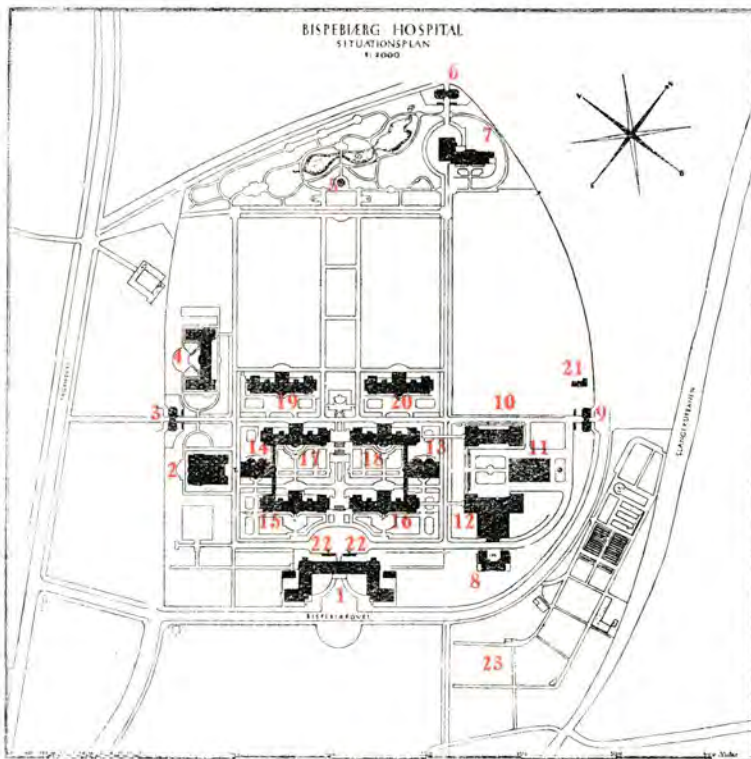


## BISPEBJÆRG-HOSPITAL

Bispebjerg Hospital was erected by the Municipality of Copenhagen during the years 1908 to 1913; it was opened on September 19<sup>th</sup> 1913. The hospital was built after the Pavilion system and is provided with 2 surgical departments (A and D) and 2 medicinal departments (B and C) each under an head surgeon divided into 6 pavilions for the patients, and is composed of the following buildings: Administration building, Nurses building, Bath & Massage clinic, 2 Operation buildings, Pathological Institute, Chapel, 3 Lodges, Employees' building, Machine-house, Kitchen building, Water-tower, and Central-Laundry building. The area is about 52 acres. All the buildings with the exception of the Chapel and the Pathological Institute are connected by a network of tunnels intended for the transportation of patients and materials, and 2 Surgical pavilions are moreover connected with the respective operation buildings by 2 roofed corridors. The hospital contains 726 beds, and the erection has cost 6,243,542 Kr., and in addition hereto 869,101 Kr. were spent on Mounting. Thus, each bed costs about 9800 Kr.

Each patients-pavilion consists of 2 floors, and on each floor there are 2 wards for 16 patients, 2 for 6, 2 for 3, and 2 for 1 patient, moreover 2 veran-

*Bispebjerg Hospital, Ground-Plan.*



1. Administration building
2. Bathing building
3. Lodge
4. Nurses' hostel
5. Water tower
6. Lodge
7. Chapel and mortuary
8. Staff quarters
9. Lodge
10. Kitchen building
11. Machine and boiler house
12. Laundry building
13. Operating building
14. " "
15. Patients' building
16. " "
17. " "
18. " "
19. " "
20. " "
21. Workshop
22. Bicycle shed
23. Municipal nursery garden

das for 3 or 4 patients. Besides there is a sitting room for patients who are not confined to their beds, tea kitchen, bathroom, sterilising room, scullery, lavatories and an examining-room and laboratories.

Of the hospital's territory about  $2\frac{1}{2}$  acres are laid out as a kitchen garden, about 4 acres as an orchard and about 5 acres as a park for the nurses and the other employees. In addition, a garden has been laid out at each patients-pavilion where the patients can stay, and also gardens for the resident doctors and officials with their families. A great part of the territory has been left unbuilt upon, with the object of extending the hospital. The hospital is expected in the future to be extended to comprise about 2000 beds.

### *The Pharmacy*

which is situated in the basement of the administration building, consists of the following premises: Officinal room, Office which also serves as analytical laboratory, Dispensary with steam plant, Vacuum-distilling plant, Sculleries, Stores, and also a Packing-room and Cloakroom; besides the pharmaceutical rooms, the Pharmacy also has at its disposal rooms for the storing of inflammable liquids, spirits, chemicals, pharmaceutical preparations etc. and also bottles.

The Pharmacy delivers medicine and technical drug materials to other Municipal hospitals etc.

*Plan of a floor in a patients' Department.*



- 1. Examination room
- 2. " " "
- 3. Sterilisation room
- 4. Bath room
- 5. Lavatory
- 6. Rinsing room

- 7. Ward with sixteen beds
- 8. Veranda
- 9. Depot
- 10. Ward with six beds
- 11. Single ward
- 12. Ward with three beds

- 13. Sitting room
- 14. Ward with three beds
- 15. Single ward
- 16. Ward with six beds
- 17. Depot
- 18. Ward with sixteen beds

- 19. Veranda
- 20. Rinsing room
- 21. Lavatory
- 22. Pantry
- 23. Lift

### *The Surgical Polyclinic*

is under the direction of the 1<sup>st</sup> Assistant-doctor of the surgical department A. Free treatment is granted to people without means who live within the limits of Copenhagen, partly those who, having been discharged from hospital, continue to receive treatment as out-patients, and partly those who live in the surrounding districts and who require surgical assistance without requiring to become inpatients in a department of the hospital.

The Polyclinic comprises amongst other things an operating room, 2 examining-rooms, an office, a room for the Chief and a room for the storing of dressings.

### *The X-Ray Clinic*

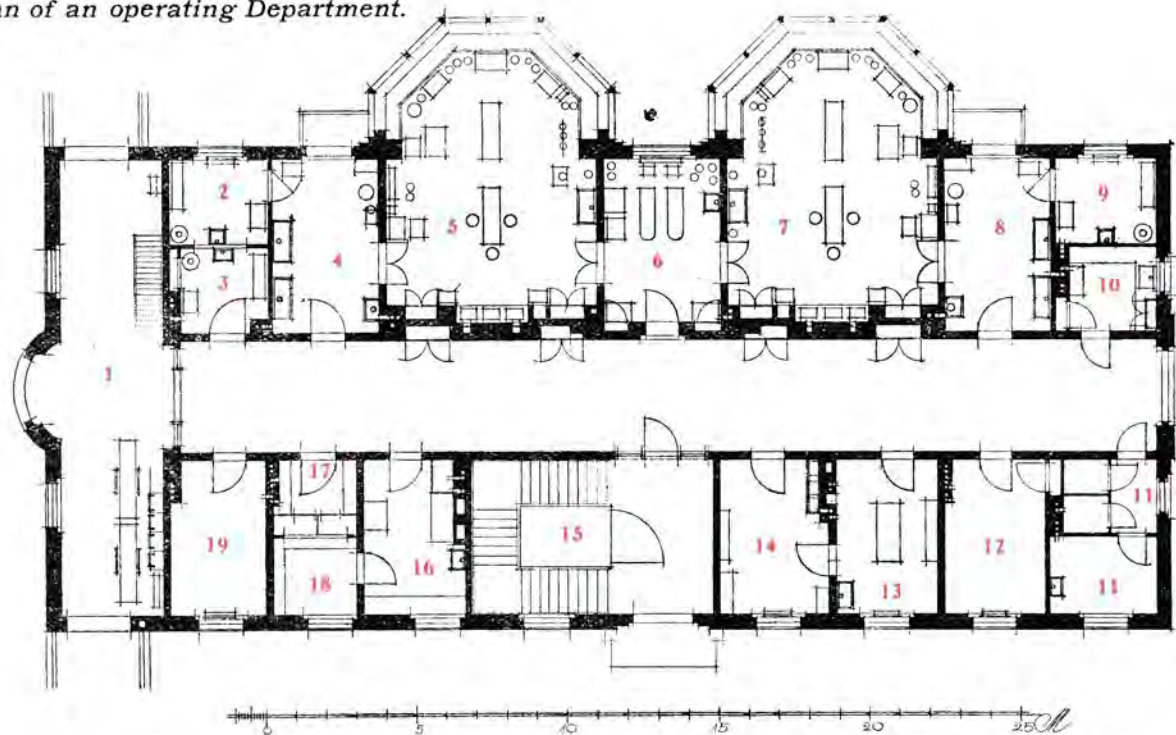
which is situated on the ground floor of one of the operating buildings, consists of 12 large and small rooms, a corridor which also serves as a waiting-room, and finally the fireproof film archives and studio, situated outside the Clinic proper. Further some cellars belong to the X-ray clinic where the machines of the clinic are placed.

The clinic which was established in 1914 was extended and modernised in 1929.

### *The Bath and Massage Clinic*

has a building to itself, and is connected with the rest of the hospital by underground corridors. It consists of 2 buildings lying lengthwise connected with 2

*Plan of an operating Department.*



- |                            |                                 |                      |                                   |
|----------------------------|---------------------------------|----------------------|-----------------------------------|
| 1. Connecting passage      | 6. Anaesthetics room            | 11. Waste room       | 16. Sterilisation room            |
| 2. Head surgeon's bathroom | 7. Operating room               | 12. Dining room      | 17. " "                           |
| 3. Students' bathroom      | 8. Lavatory                     | 13. Examination room | 18. Room for sterilised dressings |
| 4. Lavatory                | 9. Assistant surgeon's bathroom | 14. " "              | 19. Nurse's room                  |
| 5. Operating theatre       | 10. Kitchen                     | 15. Lift             |                                   |

cross buildings forming a roofed-in »yard«, whereby some large rooms lighted from above are formed in the middle. The flat roof of these lies sunk between the sloping roofs of the lengthwise buildings and the foremost and hindmost cross-building in such a way that an excellently situated yard exposed to the sun is formed.

The clinic is divided into 2 departments of the same type, one for men and one for women. The clinic provides the various Cataplasmas, Bath-, Massage-, Light- and Electrical treatments.

Patients from the departments of the hospital are referred to the Clinic; these can continue treatment after discharge.

### *Nursing.*

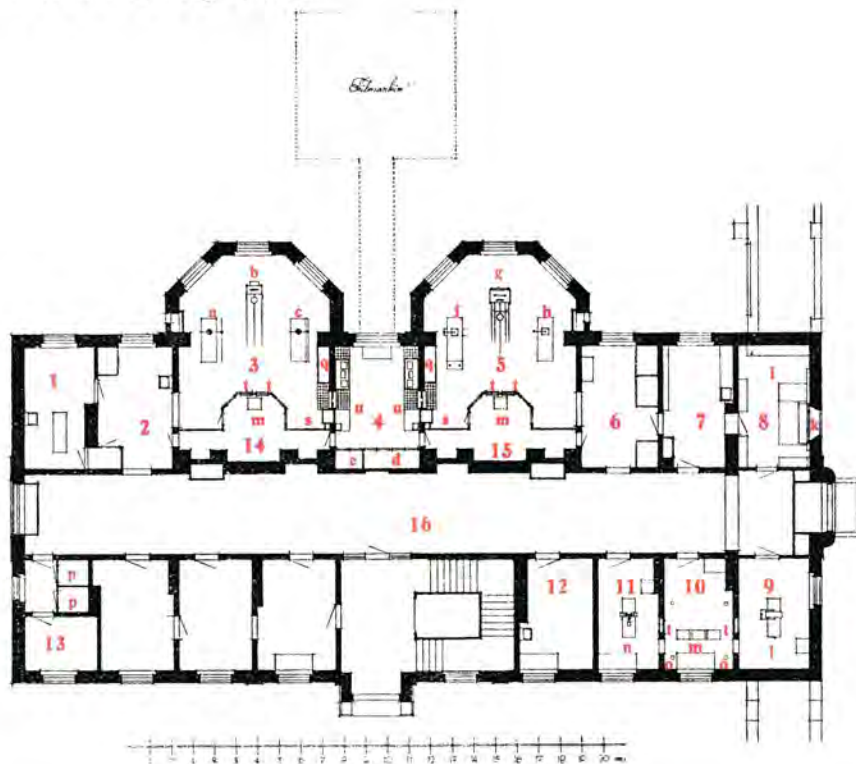
In charge of the Nursing is a matron, an assistant matron, an instruction nurse, 17 sisters, 69 assistants and about 150 probationers.

Probationers are taken on 3 times a year, that is, in March, September and December. They go through a 6 weeks' preliminary course in theory and practice, after which they are assigned to the different departments.

Working-hours are, for day-duty, from 7 a. m. to 7 p. m. with 2 hours free-time and 1 hour for meals, and for night-duty, from 7 p. m. to 7 a. m. All the nurses and probationers have 1 day free a week.

The permanent nurses have 4 weeks, and the probationers 3 weeks annual holiday.

*Plan of the X-Ray Clinic.*



1. Room for Pyelography etc.
2. Waiting room
3. Diagnosing room
4. Dark room
5. Diagnosing room
6. Waiting room
7. Dressing and staff room
8. Office
9. Therapeutical room
10. Regulating room
11. Therapeutical room
12. The clinic chief's office
13. Rinsing room
14. Regulating room
15. " " "
16. Corridor, waiting room

- a. Couch
- b. Forsell-easel
- c. Potter-Bucky board
- d. Drying cupboard
- e. Reducing apparatus
- f. Trochoscope
- g. Forsell-easel
- h. Potter-Bucky board
- i. Light case for examining films
- k. Sash window for examining films
- l. Therapeutical couch
- m. Regulating board
- n. Therapeutical couch
- p. Toilet
- q. High tension cupboard
- s. Case cupboard
- t. Speaking grill
- u. Sluice tanks



After a three year training in theory and practice the probationers are submitted to a final oral examination; on the average, about 50 probationers are sent up for examination every year.

### *The Pathological Institute*

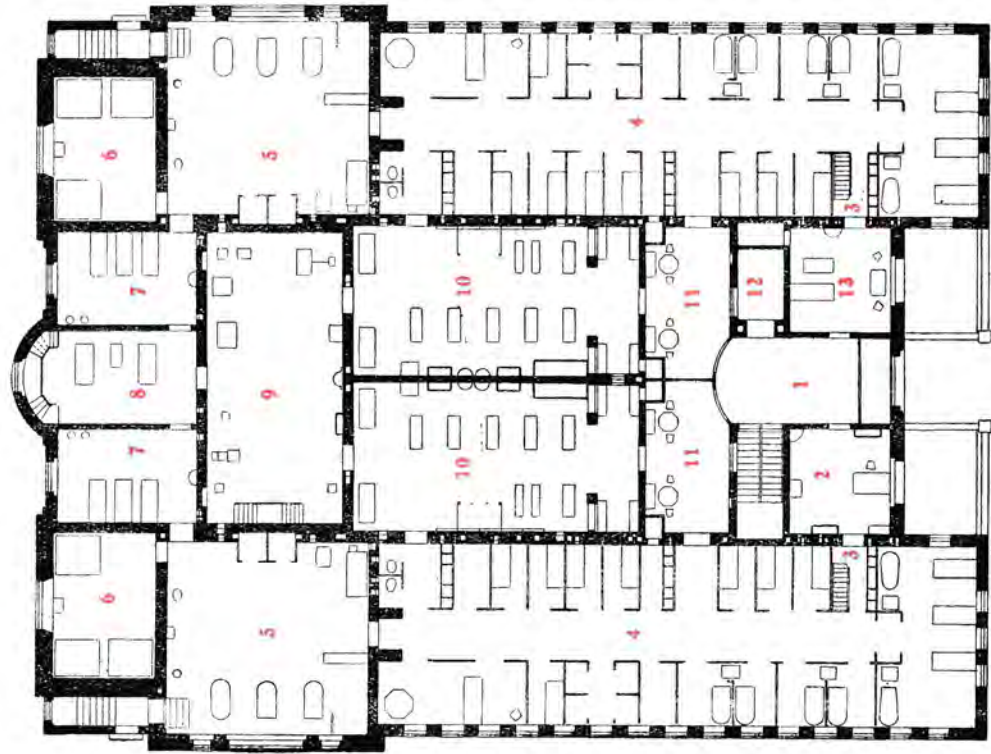
has its own building, which with the Chapel lies quite isolated in the North-eastern corner of the hospital's park. The building contains a basement, ground-floor, and attic-floor. In the basement are arranged the morgue, preparation-room, refrigerating-room for the storing of bacteriological cultures, archives and various small laboratories. In addition there is a machine installation, lavatories, etc.

On the ground-floor, there is a dissection hall, a histological and a bacteriological laboratory and a preparation-room from where there is an exit leading to a small annex containing the stalls for the animals. Further there is a chemical laboratory, photographic studio, dark-room, prosector's office with dressing room and bath, prosector's laboratory, sitting-room for the assistants, bathroom for the assistants, cloakroom and a wash-up.

The whole Institute is provided with a ventilation plant, which produces a low pressure in the dissection hall in such a way that the bad air is drawn out.

The dissection hall is fitted out with an ungrooved »Terrazzo« flooring and wall tiles. Dissection tables, handwash-basins etc. are of stone chairs, tables, shelves etc. of enamelled iron with glass plates.

*Plan of Bathing and Massage Clinic.*



- |                              |                                |  |
|------------------------------|--------------------------------|--|
| 1. Entrance                  | 5. Shower-halls                | 10. Room for massage and<br>therapeutical gymnastics |
| 2. Office                    | 6. Russian baths               | 11. Waiting rooms                                    |
| 3. Depots                    | 7. Mud baths                   | 12. Lift   |
| 4. Corridors to the<br>baths | 8. Room for special treatments | 13. Examination room                                 |
|                              | 9. Room f. machine-treatments  |  |

The plates of the work-benches in the bacteriological laboratory are of enamelled lava.

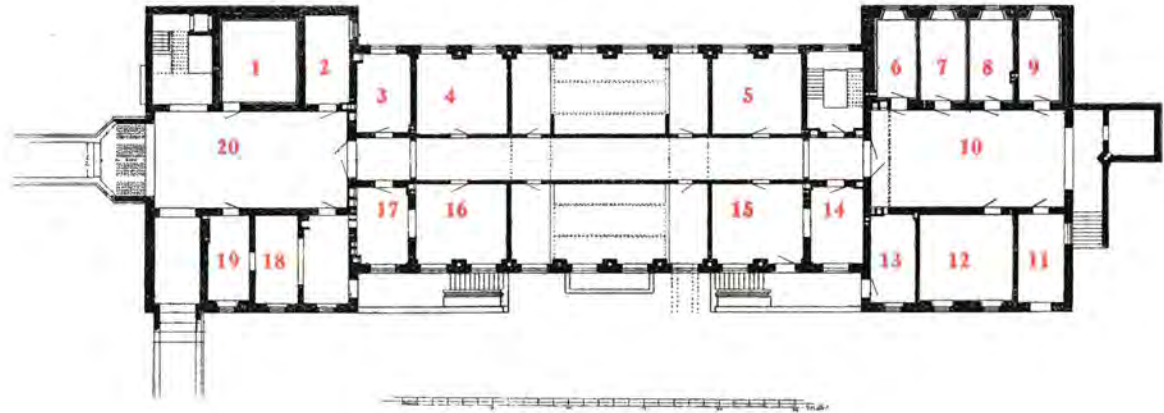
At the request of the respective chief physicians the Institute carries out Autopsies as well as histological and bacteriological diagnoses for the Clinical departments.

### *Technical Installations*

The hospital's boiler and engine house contains 4 double fired Lancashire boilers, a double economiser, 3 coal-siloes and apparatuses for the automatic transport of coal and ashes, and also for automatic stoking. From here is supplied steam to the whole hospital and also hot water to the kitchen and laundry.

The engine-room contains a steam-engine and generator for alternating-current as well as a refrigerator for cooling and ice (ice consumption is about 250 tons per annum); coal consumption: about 4000 tons per annum. The steam is led out with full boiler-pressure of  $8\frac{1}{2}$  Atm. and reduced in each building to 1,5—1,0—0,8 Atm., according to requirements. Each building has its independent ventilation-system, heating-plant and a plant for hot water for practical use. The air for ventilation can in dry periods be washed and moistened before being blown in. The water used for the heating is put into circulation by electrical centrifugal pumps. The Copenhagen's water supply provides all the water

*Plan of the basement floor of the central Kitchen*



- |                                    |                                     |                        |
|------------------------------------|-------------------------------------|------------------------|
| 1. Refrigerating room              | 8. Cooling room for meat            | 15. Fish cleaning room |
| 2. Store for preserves             | 9. Cooling room for prepared goods  | 16. Milk kitchen       |
| 3. " " "                           | 10. Reception for goods             | 17. " "                |
| 4. Store for groceries             | 11. Vegetable store                 | 18. Store room         |
| 5. Butter weighing room            | 12. Room for preparing meat         | 19. Beer storage       |
| 6. Air cooling room                | 13. Store for strong-smelling goods | 20. Hall               |
| 7. Cooling room for prepared goods | 14. Fruit and vegetable paring room |                        |

which on the ground of the hospital is pumped up in a water-tower, which partly acts as a pressure-container and partly as a filtering reservoir.

The electric current — 6000 volts alternating-tension — is supplied from the town, and is distributed from a high-tension collecting room to 5 transformers for each district, where the tension is transformed into 220 volts for power and 127 volts for light with 3 double safety devices for the operating-rooms.

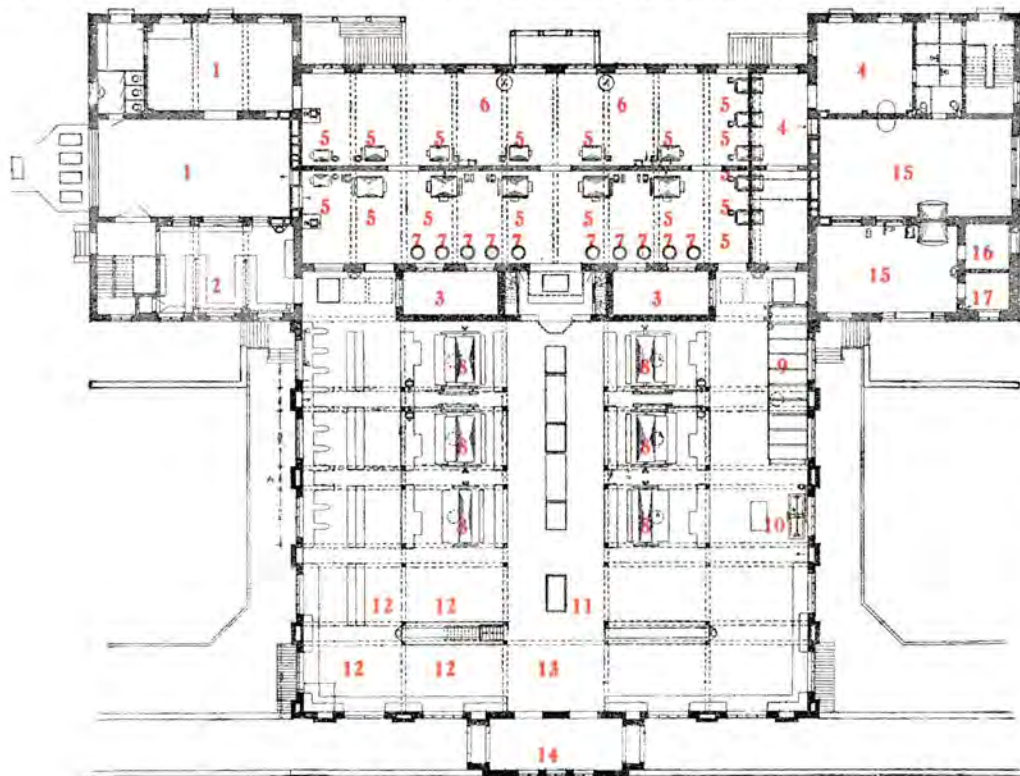
The hospital has calling signals in the tunnels for the different employees as well as combined calling and light signals for the wards.

In the Baths'-building is a distilling plant from which the water is conveyed through aluminium mains to the Operation-buildings and the Pharmacy.

### *The Kitchen*

has a building for itself on the eastern part of the hospital's territory. In the basement are the different provision-rooms and cooling room, and also various machines for the making of mince and similar foods. On the ground-floor is the kitchen itself with gas-ranges, gas-cookers, nickel-steam-pots and steam-boilers for fish and potatoes. On the other floors are arranged dining-rooms for a large number of the personnel of the hospital, excluding, however, nurses and doctors, and there are also living appartments for the leading and subordinate staff of the kitchen.

Plan of the central laundry of the Copenhagen Municipal Hospitals.



1. Sorting room
2. Sewing room
3. Light yard
4. Laundry f. infected linen
5. Washing machines
6. Lye containers
7. Centrifugal machines
8. Steam-wringer
9. Drying machine
10. Cold mangle
11. Lift
12. Linen store in the basement
13. Delivery room
14. Car slope
15. Desinfecting section
16. Drying room
17. Office

April 1918  
 118/12 M. J. Jørgensen  
 København

### *The Central Laundry of Copenhagen's Hospitals*

at Bispebjærg Hospital deals with the washing for all the Copenhagen Municipal hospitals as well as for a number of Convalescent-homes lying outside Copenhagen. The work is, with the aid of a special washing-method, reduced to the least possible amount, as the soaking, washing and rinsing is done in the washing-machines themselves, and the washing from there goes through electrically driven centrifugals to the steam-mangles, where they are dried and mangled.

The collecting of the soiled washing from the respective hospitals is done by motor-van. The washing is delivered in sacks to the sorting-room; infected washing from the Epidemic hospital and from Tuberculosis departments are, however, delivered to the laundry dealing with infected washing which is specially isolated from the other laundry. Certain kinds of washing are ironed. The cleaned washing is delivered again to the hospitals by motor-van.

The Central-Laundry washes at present about 9.000.000 articles yearly for altogether about 3.100 patients and about 1.700 employees.

### *The Administration of the Hospital.*

Regarding the Administration, the Bispebjærg Hospital comes under the 2<sup>nd</sup> department of the Municipality together with the other Municipal hospitals:

The Municipal-hospital, Øresund-hospital, Blegdams-hospital, Rudolph Bergh's hospital, Sundby-hospital, Balder's-hospital, the childrens hospital on Fuglebakken. The daily administrative control is in the hands of a hospital-director, who also controls the administration of the Municipal Sanatorium for Tuberculosis, Boserup Sanatorium, St. Hans Mental hospital near Roskilde, besides several convalescent-homes, and Nursing-homes; the local management is in the charge of an inspector.

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