.

II. Symposia.

(8) Subjects for symposia at each Congress shall be chosen by the Council who shall invite a limited number of speakers to introduce these discussions. The invited speakers shall each be allowed fifteen minutes. Each subsequent speaker in the symposia shall be allowed five minutes. By-law (5) shall also apply.

III. Demonstration of Cases and Specimens.

(9) A special sitting of the Congress shall be devoted to the demonstration of cases, specimens, instruments, etc.

(10) All cases and specimens must be accompanied by a card giving the particulars intended for publication.

The Seventeenth Annual Meeting of the Oxford Ophthalmological Congress was held at Oxford on July 7, 8, and 9, under the Mastership of Mr. Philip H. Adams.

The proceedings took place in the Department of Human Anatomy through the kindness of Professor Arthur Thomson, whilst Keble College, where members met informally at dinner on July 6, was again available for hospitality.

After a brief formal opening at 10 a.m. by the Master, a discussion was held on “The results of the Operative Treatment of Glaucoma.” The opener, Dr. William H. Wilmer, Ophthalmologist-in-Chief to the Johns Hopkins Hospital, Baltimore, began with a reference to the work of von Graefe, who, in 1857, wrote concerning glaucoma “the absence of general agreement constitutes an hereditary evil of therapeutics only to be cured by slow degrees.”—“The only treatment from which relief can be expected is one that diminishes pressure.”

That both these propositions are true to-day is attested by the fact that over sixty operative procedures, with many modifications are on record, all of which are devised solely for the purpose of reducing intra-ocular tension.
An analysis of a few of the kinds of operations and their results as reported by various authors is as follows:

**Iridectomy**: 482 cases: successful, 63.3 per cent. No late infection mentioned.

**Anterior Sclerectomy**: (Lagrange), 777 cases: successful, 72.8 per cent. Late infection (based on 389 eyes), 1.3 per cent. Lagrange’s own cases, 104: successful, 85.5 per cent.

**Sclero-Corneal Trephining**: (Elliot), 3,381 cases, not including 911 eyes operated upon in Egypt, successful, 77.6 per cent. Late infection 1.2 per cent.

**Punch** (Holth). Holth publishes the record of 200 cases in Christiania from 1920 to 1923. The percentage of successes is not given, but he states that there were no late infections, and concludes: “The lowering of the ocular pressure is as good as in the other forms of sclerectomy and, so far, no case of late infection has been observed.”

Hagen records 52 cases operated by Holth, Hj. Schiotz, and himself. Of these he excludes 12, confining his tables to 40 cases of glaucoma simplex. Successful, 82 per cent. Butler reports 29 cases. Successful, 79.3 per cent. Late infection 3.4 per cent. Later, he reports 39 cases, successful, 66.7 per cent.

**Iris Incarceration**: 517 cases: Iridotasis and iridencleisis. Successful, 87.4 per cent. Late infection, 0.3 per cent.

**Wedge-Isolation and Small Flap**. Sclerotomy (Herbert). The author has given up the former operation for the small flap sclerotomy. The reports are too few to analyze. Butler quotes 7 cases (small flap). Successes, 50 per cent., but this in no way indicates the excellent results obtained by the skilful originator himself.

**Cyclodialysis** (Heine), 1,027 cases. Successful, 66.7 per cent. No serious complications mentioned.

Whilst he, the opener, employed iridectomy, anterior sclerectomy and cyclodialysis the trephine was more frequently used by him. Two series of his own trephine cases were then presented, many of which had been under his personal observation for many years.

**Series I.**—Of these 72 eyes, 76.3 per cent. of the whole number have been under observation from 10 to 15 years; 19.4 per cent. from 5 to 10 years, and 4.1 per cent. from 3 to 5 years. Successes, 84.8 per cent. Failures, 15.2 per cent.

**Series II.**—35 cases (private and free), trephined within two years (none within four months), are reported for comparison Successful, 91.3 per cent. Partial failure, 5.7 per cent. Complete failure, 2.8 per cent. In these cases success meant a tension of 18 or under (Schiotz reading) with a maintenance or improvement of the vision and the fields of vision as compared with that before operation.

Causes of failure were previous venous thrombosis, tuberculous
deposits filling trephine openings, traumatic dislocation of lens ten years after a successful operation, rapid development of immature cataract after haemorrhage, and repeated retinal haemorrhages.

In nineteen of the second series of cases a Tenon's capsule implant was made use of, a valuable procedure where the conjunctival flap is too thin and as a prevention against infection.

A series of very interesting slides of the eyes of rabbits and dogs was shown, upon which anterior sclerectomy, sclero-corneal trephine, wedge isolation, small flap sclerotomy, and iridotasis had been performed.

After commenting on the various types of operation the opener said that every operator is more skilful in the performance of the operation he selects, but for the average the trephine is more safely and easily performed than the Lagrange or punch operation. It is also suitable for more kinds of glaucoma and in eyes with very high tension. In the Lagrange operation, if the pressure is high, there is more danger of expulsion of the lens and loss of vitreous at the time of the operation or later. Few operators have the skill of the originator of the excellent operation that bears his name. When the surgeon has much operative material, so that he can perfect his technique in both the Lagrange and Elliot, the plan of several of my colleagues is practical, that is, when the tension is below 35 (Schüttz) perform an anterior sclerectomy; when above, a trephine,

Professor FELIX LAGRANGE (Paris) who was accorded a very hearty reception, referred to the time when he performed his operation of sclerecto-iridectomy for the first time in England at the Oxford Meeting held in 1906 and commented on the cordial relationship ophthalmologically between France and England.

With regard to results he had never seen infection follow his operation.

Mr. A. L. WHITEHEAD (Leeds) said that after trying other procedures his rule now was to perform iridectomy in case of acute glaucoma and trephining for chronic glaucoma.

An analysis of 120 of his private cases, chosen because the records were more complete than in hospital cases, was as follows:

of 38 acute cases,
57.9 per cent. were successful,
26.3 per cent. partially so and 15.7 per cent. were failures;

of 14 subacute cases,
85.7 per cent. were successful, 14.3 per cent. partially so, and no complete failures;

of 48 chronic cases,
87.5 per cent. were successful, 4.1 per cent. partially so and 8.3 per cent. failures.
Lt.-Col. H. Herbert (Brighton) considered that successful results were obtained with his flap operation especially if massage was regularly applied afterwards.

With regard to iris inclusion he thought there should be a distinction made between disasters at the time of operation and simple failures to relieve tension, and he felt that there ought to be no danger of sympathetic ophthalmitis provided that proper aseptic precautions were undertaken before the operation.

His belief was that the future lay with the small linear wounds either with or without iris inclusion.

Mr. Malcolm Hepburn (London) said that his operative experience had forced him to the conclusion that not all forms of glaucoma could be explained on the same pathological theory, but that different pathological conditions accounted for the various types of the disease. It followed from this that the results obtained by applying one type of operation for all forms of glaucoma would be variable and it was necessary for the surgeon in order to be successful to select the type of operation suitable for the case he had in hand.

Good results would depend upon this and upon operating early, bad results upon operating late, unsuitability of operation, mistakes in technique and secondary complications over which one had no control.

Lt.-Col. R. E. Wright, I.M.S., agreed with Dr. Wilmer in his support of trephining as opposed to cyclodialysis and was interested in the method described by him for obtaining an extra cover of tissue over the trephine hole.

He was in favour also of a broad iridectomy in cases where he feared a "desquamation of uveal tissue" or "iritis" as it is termed.

Massage was of value in all cases although there was really no necessity for this after trephine operations.

Dr. C. F. Bentzen (Copenhagen) reported the results of 72 cases of trephining in which he had separated the conjunctiva from the limbus instead of from above as in the usual Elliot method.

Of the 72 cases six were those of buphthalmos, four of acute glaucoma, 14 of absolute glaucoma and 48 of chronic glaucoma.

No case of late infection had occurred.

There were poor results in the buphthalmos cases and also in those of absolute glaucoma.

In the acute cases the results were moderately good and in the 48 cases of chronic glaucoma there were 77 per cent. of successes.

Professor Szymanski (Wilno) described his modification of Elliot's operation in which he made use of a large trephine, cutting obliquely a semi-circle of sclera which was then excised with scissors.
Mr. Harrison Butler (Birmingham) referred to the mental complications which happened in operations on elderly decrepit patients.

In iridencleisis operations he had found that no result was obtained, i.e., neither fall of tension nor any untoward complication.

After trephining, a shallow anterior chamber might follow, which if persistent led to the formation of a nuclear cataract.

He had observed the fall of tension in the fellow eye after a successful operation on the other.

Mr. Davenport (London) referred to the analysis of some 536 cases of glaucoma, 405 being primary, which had been trephined at Moorfields by various surgeons in the last five years. The results obtained were according to vision only.

These were reported fully in the British Journal of Ophthalmology of 1926. In two cases only of the 536 did mental disturbance occur, and there were 14 cases of late infection of which, however, only eight were definitely in connection with the trephine hole.

Dr. Harald Gjessing (Drammen) spoke of having had 81 per cent. of good results by Holth's method, the cases having been under observation from seven months to 11 years.

Mr. J. Gray Clegg (Manchester) considered that detachment of the choroid was a much more frequent result than usually thought, as much in his opinion as even 10 per cent.

Mr. B. Graves (London) referred to cases of persistent low tension after operation, in one of which shrinking of the eye had followed.

Mr. D. V. Giri (Eastbourne) in speaking of the fluorescine test for filtration commented on the variations in tension which occurred during the day.

Lt.-Col. A. E. J. Lister (Bristol) asked for an expression of opinion on the question of low tension after operation, which he regarded as a very alarming complication.

Dr. Wilder (Chicago) said that in America as all operations had been tried, but that no definite conclusions had been arrived at, this was good evidence that none was perfect.

The best thing would be for one surgeon to perform all the various procedures for comparison.

He personally was in favour of the iris inclusion operation, having only had one unsatisfactory case in 100 operated on by this method.

In reply, Dr. Wilmer said that he had differentiated the cases with meticulous care but had omitted the reading of it out of sympathy for his audience.

Expulsion of the lens after the Lagrange operation was, according to the literature, a not uncommon complication, and one such case had been recorded after a trephine operation.
He had never experienced separation of the choroid in his own practice but had seen two cases in consultation, both of which promptly got well.

He had had cases of very low tension after both trephining and the Lagrange operation but had never had an eye in which there was delayed formation of the anterior chamber.

In the afternoon of Thursday, after Professor F. Lagrange had read a paper on "The best procedure to adopt for fistulization of the glaucomatous eye," demonstrations were held in the Scientific and Commercial Museums.

Lt.-Col. R. E. Wright, I.M.S., demonstrated Green's apparatus for intracapsular extraction of cataract, and his own method of blocking the main trunk of the facial to prevent squeezing in cataract operations.

He also showed a series of extremely interesting histo-pathological slides of orbital neoplasms.

Dr. J. Burdon-Cooper (Bath) demonstrated a new astigmatic Test Chart.

Dr. Thomson Henderson (Nottingham) demonstrated in an ox eye the membranous nature of the ligamentum zonulæ lentis by injecting air through the ligament into the canal of Petit, thus showing that it is a closed space.

Dr. H. H. Tyson (New York) exhibited a series of skiagrams of the optic foramen showing the variations in size and shape from the normal, and demonstrated the effect which the narrowing of the canal had upon the optic nerve causing atrophy.

Dr. D. V. Giri showed a photograph of a useful apparatus for red-free ophthalmoscopy and a lid-retractor which raised the lids free from the globe as well as retracting them.

Mr. F. A. Anderson (Shrewsbury) showed an excellent operating light obtained by a series of small lamps.

Mr. B. Criddle (Wolverhampton) showed a drawing with specimen and slides of a case of cholesterolin crystals in the anterior chamber.

The chief feature of the proceedings on the morning of Friday was the delivery of the Doyne Memorial Lecture by Professor K. K. K. Lundsgaard, of Copenhagen, the subject being "The Pneumococcus in connection with Ophthalmology."

The Lecturer showed a chart of the incidence of the pneumococcus on the normal conjunctiva as determined by various observers since 1909, the latest record being that obtained by himself in 1925, namely, 6 per cent.

The various types of the micro-organism were described and charted according to their virulence.

Other charts were shown giving the incidence according to age and seasonal variation.
A very complete survey of the rôle which the pneumococcus plays in ophthalmology was given, and Professor Lundsgaard, who, at the conclusion of the lecture, was presented with the Doyne Memorial Medal for the year, is to be heartily congratulated on his contribution to the knowledge of the subject.

Other papers delivered on the same morning were by Dr. Carsten Edmund (Copenhagen), on “Colour perception in normal and night-blind persons in various illuminations,” by Lt.-Col. R. E. Wright who gave a résumé of notes of a series of fifty cataract extractions with Green’s apparatus by himself and K. Komann Nayar, and by Dr. Holger Ehlers on “Experimental researches on the corneal vessels.”

The afternoon of Friday was spent at the Oxford Eye Hospital, where a series of interesting cases was shown by the Master, Mr. P. H. Adams and by Messrs. Harrison Butler and Harries Jones.

After the cases had been examined, Lt.-Col. Wright’s paper given in the morning was freely discussed by Lt.-Col. Henry Smith, C.I.E., I.M.S., ret., and many others.

On the morning of Saturday papers were read in the Department of Human Anatomy, as follow:

Dr. J. Burdon Cooper: The Permanent and Evanescent Canals of the Hyaloid Membrane with a suggestion as to their function in the drainage of the eye.

Dr. Margaret Dobson: Insufficiency of Accommodation as an Important Factor in the Causation of Incipient Cataract.

Dr. Harald Gjessing: Further investigations into the results of iridencleisis operations by Holth’s method, particularly as regards the method combined with meridional iridotomy.

Mr. D. V. Giri: (a) An instructive case of high hyperphoria remedied by operation. (b) A case of extreme micrography with comments on its physiological optics.

On Thursday afternoon the members of the Congress and their friends were entertained at tea at Merton College with Mr. and Mrs. de Beer kindly acting as host and hostess.

The Annual Dinner of the Congress which was well attended was held in Keble Hall on Thursday evening with Professor Arthur Thomson as chief guest.

Members who attended from abroad, in addition to those already mentioned in the programme, included Dr. H. Friedenwald (Baltimore), Dr. Bernard Samuels (New York), Dr. Birger Malling (Bergen), Dr. A. Verwey (Durban), Dr. R. G. Stott and Dr. A. S. Anderson (Australia) and Dr. Pandit (India).

The total membership of the Congress is now over 400 and the attendance this year was well above the average.