

DEPARTMENT OF HYGIENE  
WELLESLEY COLLEGE  
WELLESLEY, - MASSACHUSETTS

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# THE GYMNASTIC CENTRAL INSTITUTE

AT

## STOCKHOLM

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THE ROYAL SWEDISH COMMITTEE  
FOR THE FOURTH INTERNATIONAL CONGRESS ON SCHOOL HYGIENE  
BUFFALO 1913



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AT GREENSBORO

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History of Physical Education  
and Dance



THE ROYAL SWEDISH COMMITTEE  
FOR THE FOURTH INTERNATIONAL CONGRESS ON SCHOOL HYGIENE  
BUFFALO 1913.

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THE GYMNASTIC CENTRAL INSTITUTE

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STOCKHOLM

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STOCKHOLM  
TRYCKERI-AKTIEBOLAGET FERM, 1913





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**T**he Swedish gymnastics derive their origin from PER HENRIK LING (1776/1839). Long before his time, it is true, interest had been awakened in favour of a more thorough exercise of the body. Various writers as well as school committees had urged the importance of athletic exercises in the training of the young, and both our universities had their fencing masters; but there existed nothing of gymnastics in the present sense of the term.

Ling's appearance at Lund in 1805 as university fencing master was the real beginning, and by the founding of the **Gymnastic Central Institute** at Stockholm (1813), which was owing to Ling's initiative, the first and most essential step forward was taken towards establishing that seat of learning whence, as Ling's prophetic eye had foreseen, the gymnastic idea would spread throughout his country and in accordance with the outline indicated by him.

According to Ling's idea, the selection and kinds of exercises must be grounded on the requirements of the body itself. The body itself is consequently the object of, as well as the principal instrument or implement for, the performance of the work to be done. In many exercises, however, external implements are also needed, and these have been constructed and arranged with *exclusive* regard to the obtaining of the very best result from the *necessary* exercises. Through the correct use of the implements, it becomes increasingly possible to limit more precisely the scope of action of a movement. This limitation has been called localization, sometimes isolation, and its purpose is to prevent unusual combinations of forces, which is necessary in order to obtain the effect desired. Such combination has been called synergy or co-operation.

Ling had not time during his busily occupied life — a life also tried by adverse fortunes — completely to summarize and put into print his system of gymnastics. He published only one fairly comprehensive work on the subject, entitled *General Principles of Gymnastics*. In this the different branches of gymnastics are treated of — the *pedagogic*, the *military*, the *medical*, and the *esthetic*. It is shown therein how necessary it is that gymnastics should be grounded on the science of the human organism as a whole, on anatomy and physiology, and on the science of the laws of motion.

What has been done after Ling's death for the consummation of his work was, for the most part, effected by his immediate successor GABRIEL BRANTING (1799/1881) and by his son HJALMAR LING (1820/1886). — Branting developed Ling's principles in his lectures at the Institute and he raised medical gymnastics to a high position. Hjalmar Ling was also a skilful medical gymnast; but he paid more particular attention to the special subject of pedagogical gymnastics. He represented by very striking drawings, made by himself, thousands of forms of movements, and he formed a collection of these and arranged them, in harmony with his father's plan and views, according to their effect on the organism, into different classes. Ten classes of gymnastic movements are thus shown to exist. Some of these may with advantage be further subdivided into two or more groups.

He also drew up lists of movements suited to different ages, and rendered possible pedagogical gymnastics in Elementary schools and in female education.

The movements in each of the above mentioned classes have been arranged in progression according to the degree of effort they call forth. In practice, movements calling for about the same degree of effort should, out of all the classes, be arranged together for a programme of exercises — a so-called *»day's order»* — for daily use. A number of movements requiring less exertion should be inserted among the specific ones from each class so as to fill out the day's exercise into a *complete set of gymnastic exercises*. It is, namely, requisite that every part of the body and the organs in general should daily receive each its needed share of exercise, which, as a whole and in detail, must be accommodated to the degree of development of the pupils. The number of pupils practising at one time, which is sometimes rather large, must therefore be divided into several smaller sections, so that those who have attained the same degree of development may practise together.

That a sufficiently great effort may be called forth and at the same time overstraining prevented, the arrangement of the movements in the *»day's order»* should, moreover, be such as constantly to promote an equilibrium between respiration, action of the heart, and muscular work. This is obtained by making the movements act upon the provinces of the different vessels alternately, so as to increase or relax the circulation to and from various parts of the body. In connection with this, the rate of breathing must by turns be increased and slackened, while the breathing itself is drawn deeper. Beside the various movements with their different effects, a means to this end consists also in a gradually increasing exertion in the *»day's order»* up to rather beyond the middle, after that in decreasing the exertion more rapidly towards the end; and when the whole *»day's order»* has been gone through, both the action of the heart and the breathing ought to be strong and deep but calm.

When the exercises thus arranged correspond to the disposition and ability of the individual, self-command, i. e. harmony between the nervous action and the power of performance, is produced and developed. And, since the implements of movement, the bony frame itself together with ligaments and muscles, are during the exercise the constantly working instruments, which of themselves can do nothing but only operate through the nervous influence — it is evident that the development of a calm, even, and sufficiently commanding nervous system must be one of the chief aims of gymnastics. Action and reaction is the law of nature which makes itself felt here. The external and internal organs are developed simultaneously. Ling in his time said, *»Muscular force or tensile power thus stands in uninterrupted connection with the vessels and nerves, wherefore the latter must be developed equally with the muscles»*.

Among the great number of movements employed in gymnastics, there are also many *exercises of application*, and the result of this, as well as of the exercises in general, must be that, in proportion as the choice of move-



ments made is a rational one, i. e. in accordance with the needs of the organism, as far as personal aptitude allows, health and strength will be gained as well as that readiness and expertness necessary to people of culture to enable them to master and accomplish the tasks which ordinary daily life brings with it. Ling also prescribed, in complete agreement with all his views, that national games should be added, as supplementary to the more regular and systematic gymnastics, holding that »an element of pleasure should pervade all«. But he cautions against all excess, calling to mind the variety of human capabilities, saying, »Therefore all this exaggerated competition in gymnastics becomes a hindrance in the way of all *true* development and an encouragement to one-sided skill, that is to say a want of harmony in the development«. — The whole of this system of gymnastics is in the fullest and best sense of the word truly democratic. It is as suitable and almost as accessible for the poor as for the rich, for the weak as for the strong, and for both sexes.

The object of *pedagogical* gymnastics is to perfect health and to make the body an obedient, dauntless and always available implement of the moral will. Just as the mental training ought to have for its special purpose the development of the good dispositions of the soul and the subjugation of its evil propensities, so the physical training by suitable exercises, ought to produce harmony amongst the powers of the body and at the same time to correct its defects and weaknesses and to prevent their development and

growth. Thus, in pedagogical gymnastics there is included a purely corrective element.

*Military* gymnastics, or fencing, proceeds from and is based upon pedagogical gymnastics, and must in its forms of movements be grounded on both mechanical and gymnastic laws so that the available strength rightly used may achieve steadiness, quickness, and endurance.

The great expectation which Ling entertained in regard to the Gymnastic Central Institute are being regularly and surely realized. The Institute has during its hundred years' existence developed to a very considerable extent. Teachers of gymnastics, women as well as men, are trained there for all the educational establishments throughout the country, thus also for the military schools. For this purpose there are a one years', a two years', and a three years' course for men and a two years' course for women. The three first-mentioned courses follow one another immediately and are preparatory each for the next: the third year's course is devoted exclusively to instruction in subjects for training in medical gymnastics.

During the past four sessions the number of students attending the Courses at the Institute has averaged 142, a few of them foreigners.

In the near future the Institute will be housed in a new pile of buildings situated in the immediate vicinity of the famous Stadion, where the Olympic Games were held 1912. The designs given on the following pages have been made by *Torben A. Grut* of Stockholm, the architect of the Stadion.

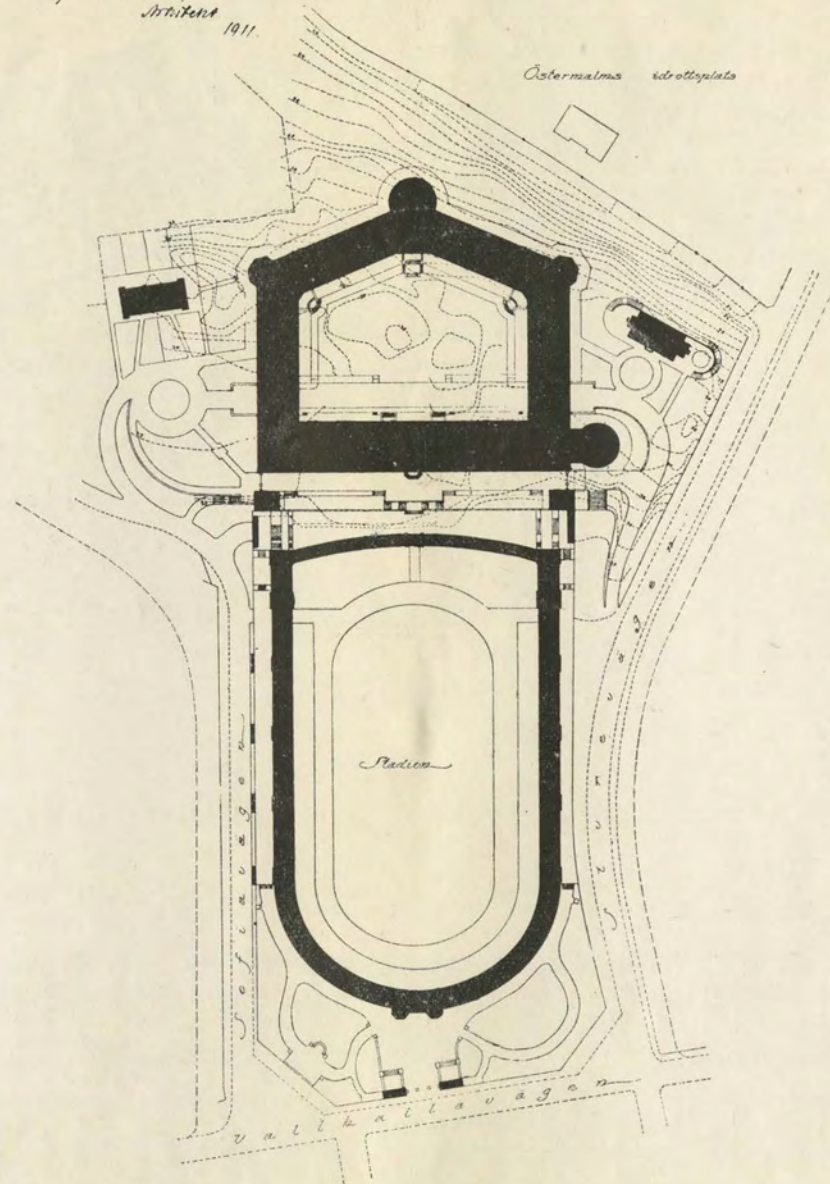




Förslag till nybyggnad för  
Gymnastiska Högskolan, å  
bergspåltå, nordost om Stadion  
Situationsplan

PL I.

Arnst. Lind  
Arkitekt  
1911.



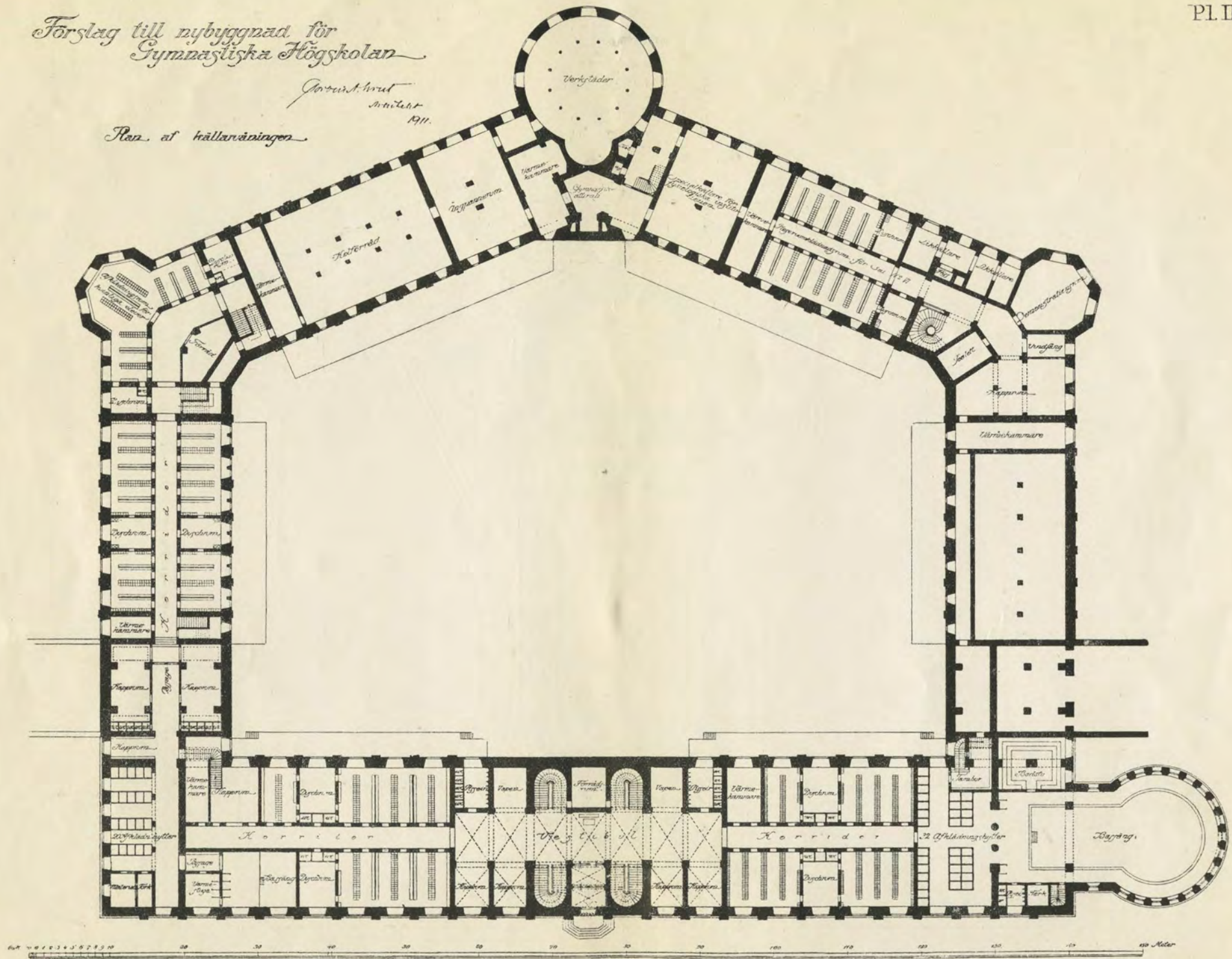
PLAN OF SITE.



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Gymnasiala Högskolan

Arkitekt: Ernst  
Sundström  
1911.

Plan af källarvåningen



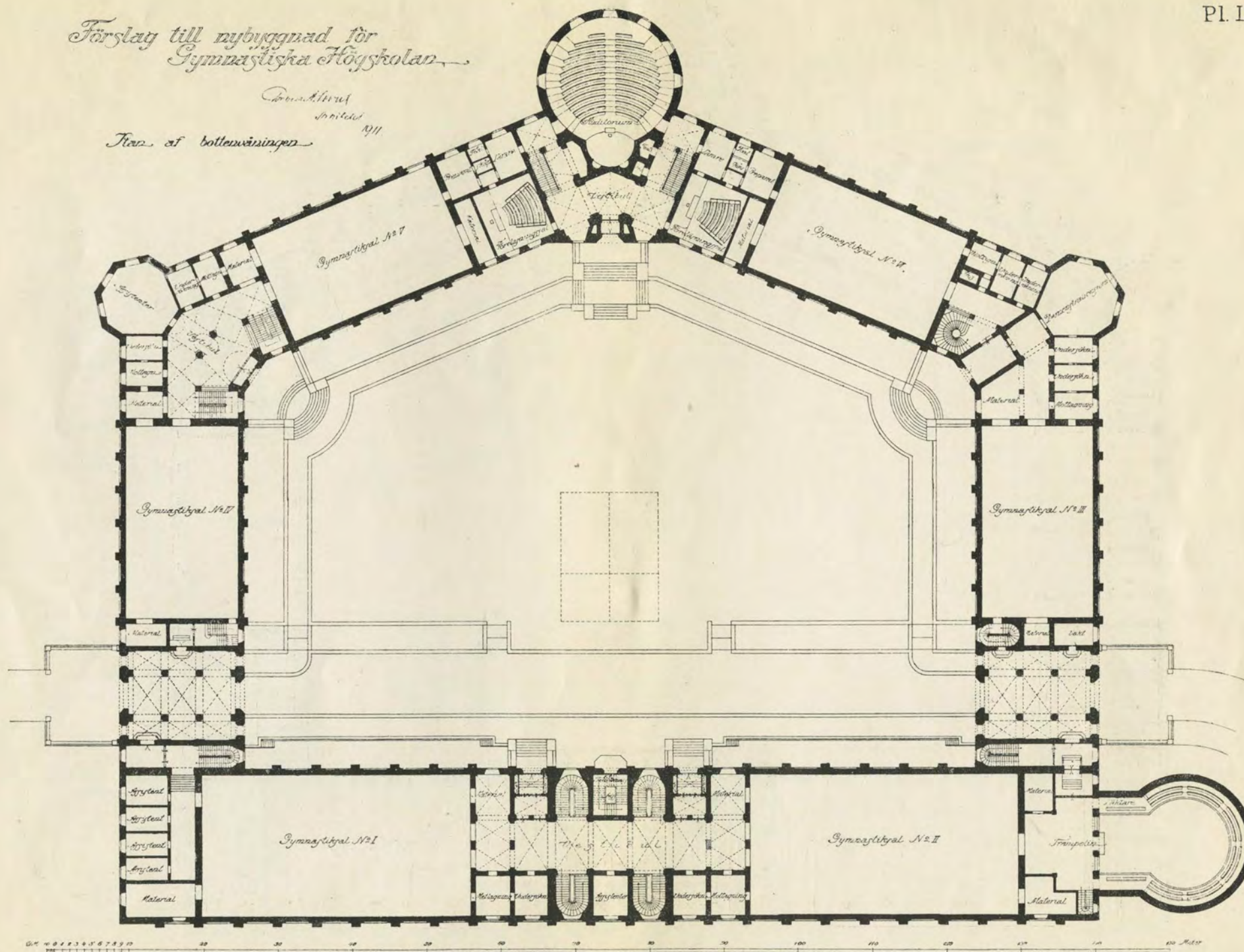
BASEMENT STOREY.



*Förslag till nybyggnad för  
Gymnastiska Högskolan*

*Architekt  
S. J. J. J.*

*Plan af bottenvåningen*



GROUND-FLOOR STOREY.





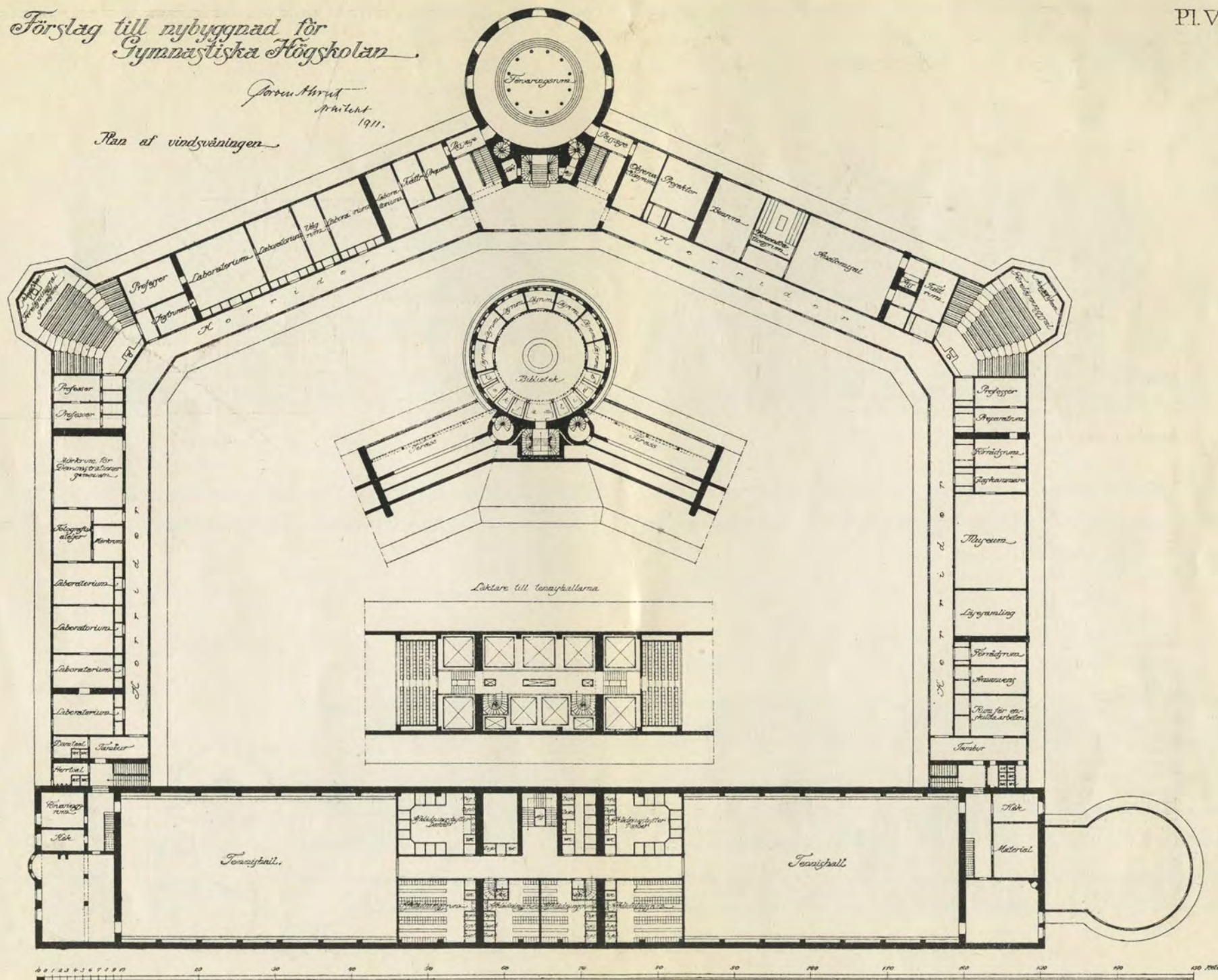


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Johan Thruv  
arkitekt  
1911.

Plan af vindsväntagen

Pl. V.



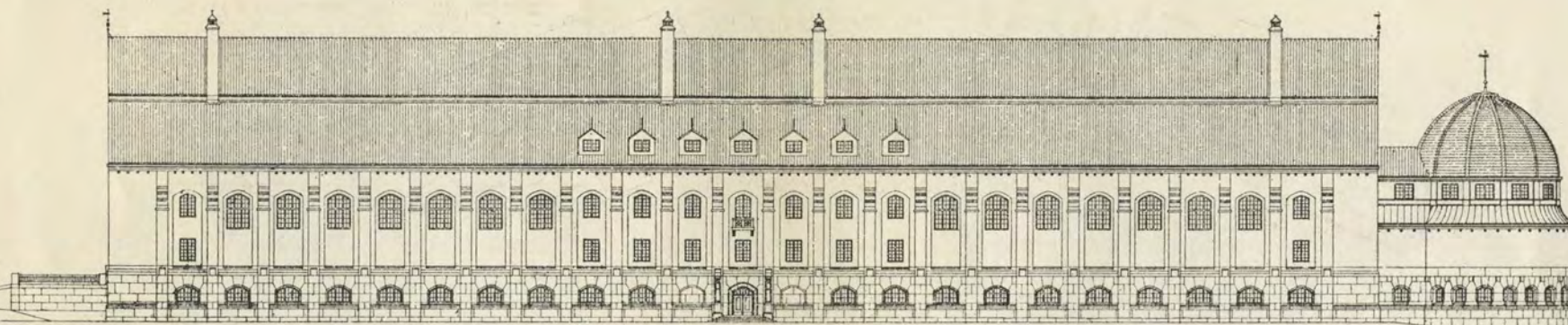
TOP STOREY.



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Grundbrut  
avt. 1911

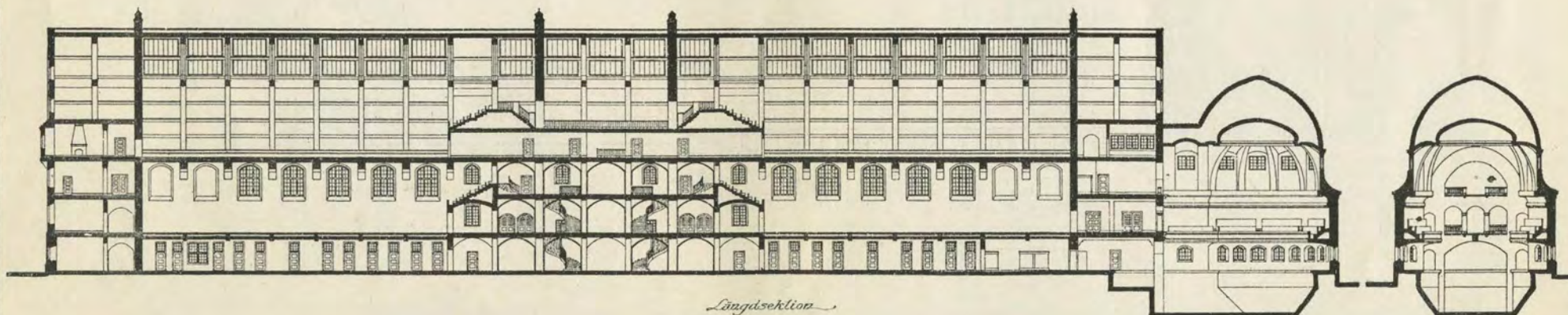
PL VI



Södra fasaden

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Längdsektion

Tvärssektion

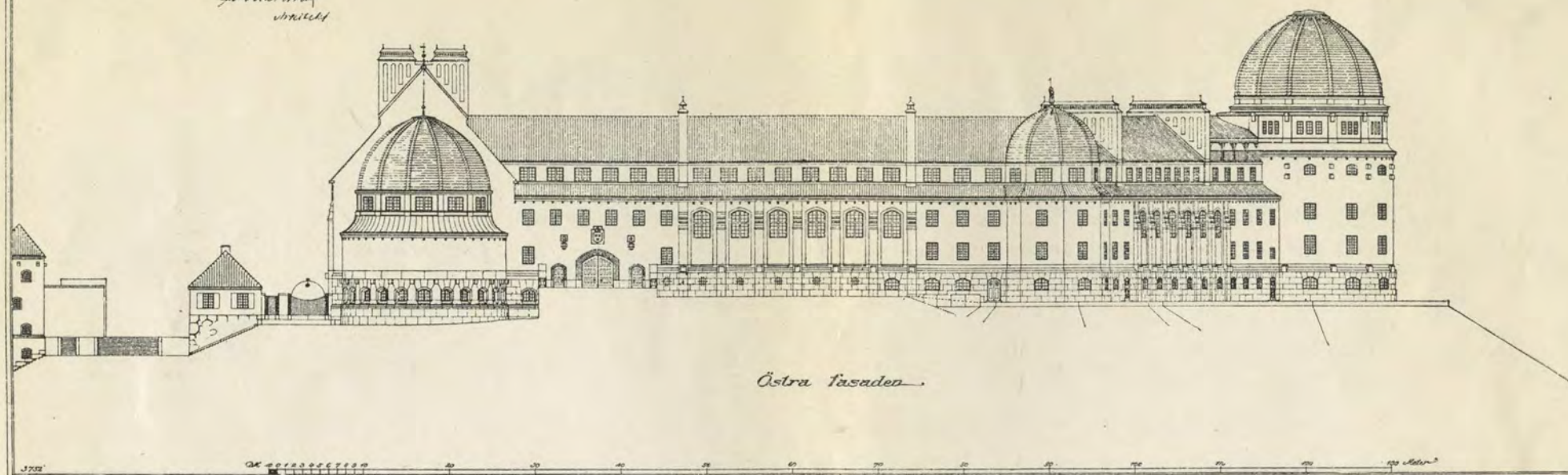
SOUTH FAÇADE.  
LONGITUDINAL SECTION. — TRANSVERSE SECTION.



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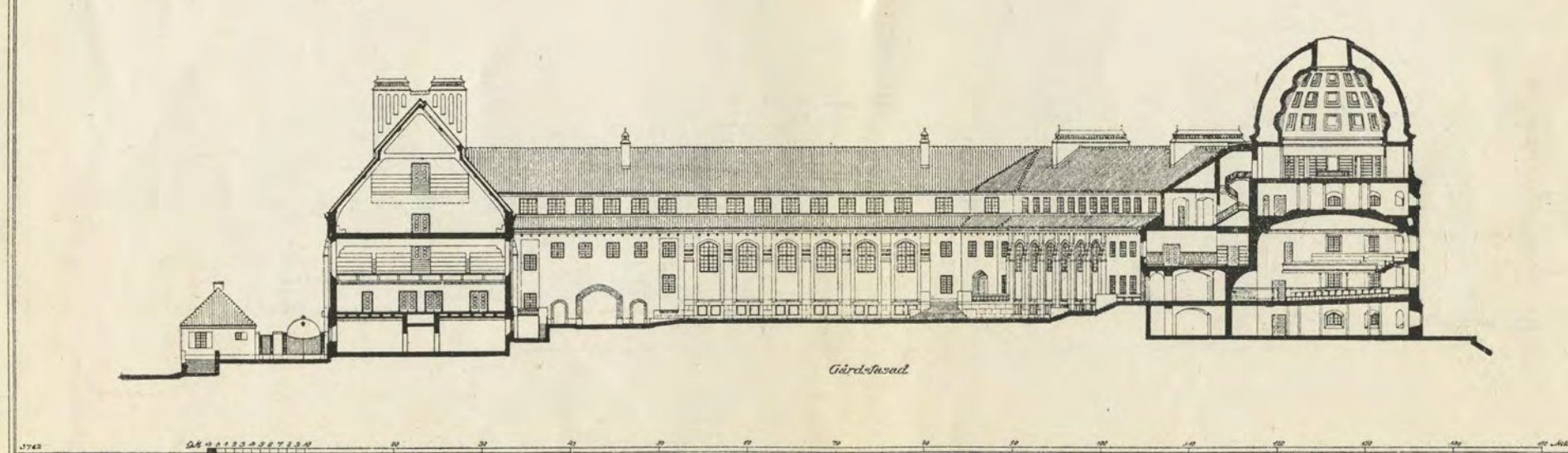
Genomskrift  
1911

PL VII



Förslag till nybyggnad för  
Gymnastiska Högskolan

Genomskrift  
1911



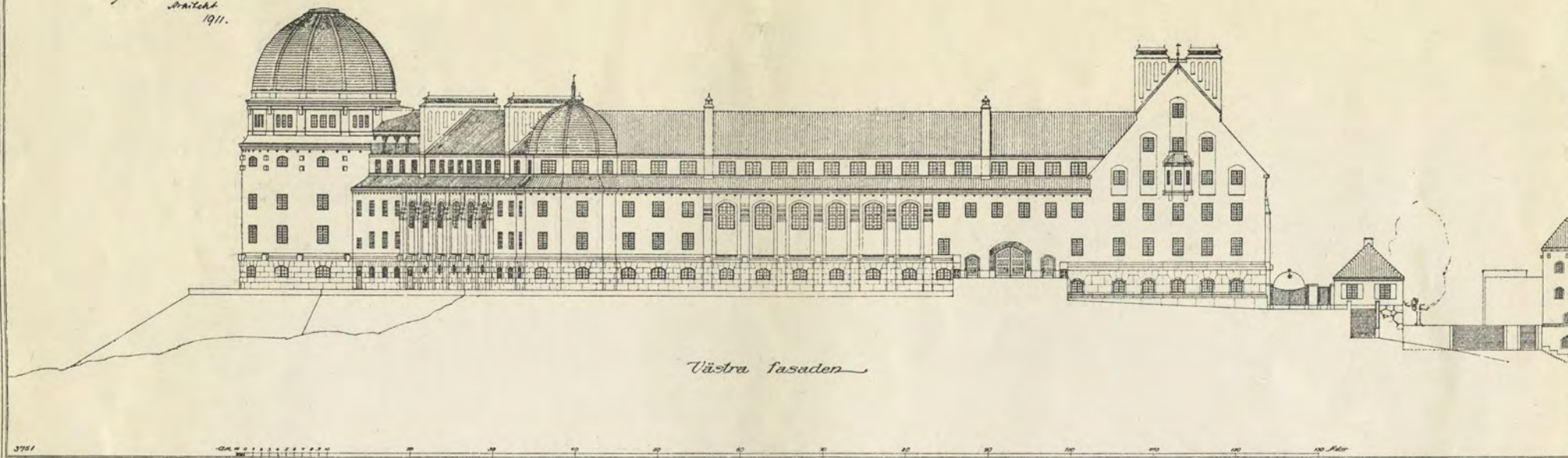
EAST FAÇADE.  
COURTYARD FAÇADE.



*Förslag till nybyggnad för  
Gymnastiska Högskolan*

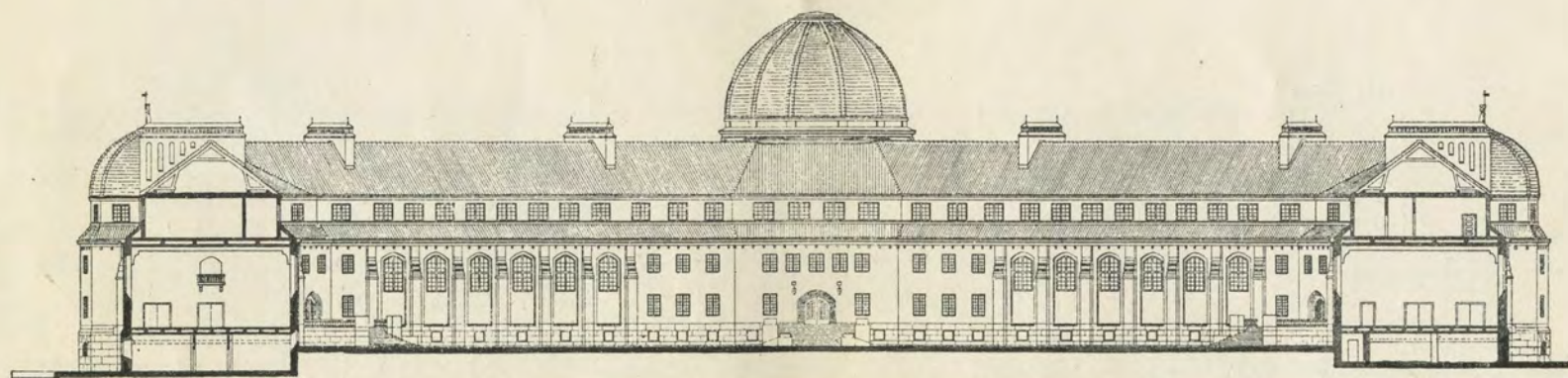
*Görtenklint  
arkitekt  
1911.*

Pl. VIII



*Förslag till nybyggnad för  
Gymnastiska Högskolan*

*Görtenklint  
arkitekt  
1911.*



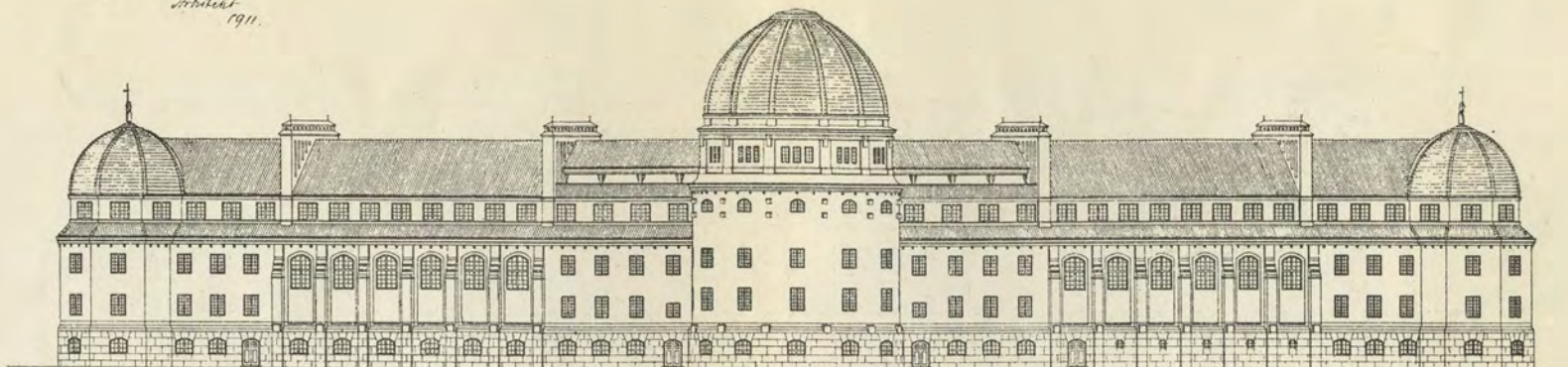
WEST FAÇADE.  
COURTYARD FAÇADE.



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Gymnastiska Högskolan

Arvid Strindberg  
1911

PL IX.

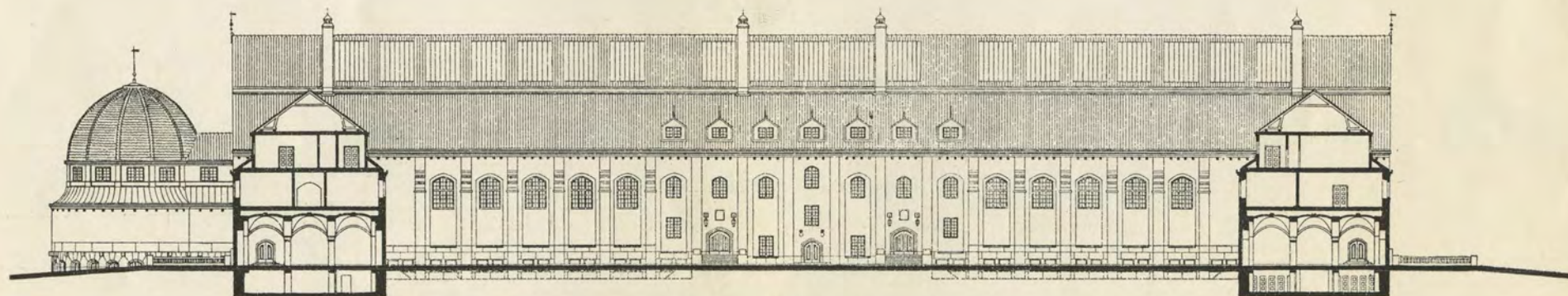


Norra fasaden

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Förslag till nybyggnad för  
Gymnastiska Högskolan

Arvid Strindberg  
1911



Courtyard

3700 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480 500 520 540 560 580 600 620 640 660 680 700 720 740 760 780 800 820 840 860 880 900 920 940 960 980 1000

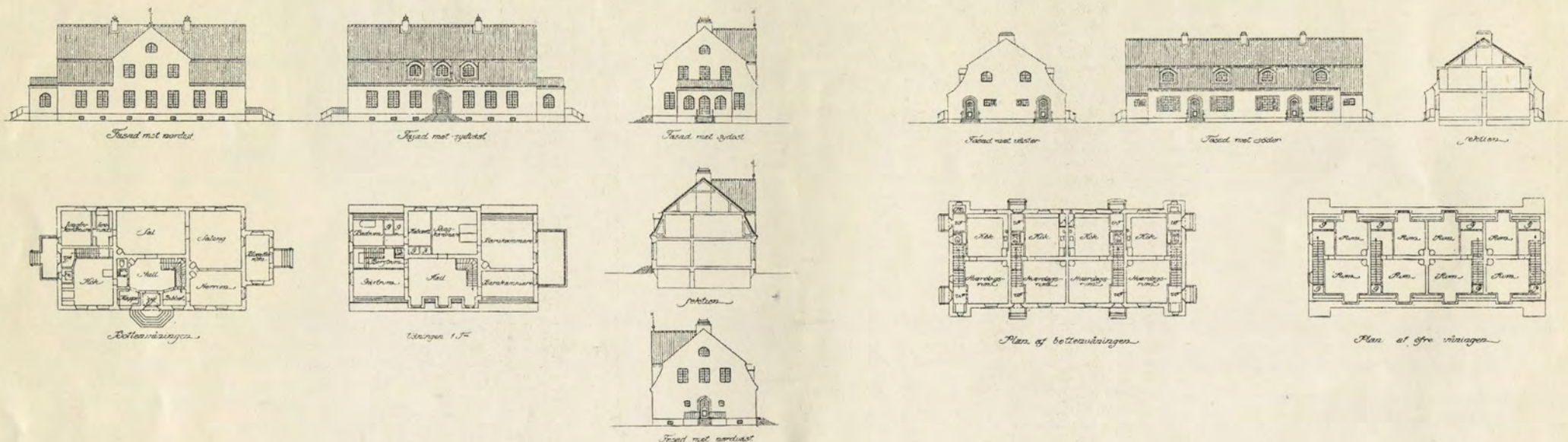
NORTH FAÇADE.  
COURTYARD FAÇADE.



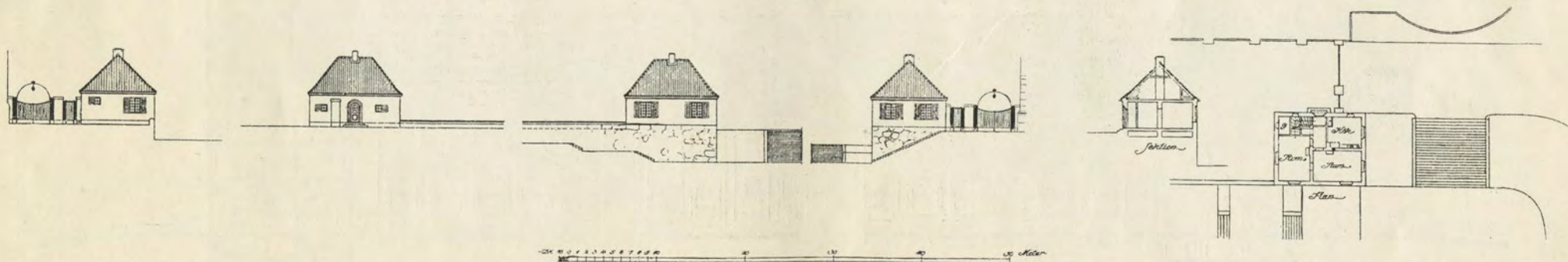
Genasthous  
1911

Rectorsbostaden

Bostäder för 4 vaktmästare

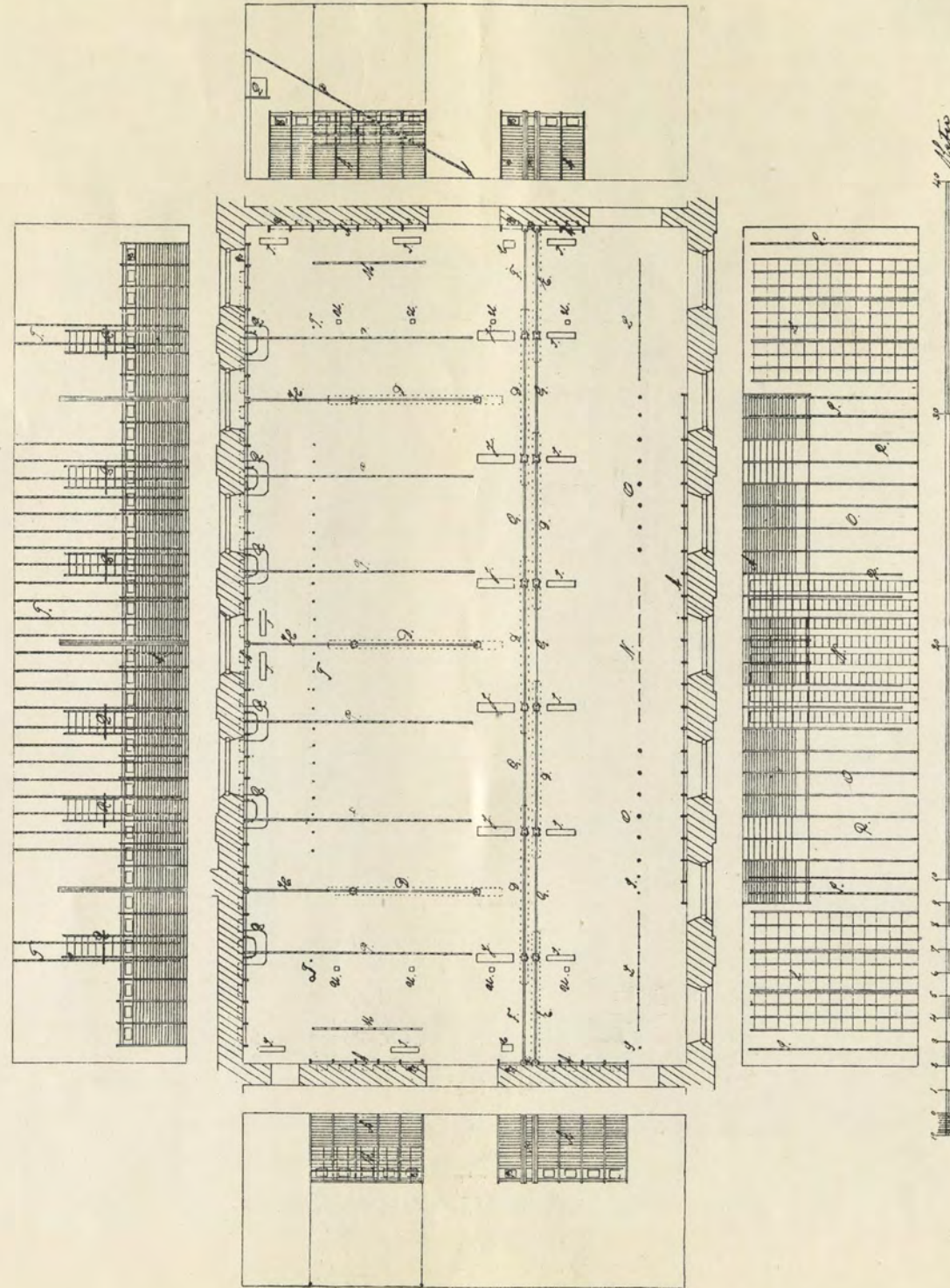


Vaktstugor



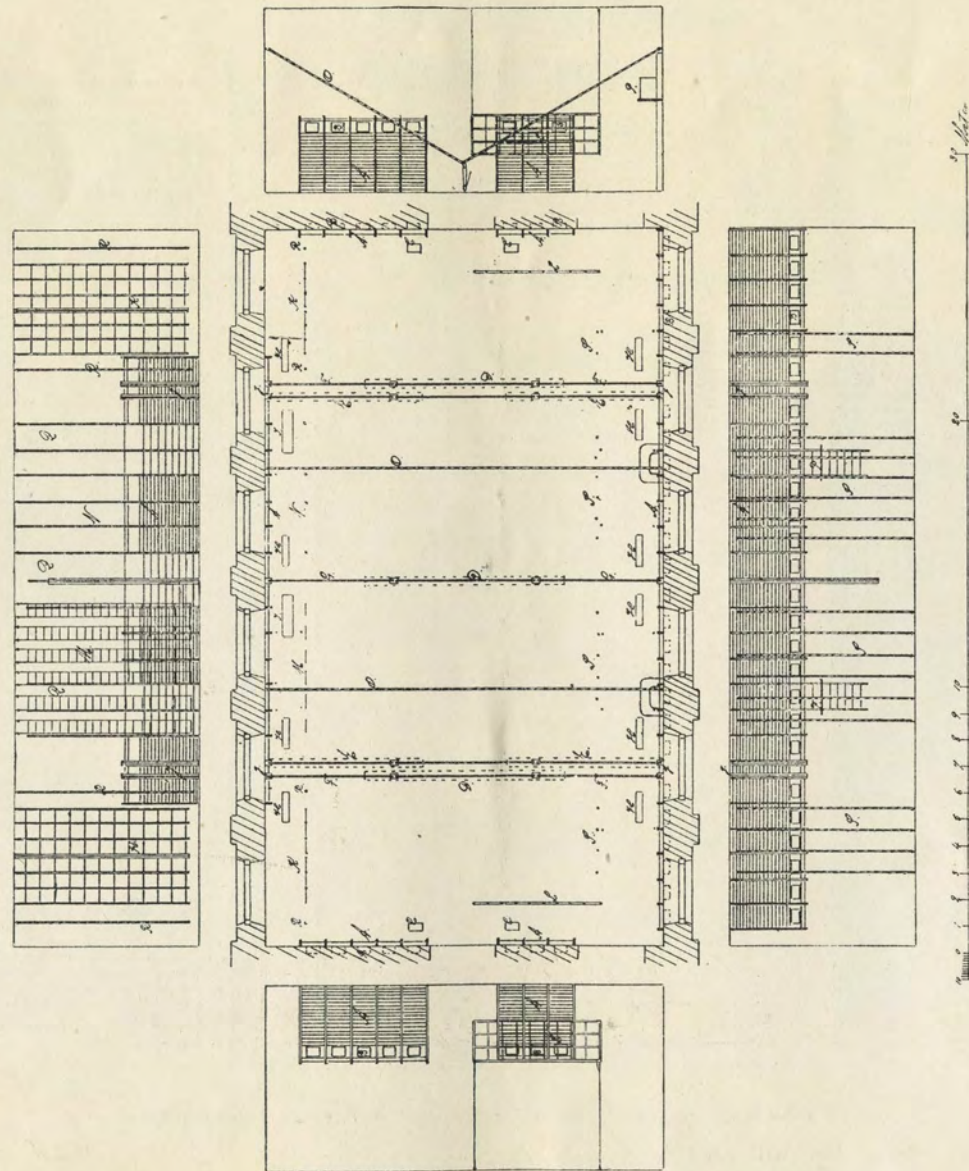
PRINCIPAL'S RESIDENCE.  
FOUR CARETAKERS' DWELLINGS.  
GATEKEEPERS' LODGES.





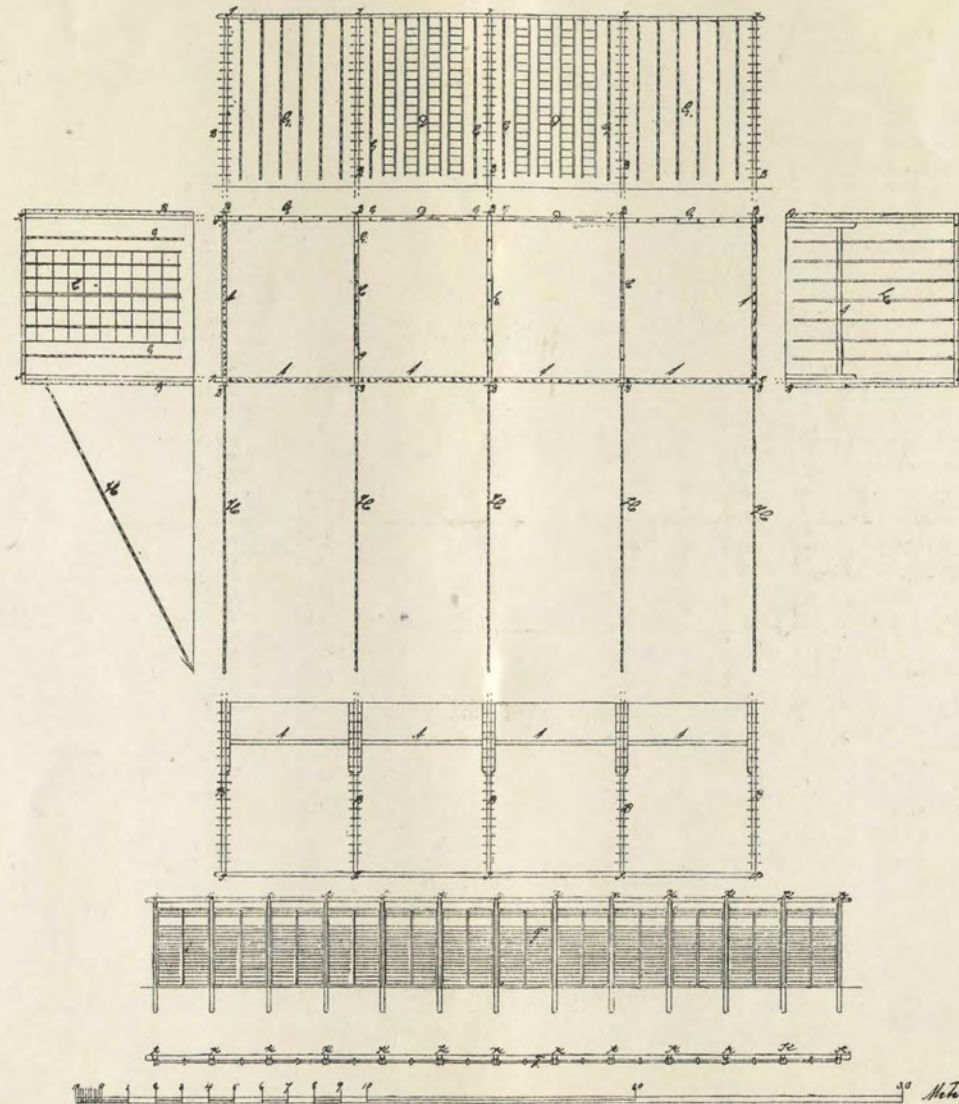
FITTINGS FOR LARGE GYMNASIUM.





FITTINGS FOR SMALL GYMNASIUM.





EQUIPMENT FOR OPEN-AIR GYMNASTICS.











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STOCKHOLM  
TRYCKERI-AKTIEBOLAGET FERM  
1913

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