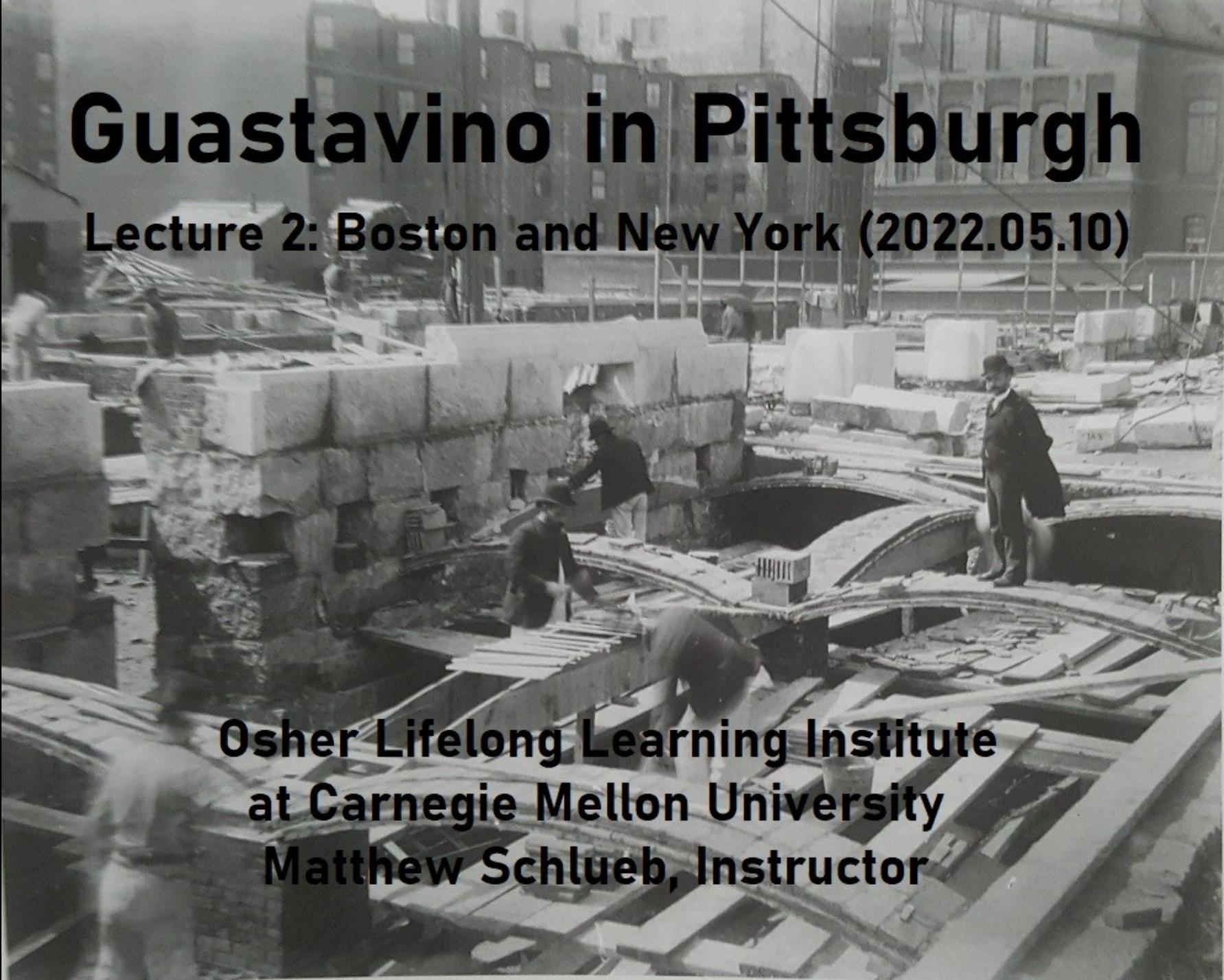
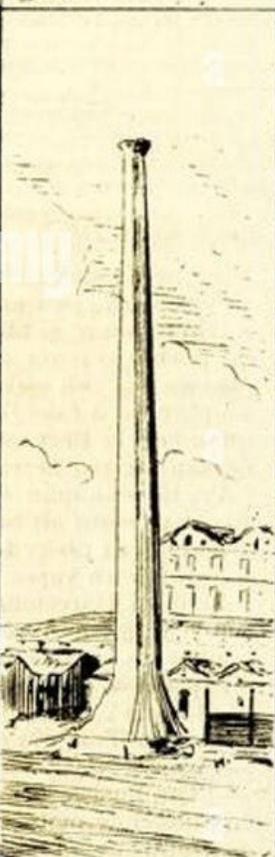
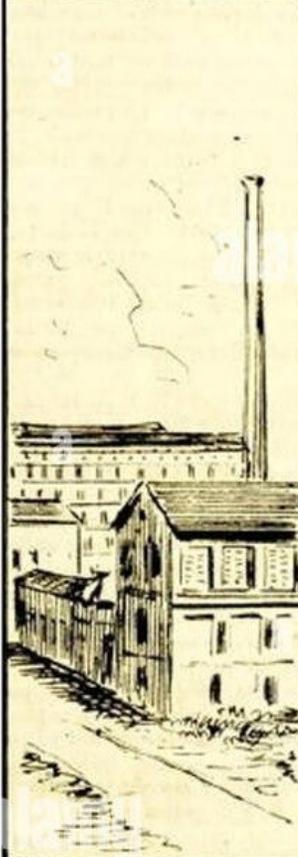
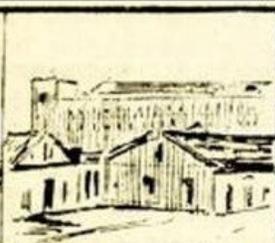
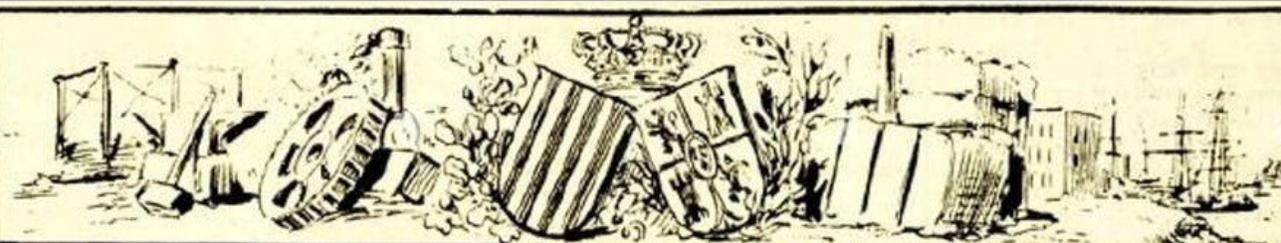
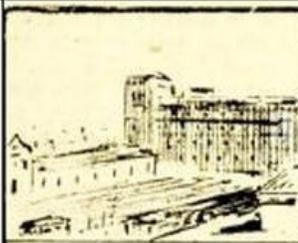


Guastavino in Pittsburgh

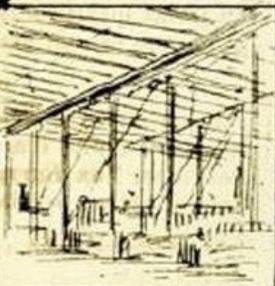
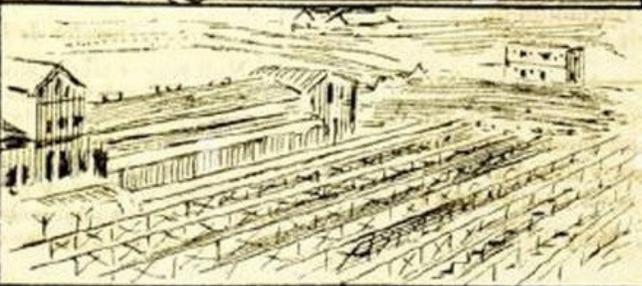
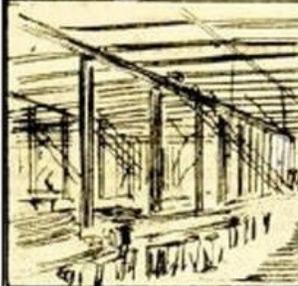
Lecture 2: Boston and New York (2022.05.10)

**Osher Lifelong Learning Institute
at Carnegie Mellon University
Matthew Schlueb, Instructor**



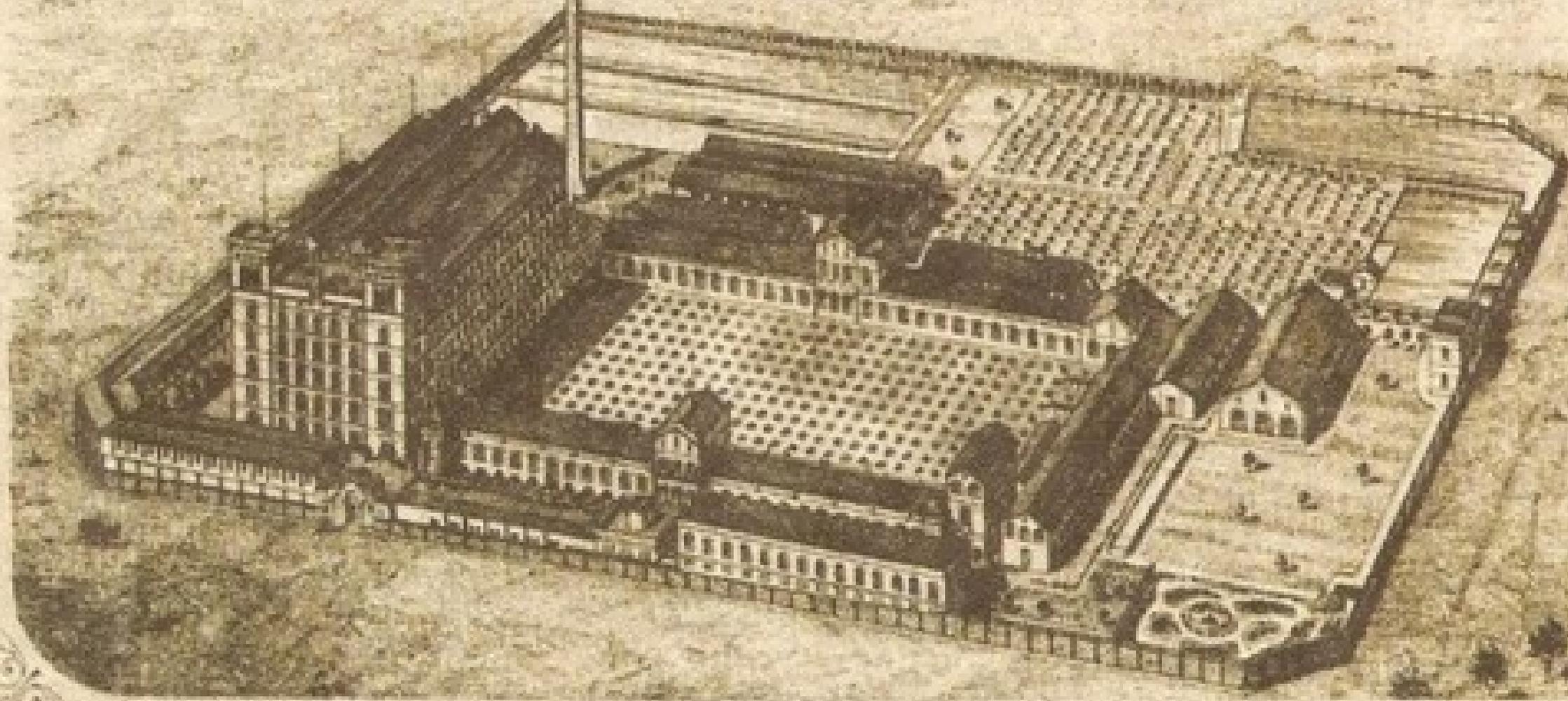


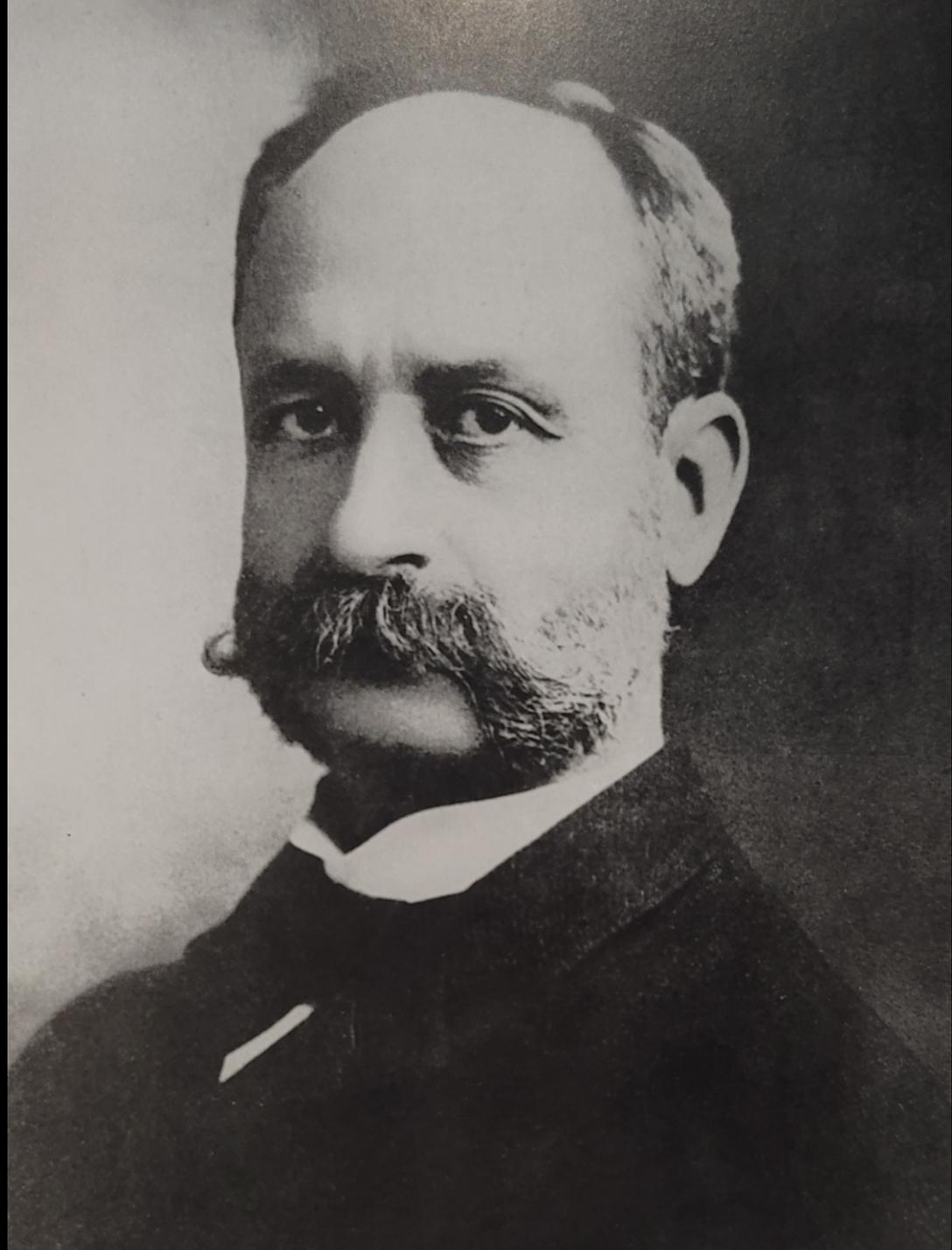
FABRICA DE BATLLÓ GERMANS. BARCELONA

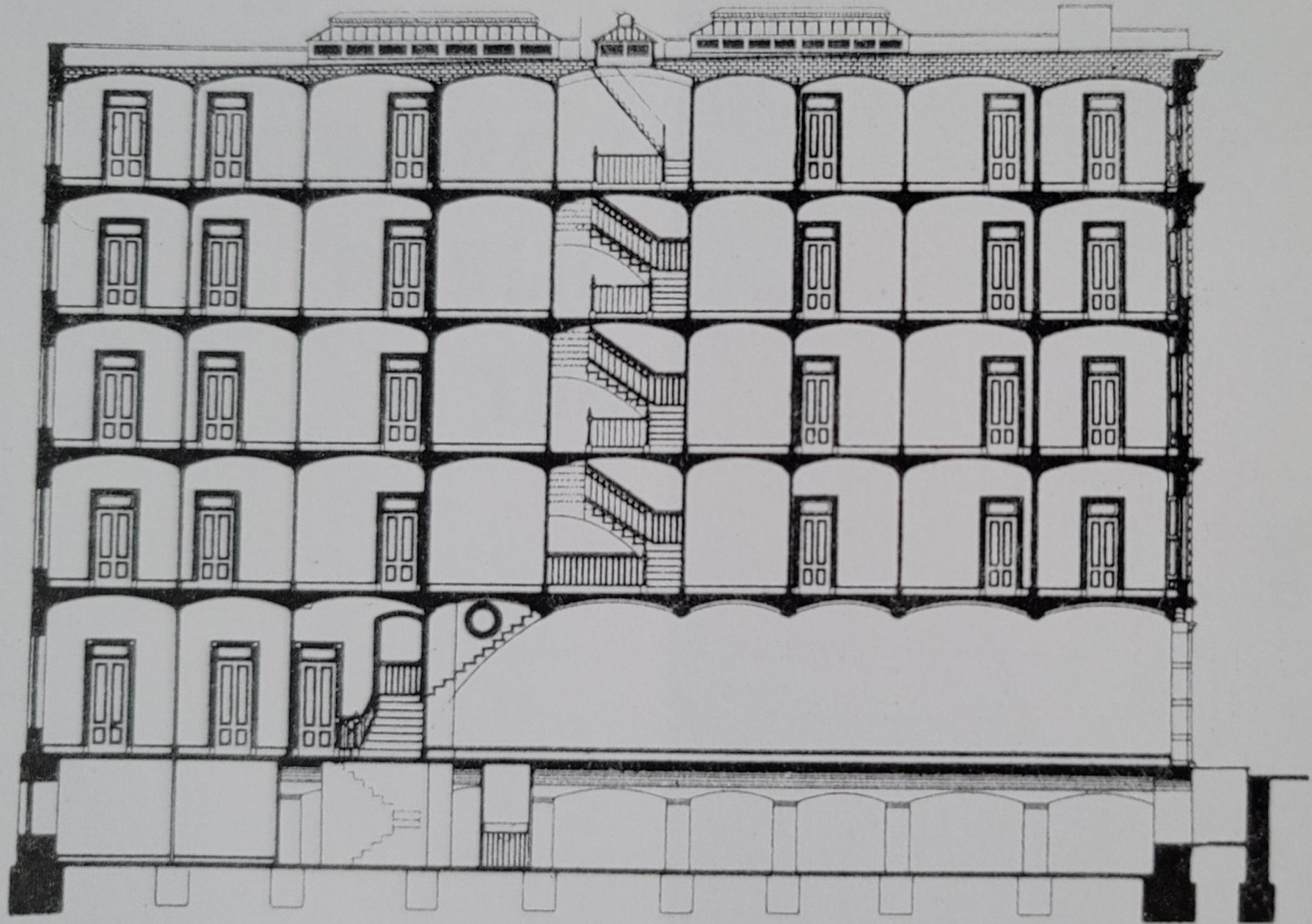


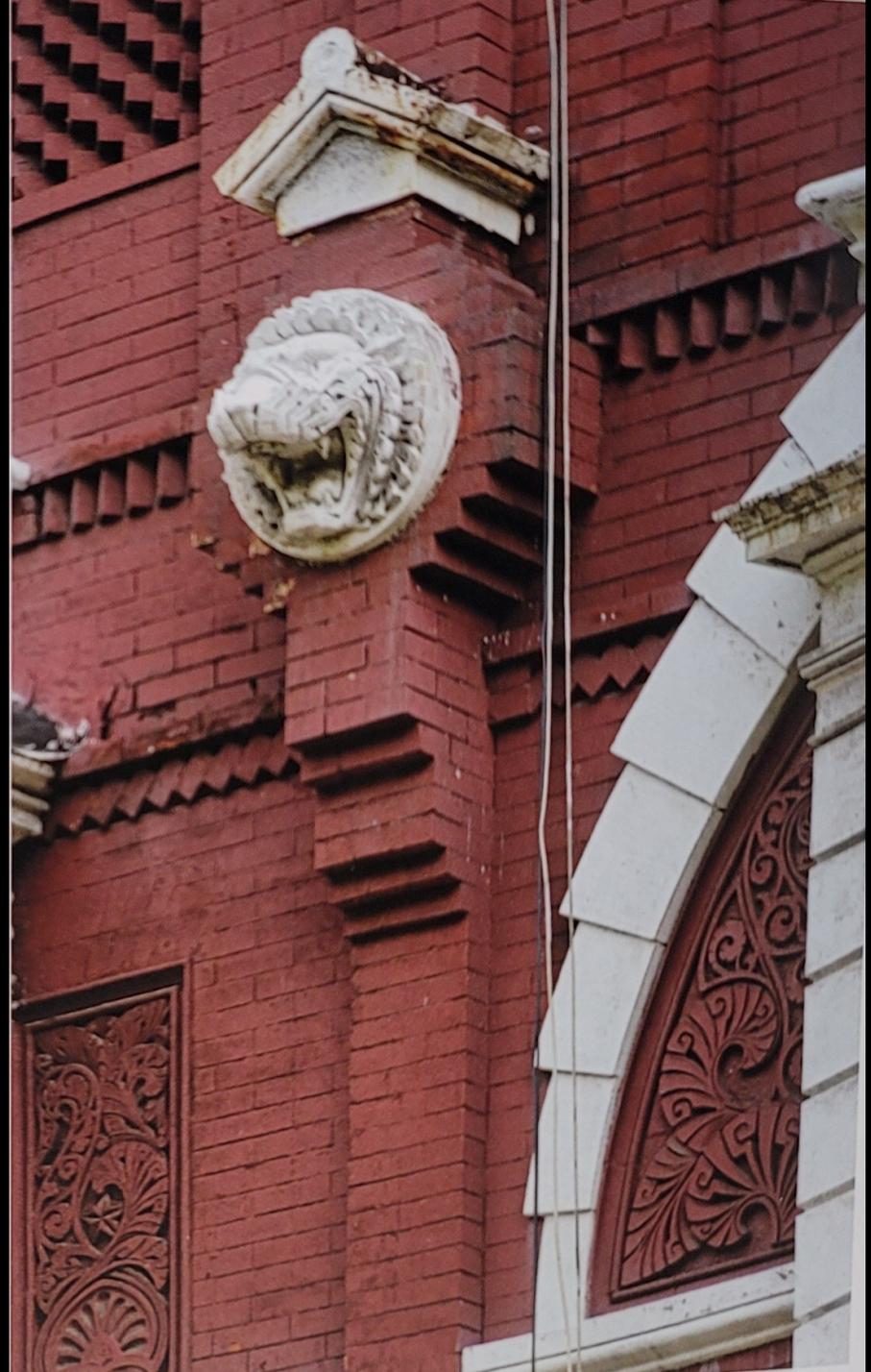
FÁBRICA DE BATLLÓ Y BATLLÓ

SUCESORES DE BATLLÓ HERMANOS













The GUASTAVINO
FIRE PROOF CONSTRUCTION COMPANY
MAIN OFFICE







They were all astonished by
what they witnessed.

They wondered how a
Guastavino vault could possibly
resist hours of fire and tons of
weight without falling apart.













30
PU

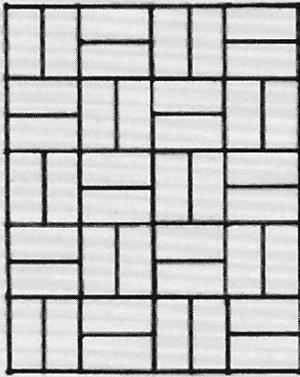
RV
REVIVAL



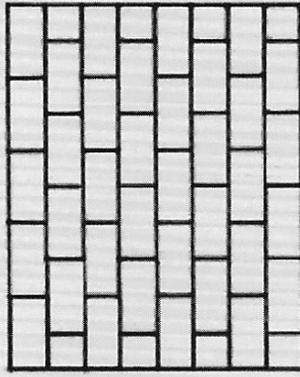
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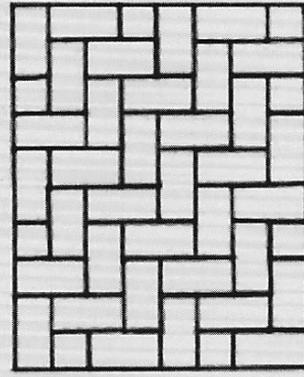




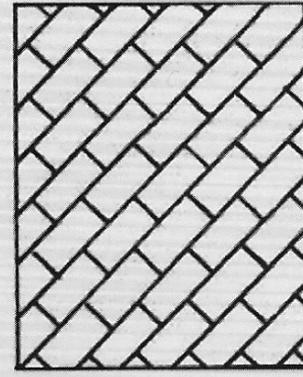
#1 26¢, 29¢ on the diagonal



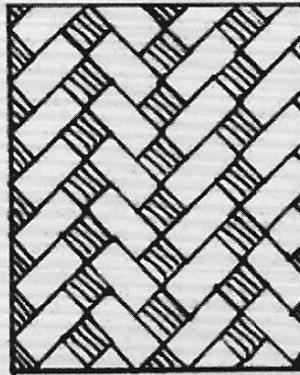
#2 27¢, 29¢ on the diagonal



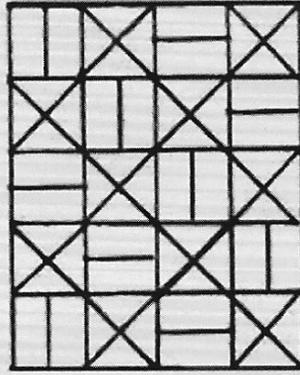
#3 28¢, 30¢ on the diagonal



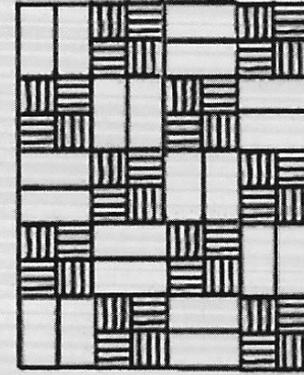
#4 29¢



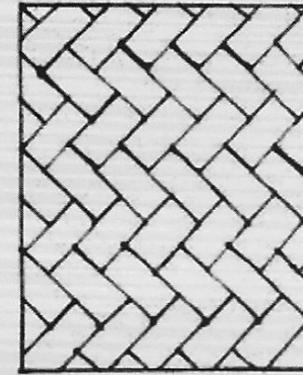
#5 32¢



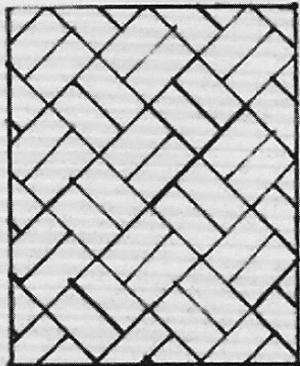
#6 34¢



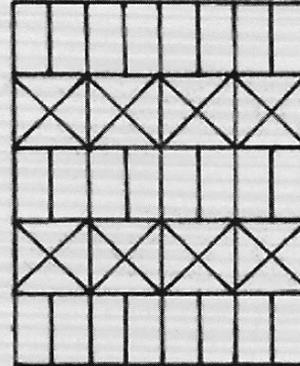
#7 30¢



#8 30¢

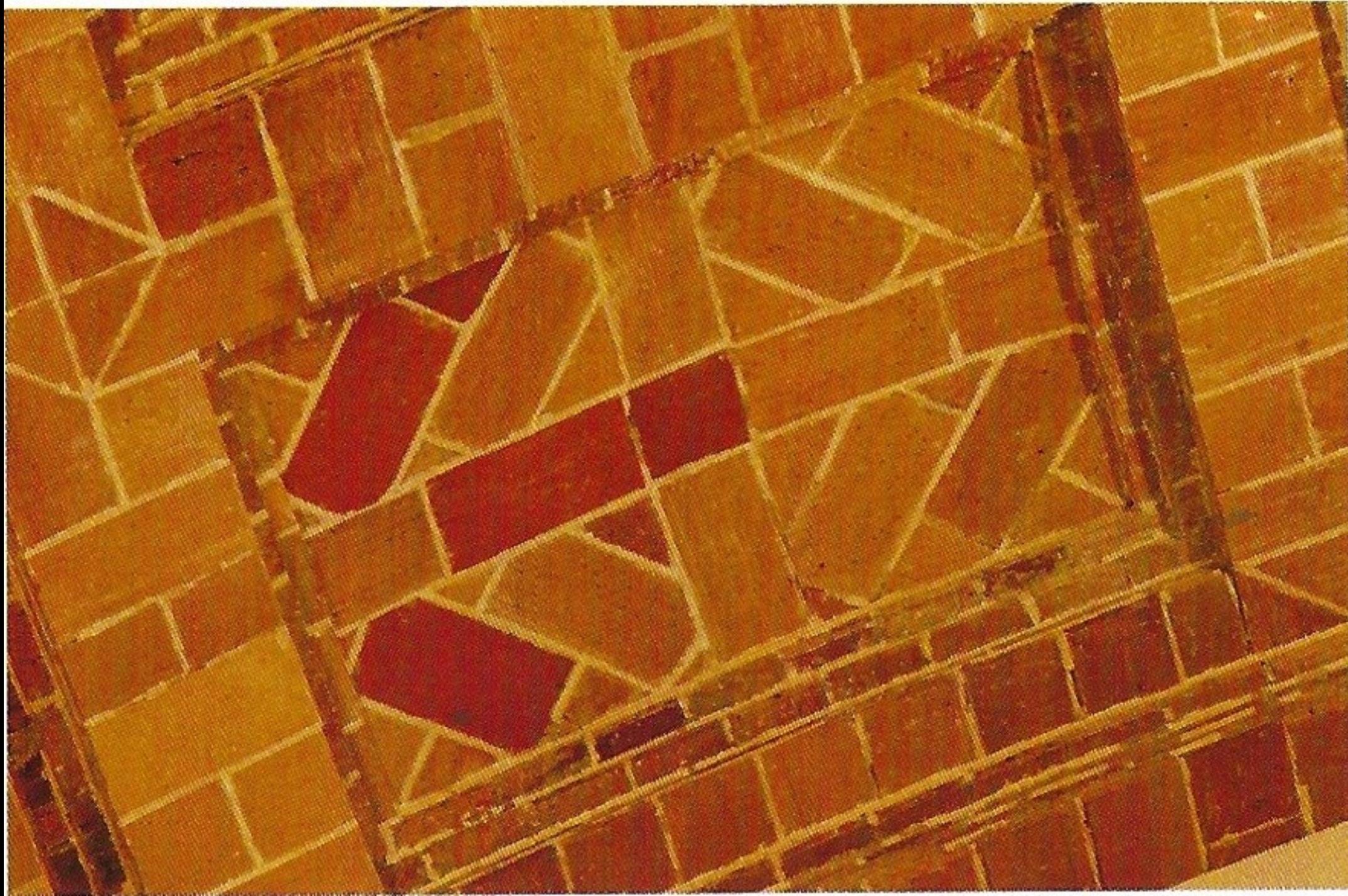


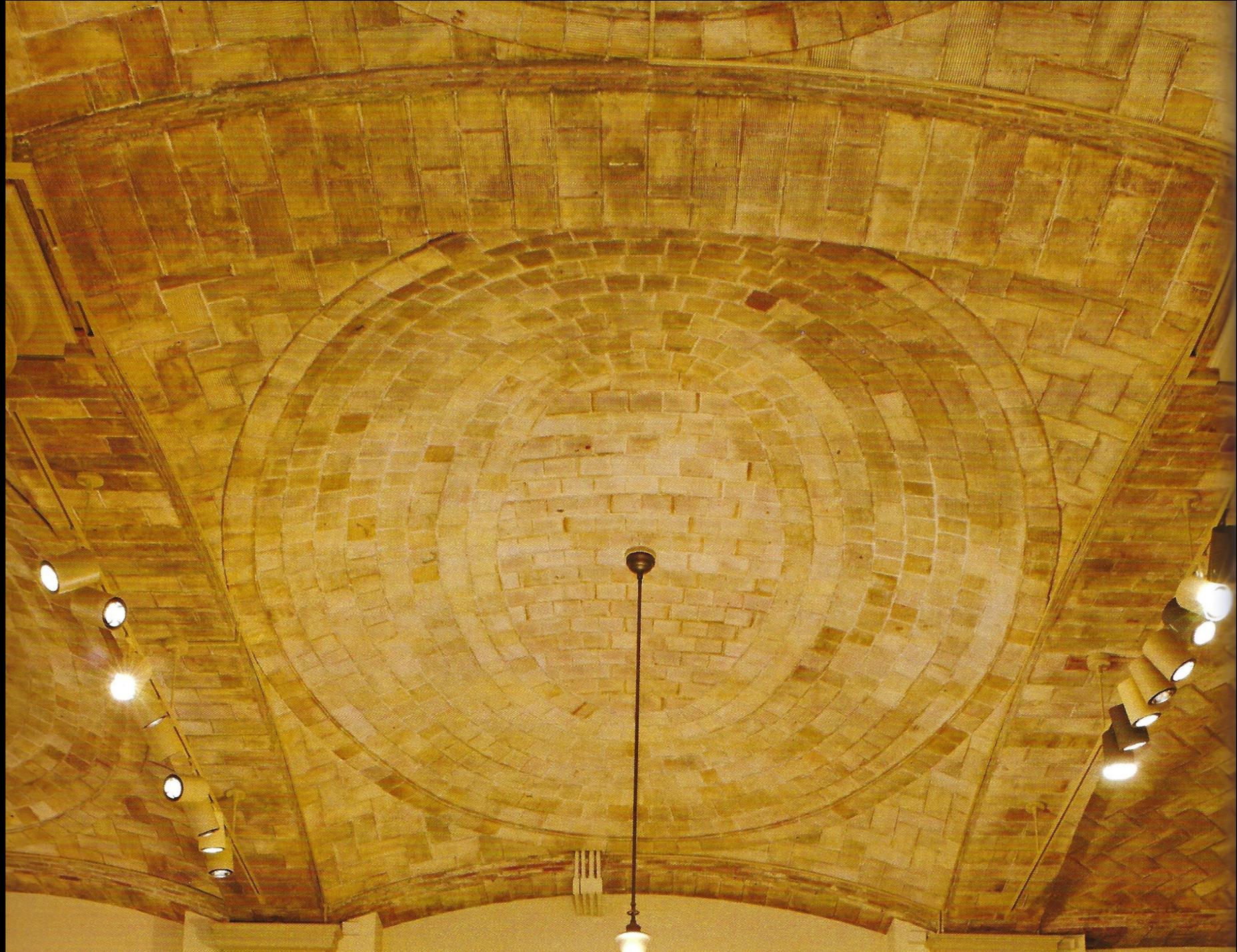
#9 29¢

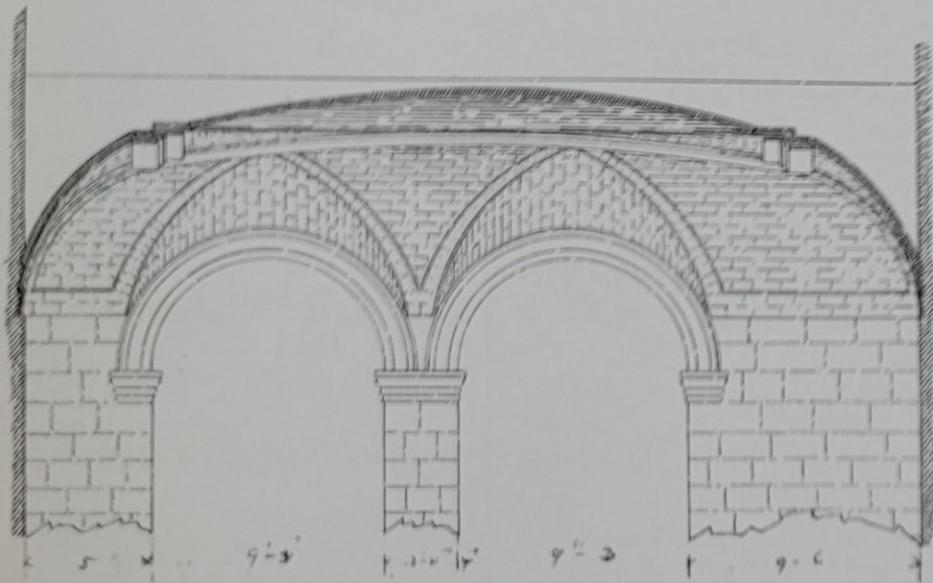


#10 32¢





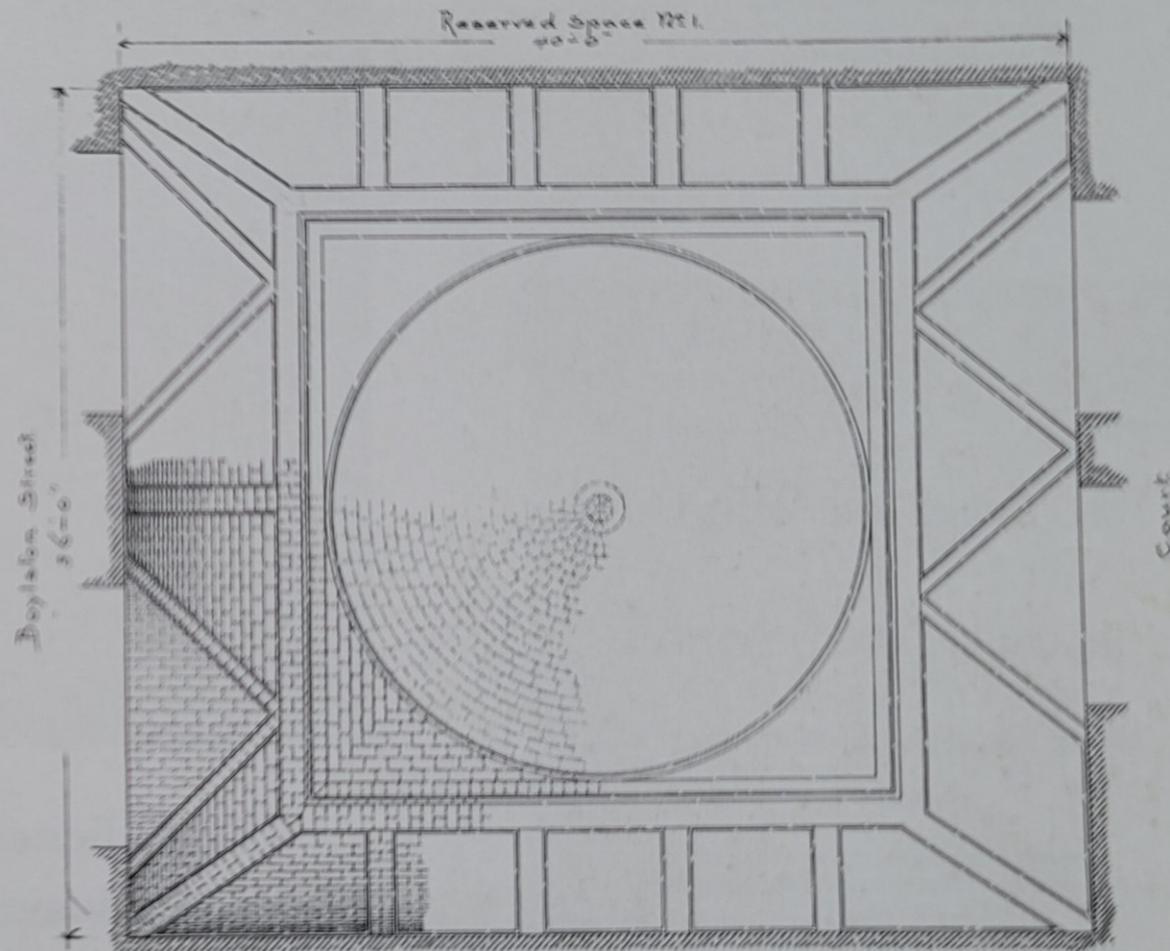




Cross Section looking toward Court.

Scale $\frac{1}{4}'' = 1 \text{ Foot}$.

Boston Public Library.
Proposed Ceiling of Driveway.

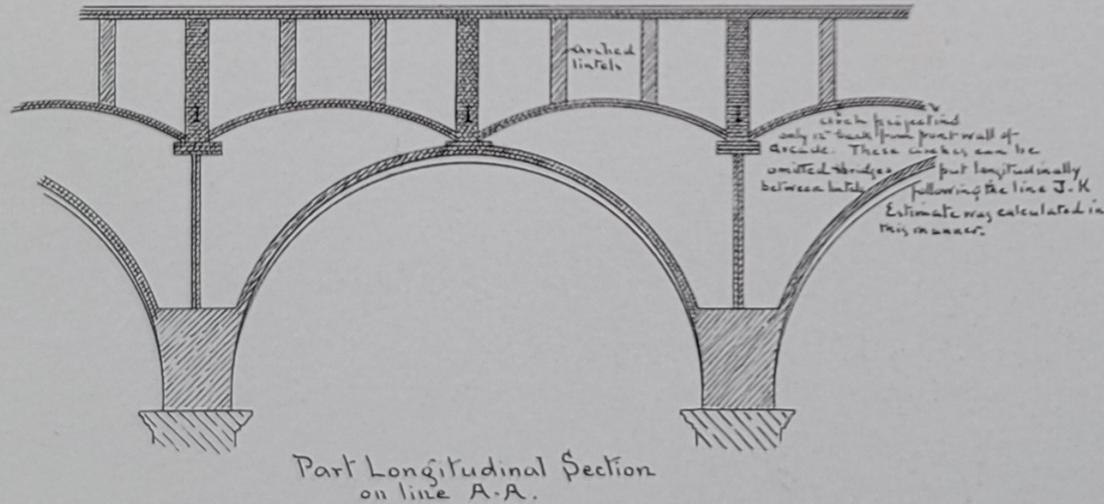
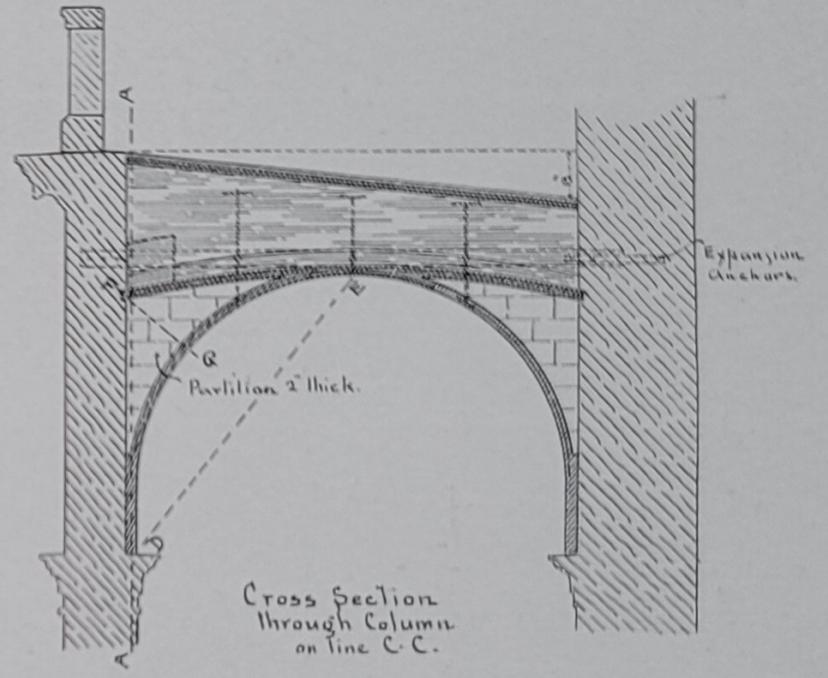
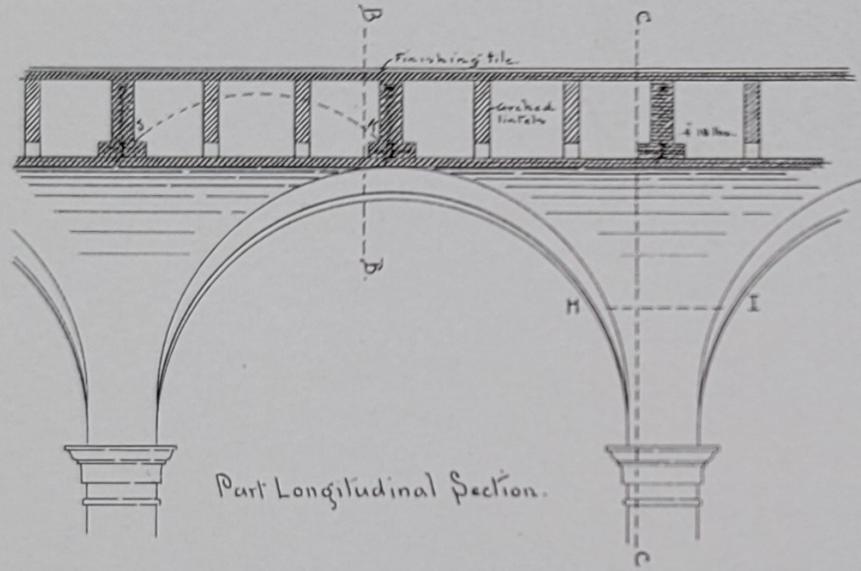
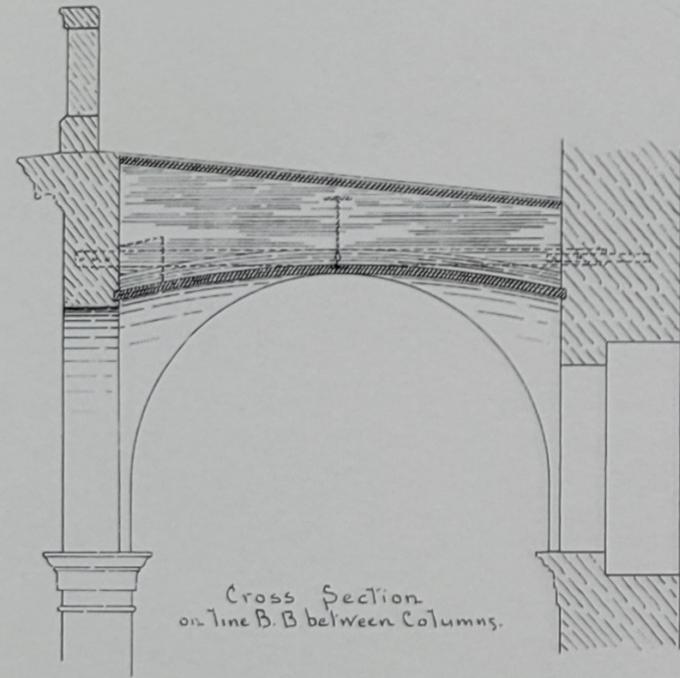


Plan looking up.

New Public Library
Boston, Mass.

Ceiling & Roof of Arcade.

Scale $\frac{1}{2}$ " = One Foot.



Conclusions
The top of the arch is a part of the solid lintel above as per Cross Sections.
The haunch of arch from D to E is kept in place by the tension of the material having the bending moment from F to G through the partition.
The weight of the section of arch in the haunches is only 210 lbs. as the material has 300 lbs. per sq. in. breaking load & the section H-I is 60 sq. in. We have $\frac{810 \times 8}{8 \times 1.7} = 540 \div 300$ coeff. using 10% $540 \div 30 = 18$ sq. in. required.
So we have now four times more than necessary.







Oct 6 1920



CATHEDRAL OF ST. JOHN 1905

330-9





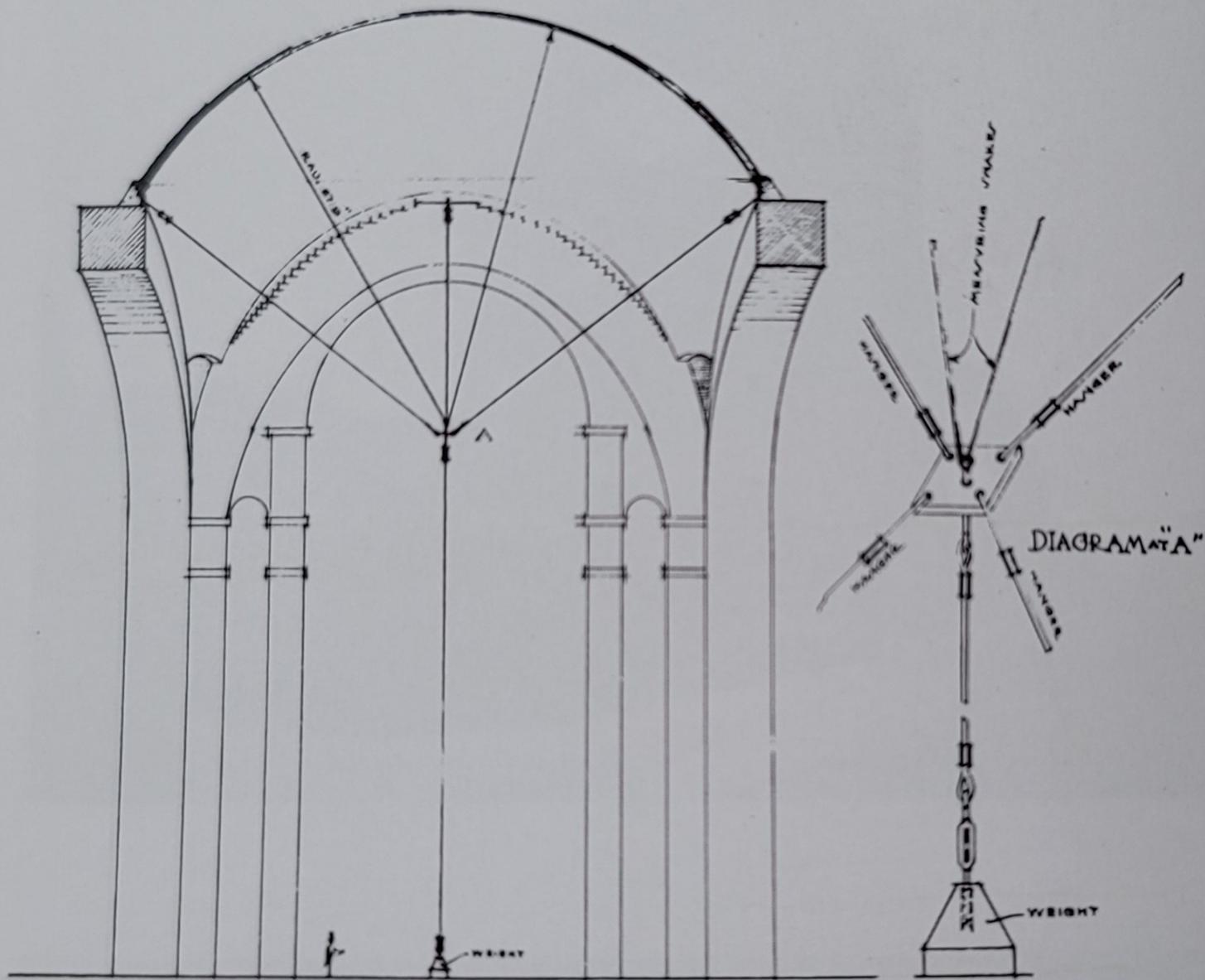


DIAGRAM SHOWING METHOD OF OBTAINING CURVATURE
OF DOME OVER CROSSING CATHEDRAL OF ST. JOHN'S THE DIVINE

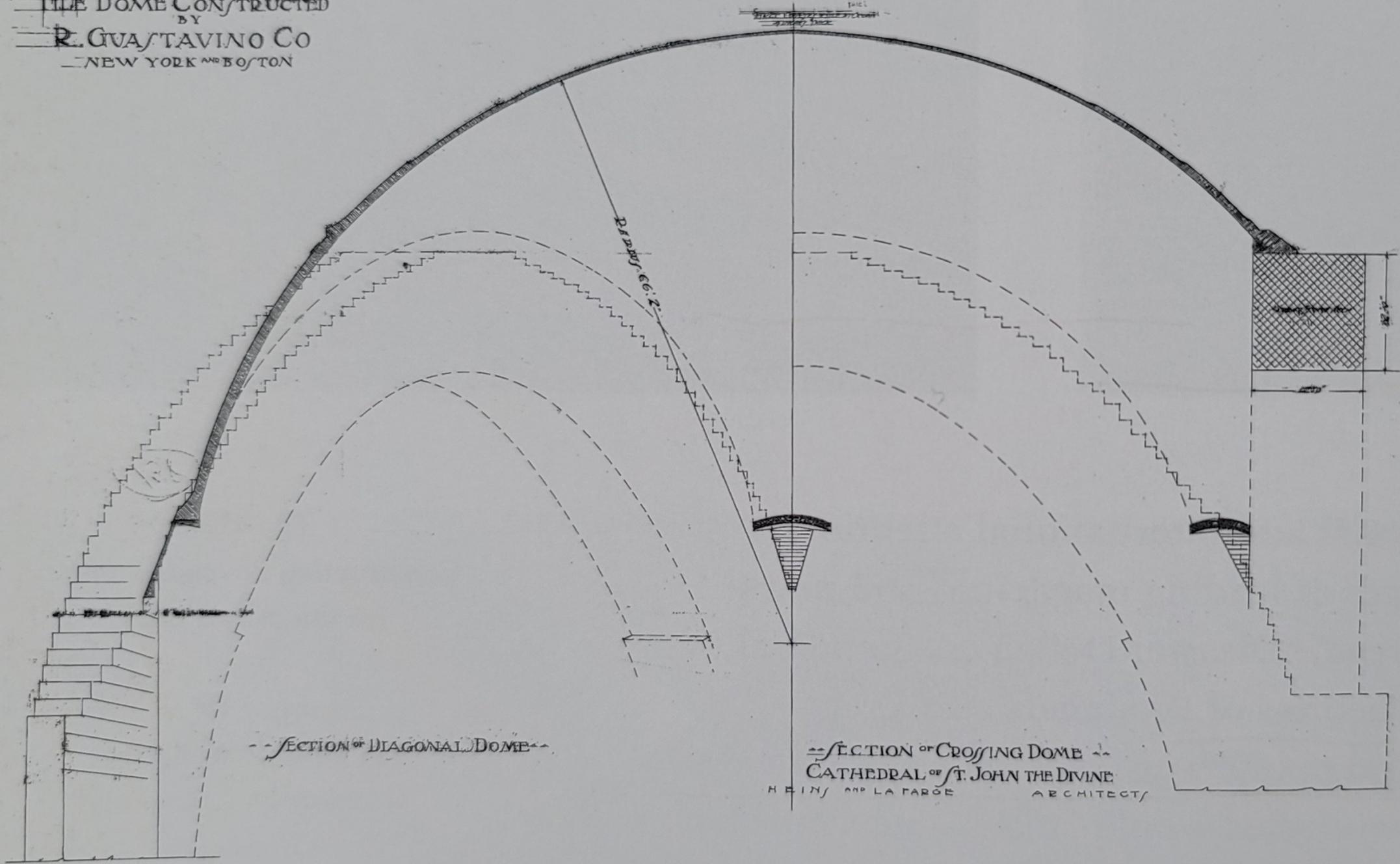






THE DOME CONSTRUCTED
 BY
 R. GVASTAVINO CO
 NEW YORK AND BOSTON

THICK
 OF THE CONCRETE
 AT THE BASE



SECTION OF DIAGONAL DOME

SECTION OF CROSSING DOME
 CATHEDRAL OF ST. JOHN THE DIVINE
 HEINZ AND LA FARGE ARCHITECTS

