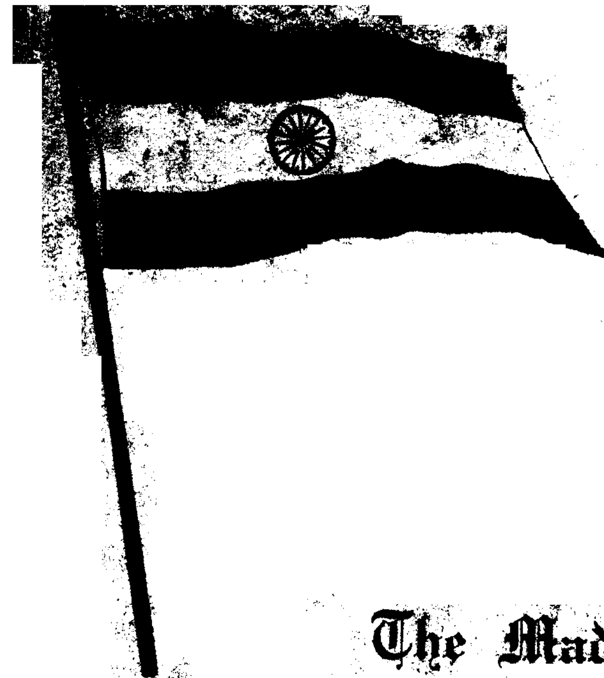

The Madras Medical College Magazine

General Editor
Mr. K. JAYARAMACHANDRAN

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The Wheel of Life.

By

Miss. S. PARVATHI DEVI, B.Sc.

III Year, M.B.,B.S.

Life has been a perputual evolution. It is an entangled web. The Wheel of Life having taken a start from an unknown origin rolls on, to a goal, yet complex to the thinker. The Creator showers on the existing souls His Flowers of Blessings from an unimaginable height—seated on His Holy Dais. We, the children on earth get along; each of us is on the path of the Life Divine.

The river is never still. It has been flowing on, is flowing on, and will be flowing on into that ever-changing and yet changeless sea. Life merges into Death but the grandeur embodied in the noble deeds turned out by great men remains glowing forever. Work might have to be manifested amidst difficulties, crises, suffering and misery. Obstacles might stare us on the face. Yet, upholding the courage that befits us, we transcend these barriers and discover the route to accomplish our cherished ambitions.

We form the divine example of an integral activity, physical as well as intellectual and spiritual. Each of us has a worthy role to play, a noble cause to serve during our life on earth. To carry out that sacred duty scrupulously, rigorously with energy and perseverance should be our aim.

The flame of knowledge steadily burns amidst us. We should place ourselves at the foot of that infinitely sublime altar. It sustains us in life and it is our solace. The puzzles of life are many and hardly can we unravel them from their intricate nature. Yet, marvellous may be the results we may achieve in the Temple of Duty which is passed through by "THE WHEEL OF LIFE."

So,

"Let us then be up and doing
With a Heart for any Fate,
Still achieving, still pursuing,
Learn to labour and to wait."

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Secondary Abdominal Pregnancy.

A case report from Dr. John's Ward. (Gosha Hospital.)

By

Dr. Miss. N. SANKARI, M.B.B.S.

Secondary abdominal pregnancy is a well recognised but uncommon complication of pregnancy. Due to the rarity of the condition the following two cases are reported.

On 24th April, 1947, a Hindu woman aged 30 years was admitted giving a history of having had labour pains during the previous four hours. She had 7 previous deliveries which were all natural. The last child was born 3 years ago. On Inspection the size of the abdomen was that of a full term pregnancy. Foetal limbs were felt all over. Head could not be felt and it was thought to have gone through the pelvic brim. Foetal heart was heard distinctly on both sides. She had show, but did not have good pains. There was no progress after 24 hours, and the foetal heart was inaudible. Her abdomen was tense, and she would not allow of any palpation. A vaginal examination was made, when the uterus was felt to be retroverted, small, and separate from the foetal parts. Hence a diagnosis of secondary abdominal pregnancy was made.

Under C_2 E_3, a right para median incision was made. On opening the abdomen, omentum was found covering a large tumour practically occupying the whole of the abdominal cavity. Small and large intestines were adherent all round. A portion of the tumour was retroperitoneal, extending to the pouch of Douglas. The intestines were separated from the tumour and during the separation of the peritoneum, the right ureter was exposed and retracted. The tumour was extending from the right cornu of the uterus involving the tube, right ovary and right broad ligament. The fimbriated end of the tube could not be made out. The ovary was stretched along the tumour posteriorly. The appendix was caught in the mass. An appendicectomy was done

The right adnexia was clamped and removed. The tumour was enucleated. Raw surfaces over the small intestines and caecum were peritonised. The capsule of the tumour which weighed 13½ lbs. was incised. It contained a large dead foetus with placenta adherent to the capsule posteriorly. The patient was treated for shock with plasma and glucose saline. To counteract the general infection, penicillin was given. Convalescence was rather slow because the patient was debilitated, but she was discharged after one month, fully recovered.

On 9th July, a primi-para aged 32 years was admitted with a history of mucous diarrhoea for the past 15 days. She had a D & C done 8 years ago for sterility. The patient was 32 weeks pregnant. She gave a history that 3 months after amenorrhoea, she had a sudden pain in the lower abdomen and she fainted. She was treated coservatively for 4 days after which she had been apparently in good health till 15 days before admission. She developed pain in the abdomen after which she expelled a fleshy mass per vaginum. After a day the pain subsided but she did not feel the foetal movements. She developed severe tenesmus and began passing mucus frequently.

On palpation, the abdomen was tense and patient complained of severe pain and would not allow a proper examination to be made. It was found that the outline of the uterus could not be made but the limbs were standing out prominently The head could not be felt. A vaginal examination revealed that the cervix was firm and was drawn upwards to the right side under the pubic symphysis. The body of the uterus could not be defined owing to the tenseness of the lower abdomen. There was a tense mass in Douglas pouch extending towards the left. Under C_2 E_3 an uterine sound was passed. Length of the uterine cavity was 3 inches, anteverted and pushed to the right which confirmed the diagnosis of secondary abdominal pragnancy.

Under C_2 E_3 a right paramedian incision was made. When the abdomen was opened, the omentum was found adherent to a tumour arising from the pelvis. While separating the adhesions, the capsule of the tumour was opened into and a 32 weeks macerated foetus was removed. The capsule was adherent to the sigmoid colon and bladder which were both displaced upwards. There was a large organised clot in the pouch of Douglas which was removed along with the placenta, after separating the adhesion with the surrounding structures. The uterus was pushed up and to the right. The capsule was adherent to the back of the uterus. Both the tubes were adherent to the sac and had to be removed. As much of the capsule as was possible was removed leaving a portion that was adherent to the sigmoid colon. The cut edges of the capsule that was left were everted and sutured together. Penicillin was instilled into the peritoneal cavity. The abdomen was closed.

Patient was given antishock treatment. Penicillin was started immediately till 500,000 units were given. There was a normal convalescence for 8 days. On the 9th day she passed two round worms in the morning. She expired after a severe bout of vomiting next day.

There are several interesting features in these cases. In the first one there was no prolonged period of sterility and there was the formation of a gestation sac. It was difficult to decide if it was an ovario-abdominal pregnancy or an intraligamentary pregnancy. The second case is of interest in view of the complication which had arisen by the time the patient was brought for treatment. In both cases, the patient would not allow of a proper palpation and there was guarding of the abdominal muscles. It has been pointed out that this sign should be taken as one of the important features in the diagnosis of the condition.

Discussion:–Secondary abdominal pregnancy — (i.e.) continuation of pregnancy within the abdominal cavity following the rupture of a tubal pregnancy – is described as being of two varieties: (1) intraperitoneal and (2) intraligamentary, depending on whether the tube ruptures into the peritoneal cavity or between the layers of the broad ligament. In the intraperitoneal variety the gestation sac is formed mainly by inflammatory tissue laid down on the outside of the amnion. In the intraligamentary variety, as the sac enlarges, it displaces the peritoneum upwards; and, if lying anteriorly, will strip the peritoneum from the anterior abdominal wall. The pregnancy may continue for a normal period of nine months, after which time a mock labour occurs and the foetus dies. After the death of the foetus, if the sac remains sterile, the foetus will become inspissated and in the course of years be converted into a lithopaedion. Infection of the sac is apt to occur at any time from the bowel, uterus or vagina. In such cases, fistulae may form between the sac and one of these structures. Infection from the bowel is probably more likely to arise in the intraperitoneal variety; for, in this type, the bowel is adherent to the sac wall. In the above cases, probably the first one was intraligmentary and the second one intraperitoneal.

Summary.

Two cases of secondary abdominal pregnancy are described.

A short reference is made to the types of intraabdominal pregnancy and to the ways in which they may terminate.

The cases described are classified as intraligamentary and intraperitoneal varieties.

My thanks are due to Dr. John for allowing me to report these cases.

REFERENCE.

B. M. J. Nov. 1944 — Secondary abdominal pregnancy by Francis E. Stock, M. B., F. R. C. S.

An Unusual Case of Motor neurone disease.

By
S. PATTAMMAL & G. KRISHNA BAI.

A woman by name M. aged 16-17 years was admitted in Victoria Ward under Dr. B. H. P. Pai on 15th July '47 with wasting of muscles of both hands and forearms and complaint of weakness and general tiredness of upper extremities of four years duration. She noticed change in the voice since six months and difficulty in swallowing since 15 days.

She got married four years ago but has no children. There is no family history of any other person suffering from the same disease.

Condition on admission :—

Patient is of slight build, short statured, ill-nourished individual of about 16-17 years, not aneamic, teeth dirty, but no pyorrhoea alveolaris, tongue is small, protruded with difficulty, it is wasted in patches, mucous membrance over it is thrown in folds and dimples, fibrillary twitches are present. Voice is weak, hoarse and monotonous.

On examination of nervous system the following signs were elicited.

Gait :—No abnormility in gait.

Intelligence :—Normal.

Speech :—Difficulty of articulation, especially labials and linguals.

Cranial nerves:— I, II, III, IV, VI, and VII are normal. Pupils regular, react to light, size normal. The lower facial muscles showed occassional fibrillation on both sides.

VIII. Hearing and equilibration, normal.

IX. Normal except for the laryngeal, Palatal and pharyngeal branches.

X. Reflexes are present.

XI. Normal.

XII. The above mentioned signs are present.

E. N. T. Report: Both vocal cords are fixed in cadeveric position.

Motor System:—A certain amount of Wasting is present in both upper extremities, in the hand and forearm muscles. The thenar and hypothenar eminences are flat and appear to be atrophied. A note-worthy feature is that the power and grip in the muscles are good in spite of apparent wasting. Lower extremities show no paresis or paralysis, no wasting of muscles, no spasticity or flaccidity.

Deep reflexes :–All tendon reflexes in the extremeties are present and normal except for the knee-jerk in the left lower extremity which is brisker.

Superficial reflexes:—Abdominal reflexes are present. Plantar reflexes

equivocal, occassionally being extensor in type, then observed in left extremity.

Organic reflexes :—Normal.

Sensory System: No sensory disturbances.

Electrical reactions :—There is no reaction of degeneration. Blood Wassermann reaction is negative.

Differential Diagnosis :

Syringomyelia: distinguished by early and striking loss of pain and temperature. Sensibility.

Cervical rib :—Usually confined to one side. There is no fibrillation. The Xray reveals the presence of abnormal rib.

Periphral Nerve trunk :—Local cause and atrophy are present only in the muscles supplied by the nerve.

Spinal Cord tumors :—The C.S.F. will show characteristic changes. Clinical examination will show sensary disturbances, paresis and wasting of muscles. Disease of the different segments of the cord give rise to disturbances depending on the function of that particular portion. Lesion of the nerve roots, especially those produced by pachymeningitis and by neoplasm in the vertebral column may cause signs and symptoms resembling those of the more rapid forms of Motor Nervous disease. Such a lesion in the cervical region may give rise to wasting of hand and forearm mucles and a spastic condition of the legs. In such cases of difficulty the course of a little time will bring the advent of conclusive symptons of a local pressure lesion.

Noteworthy features of this case are:

1. *Age of the patient:* The bulbar symptoms occur only in adults or as a late complication.

2. *Distribution of wasting :*— When the upper arm is primarly affected, the wasting is seen most often in the deltoids whence it spreads upwards involving the spinati and the muscles attaching the arm to scapula and arm and scapula to trunk. There is no involvement of shoulder girdle and scapular muscles in this case.

3. The lower extremities do not show a full upper motor neurone lesion. There is no spasticity of the limbs, no exaggerated knee jerks except for the left knee jerk being brisker and the occassional Babinski sign.

Our thanks are due to Dr. B. H. P. Pai for his permission and help in publishing the case report and Dr. Chettiar for his kind help.

Blood Bank.

By

Dr. T. RAGHAVAN, Blood Bank, Govt. General Hospital, Madras.

History :—To trace the subject of the development of Blood Transfusion from the very ancient time when the Egyptian princes used blood baths for resuscitation and recuperation, up to the present day of established therapeutic procedure is really an interesting chapter in the Medical History. During the middle ages, drinking the blood was considered to be a health restorative measure and it is said that the custom prevailed among the Romans to rush to the gladiatorial arena to drink the freshly flowing blood from the victims. Since the blood circulation was found out by William Harvey only in the year 1616, the often quoted example of 1st blood transfusion on Pope Innocent the VIII in the year 1492 cannot be taken as transfusion into the circulation as understood today, but only as ingestion or drinking of blood. A century passed without much events; and according to some authors in August 1654 Francisco Folli, a florentian Physician and according to some other authors Richard Lower, is supposed to have performed the first successful transfusion on animals, by connecting the carotid artery of one dog with jugular vein of another dog by means of a silver tube. Later on during the period 1649 and 1711 transfusions on human beings were performed by administering blood from animals, generally lamb being the victim, invariably with disastrous results. The complete ignorance of asepsis, coagulation, blood group, and incompatibility, inevitably caused severe reaction which ended fatally so that the subject had a gradual death of interest.

The most important discovery in the subject of blood transfusion and to which we owe the complete success of transfusion today, is the blood groups by Landsteiner in the year 1900. With the further work of Jansky in 1907 and later on Moss in 1910, and the work of Hustins in 1914 citrating the blood used for transfusion, and the discovery of RH factor in 1940 by Landsreiner and Levine the subject attained the success and popularity it enjoys to-day.

Groupings :—Out of the large number of groupings done in this Department, 3000 group results were selected and the percentages of each group among the South Indians were calculated and the results are tabulated below:—

I	AB	6.28 %
II	A	21.08 %
III	B	31.60 %
IV	O	41.04 %

Majority of these donors were poor labour class men and a casual reference of the incidence of W. R. reactions showed 67% NEGATIVE, 22.8. % POSITIVE, and 10-2 % DOUBTFUL. The above percentages

of Blood groups were again subdivided among the vaious castes and the percentages in each were as shown below :—

		O	B	A	AB
1.	Muslims	29.72	38.78	14.28	7.22
2.	Christians	43.00	29.00	24.00	4.00
3.	Anglo-Indians	53.9	15.4	19.2	11.5
4.	Brahmins	50.0	21.89	18.71	9.4
5.	Non-Brahmins				
	(1) Mudaliars	41.0	38.0	16.00	5.0
	(2) Naidus	42.27	27.8	23.20	6.73
	(3) Chettiars	51.67	21.67	23.33	3.33
	(4) Adi-Dravidas	47-04	32.50	14.40	6.06
	(5) Naickers	35.40	34.27	23.03	7.30
	(6) Pillais	39.19	29.74	22.97	8.10
	(7) Reddies	40.47	25.00	23.82	10.71

Cross-Matching :- The usual cross-matching test of matching the patient's serum with the Donor's cells is carried out in every case before the transfusion is started. The method adopted is one drop of the patient's serum and one drop of the 2% cell suspension in saline of the blood to be transfused, are put on a clean glass slide, stirred with a loop, set aside for 3 minutes, and then the slide rocked gently to and fro. A cover slip is put on and seen under L. P. of the microscope. The reverse cross-matching when done for homologous group of transfusions, is done in the same way as before, but using the patient's cells with the serum of the Donor. But this reverse cross-matching has no significance in the case of a universal donor's blood for patients of any other group, as the serum contains both the agglutinins α & β and is sure to produce agglutination with the cells. Hence the incompatibility due to the high titre of the serum of the Universal Donor's blood with the Recipient cells will not be revealed by ordinary cross matching and reverse cross matching but only by the estimation of the titre of the serum.

For repeated transfusions of more than 3 weeks interval in between the previous and subsequent transfusions, the best way of doing the cross-matching test to avoid RH incompatability is the tube method, using the patient's serum and the donor's cell suspension in his own serum (made by shaking the clotted blood in a test tube and suspending the cells in its serum) instead of the Saline suspension commonly used. It is as follows :—

To one tube is put in one drop of Patient's serum, one drop of the cell suspension mentioned above and one drop of Normal saline. To another tube which forms the control tube is put in one drop of cell suspension and two drops of Normal saline. The tubes are then kept in water bath at 37° C for half an hour. The are taken out, centrifuged and examined for clumpings by naked eye and confirmed by micrscopical examination.

In the cases of infants and very collapsed patients where no vein could be procured to get a little blood for serum separation to do the cross-matching test, the method adopted is as follows :—The great toe of the infant is pricked and about 3 to 4 drops of blood is squeezed out on to a glass slide on the same spot. It is then allowed to coagulate and just before it is completely dry the superficial layer containing the clot is lifted up by meens of a platinum loop when a drop or two of clear serum will be found beneath the layer. This drop is removed by the same loop or by a very narrow capillary tube to another spot on the

same slide, and then the cross-matching is carried on in the usual way.

Transfusions :—The succinct statement made by Leisrink almost seventy years ago that "Transfusion is indicated in all those pathological conditions where the blood, in quantity or quality, is so altered that it is unfit to fulfil its physiological duties" remains just as applicable to-day. Thus it may be stated, that in general there are actually no contra-indications to transfusions in those conditions in wich it is really indicated and would serve a definitely favourable purpose. For practical purpose the contra-indications which we have to keep in mind are :—

(1) acute pulmonary oedema

(2) cardiac decompensation

(3) Massive pulmanary embolism or infarctions.

(4) acute nephritis.

The usual method of transfusions adopted is the closed Intra-venous method but sometimes open method is also used. In infants and children where it is difficult to get veins, Intra-osseous route is employed. About a dozen intra-osseous transfusions were given recently here in infants and children and it had been found generally that on an average one c.c. of blood per minute could be allowed to flow into the tibia, the upper and medial end of which had been selected as the site in all these cases. Any increase of rate used to make the infant shout with pain even if it was asleep, probably due to increased intra-medullary tension. Though Turkel-Trephine needle is prescribed for this procedure, due to the non-availability of that instrument, ordinary sternal puncture needle was used and it was found that a small positive pressure in the bottle containing the blood was required to regulate and maintain the flow at 15 drops per min. as otherwise the rate was too slow. This positive pressure was introduced by connecting the sphygmomanometer bulb to the end of the airway rubber tubing. Instead of creating this positive pressure the syringe method can also be used by inserting a Y shaped glass tube between the bottle containing the blood and the tibial puncture. And to the third limb of the Y a 20 cc syringe is connected by means of a rubber tubing. With screw clamps on each of these three limbs of rubber tubings blood could be drawn into the syringe and injected very slowly into the tibial marrow cavity. This method was found to work easily and Successfully though one had to sit by the side of the patients till the transfusions were over which were usually of small quantities as the patients were infants.

Even though this procedure is simple there are various causes of failure. The first picture below shows one of the causes of failure where the needle has chipped off a piece of bone without actually entering the marrow cavity. After the transfusions, practically there was no local reaction of whatever kind.

Transfusions in anemias :–Among the large number of transfusions given to the aneamic patients of various types it was uniformly observed that very encouraging

I. Arrow shows the site of Puncture.

II. Arrow mark shows the site as Puncture.

results were obtained when small repeated transfusions were given. Many of these patients had an R.B.C. count of 0.5 mil/c. mm and HB percentage below 20 to start with. The first transfusion of a fresh blood of the homologous group of about 100 to 150 c.c. was given at a slow rate of about 15 drops per min. and either on the subsequent days or with two or three days interval in between, the transfusions were repeated increasing the quantity by 50 to 100 cc every time till the count was brought about 4 mil. It had been found that the maximum number of transfusions required along with the general line of treatment with Iron, liver Ext., Vit. C., etc., to raise the count to the above level were seven. But a case of pernicious anaemia with 1.2 mil. R. B. C. count came up to 4.2 mil. R. B. C. with three transfusions at weekly intervals along with the general line of treatment. It had been generally found that whenever, treatment with Iron, Liver Extract, etc., had been combined with blood transfusions, only a fewer number of transfusions were required than with the latter alone.

A patient by name Rama Rau, aged 18 years was admitted into Maitland ward of this Hospital in a moribund state with oedema, dyspnoea, and gallop rhythm of the heart, with an R. B. C. count of 0.4 mil. per c mm and haemoglobin percentage below 20. Immediatly after admission 100 cc of blood was given at the rate of 15 drops per min, and the transfusions were repeated every day. The oedema desappeared completely within 2 days, and dyspnoea on the first day itself. The bone marrow reaction which was at the

beginning megaloblastic in nature, after the transfusions combined with Folic acid liver extract injections etc., showed Normoblastic reaction and the patient was discharged after 5 transfusions with 3.2 mill RBC and ·83% haemoglobin within 4 weeks. Results are tabulated below:-

No. of transfusions with dates and quantity of blood transfused	B. P.	Rate	Count.
23—4—47 1st Tr. 100 cc	124/40	15 drops per min,	23-4-47 0.4 mil RBC less than 20% HB.
24—4—47 2nd Tr. 200 cc	124/40	do	
25—4—47 3rd Tr. 350 cc	120/50	20 drops per min.	25-4-47 RBC 0.8 mil HB 25%
26—4—47 4th Tr. 400 cc	118/50	do	
28—4—47 5th Tr. 400 cc	130/80	do	28-4-47 RBC 1.0 mil HB 34% 1-5-47 RBC 1.1 mil HB 40% 4-5-47 RBC 2.4 mil HB 40% 10-5-47 RCC 2.5 mil HB 60% 21-5-47 RBC 3.2 mil HB 67% 26-5-47 RBC 3.2 mil HB 82%

As far as possible, the repeated transfusions are given within the shortest period possible bearing in mind of course the myocardial condition of the patient, so that there may not be sufficient length of time for the production of Anti-RH agglutinins if the patient is RH Negative to react with subsequent RH positive blood.

Very anaemic patients were transfused in propped-up position in which state the pressure on the right side of the heart is spposed to be at its minimum, so that the myocardium, deos not get the burden of the extra load of the blood. The lungs in these cases were found to be comparatively clear after transfusion in this position than in the case of supine position of the patients. It was generally noticed that transfusions in anaemic cases were not purely mechanical replacement, but stimulated the bone marrow for further production. "It is generally agreed that dissolved haemoglobin stimulates the production of new erythrocytes by direct effect on the haemopoetic organs, or by furnishing the necessary material or by both. More recent experimental investigations however have shown that the tranfused red cells actively function in the host, and by lessening the demand on the blood forming organs' may permit a resting period during which the haemopoetic system can recover."

Rate:— The rate of transfusion and quantity transfused are the important factors in the success or otherwise of transfusions of blood and plasma in various conditions: for example, in anaemic patients, small repeated transfusions at very slow rate weighing the efficiency of the myocardium, are advised, whereas in all surgical conditions of haemorrhage and shock, the rate and quantity are generally guaged by the reading of blood pressure etc., and if it is very low, fluid is allowed to flow in a continuous stream till

the B. P. is brouht up some where aboht 100 mm systolic pressure, when it is allowed to flow in drip rate. The rate of the drops is so adjusted that the raised B. P. reading is more or less maintained when subsequent readings of pressure are taken every 15 mins, or half an hour. With the rise of B. P., the pulse rate also will show a corresponding decrease. Hence it is obvious that the quantity of flluid required to be transfused depends upon the above factors and varies greatly in different cases.

"The fallacious belief that renewed bleeding might occur in haemorrhagic cases following blood transfusions due to the increase in blood pressure and the consequent dislodgement of thrombus in vessels is entirely unfounded. This has no rational basis and that actually such conditions form an important indication for blood transfusion. Kordenat showed experimentally that an increase of intraarterial pressure from 80 to 100 mm of mercury did not mechanically disturb blood clot in a small artery".

Reactions:—Though the percentage of reactions was more at the begining of the blood bank, with the equipment of necessary arrangements for the distillation of water, cleaning, sterilisation and autoclaving of apparatus etc., the percentage of reactions came down to 3 to 5 which were only of a very mild type of febrile reactions and few cases of urticarial rash. One patient developed a first attack of acute asthma 3 hours after transfusion, but the donor could not be investigated. As a prophylactic measure against these reactions, as a routine ¼ gr Ephedrine hydrochloride is given subcutaneously to patients half an hour before the transfusion is started, over and above alkalinising the urine one day prior to and during the date of transfusion.

In our series of 1005 transfusions during the course of the year, the maximum number of reactions were seen in those cases where the universal Donor had deen employed. Among the homologous groups, group 'AB' gave the maximum numbertof reactions, next came 'B' group next 'A' group and least number of reactions in group '0'.

Leucocytic Transfusions:— In a case of agranuloytosis with less than one thousand W.B.C., though three whole blood ttransfusions were given, the white cell count did not go up materialy. Then selected compatible healthy Donor (thanks to the Medical student who volunteered) was given 10cc of sodium pentoneuclotide 1.M. and the bleeding was done 6 hours after it, when the W.B.C. count in the donor had already gone up from 8000 to 18000 per c.m.m. When 400 c.c of this Blood was transfused, the patient began to respond favourably and count went up to 11,000 per c.m.m. within a week but showed a decline again when a second transfusion of this kind had to be given.

Concentrate cell Transfusion—To minimise the danger of the bulk of the transfused blood overloading the mycardium in anaemic patients, concentrate cell transfusions removing the supernatant

are said to be more useful, but for want of facility, the number of cases tried is so small that no definite information could be gathered by this time.

My thanks are due to Dr. (Miss) KAMAKSHI, M. B., B. S., who rendered valuable assistance in the preparation of this article.

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Floral Tribute.

No passion stirs my aged heart;
It remains unmoved by love or malice;
Its pulse is alone controlled
By leaves of digitalis.

In vain I sacrificed food's savour;
Taking it never cum grano salis;
Now I am caught in fox glove's clutches,
The vulpine claws of digitalis.

The grains are falling swiftly down
Into the low, the inverted chalice.
The moments are measured by alkaloids;
One grain an hour of digitalis.

My heart beats in tune to flower;
To their rythm-rules it falls and rallies
The poppy plays its melody;
The counter point is digitalis.

(*Quoted*).

The State and Eugenics

By

A. VARADARAJASUNDARAM, 1st M.B.B.S. Class

Life from a single cell of protoplasm to that of infinite complex structure wonderfully made which we call man is linked in all its parts by evolutionary ties. It is a problem indeed, a problem that cannot be investigated by the analytic methods of science. It is a problem, the solution of which, if we are able to reach, will give us the inner meaning of the "good beautiful and true." One clue to this solution is the theory of evolution.

The idea of evolutionary process in nature is as old as the days of greek philosophers. Indeed it required two thousand years of age, and the labours of many physiologists and naturalists to collect observational and experimental evidences to make the idea of evolution worth the consideration of the men of science. In the eighteenth century and in the early half of the nineteenth century, one naturalist after another upheld some form of evolutionary theory.

The first logical theory was that of Lamark. He determined the cause of evolution to be the cumulative inheritence of modification induced by the action of environment. Thus giraffe acquired longer and longer necks by continually stretching for leaves on branches just beyond their reach, and the change of structure thus acquired was developed and intensified by inheritence. Though there is no direct evidence, this gave a hypothises for future examination.

The man to whom the flash of insight into the formation of new species came, was CHARLES DARWIN the son of a remarkable country doctor. He spent twenty years in collecting facts, and making experiments. He carried out experiments on the crossing of tame pigeons, studied the transport of seeds, geological and geographical distribution of plants and animals. In marshalling the results of his studies and experiments he showed a supreme ability as an ideal naturalist with transparent honesty and love of truth. On the fourteeth of November 1859 he published his book "THE ORIGIN OF SPECIES".

He explains there how the balance of nature is kept up by the struggle for existence and how only those that are fitted by virtue of a particular variation are able to survive and how this variation brings about the survival of the fittest. Hence according to Darwin that which best fits the existing environment survives. Thus the evolution by naural selection results in structural modification to suit the environment and in course of time a new species arise as a modification of the pre-existing ones. But Darwin himself did not regard natural selection as a complete explanation of the evolutionary process. It says nothing about the causes

of variation or mutation. It throws no light on deeper problems of life. It does not explain why life exists at all and how it continues upto the limit of subsistence, sometimes beyond it, in whatever circumstance it is placed. It simply cuts off those that are useless and never produces variation.

So a new chapter was opened when Mendell's work was re-discovered in 1900. His investigation into the cell structure revealed the fact that each nucleus in the cell is a definite number of chromosomes. When the two germ cells unite, the fertilised ovum contain double the number of chromosomes, two of each kind, one from each parent cell. When the ovum divides, every chromosome divides likewise, the two parts giving two daughter cells. Thus each cell receives one chromosome from each original chromosome. This occurs with subsequent division such that every cell of plant or animal contains double set of chromosomes derived equally from two parents. The fact that there is parallelism between this cell phenomena and mendellian inheritance was first put forth into definite form by Sutton. He pointed out that different pairs of chromosomes segregate independently of other pairs.

But however there are large number of hereditary factors such as colour of skin, colour of eyes, hairiness of body, hirsutism of the ear, deafmutism, intelligence, lines in the palm etc. So it is expected that several factors are associated with chromosomes and they are linked together. In the year 1906 Beteson and Punnet discovered this phenomena of linkage in the case of sweet pea. Later in 1910 Morgon worked out more fully in the case of Drosophilla Melonogasta, a big bellied fruitfly. He has found out the actual numerical correspondence between the number of groups of hereditary qualities and the number of pairs of chromosomes. It is four in the case of Drosophilla, seven in the case of garden pea, eight in the case of wheat, twenty in the case of mouse and probably twenty four in case of man.

With twenty four pairs of chromosomes there will be over million kinds of germ cells and this explains why no two individuals in a mixed race are identical. This knowledge of heredity and variation was extended to the application of mankind also. Many kinds of physiological characters in the human body, such as, blue iris, curly hair, blood groups deafmutism, nightblindness, and colour blindness, haemophilia and a host of other characters have been shown to follow Mendellian rules in their descent. The very fact that almost exact quantity in the number of boys and girls born into the world, itself suggests that sex is a hereditary character. If all the female germ cells carry femaleness and half the number of male germ cell carry maleness and half femaleness, the above fact is easly explained. But how has this essential structure of man come out? Is it due to Mendellian qualities or non Mendellian qualities, is yet a subject for further investigation.

However, when the Mendellian researches and biometrical methods are all put together there is this evidence to justify the fact that a mixed population of a state must contain intermingled strains of different innate qualities and these qualities are sorted by natural selection in accordance with the classes to which their owners belong. Therefore environment, training, education etc., may only give an opportunity for the display of inborn characters, but can never create these characters. "So a genius is born and not made."

A nation therefore is an interwoven net work of strains of innate hereditary qualities differing profoundly in character and value and these strains of hereditary qualities are appearing and disappearing with the natural or artificial selection. Almost any action social, economic or legislative favours some of these strains at the expence of other strains and thus the average biological character of a nation is altered. A nation for its steady progress and maintainance of general standard of life depends on the intellectual work done by a small fraction of society. A statistical study of birth rate in different classes of community show that there is a steady decrease in birth rate in the case of those people who have the strain of ability. So there is an ever increasing danger to civilization to the extent of sterilisation of that particular class of people having the good strains of ability. To avert this, if it is made to understand that the production of large number of children is a duty for healthy, able and conscientious parents, in other words, is a duty of the better stocks in race, then the nations of the world can reverse the bad selection of the past several years and can gradually improve their average health, beauty, and ability. Thus in which state can you improve the race by engenics? democratic or socialistic? Answer yourselves.

POOR ADVERTISEMENT.

The renowned Dermatologist N. opened his office door to admit a man who had been waiting a long time. The latter stared at the professor, uttered no word and suddenly turned around and started to go.

Professor, astonished, "Hello, What's wrong?"

Patient: "I came for advice as to how I can get some hair on my bald head. Obviously you can't even help yourself. God-bye."

"Is This Thine Will?"

By P. RAMAMURTI

Christ brought to the world his Message of peace;
From under the tree did Buddha preach
That Conduct was Prayer. The mighty Qoran
Propounded the one-ness of Islam;
Hinduism with all its intricacy,
Laid stress on Peace, Truth and Honesty.
Religions, though diverse, yet one and all,
The Unity of Man, was their ever-lasting call.

Where-fore this blood-trail towards the temple's doors?
Of this communal squabble let there be no more
Stop this rancour. Can man please God,
By brandishing on his neighbour the punishing rod?
Religion is only a means to an end
Why hast thou made it an end in it-self?
Communal strife can only have the Devil's Mandate;
Is the chaos of Hell, India's relegions' fate?

The Ascent of Intellect.

By

G. SUBRAMANIAN, Final Year.

Evolution is the pulsating theme of existence. Life is defined as a single and self-continued process. From that precise moment, when life started in the stellar source, along with it was born the instinct, curiosity. By an inherent tendency of self-preservation and promptly helped by the unfailing Law of Evolution, Nature slowly but surely moulded the human species. That was the the origin of Thinking Man.

Nourished and nurtured at the hands of Mother Nature, he found time to let himself ponder over his surroundings and struck with the vastness of things around, the thinking man started to think. Unconsciously, perhaps, man bowed down in humility towards the Creator. That marked the beginning of Religion. Through ages religion has survived. In its occasional revivals, divine incarnations have played an unforgettable role by sacrificing their very lives. Many such spiritual giants stirred the hearts of millions and made them more humane.

Man gradually learnt to transmit thought through writing. Pictorial script was the first he developed, which paved the way for the advancement of Art. Architects, sculptors and painters, that venerable family of "creative geniuses", whose only aim is to create vivid monuments unsurpassed, but second only to Nature, bowed in reverence to the Great Artist of the cosmos.

When the *art-man* created, he was happy at the perfectness of his finish, but still he was not to be satisfied. His innermost feeling is yet to be expressed somehow. This was the starting point of Literature. Men of letters, those gifted personalities of expression, served that urge by their literary talents. Poets and scholars shall go down in the history of human progress as the great saviours and benefactors of human sentiments and emotions. It was their soul that was stirred by the urge, and it was their heart that responded to the call.

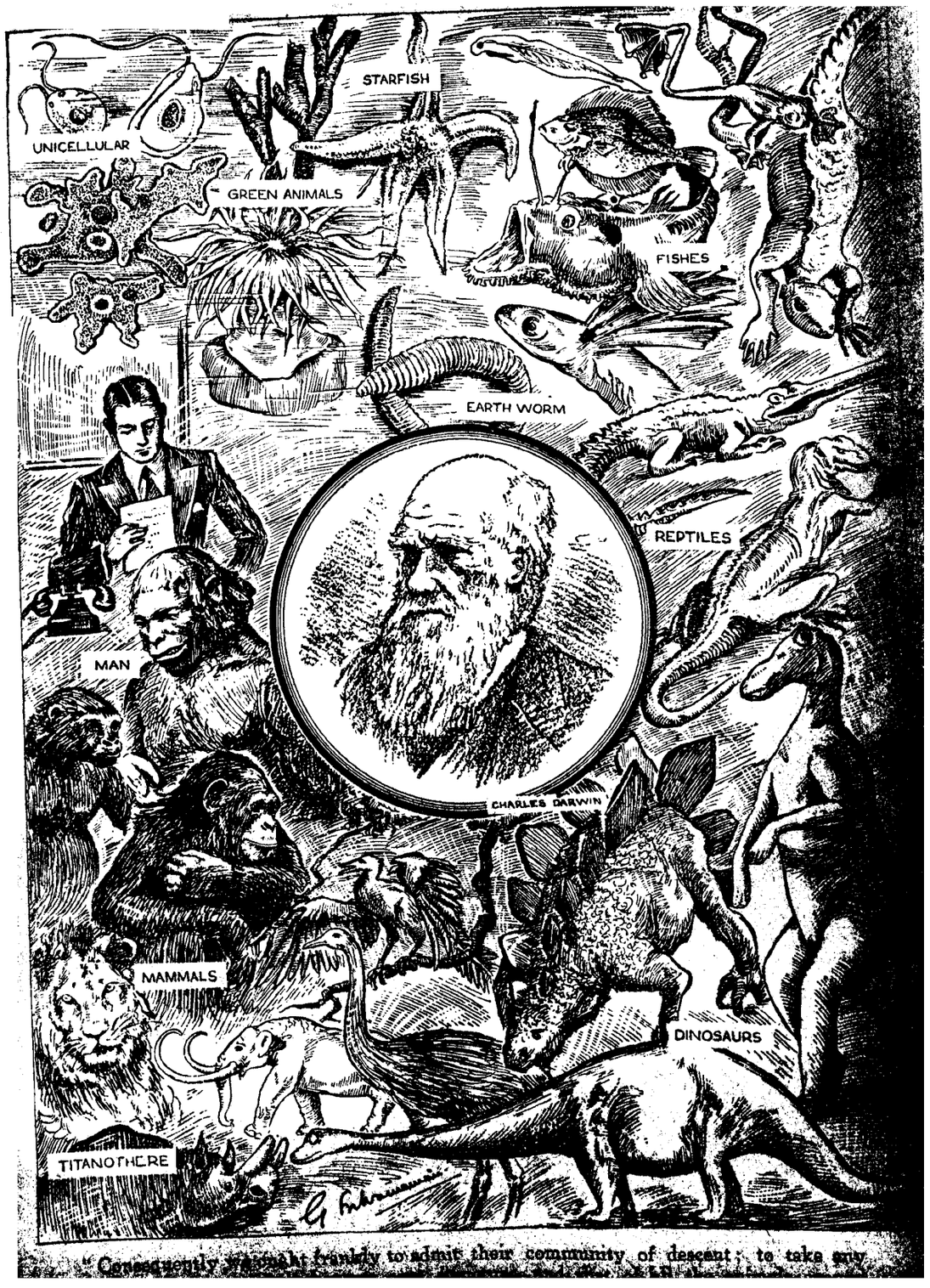
Among the many avocations of man, it is but natural to hear the cry of agony of an ailing unfortunate. Healing of the sick started as an art from time immemorial. A poignant smile from the suffering was the priceless fee that the healer longed for. But that was not all. That unquenched curiosity was far from being satisfied. So, he began to analyse his body, thus giving birth to Scientific Medicine. It to day promises many a boon for the morrow, and with full of potentialities, it has entered a new era in the hands of Modern Science. But let us not forget for a moment to stand in salutation to those martyrs like Hunter to whom humanity shall ever be grateful.

What then? With a sense of extreme craving for knowledge, kindled by curiosity, man looks

up to the skies, and struck with the unfathomable depth of the universe, he stands aghast. Goaded by that greatest of instincts to divulge the secrets of the vast phenomena, man forged on. An ardent astronomer spends many a sleepless night watching the blue bowl, waiting as though in madness for a comet or what not, to swim across his reflector. Dumbfound at the incredible vastness of space in millions of light years and the innumerable heavenly bodies, he realises that his own universe is just as little as an atom compared to the huge design of the marvellous work the Great Architect has done. One day, what confronts him is the final domain of human intellect, the Metaphysics, which looks grimly at his face.

Here he strikes at an unexpected and totally unparallelled Knowledge Supreme, probably covering all the aspects of Nature. Just as "when a lump of clay is known, all the clay in the world is known", man tries to know the essence of nature by means of reason. With the most acute form of Logic and metaphysical deduction, he analyses starting from the fundamental working of the mental processes to the most subtle philosophy of Being and Knowing. He ascends up making sure of every step until at last he is at the very brim of reason. Here and here only, he comes to know of the true meaning of all that is created under a new light. He realises that his intellect has rightly guided him so far, but what is beyond can neither be bound by reason nor language. He feels the Oneness everywhere. This is the Eternal Omnipresent, Truth Transcendeat. This is the *Unknowable* of Kant, the *Pure Being* of Hegal, the *Brahman* of Vedanta. The Nihilists called it the *Nothing* and the Religionists named it *God*. This is the place, they say, where Reason can neither probe nor is needed. They realise that This is the Potential Source of all infinite forms, This is the Ocean on which floats everything, and This is the Ultimate Goal to which all must return, Being or Non-being, from the minute brickwork of an atom to the gigantic precursor of the universe, the nebula. Thus it can be seen that all forms of human intelligence, be it Art or Astronomy, Literature or Science are only manifestations of just a spark of that Absolute, the greatness of which transcends all human understanding or expression. One cannot but recall here, the utterances of a God-intoxicated ascetic: "whatsoever the eye seeth is Thou. Whatsover the hand doeth is Thy worship. What the mouth uttereth is Thy praise. The earth and other elements and all living things are Thy gracious forms, O Lord!"

This is the story of "THE ASCENT OF INTELLECT" In the followinig series of pictorial review, an attempt has been made to represent some of the main foot-prints left on the sands of Time by The Ascent. Even in this inadequate representation, only a rapid survey is possible within this limited space. It is left to the readers to fill up the gaps be a stretch of their imagination.



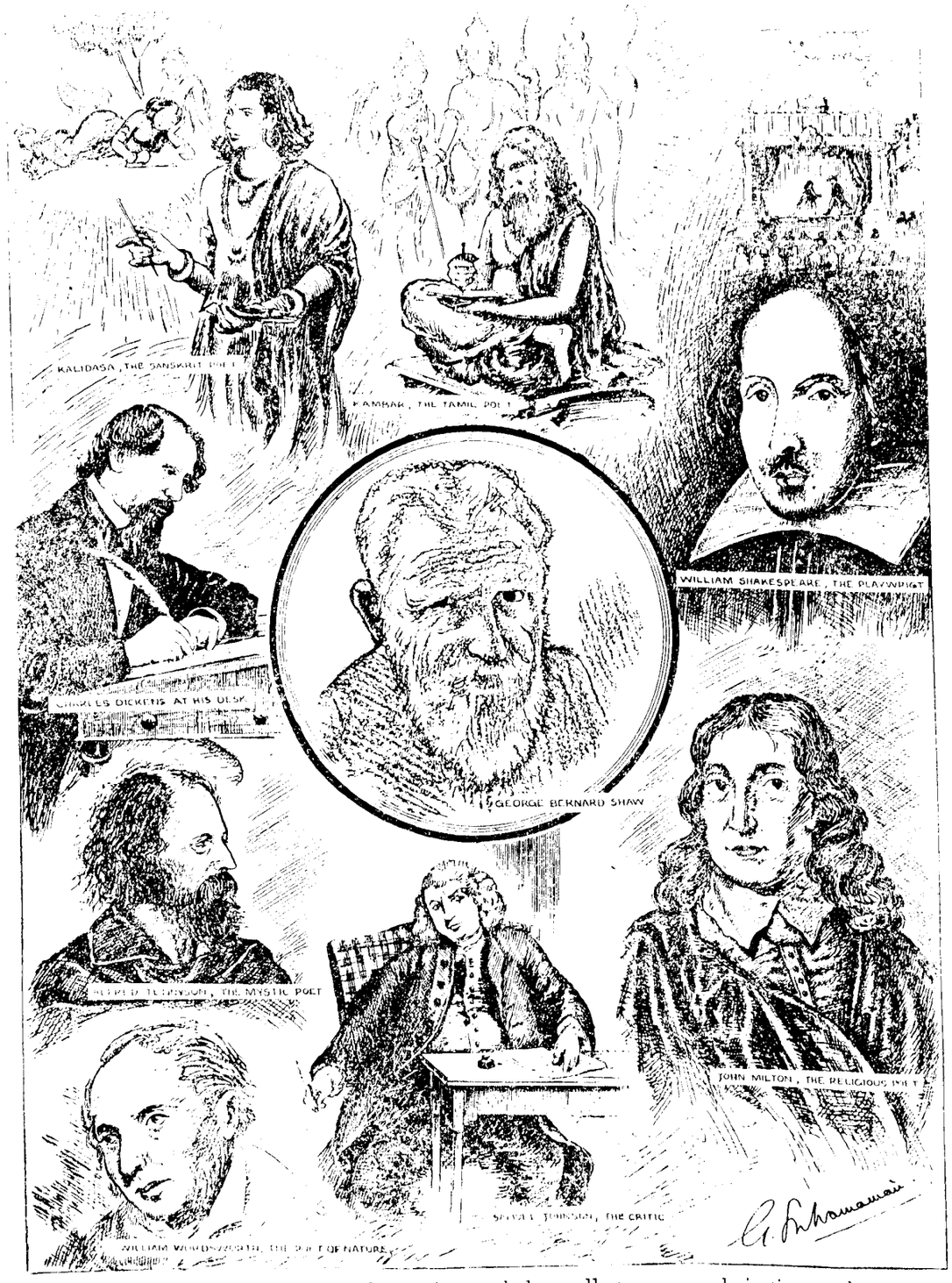
"Consequently we ought frankly to admit their community of descent; to take any

" Whenever there is waning of Righteousness as also the rising up of Unrighteousness, then surely do I create Myself from age to age, for the protection of the Good, for the

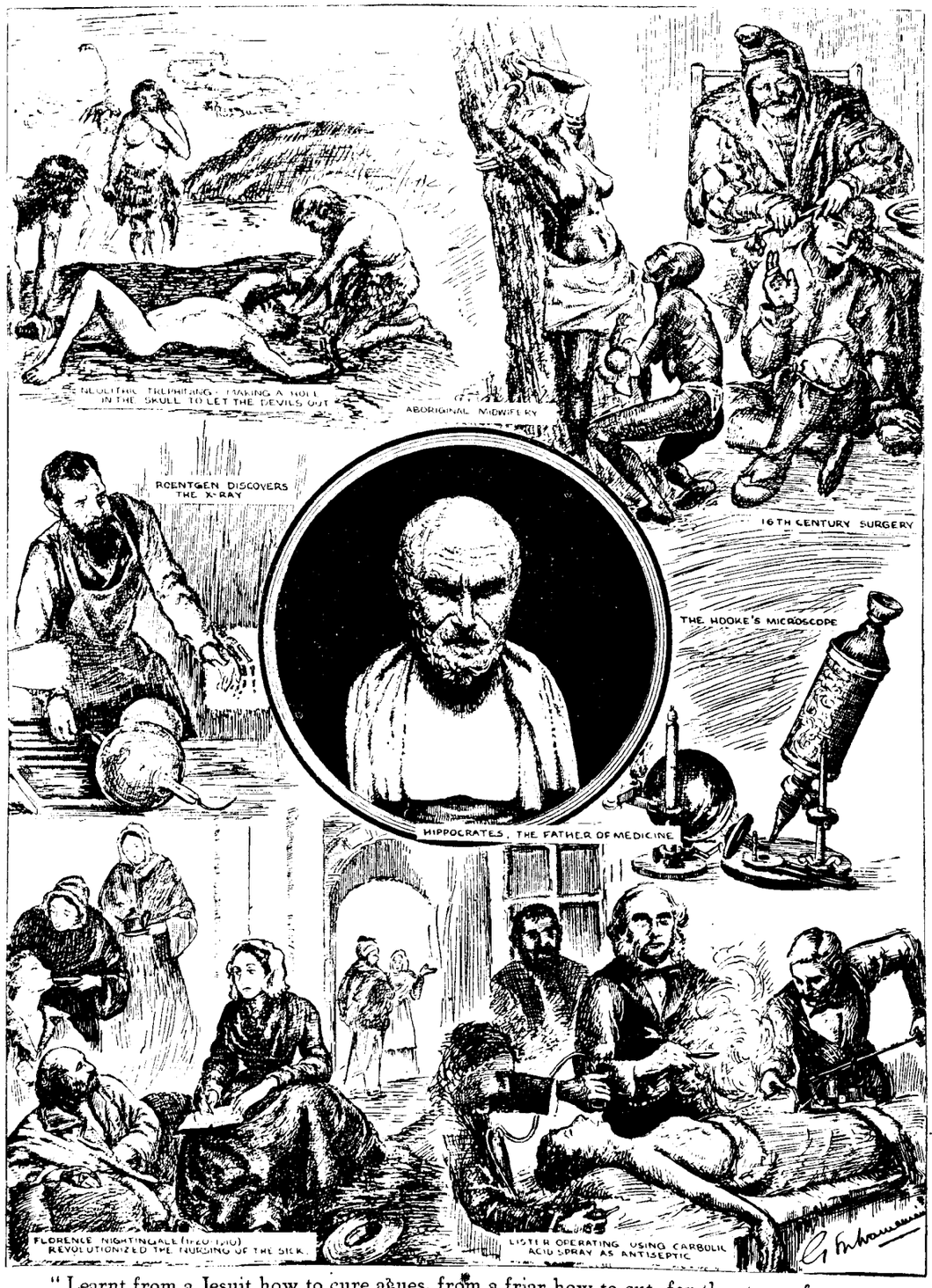
Art is that faculty which takes one beyond the embrace of Subject-Object relationship.

— After *Schopenhaeur.*

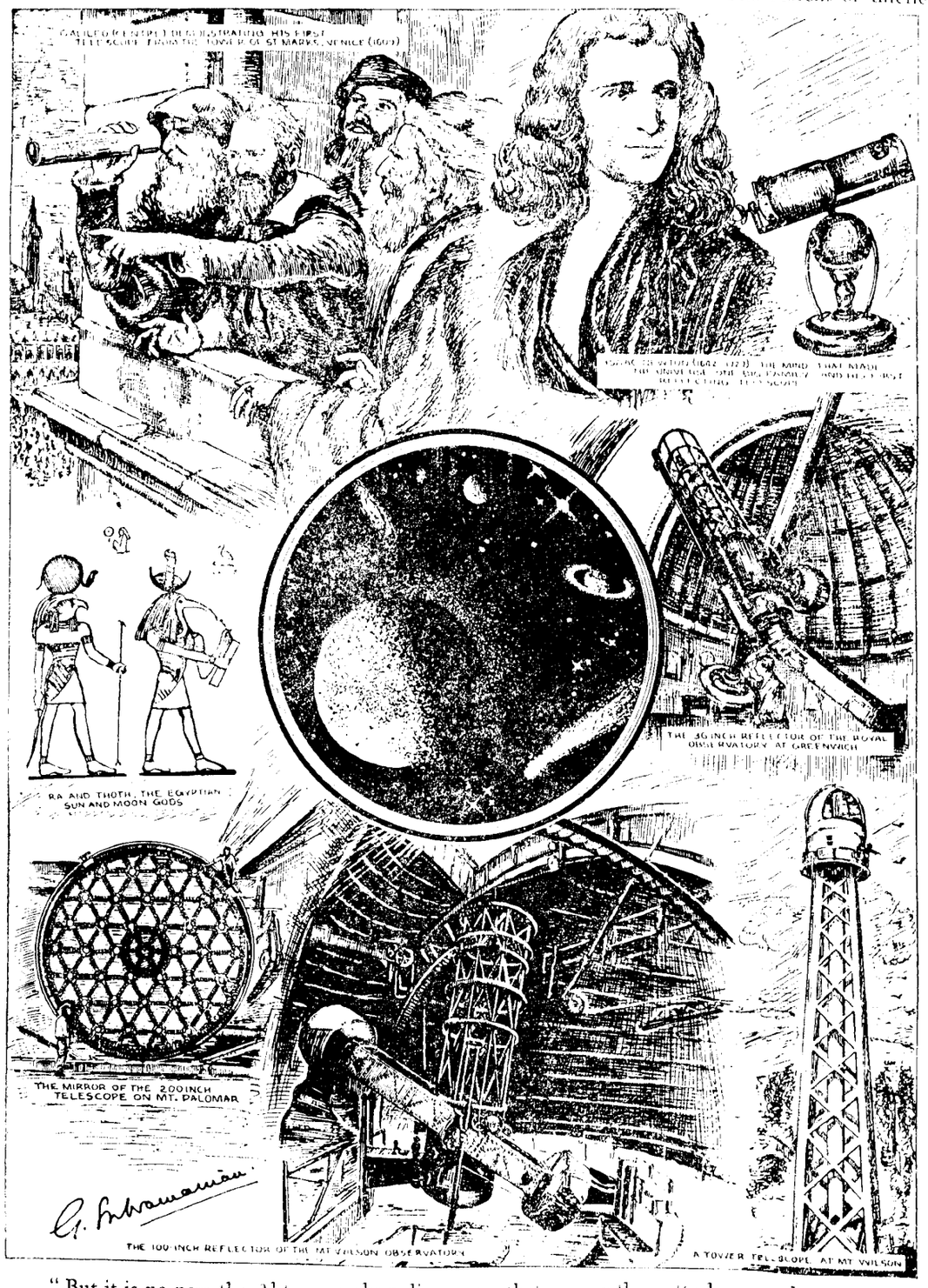
from an old market woman how to catch the itch insect.



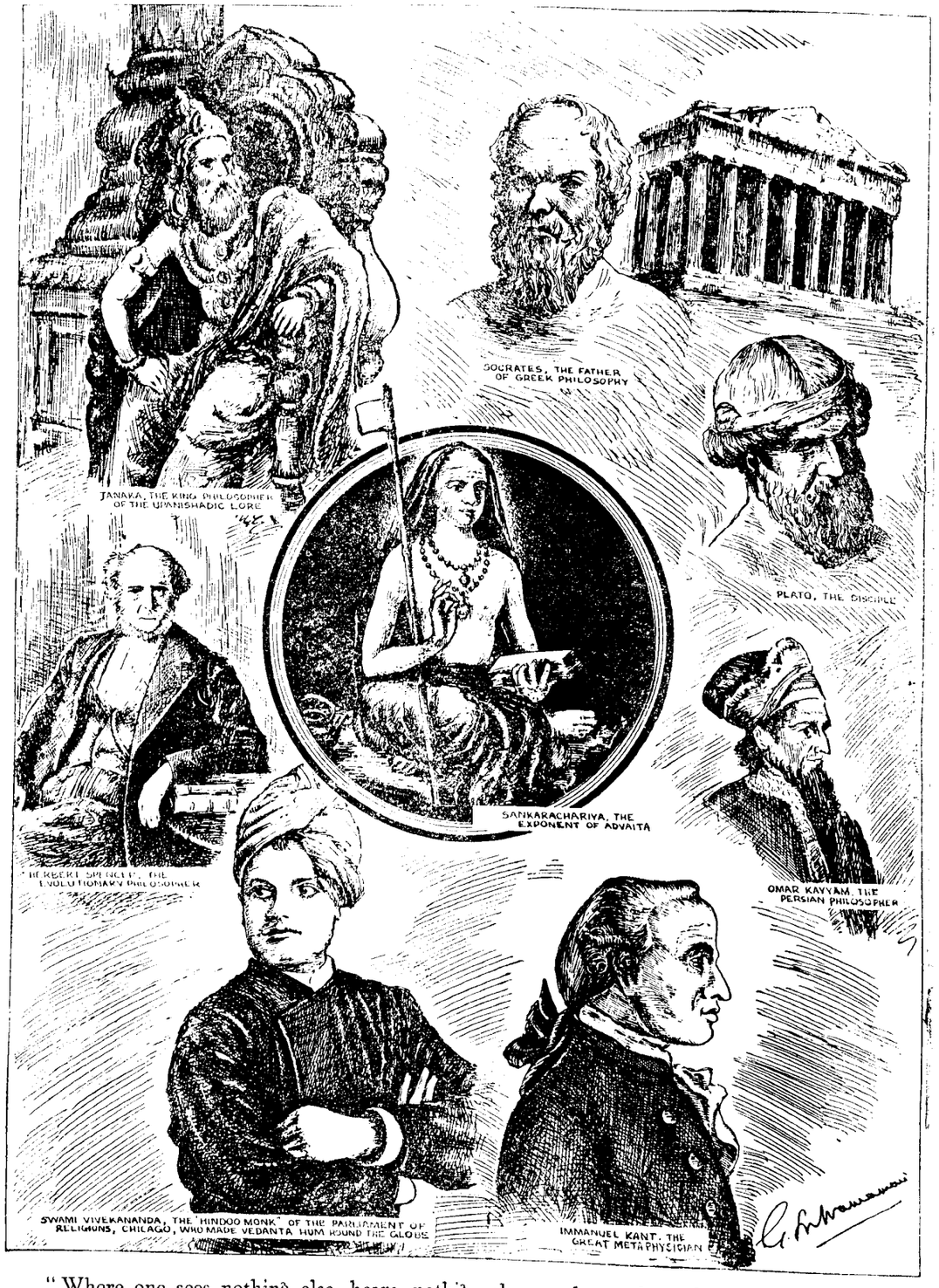
"To affect the soul, and excite the passions and above all, to move admiration, a base imitation will not serve. The converse, therefore, which a poet is to imitate, must be heightened with all the arts and ornaments of poesy."



"Learnt from a Jesuit how to cure agues, from a friar how to cut for the stone, from a soldier how to treat gout, from a sailor how to keep off scurvy, from a post-master how to sound the eustachian tube, from a dairy-maid how to prevent small-pox and from an old market woman how to catch the itch insect."



"But it is no new thought, no modern discovery, that we are thus utterly powerless to conceive or comprehend the idea of an Infinte Being, Almighty, All-knowing, Omnipresent and Eternal, of whose inscrutable purpose the meterial universe in



"Where one sees nothing else, hears nothing else, understands nothing else, that is the Infinite. Where one sees something else, hears something else, understands something else, that is the finite. The Infinite is immortal, the finite is mortal."

The Madras Medical College Magazine

IT is with no little pleasure and pride that we present this issue, unique in the annals of this Institution, as the first to breathe the air of Free India. We have launched forth into the new Academic year 1947-48, full of hope and with buoyant spirits, and as we take over the reins from our predecessors, we congratulate them on their successful publication of our Magazine, and we pray that we shall maintain the high standard set up so far.

The Magazine Committee had a very shaky start this year. Faced with an enormous debt and an insignificant Bank-balance, it stood precariously on the edge of a precipice and would surely have toppled over, resulting in temporary extinction, but for the very kind generosity of the students (good sports as they always are), who were willing to give it a proper foot-hold by increasing the subscription in response to the apeal made by Dr. P. V. Cherian and Dr. Janardhanam.

After rendering yeoman service as treasurer for which no superlative would be adequate Dr. Janardhanam handed over charge of the Fort to Dr. Sivasubramaniam Mudaliar who, in addition to being Vice-President, has consented to take over the Finance of the Magazine Committee. We are now going through a process of Spring cleaning, and we assure the students that with scrupulous care we shall endeavour to wipe off the debt.

The College elections held soon after the vacation presented a novelty this year. What with twenty seven people trying to guage their popularity with the electorate in the assistant Secretaryship election, we were faced with a long ballot-card in which it was quite a problem to spot out our candidate. It was a question of democratising democracy!

Much to the chagrin of the fair sex, a common canteen, bereft of every semblance of the "Purdah" privacy confronted the Lady students when they arrived after the vacation! Nurtured and reared up in the purely Indian background where chivalry has often reached the limits of reverence, the atmosphere was tense with vehement protestations. Stirred by Gandhian principles of passive resistance, partial hunger-strikes and feminine boycott of the canteen were contemplated and it looked as though the co-operative club were to suffer a repercussion in thier sales. But our diplomatic Lady representative, stepped into the breach and forged a compromise whereby the Ladies could get themselves served in their common room itself, while those who were more venturesome could adapt themselves to the new canteen.

The first General Body Meeting held in July with our Student Presi-

dent Mr. P. Ramamurti in the Chair, was well attended. Amongst the number of resolutions, a strong protest was made against the increase of the college fees, by the Government.

We were very fortunate in being able to get Dr. Sir A. Lakshmanaswamy Mudaliar to inagurate our Association, and our thanks are due to the Principal for having succeeded in luring him back to his Alma Metar.

The Gala event of the term was the celebration of August 15th. The joy and happiness of liberation found expression in diverse manifestations. Armed with specialised implements, the sprinkling of coloured water added not only colour to the occasion but also colour to the apparels; and of course as the victims had no say in either the pattern or the colour they could not bring themselves to share the same enthusiasm that animated the sprinklers. But fun and frolic was at its height and the decolouration or discolouration of a green saree to saffron was not too great a price for Independence.

There has been wide-spread dissatisfaction among the Pre-clinical Students, who have lodged a protest with righteous indignation, that the Magazine catered only to the clinical side. Perhaps they have cast an evil eye; or perhaps the elderly students of this college have with brotherly considerations and overwhelming generosity thought it better to transfer the monopoly of filling up the pages of this Magazine to their Pre-clinical friends; for, as a result of this outburst, there has been a paucity of clinical material. It would give us great pleasure to publish articles of both Clinical and General interest, and while we are very anxious to encourage articles of literary value, we hope that the students, belonging as they do essentially to a professional College, will continue to maintain their interest in their profession, and it is neither possible, nor feasible, to completely blackout all clinical articles.

We have particular pride in presenting variegated articles of diverse nature with quite a few learned and original works by our pedantic authors. While in "State and Eugenics" a young enthusiast is probing into the mysticism of Science, in "Epicure and Mystic", we have a scientific analysis of the Epicurian Philosophy of Omar Khayyam, and we are quite proud that, tied as we are to professional studies, we have ventured into literary excursions out of our professional rut.

Dr. Subba Reddi, our chronicler and Historian, with his usual enthusiasm, has probed through the events of the last hundred years, and in his lucid article incorporated the history of the brick and mortar of the place. Dr. Anantanarayana Iyer's magnificent Epitome of, human Anthropology,and Dr.Basirs' very educative and illustrative article on the hypothalamico-hypophyseal system form the high-lights of this issue. We thank Dr. Raghavan for his brilliant article on "Blood Bank", on which subject he has spent so much time and has spared no pains to make it as extensive and educative as possible.

Mr. G. Subramaniam hardly needs any introduction, as his artistic sketches have become a regular feature of our Magazine. We are extremely proud to have in our midst such a talented artist whose genius deserves a wider repute and patronage. We also thank the budding artist Mr.A. Krishnamurthi, and we hope he will blossom to full bloom ere long, to step into the lacuna that will be left by Mr. Subramaniam leaving us on graduation.

UNEXPECTED.

Professor :— Have you already asked somebody's advice about your illness?

Patient :— Yes, a student of medicine.

Professor :— And what nonsense did he tell you?

Patient :— To take your advice.

Three faces wears the Doctor,
When first sought an angel's
And a God's, the cure half wrought
But when the cure complete
He seeks his fee
The Devil is less terrible then he.

Heard in the Canteen.

By
THE GENERAL EDITOR.

First of all, let us introduce this new column to our dear readers. The Canteen, our Coffee house, is the place in our college where you can count and collect more medicoes at any time than anywhere else in the college, not excluding the class rooms. It also happens to be the perpetual day-time abode for a few. It is the synonym of, the parallel to, a town's market place. It is the rendezvous where every topic under the sun, from the extraction of Miss so and so's toenail to Mahatmaji's fast, from the composition of H_2 o to the production of the Atom bomb, from our empty pockets to India's sterling balances, from Princess Elizabeth's engagement to Miss Medico's romance, is discussed and thrashed out, humorously, and heatedly. Like that, this column also will deal with all sorts of jumbled topics in lighter vein. No offense is meant to any body, or person or institution. Everything is forgotten and forgiven, once you are out of the canteen. So, here goes the works.

* * *

A resolution was passed recently in our Association General body meeting banning the free sticking of bills and posters on the walls and roads in the premises of our college. We suggest our electing the mover as the perpetual president of the society for prevention of cruelty to walls, pillars, and tarred roads.

* * *

It is rumoured that members of our ladies Hostel except for a 'foolish three' voted against a combined celebration of Independence being the first casualty of Independence in Free India.

And because of the above resolution some of our young love-sick Romeos had to celebrate Independence Sans Juliets and Sans hearts that were on the other side of the wall.

And it is reported that some Juliets later regretted their rash assertion of Independence.

* * *

It is reported that the girl students wanted to light "agals" for illuminations in their hostel and that gusts of wind willed otherwise.

Woman proposes. God disposes.

* * *

We hear that a new Coconut oil Cosmopolitan mess has been started in the men's hostel. We are looking forward to further messes, named after Castor oil, Ground nut oil, Kerosene oil, Mobile oil, Cow's ghee, buffalo's ghee Cocogem, various brands of Vanaspathi, different proportions of adulteration of oils, like C_2 E_3 meaning two part of Cocogem and 3 parts of engine oil, and so on, and so forth. Of course, you are welcome to improve on this.

* * *

We are told that associates, the poor chaps, that are permitted to squat as the third man in double rooms, hardly sufficient for two, will be permanant features of certain rooms in the hostel. We humbly suggest the pumping in of oxygen at presure, at specified intervals as an act of grace, or if this is found too costly and impracticable, we suggest pumping in of enough CO as a sort of euthanasea after taking care to see that the two accidental chinks that allow the commodity called air, are closed.

* * *

It was rumoured some time back that the Madras penitentiary was going to be shifted to some place outside the city, and that the authorities were contemplating converting that place to a hostel for Medical students. If that were to happen, we suggest that the Warden may be promoted to a Warder, and the said warder may inform the students who succeed in securing seats in the hostel in the following manner.

"Sir, You have been sentenced to a normal term of seven years of R. I. with hard labour. The sentence may be commuted to five and a half years in case of good conduct, or may be enhanced without limit for irresponsible behaviour while undergoing the sentence. We assure you, that this is but serving the sentence for the many crimes you are bound to commit as a practising doctor.

Yours truly,
WARDER.'

Do not swoon when we tell you :-

That the students are going to get bigger buses that will run seven days in the week ;

That the above buses will not provide tests for the soundness of the semi-circular canals of the hostelers ;

That butter milk will cease to be a special-occasions course in the ladies' hostel, but only a daily feature ;

That the ladies' hostel is getting an electric pump that actually lifts water ;

That all the showers and flushes in the men's hostel main buildings are going to be in working order ;

That the Co-operative club is actually going to sell textbooks ;

That the canteen is going to proivde proper dishes at all hours ;

That the proportion of coffee seeds in the coffee powder is going to be increased ;

That the Specific gravity of "milk" is expected to rise as a result of cut in the ratio of water to milk ;

That trip will be arranged between the mess and college for hostelers after their lunch.

But do not blame us if any of these does not materialise.

Centenary of the Foundation of the Chair of Anatomy and Physiology in the Madras Medical School (College)

D. V. S. REDDY,

Professor of Physiology, Madura Medical College, Madras.

The Madras Medical School was started in 1835. The available records do not indicate clearly the person responsible for the teaching of anatomy in the first decade of the school. One may assume that Dr. Motimer with his love for anatomy and his text-book by his side, would take the main part of the burden in the early days. Later, his assistant, Dr. Harding, the Teacher of Surgery, might have gradually taken up more and more of Anatomy, as Dr. Mortimer became the Physician and Teacher of Medicine, and was also burdened more and more with the duties of Superintendent of the Hospital and of the School. When Dr. Mortimer left Madras, Dr. Harding became the senior medical officer and therefore Physician and Superintendent, from 1841. The new Surgeon, Doctor J. Shaw probably took up the teaching of Anatomy. The assistants probably prepared and supervised the dissections etc. under the directions of the chief.

In 1847, a new era commenced with the creation of a Chair for " Anatomy and Physiology ". Many factors in Britain and in India must have contributed to the realisation of the necessity for such a post. A history of the developments in the British schools of medicine and an acquaintance with the antecedents of Physicians and Surgeons, who were then the guiding or presiding officers in the Medical Board etc. may help one to relate these new developments to the stimulus or inspiration from Britain, British Schools, and British Teachers. And in this connection, without going into the details, one may mention that the Medical College Library then imported and contains even to day, many of the writings of the Anatomists of the first half of the XIX century.

For the sake of those ultramodern compartmentalists, unacquainted with the history of medical education in XIX century, it may be stated here, that in all the most advanced European countries at that time (America was then in the same position as India) Anatomy and Physiology were taught, generally, by the same Surgeon or Teacher, except in a very few institutions, and the same procedure was followed in Madras. Later, the two subjects were taught by two different officers, who had other surgical and medical duties. When one reads the older books and lectures, the two subjects form one entity or unity. It might be said that Anatomy was the tree and Physiology was a creeper intertwined in it. Histology was yet in its infancy in European schools. Biochemistry was unheard of, and Biophysics was not dreamt of. Anatomy was the study of the parts of the body. Knowledge of the functions, very fragmentary and unsupported by experimental evidence, was what was called Physiology, though, in reality, it was a sort of Philosophy. Prior to Muller, Claude Bernard and Ludwig, Physiology was something like Anatomy before Vesalius, or Pathology before Bichat and Virchow, or Surgery before the discovery of Anaesthesia and Asepsis.

I

Teaching of Anatomy and Physiology in Madras in the Pre-school Era (i. e. prior to 1835.)

Even befor 1835, i.e. before the organisation of the new medical school in Madras for giving a regular and planned education to the prospective doctors in Madras, a knowledge of Anatomy and Physiology was deemed essential, and arrangements were made for the teaching of Anatomy to pupils. One of the pupils, trained in this period describes the method followed about 1828-1835 :—

> " After all the senior apprentices left the Hospital, Dr. Mortimer formed a class of the younger apprentices and candidates, whom he ordered to copy out certain portions of a printed book upon Physiology. The best informed in the subject was made monitor, who was to exercise the class in the subject twice or thrice a week. The Monitor also taught the students the names of the bones, etc. Doctor Mortimer also got two paste-board models from which the students learnt muscles. The Monitor received information from Fife's Anatomy and letters of reference were put on each muscle for the guidance of students, and it was from this source that the first Text Book was framed for the first Class of Students, when the Medical School began its operations in 1835. The Book was called Mortimer's Manual of Anatomy. Going back to 1828, and the years that preceded the establishment of the Medical School in 1835, I remember Dr. Mortimer would be a looker on, during the time the Monitor was exercising the class. and sometimes he would order the class to come to his quarters and exercise them chiefly upon the organs of the body and their functions. In short, this class was the nucleus of the Medical School. "

II

Teaching in the Early years of the School.

The first Madras Text book on Medical Subjects.

The curriculum laid down by Medical Board's letter No. 185 dated 29-12-1834 embraced Anatomy and Materia Medica for the first year and Medicine and Surgery for the 2nd year. In teaching Anatomy, during the early days, the older practice continued of giving the classes, their daily lesson in the subject from dictation. Later, these notes gradually shaped themselves into a small Text-book designated " Mortimer's Anatomy."

" An urgent want, and one that was felt for sometime after the foundation of the school in 1835, was a suitable text-book on Anatomy for the personal use of the students. The text-books on this subject available at that period were too costly and far above the standard required for the students of the school, especially the native section of it. An elementary work on the subject was needed, and to supply this want, Doctor Mortimer, the

Superintendent, wrote one himself, which was printed at public expense. 250 Copies were struck off at a cost of Rs. 937-8-0. This was the first manual written for the students of this school, and it continued to be the text-book on the subject until 1846 wnen it was superseded by Wilson's work."

Doctor Mortimer, the first Teacher of Basic subjects.

Here one may add an extract on the personality and career of surgeon Mortimer, M.D., first Superintendent of the School, and the author of the "Printed Notes on Anatomy" the first text-book published in Madras.

An old patient of Doctor Mortimer described the Doctor as "a tall, dignified, stylish and clever gentleman, who wore glasses and was remarkable for his extreme kindness to the sick." Principal Kees paid the following tribute to Dr. Mortimer in 1885.

> "An university scholar and a gentleman, his high scholarly attainments and professional reputation pointed him as the fittest man for the special work of opening out the Medical School, and the results of his six years' work in the institution over which he so ably presided, more than justified his selection by the Medical Board. His great capacity for work found ample scope in the labour of organising the School, in addition to performing his duties as Senior Medical Officer of the General Hospital, aided as he was, only by one assistant. He left Madras on furlough in January 1841, and never returned, as he finally retired from the service in January 1843. He was succeeded as Superintendent by Mr. Harding, whose place as Assistant Superintendent was worthily filled by Doctor James Shaw."

It is a matter for universal regret that there is no portrait of Dr. Mortimer.

The first Anniversary.

The first anniversary of the Medical School went off with great pomp on 13th December 1836 in the new building. There was a brilliant gathering of all the notabilities of Madras. The Right Honourable Lord Elphinstone (Governor of Madras) presided, and the members of Council, of the Medical Board, and many gentlemen, professional and otherwise, were present. An interesting account of this function is fortunately still extant and is also from the pen of a distinguished medical man, Doctor Robert Cole, who held the appointment of Principal Inspector-General of Hospitals, Madras.

> "His Lordship, the Governor, and the rest of the visitors, were received in the room assigned to the reception of the library when the books for the school shall arrive. His lordship was then taken over the building, and inspected the Laboratory room, at that time not fitted up, and the Museum. The latter room, already contained a great number of very beautiful anatomical and pathological preparations, admirably and skilfully put up by Mr. Harding. The theatre is a very elegant apartment built, nearly after the model of such rooms in Europe, and in all respects suited to both teachers and pupils. A class of 93 students assembled on the ascending benches, of whom 25 were the remaining half of a former class, the others having been dismissed, and appointed to the service."

The First Public Examination.

The First Public Examination of the pupils of the school was also held on the same occasion, in the presence of the distinguished gathering. "Doctor Mortimer opened the examination with the subject of Materia Medica, and Mr. Harding followed on Anatomy, in which, and on the physiological uses of the parts, Doctor Mortimer participated. The promptitude, clearness, and precision with which replies were given, could hardly be exceeded; and there appeared to be an emulous desire of acquitting themselves well, manifested by all, European, Indo-Briton, and native. An articulated skeleton, and some preparations from the subject were employed during the examinations, and one of the celebrated anatomical figures of Auzous, imported from France for the school, was also displayed and taken to pieces."

The following syllabus of the examination will afford information of the extent to which the attainments of the students reached at that period.

Anatomy and Physiology.

Bones generally, with principal joints.

Diseases of the bone,

Brain and its circulation,

Origin and passage of the nerves of the senses,

Thorax-its contents,

The structure of the heart and great vessels.

The circulation of the foetus and adult, and changes of blood in the lungs,

The boundaries and membranes of the abdominal cavity,

The bowels generally,

The liver and secretion of bile,

Digestion,

Kidneys and urinary secretion.

Progress of teaching of Anatomy.

In spite of many difficulties, Anatomy was cultivated through the means of dissections, plates, etc. It is even recorded that the students became very proficient in Anatomy The Court of Diretors of East India Company, in a letter dated 19th April 1839 wrote

> "learn with much satisfaction from the statement of the Medical Board that the students at the Medical School have, in general, shown great aptitude for acquiring medical knowledge, and that their attainments, more especially in Anatomy, (the study of which is assiduosly cultivated by all) equal, if they do not surpass, the most favourable anticipation of the Board."

III

The foundation of a Chair for Anatomy and Physiology.

When the school started in 1835, there were only 2 Professorships, Doctor Mortimer was Professor of Medicine and Doctor Harding was Professor of Surgery. In 1846, a third Professorship was created and that was a chair of Chemistry. A Chemical Laboratory was also added. In 1847, two additional professorships were sanctioned:

(*i*) professor of Anatomy and Physiology,*

(*ii*) profcssor of Midwifery, disease of women and children and Ophthalmology.

* Though Calcutta Medical School was started only in 1835, it seems to have had more staff and made earlier and better arrangement for the teaching of Anatomy and Physiology. At first, about 1835, Dr. H. H. Goodeve was Professor of Medicine and Anatomy; from 1841, Dr. Goodeve became Professor of Midwifery and anatomy. In 1845 three separate chairs were founded one for Anatomy and Physiology, a seccond for Descriptive and Surgical Anatomy, a third for Zoology.

The staff in 1847 was as follows:—

Professor of Medicine, Doctor Harding.

Professor of Surgery, Doctor J. Shaw.

Professor of Chemistry and Materia Medica—Doctor T. Key.

Professor of Midwifery, Diseases of Women and Children, and Ophthalmology—Doctor Thompson.

Professor of Anatomy with Physiology—Doctor T. L. Bell. (Assistant Surgeon Thomas. L. Bell).

In addition, 3 members of the subordinate staff of General Hospital were attached to the School as assistants: 2 Warrant Officers and one native dresser (Dr. Muthuswami Modaliar).

The number of lectures in each subject were as follows:—

Anatomy	100
Physiology	100
Botany	60
Materia Medica	100
Chemistry (organic and inorganic)	200

More Madras Text-books.

The text-books used in the School at this time require a note.

Mortimer's "Notes on Anatomy" was superseded by Wilson's Anatomy. The Professor of Chemistry also felt the need for a small handy and simple manual of Chemistry and wrote one. Key's "Chemistry, organic and inorganic" long continued to be the text-book in Chemistry,. until it was superseded by Fowne's book.

Text-Book for Physiology: A text-book on Physiology was compiled by Mr. Bell, the Professor who lectured on that subject, for the special benefit of native medical pupils. "It contained a plain statement of the more important functions of the body, was written in a style suited to the comprehension of the native student, and from its clearness and conciseness, likely to be of considerable value to the pupil class of students." This made the third text-book written for the use of the students of the college.

The fact that the first Professor of Anatomy and Physiology in the Madras Medical School was Doctor Bell is not without significance. The Medical College Library contains a number of books on Anatomy and Physiology by John Bell, Anatomist and Surgeon, and Charles Bell, Physiologist and neurologist. The beautiful Plaster of Paris Medalion with the bust of Sir Charles Bell, which now adorns the Pharmacology laboratory, is also an indication of the close relationship betwen the eminent Bell brothers and the first professor of Anatomy and Physiology in the Madras Medical School.*

Doctor Guthrie of Edinburgh writes in the book "History of Medicine" that Rev. William Bell of Donne Perthshire and Edinburgh had four sons—John the Surgeon, Robert, Professor of Conveyencing, George Joseph, Professor of Scot's Law and Charles. It is earnestly hoped that ere long further research in Madras and Edinburgh will clearly establish the relationship of Thomas J. Bell, the first occupant of

the chair of Anatomy and Physiology in the Madras Medical School, to the famous Bells. One should not forget however, that there is another family of Bells, also distinguished. Benjamin Bell (1946-1806) acclaimed as the first of Edinburgh Surgeons and author of a "System of Surgery". Benjamin Bell was the ancesstor of Doctor Joseph Bell (1837-1911), also a well-known surgeon, who became still more widely famous when his pupil, Conan Doyle portrayed "Sherlock Homes".

Physiology attains independant Status.

A document from the Royal College of Surgeons of England quoting a new rule that certificates would be prohibited in more than one branch of medical science from one and the same lecturer, led to changes in the staff.

It is not clear why and when the teaching of Anatomy and Physiology was bifurcated. By 1867, there were 8 Major professorships, and 5 minor professorships as noted below:—

Major Professorships

1. Principal of Medical College, Professor of Medicine, and Physician to the General Hospital.

2. Surgeon to General Hospital, and Professor of Surgery.

3. Chemical Examiner, and Professor of Chemistry.

4. Principal Medical Store-keeper, and Professor of Materia Medica.

5. Fort Surgeon with Port and Marine duties, Professor of Anatomy.

6. Superintendent of the Eye Infirmary, and Professor of Ophthalmic Surgery and Physiology.*

7. Superintendent of Lying-in Hospital, Professor of Midwifery, and Diseases of Women and Children.

8. Assistant Surgeon, General Hospital, and Professor of Pathology,

Minor Professorships.

1. Professor of Botany.

2. Professor of Hygiene.

3. Professor of Dental Surgery.

4. Professor of Medical Jurisprudence.

5. Professor of Comparative Anatomy.

(*to be Continued*)

The Racial Composition of the People of India.

By

A. ANANTHANARAYANA AIYAR.

The medical student and the medical man in the usual course of their crowded study and busy vocation do not find the time to acquire a knowledge of the racial history and ethnic make-up of the people with whom they come into close contact, with chances of a thorough physical examination and observation, generally denied to any other kind of scientific investigator. Even apart from the question of their contributing original observations to Anthropological research, there is always a profound human interest in contemplating the racial history of the blood "that runs in the veins" whose corresponding arterial pulses one feels. It is with a view to impart an elementary knowledge of the ethnic or racial composition of the people of India to the average scientifically minded layman that this short account is being written. I shall try to avoid and to eliminate to the extent possible the technical jargon of the specialist in Anthropology and shall present facts and opinions in an easily comprehensible manner.

Basic Criteria of Ethnic Classification

The bodily characters usually studied by the Anthropologist to form a basis for the distinction between and the classification of human races are very many. They range from very obvious features like skin colour and head form, to precise and detailed observations which could only be investigated in a specialised laboratory, as for instance, blood groups and finger prints. But among these the more striking and basic criteria are the following:-

1. Head form
2. Stature
3. Skin colour
4. Nose form
5. Hair form

Head Form.—The head form is judged by the Cephalic Index which is the percentage ratio between the maximum breadth and length of the skull in craniometry, or of the head in somatometry in the living. If the index of the head is below 75, the subject is dolichocephalic or long headed; if it is between 75 and 80, the subject is mesocephalic or medium headed; and if it is above 80, the subject is brachycephalic or short headed. The head form is known to be a genetic factor, and though likely to undergo some variation in racial mixture, yet it has a tendency to sort itself out to the original head forms in the course of generations.

2. *Stature*:— Stature is the standing height. Stature is also to a large extent determined by genes, but its expression in the individual's life is greatly influenced by nutritional factors during childhood and adolescence. It is also quite possible that dietetic and climatic adaptations of the same race in different environments would produce considerable variations in stature. A recent example in racial history would illustrate this. During the latter half of the nineteenth cenury a stock of Chiness labourers were allowed to settle on the Pacific coastline of America in connection with the work of the American Pacific Railway. Within three generations the great grand children of the original Chinese stock, without any cross breeding with any other racial stock, have increased their average stature by a few inches, due to living in a more congenial environment. Stature could thus be augmented or reduced within a few generations, depending upon the environment. As such, we would not be justified in giving slight differences in the average stature of races any great value in assessing racial affinities of people living under different climatic, dietic and environmental conditions.

3. *Skin Colour*:— The distinction in colour between the white-brown, the yellow and the black races is very obvious, and is used as a reasonable fundamental criterion for racial classification of the Caucasian, the Mongol, and the Negro races.

But in the same race, considerable individual variation in the intensity of pigment usually occurs. Skin colour is a genetic factor dependent on a multiplicity of genes. The assortment of the parental genes could give rise to wide variations in colour even among members of the same family.

The colour of the skin though it has always played a part in the normal, voluntary, sexual selection of mate, and to race purity, yet more often in human history racial miscegenation of divergent skin colours has been effected not always on a voluntary basis. Historical instances of conquering darker people mixing with a fairer people, or *vice versa*, could be quoted by the legion. And, individuals intermediate in shade of colour have always favoured mixture between extremes of colour working as a sort of liaison between them.

Another noteworthy feature about the genetics of skin colour is that the genetics make-up is for the tendency for pigmentation, rather than for actual intensity of pigment that is inherited. Living in different latitudes and surroundings of varying climes, the same racial stock shows variation in pigmentation even within a generation or two. The genes producing skin pigmentation are generally dominant genes, as contrasted with the recessive nature of the genes responsible for lack of pigment. In sunny climates there are definite advantages in the struggle for existence for a darker skinned group.

Thus there seems to be a slowly progressive natural tendency towards a darker pigmentation nearer the equator.

So it appears reasonable to presume that the wide variation in pigment even within the Caucasian race

(white-brown race) could partly be explained by extraneous factors other than those inherent in the racial stock. The Caucasian race in Europe is subdivided into three subraces, the Nordic race, the Alpine race and Mediterranean race. These are fair, light brown and brown respectively in skin colour. The South Indian resembles the Mediterranean race of Europe, occuring in Italy, Spain and Greece, in many bodily characters, but he is darker in skin colour. It is quite probable that individuals of the Mediterranean type from Italy transplanted into South India would become in a few generations a dark brown race and that a South Indian transplanted to a temperate clime would get a lighter shade of skin after some generations of acclimatisation.

4. *Nose Form*.—The form of the nose is expressed by an index derived from the breadth and length of the nose. The narrow nose is called leptorrhine, the medium nose is called mesorrhine and the broad nose is called platyrrhine. Though nose form is a valuable racial criterion, it has to be borne in mind that climatic natural selection over a long period of time has a definite effect in modifying nose form. The Eskimo race, other wise very closely related to the Mongolian, has a leptorrhine (narrow) nose. Possibly, it is a climatic adaptation to the extreme cold of the north. Similarly, the Negro's platyrrhine nose could well be conceived as an adaptation to the humid, hot atmosphere of the tropical swamp. Hence it seems fallacious to put too much value on slight differences of Nasal Index in the case of races living for many generations in divergent latitudes and climes with varying humidity and mean ranges of temperature.

5. *Hair Form*. The form of hair is considered as straight (Leiotrichy), wavy (Cymotrichy) or frizzy (ulotrichy). These differences of hair depend on its cross sectional outline and the growth rates of the different parts of the hair follicle. Hair form is a genetic factor and is a very valuable standard to assess racial affinities.

Classification of Human Races

It has been already indicated in the consideration of skin colour that the human species is classified into three main races.

1. The Negro (black) race
2. The Mongol (yellow) race
3. The Caucasian (white-brown) race

The chief characters distinguishing these races could be given as follows:—*The Negro race* is a dolichocephalic black race with frizzy hair and a flat nose. The stature is variable in different subraces within the main race. *The Mongol race* has an yellowish tint in an otherwise brown or fair skin, straight hair and a medium or broad nose. But there is considerable variation in stature and head form in the sub-races, though the broad head is frequent among them. *The Caucasian race* is a fair or brown race, medium or high statured, with medium or narrow nose, and wavy hair. But the head form is variable, and depending mainly on head form and certain other characters the

Caucasian race has been further subdivided into three subraces.

The names given to the three subdivisions of the Caucasian race in Europe are:—

(*a*) The Nordic race

(*b*) The Alpine race

(*c*) The Mediterranean race

These subraces are recognized as noted below. The tall dolichocephalic, leptorrhine, fair *Nordic race* occurs in Northern Europe; the medium statured, stolid, brachycephalic, mesorrhine, fair-brown *Alpine-race* occurs in Central Europe; and the medium statured, mesorrhine, brown *Mediterranean race* occurs in Southern Europe.

As in Europe, these subraces of the Caucasion racial stock are the chief ingredients of India's population as well. To avoid the inappropriateness of the terms Nordic, Alpine and Mediterranean races as applied to the Indian situation, it is proposed to use the words Nordic like, Alpine like and Mediterranean like races for the corresponding similar racial stocks met with in India.

India and its People

This vast and fertile country, bounded by the impassable barrier of the Himalayas and its offshoots towards the north, and the ocean on the south, has a bottle neck in the north-west, through which in historical and preheistoric times, civilized and barbarian hordes have poured in, now and again, during centuries. No such similarly comparable numbers have left its shores or emigrated out of the land, except for the small overflow into Ceylon and into the East Indian Archipelago. India has thus been a veritable receptacle and melting pot of human races. Some of the incoming settlers have come as colonists, other as invaders. But whatever might have been the Category of the new comers, they have always been in a relatively small number compared to the original inhabitants already settled and living in the country. In the course of the lapse of a few centuries these new comers lost their individuality and only enriched the alloy in the melting pot.

Though there is a marked contrast between the Pathan of Peshawar and the Bengalee of Chittagong or between the Kashmiri in the North and the Tamilian in the South, yet one could board a train at Rawalpindi and go south via Lahore, Delhi, Nagpur, Bezwada, Madras and Trichy, or to the East via Allahabad, Patna, Calcutta and Chittagong, and find the people coming in and going out of the compartment in the hundreds of way-side stations and by a gradual process of usually unnoticed replacement of human types, the contrasted types of the extreme North and South or East are bridged by an infinite number of intermediate types. This is the main mass of the Indian population. It is about them that we are going to deal in this context. We do not propose to go into a racial study of the isolated small alien racial fragments occasionally turning up in the recently grown cosmopolitan cities of India, nor into those other vestigal

racial fragments of primitive humanity stranded in the hill tracts of the Nilgiris, Chota Nagpur or the Naga Hills. These primitive tribes have undergone a partly sequestered existence in stagnant pools separated from the main human stream and cultural current of the land. The origin and affinities of these primitive tribes are more individually characteristic and unique and very fascinating for the Anthropologist. But that subject is only for the specialist, and outside the proposed scope of this elementary account.

Main Ingredients of India's Population

For a long time before history begins, from Archaeological evidence we infer, that, India was peopled by a long headed or medium headed people, of medium stature with a medium nasal form and wavy hair. They were brown in skin colour. They reached a level of culture and civilization equal to, if not superior to, their contemporaries in other parts of the world. The remains of these people and their civilization have been unearthed in the Indus Valley. These people belonged to a race very much like the present Mediterranean race of southern Europe. Large residues of the chromosomes of this Mediterranean like race are still extant in the cells of every one in India, and more so, in the South.

Then we come during the dawn of India's history, located in the vicinity of the Land of the Five Rivers to the so called Indo-Aryans, a people who lived by farming and tending cattle and whose poets composed the vedic hymns. They were probably a mixed race already, and had characteristically taller stature, fairer skin, and narrower nose than the other occupants of the rest of India. These people would be comparable to the tall statured, fair, thin nosed Scandinavian, the Nordic sub branch of the Caucasion race. Where from was this Nordic like race interpolated into India?, or was it an efflorescence of the native soil from the evolved Mediterranean like race?. These are questions that even the expert cannot convincingly answer. There are many hypotheses, regarding their original ancestral home, locating it from the North Polar regions to subtemperate climes. To an impartial assessor the evidence is evenly spread. One can give to the Indo-Aryan, on sufficient evidence, an autochthonous original evolutionary homeland in the Punjab, Kashmir or the outer Himalayan region in this vicinity, as much as for the conventionally mentioned Central Asian plateau or the occasionally mentioned shores of the Caspian or the Steppes of Siberia or the snows of the Arctic circle. These people are recognised as a subrace of the Caucasian race. But whether they were a collateral branch to the Mediterranean race or a specialised offshoot from a Mediterranean like more primitive ancestral Caucasian stock, is a question that remains unanswered.

These two subraces, *i.e.* the Nordic-like race and the mediterranean like race mingled and interbred freely throughout the length and breadth of India with varying dilutions of the one or the other in particular areas.

Then recorded history begins. The Greeks enter into India with Alexander, not as a new racial element, but only as representatives of the European branch of Mediterranean race.

After that the Sakas and the Kushans pour into India in the early centuries before and after Christ. They introduced into India a broad headed, medium statured, fair-brown race, corresponding to the Alpine subrace of the Caucasion stock in Europe. This broad headed race is widely distributed in India, cross-bred with the other subraces of the Caucasion stock, in a great belt extending from Gujerat, Central Provinces and Deccan, to Bengal.

Then come the Huns, the Turks and the Moughals at different times. All of these were probably mixed breeds of the Caucasian and Mongolian racial stocks. They brought with them varying dilutions of the Mongol race and a little more brachycephaly into the country. Further, in the Trans Himalayan region, all through the ages, inspite of the impassability of the Himalayas, man was adventurous and a slow trickling and racial intermixture had been taking place between the Mongol transborder tribes and the Caucasian people in the country.

And then we have small moieties of the Jews and the Syrians, the Arabs and the Parsees, and in more recent times the various European people, the Portugese, the French, the Dutch and the British, all of these highly mixed racial stocks entering the contry by the sea board. They also tint the racial mixture in India.

The Aryan Myth.

If one speaks of an English language, we understand what it means. But if one speaks of an "English race" it is scientifically speaking, absurd. For, the tall Highlander of Scotland whose blood is linked with the Norwegian, the celt of the Welsh hills related to the man of ancient Gaul, the stolid Saxon a close cousin of the German, the mixed French Canadian of Quebac, the Negro of U.S.A., the Boer of South Africa, the Chinaman in Hongkong and you and I, all speak the English language, but we all certainly do not belong to an "English race". Even so, the world "Aryan" belongs as an appelation to a group of languages of which Sanskrit and Avesta are old members, Latin, Greek and Lithuanian are later off shoots, and the modern European and many Indian languages are the grand children. There is certainly an Aryan group of languages, but to speak of one Aryan race is meaningless. To quote Max Muller:—"I have declared again and again that if I say Aryas, I mean neither blood, nor bones, nor hair. nor skull ; I mean simply those who speak an Aryan language. To me, an ethnologist who speaks of Aryan race, Aryan blood, Aryan eyes and hair, is as great a sinner as a linguist who speaks of a dolichocephalic dictionary."

There is no pure Aryan race to be encountered anywhere, either in Europe or in India, or for the matter of that, anywhere in the world. To my mind, the idea of the continuing current existence of a pure Aryan race is a myth, and if

racial arrogence is built on such an opinion, it is a hoax. If by Aryan, one means, that particular race whose early bards composed the vedic hymns, then, the largest concentration of the genes of that hypothetical race in mixed dilution occurs in the cross bred races in Northern India more than in any other spot in the world.

Caste and Race, Religion and Race.

The rigidity of the caste system was never exclusive in ancient and mediaeval India. Even at its worst phases during past history there have been mass caste conversion and mixture. All through the centuries princes and reformers and also the ordinary folk have largely and frequently broken the barrier of caste and have crossbred into multitudinous subsects and subcastes. The myriad facetted community of Indian Society, presents its own innumerable facets abundant testimony to intermixing between the various castes. The Physical Anthropologist who measures heads and bones and investigates blood and skin, is unable to make out any differences in the Anthropometric data between the Punjab Muslim, Hindu or Sikh; The Bengale Hindu and Muslim give the identical averages of indices; And the Brahmin of Kumbakonam and the Nadar of Tinnevelly, and the Nambudiri of Malabar and the Thiyya of Travancore, give more or less similar Somatometric measurements. There is some racial difference between the Punjabi, Bangalee and the South Indian. But there is no racial difference implied in religion or caste.

Conclusion.

India's population is predominantly a biological mixture of the three subraces of the Caucasian race, with a touch of Mongolian contact in some places. Except for the increased pigmentation of the skin, which probably is a climatic factor it resembles very much the racial make up of Europe. The quality of the ingredients compounded into this racial composition, and the vigour and fertility to be naturally expected from a cross breed of such good stocks, make for India some of the greatest assets she possesses to help her in her onward march towards the future culture and civilization of Homo sapiens on this planet.

THE DOCTOR'S CRISIS

Doctor :—What a terrible experience I had the other day! On visiting a patient, I find the door open, the patient quite white in the face, foam at his mouth, and a sharp knife in his hand . . . .

The audience, terrified :— And what happened?

Doctor :—The man was shaving himself.

New horizon in physiology and medicine: Structure and functions of hypothalamico hypophyseal system.

By
Dr. M. A. BASIR.
(Professor of Physiology, Madras Medical College)

The anatomical and experimental studies of the Hypothalamus by Le-gros-clark, and of Fischer, Ingram, and Granson during the past few years has led to a new and a highly important development in physiology which has already begun to have a profound effect on the progress of medical sciences. These studies disclose the control exerted by the central nervous system upon the metabolic and the vegetative functions of the body. Claude Bernard predicted such a control long ago which is confirmed by the recent significant findings.

Effect of Hypothalamus on the Body-Mind complex.

The great theologians of the world and the practitioners of Medicine of all ages have realised, though there is no direct experimental proof, that the mind exerts a profound influence on all bodily processes. Mind intricately associated with the central nervous-system, (Hypothalamus?) which in some mysterious way brings about profound changes in the bodily economy. Dr. W. B. Cannon of Harvard is the first person to study in a systematic and scientific way the bodily changes resulting from mental exitement, fear and rage. He found that these emotional states stimulate the sympathetic system to increased activity which results in the liberation of adrenalin into the blood, causing a series of bodily dramatic adjustments such as deflection of blood from viscera to the brain and muscles, rise of blood pressure, decrease in coagulation time, thus preparing the animal for flight or fight. Prior to Cannon's experiment. Goltz observed in 1892, similar sympathetic effects in animals from which cerebral hemispheres have been completely removed previously. Recently in 1919, Dusser de Barenne, made similar observations in chronic de-corticated cats. In 1930, Philip-Bard working on cats by making transections of neuro-axis showed, that the centre for the hyperactivity of the sympathetic system lies in the posterior hypothalamus. Excision of this area results in abolition of the spontaneous bodily changes characteristic of "sham-rage". Keller (1932) has since shown that the sympathetic activity can be provoked by applying a strong stimulus to this area. Thus it came to be known, in the posterior hypothalamus lies the chief head ganglia of sympathetic system.

Before proceeding further on the more recent studies of this region, let me give you a short account of the anatomy of this region. Rioch described in 1929, the comparative anatomy of this region and more

recently Le-Gross-clark has published a monograph in this subject. For purposes of functional analysis. Beatie (1922) divides hypothalamus into 3 major divisions, thus,

1. Supra optic. (Pre-optic) nucleii
2. Tuber nucleii — In the anterior hypothalamus.
3. Para ventiecular nucleii (in posterior hypothalamus)

The chief connections of the hypothalamic nucleii are summarised by Beattie thus;

I. The supra optic nucleii give efferent connections to,

1. Posterior lobe of pituitary (including Pars Intermedia)
2. Posterior hypothalamic nucleii (through the peri-ventricular grey matter)
3. Tuber nucleii.
4. Tegmentum

None of these are crossed connections. The supra-optic nucleus receives afferent fibres from the cerebrum (frontal lobe)

II. The Tuberal nucleii give efferent connections to:

1. Posterior lobe of pituitary
2. Posterior hypothalamic nucleii
3. Central grey matter arround Sylvian aqueduct
4. Tegmentum.

These also are uncrossed connections. It receives afferent fibres from the thalamus and cerebrum (olfactory area)

III. Posterior-hypothalamic nucleii give efferent fibres to the thoracic sympathetic outflow and receives afferent fibres from the supra-optic nucleii, tuber nucleii, and also from the thalamus. No direct connection with the cerebrum is demonstrated.

The direct connection of the posterior hypothalamic nucleii to the sympathetic outflow was domonstrated by Beattie etal (1930) by descending degeneration and also by the techiqaue of "Alzheimer-Mann". A fairly large sized tract of fine medullated fibres passes down the posterior hypothalamic nucleii around the Sylvian aqueduct and joins the median-longitudinal bundle. Part of the fibre descussates at a level higher to the level of decussation of Forrel.

Some of the fibres after decussation end in the reticular formation of medulla, and some pass down in the anterior column of the spinal-cord, and the majority of them end around the lateral horn cell of the spinal cord at the 1st and 2nd thoracic level, thus establishing synaptic connections with the preganglionic cells of the sympathetic system.

Functions of Posterior Hypothalamus

Levy pointed out as early as 1913 that in the chloroform anaesthesia, the heart passes into arrhythmia, with many ventricular extrasystoles and that these disappear after the excision of stellate ganglion. This observation was confirmed in 1930 by Beattie et al and that further extended the original observation by showing that isolated destruction of the posterior hypothalumus itself in an otherwise normal animal caused a disappearance of such a systolic arrhythmia. Such a lesion in an animal produced a condition just opposite to that of "sham rage", *i.e.* a sluggish and apathetic, animal with constricted pupils, and low blood pressure. Bard has shown by the method of exclusion that the posterior hypothalamus is essential for the occurence of "sham rage".

Direct stimulation of this area produces the well-known effects of stimulation of sympathetic system. Karpler and Krendl in 1911 observed that the direct stimulation of this region caused a distinct rise of blood pressure, dilatation of pupils and according to Beattie (1930) also caused ventricular extrasystoles.

Apart from these functions various workers have shown that in these cells of the hypothalamus, there exists the wonderful mechanism of vegetative instincts *e.g.* alimentary instincts in satisfying hunger and thirst, recovery of fatigue by sleep, regulation of blood sugar and body temperature, metabolism, and sex instincts by which there is preservation of species.

Function of Anterior Hypothalamus

At the outset it may be pointed out that adrenalin which is the chief hormone of the sympathetic system is a relatively stable substance, readily carried by the blood stream all over the body, whilst acetylcholine which is liberated at the nerve terminals of parasympathetic is relatively unstable and is rapidly destroyed by cholineesterase in the blood-stream itself. This is undoubtedly a significant fact to be remembered. Consequently the nerves of the sympathetic system are designed for diffuse and generalised outbursts of activity or for mass action, whereas it is not so with the parasympathetic system except very rarely as in vomiting and some forms of syncope where many branches of parasympathetic outflow discharge in unison.

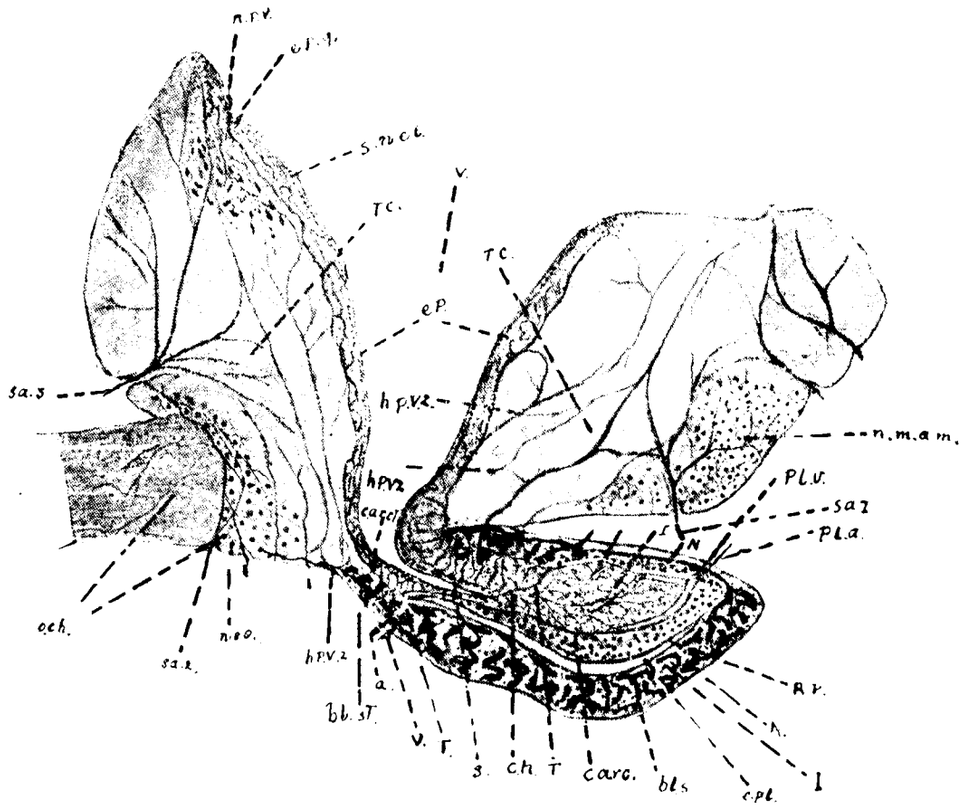
The anatomical studies of Popa and Fielding and more recently those of Basir have indicated that the portal circulation exists between the pituitary body and the hypothalamic centres specially throunh the tuber.

See Fig. 1 next page.

Basir's diagram showing the vascular connection between the posterior lobe and the hypothalamic centres of dog.

The diagram is explained in the legend included in the photograph.

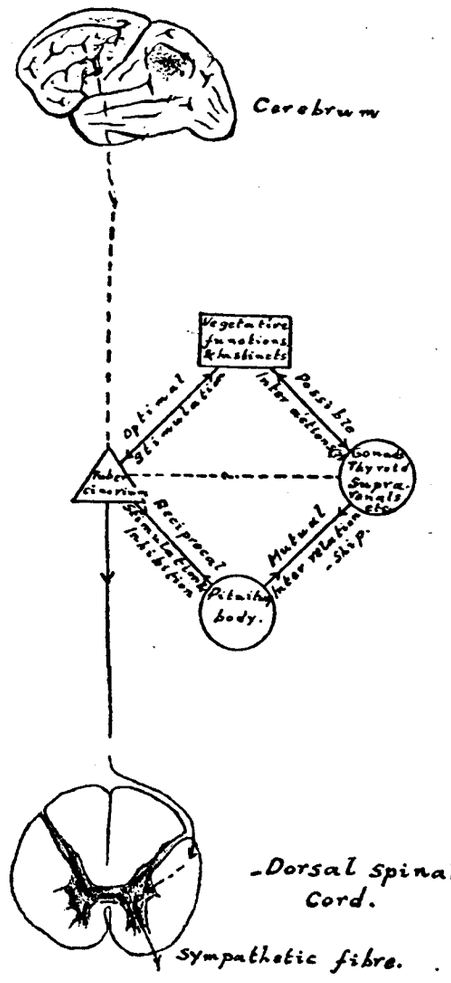
Studies of Basir published recently have shown that there is not one but actually two systems of vessels carrying the blood from the capillary bed of the posterior lobe to the capillary bed of tuber, supra optic nucleii, etc., J. F. Fulton joins with Harvey-Cushing in stating that "functional implication of this remarkable finding is obviously of the first rate importance." Popa and Fielding have described masses of granular secretion in the blood stream of these vessels. Further observation on the structure and functional significance of these portal vessels



Diagramatic reconstruction of the pituitary gland of the dog to show blood supply. The arteries (a) from the circle of Willis which supply the pars anterior (A.) and the pars tuberalis (T.) from the blood sinuses (bl. s., bl. s., T.) amongst the glandular cells. The blood is drained away from this region by the veins (v.) to the basilar circle of Wills and into the capillary plexus (c.pl.) of the posterior lobe. This plexus lies between the pars nervosa (N.) and the pars intermedia (I.) and receives in addition branches from the posterior lobe artery (pl.a.) Cappillaries (c.) from this plexeus ramify in the pars nervosa (N.) and the pars intermedia (I.) This plexus is drained by posterior lobe vein (p.l.v.) by the capillary arches (c. arc.) into the stalk (S.) and into the tuber cinereum (T.c.) by the hypophysio-portal vessels. The primary hypophysial-portal vessels h.p.v.$_1$) pass from the posterior lobe to the stalk (S.) and then to the tuber cinereum (T.c.) whilst the secondary hypophysio-portal vessels (hp.v.$_2$) run direct from the blood sinuses (bl.sT.) of the pars tuberalis (T.) to the tuber cinereum (T.c.) Systemic vessels (s.a.$_1$s.a.$_2$s.a.$_3$) from the circle of Willis also pass to this region. These vessels form a capillary plexus round the nucleii of the tuber cinereum (T.c.) and under the ependyma (e.p.)

(the hypohpyseal portal system) was published in 1934 by Basir and Reddy. They state that since the hypothalamic portal vessels are richly provided with these hormone-laden hypophyseal portal vessels, it makes it possible that the hormone exercises a local effect, perhaps stimulation, of these nucleii. So the emotional and vegetative reactions are integrated in the hypothalmic nucleii in the neighbourhood of which the hypophyseo-portal vessels appear to discharge their hormone. Such local and stimulating effects of the hormones of the, pituitary body on the hypothalamic nucleii can be compared to a similar action of adrenalin on the sympathetic nervous system; one perhaps acts as an adjuvant to the other. This fact is well borne out by the recent experiments which show that injection of small doses of adrenalin and pituitrin together is more effective than the larger individual doses of these hormones in combating respiratory and circulatory failures.

The distribution of non-medullated nerve fibres from the hypothalamic nucleii to the pituitary body are shown by Greving (1923) and by Kroll (1928) suggest that there is a mechanism of reciprocal interaction between the pituitary body and vegetative nucleii of this primitive portion of diencephalon. These nucleii are therefore in a position to regulate the liberation of hormone of the pituitary body which is necessary for the optimal reactions. There is also enough physiological evidence to show that to a certain extent the hypothalamus is under the cortic control (Frontal lobe) even though no direct tract is known to link them. Basir and Reddy (1934) have put forward a scheme to show such a possible linkage as shown in Figure II.



The Crucial Test.

In support of this hypothesis Harvey-Cushing injected 1 c.c. of pituitrin into lateral ventricle of a patient suffering from posterior lobe deficiency. A dramatic response occured in a couple of minutes. A

profuse sweating all over the body except from the denervated area of skin over the bone-flap, began to pour. Along with this there was intense flushing of the corresponding area of skin, fall of blood-pressure and increased peristalsis of alimentary tract. After an hour or two, there was also vomiting and fall of body temperature by about 5.5° F. and also a fall of B.M.R. All these are essential symptoms to parasympathetic overactivity. From the observations made by Popa and Fielding and of Basir, it appears that pituitrin carried by the Hypophyseal portal vessels acts upon the hypothalamic nucleii. In support of this, is the observation that in patients with tumours of third ventricle, clogging the Foramen of Munro, failed to respond to pituitrin injection into lateral ventricles.

Intravenous injection of pilocarpine produced all the effects caused by intraventricular injection of pituitrin. Injection of atropine annulled the effects of injection of pitutrin or pilocarpine. Based on these findings, Cushing concluded that :—

1. In emotion the posterior pituitary discharges and sets into activity the diencephalo-hypophyseal mechanism the parasympathetic system.

2. The diencephalo-hypophyseal mechanism bears a similar relationship to the parasympathetic system as the adrenal medulla to the sympathetic system. These conclusions are in agreement with those of Popa and Fielding and the functional implications of the hypophyseo-portal system as advocated by Basir (1934) are obviously of great importance. In further support of this view is the finding of Karplus etal that a faradic stimulation of tuber nucleii gives rise to increased concentration of pitutirin in cerebro-spinal fluid. Beatie has observed on similar stimulation, action currents in vagi, increased auriculo-venticular conduction time, decrease in the heart rate, dilatation of the ear vessels, contraction of urinary bladder, increased peristalsis of alimentary tract and increased secretion of digestive juices. All these parasympathetic affects are abolished on section of the vagi.

Clinical Implication

In 1931 Cushing stated in his famous Balfour lecture at Toronto that the neurogenic view of the peptic ulcer formation as advocated originally by Carl R. Kitansky (1841) demands careful experimentation and examination of the base of the brain. But the cellular pathology of Virchow has led to concentrated study of the cellular changes in the wall of the stomach itself. According to Virchow, an occulusion of a small vessel in the stomach wall leads to local necrosis which becomes digested and ulcerated by the gastric enzymes. In this discussion the original theory of R. Kitansky was lost sight of until Underhill and Freiheit in 1928 found that subcutaneous injection of large doses of pilocarpine in rabbits caused acute ulceration of stomach and duodenum. More recently Light, Bishop and Kendall injected pilocarpine in the lateral ventricle of rabbit and were surprised to see ulcer formation within 24-48 hours with increased peristalsis and hyperaemia of stomach mucosa.

A. D. Keller of Alambama whilst studying the relationship of hypothalamus to heat regulation found also that the lesion of anterior part of hypothalamus caused also peritonitis and perforation of the stomach and duodenum. Thus the prophetic statement made by Carl R. Kitansky in 1941 are confirmed now. And also that section of Vagi abolishes these motor effects and erosion of the alimentary tract. But this does not mean, that the neurogenic theory of ulcer formation is the only one to be considered in clinical cases.

Clark, Nigaum and Ranson (1928) showed that a lesion, dorsal to optic chiasma and ventral to anterior commissure (cholinergic area) leads to loss of power to withstand high external temperature. Responses to falling temperature are controlled by the posterior hypothalamic region (adrenergic area) where a shivering centre is also postulated by Keller (1932). Stoll (1933) has suggested that a thermo-regulatory centre lies in the median hypothalamic-nucleii though it is not confirmed by other workers.

Fischer, Ingram, and Ranson have thoroughly dealt with the Neuro hormonal control of water balance in their recent monograph. The lesions of hypothalamus (supro-optic hypophyseal tract)in experimental animals results in the diabetes Insipidus.

Brobech (1940) has demonstrated in cats that a lesion in hypothalamus predisposes the animal to Insulin shock and severe hypogeycaemia. They have also shown that the spinal sympathetic nucleii may to a certain extent maintain the blood sugar level even if their connection with the higher centres is severed.

Conclusion.

The hypothalamus regulates the carbohydrate, fat and water metabolism and also the heat regulation, vaso motor control and sex function. In short all the organs innervated by the autonomic nervous system are under its control. These are very well brought out by Cannon. In the posterior-hypothalamus is located the head ganglion of the system which prepares the animal for fight or flight with all the energy reserves mobsilised and helped by a vigorous heart. In the anterior hypothalamus is located the head ganglia of parasympathetic system whose chief function is to conserve all the body reserves. The glycogen content of the body are replenished. The activity of the alimentary increases and more food becomes available to the animal. The metabolism falls and sleep (hypersomnia) is induced. All these are parasympathetic phenomenon.

Harvey-Cushing has demonstrated that the several vegetative centres are controlled by chemical agents as pituitrin and pilocarpine. The studies of Popa and Fielding and more recently those of Basir have clearly demonstrated the vascular link between the posterior lobe and hypothalamus (hypophyseol - portal system). More-over it is a noteworthy fact that the hormones of the posterior lobe of the pituitary are conveyed first to the hypothalamic nucleii before it is circulated all over

the body. So its main seat of action is the hypothalamus and vegetative centres.

The nerve fibre connection between the hypothalamus and the pituitary body as shown by Greving and by Knoll, suggests that this hypothalamico-hypophyseal mechanism is also reciprocally linked up with the vegetative nucleii of hypotholamus.

In conclusion it any be pointed out that the conception of "Milieu-interview" as advocated by Claude-Bernard and fully borne out by the work of Cannon, that the higher animals are independent of external environments is due to this hypothalamico hypophyseal mechanism which is mainly responsible for maintaining the constancy of their internal milieu.

A doctor, an architect and a politician were discussing the priority of their occupations.

The Doctor said :—" When Adam's side was opened and a rib removed to make woman there was a surgical operation—medicine was the oldest trade."

The architect said :—" Yes, but when the earth was made out of chaos, there was the building process, the use of materials according to plan. The architect is therefore the oldest ".

The politician smiled and said : " Who supplied the chaos ? ".

GENETICS.

Little Dorothy, Dr. Trueblood's youngest daughter, returning from school one afternoon, said, " Johnny Smith's examinations papers were so good that teacher keeps them on her desk to show visitors ".

Dr. Trueblood : —" But why aren't yours as good as Johnny's ? You have the same opportunities ".

Little Dorothy :—" I know, daddy, but Johnny Smith comes from a very bright family ".

THE SCOTCH IN HIS BLOOD

A Scotchman sold blood for transfusion. The first time the recipient paid £ 25, and after the second transfusion he paid £ 15. After the third transfusion the recipient had so much Scotch blood in him that he refused to pay anything.

Was this Journey really necessary ?

or

Through the Vale of the Pre-Reg !

By

Dr. L. E. NERI.

Doesn't it strike you as queer
dear
Reader—that when God created Adam
and Madam
Eve—He didn't even consider medical students—
(The unfortunate,
importunate,
students)

Did He really 'PLAN' Ontogeny
of Phylogeny,
and the queer effects that Gregor Mendel had on all our progeny ?
And when he created the earthworms,
whose squirms
are not worse than those of the students,—
(those unfortunate
importunate
students)

Did He ever dream of Latin
names, that in
our tortured tongues turn into impossible sounds that would flatten
the sensitive ear of a don ?
'Pon
my soul ! Can you really reproduce the name
of that cockroach—whose only claim
to fame
depends on its incongruous salivary glands
and some even more impossible bands
of chitin,
that frighten

the student ?
(That unfortunate
importunate
student)

And when it comes to frogs—
I think I'd rather start on dogs
They're bigger,—and easier to cut
into—But
I'm completely devoid of speech
when it comes to the leech
with its appetite for blood,
its penchant for mud
And its numerous stomachs—Many more than we'd find in—
the mosquito—
Or even in Tito
Who has only one.
And where's the fun
In knowing about rabbits
And their herbiverous habits—
Or of the private lives of seeds—
And the inside story of weeds
that grow in the water—
And oughter
be dead ?
You've read
of Xylem and Phloem and Phooey—
and an insufferable amount of hooey
like that—Didn't God ever think of us students ?—
(unfortunate
Importunate
students)

Anyway—God didn't ever make lenses—
He only made 'cockses and henses'—
He didn't even invent Magnetism
And he never did dabble in Pragmatism
and the Higher Physics !
(or 'Pizzicks'—
as the attender called it)

As for chemistry—He walled it around in secrecy—until some dope
burnt Oxygen—in the hope
that he'd become famous.
Can you blame us
If we've forgotten his name ?
All the same
he's not half as bad as the chap
who, through some strange mishap
of Genius, discovered the Law of Mass Action
and the revolutionary brand of class faction
that goes on between ions—
which quarrel like lions
Over Constants—or some such dame
with a classy name.
These Chemists weren't quite right in the head !
(who wants to find the 'Gold Number'—
when its so very much easier to 'Rhumba'
instead ?)

As for the difference 'tween a Sol and a Gel,
to Hell
with it ! what really amazes me
though, and dazes me,
is that God did it all in a week—
without even a peek
(i.e. a quick look)
at a text book —
while I took aeons,
and was forced to bribe the peons
and attenders for aid.
I paid
well, of course, and passed
at last.
But I still don't know the reason why
I
had to study
these ruddy
subjects. But then I'm only a student —
(an unfortunate,
Importunate
student.)

I was told I'd find out later
(as was said to that Jew-baiter.
Streicher)
the piker,
who asked what a man felt like when he was hanged)
I'm danged
if I have — after six years in college!
My knowledge
was simply ignored
by bored
examiners — who had no sense of humour
at all when I defined a tumour
as a weak point in my Pathology. Not even the Surgeon
believed that the sturgeon
had gill-clefts — and he didn't care
where,
I went as long as it was away — and, (well
to be frank) — to Hell?
This is what he said when I told him
What I knew — and I hold him
Partly responsible, for my state of mind,
when I say — to be mild: "It's unkind
to burden the student
(The unfortunate
importunate
student)

With all this rot —
What?"

THOSE LOOSE ENDS.

Ther's a divinity that shapes our ends,
So we are told, said Peet.
I would that there were one that lends
Us aid to make them meet.

There is so much that is good in the worst of us
There is so much that is bad in the best of us,
That it does not behove any of us
To speak ill about the rest of us.

Epicure or Mystic?

By
C. S. V. SUBRAMANIAM, Final Year.

"Ah Love! Could Thou and I with Fate conspire,
To grasp this sorry scheme of things,
Would not we shatter it to bits — and
Re-mould it nearer to the Heart's Desire!"

So sang the strange and ever interesting Omar Khayyam, sitting perhaps on the bedewed grass beneath the star-lit diaphenous Persian sky, and dreaming of a world in which he was never fated to live.

The enigmatic Omar's sensitive soul yearned for an order of society where there will be a full play for his "subtle, strong and cultivated intellect, fine imagination, and a heart, passionate for truth and justice". Never in the entire literature of human poetry do we find a personality so elusive to our understanding as that of the charming Omar. It is no exaggeration to say that Omar Khayyam must have been a big question mark even for his contemporaries who worshipped at the temple of Bacchus and danced to the giddy tunes of Venus, rendered doubly attractive by the presence of:—

"The subtle Alchemist that in a trice
Life's leaden metal into Gold transmute."

It is very difficult to have a certain idea of what exactly Khayyam's philosphy is. From the eternal springs of his poetic heart sprang the gurgling stream of his Rubayat, where the gay but sad poet has splashed in brilliant colours of fine poetic imagery, a phantas-magoria depicting all varieties of life's philosophy ranging from the utterly light hearted epicurianism to solemn and awe inspring stoicism merging insensibly into profound metaphysical speculation. None could be a better epicure than the one who says:—

"Ah, Fill the cup:—what boots it to repeat,
How Time is slipping underneath our feet,
Unborn to-morrow and dead yesterday,
Why fret about them if to-day be sweet!"

In these lines the astronomical poet, speaks like a surrealist with his feet firmly planted on the earth. It seems as if Omar had anticipated the typical French way of living intensely in the present without caring a rap for the 'dead yesterday and the unborn To-morrow!'

It would be very hazardous to say that the summum bonum of Omar's philosophy is 'gather ye rose-buds while ye may' the fascinating dictum of Horace and Herrick. From a state of utter light hearted levity punctuated by the gay Omar "adjourned his lips to learn the secret well of life", we find the merry old khayyam passing off into the dreamy state of profound philosophic contemplation wherein the astronomer sees the utter futility of human efforts to thwart the painful blows of a malevolent Fate :—

"The moving Finger writes; and having writ
Moves on: nor all thy piety nor wit
Shall lure it back to conceal half a line
Nor all thy tears wash out a word of it."

In spite of this utterly fatalistic philosophy of life, we find in Omar a stubborn belief that man should never doubt his own abilities to achieve what he wants and under no circumstances should he surrender his self respect to the siren voices of Religious superstitions. Listen :—

"And that inverted Bowl we call the sky,
Whereunder rawling coops we live and die
Lift not thy hands to It for help
For It Rolls impotently on as thou or I."

Austre Omar was not a mère weeping philosopher completely insensitive to the beauty and charm of this earth. He was too human to escape the charming notes of nature's lyre. He has absolutely no *Man vaise honte* in declaring :—

"A book of verses underneath the Bough,
A Jug of wine, a Loaf of Bread—and thou
Beside me singing in the wilderness
Ah! wilderness were Paradise enow!"

After all, the proud philosopher who spoke about the Moving Finger has succmbed to the spell of 'Thou!' It would not be otherwise as Omar had too much of the flesh in him to become petrified by mere dry logic of the stoic.

Omar's enquiring and scientific mind was not satisfied with the pedantic ignorance of his contemporary 'Doctors and Saints', with whom he had many discussions on obtruse problems and after each discussion he says with a merry twinkle in his eyes, that he 'Came out the same Door as I went'! He Exhibits a very proper contempt for learning, completly devoid of human love and touch. The harvest he reaped, from such scholarliness is, 'I came like water and like wind I go!' As the astronomer's keen eyes were feasting on the Stellar beauty of this immense Universe which he was trying hard to understand, his fertile imagination

wove a fanciful poem around the destiny of human soul, a brilliant example of metaphysical speculation in the garb of an inimitable poetry :—

"And when Thyself with shining Foot shall pass,
Among the Guests star—scattered on the Grass,
And in the joyous Errand reach the spot,
Where I made one turn down an empty Glass!"

The love life of Omar seems to be as hectic and dramatic as his philosophy, so full of emotional precipices and mutually exclusive patterns beaten out on the vast background of human passion and Love :—

"Ah—Moon of my Delight who knows no wane,
The Moon of Heav'n is rising once again.
How of't hereafter rising shall she look
Through this same Garden after me-in vain!"

What I have attempted is only a superficial analysis of Omar khayyam. What sort of life did he preach? What place did he give to God in his scheme of things? These are difficult questions for which perhaps no answer can be found. Omar's sense of justice is so acute that he accuses God as the main culprit responsible for Adam's fall, after which came sorrow and sin into this world. He exclaims "Man's forgiveness give and take" poignant lines of the last English poetry that Thomas Hardy heard before he died with his belief in God shattered by the gruesome life on earth, "where happiness is only an incident in the general drama of pain".

Perhaps Fitzgerald is nearer to Truth when he says, "Omar pretending sensual pleasure as the serious purpose of life only diverted himself with speculative problems of Deity, Destiny, matter, spirit, good and evil and other such questions easier to start than to run down." To some he may appear as a "mystic shadowing the deity under the figure of wine, wine-bearer. etc., as Hafiz is supposed to do." Epicure or Mystic? Who knows?

———

Doetor :—Have you ever been X-rayed?

Dusky Patient :—No, doctor, I ain't ever been X-rayed, but I've been ultra-violated.

———

Irishman, on receiving the doctors' bill :—I'll pay for the medicines, but his visit, I'll return.

Variety - the Spice of life (?)

Anonymous

The study of Psychology is essential for the Doctor's purpose, and every Medical Student is initiated into the preliminary study of elementary psychology, so that he is befit to deal with the variegated and various types of patients. In fact, the quack wades through his career quite successfully by dealing adeptly with Medicines in general, and psychology in particular, and it is certainly more profitable to treat the whims and fancies of a patient (though you can cripple him for life) rather than to cure one completely with barely a curt thanks. Moreover, life is infinitely more interesting if we care to study the man behind the disease rather than if we plod at his organs systematically to find the exact spot which has gone out of order in a talking automatic machine.

Walk into any department of the Nicholl's out-patient Block one morning and watch the motley crowd streaming in, not with the sympathy of a doctor nor with the enthusiasm of a student, but with that characteristic impartiality of a critic, or with the unimpeachable reasoning of a philosopher.

A destitute, in between his regular occupation of tapping pockets by arousing sympathy, takes an excursion to the impressive - looking Hospital, and is quite amused at the great personal interest that the learned doctors evince not only in himself, but in his whole family, by kind enquiries as to how his parents met with their death, and without any delicacy try to pry into his matrimonial affairs. He gets impatient with all these questions when all that he has come for, is a straight forward case of starvation!

Again, there is one who is just the other extreme. He suffers from dyspepsia, his chief and only complaint being loss of appetite, and as one Doctor put it, he is really blessed, for in these times of ration, it certainly pays to have this complaint rather than to crave for food.

In the midst of all the hustle and bustle comes in a patient who seems to have strayed into the buildings, and still not sure of himself, is accosted by the enthusiastic student, who, with the usual exuberance of a novice floods the patient with incongruent questions, to which any sensible man would find difficulty in answering. As the puzzled patient pauses with incomprehension and dread, undecided as to whether he should beat a hasty retreat or swoon in the face of the torrent of questions, the student with subdued modesty can hardly contain himself at discovering what is clearly in his opinion, a manifestation of atheromatous degneration.!

Then here is one who has a bright idea of solving his boarding

and lodging problem, and with that idea in view complains of symptoms so variegated, that even the Prize-student who has literally digested all the latest text-books in Medicine finds it imposible to classify the system to which the disease may probably belong.

There is yet another type who frequents the hospital. This time, it is a boisterous patient, fat, well-fed, looking quite pleased with the world in general and with himself in particular, and has just a slight discomfort which he describes to the doctor in great detail, not failing to repeat every symptom thrice in case it has been missed. What is more, he actually helps the doctor in his physical diagnosis of the case, (for, you know, he has delved into the latest editions describing the disease) and if only the doctor would listen, he will even suggest the treatment himself! Why, he has tried various methods of cure himself, but somehow, somewhere, there has been a mistake. This is the patient who is a menace to society!

To the illiterate and fussy type of gentleman, it is not the diagnosis of the case that matters, but the number of doctors who have had the honour of applying their stethescopes on his chest, and the famous note of N.Y.D. (not yet diagnosed) lifts him up one step higher in the social ladder, for, (he explains to his circle), so complicated is his system that all the doctors, and of great fame too, could only shake their heads and were unable to arrive at any conclusion. To any onlooker who is itching to catch hold of such a conceited gentleman by the collar and plainly show him the door, it is a wonder to see the physician actually agreeing with and showering words of sympathy, while coolly prescribing him an alkaline mixture which he assures will cure the disease completely. God help the doctor if he gets an over dose of such patients.!

Then comes a school mistress with a pedantic arrogance, the atmosphere of the class room surrounding her, and with a deep sonorous voice addresses the doctor as though he was a kinder-garden pupil gone wrong, and digresses on her symptoms with such flowery eloquence that you cannot escape from surmising that she is an English teacher. But looking through all the vague verbosity, the truth dawns on you that she is trying to secure a holiday by means of a Medical Certificate.

There comes a man with a swelling on his forehead, a haven for the assistant surgeon, who is grinding at his M.S. examination, and who with pomposity makes a flamboyant demonstration of the delicate and subtle method of clinical examination, and goes ceremoniously through the steps of inspection and palpation, and with an aggravating methodical precision finally lands himself jubilantly into the diagnosis of an Inclusion Dermoid in the midline,—when for the first time the patient opens his mouth and voices firmly though feebly that he has come to the hospital not for the swelling in the forehead but for swelling in the scrotum!

The sophisticated female, fretting and fuming with injured pride, her

vanity wounded, that, with all her daring escapades she has yet not had the experience of being under the Surgeon's knife, decides, that it would be far more fashionable to treat the vague discomfort that she feels in her abdomen by getting her Appendix operated upon, than to persevere in the regular dose of Mag Sulph!

Contrast to her is the solid old lady, with one of her breasts completely replaced by an indolent looking ulcer, seriously considering the sanity of the Surgeon and doubting the bonafides of the impertinent looking Doctor, who, with such cold insolence dares to suggest mutilating operation with the threat of impending death!

And in the midst of all these is the real sufferer, with one foot in the grave, who has neither the energy nor the desire to indulge in a speculatory exhibition of his woes, trying hard to mitigate his sufferings, and, perhaps, passes unspoken, unhonoured and unsung, and it is for these people that the hospital is meant and he alone is a noble member of this noble profession who is able to discern these from the motley crowd and relieve their ailments.

(A. K.)

After a Collision

Nurse :—I am sorry Doctor,
Doctor :—I am not sorry.

Woman not the Weaker Sex.

By

MISS. S. AMBIKA, IV YEAR.

I venture to suggest that of all the evils for which man has made himself responsible, none is so degrading, so shocking or so brutal, as his abuse of the better-half of humanity, the female sex,—not the weaker sex. It is the nobler of the two, for it is even to-day the embodiment of sacrifice, silent suffering, humility, faith, and knowledge. Woman is the personification of self-sacrifice and renunciation.

They are special custodians of all that is pure and religious in life. Conservative by nature, if they are slow to shed superstitious habits, they are also slow to give up all that is pure and noble in life.

But unfortunately to-day, they do not realise what a vast advantage they have over man. As Tolstoy used to say, they are labouring under the hypnotic influence of man, and become slaves of their own whims and fancies and slaves of man. Time is not far off when this dark repression shall fade off as a dim, far off memory and when woman shall win not only her sex right, but also her human right to live as a dignified individual.

To call woman the weaker sex is a libel. It is man's injustice to woman. If by strength is meant brutal strength, then indeed is woman less brutal then man. If by strength is meant moral power, then woman is immeasurably man's superior. Let me ask, Has she not greater intuition? Is she not more self-sacrificing? Has she not greater powers of endurance? Has she not greater courage? How comes the man to the world? Is he not born of woman? He is flesh of her flesh, and bone of her bone, and so where is the doubt that she has every right to be man's equal? Without her, man could not be—Who can make a more effective appeal to the heart than woman?—and the future is with woman.

The world shall see in all its wonder and glory when woman has secured an equal opportunity for herself with man and fully developed her powers af mutual aid and combination.

So awake ye women, shake off thy fetters of Bondage and subordination and show forth to the world that we are not the Weaker Sex!

'Woman-A new element.'

By

Dr. G. V. RAMANI.

Symbol Wo *Atomic weight 80—100*

A member of the human family.

History:—Though its presence was known from the time of Eve, it was first described in 1940 by Mr. Bhagvat in "The chemistry student."

The atomic weight of the element is quite variable and depends on the soil in which it is found. The atomic weight in North India, especially in Bengal, U. P. and Punjab is over 130, whereas the average atomic weight of the element as found in Madras is between 80—100, though a few weigh 150 or more.

(A.K.)

The element was considered to be monovalent till the last century. In the 20th century, the monovalent tendency gradually disappeared and the element is definitely polyvalent. At present its valency is considered to be 6 (The modern girl wants to be Juliet to half a dozen Romeos—Mahatmaji.)

Occurence :-It can be found wherever man exists; seldom occurs in free or native state. Quality depends on the state in which it is found and the combined state is always preferred. Found in plenty in India and is estimated to be 2/3rds of the entire population. Thus India is richer in this element when compared to the rest of the world.

Preparation:—Needs no mention as India knows the ideal method of mass production of this element.

Physical Properties:—The element is found in all colours and sizes; always appears in disguised condition; surface of face seldom unprotected by a coating of paint (red or pink) or film of powder (composition immaterial). Boils at nothing and may freeze at any moment. It melts when properly treated; very bitter if not used correctly.

Chemical Properties:—Extremely reactive and possesses a great affinity for gold, silver, platinum and precious stones of all kinds. Violent reaction when left alone by men. Ability to absorb all sorts of expensive food at any time. It is undissolved by liquids but activity is greatly increased when saturated with spirit solutions. Sometimes yields to pressure. Turns green when placed next to a better appearing sample. Ages very rapidly. Fresh variety has a strong magnetic attraction.

Highly explosive by itself and likely to be extremely dangerous in inexperienced hands. It has been the cause of the fall of many a nation and so is more potent than an atom bomb. Can be used in the preparation of that deadly bomb by the future scientists. *God Forbid* !

Test for Detection:—No test for detection of this element is necessary, but if in doubt, go and ask boldly, "Are you a man." If it screams loudly and scratches (or scorches) your face, or calls a policeman, the test is positive. If on the other hand you get a punch on your nose, you are sure it is a man.

Fat One:—Seeing you, one will think that you have been starved in the hostel.
Lean one:—Seeing you, one will know the reason why.

An Open Letter to an Important, Indispensible and Influential Person.

By

CAYJAYSEA

To

MY DHOBY,

Somewhere-in-India.

Sir,

This letter from me, a chronic sufferer at your hands, is long overdue, by seven years to be exact. Ever since the last war started your importance, credit and essentiality have grown beyond all proportions. I have suffered silently so long hoping that with the advent of peace our relationship would improve. But now, two years after the cessation of hostilities, I find the situation on your front worsened, if anything. Even a worm will turn. Today I, who have been so long subjugated, crushed and humiliated under your despotic regime, have made bold to give you a bit of my mind as evidenced by the fact that I am addressing you as "Sir", and not as "Darling", "Dear Sir" or in equally endearing terms as I would have done before. I am not, however, giving full vent to my feelings as I do not intend spending the rest of my life writing to you.

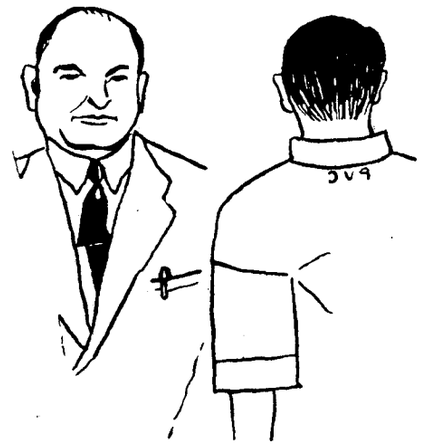
Well, to start with, you approached me at a time when you were prepared to wash my clothes and when delivering it, wait on me and run on small errands like buying me cigarettes, etc. Then our contract was on the basis of so many washes. Then you used to get me two washes per week and to get my money's worth out of you I had to steal back some of the so called washed clothes into the out going wash. But, of course, you did not care about it, as all that you had to do was to shelve it in your den for a couple of days and bring it back ironed, if necessary, on the third day.

But Time marched on. Complexion of things changed. Now you wanted a fixed (but only temporarily) sum for hundred pieces. In the beginning you used to come once a week and every time smuggle some of the clothes you had just brought for wash over again just to build up the number. Though I was aware of it I could not help it, as I could hardly make out the difference.

Then came the days. You went into hiding. You could not be seen for days on end. Envoy after envoy was sent to your place in vain. Rumours were thick in the air that you had joined the largest voluntary army in the world or you had taken contracts to wash their uniforms. We waited anxiously

for you with our hearts in our mouths and dirt in the seats of our pants. At last you made your appearance on that red letter day in our lives.

The shirt I had so long planned to wear for an occasion in college was missing and when I looked round a little more I could not escape seeing it adorn your beautiful self. So I hunted for the next in the list of favourites. I was stunned by the wash. I put it on. Lo! my head refused to go in. Was I trying to squeeze my head through the sleeves of my shirt? No, I was right. That opening was intended for my cranium only. Se I tried the sub-occipito-bregmatic, cervico-bregmatic and other diameters. Finally, somehow, I managed to get my head through with my face turned red and my hair all dishevelled. Only when I tried to get into it fully did I painfully realise that it was my neighbour's son's shirt. Now, to get my head out I tried full flexion, internal rotation, external rotation etc. but I could not manage without some slight ephisiotomy. Then I fished out one lower in the list. How well starched and ironed it was! I could not believe my own eyes! I cursed myself for not choosing it earlier and avoiding all the struggle. I unfolded it and put it on. But still, I could feel the chill breeze kissing my back. Lo! my back was bare. The entire back of my shirt was missing. Little wonder it was well folded! At last I picked the only shirt left. When I put it on, I was actually swimming in it. As I had no other go I attended the party wearing it. There I was the



envied attraction of the principal's eyes. He was staring at me so long and hard that I felt elated and went close to him and engaged him in conversation. But all the while he just kept on looking at me without uttering a word, except, asking me my name and year of study as though struck by my name and personality. I went home quite pleased with my achievement. While taking off my shirt I noticed the initials P.V.C. on the back of my shirt. Only then did I realise the cause of so much attraction and attention.

What has been mentioned of my shirts holds good equally well in the case of my other articles of clothing. Later, you became rarer and rarer, your charges higher and higher, and your washes dirtier and dirtier. You started coming once a month, then once a quarter, and later as you pleased. Every time you had an excuse readymade. Once it was your illness and just to prove which you had to grow an appreciable beard and thereby further delay the wash. Another time it was a

whitlow which fact was evidenced by a huge lemon on your thumb. Next time it was your wife who had run away to her parents. But more often than any of the above causes came your having to mourn the loss of some near relative of yours, I have kept count of all the deaths you have mourned in the past five years. According to those statistics I conclude that your grandfather must have been an incorrigible polygamist. For in the past half decade you have mourned 126 grandmothers, 84 mothers-in-law (your wife's contribution) 37 aunts, a few cousins, and a couple of nondescript relatives. I am yet to meet a member of your tribe who is an orphan or who stays an orphan once he takes up your profession.

Further, how many times have I had to put off my journey on your account, so much so, that I have got into the habit of writing home, "I intend leaving next Saturday, dhoby willing." Many a time have you made me feel awkward at the railway station. I used to feel fidgety and look out of my compartment every three seconds and generally give the impression of feeling restless. People observing me would say, ostensibly among themselves, but to my hearing "Look at that poor chap! His girl has disappointed him." Then they would chuckle among themselves and smile at me to my intense annoyance. All the time I was looking out for you only.

Now after so many days of continuous suffering I have got it out of my chest. I do not mind it as the discipline regarding dress has been relaxed a lot, and I can endure. In a Free India this is going to be my test of the Freedom of speech.

But please bring all the due clothes in the coming wash early.

I am,

Your subject,

Chronic Dhobyitic.

P. S. As I could not pick up enough courage in the end to write to you direct so soon after so many years of suppression and oppression and, as I am further not aware of the present whereabouts of either your person or the fifty pieces I had given you for wash, I am sending this to the editor, M.M.C. Magazine for publication

Yours,
C. D.

To The Editor,
M. M. C. Magazine,
P. T., Madras.

Sir,

I crave the indulgence of a few columns of your esteemed magazine for espousing a cause that affects all humanity without exception or distinction. I am sure you sympathise with the plight of the downtrodden as never in any other case do so many suffer so much at the hands of so few.

Thanking you,

Yours truly,
Chronic Dhobyitic.

Meet the Doctor.

By

Mr. A. P. BRAHMAM (*1st year*)

If the population of this world has not reached astronomical proportions, it is because of nature and the doctor. Now, let us examine this strange creature on whom so many have passed such comments.

It is rumoured that a certain doctor, when approached by a patient who wanted to live a full hundred years asked him whether he smoked, drank, over-indulged in food, and on receiving emphatic negatives for an answer, barked 'Why the Dickens do you want to live a hundred years?'

Take the average doctor. Well? He simply does not exist. There is no such poor fish called an average, simple, God-fearing doctor. There are only specialists, neurologists, pathologists, surgeons, physicians, outhopaedists, oto-rhino-laryngologists, Hospital Superintendents, Resident, Civil, Uncivil, Military and Assistant medical officers, Housemen, Medicos and quacks, but mind you, no Doctors! There are some of the Ph. D., and D. Sc. variety, but we are not much interested in them now. A doctor is, on the average, 37 years old, bald, wears spectacles, coat, pants and boots, and has bushy eye-brows. He has a wife and five and three fourths children, is of average height, and weighs about a ton. In short, he looks a Vitex advertisement.

As a medico he is as uncontrollable as a jeep, cheerful, flirtatious and overbearing. He is as annoying as a love sick male mosquito which whiningly and persistently courts the equally whining but winnable female mosquito. He is a shameless sponge. He rivals a steamer in smoking and a barrel in drinking and sees as many films as a projector. He is feared by all, and his name goes down as a local Attilla the Hun or Tamerlane. The 'Belle Ideale' of the male medico is a female medico of the following specification: must be a buxom wench of Circa 18, dressy but not flashy, preferably having roguish black eyes, no halitosis, vivid lips and well developed physique, with an energetic walk and palmolive complexion. She must also possess some brains and a mind resembling her body in being restless and incapable of holding the same view for long. Lastly, she must emanate a youthful freshness from her whole being.

Thinking of all this, he takes his own time and gets out of College a middle aged soul with a fairly comfortable paunch. One thing strikes the medico as he enters the College. Offensively, impertinently the question askes 'Single? Married?? widow???' almost like the war posters asking, 'Is your journey really necessary?' He wonders what of the poor bloke who is a widower or the one who is a proud papa of two kiddies? Any way, let that be.

After leaving College, the unsavorary grub becomes a cocoon soon. No one hears of him for years and misgivings die down, but a metamorphosis is taking place. Then —— BANG——A new Doctor has risen. Everyone is talking of that brilliant new doctor; He moves in high circles, and is dash popular. He is seen rolling about in luxurious cars. He has everything and has started an up-to-date Clinic with all facilities, and is booming. Yes, BOMING. He guarantees a cure for every ailment. He looks pompous, aristocratic and patronising. He oozes self confidence from every pore. He thumps his patients, pumps them dry, listens to their complaints with a smile. He drugs them, and kicks them, pats them, and kills them. He diets them; Please eat as follows thrice daily:—

4oz. dish water.

½lb. good portland cement.

4oz. strong Carpenter's glue,

with sufficient quantities of vaseline to smoothen matters and lubricate yonder oesophagus!! Tells them jokes of a dubious variety. Sample: Why is a flapper like a bad photograph and so too a prude? Answer: A flapper because she is under developed and over exposed and a prude is over-developed and under exposed! Rumour has it that he learns these clever bits from the M.M.C. Magazine. When they turn up again, worse and worse, he puts them under subcaudal analgesia, and gently but firmly rips their belly open and removes their viscera.

He laughs with, for, and at his patients and asks them for their urine, which they deliver into him by the gallon with grave dignity, which he surruptitiously empties into the gutter. His bible is the catalogue (any type) which, after praying earnestly to the Aswini Devatas, he flaps open and follows to the letter the treatment indicated there. So you see he is religious! As soon as a patient of his dies, he transfers the body immediately to the crematorium and an hour later a beautiful vase, suitably and touchingly engraved with the cadaver's name and one of the following mottos 'May his soul rest in peace', or 'He has left this wicked world' or 'He is now at our Lord's feet' or 'Dust he was and as dust is returned is despatched by Air mail with a bill for Rs. 750/- only, to his nearest relatives and heir, and they in their unbounded joy and admiration at the Doctor's skill and care, before, after and during the man's end present him with cars and houses, bouquets and fruits!

Calls for Investigation

Wife:—Do you know that you haven't kissed me for six weeks?

Doctor (who is absent-minded):—Good heavens whom have I been kissing then?

Our Great Day.

By

R. RAM KRISHAN PONDAY.

Fifiteenth August 1947 was not only a great day to India, but to the whole world at large. It was the day when India awoke from her deep slumber, casting away her shackles of slavery, and spread her youthful wings, like an eagle ready to take her flight, to explore the hitherto unexplored nooks and corners of the world. It was the day when we all felt the "embrace of freedom in a thousand bonds of delight." It was the day when Freedom "came with a golden basket in her right hand and wreath of beauty, to silently crown this earth of ours."

For the first time, in our college history, we saw with our eyes, our own dear National flag flying and fluttering on the grounds of Medical College. It was a glorious spectacle; it was a gorgeous panorama, to watch all the students, staff and Nurses, and even patients (not fully incapacitated) stand to attention, when the proud colours of Mother India, once again raised themselves to the lofty-pinnacles of heights and glory.

There was present the U.O.T.C. of the college to salute the flag. These members of the corps, the pick and flower of Indian youth, raised the dignity and pride that swelled within our breasts.

Then there was a rush to the Pathology Block for refreshments. I must mention here, that all the profuse sweating we had in the hot Sun was overshadowed and eclipsed by the sweating that we had to undergo to get at those temptingly cool drinks.

Then to the meeting—For the first time the dais with the pleasing National colours in the background, and the President and Principal in the fore-front created a picture so picturesque that it defies and defeats the flow of expression from my pen.

Then to our utmost joy the welcome speech of our President, the infusing inspiration given to us by Major Sangham Lal, the mild yet characteristically witty speech of Dr. Mannadi Nair, in a voice more resembling the tinklings of silver bells; and last but not least, the ever-friendly, humorous concluding remarks of our Prinbipal gave us a day that cannot be forgotten in the annals of the history of Medical College.

It was on that day, we remembered more than anything else our Martyrs, the immortal sons and daughters of India, who gave their all expecting nothing, who underwent torture to bring this 'Happiest Day' nearer and sooner, who sacrificed their lives at the "Altar of Freedom", and who by their precious blood, built this superstructure of Freedom, with countless, innumerable, invaluable, priceless skeletons as the solid foundation stone.

We pray and sincerely wish that along with the Freedom given us, we learn to know the heavy responsibilities associated with it, train ourselves to uphold its cause and we again pray that we may not lose 'the bliss of the touch of the One in the play of the many.

Our Dreams Came True.

By

Miss RAM BAI MUDALIAR.

"August 15th!" two words which were perhaps insignificant in the past years have now come to mean so much to every Indian heart—They cause a thrill in every fibre of patriots. This day was *the* turning point in the pages of Indian History —it was the panacea for all the misery and unhappiness endured for more than a century—it was the day when India became FREE!

The Independence Day was celebrated in every nook and corner of the motherland, and we, the Hostel Students had our due share in the grand celebrations. Weeks before the actual day—there were plans and preparations as to how to celebrate this great day. It was decided to have a dinner out on the lawns—on the eve of Independence Day and to illuminate the whole Hostel in true Indian fashion with "aggals". As August 15th approached nearer and nearer—there was a general air of excitement and happiness in the atmosphere. Every one was willing to do her best and never before has there been greater co-operation. To add to this our Hostel Secretary was very enthusiastic and full of ideas, and but for her it would not perhaps have been so memorable an occasion as it proved to be.

On the 14th of August we had dinner on the lawns. Mrs. Cherian and Mrs. Ananthanarayana Iyer had graciously accepted our invitation. There was music and also an entertainment (eleventh hour preparation!). The lawns were illuminated, and tables were arranged under the trees for the dinner. The scene was pleasant to look at, the music was sweet to hear, the food was delicious to taste, but all these were like stars when compared with the Moon—the unique occasion—August 15th. Every Tansen, Charles Boyer and Greer Garson of the Hostel did her little bit, and made the affair a grand success. The tableau, in particular, brought out the significance of the day, by showing Madame Cama, the first Indian lady to unfurl the Tricolour in 1908.

At last, the guests departed, and we retired tired—but happy. We had barely snatched a few hours sleep, when lo! it was dawn, and we went up to the terrace to witness one of the most sacred and solemn ceremonies, the hoisting of our Flag.

The Hostel Secretary hoisted the flag, and our eager eyes followed it as it went up. It was only a piece of coloured cloth—but oh! how precious and sacred to us! There it was, flying gloriously and triumphantly and our hearts were bursting with love and pride, yes pride, for the beloved was at last restored to its own.

In the stillness of the early hours, midst the murmuring of the gentle leaves, with golden sun peeping at us through a thick heavy curtain of cloud—we took the Independence pledge.

"I, a citizen of India, do dedicate myself to the service of India and her People to the end that this ancient land attain its rightful and honoured place in the world and make its full and willing contribution to the promotion of world peace and welfare of mankind." Several students then spoke in touching words about the significance of the occasion. The function came to a happy close with the singing of "Jana gana Mana"

The hours flew past. It was evening and everyone was busy engaged in lighting the "aggals." They were all arranged on the walls of the three flats, and on the terrace. Great care was taken to see that each aggal was at the same correct distance of twelve inches from its neighbour. Every aggal received the same equal quantity of oil and was provided with a wick. At last, when the sun had gone down and it was twilight, we lit the aggals with great show and pomp. Some would say we were too ardent and enthusiastic, others that we were perfect fools—but whatever it was, the fates ordained otherwise—a quck gust of wind and behold!—darkness everywere. But we were dauntless, and tried again and once again. Nature had her own will. Then some of us desperately tried to cut off the wind by surrounding the aggals and bending over them—some of us nearly fell over them. But all in vain—and so in the end—we gave it up. Only then did we notice that the few electric lights we had fixed round the flag did not burn. One of the bulbs had fused, we learned later: and so the whole thing was off.

Silently and slowly we turned to go down—there was a sudden shout—we listened—our brothers next door were passing acid ramarks and were congratulating us about the Hostel illumination! This was the last straw. We turned round, and fled downstairs as fast as our quaking legs would allow us.

* * *

The Bus trips from the Hostel to see the city illuminations were a grand success.

Our dream had come true and we were happy. I cannot end better than by quoting Jawaharlal: "The service of India means the service of the millions who suffer. It means the end of poverty and ignorance and disease and inequality of opportunity. The ambition of the greatest man of our generation has been to wipe every tear from every eye. That may be beyond us, but so long as there are tears and suffering, so long our work will not be over."

Heralding the Dawn.

In the Hostel (Men's Section)

By

K. JAYARAMACHANDRAN

All the other 364 days in the Year 1947 can justifiably be jealous of August 15th. August 15th had just 24 hours as any other day, and the sun rose in the east and set in the west and the day was as sticky and sultry as ever. But 15th August 1947 signified something really great and memorable to every Indian within and without. It was the great day of liberation, of freedom from foreign domination, freedom to have and salute his own national flag.

The hostelers in the men's section are never wanting in anything either by way of enthusiasm, energy or finance to celeberate such occasions. The hostel was illuminated in a very tasteful, colourful and schematic way, as the three storeys were lit in the national stripe of colours. The hostel was lit so luxuriantly that it was sparkling and scintillating with dazzling effulgence. The hostelers had one of the most extravagant dinners ever had by any institution on that day. It was particularly welcome as a sort of relief from the rationed diet we otherwise had. After the very enjoyable dinner in the lawn we had a gala enterainment noteworthy for its undiluted mirth, unbounded jollity, unadulterated happiness and unlimited gaiety enhanced by the fact of its spontaneity and casual informality. There was no exception to the universal enjoyment that pervaded and perfumed the whole atmosphere.

Some of the hostelers, particularly the gay type, could not contain their feelings of unreserved delight that they had to share their joy with the rest. As they were circumscribed by no pigmy limitations, they with their entertainments, transported the gathering to the boundaries of extreme ecstasy.

Just before Zero hour on the 14th-15th night Dr. P. V, Cherian, our popular Principal, spoke a few words, suited to the occasion in his usual inimitable way. Then Mr. S. Muthuvairu, the General Secretary of the hostel, gave a brilliant piece of oration welcoming the gathering. Then Dr. S. A. Kabir, our satyagrahi of whom and of whose contribution to the cause of the country we are really proud, made a stirring speech. His speech was interrupted by the zero hour which could not be missed of course.

Then exactly at zero hour with the birth of 15th of August was born our Independence. Not wasting a minute of the hard earned anxiously awaited freedom, we had our brother Dr. S. A. Kabir hoist the national flag on our hostel buildings to the accompaniment of church bells, temple songs, A.R.P. sirens, engine whistles and showering of flowers on the flag and fireworks on the terrace. As the flag went up the pole, all flood lit, the audience stood as one man and there was not a single soul that was not ensnared and enthralled by the solemnity and thrill of the moment. Shouts of Mahatma Gandhi-ki-jai, Subash Bose-ki-jai etc. were lustily and heartily responded to. It was one of the grandest, gayest and greatest functions in the hostel. After the flag salutation Dr. A. Ananthanarayana Iyer addressed the gathering stirring the imagination of the audience. He gave a very intelligent, and brief chronological survey of the history and culture of India, and reminded us of the responsibility shifted on our shoulders. Independence though it was our goal is but a means to an end. Let us pray and hope that we will be equal to the task and have the courage and honesty of purpose in serving the people ofour great country and be the beacon light that guides all the other nations of the world.

With a vote of thanks proposed by the General Secretary Mr. S. Muthuvairu, the pleasant function terminated. Yet the exuberance of spirit was boundless and as a hangover the revelry continued far into the night.

At School

Teacher :—Johnnie, why didn't you come to school yesterday ?

Johnnie :—My mother gave birth to a new baby.

Teacher :—But, Johnnie, only last month you gave me the same excuse.

Johnnie (undaunted) :—They are twins but the second baby got stalled and was late in coming.

Among Colleagues

How has Doctor N. settled his first case of fracture ?

Oh, fine ! Joints immobilised, fracture movable.

M. M. C. Association.

Inaugural address.

The Madras Medical College Association was initiated into the activities of the new Academic year by no less a person than Dr. Sir A. Lakshmanaswami Mudaliar who held the Hall enthralled, by his Inaugural address on the 12th August.

Our Student president, Mr. P. Rama murti, presided and welcomed Sir A. L. Mudaliar to the haunts of his past activities. Stressing the cultural greatness of the past, he recapitulated the glories of Asoka's reign and said that in the momentous year before us the youth were faced with the task of cultural reconstruction, and re-Orientation of our Society. It was essential to build up character and discipline and cultivate a spirit of service so that we may forge on the anvil of Freedom the greatness that was once ours.

Rising amidst thundering applause Sir A. L. Mudaliar emphatically stressed that a great responsibility devolved upon the youths of this country and the building up of the future well being and happiness of the people depended to a large extent upon the medical profession.

He started in a reminescent mood and in comparing the state of tension and strain that existed between the Teacher and the taught in his days, with the wide facilities and co-operation that is widely prevalent in the present day, he felt that there was every possibility of great advance being made in scientific and research work in medicine. Recapitulating the great achievements of the famous Scientists of the past he stressed the need for the power of observation and tried a quiz on the audience as to the number of stairs that had to be climbed to the examination Hall. Dwelling at length on his Professor, Donovan, he made a spirited appeal to the students asking them to develop the incentive for research. He deplored the lack of outstanding contribution by Indian Doctors to other fields of work, and he demanded that this institution should be second to none, not only in India but in other parts of the world in the matter of research, and it rested with the students and professors of this College to build up such a reputation.

Not merely encouragements but also great organisations were going to be introduced in the near future for Scientific research and our College should be one of the pioneers in the search for knowledge. He hoped that, both the Central and Provincial Governments, in spite of their various financial problems would successfully pilot those who showed enthusiasm for research work.

Proceeding Sir. A. L. Mudaliar dwelt on the responsibilities of the medical profession to the Common Public and it was the duty of every doctor to place his services unreservedly in the hands of the common people thereby preserving the nobility of the profession.

Dr. P. V. Cherian, our Principal, applauding the need for medical knowledge, assured Sir A. L. Mudaliar that provided there were proper facilities and more staff, the students of this College would very willingly co-operate in contributing their mite to the vast field of Medical research.

Then the President in his concluding remarks contradicted Sir A. L. Mudaliar for deploring the fact that there were no outstanding contribution from the medical profession to other Departments and it was paradoxical that these words should emanate from Sir A. L. Mudaliar who had distinguished himself as a Vice - Chancellor. Another outstanding example was Dr. B. C. Roy who has been appointed governor of U. P.

The meeting terminated after a vote of thanks proposed by the General Secretary of the Association.

"Oh, Lord," prayed Sally, our student nurse, "I'm not asking a thing for myself, but please send my mother a son-in-law."

A young man was introdueed to a remarkably pretty girl and was told that she was a nurse. In the course of a conversation he said, "if ever I have an accident I would like to come to your hospital." She, "if you are brought to my hospital it won't be an accident, it will be a miracle, as I am in the maternity hospital."

Patient :—"Help me in my trouble, Professor.

Professor :—What is your tronble ?

Patient :—I am a soliloquist.

Professor :—That isn't such great trouble—

Patient (interrupting) :—But, professor, I am a terrible [illegible]

For.

Everyone. Any day Any month Any year.

℞

Happiness	...	ad lib
Sunshine	...	q. s.
Laughter	...	ad infinitum
Fiat Mistura	...	

One joke to be taken at a time, immediately after the preceding one The medicine to be stopped when the patient's sides split or signs of breathlessness manifest themselves. To be continued again as soon as these signs vanish. To be taken throughout life.

Editors.

A damsel at Madras named Breeze,
Weighed down with B. Litt's and M.D's,
Collapsed from the strain.
Said her doctor, "It's plain
You are killing yourself—by degrees."

"Wallis," said Mrs. Howe firmly. "Junior is now eleven years old and it is high time that you told him about the bees and the flowers."

"Aw gee," said Howe, "I can't go through that song and dance."

"You'll have to," insisted Mrs. Howe, "or Lord knows what trouble he'll be getting himself into."

The reluctant father closeted himself with his bright-eyed young son. "Junior," he said slowly," guess you're old enough by this time to know how babies come, aren't you?"

"Why, of course, Pop," said Junior. "I have known all about that for years."

"Thank heaven," sighed Mr. Howe with relief "Well, Junior, it is exactly the same with the bees and the flowers."

A man rushed into a corner drugstore and demanded a quick cure for a serious case of hiccoughs. The druggist promptly picked up a bottle and cracked it over the man's head. Down he went with a groan. "What did you do that for?" he moaned

The druggist smiled proudly. "You haven't got your hiccoughs any more, have you?" he gloated.

"It wasn't for me," gasped the man. "I needed it for my wife. She is sitting in the car outside."
