

SPECIAL ARTICLES.

THE ANTI-TUBERCULOSIS MOVEMENT IN THE NETHERLANDS.

By W. J. VAN GORKOM,

CONSULTING PHYSICIAN,

Secretary-Treasurer of the Dutch Central Association for the Prevention of Consumption; Editor of *Tuberculose*, organ of the "Nederlandsche Centrale Vereeniging tot bestrijding der tuberculose."

THE Netherlands may well claim an important place among progressive nations strenuously combating that common foe of mankind—tuberculosis. Although a small country, with limited resources, Holland has accomplished rather much. Before detailing what has been done, it will be well to state briefly certain facts about the country. The Netherlands, or kingdom of Holland, is a maritime country situated on the North Sea, consisting of eleven provinces, with a total area of 12,582 square miles. Its population in 1907 was estimated as 5,747,269. The land is generally low and flat, intersected by water-courses, and much is given up to pasture. The greater number of the inhabitants are engaged in agricultural pursuits. In its chief towns—Amsterdam and Rotterdam—urban conditions exercise prejudicial effect on many of the people. Much tuberculosis prevails both in the towns and the villages. Incalculable loss and suffering arise from the devastating influences of this scourge.

It is the purpose of this paper to indicate how we are conducting the campaign, and perhaps the lessons which we have learned may not be without value to those engaged in the anti-tuberculosis combat in other lands.

A study of the accompanying tables indicates that the general death-rate in the Netherlands from all causes has diminished from 17.2 to 14.6 per 1,000 of the population, but that the *percentage of deaths from tuberculosis has not altogether kept pace with this diminution*. This fact need not astonish us if we keep in mind that as long ago as 1865 a law of sanitation came into force which has brought about a remarkable improvement in the health conditions of the people. Much is also due to the rapid progress made in the last thirty years in general hygiene. In consequence, a marked diminution in the number of deaths from infectious disease has resulted. But *tuberculosis, although itself an infectious disease, was not included in this sanitary legislation*, and

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TABLE I.—SHOWING THE TOTAL NUMBER OF DEATHS IN THE NETHERLANDS FROM ALL CAUSES AND THE MORTALITY FROM TUBERCULOSIS DURING THE YEARS 1901 TO 1907 INCLUSIVE, ACCORDING TO THE OFFICIAL REPORTS PUBLISHED BY THE CENTRAL BUREAU OF STATISTICS.¹

	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Population of the Netherlands ...	5,263,232	5,347,182	5,430,942	5,509,659	5,591,695	5,672,237	5,747,269
Mortality from tuberculosis of the lungs	7,171	7,028	7,117	7,081	7,536	7,531	7,403
Mortality from tuberculosis of the brain	1,113	1,050	1,069	1,077	1,070	1,194	1,129
Mortality from other forms of tuberculosis	1,835	1,850	1,978	1,922	1,360	1,293	1,331
Total mortality from all forms of tuberculosis	10,119	9,928	10,164	10,080	9,966	10,018	9,863
Total number of deaths from all causes ...	89,803	86,248	83,933	87,091	85,030	83,259	83,350

TABLE II.—INDICATING DEATH-RATE FROM TUBERCULOSIS IN THE NETHERLANDS PER 10,000 INHABITANTS.

Year.	Pulmonary Tuberculosis.	All Forms of Tuberculosis.	All Forms of Disease.
1901 ...	13·73	19·37	172·00
1902 ...	13·25	18·72	162·63
1903 ...	13·21	18·86	155·74
1904 ...	12·94	18·42	159·20
1905 ...	13·57	17·93	153·16
1906 ...	13·37	17·79	147·83
1907 ...	12·97	17·28	145·98

TABLE III.—PERCENTAGE OF DEATHS FROM TUBERCULOSIS AS COMPARED WITH THE TOTAL NUMBER OF DEATHS.

Year.	Deaths from Pulmonary Tuberculosis expressed as Percentages of the Total Number of Deaths.	Deaths from all Forms of Tuberculosis expressed as Percentages of the Total Number of Deaths.
1901 ...	7·98	11·26
1902 ...	8·15	11·52
1903 ...	8·48	12·11
1904 ...	8·13	11·57
1905 ...	8·86	11·71
1906 ...	9·04	12·02
1907 ...	8·88	11·83

¹ Owing to a change in the nomenclature of the causes of death made in 1900, we are only able to compare the seven first years of the present century.

but few organized efforts have been made to educate the people as to the best means of combating the malady. This will explain the relatively small diminution in the deaths from tuberculosis as compared with the progress in the health conditions of the people generally. It is only some ten years since the first really effective

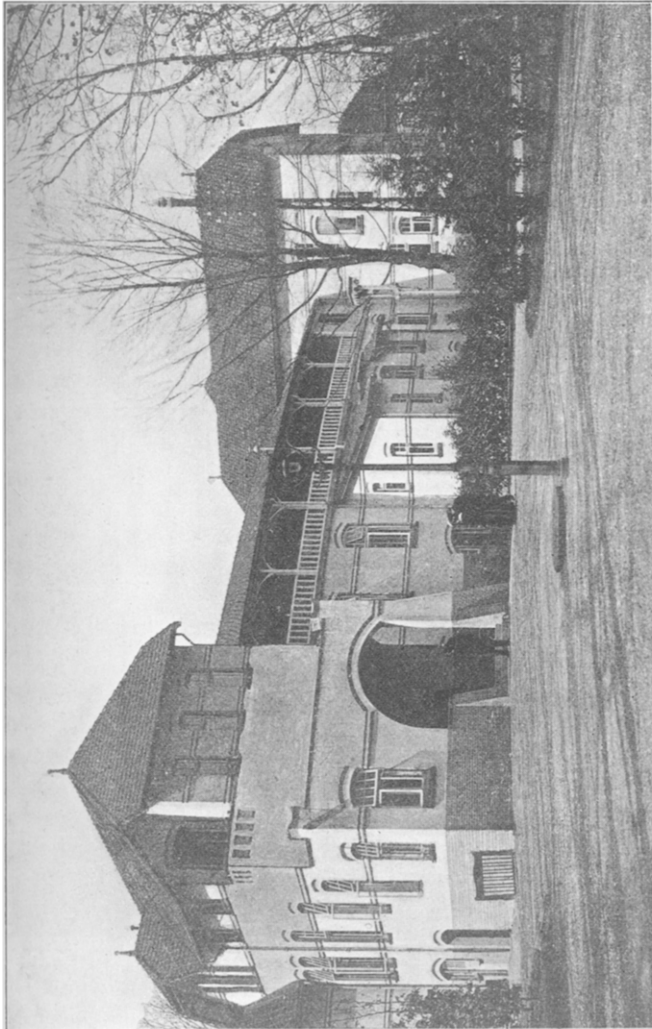


FIG. 1.—ORANJE-NASSAU'S OORD NATIONAL SANATORIUM.

steps were taken to prevent the spread of consumption. The initial requirements were the provision of funds for the treatment of consumptive patients of slender means in sanatoria in their own country. In 1898, when Queen Emma laid down the regency of the country and the guardianship of her daughter, Queen Wilhelmina,

at the latter's coming of age, she presented to the Dutch nation her estate, Oranje-Nassau's Oord, at Renkum (Gelderland), for a sanatorium, at the same time giving the sum of 250,000 florins (about £21,000) to fully equip it for its purpose (Figs. 1 and 2). This latter amount had been presented to Her Majesty by the people as a token

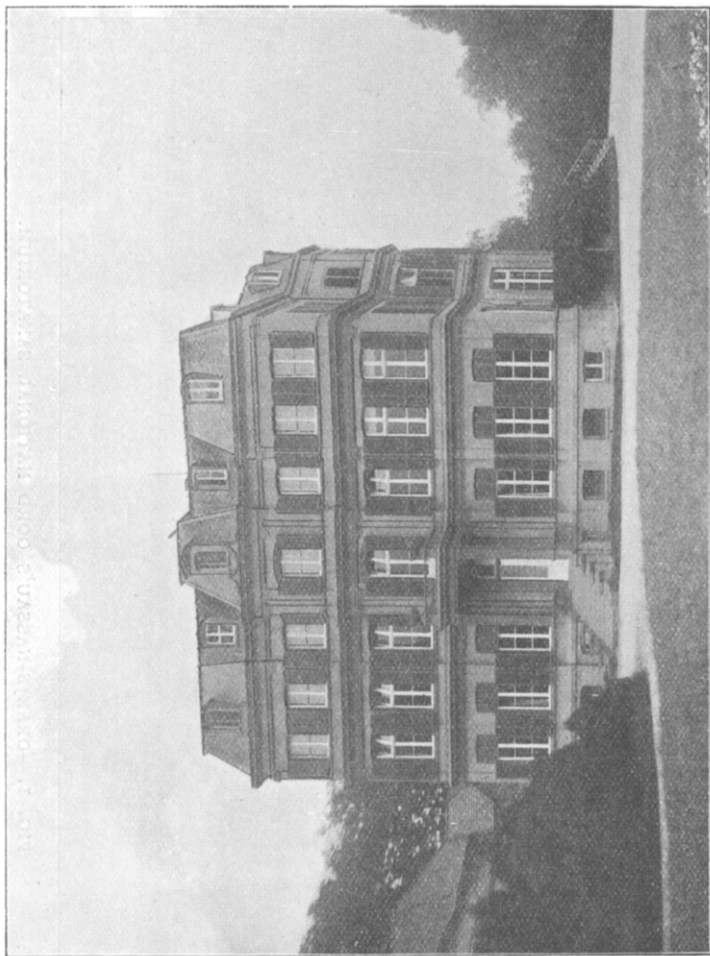


FIG. 2.—ORANJE-NASSAU'S OORD NATIONAL SANATORIUM: THE OLD PALACE.

of their high esteem and gratitude for the able way in which she had managed the affairs of State during her regency. The Queen-Mother also instituted a fund called "the Queen Emma Fund," out of which is allowed a sum of 0·80 florins (equivalent to 1s. 4d.) to fifty of those patients unable to meet the full charges, the nursing fee being 3s. 8d. For well-to-do people the cost is from 6s. 8d. to 8s. 4d. a day. There are a hundred beds available.

In 1897, a year before the above sanatorium was established, an Association for the Assistance of Persons of Dutch Nationality suffering from Lung Disease was founded at Davoz-Platz (Switzerland), and a fairly large Sanatorium built, with beds for fifty patients.

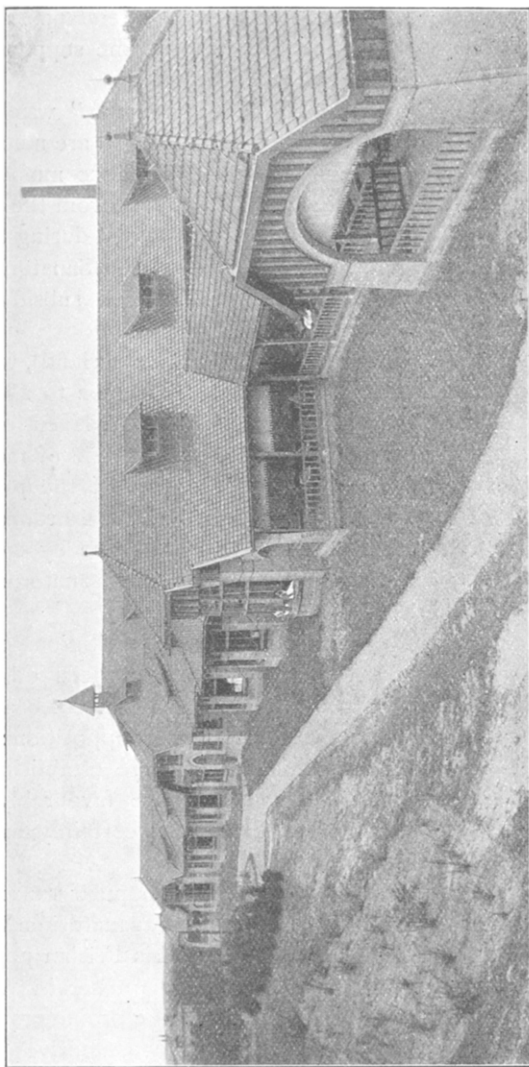


FIG. 3.—HELLEDOORN SANATORIUM FOR CONSUMPTIVE PATIENTS, SHOWING OPEN-AIR VERANDAS.

The nursing fee in this institution is 2.9 florins a day, but a reduction up to 1.80 florins (3s.) is granted to a maximum of ten patients. One of the directors of this Dutch Association, acting in Switzerland, organized a committee at the Hague, in Holland, with

several branches in various other parts of the country. In 1898 the "Association for Establishing and Conducting Public Sanatoria for Sufferers from Pulmonary Troubles" was founded. In 1902 this association opened its first public sanatorium at Hellendoorn, in the province of Overijssel (Fig. 3). Of its fifty-four beds, eight are free. The charges for residence, including medical attendance, are 2 florins a day. The Hellendoorn fund at the same time supplies a limited number of patients with pecuniary assistance.

In 1903 the "Amsterdam Public Sanatorium" was opened at Hooglaren (North Holland). The prices charged are much the same as those at Hellendoorn. The sanatorium accommodates sixty patients, a small number again getting support from the Hooglaren fund. Twenty additional beds are to be provided during the coming year. Both the Hellendoorn and the Hooglaren Sanatoria are supported by voluntary contributions, with a small subsidy from the Government, and patients' fees.

There is a private sanatorium at Putten (Gelderland), where thirty to forty patients can be received at a cost of from 2 to 2½ florins per day. The founder of the Putten Sanatorium (Dr. Haentjens) opened the first and largest part of the building to people of means in the year 1900. He was convinced from the first of the practicability and desirability of arresting tuberculosis under the ordinary climatic conditions of the country, and took the initiative by erecting and managing at his own risk the first private sanatorium in the Netherlands.

There are at present a good many private institutions of a similar kind. Some are situated in well-wooded districts, others by the seaside. Both the private and the public sanatoria boast of good results. They have had to overcome strenuous opposition: even from physicians. It may now be admitted that these establishments have justified their existence. They can compare favourably with the sanatoria in the Swiss mountains, and they certainly have proved their right to be generously supported.

Some projects for the founding of new popular sanatoria are at the present moment under consideration. A sanatorium is in course of erection in the province of Friesland. This Frisian popular sanatorium, "Herema State," near Joure, will be opened in the course of 1909. Here there are a hundred beds, and the projectors hope to be able to provide nursing and attendance for consumptives in the first stage of the disease at the small cost of 2s. 1d. per day.

At Harderwyk, on the shores of the Zuyder Sea, a small public sanatorium ("Sonnevank") was opened in October of 1908 to patients of the "Christian Reformed" faith. There are thirty-six beds for the present; charges: 2 to 2.50 florins. The Roman Catholics are

following this example, and have a sanatorium of their own at Groesbeek (Gelderland).

Besides these, there are a number of establishments supported by private charities for the seaside treatment of tuberculous and

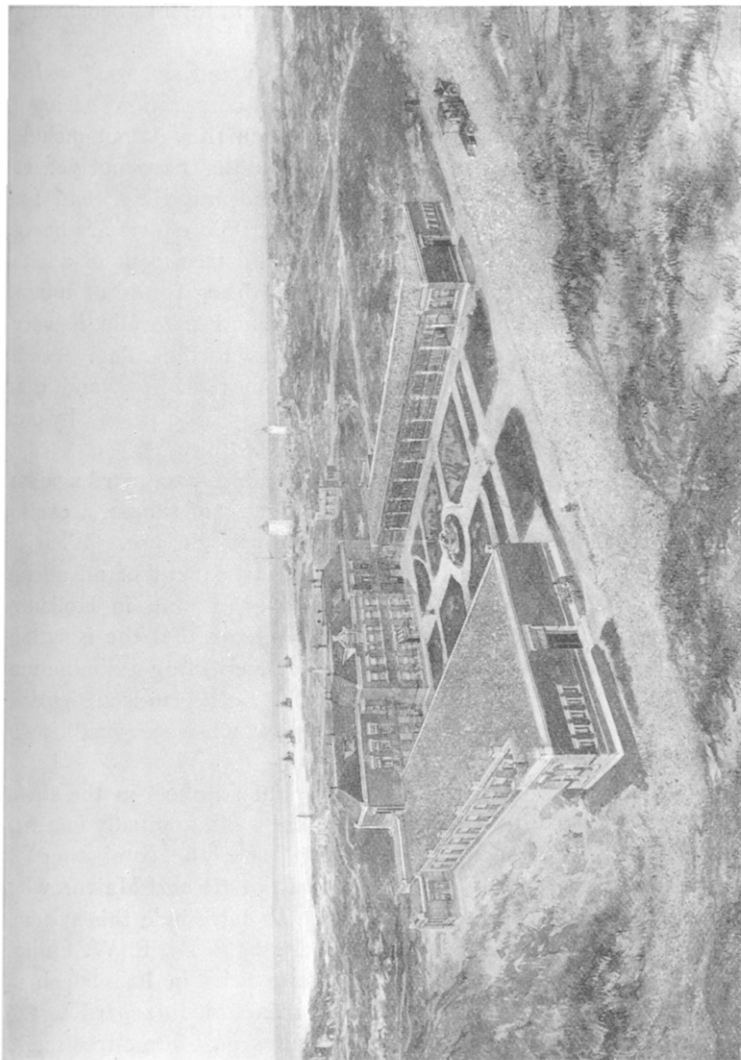


FIG. 4.—CHILDREN'S HOSPITAL AT KATWYK-ON-THE-SEA FOR TUBERCULOUS AND TUBERCULOUSLY-DISPOSED CASES.

scrofulous children. The oldest and first in rank is the Sophia Stichting at Scheveningen, founded in 1880 by the late Queen Sophia, with 100 beds. The nursing-fee is only 1s. 3d. to 1s. 8d. a day. Next in importance may be mentioned the Sea Hospitium at Katwyk-on-

the-Sea, which was opened in 1908, with 100 beds, and rather higher prices (1 to 1½ florins). (Fig. 4.)

From the foregoing statements it will be seen that a considerable number of beds are provided for sufferers from tuberculosis and for those predisposed to the disease. These are still inadequate: the free beds are too few and the prices are really too high to benefit any considerable proportion of the poorer classes.

No compulsory insurance against "invalidity and sickness" exists in the Netherlands. The working man's mutual corporations having a sick fund are very few in number, and even then they do not include insurance for the tuberculous sick. Municipalities have not yet, as a rule, made provision for any sickness and invalidity fund for consumptive patients. Consequently, philanthropic efforts are being taken to make provision for the reception and treatment of adults and children suffering from pulmonary and other forms of tuberculosis in sanatoria and hospitals. This method naturally is very uncertain, as sufficient funds are not always forthcoming. Such a condition of affairs is, of course, highly unsatisfactory and discouraging, but we hope that eventually a law will be passed by our Government to insure against "sickness and invalidity."¹

Should such law be passed, it would be necessary to guard against the mistake of spending moneys on the building of sanatoria exclusively for lung-sufferers in the first stage of the disease. What is urgently needed are nursing-homes for the treatment of advanced cases. There is not a single institution of the kind in Holland, although in England and Wales it is held by some that the isolation of advanced cases is one of the best means for effecting a diminution of the mortality. Nearly all the experts in the Netherlands are agreed that, to wage war successfully against the "white plague," such establishments have become a necessity.

The need of the above-mentioned powerful adjuncts in the strife against tuberculosis is only partially lessened by the gradually increasing number of "tuberculosis dispensaries" for the combating of tuberculosis, modelled after the methods of Calmette and Malvoz, who were the first on the Continent of Europe to introduce this system. But, in my opinion, we must ascribe the priority to Dr. R. W. Philip, as it was he who founded the Victoria Dispensary in Edinburgh in 1887. He introduced central and concerted action in regard to the combating of pulmonary tuberculosis and supervised home treatment.

The first object consists in instructing the patients how to prevent or minimize the risk of infection to others.

¹ The two former Cabinets brought a bill dealing with sickness insurance before Parliament, but it never came up for discussion, owing to the change in Ministry. The present Government, however, will probably elaborate a new bill for sickness and invalidity insurance.

In sixteen Dutch towns—namely, Amersfoort, Amsterdam, Arnhem, Deventer, the Hague, Haarlem, Hengelo, Hilversum, Leeuwarden, Leiden, Rotterdam, Nymwegen, Utrecht, Zaandam, Zutphen, and Zwolle—local societies have already been formed for applying these methods, with the assistance of dispensaries, known here as “consul-



FIG. 5.—SCENE IN THE HOME OF A POOR CONSUMPTIVE, BEFORE BEING ASSISTED BY THE TUBERCULOSIS DISPENSARY AT THE HAGUE.

Drawn by J. Hoynek van Papendrecht.

tation bureaux.” In an equal number of towns preparatory steps are being taken for establishing tuberculosis dispensaries, and it is confidently expected that, through the constant and energetic efforts of the Netherlands Central Association, the Patroness of which is Her Majesty the Queen-Mother, it will not be so very long before every place of any importance will possess one.

All these local societies employ one or more salaried health-visitors or investigators, called controllers or inspectors, and in some districts they are aided by volunteer district visitors.

The medical men who, in the dispensaries, examine the patients, and in concert with the family doctor give them treatment, regulate their mode of living, and give hygienic and prophylactic advice to the other members of their family, are not yet, as a rule, paid a stipend for these services. The medical treatment of the patients is, with few exceptions, left entirely to the family physician. Gradually, however, all this is being altered.

At Rotterdam, among other places, where in 1903 the first dispensary in the Netherlands was instituted, there has recently been inaugurated systematic treatment with tuberculin, always in consultation with, and subject to the approval of, the patients' family physician.

Besides these dispensaries, and unconnected with them, there have been established in a few places, such as, for instance, Utrecht and the Hague, separate tuberculosis polyclinics, under the care of specialists in tuberculosis, where tuberculin therapy is practised.

Besides all this, it was made possible by moneys obtained through collections, gifts, and contributions, to build in the neighbourhood of several towns revolving *liegehallen*, where indigent patients might be received to follow the open-air cure. A small kitchen and dining-room are generally attached for serving the meals. There are no bedrooms obtainable, so in the evening the patients are obliged to return to their own homes.

In Rotterdam, however, the society has rented several rooms in the vicinity of the *liegehallen*, where patients may also pass the night. They are under the direct control of the inspector of the dispensary.

The establishment at the Hague has a house attached, which contains, besides the dining-room and kitchen, a consulting-room, several bathrooms, and two bedrooms, or, rather, sleeping apartments, one intended for six male patients, the other for six female patients. These rooms are destined for patients too ill to return home at night. All others go to and fro every day. The treatment is gratuitous, all expenses being met by the funds of the society.

Another effective measure taken by the local societies is the thorough disinfection of dwellings in which a death from consumption has taken place or from which consumptives have moved. Clothes and bedding of patients who expectorate a great deal are disinfected. The societies endeavour to educate the general public in the principles of hygiene; they send adults and children of tuberculous tendencies to the seaside and out into the country into vacation colonies, so that through the medium of good food and pure air they may have a chance of recovery.

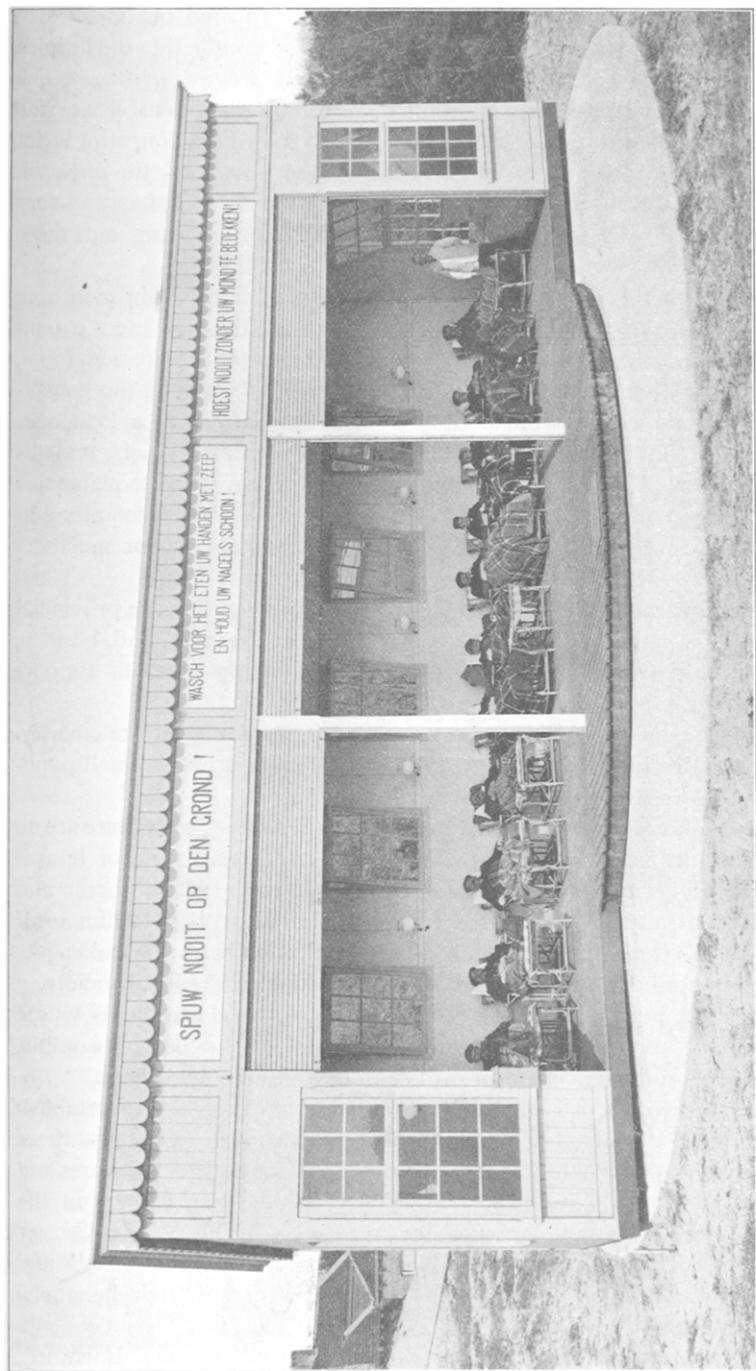


FIG. 6.—LIEGEHALLE OF THE TUBERCULOSIS DISPENSARY AT THE HAGUE.

The local society of Rotterdam entirely furnished out of its own fund the necessary moneys for establishing and conducting the hospice of Katwyk-on-the-Sea, of which we have already spoken. The principal duty of the consultation bureau, however, is to secure the prevention of tuberculosis by prescribing and enforcing the strict observance of all precautions and measures necessary for the *prevention of contagion*, for disinfecting the dwellings of the impecunious and very poor, and providing all materials required for carrying out these measures.

It has been carefully avoided to give a purely philanthropic character to this work. Yet when it is imperative to isolate a patient by the provision of a separate bed, and very often a separate room, but where means to procure them are not forthcoming, the consultation bureau supplies the bed, blankets, and pillows as a loan, sees that the patients are provided with spittoons, handkerchiefs, or balls of cotton-wool for coughing, and if the dwelling is inadequate, also pays the surplus rent for a larger house, sends disinfectants, and sometimes even strengthening food for the patient or for members of his family in danger of infection.

The Government, the town authorities, and some of the provincial boards give a grant to the anti-tuberculosis movement, and, besides, private initiative is found everywhere willing to give its support wherever the matter is taken up systematically.

These local societies are increasing in number all over the country. They are also being established in provincial towns with a small population, and villages even follow in these steps.

The *modus operandi* there is the same as in the cities, only there are no consultation bureaux, and the examination and disinfecting of houses and properties are left entirely to the care of the resident doctor and his assistant, and the medical attendance is left altogether to him, or, if he has a colleague, in concert and in consultation with his colleague, always in connection and under the supervision of the local society.

At present there are already four places in the Netherlands where such local societies act—namely, at den Helder, Lochem, Maassluis, and Norg—and their example will soon be followed by others.

In some places in Holland it was deemed unnecessary to establish special local societies for the prevention of tuberculosis, because there were corporations which had taken upon themselves the care and nursing of the sick in their own homes. They, too, engage in the strife against tuberculosis, and are known as "The White Cross," "The Green Cross," "District Nursing," "Care of the Sick," and similar organizations. Their fame is far-spread, and their beneficial influence is felt everywhere.

In Bodegraven, Breda, Franeker, Koog a.d. Zaan, Bolsward,



FIG. 7.—SANATORIUM FOR CONSUMPTIVE DAY-PATIENTS IN CONNECTION WITH THE LOCAL SOCIETY AT
DEVENTER, OVERYSSEL.

Kinderdijk, St. Oedenrode, Schijndel, Ysselmonde, and Zwammerdam, these bodies all unite in the same purpose of uprooting tuberculosis; and it is expected that before long this energetic movement forward will bring about a greater activity on the part of all societies in the onslaught of the dreaded disease.

To these bodies the Government also gives grants. It stands to reason that such small corporations are unable to afford the erection of day-sanatoria and other expensive structures. The country-people live at a great distance from one another, so they have to make use of individual tents, which are built on the same plan as the lying-halls, and can be turned about to avoid the wind. They can be put up and taken down at a moment's notice, and are very handy for carrying over to the patient's abode.

The smaller societies also endeavour to instil into their patients the importance of sanitary observances, and they hold classes for practical, hygienic, and prophylactic supervision and instruction in the homes of the poor.

It is noteworthy to state here that in several parts of Holland there are societies which care for sufferers from lupus. These also enjoy a grant from the Government, for which purpose a certain sum is always set aside.

For combating bovine-tuberculosis a regular service exists, involving the outlay of several hundreds of thousands of florins per annum; but to go into details about this would exceed my space-limit.

I cannot conclude this article without mentioning the Netherlands Central Association for the combating of tuberculosis, of which I have the honour to be secretary. This is the same society which, under the name of the Central Committee, received the members of the Fifth International Conference at the Hague in 1906. It underwent a complete reorganization in 1907, and is now the representative central body, wherein all the various corporations for the combating of tuberculosis are merged or, as one may say, are concentrically projected. The Board of Administration of this central society is principally composed of delegates from all sanatoria and local societies. The governing committee consists of five members, and is entrusted with the administration of all affairs. There is a paid secretary-treasurer, who is also the responsible editor of the organ of the society, the periodical *Tuberculose*, which is published four or six times a year. This publication is sent gratis to all members of the society, and to a large number of those interested in the movement. At present the circulation averages 12,000 copies of each issue. The members of the society pay a contribution of at least one florin annually. This association also publishes popular pamphlets, giving advice to parents and guardians, and issues coloured picture-cards,

which may be found, among other places, in every railway-station and in every post-office. It also holds lantern lectures, which greatly help in enlightening the public mind—in a word, the Central Association concentrates all its energy upon the great work, the anti-tuberculosis education of the people, and endeavours as much as lies in its power to excite the medical profession to active interest. Moreover, it organizes the warfare against tuberculosis throughout the land, promotes the establishing of consultation bureaux, helps in the formation of other local societies, and enjoys the privilege of being consulted by the Government as to the best means of combating the national scourge of tuberculosis.

Last year the amount appropriated as subsidies for the combating of tuberculosis is 50,000 florins, out of which the Government has granted 10,000 florins to the Central Association.

For the year 1909 the Home Secretary has proposed a subsidy of 75,000 florins for the joint purposes to the second Chamber of the States-General. At the proposal of one of the members of this Chamber, this sum of money was increased, by general votes, to 100,000 florins, of which 17,000 florins will be granted as subsidy for the Central Association. It is confidently believed that in future public opinion will urge the Government to grant an even much larger subsidy to this popular cause.

TUBERCULOSIS IN SOUTH AFRICA.¹

By NEIL MACVICAR,

M.D., D.P.H.,

Medical Officer to the Lovedale Missionary Institution, South Africa.

THE original occupants of South Africa seem to have been Bushmen and Hottentots. The former are now almost extinct. The latter are represented by the coloured people who, numbering under half a million, form the servant class in the Western Province of Cape Colony. These primitive peoples were invaded by the Bantu, who now occupy a large portion of South Africa and constitute nearly three-fourths of its population (nearly four and a half millions). The two chief subdivisions of the Bantu are—the Zulu-Kafir section, who occupy the coast lands from Mozambique right round to about Port Elizabeth in the

¹ The present article is an abstract of a thesis submitted for the Doctorate of Medicine of the University of Edinburgh, and printed *in extenso* in the *South African Medical Record*, June, July, August, 1908.