CONCLUSIONS.

(1) *Chandu* is a dark-brown substance of sweetish aroma akin to that of burnt jaggery or sugar.

(2) It is prepared from opium, *inchi*, and water. No oil is added during boiling.

(3) It contains about 33 per cent. of opium.

(4) A microscopical examination of *chandu* shows the presence of prismatic crystals similar to those found in opium.

GOVT. LABORATORY, PUSA. } Yours, etc., B. DWARAKANATH SASTRI, L.Ag.

A FISH IN THE LEFT BRONCHUS

To the Editor of "THE INDIAN MEDICAL GAZETTE."

SIR,—I shall feel obliged if you will publish the following case, the history of which, I trust, will interest your readers.

A young boy of 17 was brought to the Municipal Hospital, Mannargudi, from a village ten miles off, with a history of a live fish having got into the respiratory passage, under peculiar circumstances. The boy—not a fisherman by profession—went out fishing one noon, with a hooked instrument, (which more or less resembles our Braun's hook, except in size), which is specially used in these parts for catching a particular kind of fish known as *arrah*—in Tamil. Having hooked one by the tail, he wanted to hold the head of the wriggling fish between his teeth and run a string through it. But as he attempted to do so, the fish suddenly released itself from the hook, darted into the mouth, thence into the trachea and finally lodged itself in the left bronchus. He was brought to the hospital in extreme agony about eight hours after this incident. He was blowing like a furnace and could answer questions only with very great difficulty. The left side of the chest and neck was swollen and puffy, giving a sensation of fine crackling crepitus on pressure. The surgical emphysema also extended to the left upper extremity as far as the wrist and to the left side of the abdomen as far as the pelvis. Auscultation revealed no breath sounds on the left side. Low tracheotomy was performed without administering any anæsthetic and the foreign body was removed with some difficulty.

The fish was flat and slippery with fine scales and a row of fins on the dorsum. It had a pointed anterior extremity and measured 6 inches in length and ¾ inch in breadth across its widest part.

The surgical emphysema completely disappeared in a week and the patient made an uninterrupted recovery.

Yours, etc.,

MANNARGUDI, TANJORE DISTRICT. } R. A. D. GRAHAM, M.B., C.M.

THE "NEW OPERATION FOR CATARACT."

To the Editor of "THE INDIAN MEDICAL GAZETTE."

SIR,—Under this title Dr. Green of San Francisco discusses in the *Indian Medical Gazette* for August, 1917, the merits of the cataract operation purporting to have been performed by Hari Shankar in November, 1915. The operation as described by Dr. Green in the above article is a good deal different to the one I had occasion during last May to witness Hari Shankar doing in about 60 cases, most of which I followed up for some days after the operation.

As a very erroneous idea is likely to be conveyed to the readers by Dr. Green's account and his strictures on the various papers published jointly by Major Corry and Hari Shankar, I feel bound to impartially record what I saw of the operations and their results.

The following is a brief account of the steps of the operation :

Preparation :—After complete cocainisation and adrenalisation of the conjunctiva, the eye lashes are cut, face and eyebrows washed with soap and water, and the conjunctival sac thoroughly flushed with water from a large irrigator hung above the table. An injection of adrenalin and weak cocaine is made into the outer canthus and a sterilised suture passed through the upper lid, which suture serves to fix and steady the lid when looped tightly around the ear in the after-treatment of the operation.

Operation :—The operator first divides the external canthus and with the point of the scissors, introduced between the skin and conjunctiva, cuts the external palpebral ligament freely.

The assistant, who stands on the opposite side, places the whole length of his thumb on the upper lid and presses it and the eyebrow upwards, while he pulls the loop of suture on the upper lid tightly upwards with the index finger placed above the eyebrow, and with the thumb of the other hand he pulls the lower lid well downwards. No speculum is required. If an assistant is not available, Hari Shankar uses a very ingenious speculum of his own invention.

He then makes a large conjunctival flap beginning on the outer side of the cornea and going to nearly three fourths of its whole circumference, the last portion of the conjunctiva being, however, undermined and not completely dissected up. This conjunctival flap is freed well up to the limbus of the cornea to facilitate the subsequent section.

Now keeping this flap taut with fixation forceps, he makes a section at the sclero-corneal junction on the outer side with a keratome, and subsequently inserting one blade of scissors curved on the flat through the wound and cutting the cornea enlarges it to more than two-thirds of the whole circumference of the cornea, almost corresponding to the conjunctival flap.

This large section is very important and its advantages are ably discussed in a paper published by Major Corry and Hari Shankar in the *Indian Medical Gazette* for October, 1916.

The corneal flap is turned to the opposite side by pulling on the attached conjunctiva, and the anterior chamber is well exposed—while this is being done by pulling with fixation forceps held in one hand, the lens lifting forceps—another ingenious instrument of Hari Shankar's invention—is introduced into the anterior chamber, the upper and lower margins of the iris well retracted, and the lens caught hold of between the blades of the forceps and removed ; though removal with forceps is what is generally done, in a few instances at my request to show me the method of expression he expressed the lens after primarily detaching the suspensory ligament by passing a zonulotome between the iris and lens.

A drop or two of eserine is instilled on the iris and the corneal flap and conjunctiva replaced.

Sterilised ointment is introduced between the lids, the eye is closed and the suture passed through the upper lid is looped tightly round the ear, making the upper lid immobile.

Merits of operation :—Rupture of the capsule has occurred only in one instance of the series and it was easily removed entire.

Prolapse of the vitreous or escape of the vitreous is again a rare event. Hari Shankar has over and over again demonstrated to me how the traction of the conjunctiva serves to induce negative pressure in the eye-ball, and tends to make the bulging convex surface of the vitreous concave ; in fact, the feature of the operation that struck me most was the perfect control in preventing vitreous prolapse, the theory of which he has well discussed in the article published in the *Indian Medical Gazette* for November, 1916.

The lens is removed complete in its capsule, and the way it is done by his special forceps appears delightfully easy, not exerting the slightest pressure or putting any tension on any of the structures of the eye.

To any unbiassed mind who witnesses the operation as described above, it cannot but appeal as an operation far in advance of, and one totally different in every step from, all other existing operations.

The main points of the operation are :—

1. Canthotomy which does away with orbicular massage during operation and after treatment.

2. The large preliminary conjunctival flap deliberately made.

The very large incision for more than two-thirds of the circumference of the cornea.

4. The case with which the lens is removed by forceps.

5. The control over the vitreous prolapse by the pull on the conjunctival flap which produces a negative pressure in the eye-ball.

I followed up most of the cases after operation for varied periods, and was perfectly satisfied with the uniformly good results ; the section was in every case well united, cornea remained clear and pupil black and central ; there was not a single case of suppuration. The upper lids remained swollen and heavy for a few days after operation, which, however, finally passed off in every case. The only complication that I remember to have seen was a slight degree of prolapse of the iris for which iridectomy was subsequently done.

I have written the above account of my visit, not with a view to sound his praise, but have undertaken it solely to correct any erroneous impression which readers may form from Dr. Green's account. Anyone who doubts may satisfy himself by a trip to the Imperial city of India, and I am sure my friend, Hari Shankar, will give a hearty welcome to any visitor with an open mind as he did towards me.

Yours, etc.,

KURNOOL. M. K. VARUGHESE, M.B., D.P.H. & C.

QUININE HYPODERMICALLY.

To the Editor of "THE INDIAN MEDICAL GAZETTE."

SIR,—I shall be much obliged if you would kindly let me know what quantities of the "Quinine Urea Hydro-