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ONE HUNDRED CONSECUTIVE OPERATIONS

FOR

16.

SENILE CATARACT,

COMPLICATED AND UNCOMPLICATED.

BY

JOHN B. STORY, M.B., F.R.C.S. ;

SURGEON TO ST. MARK'S OPHTHALMIC HOSPITAL.

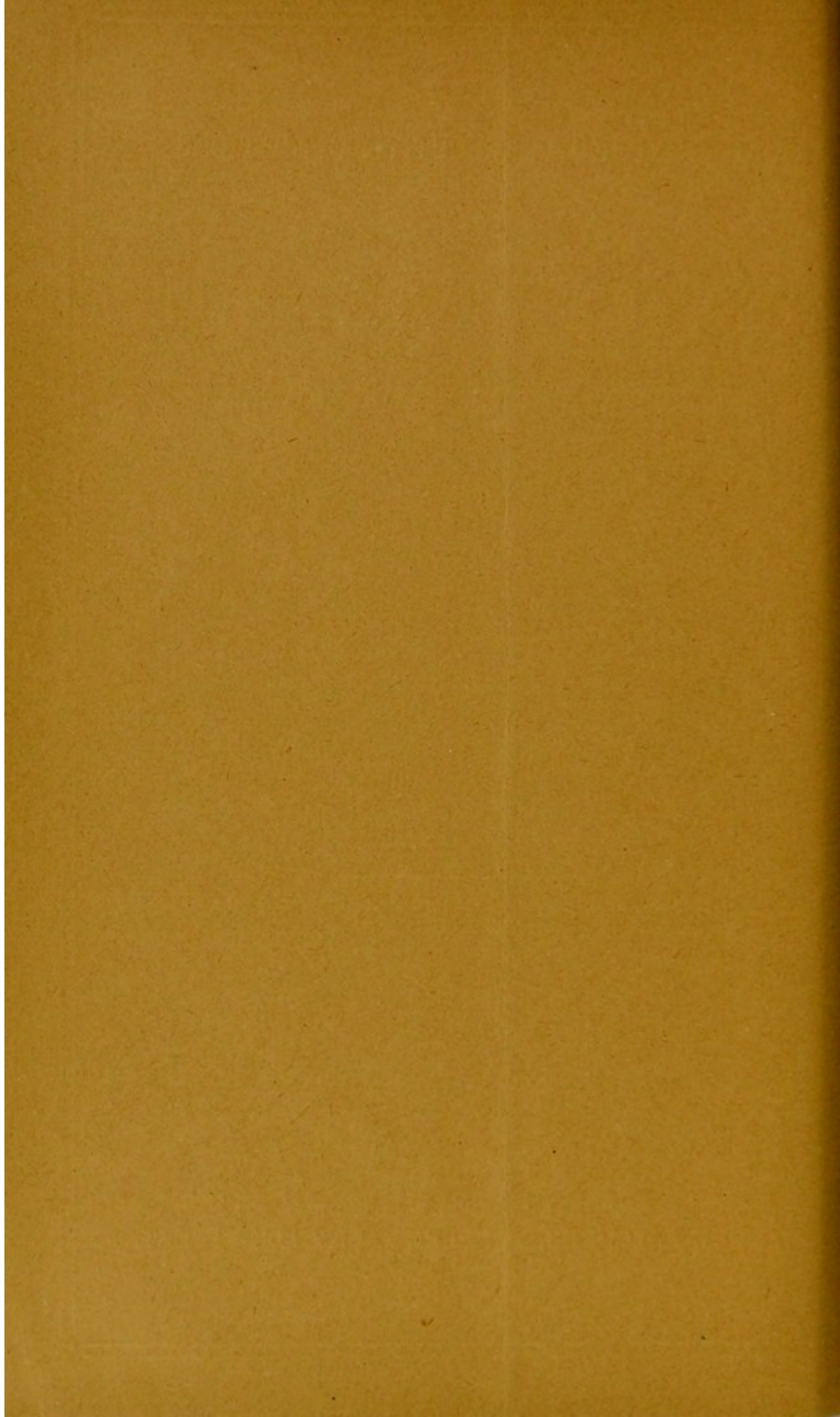
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Vol. XIII.

DUBLIN :

PRINTED FOR THE AUTHOR

BY JOHN FALCONER, 53 UPPER SACKVILLE-STREET.

1895.



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ON ONE HUNDRED CONSECUTIVE OPERATIONS

FOR

SENILE CATARACT,

COMPLICATED AND UNCOMPLICATED.*

THIS communication is based on the notes taken of a series of one hundred consecutive cases of cataract extraction, which were under my care in St. Mark's Ophthalmic Hospital during the two years ending October, 1893. It includes all the cases, complicated or uncomplicated, which were operated on by myself, as well as those under my care which were operated on by my colleagues, Dr. Odevaine and Dr. Montgomery, and my brother, Dr. W. G. Story, to whom I am indebted for the collection of the statistics. Traumatic cataracts and juvenile cataracts are not included.

The vision obtained in the whole series of cases was:—

$V = \frac{6}{6}$ in 1 case.

$V = \frac{6}{60}$ in 13 cases.

$V = \frac{6}{9}$ in 8 cases.

No note but "result excellent" in 3 cases.

$V = \frac{6}{12}$ in 12 cases.

$V = \frac{6}{18}$ in 20 cases.

$V =$ fingers at 6 m. in 5 cases.

$V = \frac{6}{24}$ in 18 cases.

$V =$ pl. in 4 cases.

$V = \frac{6}{36}$ in 15 cases.

$V = O$ in 1 case.

According to the customary method of reckoning, the results were successful in 95 out of 100 operations, and of these 87 were complete, and 8 partial successes. The latter, however, should, for reasons which I will adduce later, be regarded as complete successes.

Five failures are recorded, but of these three were due to causes in no wise connected with the operation, so that

* Read before the Section of Surgery, Royal Academy of Medicine in Ireland, January 4, 1895.

the total result of the series is that only two operations, of a series of one hundred, failed to restore useful sight, when the possibility of doing so existed.

Of the eight cases of partial success, three are only excluded from the list of complete successes by the omission of the then house surgeon to record their visual acuity. They left hospital well pleased with the sight regained, but no note was taken except "result excellent." I have written to these patients, but have not been able to find them. (Cases 8, 43, 81).

The other five cases of partial success could all count fingers at 6 m., and although there were optical defects present in some of them to account for vision not being perfect, it is probable that they were prevented from attaining $V = \frac{6}{60}$ more by mental than physical causes. An educated person who counts fingers at 6 m. can, I find, always read Snellen $D=60$ at the same distance.

In these five cases of partial success, vision was rendered imperfect by pre-existing corneal nebula in Case 12, by an opaque capsule susceptible of being divided and having vision thereby improved in Case 75, by iritis with synechia in Case 66, by severe plastic iritis with hypopyon in Case 48. (This patient's eye was perfect on the tenth day, when he was allowed to get up. He utilised the occasion to walk out of hospital and give himself a treat, with the result that he had iritis next day, with hypopyon). Case 79 was 80 years old, illiterate and partially insane. All these five counted fingers at 6 m., and with reasonable intelligence could have read Snellen $D=60$ at the same distance.

In three out of the five failures the subsequent defective sight was not in any wise directly connected with the operation.

Case 15 was found to have the vitreous full of cobweb-like-opacities, completely obscuring the fundus.

Case 44 had extensive detachment of the retina, which was not due to loss of vitreous, for none was lost at the operation, but, perhaps, may have occurred from the lowering of intra-ocular pressure at the operation. This patient's other eye was absolutely blind, with cataract and suspected detachment of retina.

Case 92 was probably one of congenital lamellar cataract, with nystagmus, and no doubt defective retinal function. It would not be included in the series were it not that the patient did not seek advice till the age of 45, and that I consequently performed an ordinary combined operation on the cataract.

It may be asked why these three cases are included in the series at all—why were not three operations performed subsequently on other patients added on to make up the one hundred cases reported in the communication?

One reason for including these three cases is that the complications which interfered with good vision were not all diagnosticated until after the operations had been performed, although in two of the cases they certainly existed previously, and, I think, in any statistics of cataract operations only those cases should be recorded as complicated where the complication is definitely diagnosticated and noted before the operation is performed.

Another and, in this instance, a more cogent reason is that the series includes every cataract operated on, except those which were traumatic, and the juvenile cataracts which were operated on by keratonyxis usually followed by linear extraction.

It will be seen that if these three cases had been omitted the vision recorded properly in three cases, and reasonable intelligence manifested by five other uneducated patients, the percentage of good results would have been raised to the high figure of 98 per cent—a remarkable figure when it is remembered that all cases, complicated and uncompli-

cated, are included. In fact, useful sight was obtained in every case when the possibility of getting it existed, except in two cases, which two were lost from wound-infection.

Two failures are recorded due to wound-infection.

Case 60 had suffered recently from granular conjunctivitis, but the conjunctival disease was considered cured, and a simple extraction was done a week after admission. Next morning the eye looked all right, free iris, circular pupil. But an acute plastic panophthalmitis came on, and the contents of the globe had finally to be eviscerated. The operation on the second eye was not done till after a preliminary iridectomy, and I had the good fortune to obtain a perfect success— $V = \frac{6}{12}$ in an illiterate patient.

In this case the wound-infection, no doubt, occurred at the time of the operation; in the second case (98) it very probably occurred subsequently, for the patient was detected applying holy water to the eye on the day when the wound-infection was first noticed. It is probable that she had used the holy water previously without being detected, and, unfortunately, we have no authority for including among the virtues of holy water the cardinal surgical virtue of asepsis. The inflammation in this case was plastic or fibrinous rather than suppurative, and annular posterior synechia resulted.

The accidents which occurred during the operations were loss of vitreous four times (Cases 14, 32, 77, and 78). In one of these (32) the lens was luxated, as occurred also in another case (11), in which extraction was done without loss of vitreous.

The iris was wounded by the knife in one case (24), in which also, owing to the unruliness of the patient, the cut-edges of the iris could not be reposed.

In two other cases the reposition of the iris was

imperfect—one (54) a simple extraction, and one (82) a combined operation.

In one case (41) the incision was too small, and had to be enlarged by means of a scissors.

Cortex is noted as being left in the eye in only three cases (11, 23, and 69). In this respect I am convinced the notes are imperfect.

As regards healing of the wound—distinct wound-infection occurred in four cases (Cases 30, 60, 66, and 98). Two of these eyes were saved with a visual acuity in Case 30 of $\frac{6}{18}$, in Case 66 of fingers at 6 m., and the other two are included among the five failures, being the only two failures where success might have been attained.

Iritis is noted as occurring in eleven cases (Nos. 19, 23, 36, 40, 62, 65, 66, 89, 92, 93, 94).

Synechia anterior is noted also in eleven cases (4, 24, 56, 57, 58, 59, 77, 80, 82, 96, 97), of which seven were cases of simple extraction and four cases of extraction combined with iridectomy.

Cystoid cicatrix occurred in two cases (51 and 54), one a combined and one a simple extraction.

A secondary operation was done in nine cases (Nos. 6, 12, 23, 30, 53, 69, 92, 94, 100), and is noted as *necessary* in two other cases (14 and 75), but a higher visual acuity could have been obtained in many other cases by means of a secondary operation, if it had been practicable to keep the patient under treatment for that purpose. In two cases secondary glaucoma came on, one a combined operation (No. 30), and one a simple (No. 100).

The complications observed before operation were chronic conjunctivitis in twenty cases (1, 2, 15, 30, 41, 43, 47, 49, 52, 60, 61, 63, 71, 72, 75, 79, 80, 81, 91, 93), two of which were cases of pronounced trachoma. Most of these cases had to be treated for several weeks in hospital

before an operation could be risked. Some were two or three months under treatment before the operation was done, and several had to have operations performed for malposition of lids before the cataract extraction could be attempted.

Several cases had corneal nebula—one (No. 12) to such an extent as to interfere greatly with vision.

In two cases albuminuria was present (Nos. 20 and 21). Two eyes of the same person. Both did well.

Two of the cataracts were Morgagnian (Nos. 33 and 59).

Marginal blepharitis was present in one case (No. 37).

The lens was dislocated in one case (No. 78), and the power of projection was bad in another (No. 31). Both did well.

The section adopted in all the operations was some modification of the peripheral flap as proposed by de Wecker, and first performed in this country, I believe, by myself, in May, 1879. The method, when I advocated it in Dublin in the following year, was not very favourably received by my ophthalmological friends, but since that time I am pleased to observe that they have almost universally adopted it themselves, so that the arguments I then brought forward in its support do not now need repetition.

When I first began to perform it I aimed at making a small conjunctival flap also, but subsequently I gave up the conjunctival flap, and it was not made in any of the cases of the present series.

The conjunctival flap, however, affords such important advantages in an early sealing-up of the incision that I believe I have not done wisely in altogether discarding it, and I am at present making the flap in nearly every operation I perform.

Ophthalmic surgeons are at the present time divided into two camps, a large body of the profession advocating

the merits of the simple operation of cataract extraction without iridectomy, and another, perhaps even larger, body of operators performing the combined operation alone.

This series of cases contains 42 simple operations, 46 combined operations, and 12 operations for cataract after preliminary iridectomy.

The simple operation resulted in three failures, two of which were due to wound-infection (Nos. 60 and 98), and one to opacities in the vitreous. None of the losses were consequently due to the special type of operation, but were the effects of accidental causes common to all operations.

One failure occurred after a preliminary iridectomy; it was due to detachment of the retina, and might have occurred after any other method of operating (No. 44).

One failure occurred after a combined extraction. It was probably the result of congenital defect in visual power (No. 92), and was not in any wise due to the operation.

As far as the percentage of successes is concerned, the results are slightly better in the simple extractions than in those where iridectomy was done. There were in all 58 operations with iridectomy, of which 50 were successes, and 42 simple operations of which 37 were successes. This gives 86 per cent. of successes in the operation with iridectomy, and 90 per cent of successes in simple operations.

The average acuity of vision, however, is much higher in the successful simple cases than in the operations with iridectomy. Of the former one case had $V = \frac{6}{8}$, and six $V = \frac{5}{8}$, while only two of the latter reached $\frac{6}{8}$. Briefly, of the simple extractions 23 cases (54 per cent.) had $V = \frac{6}{8}$ and upwards, while of the extractions with iridectomy only 18 cases (31 per cent.) obtained so high a visual acuity.

It may be said that the higher average visual acuity in the simple extractions is due to selection of the cases, and there may be some modicum of truth in the statement,

but I am inclined to attribute it rather to the more satisfactory healing of the operation wound, and the healthier condition of the eye-ball afterwards. The reaction I have observed after a simple extraction is usually less than after a combined operation.

The great bug-bear of the simple operation is prolapse of the iris. This occurred five times (Nos. 33, 38, 42, 54, 100). All the cases were successful; visual acuity being $\frac{6}{60}$, $\frac{6}{36}$, $\frac{6}{18}$, $\frac{6}{12}$, and $\frac{6}{9}$.

The treatment adopted was excision and cauterisation, after which iodoform powder was dusted on the wound. In one of these cases a small cystoid cicatrix resulted, and in another secondary glaucoma, which was cured by sclerotomy with incision through the sphincter of the iris.

The most that can be brought forward against the simple extraction from an examination of the present series of operations is that the convalescence may have been unduly protracted in about 12 per cent. of the cases, against which it may be asserted that the convalescence was more rapid in the remaining 88 per cent. of the operations, and the visual acuity obtained much higher.

It is obvious that these statistics are not brought forward with the object of advocating any particular method of performing the operation of cataract extraction. The only conclusion that can be drawn from them is that success can be obtained by either of the two rival methods, and there does not seem much to choose between the two. This conclusion is really only what anyone who has glanced at the literature of the subject would expect. Operators of immense experience in all quarters of the globe are loud in praises of one or the other method, and I do not think the time has yet arrived when we can come to a final conclusion as to which is the better.

The antiseptic precautions adopted in all the cases were the following:—

The eye to be operated on is kept bandaged with boric acid lotion dressing for twenty-four hours before operating, and the operation is not performed so long as any mucus is present on the dressings.

All the instruments are kept for five minutes in boiling water, with the exception of the knives, which are sterilised by rubbing with a mixture of equal parts ether and absolute alcohol.

The collyria employed are made up with boiled boric acid solution, or with 1 to 5,000 corrosive sublimate solution.

The dressings are made with absorbent wool soaked in boiling boric acid solution.

At the time of the operation the patient's face, eye-brows and lids are washed with creolin, and boiled boric acid lotion is used to wash out the conjunctival sac, both before and during the operation.

That in spite of these precautions, four cases of wound-infection, two of which ended in loss of sight, should have occurred in 100 cases is much to be regretted, but when I consider the material I have to work upon, I am only surprised that I have not had more fatalities.

The larger number of the patients who seek relief at St. Mark's Ophthalmic Hospital are drawn from the poorest classes in the community, and the difficulties of obtaining a healthy conjunctiva before performing an operation are extreme. We send many patients home to have their ophthalmia cured, and when they return months afterwards the ophthalmia is as bad as ever. If we are not to give these patients up entirely and leave them in hopeless blindness, there is nothing for it but to treat the conjunctiva as skilfully and energetically as we can, and when we get it at all in a fairly healthy state run the risks of a cataract extraction.

TABLE of 100 Consecutive Operations for Senile

I. = Compound Operation. S. = Simple Extraction.

| No. | No of Card | Age | Side | Vision of other Eye | Complications noted before Operation | Operation | Result |
|-----|------------|-----|------|----------------------|--------------------------------------|---|--------|
| 1 | 324 | 75 | L | Fing. 4 ^m | Conjctis. chron.; strab. intern | P. I., and in 3 weeks 3 mm. | P. |
| 2 | 383 F | 65 | L | H. R. | Conjctis. chron.; pterygium | — | I. |
| 3 | 396 | 74 | R | — | — | 3 mm. flap | I. |
| 4 | 409 | 62 | L | $\frac{2}{4}$ | P. I. (4 months), immature | — | P. |
| 5 | 412 F | 30 | R | 5 ^m | — | — | I. |
| 6 | 419 F | 74 | R | — | — | — | I. |
| 7 | 446 | 60 | L | 4 ^m | — | — | I. |
| 8 | 449 F | 50 | L | — | — | — | I. |
| 9 | 458 F | 30 | L | $\frac{6}{12}$ | Soft white cat. | — | I. |
| 10 | 459 F | 51 | L | $\frac{6}{18}$ | — | — | I. |
| 11 | 461 | 63 | L | $\frac{6}{18}$ | Cat. immatura | Luxatio lentis; spoon | I. |
| 12 | 462 | 58 | L | $\frac{6}{60}$ | Nebula corneæ cent. | — | I. |
| 13 | 463 | 57 | L | Fing. | — | — | I. |
| 14 | 524 | 50 | R | $\frac{6}{36}$? | Probably traumatic origin | Escape of fluid vitreous | I. |
| 15 | 620 | 58 | L | $\frac{6}{36}$ | Conjctis. chron. immatura | — | S. |
| 16 | 583 | 72 | R | $\frac{6}{18}$ | Pupil acted sluggishly | Very small iridectomy | I. |
| 17 | 566 } F | 50 | R | H. R. | — | Morgagnian | I. |
| 18 | 566 } F | 50 | L | $\frac{6}{18}$ + | — | Eserin | S. |
| 19 | 547 | 75 | L | P. L. | — | Morgagnian | I. |
| 20 | 530 } | 50 | R | 0.5 ^m | Albuminuria; central ulcer | — | S. |
| 21 | 530 } | 50 | L | P. L. | Albuminuria; strab. ext. | — | I. |
| 22 | 541 | 49 | R | $\frac{6}{9}$ | — | — | I. |
| 23 | 535 | 71 | L | 3 ^m | Immature | — | I. |
| 24 | 508 } F | 50 | R | H. R. | — | Unruly patient; iris cut by knife; reposition afterwards impossible; patient's own efforts expelled lens! | I. |
| 25 | 508 } F | 50 | L | $\frac{6}{18}$ | — | — | I. |
| 26 | 500 F | 66 | R | P. L. | — | — | I. |

catract, from September, 1891, to April, 1893.

I. = Preliminary Iridectomy. F. = Female.

| After Treatment and Course | No. of Days after Tested | Correcting Lens | V for Distance | V Near |
|--|-----------------------------|--------------------|-----------------------------|------------------|
| did well | 13 | 10 | $\frac{6}{80}$ | |
| did very well | 24 | 10 | $\frac{6}{18}$ | |
| pupil did not dilate well | 14 | 9 | $\frac{6}{80}$ | |
| syn. ant. and cicatrix rather bulging in centre; a year later, V = $\frac{6}{18}$; but right blind with keratit. Punct. and sec. glaucoma | 23 | 11 | $\frac{6}{36}$ (Ast. = 8 D) | |
| did well | — | 12 | $\frac{6}{36}$ | |
| after 4 days, chemosis T + 1, and deep ant. ch., keratitis bullosa (needled Jan. '93.) | — | 13 and 2 Cy. | $\frac{6}{18}$?? | Sn. 0.5 Jg. 1 |
| some capsule left in above | — | 10 | $\frac{6}{18}$ | |
| days after, "all excellent" | — | Result | excellent | |
| — | — | — | $\frac{6}{12}$?? | Jg. 1 |
| — | 1 year | 10 | $\frac{6}{12}$??? | |
| cortex left in: patient could not count fingers | 30 | 11 | $\frac{6}{36}$ | |
| after 40 days a needling was done; result perfect, bar nebula | 52 | 10 | Fing. 6 ^m | |
| — | 20 | 10 | $\frac{6}{80}$ | |
| did well, but dense capsule spoiled V. | — | 10 | $\frac{6}{80}$ | |
| urgically successful, but result spoiled by staph. post and opacities of vitreous | — | — | P. L. | |
| — | 19 | 10 | $\frac{6}{36}$ | |
| — | 42 | 10 | $\frac{6}{18}$ | |
| tested too soon for good result | 11 | 10 | $\frac{6}{24}$ | |
| healed slowly with <i>syn. post</i> | 26 | 10 | $\frac{6}{36}$ | |
| did well | — | 12 | $\frac{6}{18}$ | |
| did well | — | 10 and 2 Cy. | $\frac{6}{18}$ | |
| needling after 35 days; band of capsule? across pupil | — | 11 | $\frac{6}{36}$ | Jg. 4 |
| and severe iritis; cortex was clear and overlooked at operation | — | 10 | $\frac{6}{36}$ | |
| syn. ant. at both ends of wound, as iris could not be well reposed | — | 12 | $\frac{6}{18}$ | Jg. 2 |
| extraction 3 weeks later; healed without compli- cations | 22 | 12 | $\frac{6}{18}$ | Jg. 1 |
| — | 33 | 10 | $\frac{6}{18}$? | |

TABLE of 100 Consecutive Operations for Senile

| No. | No. of Card | Age | Side | Vision of other Eye | Complications noted before Operation | Operation | If Iridectomy |
|-----|-------------|-----|------|---------------------|---------------------------------------|------------------------------------|---------------|
| 27 | 500 F | 66 | L | $\frac{6}{18}$ | — | — | I |
| 28 | 18 F | 30 | L | $\frac{6}{8}$ | — | Eserin | S |
| 29 | 19 | 38 | R | $\frac{6}{9}$ | — | Eserin | S |
| 30 | 32 F | 60 | L | 3 ^m | Conjctis. chron. and nebula corn. | — | I |
| 31 | 49 F | 62 | L | $\frac{6}{36} +$ | Proj. bad below . . . | — | I |
| 32 | 81 } F | 64 | L | P. L. | Ant. ch. very shallow . | Lens luxated; taken out with spoon | I |
| 33 | 81 } F | 64 | R | P. L. | Morgagnian; pupil does not act | Eserin | S |
| 34 | 95 F | 42 | L | Fing. | — | Eserin | S |
| 35 | 115 | 56 | R | 2 ^m | — | Eserin | S |
| 36 | 126 | 64 | L | $\frac{6}{18} +$ | — | — | I |
| 37 | 135 | 57 | — | — | M. B. and strabis. extern. | Eserin | S |
| 38 | 170 } F | 48 | R | H. R. | — | Pupil not round. Eserin | S |
| 39 | 170 } F | 48 | L | — | Prel. iridectomy (4 years) | — | P.I. |
| 40 | 187 | 60 | L | 3 ^m | — | — | I |
| 41 | 196 | 74 | L | $\frac{6}{9} +$ | Conjctis. chron.; proj. poor | Incision enlarged, scissors | I |
| 42 | 214 | 50 | R | 4 ^m | — | Eserin | S |
| 43 | 234 F | 60 | R | Fing. | Conjctis. chron. (treated) proj. poor | Nucleus large. Eserin | S |
| 44 | 258 F | 32 | L | O | Cat. immatura; P. I. . | In 3 weeks 3 mm. flap . | P.I. |
| 45 | 305 } F | 45 | L | H. R. | Cat. hyperm. calc.; pupil acts badly | — | I |
| 46 | 305 } F | 45 | R | $\frac{6}{36} +$ | — | — | I |
| 47 | 310 | 66 | L | $\frac{6}{24} ??$ | Conjctis. chron. . . . | — | I |
| 48 | 320 | 64 | L | 1.5 ^m | P. I. (40 days) . . . | — | P.I. |
| 49 | 332 | 64 | R | $\frac{6}{9} +$ | Conjctis. chronica slight . | — | I |
| 50 | 334 | 52 | L | $\frac{6}{36}$ | P. I. | In 6 months 3 mm. flap | P.I. |
| 51 | 346 F | 60 | R | 4 ^m | — | Incision too peripheral . | I |
| 52 | 366 | 50 | R | 4 ^m | Conjctis. slight and strab. extern. | Eserin | S |
| 53 | 367 | 55 | R | $\frac{6}{24}$ | — | Eserin | S |
| 54 | 379 F | 60 | L | — | No notes | Iris badly reposed . | S |

aract from September, 1891, to April, 1893—con.

| After Treatment and Course | No. of Days after tested | Correcting Lens | V for Distance | V Near |
|---|-----------------------------|--------------------|----------------------|--------|
| some opacity in pupil | 19 | 10 | $\frac{6}{24}$ | |
| ropin | 15 | 10 | $\frac{6}{18}$ | Jg. 1 |
| ropin | 33 | 10 | $\frac{6}{9}$? | Jg. 1 |
| itis with wound infiltration; 3 months later got glaucoma, and had iridectomy done | 75 | 13 | $\frac{6}{18}$? | |
| — | 20 | 10 | $\frac{6}{24}$? | |
| capsule, fluid vitreous lost; cataract Morgagnian | — | 10 | $\frac{6}{60}$ | |
| ext day prolapse of iris and vitreous, abscised with loss of fluid vitreous | 14 | 10 | $\frac{6}{60}$? | |
| ropin | 30 | 9 | $\frac{6}{9}$??? | |
| ropin; illiterate patient, hard to test | 1 year | + 3 | $\frac{6}{9}$??? | |
| itis; leeches applied; chemosis | 25 | 10 | $\frac{9}{12}$? | |
| ropin | 27 | 11 | $\frac{6}{12}$?? | |
| ext day prolapse of iris; abscised | 29 | 10 | $\frac{6}{12}$ | |
| ropin | 12 | 11 | $\frac{6}{24}$ | |
| itis and chemosis | 30 | 10 | $\frac{6}{24}$ | |
| — | — | 10 | $\frac{6}{24}$? | |
| ext day prolapse of iris; left alone for some days, then cauterised | 37 | 11 | $\frac{6}{18}$ | |
| ve healed well | — | — | — | |
| healed well, but retina found detached | 12 | — | H. R. | |
| — | 31 | 10 | $\frac{6}{60}$ | |
| — | 12 | 10 | $\frac{6}{18}$ | |
| ough of vitreous from wound after 5 days; it was twice removed | 18 | 8 | $\frac{6}{60}$ | |
| ter 9 days, "perfect;" patient went out without leave and got plastic iritis with hypopyon | — | 10 | Fing. 6 ^m | |
| — | — | 11 | $\frac{6}{24}$ | |
| iterate and hard to test | 38 | 10 | $\frac{6}{36}$ | |
| ilging wound—i.e., cystoid cicatrix, which flat- tened | — | 11 | $\frac{6}{9}$ | |
| — | 25 | 12 | $\frac{6}{12}$? | Jg. 1 |
| ropin; after 11 days a needling | 19 | 10 | $\frac{6}{9}$? | Jg. 1 |
| is prolapsed and afterwards cauterised 4 times; small cystoid cicatrix resulted | 43 | 9 | $\frac{6}{9}$??? | Jg. 1 |

TABLE of 100 Consecutive Operations for Senile

| No. | No. of Card | Age | Side | Vision of other Eye | Complications noted before Operation | Operation | If Iridectomy |
|-----|-------------|-----|------|---------------------|--|--|---------------|
| 55 | 384) | 49 | L | H. R. | — | Eserin | S. |
| 56 | 384) | 49 | R | H. R. | — | Incision more central. Eserin | S. |
| 57 | 404 F | 46 | R | $\frac{6}{36}$ | Cat. immature | — | S. |
| 58 | 441 | 50 | R | $\frac{6}{18}$ | — | — | S. |
| 59 | 458 F | 44 | L | $\frac{6}{36}$ | Ant. ch. shallow . . . | Morgagnian. Eserin . | S. |
| 60 | 489) | 48 | L | 4.5 ^m | Old granular conjtis. . | — | S. |
| 61 | 489) | 48 | R | O | Old granular conjtis. . | P. I.; after 30 days 3 mm. | P.I. |
| 62 | 477 F | 75 | L | — | — | Eserin | S. |
| 63 | 487) | 55 | L | Fing. | Slight chron. conjtis. . | Eserin | S. |
| 64 | 487) | 55 | R | $\frac{6}{12} +$ | — | Eserin | S. |
| 65 | 496 F | 47 | R | Fing. | Ant. ch. shallow . . . | Eserin | S. |
| 66 | 564 F | 47 | L | O | Cat. immat.; entropion spast. | — | P.I. |
| 67 | 575 | 60 | L | $\frac{6}{9} +$ | Immature; conjtis. chron. | — | S. |
| 68 | 508 | 71 | — | — | P. I. had been done . . | — | P.I. |
| 69 | 38 | 55 | R | 6 ^m | Dark brown; immature | — | I. |
| 70 | 96 | 50 | L | 3 ^m | Immatura; T — ? | Simple ext. attempted . | I. |
| 71 | 108 | 70 | R | 3 ^m | Conjtis. chron. (3 weeks) | Large nucleus. Eserin | S. |
| 72 | 111 F | 68 | L | 5 ^m | Conjtis. chron. (11 days) | — | I. |
| 73 | 113 F | 60 | R | $\frac{6}{36} +$ | — | — | I. |
| 74 | 125 | 37 | L | H. R. | — | Iridectomy | I. |
| 75 | 131 | 70 | R | $\frac{6}{18}$ | Conjtis. chronica . . . | Morgagnian | I. |
| 76 | 147 F | 65 | L | 6 ^m | — | — | S. |
| 77 | 160 | 56 | L | $\frac{6}{9} +$ | Iridodonesis | Simple ext. attempted; loss of vitreous, so spoon used | I. |
| 78 | 163 F | 59 | L | $\frac{6}{18}$ | Luxatio lentis | Lens removed in capsule; spoon | S. |
| 79 | 164 | 80 | R | Fing. | Conjtis.; right, 30 years blind from injury | Large nucleus | S. |
| 80 | 176 | 63 | R | $\frac{6}{36}$ | Conjtis. chron. . . . | — | S. |
| 81 | 204 | 55 | L | P. L. | Conjtis. (49 days) . . . | On 27th day an iridect.; 49th ext. | P.I. |
| 82 | 211 | 56 | L | Fing. | — | Iris badly reposed | I. |

tract, from September, 1891, to April, 1893—con.

| After Treatment and Course | No. of Days after Tested | Correcting Lens | V for Distance | V Near |
|--|-----------------------------|--------------------|----------------------|---------|
| — | 26 | 10 | $\frac{6}{18}$ | Jg. 1 |
| nechia anterior | 20 | 10 | $\frac{6}{24}$ | Jg. 4 |
| nechia anterior; illiterate | 22 | 10 | $\frac{6}{24}$ | |
| nechia anterior | — | 10 | $\frac{6}{36}$ | |
| nechia anterior, slight | 14 | 10 | $\frac{6}{18}$ | Jg. 4 |
| stic iritis; panophthalmitis; evisceration | — | — | O | |
| erate | 19 | 10 | $\frac{6}{12} ???$ | |
| vere iritis; sloughing in wound | — | 9 & 5 Cy. | $= \frac{6}{12} ??$ | Jg. 1 |
| ropin, neither syn. ant. nor post | 31 | 10 | $\frac{6}{12} ???$ | Jg. 2 |
| ropin, neither syn. ant. nor post | 17 | 10 | $\frac{6}{18}$ | Jg. 1 |
| pil dilated badly to atropin owing to syn. post | 14 | 10 | $\frac{6}{24}$ | Jg. 4 |
| ndage soon left off from entropion, hence iritis, syn. ant. and corneal opacity | — | 4 | Fing. 6 ^m | |
| ays after operation, all well (Dublin) | 14 | 11 | $\frac{6}{9}$ | |
| — | — | 11 | $\frac{6}{36}$ | Jg. 6 |
| ound did not heal quickly; cortex left in caused needling after 47 days | — | — | $\frac{6}{24}$ | = Jg. 6 |
| ter 2 days = hyphæma; did fairly well. Ast. = 3 D. | 18 | 10 | $\frac{6}{36}$ | |
| ropin; perfect in spite of conjtis. Ast. = 4 D. | 13 | 13 | $\frac{6}{24}$ | Jg. 1 |
| days hyphæma | 21 | 10 | $\frac{6}{36}$ | Jg. 4 |
| days hyphæma; did well | 26 | 10 | $\frac{6}{12} ?$ | Jg. 1 |
| iterate | 13 | 10 | $\frac{6}{36}$ | |
| during night pulled off bandage; capsule in pupil spoils V. | 24 | 10 | F. 5 ^m | |
| yn. ant. which disappeared | — | 11 | $\frac{6}{20} ??$ | |
| yn. ant. | 13 | 3 | $\frac{6}{36}$ | |
| itreous lost at operation; did well, vitreous hazy on 18th day | 18 | 10 | $\frac{6}{36}$ | |
| ound fistulous for 17 days; illiterate and mad | 23 | 10 | F. 6 ^m | |
| did well, flat syn. ant.; queer man | 9 | 10 | $\frac{6}{36} ?$ | |
| did very well; illiterate. <i>Locum tenens</i> forgot V. | 18 | 11 | — | |
| did well except for syn. ant. | — | 10 | $\frac{6}{9}$ | Jg. 2 |

TABLE of 100 Consecutive Operations for Senile

| No. | No. of Card | Age | Side | Vision of other Eye | Complications noted before Operation | Operation | If Iridectomy | |
|-----|-------------|-----|------|---------------------|--------------------------------------|--|---|------|
| 83 | 237 | F | 44 | L | 1 ^m | — | — | S. |
| 84 | 237 | F | 44 | R | $\frac{6}{12}$? + | — | Eserin | S. |
| 85 | 285 | | 77 | R | Fing. | Pupil acts very sluggishly | — | L. |
| 86 | 305 | F | 61 | R | $\frac{6}{36}$ | — | — | S. |
| 87 | 358 | | 70 | L | $\frac{6}{24}$ + | — | No eserin | S. |
| 88 | 367 | | 80 | L | 6 ^m | — | — | S. |
| 89 | 172 | F | 63 | L | $\frac{6}{36}$ | — | 3 mm. flap (F. O.) . . . | L. |
| 90 | 167 | M | 80 | L | P. L. | Ant. ch. very shallow . | 3 mm. flap 14 days after preliminary iridectomy | P.I. |
| 91 | 179 | M | 58 | R | P. L. | Marg. blepharitis and ectropium of lower lid. For the latter Snellen's suture, Kuhnt's excision and Argyll Robertson's operation were all done before it was cured. Chronic catarrhal conjunctivitis | 3 months after admission | L. |
| 92 | 278 | F | 45 | L | Fing. 6 ^m | Nystagmus; probably shrunken, overripe lamellar cataract | 3 mm. flap; lens had to be extracted in pieces by curette | I. |
| 93 | 414 | F | 63 | L | Fing. | Chronic conjunctivitis and entropium cauthoplasty; and two and one-half months after admission preliminary iridectomy | 1 month later 3 mm. flap | P.I. |
| 94 | 541 | M | 50 | R | Fing. | — | 3 mm. flap. Chlorine water | S. |
| 95 | 125 | M | 37 | R | H. R. | — | Ant. capsule removed by forceps | L. |
| 96 | 324 | F | 70 | R | H. R. | — | 3 mm. flap | S. |
| 97 | 324 | F | 70 | L | — | — | 3 mm. flap | S. |
| 98 | 327 | F | 70 | R | H. R. | — | 3 mm. flap | S. |
| 99 | 376 | M | 56 | R | $\frac{3}{8}$ + | — | 3 mm. flap | S. |
| 100 | 386 | M | 73 | R | P. L. | Purulent dacryocystitis in left eye | 3 mm. flap, and extraction of lens intact; no vitreous was seen to escape | S. |

Cataract, from September, 1891, to April, 1893—con.

| After Treatment and Course | No. of Days after Tested | Correcting Lens | V for Distance | V Near |
|--|-----------------------------|--------------------|-------------------|--------|
| Some striped keratitis noted | — | 14 | $\frac{6}{12}$? | Jg. 4 |
| Atropin | — | 14 | $\frac{6}{12}$? | |
| Pupil dilated | 15 | 10 | $\frac{6}{80}$ | |
| Pupil dilated badly and slowly to atropin, but no adhesions | 30 | 10 | $\frac{6}{36}$? | |
| Atropin | 20 | 14 | $\frac{6}{18}$ | |
| Atropin. Illiterate | 16 | 10 | $\frac{6}{24}$ | |
| Slight iritis | 25 | 11 | $\frac{6}{24}$ | |
| F. O.) | 25 | 10 | $\frac{6}{24}$ | |
| No ant. ch. for 7 days | 26 | 10 | | |
| Iritis and capsular opacity; needling | 40 | O | P L. | |
| Iritis | 21 | 10 | $\frac{6}{24}$ | |
| Slight iritis; capsule divided 3 months later | 90 | 7 | $\frac{6}{24}$ | |
| (Montgomery) | 30 | 10 | $\frac{6}{36}$ | |
| Slight flat syn. ant. | 24 | 10 | $\frac{6}{9}$??? | |
| Slight flat syn. ant. | 21 | 10 3 Cy. | $\frac{6}{18}$ | |
| Chemosis next day and wound infiltration. A fibrinous exudation removed 3 times from wound annular syn. post found and sec. glauc.; cut through capsule and iris. This patient was discovered putting holy-water in her eye the third day | — | — | Hand Reflex | |
| — | 14 | + 9 2 Cy. | $\frac{6}{18}$ | |
| Reposition of iris perfect, but patient got ague, and large prolapse occurred. It was twice cauterised. Glaucoma occurred, relieved by incision through hernia into vitreous; glaucoma recurred and was cured by division of sphincter iris. | — | + 6 + 5.5 Cy. | $\frac{6}{36}$ | |

