

CHAPTER VI.

MEDICAL AND SANITARY.

1. THE ORGANIZATION OF THE MEDICAL AND SANITARY DEPARTMENTS.

Prior to the Rendition.

Direction.

PRIOR to 1831, there was a Durbar Surgeon attached to the Court, who superintended His Highness' Hospital at Mysore. After the assumption of the Government by the British, the Surgeon to the Mysore Commission was stationed at Bangalore and had charge of the Bowring Civil Hospital, the Leper Hospital and the Lunatic Asylum, as well as the general control of vaccination, while another Medical Officer was Superintendent of the Central Jail and had the supervision of the Petta Dispensary.

There was a Civil Surgeon at the Head-quarters of each of the other two Divisions, who was also Superintendent of the Local Jail and Inspector of all Medical Institutions within the limits of the Division. The Deputy Surgeon-General, Indian Medical Department, for Mysore and the Ceded Districts, personally inspected the institutions at Bangalore and others which happened to lie in the routes of his official tours. He also acted as Sanitary Commissioner and Registrar of Vital Statistics.

In 1871, rules for the establishment of a Native Sub-ordinate Medical Department, in the grade of Hospital Assistants, for local service in Mysore, were sanctioned by the Government of India. The rules provided for the training of medical pupils to qualify them for the

grade of Hospital Assistants on stipends. The pupils, on completing their college career, and passing the prescribed examination were eligible to receive the designation of "Passed Medical Pupils," and a pay of Rs. 16 till promoted to the last grade of Hospital Assistants. The Hospital Assistants were divided into three classes on a pay of Rs. 25, 40 and 60 per mensem, promotion from class to class being earned after seven years' approved service and after passing a professional examination. The training consisted of two courses, one of a Pre-collegiate Course of two years during which period the pupils were attached to the Civil Hospitals and the other of a study of two years in the Medical College, Madras.

The Deputy Surgeon-General was withdrawn from 1st April 1880 and his administrative duties, so far as Mysore was concerned, were transferred to the Surgeon to the Mysore Commission.

After the Rendition.

A complete re-organisation of the medical establishment of the State was in contemplation since the Rendition, but it had to be postponed for some time in consideration of the inconvenience that it would cause to a number of medical subordinates by their reversion to the Madras service without previous notice. In May 1884, a definite scheme was laid down for a local medical service composed chiefly of duly qualified Indians. Under this scheme, it was considered sufficient to have in the State Service two competent European Medical officers, one, a covenanted officer of high standing, to be the head of the Medical Department and Chief Adviser to the Government, having charge of all institutions at Bangalore, and the other, to have charge of medical duties at Mysore. The head of the Medical Department being the *senior* of the covenanted medical officers

Direction.

(Surgeon) in the service, came to be designated as "Senior Surgeon." The other officer, who was Durbar Surgeon at Mysore, was also the Chemical Examiner till 1897. Till March 1886, the services of three covenanted Medical Officers of the British service then serving in Mysore were retained.

The local Medical Officers were divided into:—

(1) Surgeons of three grades on a pay of Rs. 350, 450 and 500 rising from one grade to the next higher after five years' approved service; (2) Assistant Surgeons of three grades on a pay of Rs. 100, 150 and 200 rising from one grade to the next higher after an approved service of five to seven years; and (3) Hospital Assistants.

In 1887, a grade of Senior Hospital Assistants was created and in 1888 a grade of Sub-Assistant Surgeons of three classes on Rs. 80, 100 and 120. The number of grades of Sub-Assistant Surgeons was subsequently reduced to two, 1st class Rs. 90 plus 30 allowance and 2nd class Rs. 70 plus 30.

Improvement
of the service
in 1897.

In 1897, the Government, with a view to strengthen the Medical Service and improve the pay and prospects of the members of the various grades, sanctioned certain proposals of the Senior Surgeon and, consequently, the number of grades of Civil Surgeons was reduced from three to two, the first class carrying with it a pay of Rs. 600 and the second class, Rs. 500. The number of grades of Assistant Surgeons was increased from three to four and the pay was fixed at Rs. 300, 250, 200 and 150 a month. A grade of Specialists for officers engaged on special lines of Medical work was recognised and the pay of the two officers then working as specialists (one as Oculist and another as Chemical Examiner and Bacteriologist) was fixed at Rs. 300 maximum. The two classes of Sub-Assistant Surgeons on Rs. 90 plus 30 and 70 plus 30 were increased to three, on a pay of Rs. 120,

100 and 80 respectively, promotion from one class to another being given after two or three years of approved service. The number of Sub-Assistant Surgeons was also raised from 6 to 12. For the special benefit of women doctors, a grade of Apothecaries was sanctioned, consisting of four classes on Rs. 75, 100, 125 and 150, promotion from one class to the next higher being regulated by approved service of five years. Apothecaries and Senior Hospital Assistants were declared eligible for promotion to the grades of Honorary Sub-Assistant Surgeons and Assistant Surgeons on a pay ranging from Rs. 100 to 150. The question of having a third class of Civil Surgeons on a pay of Rs. 400, which was left undecided in 1897, was settled in July 1900 by the promotion of certain Assistant Surgeons to that grade.

Although the prospects of the superior officers of the department were improved from time to time, that of medical subordinates remained unchanged, till 1911. In that year, their designation was changed from "Hospital Assistants" to "Senior Sub-Assistant Surgeons" on Rs. 80 and 70 and Sub-Assistant Surgeons of four classes on Rs. 30, 40, 50 and 60. The Sub-Assistant Surgeons were styled "Assistant Surgeons" and "Civil Surgeons" were ordered to be styled as "Surgeons."

Reorganization in 1918.

In order to increase the efficiency of the department and to secure reasonable prospects to the members of the various grades, Government, in July 1918, sanctioned the reorganization of the department at an additional recurring cost of Rs. 80,000 per annum, by adding to the number of superior officers and also revising the pay of the several grades. The class of specialists was abolished. Excluding the Senior Surgeon, the number of Surgeons

was increased to 16 and distributed among the several grades as shown below :—

Grade	No.	Pay	Grade	No.	Pay
1st class ...	1	800-50-900	4th class ...	3	500
2nd class ...	2	700-50-800	5th class ...	3	450
3rd class ...	3	550-25-700	6th class ...	4	400

The strength of Assistant Surgeons was increased from 29 to 34 permanent and one temporary for Krishna-
rajasagara Works, and they were placed in two grades :—

Grade	No.	Pay
1st class ...	... 16	200-20-360
2nd class ..	... 18	120-10-200

The grade of Honorary Assistant Surgeons was abolished. To provide for proper recruitment to the grade of Assistant Surgeons, the entertainment of Medical Graduates on a pay of Rs. 80-5-100 was sanctioned, the number of Medical Graduates that could be borne in the department being not more than 9 at any time. The pay of the Lady Apothecaries was raised from Rs. 75-25-5-150 to Rs. 75-5-200. With a view to make the women's branch of the service more attractive, the following scale of allowances was sanctioned :—

Lady Surgeons : Rs. 50 per mensem.

Lady Assistant Surgeons and Apothecaries : Rs. 30 per mensem.

Lady Sub-Assistant Surgeons : Rs. 15 per mensem.

With a view to better, as far as possible, the pay and prospects of Sub-Assistant Surgeons, their scale of pay was revised as detailed below :—

	No.	Rs.
Senior Sub-Assistant Surgeons	6	90
Do do	12	80
Sub-Assistant Surgeons	172	35-10-5-65
(and after 20 years' service)		65-5-5-70

Two places in the Second Grade of Assistant Surgeons

have also been made available to Sub-Assistant Surgeons of proved merit.

Of the 50 officers constituting the gazetted ranks of the service in July 1925, as many as 10 held professional qualifications obtained in British Universities, and two had the benefit of foreign travel and study of the working of medical institutions in the different countries visited, while the rest were graduates in Medicine and Surgery of the Indian Universities.

A medical school was established in 1881 for the purpose of training Hospital Assistants but was closed in 1886, and scholarships were given to students to go through a course in the Madras or Bombay Medical Colleges. In view of certain difficulties expressed by the Government of Madras in the matter of finding accommodation in the several Medical Schools of the Presidency for the large number of students seeking admission therein, the Mysore Government sanctioned, in April 1917, a scheme for training locally Sub-Assistant Surgeons required for service in the State and directed that the Mysore Medical School be started from the 1st July 1917 at Bangalore with a small batch of sixteen first year pupils, the Medical Officer in charge of the Victoria Hospital acting as Principal. The course extends over a period of four years. The management of the school is vested in the Principal aided by a School Council, composed of himself and four lecturers, the Senior Surgeon exercising general supervision and control.

Medical Education.

Until recently, a limited number of scholarships were awarded by the Government every year to candidates possessing the necessary qualifications to enable them to qualify for Medical Degrees in any of the Indian Universities and selected candidates are required to give an agreement of five years' service, if called upon, after obtaining the medical qualification. The Medical

Graduates thus have secured places in the Gazetted ranks of the Medical Department.

Although the School is intended primarily for the training of Sub-Assistant Surgeons required for the State Medical Department, private candidates are also admitted when accommodation is available. A class in the Government Medical School, Bangalore, for training candidates in the art of compounding was formed in 1919. The facilities to pupil compounders were increased by making the training available in all District Head-quarter Hospitals and at Robertsonpet by an order of Government No. L. 4705-6—Med. 94-21-2, dated 17th February 1922. The Medical School was raised in the year 1924-25 to the grade of a College, preparing candidates for Medical Degrees. The College is affiliated to the University of Mysore.

Foreign scho-
larships.

With a view to improve the efficiency of the Department, Government have always been encouraging officers and young men of promise by the offer of liberal scholarships to proceed to foreign countries and obtain higher professional qualifications or to specialize in particular branches of the profession.

Female Medi-
cal Aid.

The question of providing female medical aid has always been kept in view by the Government. Liberal scholarships and stipends are granted to female candidates desirous of qualifying themselves as Sub-Assistant Surgeons or for University Degrees. At the close of 1924-25, there were, in the State Medical service, 20 Lady Medical Officers and Subordinates, two in the grade of Surgeons, six in the grade of Assistant Surgeons, seven Apothecaries and five Sub-Assistant Surgeons. With a view to avoid certain inconveniences and to remove certain hardships resulting to male and female members of the service from a combined cadre,

Government in July 1920 ordered the formation of a separate cadre for lady doctors consisting of Surgeons on Rs. 400 rising to Rs. 600 by triennial increments of Rs. 50 and a sex allowance of Rs. 50, Assistant Surgeons, 1st grade, on Rs. 200—20—360 and a sex allowance of Rs. 30, Assistant Surgeons, 2nd Grade, on Rs. 120—10—200 and a sex allowance of Rs. 30, Apothecaries on Rs. 75—5—200 with a sex allowance of Rs. 30 and Sub-Assistant Surgeons on Rs. 50 rising to Rs. 90 by triennial increments, and two prize appointments on Rs. 100 with a sex allowance of Rs. 10.

The Senior Surgeon to Government was made *ex-officio* Sanitary Commissioner in 1887; the duties pertaining to the latter office consisted mainly of scrutiny and compilation of birth and death returns, supervision of vaccination and control of epidemics such as cholera. Subsequently, the nature and scope of the duties increased very considerably and the control of plague operations for which there was a special Plague Commissioner from 1898 to 1902 was made part of the Sanitary Commissioner's duties in 1902.

Organization
of Sanitary
Department.

In 1907, the Government sanctioned a scheme for the organization of a separate Sanitary Service in the State, having for its aim the gradual introduction of a definite uniform policy of sanitary administration, and action in Districts. For purposes of administration, the State was divided into three divisions, *i.e.*, Western, Eastern, and Southern. The department as thus constituted was to consist of the Senior Surgeon as *ex-officio* Sanitary Commissioner and a full-time Deputy to relieve him of all routine work and assist him in controlling and administering the department, three Divisional Sanitary Officers, three Health Officers, eight District Sanitary Officers, a number of Sanitary Inspectors, Assistant Sanitary Inspectors and Vaccinators. The department was not,

however, fully organized owing to financial considerations and paucity of specially trained hands. The Cities of Bangalore, Mysore and the Kolar Gold Fields were each provided with a qualified Medical Officer of Health, and a Divisional Sanitary Officer was appointed for the Western Circle comprising the Shimoga, Kadur and Chitaldrug Districts. The District Medical Officers continued to be *ex-officio* District Sanitary Officers in other Districts.

In 1909-10, certain changes in the constitution of the department were made. The posts of Divisional Sanitary Officers were abolished and the scale of pay of the District Sanitary Officers was raised so as to attract qualified men. The District Sanitary Officers were placed in subordination to the Deputy Commissioners in all but strictly technical matters as to which they were directly under the Sanitary Commissioner. Under the revised scheme, three District Sanitary Officers were appointed for the Mysore, Kolar and Kadur Districts, and one for Shimoga in 1911. In order to complete the cadre of District Sanitary Officers, four licentiates in Medicine and Surgery from among the 1st Class Sub-Assistant Surgeons were sent to Madras, two in 1914 and two in 1915, with scholarships to obtain the necessary qualifications in Sanitary Science.

Government, finding that sanitary reform had not progressed as expeditiously as desirable, sanctioned in 1917 a further reorganization of the Department. Under this arrangement, a full-time Sanitary Commissioner was placed at the head of the Department. The appointment of the Deputy Sanitary Commissioner was abolished. Except in the malnad districts of Shimoga, Kadur and Hassan and in the Mysore District, the District Medical Officer was made *ex-officio* District Sanitary Officer of the District.

Again, in 1919, Government, finding that the staff

was inadequate for the growing requirements of the Department, revised as follows the strength and scale of the staff of the Department :—

Sanctioned number	Designation	Pay
1	Sanitary Commissioner	1,000—0—0
4	Three Health Officers and one Officer in charge of Public Health Institute and Office Assistant to the Sanitary Commissioner.	400—30—700
7	Four District Sanitary Officers, one Assistant to the Public Health Institute and two officers (reserve.)	150—15—360
4	Sub-Assistant Surgeons (reserve)	45—10—5-65

During the year 1923-24, radical changes were, however, effected in the constitution and administration of the Sanitary Department. In pursuance of the retrenchments proposed by the Special Finance Committee, the appointment of full-time Sanitary Commissioner and the posts of District Health Officers and Deputy Inspectors of Vaccination were abolished. The Senior Surgeon was entrusted with the duties of Sanitary Commissioner and a new cadre of Chief Sanitary Inspectors was created to take the place of District Sanitary Officers and to work directly under the orders of the Presidents of District Boards.

A Central Sanitary Board for the discussion of Sanitary Projects throughout the State was formed in 1907 consisting of five *ex-officio* members :—

Central Sanitary Board.

(1) Sanitary Commissioner, (2) Revenue Commissioner, (3) Chief Engineer, (4) Deputy Sanitary Commissioner, and (5) Sanitary Engineer.

Two non-official members were proposed to be added to the Board at the discretion of Government.

Consequent on the reorganization of the Department in March 1917, the Board was reconstituted with seven members as follows:—

- (1) The Senior Surgeon in Mysore (President).
- (2) The Sanitary Commissioner (Vice-President).
- (3) The Assistant Director, Public Health Institute (Secretary).
- (4) The Executive Engineer, Sanitary Division.
- (5) The Executive Engineer, Water-Supply Division and two non-official members.

The Board was again reconstituted in 1920 with the Sanitary Commissioner as President and Superintending Engineer (Sanitary Circle), the Revenue Secretary to Government and two non-official members, preferably from the Legislative Council, as members. The primary function of the Board is to consider :—

- (1) schemes estimated to cost more than Rs. 5,000 ;
- (2) schemes which require financial assistance from Government ;

and to discuss sanitary matters of local interest.

The Board is a purely advisory body, but its constitution enables local officers to obtain the advice of Government experts, and members are able to obtain first-hand knowledge and information as to special local conditions and circumstances attending each scheme and, where necessary, personally to inspect the site.

Sanitary
Inspectors'
Class.

A class for training Sanitary Inspectors was opened in 1912. The course of training is of six months' duration and commences in July each year. The training is conducted by the Director, Public Health Institute, and his Assistant, the Health Officer, Bangalore, and the Sanitary Engineer and his Assistant. The course is modelled on that of the Sanitary Inspectors in Madras. The accommodation provided admits of the training of 20 candidates every year.

The ranks of the menials employed for the purpose of rubbish and night-soil conservancy are recruited locally and these establishments are under the control of the Taluk or Municipal Board which employs them. Menial
establish-
ment.

II. MEDICAL RELIEF.

Prior to the Rendition.

After the assumption of the Government by the British, a dispensary was established in 1833 in a room in the Commissioner's office in the Fort of Bangalore and in 1834 one, in the Cantonment. In 1839, a hospital and a dispensary were commenced in the Petta on a small scale and proved so popular and useful that a suitable building, with accommodation for 50 patients, was erected in 1847. In 1849, the Fort Dispensary was also provided with a proper building. In 1850, a hospital was opened at Shimoga. In 1852, a hospital for 70 in-patients was established in the Cantonment Bazaar, and the Petta Hospital was enlarged. A further addition to the latter was made in 1856, and, in that year, the Yelwal Dispensary, established in connection with the Residency, was transferred to Hassan. In 1866, the Petta Hospital was further enlarged, but, meanwhile, the Bowring Civil Hospital was under erection in Cantonment, on the plan of Lariboisiere in Paris, which admits of the segregation of the several castes of people and of different classes of disease. It was occupied in 1868, and in 1872 the Petta Hospital was converted into a Dispensary, in-patients being transferred to the Bowring Hospital. Hospitals and
Dispensaries.

In 1881, there were only 24 hospitals and dispensaries in the State, of which three were General Hospitals, five Dispensaries with in-patient wards and 12 Dispensaries for out-patients only, two Maternities and two Asylums, one for lunatics and the other for lepers. The following After the
Rendition.

table shows the growth in the number of medical institutions of the various classes from 1881 to 1918:—

	1881	1891	1901	1911	1918	1923
State public— General and Special Hospitals and Dispensaries.	8	9	15	15	26	28
State non-public— Such as Jail, Military and Public Works Department.	...	6	6	8	8	9
Local Funds and Municipal Dispensaries.	16	81	113	116	128	146
Private aided ... ..	...	...	...	3	4	7
Private non-aided ... ..	...	...	...	2	2	3
Railway Dispensaries ... ..	...	...	...	5	10	7
Total	24	90	134	149	178	200

The Victoria
Hospital,
Bangalore.

On the Bowring Civil Hospital being made over to the administration of the Civil and Military Station, Bangalore, in 1884, the St. Martha's Hospital, opened by the Roman Catholic Mission in 1886, supplied the want of a hospital for the Bangalore City until 1893, when Government connection with it ceased. A separate Government Hospital was opened in 1893 and was temporarily located in the old District Lock-up buildings until 1900, when it was transferred to the new building constructed for the purpose. The hospital is named in commemoration of the Diamond Jubilee of Her Majesty the late Empress Victoria, and is situated within easy access of the populous parts of the City. The foundation stone was laid on 22nd June 1897 by Her Highness the Maharani-Regent of Mysore, and the Hospital, which including the staff quarters and other out-houses has cost 7½ lakhs of rupees, was opened on the 8th December 1900 by Lord Curzon, then Viceroy and Governor-General of India. There is provision for 140 beds in the institution which is fitted up with the latest appliances, including X-Ray apparatus and deserves to be ranked amongst the best hospitals in India. A department of Dental Surgery was also opened in connection with it in December 1918.

The Krishnarajendra Hospital at Mysore has for its habitation a stately building constructed recently at an estimated cost of Rs. 3,65,000. There is accommodation for about 100 in-patients and the hospital is equipped with up-to-date appliances including X-Ray apparatus.

The Krishna-
rajendra
Hospital at
Mysore.

There are hospitals at the head-quarters of the remaining six districts and at Robertsonpet which are being gradually improved according to their requirements.

District
Hospitals.

Every taluk contains at least one dispensary at its head-quarter. There are 20 taluks containing two dispensaries each, seven containing three dispensaries each, the taluks of Manjarabad and Chikmagalur contain four dispensaries each, and the taluks of Tarikere and Tirthahalli contain five dispensaries each.

Local Fund
Dispensaries.

Prior to the Rendition and even for a few years after it, women in labour had to depend, almost entirely, on the help of crude and untrained barber women or *dayis*, there being no qualified midwives in the State. A few selected women were given stipends and sent to Madras for training and, on their return, were employed as midwives. By the year 1891, the Department had 19 trained midwives in service. In the year 1892, classes for training midwives were opened in the Maternity Hospitals at Bangalore and Mysore with a view to secure qualified midwives in numbers sufficient to meet the increasing demand. Training in scientific midwifery is also now given in the Robertsonpet Maternity and in the Shimoga Female Dispensary. In 1901, the number of trained midwives in service was 91 which increased to 114 in 1911 and stood at 135 at the close of 1918. The scale of pay of midwives was revised as detailed below:—

Midwives.

	Rs.		Rs.
4th class 1 to 5 years' service	15	2nd class 11 to 15 years' service	21
3rd „ 6 to 10 „	18	1st „ 15 „	25

The
Maternity
and Hospital
for women.

The Maternity and Hospital for women and children, Bangalore, and the Vani Vilas Hospital, Mysore, were opened in 1880. The former, though transferred to the management of the Bangalore Town Municipality in 1883, was supervised by the Senior Surgeon to the Mysore Government, and the latter, by the Civil Surgeon at Mysore. In the former, only labour cases were treated as in-patients till the close of the year 1884, but since then, other diseases also are treated. The first contains accommodation for 24 and the second for 30 in-patients. The maternity and Hospital at Robertsonpet, Kolar Gold Fields, was opened on the 7th October 1914 and contains accommodation for 18 in-patients.

Female
Dispensaries.

The District Head-quarters of Kolar, Tumkur, Hassan, Shimoga, Kadur and Chitaldrug and the six mofussil towns of Sagar, Chikballapur, Tirthahalli, Davangere, Kallurkatte and Chintamani contain, each, a Female Dispensary. Government, in 1918, directed as a first step, the conversion of the female dispensaries at Tumkur, Shimoga and Chikmagalur into small maternities, and local proposals to establish institutions for the training of women in scientific midwifery are under consideration.

Itinerating
Dispensaries.

To provide increased facilities in respect of medical aid for people living in specially unhealthy tracts in the *malnad* parts of the State, the Government sanctioned as a temporary measure, in the year 1915, the establishment of itinerating dispensaries. This scheme was given effect to during the year 1916. The medical subordinates in charge are required to travel from village to village in their respective areas, and render medical aid to the villagers. They are also expected to educate the masses in matters of personal and domestic hygiene and sanitation.

In 1903-04, there were two Hindu Vaidyasālas and a Unani Dispensary in the City of Mysore. During the year 1922-23, there were in the State 80 Hindu Vaidyasālas and Unani Dispensaries at work. These indigenous institutions seem to be as much resorted to as the regular medical institutions.

Hindu
Vaidyasālas
and
Dispensaries.

An Ayurvedic College was established at Mysore during 1908-09 in place of the Vaidya class in the Maharaja's Sanskrit College. This new college commenced work from 1st January 1909 with 10 scholarship holders. The course of study extends over a period of four years and includes instruction and practical training in physiology, anatomy, hygiene, midwifery and materia medica. Special provision is also made for scholarships to students of this college at the rate of Rs. 8 for the first year, Rs. 10 for the second year and Rs. 12 for the remaining two years. Instruction in Sanskrit works on medicine is imparted by a Head Pandit and an Assistant Pandit and the practical training is given at the indigenous Hospital at Mysore, attached to the College. One of the Assistant Surgeons located in the Mysore City was being deputed to give instruction in physiology, anatomy and other subjects of Western Medical Science, till 1917, when arrangements were made to afford facilities in the medical school opened at Bangalore to such of the successful pupils of the Ayurvedic College as are desirous of taking a special course of training in Western Medicine.

The
Ayurvedic
College,
Mysore.

As a first step towards the improvement of the Ayurvedic and Unani systems, Government, in 1918, sanctioned the grant of four scholarships, two of Rs. 75 each and two of Rs. 50 each per mensem. Of the former, one was directed to be given to a graduate in Western Medicine with adequate knowledge of Sanskrit to study Ayurveda in Calcutta for a period of three years and the other to a graduate in Western Medicine with adequate

knowledge of Persian and Arabic to study the Unani System in the Tibbr College at Delhi for a period of five years; of the latter, one to an Ayurvedic Pandit and the other to a Unani Hakim, to study for the L. M. & S. or M.B., B.S. Degree of the Bombay or the Madras University.

The work of this institution is superintended by a Committee consisting of the Councillor in charge of the Muzrai Department, as President, the Muzrai Superintendent as Secretary, and four members, one of whom will ordinarily be the Civil Surgeon of the District and the others appointed by Government for a term of two years.

Hospitals for infectious diseases.

There are three hospitals in the State for the treatment of infectious diseases, one for each of the Bangalore and Mysore Cities and the Kolar Gold Fields.

Further improvements under consideration.

In February 1919, the Government sanctioned the formation of a Committee, with the Senior Surgeon as President, consisting of three official and three non-official members to consider the following points:—

(1) Adequacy of the present organisation for medical relief in the State.

(2) Necessity for increasing the number of hospitals and dispensaries in the outlying parts of the State.

(3) Feasibility of extending medical aid through Ayurvedic and Unani institutions.

(4) Improving female medical relief throughout the State.

(5) A programme for the next five years and the advisability of starting a medical faculty and reorganising the Medical School.

(6) Question of adjusting the financial responsibility of Government, Municipal Councils and District Boards in regard to Medical institutions.

(7) Immediate requirements of the Department—additional medical staff needed in all grades and how to recruit them.

The Committee, after duly considering the several points referred to them, submitted a report containing the following recommendations:—

(a) Opening up of 110 new dispensaries within the next five years to be manned chiefly by Sub-Assistant Surgeons.

(b) Posting of Sub-Assistant Surgeons in addition to Assistant Surgeons to certain important dispensaries.

(c) Development of District Hospitals so as to bring them to an up-to-date standard.

(d) Construction of new and up-to-date buildings for the Lunatic Asylum.

(e) Extension of Medical relief through Unani and Ayurvedic dispensaries if properly qualified Vaidyas can be turned out from the Ayurvedic College, Mysore.

(f) Providing each Taluk Head-quarter with a female dispensary in charge of a Lady Assistant Surgeon and two midwives.

(g) Opening of a maternity at each District Head-quarter with facilities for training *dayis* in midwifery.

(h) Construction of a building for the maternity hospital at Bangalore and provision therein of facilities for training *dayis* in midwifery.

(i) Starting a medical faculty in Bangalore in connection with the Mysore University and establishing a Medical College at an initial and recurring cost of Rs. 8,25,000 and Rs. 60,100, respectively.

(j) Fixing a programme of expenditure for the next five years as follows:—

				Rs.
First year	...	...	...	9,27,012
Second year	...	...	...	9,55,024
Third year	...	...	...	10,13,036
Fourth year	...	...	...	10,71,048
Fifth year	..	...	...	11,34,064

(k) Continuing the maintenance of District Head-quarter Hospitals from State Funds.

(l) Apportionment in equal shares of the maintenance cost of the dispensaries in rural areas, between the State and the District Funds, the initial cost being met from State Funds.

(m) Raising the minimum pay of Sub-Assistant Surgeons to Rs. 50.

(n) Improvement of the pay and prospects of compounders (*vide* G. O. No. G. 26855-65 Med. 70-18-21, dated 31st May 1920).

Government generally approved of the above recommendations of the Committee and promised that the same would be given effect to as funds become available. The action taken by Government in pursuance of the recommendations of the Committee is detailed below:—

(1) Thirty-four dispensaries have in all been opened during the five years from 1920 to 1925.

(2) The question of improving the District hospital building at Shimoga has been under active consideration and a Lady Assistant Surgeon with Superior European qualifications has been posted for duty to this institution.

The District Hospital buildings at Hassan and Chikmagalur have been improved to some extent and in the case of Hassan certain further improvements are under consideration.

The construction of a new and up-to-date building for the Lunatic Asylum has been taken up for consideration.

With a view to extend medical relief through Unani and Ayurvedic Dispensaries, special scholarships for receiving training in Unani system of medicine in the Tibbi College, Delhi, have been awarded both for male and lady candidates.

A combined Ayurvedic and Unani Dispensary has been established at Shimoga under the control of the Medical Department. The question of reorganizing the Ayurvedic College at Mysore is also under consideration.

In regard to the provision of a Female Dispensary for each Taluk Head-quarter, such Dispensaries have already been opened at Chintamani and Davangere. The question of opening smaller ones at Saklespur, Mudgere, Chennapatna and Hole-Narsipur is now under consideration of Government. Besides this, four Lady Assistant Surgeons

have been sanctioned for work in the Malnad Districts of Hassan, Kadur and Shimoga.

In pursuance of the proposal for opening a maternity at each District Head-quarter, arrangements have been made for treating maternity cases in the District Hospitals at Shimoga, Tumkur and Kolar Gold Fields, in addition to Bangalore and Mysore. The question of providing maternity wards in connection with the other District Hospitals is also under consideration.

Numerous additions and improvements have been effected to the existing building wherein the maternity hospital at Bangalore has now been located. A medical college has been opened as has already been stated. Suitable arrangements have been made for meeting the cost of maintenance of District Head-quarter Hospitals and the dispensaries in rural areas and the pay of the Sub-Assistant Surgeons and compounders has been improved as recommended by the Committee.

III. SPECIAL HOSPITALS.

In addition to the—

- (1) Maternity and Hospital for women and children, Bangalore ;
- (2) The Vani Vilas Hospital for women, Mysore ; and
- (3) The Maternity and Hospital at Robertsonpet, Kolar Gold Fields, mentioned above,

Special
Hospitals at
Bangalore.

There are also the following Special Hospitals at Bangalore :—

- (1) The Minto Ophthalmic Hospital,
- (2) The Lunatic Asylum,
- (3) The Leper Asylum, and
- (4) The Epidemic Diseases Hospital.

An Eye Infirmary was opened in 1896 in the City as an experimental measure for the treatment of eye cases, and, having proved a success, was made permanent in 1897, when an in-patient department was opened. In 1910, the Government resolved to construct a special

The Minto
Ophthalmic
Hospital,
Bangalore.

building to locate the Eye Infirmary. The foundation stone was laid by His Highness the Maharaja on the 17th December 1910, in commemoration of the visit of His Excellency the Rt. Hon'ble the Earl of Minto to Mysore and the Minto Ophthalmic Hospital was opened by His Highness the Maharaja on the 31st January 1913. The building has cost Rs. 2,82,000 and is fitted up with the latest appliances. Though originally intended to provide accommodation for 62 beds, its growing popularity and the demand from the public have necessitated the number being increased to 92 by the appropriation of all available rooms for the purpose.

The Lunatic
Asylum,
Bangalore.

This was opened near the Petta Hospital in 1850, the inmates being removed from a smaller place of custody which had existed two years previously in the Cantonment, and a few years after, the old Petta Jail was added to the accommodation. In 1913, the construction of additional cells for European women and of quarters for the Matron was commenced. These buildings were completed during 1916-17. They have not only relieved congestion in the female ward, but have also provided separate accommodation for high caste Hindu women. Lunatics of the Civil and Military Station, Bangalore, are admitted into this Asylum and the cost of their maintenance and custody is recovered from the Station authorities and credited to the State Funds. The inmates of the Asylum are, according to their aptitudes and temperaments, provided with such work as grinding ragi, cleaning rice, spinning, cooking, sweeping and gardening, weaving *cumbli*s and cloth, cleaning and beating out wool, etc. The criminal lunatics are dressed differently from other lunatics, to admit of easy recognition; but in other respects they are treated in the same way. Every attempt is made to keep the inmates cheerful and happy by periodical treats and gramophone

entertainments, distribution of sweets and flowers on festival days, and daily distribution of *pan supari*, snuff and tobacco to those accustomed to their use.

The reception and detention of lunatics in the Asylum were regulated till 1916, by rules passed by the Government of India in the Foreign Department No. 75 J. dated 25th April 1872 and published in Chief Commissioner's Notification No. 141 dated 31st July 1874. The Mysore Lunacy Regulation No. I of 1916 was passed in February 1916. It provides :—

The Mysore
Lunacy
Regulation.

- (1) for the reception, care and treatment of lunatics,
- (2) for holding inquisitions by proper courts for the purpose of ascertaining whether a lunatic possessing property is of unsound mind and incapable of managing himself and his affairs,
- (3) for the application of a lunatic's property for expenses incurred on his behalf, and
- (4) for penalty for improper reception or detention of lunatics.

The Asylum was opened in the Petta in 1845; the building, however, was small and badly situated; a large one was therefore built in a better spot in 1857. In October 1904, sanction was accorded to the construction of two wards in the Magadi Road Epidemic Diseases Hospital, Bangalore, and the inmates of the Asylum were removed to the new building during 1907-08. Residence in the Asylum is optional, so that the poor come and go as long as they can move about without great discomfort. As regards treatment, the most that can be said is that life is made as tolerable for them as possible, special or distressing symptoms are treated as best as possible, but in no case can it be said that anything approaching a cure has been effected, even though the progress of the disease has been slowed in many or temporarily arrested in some and the general health of nearly all improved, by

The Leper
Asylum,
Bangalore.

attention to personal and general hygiene, good food and housing, regular hours and the interdiction of irregular or vicious habits and practices. The lepers are usually treated in the Asylum with chalmogra oil internally and margosa oil externally. Lepers of the Civil and Military Station, Bangalore, are also admitted and the cost of maintenance is recovered from the Station authorities.

The Epidemic
Diseases
Hospital,
Bangalore.

This hospital was opened on 1st July 1891. It is situated at a safe distance from the Railway Station at the western end and is available for accommodation and treatment of cases of infectious or communicable diseases occurring among the residents of the City or amongst pilgrims or others arriving by train. The hospital was originally termed "Chattram Hospital" and was afterwards known as "Hospital for Infectious Diseases" and is now known as the "Epidemic Diseases Hospital."

IV. EPIDEMIC DISEASES.

Plague
Administra-
tion: Plague,
General.

Plague first appeared in Bangalore in 1898, after the outbreak at Bombay and, during the last 20 years, has claimed 205,422 victims. During the earlier years of the epidemic, the preventive measures were mostly such as aimed at the destruction of the pathogenic-micro-organism, the plague bacillus, which was supposed to be the independent causative agent in the transmission of the disease. Large sums of money were spent on arrangements that involved the employment of costly cordon staffs on railway inspections, on quarantine and, lastly, on disinfection by chemicals. Evacuation of infected houses and construction of health camps were also resorted to from the very commencement. It is as a part of the remedial measures undertaken by Government to combat the plague epidemic that large extensions at considerable cost to Government were opened in Bangalore and Mysore, soon after the outbreak of plague

to avoid overcrowding and to give more wholesome habitations to the people. With the advance of knowledge on the subject of the aetiology of plague and the recognition of the fact that the rat-flea is the connecting link in the chain of infection from the rat to man, these costly measures have been abandoned in favour of—

- (1) prompt evacuation,
- (2) inoculation with Haffkine prophylactic serum, and
- (3) disinfection by dry heat combined with fumigation by burning neem leaves.

Evacuation is the most popular preventive measure against plague. The usual facilities for evacuation are provided and arrangements are made for the supply of shed materials, free to the poor and at cost price to others, in places where hutting materials are not easily procurable. Government officials willing to camp out are given an advance of a month's pay not exceeding Rs. 30, repayable in three monthly instalments. Suitable sites are selected for putting up sheds, and necessary arrangements are made for the conservancy, lighting and general sanitation of the health camps. The public are allowed to deposit their valuables in public treasuries during the period of evacuation; police protection is afforded to them during their residence in camps.

Preventive
Measures:
Evacuation.

The District Medical and Sanitary Officers are responsible for inoculation in their respective districts and in special cases whole-time officers are deputed for inoculation duty. Rewards are also paid at the rate of 4 annas for each adult and 2 annas for each child inoculated from among the labouring classes. On the whole, inoculation seems to be in a fair way to become popular and to be, next to evacuation, the only measure known at present by which people can escape the ravages of plague.

Inoculation.

Disinfection. In rural areas, disinfection, the un-roofing of thatched houses and their exposure to sun and air, and lime-washing of houses are the usual methods adopted. Chemical disinfection is mostly confined to the larger towns and to villages on the British Frontier.

**Destruction
of rats.**

The system of destroying rats was being encouraged by the payment of rewards till the year 1910-11. The system has since been discontinued as the efforts towards extirpating rats by this means proved unavailing and the result achieved was not in any way proportionate to the expenditure incurred. The importance of rat destruction as a plague preventive measure has, however, been impressed on the public and owners of houses have been exhorted to continue the campaign against rats and keep their houses free from these dangerous rodents.

As to future policy in regard to plague administration, it is proposed to devote attention to the destruction of rats in the off-season and making necessary arrangements so that each local area may have its own organization and equipment to be able to deal at a moment's notice with outbreaks of plague epidemic.

**Special
Sanitary
Measures.**

Special measures for the sanitary improvement of large towns are being carried out every year for the purpose, not only of checking the outbreak of plague, but of arresting its spread into villages.

**Administra-
tion.**

Since the formation of the Public Health Department, the carrying out of measures to combat plague has become part of the work of the department. In the cities of Bangalore and Mysore, plague operations are in charge of the Presidents of the respective Municipalities, assisted by the Health Officers. In the several districts, the Deputy Commissioners, assisted by the respective

District Medical and Sanitary Officers, direct plague operations. Temporary establishments are also entertained, whenever there is need.

On the 11th February 1897, the Epidemic Diseases Regulation No. II of 1897 was passed, empowering Government to take such measures, and prescribe such temporary Regulations, as may be necessary, to deal with plague. Epidemic Diseases Regulation.

The following statement shows the quinquennial averages commencing from 1898-99 with ratio of plague mortality per mille of population and the percentages of deaths to attacks:— Mortality from Plague.

Year	Average		Ratio per mille of population	Percentage of deaths to attacks
	Attacks	Deaths		
1898-99 to 1902-03 ...	19,490	14,700	2.70	75.4
1903-04 to 1907-08 ...	15,902	11,589	2.13	72.8
1908-09 to 1912-13 ...	9,669	6,979	1.22	72.1
1913-14 to 1917-18 ...	9,555	6,706	1.17	69.7
1917-18 to 1922-23 ...	10,157	1,706	1.41	16.7

It will be seen that from 1898 to 1918 each succeeding quinquennium recorded a steady decline in the plague mortality so that the initial virulence of incidence was not increased or even maintained. During the next quinquennium, there was, however, a slight rise in the mortality and also in the percentage of deaths to attacks.

The history of cholera in the several districts bears evidence to the fact that fairs and pilgrim centres in British Territory are the starting points of cholera outbreaks in the State. Anti-cholera measures consist of hankinisation of infected wells, provision of temporary shallow wells and affording medical relief. Cholera.

Small-pox.

Small-pox accounted for 76,319 deaths from 1898 to 1914, the average annual mortality from this cause thus being 5,623. The number of deaths for the seven years from 1917 to 1923 was 31,290 working out to an average of 4,470 per year. The concentration of vaccination work in the affected parts is the only preventive measure adopted.

V. VITAL STATISTICS.

Agency for the registration of Vital Statistics.

There is no special agency for registration other than the patels. The monthly returns sent in by the patels (village head-men) are collected in the Taluk Office and transmitted to the District Office where the figures are compiled and a montly return sent to the Sanitary Commissioner's Office. In the Cities of Bangalore and Mysore, however, the Medical Officers in charge of Municipal Dispensaries are *ex-officio* Registrars of births and deaths for their Divisions. The Registration of births and deaths is compulsory in these two Cities under the provisions contained in the Municipal Regulation.

Revised Rules.

With a view to secure better registration of vital occurrences, revised rules were issued during 1915-1916, under which particular attention was paid among other things to—

(1) the actual verification of entries found in the village registers by personal enquiry on the spot by inspecting officers,

(2) professional scrutiny of the figures before tabulation in the Taluk and District Offices, and

(3) the systematic periodical review of the recorded statistics by local bodies.

The Mysore Registration of Births and Deaths Regulation.

Regulation No. III of 1918 was passed to improve the system of collection, compilation and publication of vital statistics in the State. It is based on the Madras Act III

of 1899. As Section 48 of the Mysore Municipal Regulation, 1906, provides for framing bye-laws to compel registration of births and deaths in Municipal areas, Municipalities constituted under the Mysore Municipal Regulation are excluded from the operation of this measure. Power is reserved in the Regulation to Government to extend the provisions thereof to specified villages or local areas from time to time.

VI. SANITATION.

The outstanding features in recent developments in urban sanitation consist in an increased attention to water supplies and in the laying out of well-planned extensions.

Urban
Sanitation.

The towns of Bangalore, Mysore, Kolar Gold Fields, Harihar, Davangere and Nanjangud are furnished with pipe water derived from public water works (Jewell Filters). As regards other towns, great difficulties present themselves in the discovery of sources of water supply sufficient in quantity for the population, and of a potable quality. Shallow and deep wells alike, in many localities, yield only brackish water, and, when the water is unobjectionable in quality, the quantity is too limited for public service. Several of the deep wells sunk at much expense have wholly failed. The results of the investigations carried out by Dr. F. Smeeth, State Geologist in Mysore, as to the nature of the deeper-lying strata in most districts and their water bearing capacity, have been published in his book "Note on the underground water-supply in Mysore," to which those interested in the subject might advantageously refer.

Supply of
drinking
water.

Town planning, an important branch of sanitary effort, is beginning to claim a large share of attention at the hands of the local authorities than heretofore, and is

Town
Planning.

usually being considered as part and parcel of schemes for improving town drainage, water supply and conservancy.

Drainage.

Surface drainage is in almost all towns effected in open drains which receive both rain water and domestic waste. These channels invariably follow the lines of those in use for the removal of rain water, *viz.*, the roadside drains. In most of the larger towns, these channels have been converted into masonry drains, often faulty in design and in construction, and since they pass directly in front of the dwellings, the system is a continuous source of nuisance and of ill-health. A scheme for a complete and efficient system of underground sewage has been taken up for the Mysore City and is being actively pushed on. A similar scheme for Bangalore (City proper) has also been formulated.

Night-soil conservancy.

Except in Bangalore and Mysore Cities, the sanitary organization has not advanced so far as the introduction of a public service for night-soil removal and in all such places the cess-pit is in general use.

Municipal bye-laws.

Many Municipalities in the State have recently framed or revised bye-laws under the Municipal Regulation for the control of erection of buildings, the regulation of offensive or dangerous trades, for the proper conduct of hotels or other eating houses, the manufacture of aerated water and sale of food-stuffs and of milk.

Sanitation in rural areas.

Sanitation in village tracts is generally in a backward state. The rules under the Village Sanitation Regulation make the headman of each village or village tract responsible for maintaining his charge in a reasonable state of cleanliness and for seeing that other simple sanitary rules are attended to.

Water supply is provided mainly from tanks, streams, or nalas and in many cases from surface wells.

Water-supply.

In February 1914, a scheme for the improvement of villages in the State was sanctioned with the primary object of making a beginning to stimulate economic and other activities in rural areas, to promote subsidiary occupations and increase the production and the earning power of the people. The collection of statistics, extension of education and co-operation, improvement of village sanitation, arrangements for lectures and lessons conducive to the mental and moral well-being of the people and furtherance of objects calculated to add to the comfort of the people and increase their earning power form the main functions of the Village Improvement Committees.

Village Improvement Scheme.

An annual grant of Rs. 2 lakhs was at first made for purposes of Grant-in-aid to villages having no funds at their disposal. The grant-in-aid to each such village was equal to the amount of contributions raised by the villagers. In addition to this, a special grant of one lakh of rupees annually was made for providing properly protected sources of water-supply in villages, as a measure for the prevention of cholera epidemic. In G. O. No. 4885—R. M. 6-23-11, dated 1st April 1924, the Village Improvement grant was fixed at half of villagers' contribution.

Grant-in-aid for Village Improvement.

In order to assimilate useful information to the public, booklets containing simple rules on village prosperity and sanitation were issued to the Village Improvement Committees constituted under the scheme. Every villager was induced to give half a day in a week for work connected with the improvement of the village, a portion of which was devoted to the cleaning and enclosing of

Village Improvement Work.

all vacant sites and filling up or keeping well-drained all pits and hollows in or within 20 yards of the village site. The actual work turned out by the Village Committees consists of the construction of roads, sinking of drinking water wells, construction of school buildings and musafir khanas, holding of conferences, planting trees, subscribing for newspapers, holding weekly meetings for instruction and recreation.

Village
Sanitation
Regulation.

On the 8th February 1898, the Mysore Village Sanitary Regulation (No. I of 1898) was passed empowering Government to make rules to regulate the conservancy of villages, to provide for the protection and periodical examination of wells and water supply, to define and prohibit public nuisance in villages and to make breaches of rules penal. Up to end of 1923, the Regulation was introduced into 13,231 villages in the State.

Malnad
Improvement
Scheme.

As a result of the preliminary investigations carried out in connection with the decline of population in the Malnad, Government sanctioned, in 1914, a grant of Rs. 3 lakhs to be spread over three years, for measures necessary for the removal of the most potent evils that have hitherto been contributing towards the increase of diseases and deaths in the Malnad tracts of the State.

Malnad
Improvement
Committees.

During 1914-15, a Committee for each of the three districts of Shimoga, Kadur and Hassan was constituted, composing of nine members of whom three were non-officials, with the Deputy Commissioner of the District as Chairman, for giving practical effect to improvements most obviously needed and for developing other schemes of permanent utility to the tract. The Committees are assisted by two executive officers of the rank of Assistant

Commissioners, one for the Shimoga and the other for Kadur and Hassan Districts.

The lines of work of the Sanitary Department under the Malnad Improvement Committees are—

Work of the
Sanitary
Department
with the Com-
mittees.

- (1) inspection of villages with a view to their improvement under the Malnad Improvement scheme,
- (2) sanitary survey of tracts,
- (3) identification of mosquitoes and examination of stagnant waters for anapheline larvæ,
- (4) supervision of vaccinations,
- (5) examination of births and deaths registers and selection of typical groups of villages for gathering accurate data of the state of public health in them,
- (6) ascertaining the splenic index, and
- (7) spreading sound ideas among the people about sanitation by means of lectures, informal talk and publication of leaflets.

It was felt in 1919 that the plan of work and the organisation connected with the improvement of the Malnad were in need of revision in the light of the experience gained and results achieved in previous years. The Central Committee was responsible for schemes both in the preparation and execution of which the co-operation of several Heads of Departments was essential—sanitation and medical relief beginning prominently in the programme. Government accordingly reconstituted the Central Committee with a Member of Government as President, the Heads of Departments concerned, the Deputy Commissioners of the three Malnad Districts and six non-official representatives as Members, with one of the Assistant Secretaries to Government as Secretary to the Committee. The District Committees were likewise reformed and the future lines of action by the Improvement Committees were also laid down by Government. The annual conference of the Malnad Improvement Committees was also discontinued by

Government as the object of the conference could equally well be gained by utilising the present annual District conferences for discussion of questions relating to Malnad improvement. In 1921, the Malnad Improvement Committees were abolished, the work relating to Malnad Improvement being transferred to the Medical and Sanitary Departments and the local bodies concerned.

Medical
Inspection of
Schools and
Education in
Hygiene.

In 1909, the Inspector-General of Education, in consultation with the Sanitary Commissioner, published departmental instructions, defining the responsibility of head-masters for regularising the medical inspection of schools in places where medical officers and subordinates are stationed. A large number of reports on school sanitation with reference to structural improvements is also sent up by the District Sanitary officers for action by the Education Department. In 1914, a scheme was formulated for a general and more effective medical inspection of pupils and for the instruction of school masters in the principles of Hygiene. The teaching of elementary hygiene in schools is compulsory up to the Lower Secondary standard. In 1916, a detailed scheme was sanctioned for the medical inspection of pupils at District Head-quarters. This scheme did not however actually come into force for various reasons. On further consideration, Government directed in 1921 that, in view of the cost involved and the large organisation that would be needed for the medical inspection of all schools, the scheme may first be introduced in the Government A.-V. and High Schools at District Head-quarters. Sanction was accorded to engaging the services of a retired medical officer or a qualified private practitioner for Bangalore and Mysore and at other District Head-quarters for the conduct of work by a local medical officer on payment of a fee of a rupee per pupil for two half-yearly examinations.

VII. PUBLIC HEALTH INSTITUTE AND CHEMICAL LABORATORY.

The Public Health Institute was established in November 1911, the old Chemical Laboratory and Bacteriological Institute having been merged into it. All the Chemical, Bacteriological, Toxicological and Public health work in the State is done in the Institute. Private analyses are undertaken on payment of fees. The School of Hygiene, which forms part of the Health Institute, trains Sanitary Inspectors.

Public Health Institute.

To make provision for regulating the possession and sale of all poisons in certain local areas and importation, possession and sale of white arsenic throughout the State, Regulation No. V of 1910 was passed on 2nd December 1910.

The Mysore Poisons Regulation.

VIII. VACCINATION.

Private inoculators are stated to have been formerly pretty numerous, but, by 1855, they had been completely deprived of their occupation by the preference given to Government vaccinators. These were 54 in number and were transferred from taluk to taluk, whenever necessary. There were three grades, on the respective pay of Rs. 8, 10 and 12 a month. Each vaccinator was expected to vaccinate 10 persons for each rupee of his pay, or suffer a proportional fine. A small money reward was given at the end of the year to the most active vaccinator of each Division.

Prior to the Rendition.

Under this system, the number of operations increased with suspicious rapidity. The total of 62,257 in 1855-56 rose to 91,494 in 1857-58, and was a little below a lakh in 1862-63. It became notorious that, with the connivance of the village officials, the verification lists sent in by the vaccinators were frequently fictitious. The

project was then formed, in 1865-66, of making them work in a more systematic manner through their ranges, proceeding from village to village in regular succession and, as by this mode of proceeding, some difficulty might be found in making up the required complement, the stipulation as to the number of operations to be performed monthly was withdrawn. The total which had fallen in that year to 88,054 went down in 1866-67 to 73,793. Since that time, it steadily rose until, in 1875-76, it again touched a lakh, and, with some variations in the famine years, remained at near that figure. In 1872-73, a system of inspection by the apothecaries attached to the camps of Deputy Commissioners was introduced as a check which appears to have worked well.

After the
Rendition.

There were 84 Taluk vaccinators in 1880-81, and four in the Bangalore Municipality. The medical subordinates in hospitals and dispensaries also vaccinated. During the year 1886-87, four Deputy Inspectors of vaccination were appointed as an experimental measure and were posted to the districts of Bangalore, Tumkur, Mysore and Shimoga and, during 1887-88, four more were appointed which completed the establishment in this respect, *viz.*, one to each District. On account of the comparatively limited check which the Medical Department exercised over the work of the vaccinators and the framing of their returns, the progress was not satisfactory. The working of the department was therefore handed over to the Deputy Commissioners at the commencement of the official year 1889-90 and the Medical Department afforded them every aid they could.

In 1907, when the Health scheme was sanctioned, Government, with a view to ensure efficient supervision in the districts, placed the Deputy Inspectors and vaccinators entirely subordinate to the District Medical and Sanitary Officers. The strength of the vaccination

establishment as it stood in 1923-24 consisted of 8 Deputy Inspectors and 161 vaccinators. In addition to these, there is a reserve vaccinator for each district for emergent work wherever necessary and to relieve vaccinators proceeding on leave.

The vaccination work is carried on by vaccinators in accordance with what is called the "Kurnool System." According to this system, a programme is prepared beforehand by the Deputy Inspector of vaccination indicating the villages in which the vaccinator has to carry on the work during the following month. *Takids* or notices of the arrival of vaccinator are sent to patels who are expected to have all the unprotected children in their villages ready for vaccination on the date on which the vaccinator is expected to visit the village. After the visit of the vaccinator, the patel sends a report on the progress of the work to the Deputy Inspector of vaccination, through the Amildar; at the same time, the vaccinator also sends in his report direct to the Deputy Inspector. At the close of the month, the vaccinator compiles a monthly return and submits it to the Deputy Inspector.

Kurnool
System.

In places where a medical officer or subordinate is stationed, the vaccination work in the area is entrusted to him. He maintains a "Vaccination State" register, that is to say, a register showing the number of "unprotected" children he has to vaccinate, and, for this purpose, is regularly furnished with a monthly statement of births in the area. In addition to vaccinating at the Dispensary, he is required to set apart one morning every week to go round the town in search of cases and vaccinate children in their houses. In Bangalore and Mysore Cities, the Registrars of Births and Deaths perform vaccination at the Dispensary. There are also special

Vaccination
Work by
Medical
Officers.

male and female vaccinators employed by the Municipalities to vaccinate children in their houses.

Survey of
Unprotected
Children.

Endeavours are being made to have preliminary survey of "unprotected" children made out, to constitute a basis for an efficient programme of vaccination work. Every inspecting officer of the Department is instructed to make it part of his business, to ascertain, by personal enquiry, the total number of "unprotected" children in the place he inspects. In the Bangalore and Mysore Cities and on the Kolar Gold Fields, a census was taken during 1914-15. In Bangalore, a detailed register is maintained in each Division in which all unprotected subjects between 6 months and 12 years of age are shown. As regards other Municipal areas, the Municipal Officer stationed in the municipality maintains a register of "unprotected" children and is required to certify every month that the register is kept up-to-date.

Compulsory
Vaccination
Regulation.

To make provision for compulsory vaccination in the State, the Vaccination Regulation (No. I of 1906) was passed on the 16th March 1906. Power is reserved in the Regulation to Government to declare vaccination compulsory in any local area.

IX. THE GOVERNMENT VACCINE INSTITUTE.

Arm to arm
method.

Before the establishment of the Vaccine Institute, the arm to arm method was practised. The vaccinators had to get their supplies of lymph as best they could.

Manufacture
of lanoline
paste in the
Vaccine
Institute.

Vaccination from the calf was introduced in 1884-85, but it was found difficult to keep up the stock. Since 1892, there has been a Vaccine Institute at Bangalore, where lanoline paste is manufactured direct from calf lymph according to Surgeon-Major King's method. The lymph prepared is uniformly of excellent quality.

Lanoline vaccine is supplied from this Institute to several places in British India.

X. MISCELLANEOUS.

The Medical Stores at Bangalore, besides supplying the requirements of the Hospitals and Dispensaries maintained by or under the direct control of the Medical Department, makes supplies on credit to other Departments, such as the Agricultural, Forest, Railway, Survey and Veterinary. Till 23rd April 1917, the arrangement under which the Senior Surgeon was in charge of this Institute, with a Superintendent in sub-charge, continued and since that date the Institution is placed in direct charge of a Superintendent.

Medical
Stores,
Bangalore.

Government have prescribed rules to regulate the grant, to Government servants and to indigent persons unconnected with public service in the State, of concessions designed to enable them, when bitten by a rabid animal, to proceed without delay for treatment to the Pasteur Institute at Coonoor.

Grant of con-
cessions for
treatment at
the Pasteur
Institute,
Coonoor.

BIBLIOGRAPHY.

- Chief Commissioner's Notification No. 102, dated 7th June 1871
Mysore General Administration Reports from 1881-86 to 1923-24
Annual Reports on Vaccination in Mysore from 1886-87 to 1923-24
Report on the Plague Operations in Mysore, 1898-99
Dewans' Addresses to the Representative Assembly from 1907 to 1924-25
Administration Reports, Sanitary Department, from 1907 to 1923-24
Reports on Hospitals and Dispensaries from 1894-95 to 1923-24
The Mysore Vaccination Regulation No. I, 1906
The Mysore Prisons Regulation No. V, 1910
The Mysore Lunacy Regulation No. I, 1916
Various Government Orders (Medical and Sanitary) from 1884 to 1925
-