

## GLEANINGS FROM THE TRAVELOGUE OF THE TRAVELLER NICHOLAS SENN

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### ABSTRACT

The Traveller Nicholas senn, visited India in the early part of this century, to make detailed enquiries about the development of medical science, general education and to obtain proficiency in the professions and arts. According to him revolutionary changes were taking place day to day in research and discoveries in the fields of science and also in the practice of medicine and surgery at that time. Scientific work was no longer confined to a favoured institutions, it may be seen in all parts of the civilized globe. A personal acquaintance with men who have earned a well-merited reputation in the advancement of medical profession is a source of great gratification and excites a new interest in the work he has accomplished.

### Introduction :

Traveller Nicholas senn, M.D., Ph.D., L.L.D.I.M was professor of surgery in University of Chicago, professor and head of the surgical Dept. Rush Medical College, Surgeon-in chief in St. Joseph's Hospital Surgeon General of Illionois, Liectenant colonel and chief of the operating staff with the army in the field, during the spanish American war, etc. He travelled different parts of the world via INDIA and wrote a book entitled "Around the world via INDIA" (A MEDICAL tour) which was more especially intended for medical information of all sorts general and professional. Author Nicholas senn in his explanatory remarks at the beginning of this book denoted that "This book is more especially intended for his travels in different parts of the world, and to whom he was chiefly indèbted for many courtesies and much information. The text

consists of a series of articles published in the journal association. Many illustrations have been added which the author hopes will enhance the value of the book."

Certainly this book consists of handful information related to the establishment and development of Medical schools and Hospitals during the period of latter part of the 19th century to early part of 20th Century. Nicholas senn left San Francisco on July 7th in the year 1904 on the steamer "SIERRA" and reached Harbour of New York on 11th october exactly 3 months 3 days. He travelled thousand of miles from San Francisco to Hawaian islands Soma, Newzealand, Australia, Cylone and finally reached to madras on 30th August 1904. At that time India with its 300,000,000 in -habitants had only four medical colleges located at Madras, Calcutta, Lahore and Bombay. These four medical schools were affiliated to the respective universities. The

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following information is based on the excerpts from his 'travlogue' about his observations on the medical and scientific environment prevalent at that time in India. Although all of these medical schools were affiliated to the respective universities, on recommendation of the medical facilities the universities confer degree but the medical schools receive no financial aid from the universities and set their own standards of requirements for admission and graduation. All the medical schools are patterned after those of the U.K. as to requirements for admission, graduation and methods of teaching.

According to Nicholas senn the great stumbling block of the Indian Medical student of that time was language. a knowledge of Latin was a *rara avis* and the meaning of ordinary English words was hard for them to express and comprehend. The teachers were finding this imperfect knowledge of the English language as the greatest drawback ingrafting their ideas in to the minds of students. the total number of medical students in the different institutions present at that time was about 2,000. The classes have increased in size very rapidly indeed that space and equipment in all of the medical schools making them entirely inadequate. Nicholas senn has seen the students in the different medical colleges and was impressed with their lively, cheerfull dispositions and their devotion to their work.

The teaching force as a rule was inadequate in number in all the schools and as a consequence the men were 'over-worked'. He mentions one striking instance of this about Lt. Colnel Dimmock of Bombay who was the director of the

Jamsetjee Jeejeebhoy Hospital, principal of Grant Medical College, and professor of Obstetrics, Gynecology and Pediatrics. The men of the Indian medical service who were engaged in medical teaching were over burdened and under-paid.

Nicholas senn has given a brief description of following account of various medical colleges and hospitals of india.

#### **Madras Medical College :**

The Madras medical college was originally established as a medical school in 1835 (Fig. 1). The classes received their instruction at first in rooms adjoining the quarters of the surgeon general of the general hospital. The main building of the medical school was opened in 1836. The medical school commenced with a teaching force of seven, ten medical apprentice and eleven native medical pupils. Private students were first admitted in 1838. They obtained free education in common with government students. In 1851 it became a college and in 1857 it was placed in the list of affiliated institutions. The buildings were altered and enlarged in 1867. In 1885 separate anatomic buildings were esteemed to which were added a theatre with a dissecting unit and a museum in 1887-88 (Fig.2). Separate buildings for biologic and hygienic laboratories followed.

In 1875 the college admitted on its rolls three new classes of students - viz., candidates for the degree of Licentiate in medicine and surgery for the new grade of civil apothecary and female students. The principal of the college at that time (1903 - 1904) was Lt-col. J.Maitland, M.D., I.M.S., F.M.U. The teaching staff consists of 23 professors and assistant professors, and the number of students 400. The

calender for 1904 - 1905 contains the following regulations.

**Dress for Natives Only :**

1) The Typical Dress : The turban a long or short coat buttoned up to the neck, trousers socks and English shoes.

2) Modifications Permissible :

- a) Students who wear a turban or who shave the scalp must wear a turban.
- b) Students who dress their hair after the European fashion may wear caps but indoors if their dress is otherwise-European the cap must be removed.
- c) Mohammedians may be allowed to wear the fez on ordinary occasions, but not at ceremonial observances.
- d) Any student may wear a dhoti or munda, but he must then go bare footed indoors or wear socks and European shoes.

3) All articles of dress, whatever the material must be clean.

The students for the M.B. and C.M section must pass the first examination in arts of this university or an examination accepted by the syndicate as equivalent there to. The course of training for this class extends over five years and the fees charged for tuition are :

- For the first year study - 100 Rs.
  - For the second year of study - 155 Rs.
  - For the third year of study - 155 Rs.
  - For the fourth year of study - 100 Rs.
  - For the final year of study - 100 Rs.
- or if paid in one sum on joining college, 500 Rupees.

The course for the L.M. & S degree extends over four years and the fees charged for the whole course if paid in advance amount 470 rupees. The candidates for these degrees are obliged to

pass only three examinations. The first examination included one course in each of the following branches: Anatomy, physiology, chemistry, practical chemistry practical pharmacy & Histology. The second includes one course in medicine, surgery, materia medica and therapeutics general pathology and bacteriology, hygiene, practical hygiene, medical jurisprudence, minor surgery. The third and final examination includes midwifery and diseases special to mental diseases and surgery. The examination test for the degree of M.B. and C.M. is much more severe. Provision is made for the education of military pupils for the Indian subordinate medical dept., colonial apprentice, apothecaries, male and female chemists and druggists. The Madras Medical college offers nine medals, eleven prizes and ten scholarships annually.

**Madras Government General Hospital :**

This institution is intimately connected with and in fact is, the clinical part of the Madras Medical college, all of the attending Physicians and surgeons being members of its faculty. The hospital is made up of two story pavilion buildings around a spacious square court ornamented with tropical trees, shrubs and flowers. It can accommodate 450 patients. The amount and variety of clinical material in this institution is simply enormous and one of the best in India. N. Senn found a great many emergency cases in this hospital, like fractures, accidental wounds, number of cases of abscess of the liver and hernia etc., Elephantiasis of the scrotum is very frequently operated here. An unusual number of cases of the mouth find their way in to this hospital. Carcinoma of the cheek

alone accounts for almost one third most commonly affected in Hindus and Muslims, male and females.

The nursing in the M.G.H. is incharge of 28 trained female nurses, male ward attendants and 21 female ward attendants. During the year 1903 - 1904 the institution cared for 60,842 out patients and 7,177 in-patients. The total number of deaths were 644. The total number of operations performed 6,281 with a mortality of only 1.9 percent.

#### **Bengal Medical College and Calcutta Government General Hospital :**

The medical interests of Calcutta a city of great commercial importance with nearly a million of inhabitants, centre is the Bengal Medical college and Govt. General Hospital, its clinical department and hospital are located on the same spacious grounds artificially laid out intersected by well made and well kept walls ornamented with trees shrubs and flowers (Fig.3). Both institutions are managed by offices of the Indian medical service, who constitute the faculty of the college and attending staff of hospital thus cementing together the didactic and clinical teaching and uniting them practically under one administration, and securing uniformity in the methods of teaching and a systematic progression of the courses from year to year.

#### **Bengal Medical College :**

The Bengal Medical College was founded in 1830, and from a small beginning has gradually developed into a great medical school with an attendance at the present time (1904) of about 600 students. The college as well as the hospital which in reality forms an integral part of it, had to be enlarged from time to time in

order to accommodate the rapidly increasing number of students. Separate laboratory buildings have been intended and fairly well equipped.

Then there are special provisions made for female medical students and military pupils. Admission to female medical students regulated by principal and for military pupils by the Director general of the I.M.S. Female medical students entering as regular or female certificate students are eligible for a government scholarship 20 rupees per month and are not charged any fees (Fig.4).

#### **Midwives and Dias :**

The Bengal Medical college has undertaken the education of midwives a very commendable extension of its wide field of usefulness. The regulations for this dept. are formulated under this heading.

Women who have a fair knowledge of English, but also have not passed the entrance examination or its equivalents will be admitted into Eden hospital to learn midwifery. The Government grants 20 rupees a month towards the board, washing etc. with free of quarters. After years tuition and beside practice, if found proficient, they will obtain a qualifying certificate. The fee for each certificate is 5 Rupees only.

#### **Calcutta Government General Hospital :**

The Calcutta Govt. General Hospital is vterually the clinical part of the Bengal Medical college. The Eden Hospital (Fig.5), a seperate new modern building in the maternity in which about 600 women are delivered every year. The strictest cleanliness prevails here. The original hospital building is an old fashioned which can accomodate 450 patients and has a few

private rooms for which a charge of 22 rupees a day. The operating room has a small amphi theatre which affords standing room for the students as in all hospitals in India, chloroform is the favourite anesthetic and the binioded of mercury takes the first place as antiseptic.

Abscess of the liver appears to be extremely common in this part of India, as professor Bird operated on twenty cases in two years. As in Europe carcinoma in all its forms is met with here with the same frequency almost in all hospitals in India. N.Senn found the greatest variety of Malaria and its multitude of complications. The out-patient department is utilized to the greatest advantage and it is here that the sutdents are given the best opportunities to come in touch with the patients. The average medical student in india has a keener taste for practical work than for Scientific research and consequently makes good use of his clinical opportunities. The female medical students are no exception to this role.

#### **Jaipur Mayo Hospital :**

The Mayo hospital, so called in memory of a former governor of this part of India is the government General hospital of Jaipur and is the largest out of the twenty six hospitals of this state. It has a superb location, building, beautiful garden and the fine state of the governor name it commemorates.

The hospital has accomdations for 160 patients into the capacious wards well lighted and ventilated but the furniture is scanty and of the simplest kind. During the year 1903, 24648 out patients and 2,124 in patients were treated here. During the same year 696 major minor operations were

performed.

#### **Grant Medical College And The Hospitals of Bombay :**

Bombay with the 800,000 inhabitants, is the commercial metropolis and medical centre of India. The city has many and varied medical institutions that awaken the interest of the professional visitor. The most important among these is the Grant medical college the largest medical school in India, opened its doors to medical students in 1845 (Fig. 6), from a modest beginning it has developed into a great medical school with an attendance of more than 600. The female medical students number about sixty and with exception of two or three white women students. Some receive hospital positions with small salaries Rupees 100 to 200 month, others enter private practice but seldom meet with great success.

The professors are selected from the I.M.S. with special reference to their aptitude to teach the different branches. The principal chairs, medicine surgery and obstetrics, are occupied by men who have had an extensive experience, while the primary branches, especially pathology and bacteriology are usually taught by the juniors.

The original Grant Medical college, so called in honour of the former governor of Bombay in a substantial venerable, two story stone buildings with the increasing demand for space, additional buildings have been erected with massive stone and marble floors for dissecting room, chemical and pathological laboratories.

The Curriculam of study for the M.B. and B.S. degree extends over five years and includes the following studies.

**FIRST YEAR :** Biology, Botany, Chemistry, Practical Chemistry, Meteria medica and Practical Pharmacy.

**SECOND YEAR :** Anatomy, Botany, Chemistry, Practical Chemistry, Meteria medica, practical Pharmacy and Physiology.

**THIRD YEAR :** Physiology, Histology and practical Physiology and Anatomy.

**FOURTH YEAR :** Medicine, Surgery, Pathology, hygiene, diseases of women and children, demonstrations in Pathology clinical practice and female O.P. rooms & pathology rooms.

**FIFTH YEAR :** Surgery Medicine, Diseases. of women and children, Operative surgery, clinical practice in medical, surgical, obstetric and surgical wards attendance at pathologic room.

**Jamsedjee and Jeejeebhoy Hospital :**

This hospital is one of the oldest and best known of the many Bombay hospitals. it bears the name of Parsee who built it at his expense and presented it to the government in 1845.

Mr. J.J. was a poor man but made a fortune by buying and selling bottles. Hence the hospital is still known as "Bottle Hospital" A full sized statue of stone half reclining position in the main entrance hall of the hospital does honor to the memory of its founder. The hospital is for the exclusive use of the native sick poor and is maintained entirely at government expense.

Three new-story stone pavilions were opened in 1892, **The Sir. Dinshaw Petit Hospital** for diseases of women and children, **The Bai Motlaibai Meternity and the ophthalmic Hospital** each with a capacity for 40 patients. About 800 women

are delivered annually in the meternity hospital and two students attend the each case. The nursing of this intitution leaves much to be desired. The trained female nurses are inadequate in number.

**Homeless Leper Asylum, Matunga, Bombay :**

It is in the largest leper asylum in India and at present it is in the home of 370 lepers. The inmates are wellcared for. Mr. H.A. Acworth. I.C.S, C.I.E., Municipal commissioner for the city of Bombay from 1890 to 95 is the founder of this model institution, as it was through his influence that the necessary funds were obtained.

The report of the asylum shows about the following proportion of the various religious beliefs of the in mates.

Hindus (Marattas)	- 66.43%
Mohammedans	- 9.32%
Christians	- 10.61%
Hindus (Low Caste)	- 13.41%
Others	- 23.00%

**The Plague Research Laboratory of the Govt. Of India Parel, Bombay :**

This institution owes its origin to Mr. **W.M. Haffkine**, C.I.E. a Russian Scientist who has rendered India such signal service since 1893, first by his prophylactic treatment of Cholera by serum inoculations and later by his discovery of serum the Plague. According to many scientists of that time, the serum treatment in the prevention of the Bubonic Plague, devised by Haffkin is reliable and specific in its result. The immunity thus obtained remains throughout an epidemic and has been known to last two years. Haffkine receives a salary of 2000 Rupees a month.

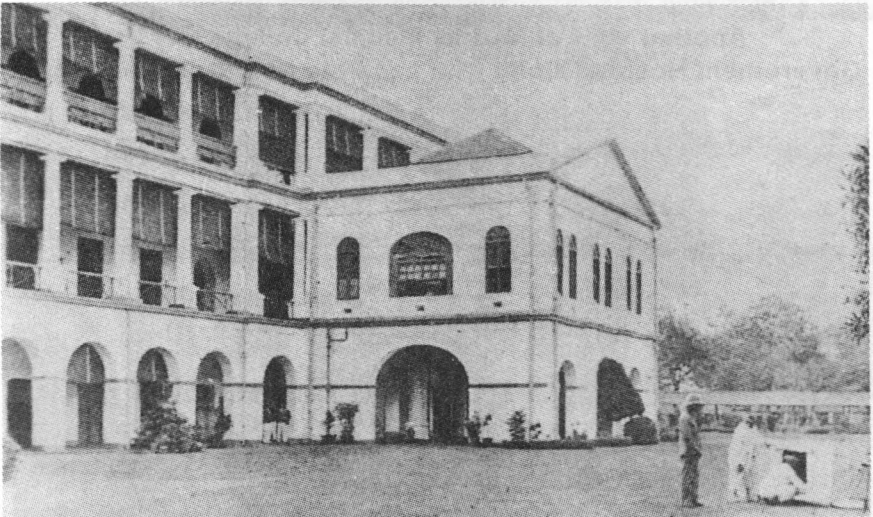
**Bombay Bubonic Plague Hospital :**

This hospital is located outside of the city limits and consists of a row of one story brick buildings which serve as wards. During the height of the epidemic as many as 30 patients a day were admitted from the city and near by villages. The mortality has been very great.

At the time of Nicholas Senn visit about 25 patients remained in all stages of the diseases. Three heroic trained female nurses take care of the sick, aided by male and female helpers. One of these nurses has been on constant duty since the epidemic commenced more than four years

ago, and notwithstanding the arduous and trying duties that she has so faithfully performed her general health has not suffered.

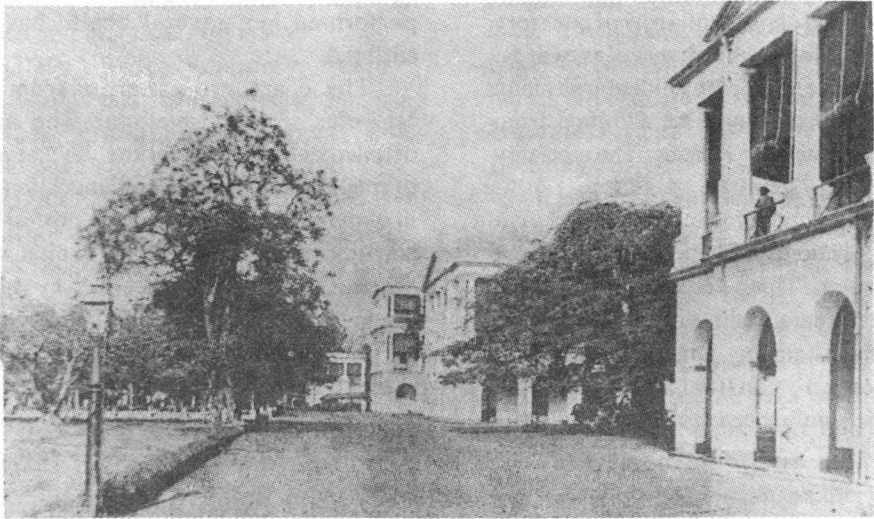
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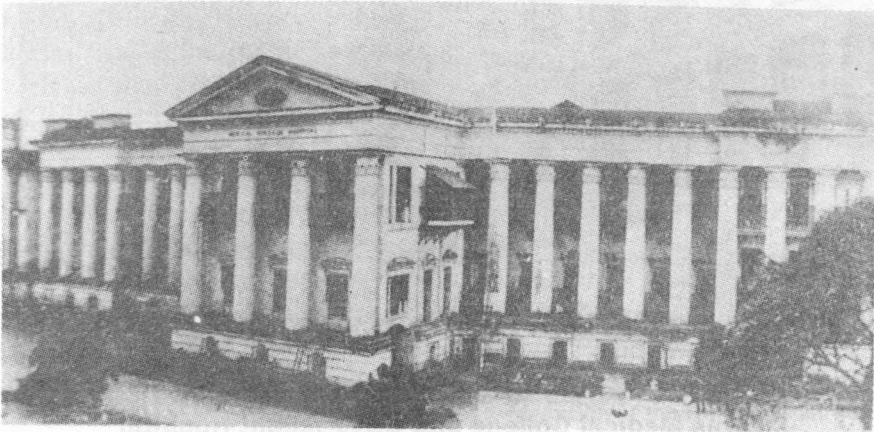
**Madras Medical College and Government Hospital**

Bengal Medical College, Calcutta  
The Madras Hospital, Calcutta



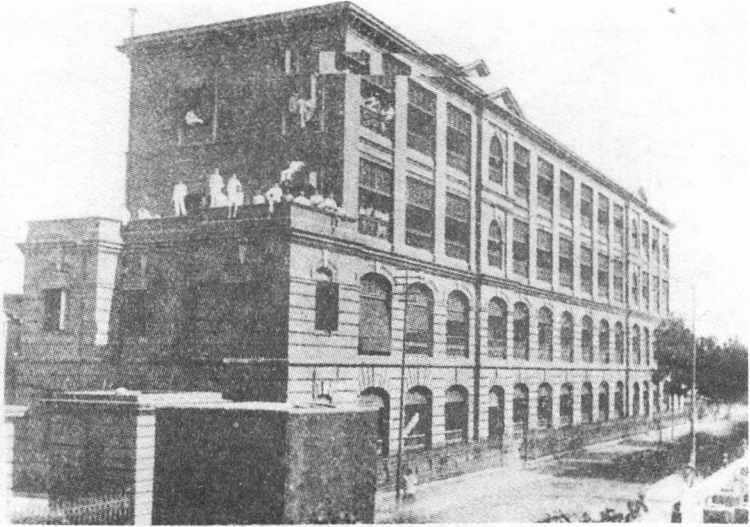


**Another view of Madras Medical College and Government Hospital along with separate anatomic buildings**

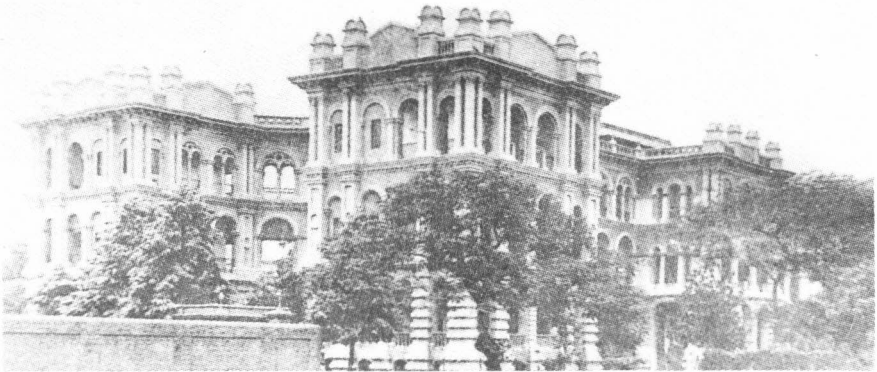


**Bengal Medical College, Calcutta**

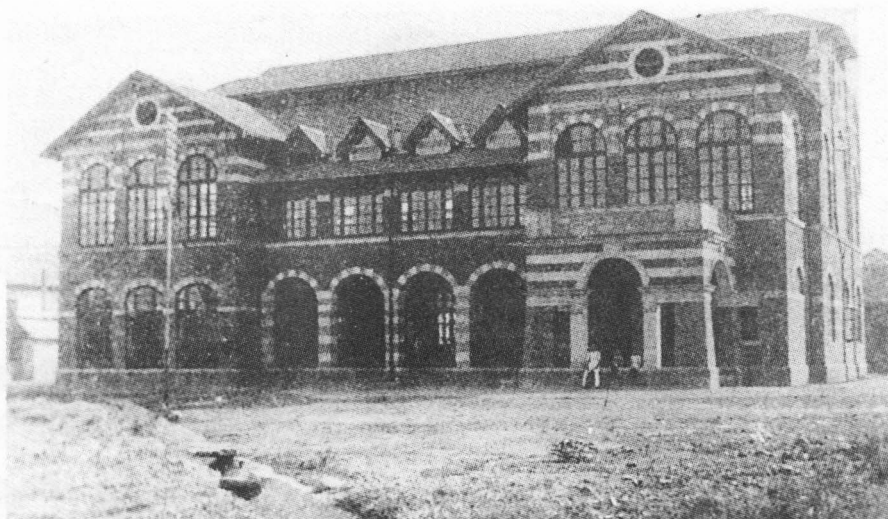




**Quarters for military pupils**



**The Eden Hospital, Calcutta**



**Grant Medical College, Bombay**

सारांश

## यात्री निकोलास सेन के यात्रा-वृत्त से संकलन

-पी. के. जे. पी. सुभक्ता

सामान्यतया चिकित्सा विज्ञान तथा शिक्षा के विकास के विषय में विस्तृत जानकारी प्राप्त करने तथा विभिन्न व्यवसायों एवं कलाओं में प्रवीणता प्राप्त करने के लिये निकोलास सेन नामक एक यात्री इसी शताब्दी के प्रारम्भिक काल में भारत आया था। इस सम्बन्ध में उसके यात्रा-वृत्त से संकलित तथ्यों के अनुसार उस काल में भारत में विज्ञान एवं चिकित्सा तथा शल्यकर्म के क्षेत्र में अनुसंधान चल रहा था और दिन प्रति दिन क्रांतिकारी बदलाव आ रहे थे। इन्हीं तथ्यों पर इस लेख में प्रकाश डालने का प्रयास किया गया है।