EASTMAN
DENTAL CLINIC
An account of the Eastman Dental Clinic issued by the Board of Directors at the Inauguration of the Clinic on Saturday, 25 April, 1936
Doctor Harvey J. Burkhart

From an oil-painting by Berthold Olmerson
THE BUILDING COMMITTEE

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Philanthropies; Eastman Dental Clinic, Stockholm book (1936-04-25)
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THE ARCHITECT OF THE BUILDING

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Philanthropies; Eastman Dental Clinic, Stockholm book (1936-04-25)
The late Mr. George Eastman, of the Eastman Kodak Company, Rochester, U. S. A., was not only a prominent industrialist, but also a philanthropist in the best sense of that word.

One of the tasks Mr. Eastman had set himself was to provide facilities for the growing generation to have their teeth properly looked after, and for that purpose he not only established a dental clinic for children in his home town, Rochester, but also donated funds to London, Rome, Brussels, and Paris for the establishment of similar institutions.

His offer to make a kindred donation to Stockholm was gratefully accepted, as the City, which had already for some twenty years provided dental treatment for the pupils of the local Elementary Schools, would thereby be enabled to extend such treatment also to other children. This was considered of particular importance to such children as had not yet reached school age.

The Eastman Clinic, however, is not merely intended to give proper dental care to Stockholm children of all ages from 3 to 15. It will also provide considerably increased facilities for the treatment of their ear-, nose- and throat-troubles.

Mr. Eastman himself expected much from the proposed institution at Stockholm, and before his death he had taken steps to ensure that it should be organized in accordance with his aims and intentions. He did this by appointing as his representative Dr. Harvey J. Burkhart, the Director of the Rochester Dental Dispensary, who had been his expert adviser also in connection with his other donations. The Donor could hardly have made a better choice. While loyally carrying out Mr. Eastman’s intentions, Dr. Burkhart has evinced his full appreciation of conditions characteristic of this country, and has thereby enhanced the value of the donation to the City.
Beside Dr. Burkhardt, Mr. Nils Bouveng has also taken an active part, not only in the negotiations preceding the acceptance of the donation, but also subsequently in the final arranging of the Clinic. Mr. Bouveng has, for instance, himself executed and presented to the institution a portrait medallion of the Donor.

The Eastman Dental Clinic is now about to be opened. This booklet is intended to give a summary account of its origin, its aims, and its organization, and to describe the building and its implements.

THE DONATION. PRELIMINARY INQUIRIES AND RESOLUTIONS.

In the summer of 1930 Mr. Nils Bouveng, an employee of Mr. George Eastman, laid before the Director General of the Royal Medical Board, Mr. Nils Hellström, the Director of the Karolinska Institutet, the late Professor Hjalmar Forsnæs, and Civic Councillor Victor Karlsson, a proposal regarding the provision of dental treatment for children by a donation on conditions similar to those on which Mr. Eastman had already given donations to London, Rome, Brussels, and Paris. Mr. Hellström, Professor Forsnæs, and Councillor Karlsson having expressed their opinion how such a donation could be put to the best use, Mr. Eastman offered to donate to the City of Stockholm an amount of 1,000,000 dollars by the following Letter of Donation:

I will contribute to the City of Stockholm the sum of $1,000,000.00, or its equivalent, for the purpose of building and equipping a dental dispensary or clinic upon a site in the City of Stockholm to be provided by the City, under the following conditions:

1. My contribution shall be used primarily for the erection of the building and the equipment of the same, and the balance, if any, shall be invested and the income thereof used for the establishment and operation of a Department of Orthodontia for the benefit of the indigent children of Stockholm under sixteen years of age.
2. The building and equipment shall conform as nearly as possible to that of the Rochester Dental Dispensary. The site of the building, the name of the architect, and the plans for the building shall be submitted to me in advance for approval by myself or my collaborator, Dr. Harvey J. Burkhardt, Director of the Rochester Dental Dispensary. All equipment shall be purchased under Dr. Burkhardt's supervision and with his approval.

3. The City of Stockholm will provide funds for carrying on the work of the clinic in accordance with the purposes herein set forth, such funds to be raised by taxation or otherwise, as the City may see fit, the City authorities to take whatever steps may be necessary under the local laws to establish the clinic as a City institution which may be legally supported by local taxation.

4. The primary purpose of the institution shall be the care and treatment of the teeth of indigent children under sixteen years of age, residing in Stockholm and its suburbs, including, so far as possible, Orthodontia, or the rectification of the teeth of such children as aforesaid. My purpose is not only to benefit the children of Stockholm but also to have the work of the clinic stand out as an example to the people of Sweden and to people of other civilized countries, as to the beneficial results which may be achieved for humanity in the care and treatment of children's teeth. I have no objection to the charging of a small fee for the work done where possible and where it will not deprive any needy children of the benefits of the clinic. It is understood also, that emergency dental work such as extraction of teeth, may be done for adults, which shall, however, be entirely incidental to and shall not interfere with the main purposes of the clinic.

5. In addition, the clinic shall establish and conduct a School for Dental Hygienists for the training of selected young women to do prophylactic work in dental offices and in schools throughout Sweden, such schools to be conducted along lines similar to the School for Dental Hygienists of the Rochester Dental Dispensary.

6. While the clinic will not carry on the primary education of dentists, it will naturally afford a post-graduate dental course of internship for the young dentists who may be employed in the clinic, especially for those
who desire to specialize in work on children’s teeth. I have no objection to
special lectures and demonstrations in child dentistry being conducted by
the clinic for the benefit of students in the Swedish National Dental Aca-
demy (Tandläkarinstitutet), as suggested by you.
7. It is understood that the City of Stockholm will elect or appoint a
Board of Trustees or Governors for the general supervision of the work of
the clinic, who shall appoint or select a suitable director of the institution,
such selection to be approved in advance by Dr. Burkhart or myself. The
selection, of course, will be based solely on special ability for the position;
the principal requirements, in addition to a thorough training and experience
in dentistry, being a deep sympathy with and understanding of children;
the ability to secure cooperation with school authorities in carrying on the
work of cleaning and examining the teeth of children in various schools
in Stockholm, and the ability to supervise and direct the young dentists and
specialists. In doing this work the director must be willing to subordinate
his own special interests to the cause, and to devote such time as may be
necessary to make the project a complete success. The City or the Board
of Trustees may conduct the clinic in collaboration with the Department
of Public Health of Stockholm (Medicinalstyrelsen) and the authorities of
the Tandläkarinstitutet, as suggested by you, if it or they shall see fit,
provided that the purposes of the clinic as herein set forth shall be main-
tained.
8. While I have full confidence that the City of Stockholm, if it under-
takes this work, will carry it on faithfully and efficiently along the lines
suggested yet in order to guard against a radical change of policy or of
government within the next few years, I reserve the right to retract my
contribution if, within five years after the clinic shall begin to operate, the
purposes and character thereof shall be changed substantially from those
herein prescribed, or if the work shall be abandoned within said period.
In either of those events the City of Stockholm shall repay me or my
executors or heirs the full amount of my contribution.
9. Immediately after acceptance of this proposal the full amount of my
contribution will be deposited by me in a separate account in a Rochester
bank, subject to withdrawal without interest, for the purposes of the clinic from time to time as the erection of the building and the purchase of equipment may require, by check signed by Dr. Burkhart or myself and by two officials of the City of Stockholm to be designated by the City government.

As, by this deed the donation is restricted to the City of Stockholm, Mr. Hellström and Professor Forsner considered themselves no longer concerned in the matter. Councillor Karlsson continued the preliminary inquiry with the assistance of the experts previously consulted by Mr. Hellström. The City Authorities concerned, e.g. the Public Health Committee, the Elementary Schools Board, the Finance- and Appointments Committees, were also invited to give their opinions. At a meeting in London the same year between Mr. Eastman’s representative, Dr. Burkhart, and Councillor Karlsson, Mr. G. Westin and Mr. Waldemar Johanson, it was decided that the word Orthodontia should be given a very wide interpretation, and be considered to comprise also other branches of dentistry than are usually included therein. This is of particular importance from the economic point of view, as the Deed of Gift stipulated that any surplus left over when the building had been completed and fully equipped should be invested, and the interest used for the establishment and maintenance of an orthodontia department for the benefit of indigent children in Stockholm under the age of 16. At this meeting Dr. Burkhart also announced that the Donor would be glad if a department for the common throat- and nose-ailments (similar treatment) could be arranged at the Clinic. The annual cost to the City of receiving the donation had been preliminary calculated at about 170,000 kronor. The part of the Sibblatsberg Hospital grounds adjoining Vasaparken was proposed as a suitable site for the Clinic.

It was expressly stated that the inquiry must not be considered binding with respect to the arrangement of the Clinic and the organization of the work there, but as it anyway indicated that the costs to the City of the Clinic would be well compensated by the advantages provided by the donation, the City Council resolved, on December 13th 1930, gratefully to accept the donation.
The Donor having been informed of this resolution, the money was 
paid into a special account in a Rochester bank in accordance with the Deed 
of Gift, to be drawn on, free of interest, by the City of Stockholm as and 
when required for the building and equipment of the Clinic.

In order to obtain such further information as would be required for any 
subsequent resolution by the City Council in respect of the arrangements 
for and organization of the Clinic, a committee of seven members was in 
January 1931 appointed by the City Board of Administration. The 
members of this Committee were: Civic Councillor Victor Karlson, 
whom the Committee elected Chairman, J. N. Sandblom Esq., First 
Dental Surgeon to His Majesty the King of Sweden, elected vice Chairman, 
Masters N. Bouveng, G. Bohman, A. Haggström, O. Strandberg, and G. 
Westin. The Committee appointed Mr. F. Anger, of the City of Stockholm 
Statistical Office, Secretary, and commissioned Mr. W. Johanson, Archi-
tect, of the Housebuilding Department of the City of Stockholm Estate 
Office, to prepare draft plans for the Clinic, assisted by a staff of helpers 
appointed by the Committee, in consultation with the City Hospitals Com-
mittee, to act under him.

A report was submitted by the Committee in May 1932, and others 
were also received from the Public Health Committee, the Elementary 
Schools Board and the Finance Committee. In accordance with its instruc-
tions, the first named report made clear the interrelation of the dental 
treatment given at the Elementary Schools and at the Eastman Clinic. In 
this connexion it might be mentioned that the treatment given in the dental 
polclinics of the Stockholm Elementary Schools was almost complete at 
the time when the donation was received, all children up to and including 
Class VII, about 30,000 in all, receiving full treatment. It was therefore 
decided that the work of preserving the teeth of the Elementary School 
children should not be transferred from the polclinics to the Eastman Clinic. 
A transfer of the orthodontic, prostatic, surgical, and other more com-
licated cases, was on the other hand recommended. The desirability of 
immediate cooperation, from the beginning between the Elementary Schools 
Board and the Clinic was in addition emphasized.
The Committee had also estimated the probable attendance at the Clinic of about 12,000 children in the first year, and at a maximum of about 20,000 afterwards.

Plans for the establishment were also submitted, recommending that, as suggested during the preliminary inquiry, the Clinic should be built in the grounds of the Sabbatsberg Hospital, and facing Dalagatan and Vasaparken. This was considered an advantageous position, as it was centrally located and easily accessible, while at the same time beautiful and open.

The association with the Sabbatsberg Hospital would be of great importance from a medical point of view, and would also offer certain other advantages, e.g. respecting food and washing, which might be provided by the hospital.

The Committee also submitted plans for the actual building.

The plans submitted for the building of the Clinic and its location had been prepared in intimate cooperation with Dr. Burkhart, who in all essentials was of the same opinion as the Committee, whose estimate for the new building, including equipment and furnishing, came to 2,550,000 kronor. The building and the building operations are described below.

Although certain inquiries had not yet been completed, the Committee proposed that building operations should be commenced at once, partly for the reason that Dr. Burkhart had expressed a definite wish to that effect, and partly because the exchange situation at the time was considered very favourable for a transfer of the donation funds into Swedish kronor.

Among the work still to be done, the Committee mentioned the preparation of plans for the organization of the work at the Clinic, and its annual budget.

The Committee suggested, however, that these matters should be left to the future Board of the Clinic, which also ought to supervise the building operations. It was proposed that the Board should consist of not less than 5 and not more than 7 members, of whom one was to be appointed by the Elementary Schools Board and the others by the City Council. Cooperation between the Elementary Schools Board and the Eastman Clinic would then, in the opinion of the Committee, be ensured if the instructions...
to be issued for the Board of the latter provided for the Elementary Schools Board appointing one of its members.

On the whole, the proposal of the Eastman Committee gained the approval of the City Council. In June 1932 the Council resolved:

a) to approve, for its part, the proposal submitted for the building of the Eastman Clinic on the site recommended by the Committee.

b) to approve, for its part, the instruction for the Board and to submit this to the King in Council for confirmation.

c) to appoint 5 members and 3 deputy members of the Board, and to request the Elementary Schools Board and the Public Health Committee to elect members as said in the instruction.

d) to instruct the Board thus elected to supervise the work of building the Clinic, and to make such further investigations regarding its working arrangements as might be necessary, and to make the requisite recommendations to the City Council.

The following were appointed to the Board: Civic Councillor Victor Karlsson, Chairman, Mr. G. E. Eggert, vice Chairman, Mr. F. A. L. Ahlborg, Mr. H. Adamsson, Mrs. Ruth V. M. Gustafson, Mrs. Ester L. Järre, and Mr. J. N. Sandblom, First Dental Surgeon to His Majesty the King of Sweden. Mr. A. E. Riertz, Chief Medical Officer of the City, Mr. C. N. T. Beyer, Mr. Henning Karlson, Mrs. Sigrid A. Lundin, and Mrs. Gulli C. V. Bergman, were appointed deputy members. Mrs. Järre and Mr. Henning Karlson, member and deputy member respectively, having resigned from the Board from the beginning of 1936, Mrs. Alice Hellström, medical practitioner, and Dr. C. G. Svedenius were appointed member and deputy member in their stead. Councillor Karlson was appointed Treasurer, Mr. Eggert his deputy, and Mr. G. Bohman Secretary and Accountant.

In order to achieve successful cooperation between the Eastman Clinic and the Elementary Schools Board, the Board resolved that the management of the Clinic and the supervision of the Elementary Schools Board Dental Polichinics shall be in the hands of the same person. This arrangement having met with the approval of the Elementary Schools Board, the Inspector of the
Schools' Dental Polyclinics, Dental Surgeon O. Strandberg, was appointed Director of the Clinic until the end of 1940.

A special committee was elected from the members of the Board for the purpose of planning the organization of the Clinic. The preliminary work was entrusted to three delegations: one to deal with the organization of the dental departments, another with that of the nose- and throat-departments, subsequently extended to comprise also an ear-department, and a third for dealing with joint questions. The first delegation consisted of Messrs. J. N. Sandblom, First Dental Surgeon to His Majesty the King of Sweden, O. Strandberg, Director of the Clinic, B. Östman, and B. Kjellgren, Dental Surgeons. The organization of the nose- and throat-department was dealt with by Dr. A. Häggström in collaboration with Drs. P. Freuncker and G. Öhngren, and certain joint questions have finally been dealt with by Councillor Wictor Karlsson.

On completion of this work the Board submitted a proposal as said below, confirmed by the City Council in December 1935, for the organization of the Clinic.

The department for nose- and throat-diseases has, by special permission of Dr. Burkhardt, been extended to comprise also diseases of the ear, and has thus been made into a complete hospital section, which is of great advantage to the care of the sick in the City.

ORGANIZATION OF THE CLINIC.

Departments of the Clinic.

There are four dental departments in the Clinic, viz.:
1. The tooth-filling department.
2. The orthodontia department (dental adjustments).
3. The X-ray and dental surgery department.
4. The polyclinic for adults.

As has already been said, there is in addition a department for all diseases of the ear, nose, and throat. On the lower ground floor there are also two fully equipped laboratories for scientific research.
In view of the great importance of the milk dentition to the development of the permanent teeth and to physical health in general, the Clinic will provide rational care of both milk and permanent teeth from the time when the children are three years old onwards. The Clinic will make propaganda for early dental treatment for children, combined with prophylactic supervision of the development of their dentition. In order that the early care given to the milk teeth at the Clinic may not be wasted, it must be continued in the Elementary Schools, and the Board has therefore recommended the introduction of milk teeth treatment in these schools, as soon as possible after the opening of the Clinic, and this recommendation has now been adopted by the Elementary Schools Board.

As regards the further relations between the dental treatment in the Elementary Schools and at the Eastman Clinic, it is intended to utilize the latter also for other cases than the rather special ones originally intended. It has thus been agreed that the children attending classes 1–7 in the adjacent Elementary Schools — i.e. the Adolf Fredrik, Gustav Vasa, and Jakob schools — as well as the children from the 8th Elementary School class, shall be tentatively sent to the Clinic for the care of their teeth. Roughly 2,400 children attend the above schools.

Any cases that cannot be given the treatment they need at the Elementary Schools Board Polyclinics will also be sent to the Clinic.

It is estimated that 17,000 children will attend in the first year. In order not to make the organization too large, however, the staff has been calculated on the basis of 14,000 child patients, and will be enlarged later as required.

Apart from the above-mentioned children from certain Elementary Schools, dental treatment will also be provided for patients from the Children’s Homes of the Child Welfare Committee, who are not receiving treatment in the Elementary Schools, for patients from the highest class of the Elementary School and its continuation schools — who are not at present given treatment in the Elementary Schools —, for patients from secondary and private schools, and finally for children who have not reached school age.

The main object of the polyclinic for adults will be to provide treatment for poor people under the administration of the Poor Law and the Public.
Health Committees. By transferring their treatment to the Clinic, municipal expenditure on this account will, it is estimated, be considerably reduced. The Poor Law and the Public Health Committees will be charged, however, for this treatment on mainly the same basis as before.

The accommodation in the department for ear-, nose- and throat-diseases includes an operating room, and wards for treating 25 patients at a time.

By the stipulations of the donation, children from destitute and poor families shall primarily be treated at the Clinic. This department will thus examine and accept for clinical treatment cases from these social groups sent to it from the dental departments of the Clinic, from medical practitioners and pediatrists, from special polyclinics and specialists in private practice, and from dentists.

Judging by the large number of cases of this nature treated in the Sabbasberg and Serafin Hospitals, and in Crown Princess Louise’s Nursing Home, this department will be utilized to the full. The last-named institution in particular is in great need of relief in respect of its oto-laryngological work.

Courses of Training at the Clinic.

In accordance with the conditions of the donation, courses for the training of dental nurses will be arranged at the Clinic. The training period has been fixed at 15 years, i.e. a six months theoretical course, followed by one year of practical training. A fee of 300 kronor, or the same as at the Swedish National Dental Academy, is charged for the theoretical course. During their practical training in the Clinic, however, the pupils will be paid a small salary. The theoretical instruction will comprise lectures and examinations on various subjects, in conjunction with practical demonstrations. Pupils who have passed the Swedish National Dental Academy examination will be admitted to the practical course without going through the theoretical training or paying the fee for this. A number of 20 pupils, divided among the various departments, is suggested.
Post-graduate courses for young dentists wishing to specialize in dental treatment for children will also be arranged. Attendance at these courses will be limited to 15. The training is intended to comprise practical instruction for one year.

**Income and Expenditure at the Clinic.**

The approved budget for the first year of activity shows an income of 228,000 kronor, and expenses of 222,353 kronor, and the latter thus exceed the income by 16,853 kronor.

**The Building and its internal disposition.**

A special delegation consisting of Civic Councillor Victor Karlsson, Chairman, Mr. G. E. Eggert, vice Chairman, and Mr. J. N. Sandblom, was appointed by the Board of the Clinic for the immediate supervision of the building operations.

These began in the autumn of 1932. On April 29th 1933 the foundation stone of the Dental Clinic was formally laid, in the presence of T. R. H. the Crown Prince Gustaf Adolf and the Crown Princess Louise, the Donor's representative Dr. Harvey J. Burkhart, the European Agent of the Eastman Concern, Mr. N. Bouveng, representatives of the City Council and the City Board of Administration, and others. On this occasion a deed box, containing copies of the Donation documents, an account of the circumstances associated with the donation, and plans and specifications of the building, was immersed in the foundations.

It has already been said that one reason why the building was placed in close proximity to the Sabbatsberg Hospital was the expediency of this Clinic, like the Eastman Clinics in London and Rome, being associated with a hospital. Its location in the north part of the hospital grounds provides good tramway communications with large portions of the City. The position was also beautiful and open. One condition of obtaining this site was that the hospital mortuary chapel was to be moved, and this has been done.
Point 2 of the Deed of Gift stipulated that the building and equipment should conform as nearly as possible to that of the Rochester Dental Dispensary. The main feature of the plan is the large hall for dental treatment. In Rochester, and in London and Rome, this had been placed on the top floor of the building, where skylights could be provided. As this department is by far the most used of all the departments of the Clinic, however, it was considered desirable to have it on the ground floor. Here, as in operating theatres, the need of artificial light for the work is becoming increasingly recognized, and the absence of skylights was therefore not considered to be a serious drawback. As the entrance hall faces Dalagatan, the ground floor will, on account of the slope, be one and a half floor above ground level. This circumstance naturally helped to overcome any hesitation.

Other decisions of importance to the planning were that the frontage towards Dalagatan should be dignified, and that the main part of the building, towards the park, should be lower than that facing Dalagatan. To realize these objects, the building was made in the shape of a T, the horizontal part of which, towards Dalagatan, was made two floors higher than the vertical part towards the park.

Before the building towards Dalagatan, a court has been arranged by withdrawing the frontage twenty metres from the line of the street. A fountain has been placed in this court. A sculpture, representing a child on a terrestrial globe playing with the water jets, is placed in the middle of the fountain basin. The globe is of light Swedish marble, and the small child, cast in bronze, is the work of Mr. Clarence Blom, the sculptor.

The portico of the building opens on to the court, surrounded by veined Swedish granite. The plinths and the terrace walls etc. are also made of the same beautiful material. The walls of the building are finished in light Terrasite plaster.

One side wall of the entrance is adorned by a portrait medallion of the Donor, Mr. George Eastman, executed and presented by Mr. Nils Bonveng. On the opposite wall a medallion is put up bearing the following inscription: "To the benefit of the growing generation, George Eastman, Industrialist, ..."
Philanthropists presented this Institution to the City of Stockholm. The building was erected 1932-1935.

From the entrance hall, which — containing also cloak room and business office — extends over the whole width of the building towards Dalagatan, the whole length of the building can be surveyed, glass partitions permitting a view throughout the length of the building towards a window in the far gable wall. Adjoining the entrance hall are the Director's and Social Service rooms, as well as a Board room. «Maternal Happiness», a sculpture by Olof Ahlberg, is placed in the centre of the entrance hall. So far, this is only a plaster cast, as time has been too short to have it cast in bronze. The group symbolizes the activities of the Clinic.

In the part facing the park are the waiting room and the hall for dental treatment. Four columns in the middle of the latter, covered with stainless steel, carry the floor above. The hall is designed for 38 dental units, but only 20 have so far been installed. In addition, there are three examination rooms. To eliminate as far as possible the unpleasant and disturbing resonance usual in large halls, special steps have been taken to absorb the sounds by covering the ceiling with Sanacoustic tiles from Messrs. John-Mauville, U. S. A. Apart from making the room strangely quiet, this also prevents sound from the dental treatment hall penetrating the glass doors to the waiting room.

Underneath the dental hall and the rooms adjoining it is a floor for the pipes, 1.5 m high and with a centre alley 2 m in height. The idea of this is to make all the pipe lines for the treatment department on the floor above easily accessible for maintenance and repairs. Such «pipe-galleries» underneath the operating rooms are by no means rare in American hospitals.

The waiting room, with control desk and tooth-brushing room, is entered straight from the centre part of the entrance hall. Its decoration has been entrusted to Mr. Einar Forseth, the artist. The panels on the western wall show motives from «Little Red Ridinghood», «Per the Swine herd», «Mother's little Olle», «Little Karin», «Gathering Oats», etc. The other panels will tell tales of discovery and adventure, e. g. of the Swedish explorers of the Arctic Sea, S. A. Andrée and Finn Malmgren. A method
of oil and distemper painting on canvas panels has been used for these pictures.

In the waiting room there are also a bird cage, an aquarium, and some toys for the smallest children, all provided in order to distract the attention of the children from the pending treatment.

A staircase from this centrally placed waiting room leads up to the orthodontia and surgical departments on the next floor, and to the consulting and operating rooms of the ear-, nose- and throat-department.

The orthodontia department comprises an examination room and a large hall with 7 dental units, besides laboratory and plaster room.

The dental surgery department is divided into four small rooms, with one dental unit in each. The reserve staircase of a lecture room on the same floor serves as the exit from this department.

The ear-, nose- and throat-department comprises, besides consulting and waiting rooms, a complete operating section with a large room for examinations, with three working places, and two operating rooms, of which one is in reserve for future contingencies. There are also an anaesthetic room, scrub up room for the doctors, a room for the nurses on duty, and store room.

These departments are all provided with sterilizing rooms, and — except for the orthodontia department — also with rest rooms where the children may be put when necessary.

Beside these treatment rooms, there are on the first floor also an X-ray department and a lecture room, both accessible direct from the main staircase.

The X-ray department comprises waiting room, dark-room, and X-ray laboratory, and a room for taking photographs for the orthodontia department.

The lecture room, which will seat 170 persons, is provided with a film-projecting room, and adjoining it is a room for the lecturers.

On the floor above, which only extends over the part of the building nearest to Dalagatan, there are wards with 25 beds for ear-, nose- and throat-patients, i.e. one ward of 6, three of 3, and two of 2 beds each, these latter being arranged on the cubicle-system. There is also an isolation room.
with separate W.C. and scullery with cupboards. Necessary offices, e.g. serving kitchen, treatment and utility rooms, bathrooms, nurses’ station, and store room, are also provided.

On the next, third, the top floor of the building, there are residential rooms for the doctors and nurses.

On the lower ground floor are dining rooms for the staff, with requisite pantries and sculleries, rest-rooms, and locker-rooms, as well as living accommodation for the matron and the instrument maker. On this floor there are also a class-room for the instruction of the nurses and two laboratories for scientific research. Finally, a department for adults has been fitted up here, with three dental units.

The attached plans will give a good general idea of how the accommodation is arranged.

The ground underneath the building is filled out, partly very deeply, down to the solid rock. Concrete piles have therefore had to be driven in, and the concrete walls are resting on the rock only underneath the southeast corner of the building. The frontage walls are built of bricks and the internal construction is an iron framework. Inside partitions are mostly made of double slabs of light-weight brick with an insulating mat of seaweed, or — in some cases where a better sound-insulation was desired — a layer of glass wool, between them. The pipes and ventilating ducts, the latter largely made of asbestos cement, are as a rule placed in the outer walls.

The calculations of strength have been made by Professor Henrik Kreüger, who has also been consulted on questions of acoustics and sound insulation.

Work on the foundation was commenced on October 7th 1932 by Aktiebolaget Skånska Cementgjuteriet. On account of a strike, work on the building was interrupted from April 1st 1933, when the foundations were already completed, to April 16th. On the latter date Mr. Axel Olsson, who was the contractor, commenced the building operations.

The ventilation, heating, and sanitary plants were designed by Messrs. Hugo Theorell, Engineers, according to the following specification.
In the boiler room, situated in the western part of the building, are installed one hot-water boiler and two steam boilers, working at a steam pressure of 0.8 atm. and with a total heating surface of 107 sq. m. The hot-water boiler heats the water for the central heating system. The two steam boilers supply steam for cooking, sterilizing, and the ventilation plant, and for heating any hot water required. By means of a steam-water-heater on the counter-current principle, the steam can also be used to heat the water in the heating system, in so far as steam is available for this purpose. The boilers in the heating central are oil-fired. Two semi-automatic and one wholly automatic burner are installed, the latter for the smaller of the steam boilers.

Hot water for baths, wash-hand stands, washing-up sinks, etc., is supplied from a water-heater in the boiler room, made of copper and holding some 1,700 litres. The steam supply to this heater is governed by two regulators of which the one, adjustable to temperatures from 60° to 80° C, shuts off the steam when the water has reached the desired temperature, and admits it again when the water has cooled. The other regulator cuts off the steam when the pressure in the boiler falls below 0.8 atm. The object of this is to prevent too great fluctuations of pressure, so that this will always be sufficient for sterilization purposes.

The building is heated by a normal hot-water central heating system worked by a pump. The water heated in the boilers is circulated by either of two centrifugal pumps, of which one is always kept in reserve. It is taken in pipes to the sheet-steel radiators, usually placed beneath the windows. The operating rooms are also provided with steam-heated cast-iron radiators sunk in the walls, and can thus be heated even at times when the central heating system is not in use.

The proper ventilation of the premises is provided for by a plant in which fresh air is heated and conveyed to the various rooms in ducts and canals. The operating department and the wards are also provided with arrangements for humidifying the ventilating air. The heated air is taken to the wards partly through internally glazed pipes laid between the ceiling rafters of this department. Air diffusers, so-called anemostats, partly
made of glass and combined with the electric light fittings, are installed for introducing the air in the wards, orthodontia room, operation and examination rooms, and sculleries. The used-up air is drawn out of the rooms by a number of fans connected by ducts, generally made of asbestos cement and placed in the outer walls, to exhaust openings in each room. The fans blow the air out above the roof.

Most of the sanitary ware is of Stanstead make. The faucets etc. are made of white bronze of high nickel content, in smooth and strong designs. Copper pipes are used for hot and cold water, and for pressure air. Stainless steel is used for all sinks and washing-up tables.

An automatic, pneumatic plant is installed for the dental units etc. Connections for gas, hot and cold water, and waste-pipes are also provided for every unit.

All wash-hand stands are fitted with hot and cold water mixers. Pipes carrying tempered water are led to the larger groups of tooth-brushing basins.

The sterilizing rooms in all the departments are provided with boilers for instruments and vessels. In the operating department on the first floor there is a complete sterilizing plant for instruments, vessels, etc. The water there is kept at a constant temperature by an electrical element with an automatic relay.

Ovens for sterilizing bandages, with recording control instruments, are also provided.

All apparatus is of the latest models and designed for steam heating.

Modern dentistry has fully appreciated the value of electric power as an aid in the work, e.g. for boring, heating, lighting, diathermal and X-ray treatment, etc. Electricity is used in the Eastman Clinic wherever it can make the working easier. The electrical plant is designed by the Elektriska Rörfrängningsbyrån. The available current is 220 volt, alternating, 50 c., supplied in double service cables, and debited by the Electricity Works at the maximum low tension rate.

The lighting is designed to suit the special requirements of each department. The guiding principle has been to create a good, non-dazzling illumina-
tion throwing well-balanced shadows, and to supplement this by special lights where required, e.g. in the work and finishing shops, laboratories, etc.

The fixed fittings are designed to go well with the internal architecture of the building.

The operating room in the ear-, nose- and throat-department is fitted with operating lights and triplex pendants with contact for adjustable low tension current.

Adjustable operating lamps are provided at the dental units.

The lecture room is equipped with an apparatus for projecting writing instead of with a black-board, and with a film projector for silent and sound-film of both normal and narrow widths, as well as an episcopic projector for showing on the screen pictures and objects that are not transparent. The room is lit by rows of lights which can be successively lit by a rheostat operated by push buttons, to adapt the illumination to requirements.

Further, there is an X-ray department — designed for 2 apparatuses of Röntgen’s model with contact guards, although for the time being only one has been installed —, dark-room with Eastman-Kodak safety fittings with exchangeable glasses, electrical drying cupboard, etc.

Every bed in the wards on the second floor is provided with lighting, suitable for the needs of both doctor and patient, on modern principles.

All tooth drills, adjustable air and water heaters, cauteries, mouth-mirror lamps, etc., are electrical. Thirty-seven dental units are provided in the tooth-filling, orthodontia, and extraction departments, in the examination rooms, and in the department for adults.

A system of electrically operated air-warmers and fans ensure good ventilation and a plentiful supply of fresh air. The inflow of air is automatically regulated by electrically operated shutters, thus avoiding uneconomical speed adjustments of the fans, which are driven by 3-phase motors.

Electrically operated roller blinds, with push-button controls, are fitted in the operating and lecture rooms.

A passenger lift, also capable of taking stretchers, is installed in the glass-enclosed central main stairway shaft. It is fitted with push-button controls, automatic level adjustment, and electric floor-indicator.
The signalling system, electric clocks, central radio, and a private telephone switchboard connected to the public telephone exchange, described below serve the whole organization.

Doctors can summon a nurse from any dental unit in the tooth-filling department, or communicate to the office when ready for the next patient. Similar signals can be given from the orthodontological and extraction departments, and in the ear-, nose- and throat-department.

A light-signal system is installed in the wards on the second floor, by which the patient can summon the nurse. Every nurse can switch the signals to the rooms where she is at the moment. The ward is wired for connecting radio ear-phones to the central receiver, from which lines are also drawn to the luncheon room, to the nurses' rest-room, and to the loud speaker in the lecture room.

The electric clock system consists of a master clock, from which impulses are sent to 11 secondary clocks, mounted in suitable positions in the building, showing exactly the same time as the master clock.

Telephones from the entrance are fitted to all the living quarters — matron and porter on the lower ground floor, doctors and nurses on the third floor — and are combined with a day and night accident alarm in case of suffocating or other sudden attacks.

The telephone system is a combination of public and local lines, with an automatic exchange for local and outgoing calls and a manual exchange for the distribution of incoming calls. Certain open circuits instruments can be automatically connected with the public lines by the dial, but can also be used for local calls in the building, while the other, closed circuit, instruments can only be used for local calls within the building. During a conversation it is also possible to communicate, for obtaining information, with other telephones in the building without disconnecting the original call, and to switch a call to another instrument.

Messrs. S. A. Forsberg's Dental Depot have acted as consultants with regard to the dental equipment.

The furniture and other equipment has been purchased by Mr. Victor Rieger.
Since the approval of the draft plans, the architect of the building, Mr. Waldemar Johanson, has been assisted by Mr. Erik Högström in the making out of the main plans. Subsequently, Mr. Carl E. Sandberg, has assisted throughout the building operations in the preparation of the working and detail drawings. The furniture and electric light fittings are designed by Mr. Gunnar Eklöf, who has also assisted in some of the internal fixtures.

The architect has been seconded in the administrative part of his work by Mr. K. J. Karhoo, who has also acted as controller of the building operations, and coordinated the work of the contractors.

Costs of Building and Equipment.

The aggregate costs of the building and its equipment have come to about 2,500,000 kronor, divided among the different items approximately as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constructional work</td>
<td>1,375,000: —</td>
</tr>
<tr>
<td>Heating system and sanitary fixtures</td>
<td>295,500: —</td>
</tr>
<tr>
<td>Electrical installation and lift</td>
<td>97,500: —</td>
</tr>
<tr>
<td>Outside piping</td>
<td>70,500: —</td>
</tr>
<tr>
<td>Forecourt, fence, roads, levelling, and plantations</td>
<td>100,000: —</td>
</tr>
<tr>
<td>Artistic decoration</td>
<td>50,000: —</td>
</tr>
<tr>
<td>Furniture and equipment</td>
<td>501,000: —</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,500,000: —</td>
</tr>
</tbody>
</table>

The Donor had stipulated that the donation capital was to be administered by a Rochester Bank and transferred to Stockholm as and when required for the erection and equipment of the building. So far, the Board has accordingly drawn an amount of 600,000 dollars. As mentioned above, that amount has, by kind permission of Dr. Burkhardt, been drawn successively, and by taking advantage of the at times very favourable rate of exchange the amount credited the Clinic has, at an average rate of exchange of kronor.
4:30 to the dollar, totalled 2,700,000 kronor. If valued at the normal rate of exchange of kronor 3:73 to the dollar, the balance of the donation capital, 490,000 dollars — which according to the letter of Donation is to be transferred when the Clinic is completed — will amount to about 1,402,000 kronor. As the net income from interest may be computed to be about 27,800 kronor, the total amount received in respect of the donation will be about 4,220,000 kronor. If to the above expenditure on the building and equipment of the Clinic, 2,500,000 kronor, are added the costs of the inquiries etc., about 45,000 kronor, the total costs would thus be about 2,545,000 kronor. The amount left of the original capital may thus be estimated at about 1,875,000 kronor, the income from which fund will, according to the letter of Donation, be primarily used for the operation of the Department of Orthodontia.
Philanthropies; Eastman Dental Clinic, Stockholm book (1936-04-25)
Philanthropies; Eastman Dental Clinic, Stockholm book (1936-04-25)
The fountain in the Forecourt
Sculpture by Clarence Blum

Frontage towards Dalagatan
Entrance Hall and main staircase
"Maternal Happiness"
Sculpture in Entrance Hall by Olof Ahlberg
The Waiting-room
Wall panel in the waiting-room
Painted by Zinar Forsoh

Philanthropies; Eastman Dental Clinic, Stockholm book (1936-04-25)
Wall panel in the waiting-room
Painted by Eino Forshk

67
Dental treatment room
69
Philanthropies; Eastman Dental Clinic, Stockholm book (1936-04-25)
Operating room

Examination room

77
6-bed ward

2-bed ward (cubicle system)
Rest-room for nurses and students

83