

585. R. Brominii, $\frac{3}{4}$ ss. M.
Alcoholis, f. $\frac{3}{4}$ iv.
For inhalation. A small quantity to be placed in a wide-mouthed vial, and vaporized by the warmth of the hand. (BARTHOLOW.)

Camphora is used as an adjuvant to snuffs.

Carbolicum Acidum. A weak solution makes an excellent disinfectant injection. Dr. SAMUEL R. PERCY, of New York, recommends for injections for the nose:

586. R. Tinct. iodinii, \mathfrak{m} xlv.
Acid. carbolic., \mathfrak{m} vj.
Glycerinæ, f. $\frac{3}{4}$ j.
Aquæ destillat., f. $\frac{3}{4}$ v. M.

The proportion of carbolic acid may be increased.

Chloral. Injections of chloral, gr. v-xxx to aquæ f. $\frac{3}{4}$ j, have been successfully employed.

Cupri Sulphas is employed by Prof. GROSS. (F. 560.)

Hydrargyrum. White or red precipitate, gr. j to white sugar $\frac{3}{4}$ j, was used frequently in non-syphilitic ozena with success, as a snuff, by TROUSSEAU. Weak solutions of the corrosive chloride are valuable in obstinate cases (see above), but must be used with great caution, as the Schneiderian membrane is very sensitive to this salt. Ointment of the nitrate has been well spoken of in the syphilitic form.

Hydrastis. It is said that five to ten drops of the fluid extract of hydrastis, taken internally, and the local application of a dilute solution of the same, have acted very favorably on the diseased membrane.

Iodine, in solution, is frequently used for inhalation.

Iodoform, either in powder or ointment, has been applied with advantage to the diseased surface.

Pix Liquida. This formula containing pix may be employed:

587. R. Sodii carb. cryst. pulv., gr. xvj.
Picis liq., gtt. xvj.
Aquæ, f. $\frac{3}{4}$ iij. M.

For an injection into the nares.

Potassii Permanganas. A solution of this, gr. j- \mathfrak{D} j to aquæ f. $\frac{3}{4}$ j, makes a very useful wash.

Salicylicum Acidum. The plugging of the nasal cavity with *salicylated cotton* is adopted by Dr. GASTEIN, of Breslau. (*Allg. Med. Cent. Zeit.*, October, 1879.) The cotton is soaked in a solution of alcohol, glycerine and salicylic acid, and dried. The plugs are left in twenty-four hours.

Sodii Chloridum. In ordinary cases of non-syphilitic ozena, hardly any substance renders better service than *common salt*, dissolved in water, or, what is better, *milk*, and employed in large quantities, one or several gallons at a time. The strength is about $\frac{3}{4}$ j to Oj. It should be allowed to run freely through the nostrils by means of the douche.

Sodii Hypochloritum. The repulsive odor of ozena is happily neutralized by dilute solutions of hypochlorite of sodium.

Tannicum Acidum. In ozena, both of syphilitic and non-syphilitic character, especially in children, tannin is of great service. The best preparation is the glycerite of tannin, with which the inside of the nose should be well brushed out, after the scabs and incrustations have been removed. The discharge ceases after a single application. (RINGER.)

DAVY recommends the following astringent injection:

588. R. Tannin gr. iss.
Glycerinæ, gtt. xxx.
Aq. destillat., āā f. $\frac{3}{4}$ ss. M.
Aq. rosæ,

Zinci Chloridum. In weak solution (gr. ij-vj to aquæ Oj), this is a valuable wash in ozena. Others use it much stronger, but a very weak solution used in large quantities (one to two gallons) is better.

RHINITIS.

DR. D. PORTER, OF ST. LOUIS.

In the early stages of rhinitis, this writer (*St. Louis Medical and Surgical Journal*, November, 1875,) recommends mustard foot-baths and stimulating diaphoretics locally; the inhalation of a little chloroform when pain and irritation are prominent symptoms; resolvents and astringents when there is a sense of oppression and fullness, as the following:

589. R. Iodinii, gr. v.
Extracti conii, gr. x.
Chloroformi, f. $\frac{3}{4}$ j. M.

To be used as an inhalant.

In the chronic form of rhinitis, four points are mainly to be considered. The first has reference to the predisposing cause, the constitutional fault, which must be rectified. In the strumous type, iodide of iron, or iodoform and iron with cod-liver oil, are generally indicated. The treatment of the syphilitic type is obvious. If there is ulceration, potass-iodide, with ammonia and some form of tonic, are called for; but if no ulcers exist the *bichloride of mercury*, in small doses, if persevered with, he thinks has no equal. These cases he regards as much more manageable than those of scrofulous origin. In

the forms dependent upon the catarrhal diathesis, phosphorus is indicated.

Secondly, the local cause of catarrh must be removed; polypi and glandular hypertrophies must receive appropriate treatment.

The third important item is to keep the part thoroughly cleansed, so as to remove all adherent mucus and incrustations. This he accomplishes by means of the nasal douche, under the immediate supervision of the physician, and with certain restrictions, viz., the solution used should never exceed a drachm of salt to the pint of water, nor the pressure that of a column of water of twelve inches, and, to reach the upper parts of the nasal cavity, he attaches to the douche a tube with an aperture upon its side, through which, after the tube has been introduced into the nostril, the stream is directed upward. The same effect is produced by attaching the tube to a nasal syringe, or the apparatus of RUMBOLD may be used. Potass. permang. or salicylic acid may be used in spray after the cleansing.

Fourth, local medication, which consists in touching ulcers with iodine in glycerine and water, with a little iodide of potassium, or with a weak solution of silver, the latter being recommended when there is thickening of the membrane. When the ulcerations are sluggish, he states that chloral hydrate (grs. v-xv- $\bar{3}$ j) answers a good purpose; where the thickening is not marked, iodine vapor does well; and finally, in many cases, the frequent use of a snuff, composed of camphor, tannic and salicylic acid, is advantageous.

THE EYE.

AMAUROSIS.

In certain cases of failure of vision, apparently owing to defective action of the optic nerve, the injection of *strychnia* into the temple has resulted advantageously. The following rules in these cases are laid down by

PROF. FRANCIS L. PARKER, M. D.,

In the *Transactions* of the South Carolina Medical Society, 1875:

1. The local application of *strychnia* in amaurosis and amblyopic

affections is not applicable to cases arising from *existing or recent inflammation* of the optic nerve and retina; the ophthalmoscope is essential in determining the nature of the affection, whether arising from *functional* derangement or from a *mild or severe* form of organic disease.

2. In case of defective vision arising from *functional* derangement, sight is *generally promptly restored* by the local injection of *strychnia*; in the *milder forms* of organic disease, vision is generally promptly restored, or it may be simply benefited, but the result cannot be predicted by the ophthalmoscope: the treatment is entirely experimental. In the *advanced cases* of organic disease the remedy is useless.

3. If any practical benefit is to be derived from the local injection of *strychnia in functional or mild organic cases*, the injections, being given daily, it will be evinced between the *first and ninth injections*, most frequently between the *first and fourth*, or between the *second and ninth days*. If manifest improvement does not take place in this time, it is useless to continue the remedy.

4. The quantity of *strychnia* used in the successful cases varies from $\frac{1}{40}$ to $\frac{1}{5}$ of a grain. The injection should be continued daily so long as sight continues to improve. When the maximum of sight is attained (if only after several injections) it is unnecessary to continue the remedy.

5. The tonic influence of *strychnia* in the successful cases continues for many months; in numerous cases it has lasted for one and two years. It has been known to last five years, and by some observers the cures are regarded as permanent.

6. The cases which are practically benefited by this remedy are those in which ophthalmoscopic revelations are negative (the functional cases); those in which the ophthalmoscope reveals anæmia of the disc and retina, with a normal distribution of vessels; or those in which only commencing atrophy of the disc, with *limited disease of the retina*, or retina and choroid, are present.

In *advanced cases*, involving the disc, retina and retinal vessels, the injection of *strychnia* is practically useless.

BLEPHARITIS.

MR. ROBERT BRUNDELL CARTER, F. R. S., LONDON.

The treatment should be commenced by removing the crusts by a warm alkaline lotion (sodii bicarbonatis gr. v, aquæ f. ʒj.) and then apply an astringent ointment, preferably that advised by Prof. PAGENSTECHER, of Wiesbaden, containing the yellow oxide of mercury:

PAGENSTECHER'S OINTMENT.

590. R. Hydrargyri oxidi flavi, gr. xxx.
Olei olivæ, f. ʒj.
Adipis, ʒj. M.

If the disease resists this, the parts may be touched with a stick containing one-fourth part of nitrate of silver or with liquor potassæ.

Not unfrequently this condition of the lids is associated with the scrofulous dyscrasia, and for its permanent cure demands constitutional treatment. (See Chapter XV.)

Besides Pagenstecher's ointment, the surgeon may use:

591. R. Zinci oxidi, ʒij.
Adipis purificati, ʒvj. M.

Or,

592. R. Hydrargyri nitratis, ʒss.
Cerati simplicis, ʒj. M.

Whatever application is used, the most important precept is to make it sufficiently weak, to apply it not oftener than once or twice in the twenty-four hours, and to bring it fairly in contact with every portion of the diseased surface.

CONJUNCTIVAL DISEASES (OPHTHALMIA.)

PROF. J. SOELBERG WELLS, M. D., LONDON.

Hypercæmia of the Conjunctiva. This author states that hypercæmia of the conjunctiva is often caused by close application of the eyes,

insufficient light, or from contact with atmospheric or mechanical irritants. The cause is first to be removed. In order to relieve the feeling of heaviness which oppresses the eyelids, employ one of the following

EVAPORATING LOTIONS.

593. R. Spiritus ætheris nitrosi, f. ʒj.
Acidi acetici aromatici, gtt. vj.
Aquæ destillatæ, f. ʒvj. M.

To be sponged over the closed eyelids and around the eyes three or four times daily, and allowed to evaporate.

594. R. Ætheris, f. ʒij-iv.
Spiritus rosmarinæ, f. ʒiv. M.

To be used in the same manner as F. 593, but in smaller quantity, especially if the skin be delicate and susceptible.

The best *astringent lotions* are the following:

595. R. Zinci sulphatis, gr. ij-iv.
Spiritus rosmarinæ, f. ʒvj. M.

596. R. Plumbi acetatis, gr. ij-iv.
Aquæ destillatæ, f. ʒiv-vj. M.

The above are to be applied by saturating a piece of lint with the solution, and laying it over the eyelids for fifteen or twenty minutes several times a day, allowing a few drops to enter the eye.

In chronic cases of hypercæmia, these applications must give place to weak *collyria*, such as:

597. R. Cupri sulphatis, gr. j-ij.
Aquæ destillatæ, f. ʒj. M.

598. R. Argenti nitratis, gr. j-ij.
Aquæ destillatæ, f. ʒj. M.

A drop or two of one of these collyria is to be applied to the conjunctiva.

DR. J. R. WOLFE, F. R. S. E., SURGEON TO THE GLASGOW
OPHTHALMIC INSTITUTE.

This writer gives his treatment of granular conjunctivitis trachoma, or Egyptian ophthalmia. (*Medical Times and Gazette*, April, 1876.) He remarks that the vesicular or granular stage is the chronic indolent condition of the disease, the acute being the purulent stage. Between these conditions there is the sub-acute or mixed stage. This

form is highly contagious, and when it heals always leaves behind conjunctival cicatrices. The division of writers into *true* and *vesicular* granulations is unintelligible. Neither is there any reason for regarding the suppurating granulations as Egyptian ophthalmia, and the indolent form as mere granulations. It is the same disease in different degrees of activity. The indolent form may, at any time, rise to the suppuration stage, the same as the suppurative granulations may retrogress into the vesicular form. The disease is apt to involve not only the conjunctiva, but the tarsal cartilages, producing entropion, and by its friction upon the cornea gives rise to pannus, trachomatous degeneration, and rupture of the cornea.

With regard to the treatment, it is easily explainable why, in the first stage of the attack, warm poultices, as recommended by Von GRAEFÉ, are of great use, because they promote suppuration and the discharge of the foreign bodies or impurities which cause and propagate the disease. But when the disease has been of some standing, and therefore confirmed, when the granulations are firmly imbedded in the conjunctiva of the eyelids, and friction has produced corneal vascularity, softening and pannus, then there is the beginning of an interminable course of treatment and perplexity.

He has never seen any satisfactory result accruing from the use of astringents, of which blue-stone enjoys the greatest favor.

Inoculation with blennorrhagic pus is highly spoken of as a curative agent by competent authorities, but he has never availed himself of this remedy, because in all his visits to those hospitals where this treatment is resorted to, he has never seen a cure.

For a number of years he has adopted a uniform method of treating this disease, and found the result so satisfactory that he has seen no reason ever to depart from it. The remedies on which he relies are—1, scarification; 2, syrup of tannin; 3, friction; 4, solution of atropine; 5, astringent collyria.

Given, a typical case of granular conjunctivitis with pannus: he everts the upper and lower eyelids, and, with Desmarre's scarificator, makes free incisions into the conjunctiva of the eyelids, including the *cul-de-sac*. The incisions are only so deep as to allow free exit to the deposits, without encroaching on the tarsal surface; and with the finger he gradually squeezes out the granules. The surfaces being sponged with warm water to encourage bleeding, a solution of atropine is applied to the part, followed up with a borax lotion in warm

water three times a day. Two days afterwards the eyelids are again everted, and the *syrup of tannin* poured upon them.

599. R. Acidi tannici, ʒij.
Syrupi simplicis, f.ʒj. M.

The lids being drawn forwards, the conjunctival surfaces are then rubbed against each other, with the view of disintegrating any of the deposits which may still remain there. The scarification is again resorted to in a fortnight or three weeks later, according to the exigencies of the case; but the syrup of tannin and friction are applied every second or third day. By these means the granulations are gradually got rid of, and the thickening and corneal pannus disappear, the cornea gradually recovering its transparency.

DR. A. M. ROSEBURGH, SURGEON TO THE TORONTO EYE AND EAR INFIRMARY.

In simple catarrhal conjunctivitis this surgeon directs the eye to be bathed frequently, and simple cerate to be applied to the edge of the eyelid at bed-time. A solution of atropia (gr. ij) applied occasionally to the conjunctiva will reveal, by its effect on the shape of the pupil, whether the iris is involved or not. This answers for the first week.

In the second week the use of local applications should begin; either:

600. R. Hydargyri oxidi rubri, gr. viij.
Glycerini amyli, ʒj. M.

Or:

601. R. Argenti nitratis, gr. iij.
Aque destillatæ, ʒj. M.

The latter may be gradually increased to a strength of gr. xv. during three weeks of treatment. It should be dropped into the eye three or four times a day, and the eyes bathed afterwards in warm water.

After the first week of treatment, when a stronger solution is being used, the eyelids should be everted, and the remedy applied to the palpebral conjunctiva with a camel's-hair brush, and in a few seconds any excess of the solution washed off with warm water before the lid is replaced. The stronger solutions are applied in this manner once a day, and, in addition, the three-grain solution may be still used two

or three times a day, while the ocular conjunctiva remains congested and œdematous. The treatment is continued until both the ocular and palpebral conjunctiva have resumed the healthy condition. When the plasma of the red oxide of mercury is used, it is applied to the everted palpebral conjunctiva twice a day, (and not washed off,) and no other local application used, with the exception of the occasional use of atropia solution, and fresh lard applied to the edge of the eyelids at bedtime.

In "granular lids" a stimulating plan should be adopted. In chronic cases, where the patient is in robust health, with no phlyctenular or ulcerative inflammation of the cornea, either a solution of nitrate of silver (thirty grains to the ounce) may be applied, the solid sulphate of copper, or the mitigated stick of nitrate of silver and nitrate of potash. In cases, however, either recent or chronic, where there is present, or where there is a tendency to, phlyctenular or ulcerative inflammation of the cornea, the nitrate of silver or sulphate of copper is inadmissible. Again and again one sees cases put back for weeks by an attack of phlyctenular keratitis, evidently caused by the use of the "blue stone" or nitrate of silver.

In these cases the plasma of the red oxide of mercury, of the strength of gr. j- $\frac{3}{4}$ j, may be applied morning and evening, without, however, brushing or syringing with water, the everted lid returned with the oxide adhering to the palpebral conjunctiva. The eyelids are bathed occasionally, during the interval, with very warm water. The application of the red oxide is not so stimulating as the sulphate of copper or nitrate of silver, and consequently the treatment extends over a longer period; but there is no local application that is so well adapted to the corneal complications, and none that will more certainly prevent their recurrence. Of course the general condition of the patient must not be neglected. A generous diet should be allowed, and when necessary, tonics prescribed.

In phlyctenular or pustular ophthalmia, with photophobia and lachrymation, the best local treatment, in the case of young children, is to keep the eye constantly under the influence of atropine. The four-grain solution is applied twice a day, the excessive watery secretion being first removed, to prevent the dilution of the atropine solution. Any accompanying eczema or ulceration of the nasal mucous membrane may be treated with the local application of the nitrate of mercury ointment or the plasma of the red oxide. Children under five

years of age should be put on a milk diet, combined either with stale bread or well-cooked oatmeal porridge. The less the deviation from this wholesome diet the better. If the milk is rich in cream, the administration of cod-liver oil is rendered less necessary. A tonic course of treatment is invariably indicated, and there is probably no preparation better adapted to these cases than that of the syrup of the iodide of iron.

In the local treatment of phlyctenular inflammation, either of the conjunctiva or cornea, in adults, the plasma of the red oxide of mercury may truly be said to be a specific. The plasma is applied twice a day, as follows: Instead of applying it simply behind the lower eyelid, as is done by some practitioners, the eyelashes of the upper eyelid are held by the thumb and finger of the left hand, and the lid drawn forward. A small quantity of the plasma is now pushed up under the lid with a camel's-hair brush. Before the brush is withdrawn, the lid is pressed down, so as to retain the plasma; and on the removal of the brush, the oxide is well diffused over the eye by rubbing the eyelid over the eye. The treatment, in any case, should be commenced with the least quantity that will adhere to the end of the brush, and the quantity increased as it is tolerated. In cases of ulceration, where the patient can keep the eye steady, the plasma should be applied directly to the affected part, and allowed to remain a few seconds, or so long as the eye can be kept open. Where the case is complicated with "granular lids," the oxide is applied to the everted palpebral conjunctiva, and allowed to remain about half a minute before the lid is closed.

The strength generally used is one grain to the drachm; but in some cases, where the patient has been under treatment for several weeks, a preparation of double that strength (two grains to the drachm) is frequently well borne, and the case improves more rapidly.

It is not easy to have the plasma properly prepared. The proper formula is to make simple plasma, or *Glycerinum Amyli*, B. P.: take 1 oz. starch and 8 fluid oz. pure glycerine, rub the starch with an ounce of distilled water till quite blended, then add the glycerine and apply heat, gradually increased, till a thick jelly is produced. The preparation must be constantly and thoroughly stirred while making, and if an appearance of granular lumps is shown, squeeze the product before it is cold through cheese-cloth or doubled muslin, previously well washed to remove any loose fibres.

To make the mercurial plasma, it is necessary to have a perfectly smooth and even-surfaced mortar and pestle, in order to obtain the oxide in an impalpable powder. While triturating, keep it moist by the addition of rectified spirit from time to time. Care is also required to keep the powder, which may adhere to the pestle, scraped off very frequently. When thoroughly triturated, the simple plasma is added in the desired proportion and mixed thoroughly.

The efficiency of the trituration may be best tested by rubbing a few grains of the plasma on a piece of fine white paper. On holding this up to the light, there should be no appearance whatever of any specks.

PROF. DAVID W. YANDELL, M. D., LOUISVILLE.

This surgeon insists on the importance of constitutional treatment in trachoma, iron and quinine with fresh air, bathing and good diet. Locally he makes free scarifications of the granulations, promotes the bleeding by hot water, and applies the smooth crystal of sulphate of copper. The pain is best relieved by hot water. The patient is directed to bathe the eyes several times daily in salt water. To prevent the gluing of the lids, he directs the use of:

602. R. Unguenti hydrargyri oxidi rubri, $\frac{3j}{f. 3j}$ M.
Olei morrhuae,
Rub at night on the margin of the lids.

DR. MARTIN F. COOMES, LOUISVILLE.

This ophthalmologist severely condemns (*Medical and Surgical Reporter*, August, 1875,) the use of nitrate of silver in acute conjunctivitis (catarrhal ophthalmia.) Out of over ninety cases he had treated by simpler means, not one resulted in the least impairment of vision. In purulent cases he cleansed the eye frequently with warm water and collyria of alum, gr. ij to water f. 3j. When the discharge commenced to diminish, a solution of sulphate of copper, from ten grains to the ounce to a saturated solution, was applied to the everted lid once every two or three days. The early stages of the milder form were treated with:

603. R. Sodii boratis, $\frac{gr. x.}{f. 3j}$ M.
Aquæ camphoræ,
Apply every hour or two.

In later stages, a weak solution of sulphate of copper, or:

604. R. Acidi tannici, $\frac{gr. iij-x.}{f. 3j}$ M.
Aquæ,

MR. GEORGE LAWSON, F. R. C. S., LONDON.

In the treatment of *acute conjunctivitis* (catarrhal ophthalmia,) this author recommends that every two or three hours, or oftener, if the case be a severe one, the eyes be bathed with one of the following lotions, being careful, at each application, to permit a small portion to flow into the eyes:

LOTIO ALUMINIS.

605. R. Aluminis, $\frac{gr. vj.}{f. 3j}$ M.
Aquæ destillatæ,

LOTIO ALUMINIS MITIOR.

606. R. Aluminis, $\frac{gr. iv.}{f. 3j}$ M.
Aquæ destillatæ,

LOTIO ALUMINIS CUM ZINCI SULPHATE.

607. R. Aluminis, $\frac{gr. iij.}{f. 3j}$ M.
Zinci sulphatis, $\frac{gr. j.}{f. 3j}$
Aquæ destillatæ,

Cool water should be employed between the times of these applications, to keep the eyes free from discharge.

A solution of nitrate of silver (gr. j-ij to the ounce) is useful particularly when there is chemosis of the conjunctiva and swelling of the lids. Two or three drops of this should be dropped in the eye twice a day.

In chronic and purulent cases, he recommends as local applications, when there is any extra secretion present, stimulating drops or lotions, such as what he terms his

GUTTÆ ARGENTI NITRATIS.

608. R. Argenti nitratis, $\frac{gr. j.}{f. 3j}$ M.
Aquæ destillatæ,

GUTTÆ ZINCI SULPHATIS.

609. R. Zinci sulphatis, $\frac{gr. j-ij.}{f. 3j}$ M.
Aquæ,

These solutions should be brushed over the lids of the eye twice a day.

If there be no abrasion of the cornea, the following lotion will be useful:

610. R. Plumbi acetatis, gr. ij.
Acidi acetici diluti, ℥. ij.
Aquæ destillatæ, f. ℥. ss. M.

At night, if there be much secretion from the Meibomian follicles, the tarsal edges of the lids should be anointed with:

UNGUENTUM HYDRARGYRI NITRATIS DILUTUM

611. R. Unguenti hydrargyri nitratis, ℥. j.
Unguenti cetacei, ℥. ss. M.

Stimulating applications should not be made to the eye when there is much photophobia, for they then fail to do good, and only act as irritants.

PROF. GUNNING S. BEDFORD, NEW YORK.

612. R. Hydrargyri chloridi corrosivi, gr. j.
Ammoniae muriatis, gr. iv.
Aquæ destillatæ, f. ℥. vj. M.
Make a solution.

For *purulent ophthalmia in new-born infants*, the eyes to be washed with the solution several times during the day. The applications should not be confided to the nurse; they should be made by the practitioner himself, as follows: The child being placed on its back, resting in the lap of the nurse, the practitioner, placing its head on his knee, with a soft sponge, moistened with tepid water, cleanses the eyes. The lids are then gently separated, and after everting them, the accumulated matter is removed, and the collyria applied.

It may become necessary to touch the inflamed conjunctiva, by means of a camel's-hair pencil, with the following solution once a day:

613. R. Argenti nitratis, gr. ij.
Aquæ destillatæ, f. ℥. j. M.
Make a solution.

When the child falls asleep, the outside borders of the lids, in order to prevent their agglutination, should be smeared with fresh, unsalted butter, fresh olive oil or, what perhaps is better, the red precipitate ointment. The bowels are to be kept regular with castor oil or flake manna in solution, and, above all, the eyes are to be kept clean and protected against light.

MR. A. R. HALL, SURGEON, R. A.

This surgeon treats cases of infants suffering from purulent ophthalmia by simply painting the lower eyelids, upper parts of the cheeks and temples, with the pure balsam copaiva. They get well quickly, without damage to the eyes. (*Practitioner*, April, 1875.)

DR. B. A. POPE, OF NEW ORLEANS.

In reference to *membranous and diphtheritic conjunctivitis*, that is, when there is infiltration of the conjunctiva, with diminished vascularity and tendency to the formation of false membranes, cauterization and the use of astringents are contra-indicated. Frequent *cleansing of the eye*, the application of *cold-water dressings*, and the careful use of *mercurials* are the principal means of treatment.

In the early stages of the disease, the *application of leeches* to the temple is often of decided advantage.

In a case of diphtheritic conjunctivitis, it is only when the second stage of the disease has arrived, namely that of restored vascularity and commencement of purulent secretion, that the use of nitrate of silver can be resorted to. The third stage, or that of cicatrization, can be but little benefited by treatment.

The solution of nitrate of silver preferred by our author is of the strength of gr. vj to f. ℥. j. In administering mercury to adults, he orders gr. 1/10 of calomel every two hours, and mercurial inunctions upon the temple three times a day, or mercurial inunctions alone, upon the temple and in the axilla, every two hours.

GONORRHOEAL CONJUNCTIVITIS.

DR. ROGERS, OF MADISON, INDIANA.

614. R. Acidi carbolici, gr. j.
Atropiæ sulphatis, gr. ss.
Zinci sulphatis, gr. ij.
Aquæ destillatæ, f. ℥. j. M.

This solution is to be dropped into the eye every two hours, and applied constantly, with moist compresses externally.

Dr. ROGERS has proved the efficiency of this treatment in numerous cases of gonorrhœal conjunctivitis, with chemosis, great swelling of the lids, profuse purulent discharge, photophobia, etc. A week generally suffices for a cure in mild cases.

CORNEAL DISEASES.

OPACITY AND ULCERATION OF THE CORNEA.

MR. C. MACNAMARA, F. R. C. S., LONDON.

This writer believes that for the nebula and haziness resulting from chronic granular conjunctivitis, *tannic acid*, dusted into the afflicted eye once or twice a day, affords the patient a better hope of relief than any other treatment. In the Westminster Ophthalmic Hospital, of which he is surgeon, is used, in cases of nebula and corneal opacities:

615. R.	Oxide of zinc,	ʒ ij.	
	Armenian bole,	f. ʒ iv.	
	Olive oil,	ʒ j.	
	Ammoniated mercury,	ʒ iv.	M.
	Lard,		

MR. T. HOLMES, LONDON.

The opacity of the cornea remaining after keratitis may often be greatly benefited by injecting under the conjunctiva (after all inflammatory action has ceased) a solution of common salt:

616. R.	Sodii chloridi,	gr. x.	
	Aquæ destillatæ,	f. ʒ j.	M.

A few drops to be injected under the conjunctiva once a fortnight.

The treatment by *tattooing* remains as a last resort to remove the disfigurement.

In the opacity or ulceration of the cornea so common in small-pox, the following ointment should be applied to the cloudy or opaque cornea once daily with a camel's-hair pencil:

617. R.	Hydrargyri oxidi flavi,	gr. xij	
	Olei olivæ,	f. ʒ ij.	
	Adipis præparati,	ʒ vj.	M.

For an ointment.

This ointment is known to be of great use in severe conjunctivitis, and it was first used by Dr. GAYTON for conjunctivitis in variola, in cases in which opacity of the cornea co-existed; and he found that it had a most marked effect on the latter.

The red oxide of mercury is also applied to opaque spots on the cornea.

It is most important to examine the eyes of patients with small-pox daily, and the moment the slightest nebula is discovered, to apply the ointment, when the increase of opacity will not only be prevented, but a cure will probably be effected in a few days.

The medicinal treatment of opaque lens, with the view of its removal, or clearing up, has thus far given rather poor results. But in the early stages of inflammatory conditions, likely to lead to cataract by contiguity, much may undoubtedly be accomplished. A few years ago, M. LAVIGNOT proposed the use of oleaginous solutions of *phosphorus*, applied to the conjunctiva, and rubbed into the forehead, and asserted that he had proved that this had produced the removal of opacity of the lens in several cases; but this assertion has not been substantiated by others.

DR. JOHN GREEN, OF ST. LOUIS.

Dry calomel, in impalpable powder, dusted in very minute quantity into the eye once a day, is a highly-valued remedy in the healing stage of corneal ulcers. PAGENSTECHER'S ointment (see F. 590) answers well in cases which require stronger stimulation.

MR. T. HOLMES, OF LONDON.

The general directions of this surgeon for the management of corneal ulcer are to obtain repose of the sphincter of the pupil and the muscles of accommodation by means of atropine, to prevent friction of the lids by a well-applied compressive bandage, to employ hot fomentations, tonics and nutritious diet.

Mr. JONATHAN HUTCHINSON remarks in one of his lectures that no operation in corneal ulcer ought to be resorted to until after an efficient trial of the *hot-fomentation* plan. In a large majority of cases, corneal ulcers with hypopyon, if seen in an early stage, will do perfectly well if the patient be put to bed and the eye fomented constantly with a hot belladonna solution; but it must be almost literally constant, and as hot as the patient can possibly bear it. Anything short of this in these dangerous cases is usually only waste of time.

In regard to operating, he adds that in many cases, after an iridectomy, the patient's pain is at once permanently relieved; the hypopyon never re-forms, and the ulcer steadily heals afterwards. As