NEW BUILDING FOR MINING
DEPARTMENT READY BY FALL

Separate Structure To Be Used For Course III—
 Provision Made For Research—Structure
Well Above Ground.

Last year at Tech night at the "Pops," friends of the Institute presented
the means to construct a separate building for the Mining Department on
the new site. Since that time plans for the structure have been under way
and last Thursday, the committee on this work gave them official endorse-
ment.

The Mining Department building which is to be an L-shaped structure
with a face 166x18 feet, will be located at the northeast corner with respect
to the main buildings. The height
is the case on all the new build-
ings, will be four stories. Accord-
ing to the plans, the basement will contain the heating and ventilation apparatus, the mining and metallur-
gical laboratories and a shop for de-
partmental use. On the first floor, the entire crushing and sampling divi-
sion will be located along with the lower part of the ore-dressing sec-
tion which will extend to the floor
above. A museum, containing all the
kinds of interesting mining and met-
allurgical curiosities, together with
the Wet Metallurgy division, will oc-
cupy the remainder of the second
floor. Above them, the Wet and Dry
Assaying sections and a spacious
storeroom are to be situated, while
the uppermost floor will accommo-
date the department drafting rooms,
library and Metallurgical labora-
tories where the study of iron and(
steel and their relations with heat
will be carried on. The building, when
finished, will contain five large re-
search laboratories, fire class rooms,
offices for the professors of the de-
partment, a general wash room with
showers and other modern conven-
tences and eighty-four lockers for
the use of the students.

At the present time, the foundation has been laid and the walls are above
the surface level. An exact detailed estimate of the cost has been compiled,
everything is ready for the erection of the building of which the Mining
Department expects to take possession by the opening of school next fall.

NAVAL ARCHITECTURE.

Department to Have Special Building Under Provision of
Pratt Bequest.

The Department of Naval Architecture will be given adequate disposal in
the new Technology buildings, but its further development is to be post-
poned until the bestowal of the Pratt bequest, given in favor of this course.
A separate building will eventually be devoted to the purposes of the course,
and in the meantime the object will be to avoid expenditures for new ma-
terial which then would have to be reapurchased when the Pratt bequest be-
comes available.

Until new quarters are provided for the department the regular recita-
tion and drawing room work will be carried on in buildings occupied joint-
ly with the Department of Mechanical Engineering.

PRESENT VIEW FROM CHARLES RIVER BASIN.

HYDRAULIC LABORATORY.
(Continued from Page 2.)

consists of a Douglas triple pump, a Gould triple pump, a Davis triple pump, a 150 H. P. Delaval turbine with directly connected centrifugal pump,
and a 30 H. P. and centrifugal, of the same type, an Underwriters' fire pump 22x12x24, a 100 H. P. Terry turbine and a three stage Jeanesville
pump, two duplex pumps each of about 1000 gallons per minute capacity and
a large centrifugal pump of capacity of 22,000 gallons per minute driven by
an angle compound engine of 325 H. P.. This unit discharges water through
a 30-inch Venuri meter into a steel canal on the second floor. All of the
pumps with the exception of the large centrifugal are cross connected in
such a way that the discharge from any or all may be utilized in the vari-
ous hydraulic experiments requiring water under pressure.

For the measurement of large quantities of water there will be two cali-
brated open tanks ten feet in diameter and ten feet tall. These tanks are
operated by valves 10 inches and 15 inches in diameter under hydraulic con-
trol. Each tank is provided with a gage glass having scale and verhier on
the side. As one tank fills the adjacent empties and by means of a shifting

gate overhead, water may be sent continuously from one tank to the other.

On a platform which overlooks the calibrated tanks, two long galvanized
iron tanks are to be placed. Into these receptacles a number of weir boxes
are to be inserted. In each of these galvanized iron tanks are two large valves cov-
ering openings leading to each calibrated tank below. The two valves for
each set of calibrated tanks are so connected that when one opens the other
close. An ample overflow has been provided to prevent water from going
over the edges in case of accident.

On the second floor the penstock is joined to a steel canal 5 feet wide,
5 feet deep and about 135 feet long. This is supplied with water at the ex-
treme end through a 24-inch pipe, which brings the water from the large
centrifugal pump driven by the angle compound engine in the basement,
through a 30-inch Venuri meter into a 24-inch pipe, which is expanded at
its upper end into a cone 10 feet long, increasing in diameter from 2 feet at
one end to five feet at the end where it joins the canal. This cone gradu-
ally reducing the velocity of the water as it enters the steel canal. The
canal is made of steel, stiffened sufficiently to keep the maximum vertical de-
fection in any bay under one eighteenth of an inch and the extreme varia-
tion from the dimensions given, due both to errors in workmanship and to de-
dection, is not to exceed one sixtieth of an inch. This canal may be uti-
lized for a variety of experiments on flows, as well as for furnishing water
to the water wheels, to the large weirs, etc. Provision has been made for
the installation later of a volute case turbine.