

Since March 1st, all the cataracts were extracted by the method recommended in Brudenell Carter's work. Atrazine was instilled in each case after extraction and the orbital region well smeared over with belladonna extract. This is very important, for it not only keeps up permanent dilatation of the iris, preventing lymphatic effusion, but the pad sticks to the eyelids and prevents the patient opening the eye. On the second day the pad is removed, the eye washed, belladonna again applied, and a clean pad and bandage adjusted: if all goes well, and no pain complained of, the eye is opened on the fourth day and vision tested. Should there be any pain, the eye is opened sooner and treated accordingly.

Better results might be obtained by only operating in selected cases; no selection was made, but all who had a chance of vision were operated on; the very debilitated cases had a little stimulant given for a few days after the operation.

The notes of the cases taken by Assistant-Surgeon Bihari Lall show that cataract is chiefly due to bad food and great exposure to the glare of the sun: syphilis seems to have little influence, nor does it seem to be hereditary.

In addition to these operations there were nearly one thousand minor operations, and a daily average of nearly 50 out-patients requiring medicine.

VITAL STATISTICS OF THE PRESIDENCY JAIL, CALCUTTA, DURING THE YEARS 1871—1876.

By Surgeon-Major S. COULL MACKENZIE, M. D.

(Concluded from page 150.)

SALUBRITY OF THE DISTRICT COMPARED WITH THAT OF THE JAIL.

Europeans.—The following Table shows the deaths per

The following table shows the diseases which prevailed most, and their percentage to daily average strength:—

thousand of the jail and outside population:—

Years.	Deaths per 1,000 among Jail population.	Deaths per 1,000 among Outside population.
1871	23.10	30.8
1872	96.38	29.9
1873	0.0	27.6
1874	0.0	27.9
1875	14.69	35.3
1876	0.0	36.5

From the above it will be seen that the death-rate of the European prisoners contrasted favorably every year except during 1872, when it was 67.29 per thousand more than the mortality amongst the free population. It will be observed that during 1873, 1874 and 1876, although there was a death-rate of 27.6, 27.9 and 36.5 per thousand among the European inhabitants of Calcutta, there was not a single death among the European prisoners.

Natives.—The following Table shows the deaths per thousand among the prisoners and the free native population:—

Years.	Deaths per 1,000 among Jail population.	Deaths per 1,000 among Outside population.
1871	8.05	23.6
1872	47.12	23.8
1873	28.84	23.9
1874	26.5	26.7
1875	16.7	32.6
1876	25.64	29.8

From the above it appears that the mortality among the native prisoners during the years 1871, 1874, 1875 and 1876 was less than among the free population, while during 1872 and 1873 it was higher. In 1872 24.4 per cent. more died in the jail than outside, and in 1873, 5.75 per cent. more.

	1871.		1872.		1873.		1874.		1875.		1876.		TOTAL.	
	Admissions into hospital.	Percentage to daily average strength.	Admissions into hospital.	Percentage to daily average strength.	Admissions into hospital.	Percentage to daily average strength.	Admissions into hospital.	Percentage to daily average strength.	Admissions into hospital.	Percentage to daily average strength.	Admissions into hospital.	Percentage to daily average strength.	Admissions into hospital.	Percentage to daily average strength.
Ague	784	105.23	897	93.92	769	82.15	888	84.06	440	45.74	120	12.30	3898	68.31
Diarrhoea	147	19.73	416	43.55	1001	106.94	993	93.99	662	69.13	271	27.79	3430	60.99
Dysentery	127	17.04	409	42.82	399	42.65	223	11.65	196	17.33	184	18.87	1508	26.82
Febricula	6	.80	1	.10	13	1.38	201	19.02	425	44.30	265	27.18	911	10.19
Ulcer	22	2.95	34	3.55	53	5.69	156	14.76	78	8.14	65	6.69	408	7.26
Abscess	43	5.77	30	3.14	21	2.24	115	11.09	74	7.72	116	12.00	399	7.09
Chicken-pox	...	...	7	.73	60	6.41	42	4.92	191	19.94	2	.21	302	5.36

From the above it appears that the admissions into hospital to daily average strength were highest from ague, diarrhoea, and dysentery, on account of which diseases 69.31, 60.99 and 26.82 per cent. had to be treated during the six years. The next diseases which prevailed most were febricula ulcers, abscesses, and chicken pox, and of these 16.19, 7.25, 7.09, and 5.36 per cent. were treated. On referring to the table it will be seen that the admission rate on account of ague decreased from 105.23 per cent. in 1871 to 12.30 per cent. in 1876. The decrease does not appear to have been sudden. I cannot account for this gradual decrease, unless it can be ascribed to more efficient subsoil drainage by the introduction of several large surface pucca drains which were built in some of the yards. During 1873 diarrhoea was very prevalent, and 106.30 per cent. of the prisoners had to be treated for it. Since 1873 the number attacked by this disease has diminished. The smallest number of cases admitted was during 1871, when only 19.73 per cent. were treated. The smallest number of admissions on account of dysentery was registered during 1874, when only 11.65 per cent. were treated; the largest number of admissions was during 1872 and 1873 when 42.82 and 42.65 per cent. were in hospital. The admissions on account of febricula, ulcers, and abscesses have increased considerably. The reason of this is that I used, when I first went to the jail, to treat all the trivial and simple cases as out-patients. I found, however, that this did not answer, and that many simple cases became aggravated, so I discontinued the practice, and latterly have treated every case from the beginning in the hospital and with the best result.

The largest number of cases of varicella treated was during 1875 when 19.94 per cent. were in hospital. There were no cases during 1871, and only 21 per cent. during 1876.

The following table shows the percentage of admissions into hospital of the four classes of convicts in the jail during the six years:—

Class of Prisoners.	1871.	1872.	1873.	1874.	1875.	1876.
	Percentage of admissions into Hospital.					
First Convictions ..	43.47	55.35	67.81	92.26	72.38	48.47
Habituals ...	75.45	73.47	97.83	74.17	61.17	55.69
Adolescents ..	53.09	55.08	58.18	91.40	84.5	31.38
Juveniles ...	73.46	90.38	73.48	27.10	34.28	85.24

From the above it will be seen that during 1871 and

1873 the most unhealthy class of native prisoners were the habituals, of whom 75.45 and 97.83 per cent. were treated in hospital. During 1872 and 1876 the juveniles were the most unhealthy, when 90.38 and 85.24 per cent. had to be treated. In 1874, the first conviction adults were the most unhealthy, 92.26 per cent. having to be treated; while in 1875, the adolescent prisoners showed the largest number of sick—84.5 per cent. The adolescent prisoners were the most healthy during 1872, 1873, and 1876, when 55.08, 58.18, and 31.38 per cent. were in hospital. The juveniles were the most healthy during 1874 and 1875, when only 27.10 and 34.28 per cent. were treated; while in 1871 the first conviction adult prisoners were the most healthy, showing 43.47 per cent. as having been treated in hospital.

Variola.—There were two cases among the natives, one during 1872, the other in 1875. The following is a brief history of both cases:—

A native prisoner, named Bane Cowrah, was received from the Howrah Lock-up on the 24th August 1872, under sentence of one year. On admission he had small-pox. This man was kept apart from the rest of the prisoners with two volunteer prisoners to look after him. He gradually got worse and died on the 11th September 1872. The body was wrapped up in his clothes and bedding which were well tarred, and was sent to the usual burning ghât. The domes who always carry bodies to the burning ghât carried the body; they did not suffer, and by this simple procedure no extra expense was incurred for conveyance. The two volunteer prisoner attendants were kept apart from the rest of the prisoners for three weeks, and then after their clothes and bedding had been burnt they were permitted to return to their respective work and wards. Neither of them suffered from this disease, nor did a single case occur afterwards. This I attribute to the early detection of the disease and careful isolation of the patient. I communicated with the Magistrate of Howrah, and ascertained from him that there were no other cases of small-pox in the neighbourhood of the man's house.

On the 31st December 1874, a prisoner, named Shaik Ameer, was received from the Howrah Lock-up. On the 10th January 1875, he was admitted into the hospital with variola; he was immediately separated from the rest of the prisoners, and was discharged from hospital cured on the 15th March.

Vaccination.—During the years 1872 to 1876 all the unprotected prisoners, both Europeans and Natives, were vaccinated by the Native officials under the control of the Inspector-General of Vaccination. No record of the cases was kept by the jail authorities.

Varicella.—There were three hundred and two cases among the Natives. The largest number of cases, one hundred and ninety-one, occurred in 1875; there were sixty cases in 1873, forty-two in 1874, and only seven and two in 1872 and 1876. There were no cases in 1871. Most of the cases were of a very mild nature, and none of the prisoners died from the disease.

Mortality.—The following statement shows the diseases

from which the Native prisoners died during the period under review :—

DISEASE.	1871.	1872.	1873.	1874.	1875.	1876.	Total.	
Small-pox confluent	...	1	...	...	...	...	1
Ague	...	2	3	5	11	1	2	24
Remittent Fever	2	2	
Cholera, malignant	...	12	5	1	2	...	20	
Cancer of brain	...	1	...	...	...	...	1
Anæmia	1	2	1	4	
Sun Stroke	...	2	...	1	...	...	3
Paraplegia	...	1	...	...	...	...	1
Acute Mania	1	1	
Disease of the valves of the heart	1	...	1	
Aneurism	1	1	
Pneumonia	2	2	...	6	10	
Hæmoptysis	2	...	...	2	
Œdema	1	...	1	
Chronic Pneumonic Phthisis	2	4	...	...	3	5	14
Pleurisy	1	...	...	1	
Dysentery	1	13	9	6	3	4	36	
Diarrhœa	...	6	3	2	2	1	14	
Internal Hæmorrhoids	1	...	...	1	
Peritonitis	1	...	...	...	1	
Ascites	1	1	
Sloughing of the Scrotum	1	1	
Abscess	1	...	...	...	1	
Uicers	1	...	...	...	1	
Anthrax	...	1	...	...	...	...	1
Wound—cut throat	...	1	...	...	1	...	2
Fracture, compound, of phalanges	1	...	...	...	...	...	1
Suicide, hanging	2	2	
Execution, judicial,	2	...	1	2	2	1	8	
TOTAL	8	45	28	30	18	28	157	

From the above it will be observed that there were one hundred and fifty-seven deaths during the six years. Of these two were suicides by hanging, and eight were judicial executions, thus leaving one hundred and forty-seven deaths in hospital; and of these two cases of cut throat were prisoners who attempted to commit suicide, and having failed were admitted into hospital, where they eventually died from exhaustion, the result of losing a large quantity of blood.

The prisoner who died from confluent small-pox was admitted into jail from the Howrah Lock-up with the pocks on his person. It will be observed that there were twenty deaths from cholera; that twelve of these occurred in 1872, five in 1873, one in 1874, and two in 1875.

The seasonal prevalence of cholera, dysentery, diarrhœa and ague are exhibited in the following Table, which contains the totals of the six years under report :—

MONTHS.	CHOLERA.		DYSENTERY.		DIARRHŒA.		AGUE.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
January	...	...	124	7	224	...	281	2
February	1	1	117	6	282	3	174	2
March	11	5	114	4	478	1	258	...
April	1	1	116	3	413	...	250	1
May	2	1	90	3	263	1	391	1
June	2	...	77	...	255	...	176	3
July	13	9	107	1	325	2	267	1
August	...	1	163	3	227	...	342	2
September	1	...	161	2	216	...	372	3
October	4	2	140	2	322	...	545	3
November	...	...	153	2	217	4	481	2
December	...	...	146	3	208	3	361	4
Total	35	20	1,508	36	3,430	14	3,898	24

The variations of prevalence in different years are thus summarised :

Cholera—Prevailed most during the months of July and March, and during the years 1872, 1873 and 1875, but there were so few cases, that no conclusion can be drawn from their season of occurrence.

Dysentery—Prevailed most during December, November and September 1871, during November and December in 1872, during August and September in 1873, during March and April in 1874, during October and November in 1875, and during April, February and July in 1876.

Diarrhœa.—The largest number of cases of this disease occurred in October, September, December and March 1871, in October and November 1872, in March, July and October 1875, in March, April and May 1874, in March and April 1875, and in February and March 1876.

Ague.—Prevailed most during the months of September, October and November 1871, during April, May and July in 1872, during May and October in 1873, during October, November and December in 1874, during January and October in 1875, and during January and July in 1876.

EPIDEMICS.

Europeans.—No disease appeared in an epidemic form among the European prisoners of the jail; but one European was attacked by cholera during one of the two outbreaks of the disease occurring in the jail in 1872.

Natives.—In 1872 cholera broke out in an epidemic form on two occasions. On the first occasion it appeared on the 30th May in the person of an adolescent prisoner, named Nathoo Karigar, who was sentenced on the 17th December 1870 by the Sessions Court of Pubna to 4 years' rigorous imprisonment. He was received into the jail on the 15th July 1871, when he was in good health, and had been therefore about a year in the building. He was attacked with the disease at 3 A. M. in the printing-office ward, where he slept. This prisoner recovered. From this date to the 16th of July thirteen prisoners were attacked: of these no less than ten died. From the 16th July to the 8th September no fresh cases appeared, but on the latter date a prisoner named Habel Chunder Nundy was attacked with the disease, and then five other cases followed, the last man being attacked on the 26th October. Of these five were natives, and one European: the European and two of the natives succumbed to the disease.

Classes of prisoners attacked.—All classes of prisoners were attacked, but those employed as *mehters* and at garden work suffered most. Many of the native prisoners that were attacked slept in some part of the dormitory of the large main building or in the printing office. Not one of those who slept in the corridors were attacked. The European attacked was the convict hospital warder; he had been for some months employed on this duty.

State of the Jail during the epidemic.—The jail, as usual, was kept perfectly clean: there was no sewage on and around the jail, and the drainage was excellent. The dormitories were "leaped" with cow dung and clay every week. The food was of excellent quality, well cooked, and the regulation amount was served to each prisoner. All these arrangements were under my own close supervision. The drinking water was the best to be had, and was procured daily in a cart from the municipal water supply. The iron tanks in which it was kept were inspected almost daily and kept perfectly clean. Each prisoner had his full complement of clothing and blankets. The former the prisoners were made to wash every Sunday before they were inspected, and the latter were boiled once a month.

Latrines.—The latrines were all in excellent order, and the dry-earth system was carried out strictly. The cholera dejecta, after having been well mixed with dry earth, were put into a large air-tight vessel, and then subjected to a very high temperature.

Overcrowding.—All the wards, with the exception of corridors and European cells, were somewhat overcrowded. The hospital wards were also overcrowded, and many of the sick had to be treated in the corridor.

Health of the Prisoners.—During the epidemic, and some time previous, diarrhœa and dysentery were very prevalent among the European and native prisoners, and several of those attacked with cholera were in hospital for one or other of these diseases.

Means taken to prevent the spread of the disease.—All prisoners suffering from diarrhœa were admitted into hospital and closely watched. Those suffering from cholera were segregated from the rest of the prisoners; their clothing and blankets were subjected to a high temperature before they were re-issued, and, as above stated, the choleraic dejections were subjected to a high temperature. The wards were "leaped" several times a week, as well as fumigated; the food and drinking water issued to the prisoners were most closely examined.

Cause of the Epidemic.—I am unable to assign any cause for the appearance of the disease. It was, however, prevalent at the same time in the surrounding district, but I have no evidence to lead me to suppose that the disease was imported by any of the newly-convicted prisoners. Nathoo Karigar, the first attacked, had been in jail about 12 months before he was attacked. There were no facts to show that the water or the food gave rise to the disease, every article of diet having been most closely inspected.

In 1873 cholera broke out once in the jail among the native prisoners in an epidemic form.

The following is a concise report regarding the outbreak. Between the hours of 12 and 1 o'clock on the morning of the 14th March 1873, convict night guard, Hurji Persaud, while on duty, was attacked with cholera. No fresh cases appeared till the 22nd, when two habitual prisoners, named Peeroo and Shaik Jumun, were attacked. The next man attacked was Kessub Lall Boral. On the 23rd a long-termed prisoner, named Mudhoo Dome, was attacked on the 27th. A short-termed prisoner, named Choiton Moonia, was attacked with the disease. On the 28th a habitual prisoner, named Herastoollah, and a long-term prisoner, Doulut Shah, were attacked. After that date no fresh cases occurred.

Of the eight men attacked five succumbed to the disease, while three recovered. The eight men attacked were employed at the following kinds of labor, and slept in the following wards. The first was in charge of a store godown during the day and at night watchman over the common jail yard. The second was at stone-breaking during the day and was locked up in a cell in No. 3 corridor during the night; he was attacked whilst sleeping in his cell. The third was at mehter's work during the day, and slept in a cell in No. 3 corridor; he was attacked during the day. The fourth was an adolescent prisoner, who during the day was em-

ployed in the patternmaker's shop and at night slept in No. 2 printing office ward; he was attacked on a Sunday while in the act of cleaning his clothes. The fifth was employed as a mason during the day and slept in No. 9 ward ground floor main building; he was attacked at night while sleeping in his ward. The sixth was employed as a water-carrier during the day and slept at night in the main building; he was attacked in the morning while carrying water. The seventh was a habitual prisoner employed at stone-breaking, and slept in a cell in No. 3 corridor; he was attacked in the morning at meal time. The eighth was employed at spinning; but the day before was put on four days' penal diet for persistently refusing to perform his full task at jute spinning; when he was attacked he was in a solitary cell undergoing the punishment before mentioned. I closely and personally inspected the food and drinking water supplied to the prisoners, and always found the former to be of good quality and the latter was the well filtered water supplied by the municipality to the town. I inspected the yards and dormitories during the day as well as at night, and found them always perfectly clean and well ventilated.

The only objectionable feature present in the jail at the time of the appearance of the disease was the very low and dirty condition of the bathing tank within the jail. This tank had for years been the only means of ablution for all the Native prisoners. During the rainy season of 1872, on account of the small rainfall, it was not half-filled during the rains, and was exceedingly low in consequence in the following spring. No special significance, however, can be attached to the low state of the tank, as the disease disappeared without any alterations in this condition, and no cholera occurred during the subsequent months when the tank was lower and dirtier than at the time of the outbreak. The tank has since been cleaned and deepened.

RECOMMENDATIONS MADE AND SANITARY IMPROVEMENTS EFFECTED.

Europeans.—In 1872 the Inspector-General of Jails was urged to obtain Government sanction to build a wing to the hospital belonging to the Native portion of the jail for the accommodation of the European sick, whose hospital was condemned some years before as old and too dangerous to be occupied, since which period the Europeans, when sick, had been treated in the Native hospital. The new wing as recommended was commenced in 1873.

Natives.—No recommendations were made during the year. Whenever any sanitary improvements were required the Superintendent carried them out on his own responsibility, and with the verbal sanction of the Inspector-General of Jails.

MALINGERING.

Europeans.—In 1871 and 1872 no record was kept of the number of malingerers admitted into the hospital. During 1873, 5.02 per cent. of the admissions into hos-

pital had nothing the matter with them; in 1874, 5.19 per cent., in 1875, 4.15 per cent., and in 1876, 14.98 per cent., thus showing a large increase in their number during the last year.

Natives.—In 1871 there was no record kept of the number of malingerers admitted into hospital.

In 1872 there was much malingering among the Native short-term and habitual prisoners. They generally complained of diarrhoea, dysentery, a few of rheumatism, and some of epilepsy. Those feigning diarrhoea manufactured liquid stools by mixing their solid excreta with urine till it became quite watery, while those who feigned dysentery used, in addition, to make their gums bleed by rubbing them with a sharp piece of stick, and to spit the blood thus produced into the stools. It was ascertained that some prisoners drank the castor-oil supplied for the night lamp of their wards, and thus kept up the diarrhoea. This was detected by the oil floating on the top of the fæces. The long-term non-habitual prisoners and those who had been in jail some time never showed any signs of malingering.

In 1873 there were one hundred and thirty-two cases of malingering during the year; these were easily detected by the clinical thermometer. The old and habitual malingerers, on finding how easy it was to distinguish illness from malingering by means of the thermometer, have given up their evil ways, and now only come to hospital when really sick.

The value of Thermometric observations in Jails.—The following case will illustrate the value of the thermometer in detecting obscure and acute diseases during 1873:—A prisoner complained of being ill, but on examination he was found to be perfectly cool, the pulse was normal, the tongue was clean, stools regular and well formed. The man however said he was not well and could not work. On taking the prisoner's temperature it was found to be 100° for four days, when he got an attack of acute dysentery, and the temperature began to fall. Had not the clinical thermometer served to guide the treatment of this patient, he would most probably have been kept in hospital 24 or 36 hours on observation, and then have been discharged, and possibly have been punished for malingering; no heat of skin or other appreciable disease being detected.

Tamarind Seeds a cause of Diarrhoea.—During the month of April 1873, I found the malingerers amongst the habituals were able at pleasure to give themselves diarrhoea. Wishing to ascertain how they managed to do so, I had strict watch kept over them, with the result of ascertaining, that they did so by chewing the seed of tamarind issued as diet. I then stopped the supply of tamarind with seeds, and found that my habitual malingerers lost their diarrhoea.

During 1873 there were 132 malingerers; in 1874, 79; in 1875, 23; and 40 in 1876.

Remarks regarding the Weights of the Internal Organs of native prisoners who died in Jail.—During the period under review I had the opportunity of making *post-mortem* examinations on the bodies of 99 native male prisoners. I noted the height and weight of each man;

and the weights of each of the internal organs with the results given in the following table.*

BODY AND ORGANS.	Average weight of body and organs of 99 Native male prisoners.		Average weight of the body and internal organs of Europeans from Marshall's physiology.		Decrease of Native.	Average height of Native prisoners.		Average height of Europeans from Marshall's physiology.		
	lbs.	oz.	lbs.	oz.		lbs.	oz.	Ft.	In.	Ft.	In.
Brain	2--	8 $\frac{3}{4}$ [2--12.95]	3--	2 $\frac{1}{2}$	0--	9 $\frac{3}{4}$				
Heart	0--	7 [7.79]	0--	10 $\frac{1}{4}$	0--	3 $\frac{1}{4}$				
Right lung	0--	14 [1--5.95]	2--	10 $\frac{1}{4}$	1--	12 $\frac{1}{2}$				
Left lung	0--	15 [1--1.02]	2--	10 $\frac{1}{4}$	1--	11 $\frac{1}{2}$				
Liver	2--	6 $\frac{1}{2}$ [2--13.36]	4--	1 $\frac{1}{2}$	2--	11				
Spleen	0--	7 [--14.36]	0--	8 $\frac{1}{2}$	0--	1 $\frac{1}{2}$				
Right kidney	0--	2 $\frac{1}{2}$ [--4.1]	0--	10 $\frac{1}{4}$	0--	6 $\frac{1}{2}$				
Left kidney	0--	3 $\frac{3}{4}$ [--3.69]	0--	10 $\frac{1}{4}$	0--	6 $\frac{1}{2}$				
Pancreas	0--	2 $\frac{1}{2}$ [3.07]	0--	3	0--	$\frac{1}{2}$				
Weight of body	111--	1 $\frac{1}{2}$ [82-73]	143--	8	32--	6 $\frac{1}{2}$	5	4 $\frac{1}{2}$ [5.3.5]	5	6 $\frac{1}{2}$

From the above it will be seen that the average weight of Europeans according to Marshall's physiology is 143lbs. 8oz., while the average weight of the 99 prisoners who were examined was only 111 lbs. 1 $\frac{1}{2}$ oz., showing the average weight of the Native to be 32 lbs. 6 $\frac{1}{2}$ oz. less than that of the European. The mean height of the European is put down as 5 feet 6 $\frac{1}{2}$ inches, while that of these natives was only 5 feet 4 $\frac{1}{2}$ inches, showing that the height of the average native of this part of India is 2 inches below that of the European. All the internal organs also weighed less.

The following table shows the relative weight of each organ to the weight of the body of the native and the European :—

ORGANS.	Relative weight of each organ of 99 native prisoners.	Relative weight of each organ of European body.
Brain	2.29	2.19
Heart ... ..	.39	.44
Right lung ... ..	.78	1.84
Left lung ... ..	.84	1.84
Liver	2.16	2.87
Spleen ... ..	.39	.37
Right kidney ... ..	.21	.44
Left kidney ... ..	.21	.44
Pancreas ... ..	.14	.13

CALCUTTA, 1st October 1877.

* Details regarding the weights of organs in 50 prisoners examined in the Jessore Jail will be found in Vol. III. at page 205. The average results are placed in brackets in the above table.

CATARACT.

By Surgeon-Major G. C. Ross, Civil Surgeon, Kurnal.

THERE are four kinds of cataracts, quite distinct, and I think requiring different and distinct operative procedure :—

1.—The *soft*; found in people under 35 years of age.

This cataract is similar to the cortical in appearance, but has no nucleus.

The operation for solution should be preferred for its cure.

2.—The *cortical* is pearly looking, with striæ, sometimes stellate, sometimes like an irregular Y. It may, but rarely, have specks of cholesterine in the capsule; a yellowish tinge in the centre is also often apparent.

3.—The *fluid*; a bluish looking bag which presses the iris forwards, often has white specks on it and the nucleus loose inside appearing as a yellowish spot when the patient stands up or leans forward, disappearing when he lies down. The fluid cataract has a peculiar large deep bluish white look.

4.—The *hard*; a yellowish amber-colored lens, sometimes somewhat clear looking, sometimes, and especially in old women, of a dirty muddy yellowish fleshy appearance; when I would prefer not to operate as vitreous is sure to escape and probably a rotten diseased iris exists which will tear away and get loose in the anterior chamber.

All cataracts with, I think, the exception of the hard may be found single.

The cortical may be of different grades of consistency; sometimes a quantity of soft cortical masses with a small nucleus, sometimes cheesy with a large one.

As regards operating, the first thing to be done is to choose the cases; and plenty of all sorts of eye complaints will present for treatment, if it is found that the Civil Surgeon operates on the eye.

The pupil must be dilated, if possible, with atropine (gr. iv to ʒi. water) dropped in an hour before examination. When I find that the patient has cataract and not amaurosis, which disease is extremely common, I tell him or her to come to the hospital a day before the operation is to be performed, explaining fully that great patience and obedience to orders for 14 days must be observed.

The cases to be avoided are, —1,— where there is utter blindness, *i. e.* light cannot be discerned from darkness, a prominent staring eye with shallow anterior-chamber, and perhaps tremulous iris; vitreous will escape.

2.—Cases of hard cataract when the lens is of a dirty yellow color with an irregular pupil.

3.—When the cornea or lids are diseased.

And, I think, 4,— when irido-choroiditis has been set up in one eye by a Hakim—a very common occurrence.

The day before the operation give a dose of oil and insist on nothing being eaten after 12 noon of that same day.

The operation I prefer is Von Graefe's with the narrow bladed knife, and I perform it in the following manner :—

For the right eye: after chloroform has been given and the speculum applied, I seize the conjunctiva with a pair