

Furnished by
Henry Pastor
Memorial Fund.

RECEIVED
JAN 6 1908
Washington, D.C.

The AMERICAN ARCHITECT AND BUILDING NEWS

Regular Edition

Vol. XCIII.

JANUARY 4, 1908.

No. 1671.

BOSTON PUBLIC SCHOOL BUILDINGS.....	1
COEFFICIENTS OF DIFFUSE REFLECTION.....	8
TYPICAL SCHOOLS IN NEW YORK, CHICAGO AND ST. LOUIS.....	9
EDITORIAL COMMENT.....	7-8

The Prospects for 1908 in the Field of Architecture—The Publisher's Need of the Coöperation of Architects—Mr. Cass Gilbert's Withdrawal from the Competition for the New Municipal Building, New York, N. Y.—Objectionable Points in the Competition Programme.

ILLUSTRATIONS:

The Tuckerman Primary School, South Boston, Mass.—The John Greenleaf Whittier School, Dorchester, Mass.—The Christopher Gibson School, Dorchester, Mass.—The Jefferson School, Roxbury, Mass.—The Charlestown High School, Charlestown, Mass.—The Mather School, Dorchester, Mass.

FLATIRON BUILDING

NEW YORK

THE STANDARD BUILDING CONSTRUCTION CO.,
828 Fulton Bldg., Pittsburgh, Pa.

Established 1830

THE ROBERT C. FISHER COMPANY
Successors to FISHER & BIRD

MARBLE, MOSAICS and TILING

139th-140th Sts.—Locust Ave. and East River, New York

EDISON PORTLAND CEMENT

85% Thru 200

98% Thru 100

Finest Ground Portland Cement Manufactured

"Neat tests are of less value than those of the briquettes made with sand and cement."

"THE FINENESS OF THE CEMENT IS IMPORTANT, FOR THE FINER IT IS, THE MORE SAND CAN BE USED WITH IT."

Abstract from "Specifications for Portland Cement" issued by the United States Navy Department, June 12, 1905.

"It is generally accepted that the coarser particles in cement are practically inert, and it is only the extremely fine powder that possesses adhesive or cementing qualities. The more finely cement is pulverized, all other conditions being the same, the more sand it will carry and produce a mortar of a given strength."

Report of Committee on Uniform Tests of Cement.

Every barrel of "Edison" will pass standard specifications and especially the steam and boiling tests

Sales Offices: St. James Building, New York; Post Office Square Building, Boston; Arcade Building, Philadelphia; Machesney Building, Pittsburgh; Union Building, Newark, N. J.; National Bank Building, Savannah, Ga.

The Tendency Today is to
Buy the
BEST ROOFING TIN

“Merchant’s Old Method”

represents the quality of Roofing Tin in demand. There is an insistent demand for it where the best is required. The quality never changes and it pays to use the recognized standard quality. Write us for ROOFING RULES—FREE.

"Reg. U. S.



MERCHANT & EVANS CO.

Successor to

MERCHANT & CO., Inc.

PHILADELPHIA

New York
Brooklyn
Baltimore
Chicago
Kansas City
Denver]

Alphabetical List of Advertisers

A		E	Kewanee Water Supply Co.....	S	
Alsen Cement.....	27	Edison Portland Cement Co.....	Kloes, F. J.....	St. Louis Portland Cement Co.....	28
American School of Correspondence.....		Elevator Supply and Repair Co.....		Samson Cordage Works (e.o.w.)....	24
American Luxfer Prism Co.....	6	Expanded Metal and Corrugated Bar Co. (e.o.w.).....	L	Sandsky Portland Cement Co.....	24
American Mason Safety Tread Co.....	3		Loomis-Manning Filter Co.....	Smith Co., H. B. (e.o.w.).....	24
American Radiator Co. (e.o.w.).....	25	F	Lufkin Rule Co.....	Society of Beaux-Arts Architects.....	22
American System of Concrete Reinforcing (e.o.w.).....	3	Fisher Co., Robert C.....		Standard Building Construction Co.	26
Art Metal Construction Co.....	13	French & Co., Samuel H.....	M	Standard Plastic Relief Co.....	26
Associated Expanded Metal Co. (o.a.m.)	15	Frink, I. P.....	Merchant & Evans Co. (e.o.w.)....	Standard Sanitary Mfg. Co.....	26
Atlas Portland Cement Co.....	27	Pollansbee Bros. (e.o.w.).....	Mittineague Paper Co. (e.o.w.)....	Stanley Works.....	25
			Mullins Co., The W. H.....		
B		G		T	
Barber Asphalt Paving Co. (e.o.w.)..		Genasco Roofing Co. (e.o.w.).....	N	Taylor, J. W.....	22
Bedford Quarries Co., The.....	4	Globe Ventilator Co.....	National Fireproofing Co. (e.o.w.)..	Thorn Co., J. S. (e.o.w.).....	25
Berger Mfg. Co.....	21	Gorham Co. (o.a.m.).....	National Lead Co.....	Thorp Fireproof Box Co. (e.o.w.)..	3
Brown Bros. Mfg. Co. (e.o.w.).....	9	Gurney Heater Mfg. Co.....	National Regulator Co.....	Troy Laundry Machinery Co.....	28
Burt Mfg. Co. (e.o.w.).....	21	Griffin & Co.....	Newchattel Asphalt Co.....		
Bunner, P. M., Granitoid Co.....	9		New York Belting & Packing Co. (e.o.w.)..	U	
		H	Northwestern Terra Cotta Co. (e.o.w.)..	U. S. Mail Chute Equipment Co. (e.o.w.)..	13
C		Hayes, Geo.....	Norwall Mfg. Co. (e.o.w.).....	U. S. Mineral Wool Co.....	25
Cabot, Samuel, Inc.....	16	Higgins & Co., Chas. M. (e.o.w.)...		Universal Portland Cement Co.....	28
Cambell, Walter H.....	22	Hunt & Co., Robert W.....	O	University of Illinois.....	22
Cardinell-Vincent Co.....	23		Okonite Co. (Ltd.) (e.o.w.).....	University of Michigan.....	22
Chicago Portland Cement Co.....	28	I	Otis Elevator Co.....	University of Pennsylvania.....	22
Clinton Wire Cloth Co. (o.a.m.)....		Information Bureau of Tile Industry.....			
Colonial Fireplace Co. (o.a.m.)....			P	V	
Contractors' Supply & Equipment Co. (e.o.w.).....	7	J	Peerless Rubber Mfg. Co. (o.a.m.)..	Vaile & Young.....	16
Corrugated Concrete Pile Co.....	25	Jackson Co., Wm. H.....		Voigtmann & Co. (o.a.m.).....	
Cutler Mfg. Co.....	15	Jenkins Bros.....	R		
Carter White Lead Co.....	15	Jones, T. W. (e.o.w.).....	Raymond Concrete Pile Co.....	W	
		K	Rider Ericsson Engine Co.....	Washington University.....	22
D		Kawneer Mfg. Co. (e.o.w.).....	Royal Ventilator Co.....	Winslow Bros. Co., The.....	23
Deane, E. Eldon.....	22			Wirt, F. B., E. J.....	5
Detroit Show Case Co. (o.a.m.).....	26			Wolf Mfg. Co. (o.a.m.).....	2
Dixon Crucible Co., Jos.....	28			Woodbury Granite Co.....	2

Solid Heating Facts

When an architect recommends Steam or Water Heating and his client adopts one or the other, the building takes on an investment value which gives the structure the best living worth, increases rental 10 per cent. or more, and gives it a sales value that covers every dollar which the outfit cost the owner.



The Heating Always Tells in Rentals

AMERICAN & IDEAL
RADIATORS & BOILERS

Architects who are recommending this broad value-giving policy to clients find that IDEAL Boilers and AMERICAN Radiators (advertised in every community of this country) execute these solid facts of true building economy with the highest degrees of permanent satisfaction.

AMERICAN RADIATOR COMPANY

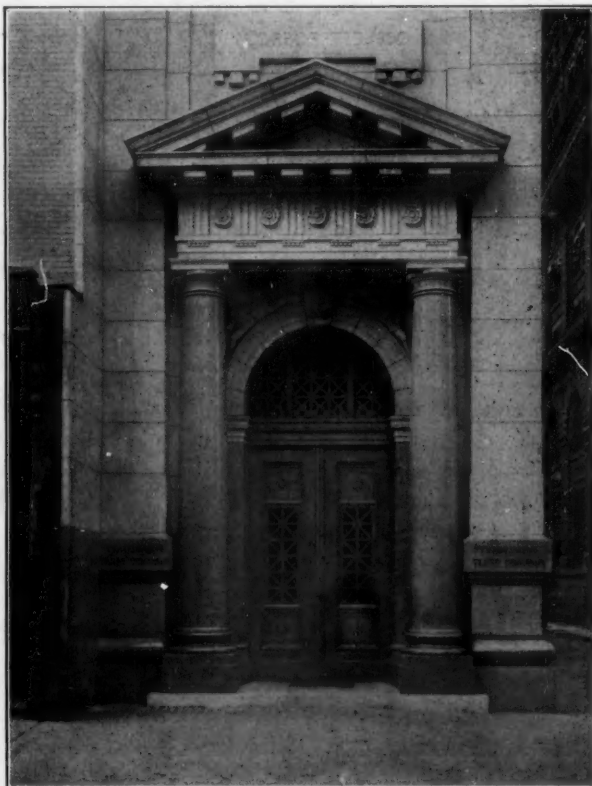
General Offices: 282-286 Michigan Ave., Chicago

NEW YORK
BOSTON
PHILADELPHIA
BALTIMORE
BUFFALO

PITTSBURG
CINCINNATI
CLEVELAND
DETROIT
INDIANAPOLIS

CHICAGO
MILWAUKEE
ST. LOUIS
KANSAS CITY
ATLANTA

MINNEAPOLIS
OMAHA
DENVER
SEATTLE
SAN FRANCISCO



Richardson Fire Proof DOORS

Make Each Room a Separate Building

Richardson Standard Doors are used throughout Office Buildings, Hospitals, Schools, and all fireproof structures for Corridor and Communicating openings.

Recommended by Underwriters' Laboratories.

Cost compares favorably with corresponding class of hardwood doors.

Finished Duplex Plate, Old Copper or Brass, or grained natural finish.

*Photo illustrates Special Detail Copper Entrance,
Tradesmen's Trust Co., Philadelphia*

THORP
Fire Proof Door Company
Minneapolis, Minn.



Clinton & Russell,
Architects,
New York.

MUTUAL ASSURANCE BUILDING, RICHMOND, VA.

John T. Wilson,
General Contractor,
Richmond, Va.

Albin Netherwood,
Cut Stone Contractor,
Richmond, Va.

DURABILITY

There is not a building stone on the market more DURABLE than OLD HOOSIER OOLITIC LIMESTONE. It can be used in any climate with safety.

OLD HOOSIER STONE produced from THE HOOSIER QUARRIES of THE BEDFORD QUARRIES COMPANY is the ORIGINAL of the INDIANA OOLITIC LIMESTONES, and to get the BEST specify OLD HOOSIER.

Correspondence with Architects solicited.

THE BEDFORD QUARRIES COMPANY

204 Dearborn Street
CHICAGO, ILL.

1 Madison Avenue
NEW YORK CITY

818 Euclid Avenue
CLEVELAND, OHIO

The Basis of Structural Strength

Where heavy loads are to be carried, great resistance to strain is demanded, or excessive vibration is to be overcome, "Steelcrete" Expanded Metal is the one reinforcement that gives absolute satisfaction at a minimum cost. Steelcrete is scientifically designed so that every unit sustains its proportion of the load and gives maximum tensile strength with a minimum use of metal.



EXPANDED METAL

Admits of most graceful lines in architecture, entirely eliminating cumbersome effect. It is the original expanded metal and recognized by experts as one of the strongest materials used in fireproof flooring.

Send for our book—A treatise on reinforced concrete construction. Free to contractors and builders.

The Associated Expanded Metal Companies
223 Fifth Ave., New York, N. Y.

Hydrolithic System of WATERPROOFING

This is the most perfect and simple method of protecting walls, floors, basements, etc., from moisture that has yet been devised.

Architects and Engineers are specifying this system in the most important buildings erected. Let us send you list of places and further proof of its merit. Write us.



Conservatism

Architects specifying Wolff Plumbing Material exclusively feel confident from long experience that no fixture or device will be catalogued or will be sold till its reliability and value have been proven beyond question. "Wolff Conservatism" never has and never will allow experiments to be tried at the expense of the Architect or his Client.

L. Wolff Manufacturing Co., Established 1855

MANUFACTURERS OF PLUMBING GOODS EXCLUSIVELY. The only complete line made by any one Firm.

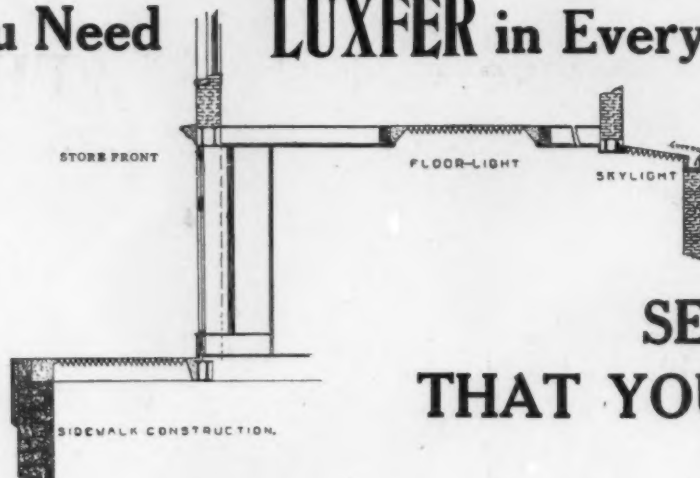
SHOWROOMS, 91 DEARBORN STREET
CHICAGO

DENVER

TRENTON

DAYLIGHTING

You Need **LUXFER** in Every Specification



SEE
THAT YOU GET IT

HERE is hardly a building operation of importance where the use of LUXFER is not indicated. Over 20,000 installations within a recent period show the esteem in which it is held by progressive architects and builders.

We solicit the fullest correspondence and offer the services of our corps of daylighting experts.

There is no substitute for LUXFER.

All our products are listed in Sweet's Index, pages 516-521 inclusive.

Write our nearest office concerning your special problems

AMERICAN LUXFER PRISM COMPANY Heyworth Building, CHICAGO, ILL.

NEW YORK, 160 Fifth Avenue
BOSTON, 49 Federal Street
SAN FRANCISCO, 245 Oak Street
CLEVELAND, 1022 Garfield Building
BALTIMORE, 32 Builders' Exchange

KANSAS CITY, 948 N. Y. Life Building
ST. PAUL, 615 Ryan Building
PHILADELPHIA, 608 Chestnut Street
PITTSBURG, 715 Fulton Building
CINCINNATI, 31 Thoms Building

NEW ORLEANS, 904 Hennen Building
MILWAUKEE, 1112 Railway Exchange
INDIANAPOLIS, 342 E. Washington St.
PORTLAND, Ore., 145 First St.
SEATTLE, Wash., 557 New York Block.

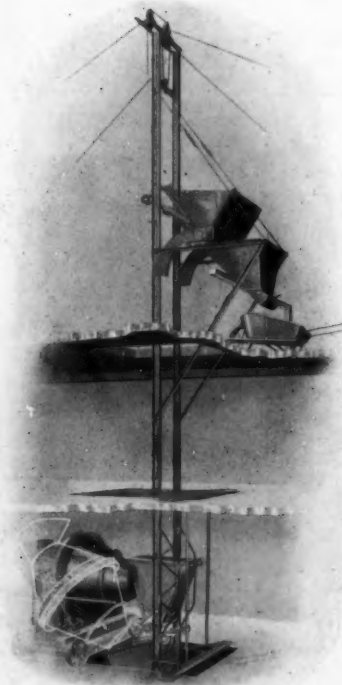
A Prominent Architect

WRITES AS FOLLOWS:

"I firmly believe that the SMITH is the best mixer on the market and this machine is specified by me in my concrete work."

We are receiving the endorsement of more and more architects who are writing into their specifications "all concrete must be mixed in a

SMITH MIXER"



This illustration shows the Smith Mixer used in connection with the Smith Concrete Elevator. This Elevator takes the batch from Mixer, elevates it rapidly and dumps it automatically on any floor desired, saving the labor of several men. The whole rig is self-contained and can be erected anywhere material can be elevated. It can also be used for brick, mortar and other material.

Contractors Supply & Equipment Co.

300 Old Colony Building **CHICAGO**

To Contractors Supply & Equipment Co., 300 Old Colony Bldg., Chicago:

Please send me copy of your booklet entitled, "Concrete Safety."

.....

.....

**No Fireproof Construction Problem is
Too Great for Us—
None Too Small to Secure Our Best Consideration**

Many members of the building profession seem to feel that because the largest and most celebrated buildings in the country have been fireproofed by this company that we are not in a position to give results on comparatively small structures.

Send us the plans of your buildings, small or large, to figure on and you will learn how economical and satisfactory are our methods of fireproof construction with

Terra Cotta Hollow Tile

National Fire Proofing Company

Manufacturers of

TERRA COTTA HOLLOW TILE

Contractors for Construction of Fireproof Buildings

The largest firm in the world devoted exclusively to the business of fireproof construction. Capital Twelve and one-half Million Dollars.

CHICAGO, Commercial National Bank Bldg.	PITTSBURG, Fulton Bldg.	PHILADELPHIA, Land Title Building
NEW YORK, Flatiron Bldg.	WASHINGTON, D. C., Colorado Bldg.	MINNEAPOLIS, MINN., Lumber Ex.
BOSTON, Old South Bldg.	LOS ANGELES, CALIF., Union Trust Bldg.	ST. LOUIS, MO.
LONDON, ENG., 26 Chancery Lane		

Twenty-six factories throughout the United States.

The Bruner System of Sidewalk Lights set in Reinforced Concrete

This is the oldest and the best developed system in the market. It excels in strength, in amount of light admitted, in watertight qualities, in durability, and adaptability.

*See Sweet's Index, 1907-8
Vol. 2, Page 1233*

FOR BOOKLET AND PRICES

P. M. Bruner Granitoid Co., 542 Frisco Bldg., St. Louis.
Albert Grauer & Co., 301 Stevens Bldg., Detroit.
H. Chas. Judge Bldg. & Mfg. Co., Los Angeles, San Francisco, San Diego.
L. A. Norris, Alaska Bldg., Seattle, Wash.

Information Bureau of the Tile Industry

DO You Appreciate the Advantages in Using Tiling in Home Building?

Its DURABILITY saves the costs of repairs and replacing. A tiled floor or wall never has to be oiled, varnished, painted or papered. Dirt or liquid matter of any kind will not stain it. The steel nails of the shoe cannot scratch or wear it.

Its SANITARY QUALITIES and the facility with which it can be cleaned gives assurance that the bath-room, kitchen, butler's pantry, laundry, vestibule and other places where it is used will always be in a clean, sanitary condition.

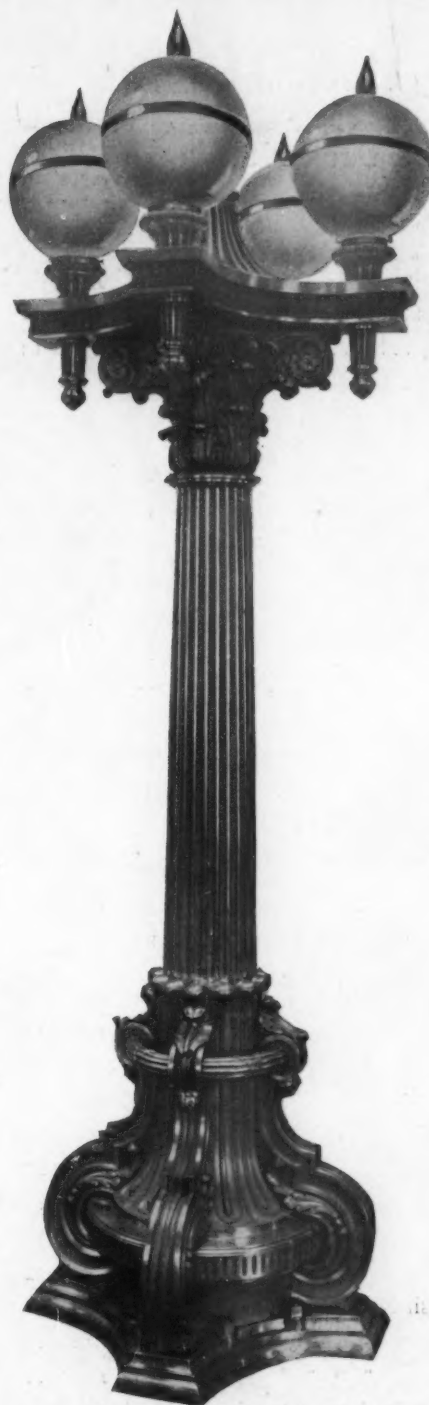
Its DECORATIVE POSSIBILITIES permit the execution in tiling or ceramic mosaic of any possible design or color scheme on the floor or wall.

Tiling is fire-proof, germ-proof, water-proof, damp-proof and vermin-proof.

*For interesting booklets on tiling,
distributed free, write*

INFORMATION BUREAU OF THE
TILE INDUSTRY

70 Corcoran Building, Washington, D. C.



BRONZE ELECTROLIER
U. S. POST OFFICE, SUPERIOR, WIS.

Brown Bros. Mfg. Co.

ESTABLISHED 1860

Ornamental Iron and Bronze

CHICAGO

Classified Illustrations

From Back Numbers of THE AMERICAN ARCHITECT



*Showing Best
Types of
Architecture
by the best
Architects
For Sale*

See List Below

	Total No. of Illustra- tions	No. of Zincs & Half- tones	No. of Photo- gravures	Price		Total No. of Illustra- tions	No. of Zincs & Half- tones	No. of Photo- gravures	Price
Banks	64	62	2	\$1.50	Theaters.....	130	121	9	\$3.00
"	50	37	13	1.50	"	70	65	5	1.75
"	140	122	18	3.50	Work of McKim, Mead & White.....	100	49	51	3.50
Bridges, Fountains and Landscape Work.....	35	34	1	1.00	Work of Cram, Goodhue & Ferguson.....	50	45	5	1.25
" " " "	40	40	..	1.00	" " " " " "	80	74	6	2.00
" " " "	60	52	8	1.50	City Hotels.....	130	85	45	4.00
" " " "	100	92	8	2.50	City Houses.....	50	..	50	2.50
" " " "	100	99	1	2.00	" "	236	125	111	8.00
" " " "	60	59	1	1.25	" "	80	3	77	4.00
English Country Houses....	50	50	..	1.00	" "	110	104	6	2.50
Suburban Houses.....	80	18	62	3.50	" "	25	15	10	1.00
" "	112	112	..	2.50	German Buildings.....	50	20	30	2.00
" "	200	200	..	4.00	" "	100	55	45	3.50
" "	40	9	31	2.00	" "	30	10	20	1.00
" "	100	100	..	2.00	French Buildings.....	100	71	29	3.00
English City Houses.....	50	50	..	1.00	" "	50	50	..	1.00
Small Churches and Chapels	50	50	..	1.00	School Houses.....	78	75	3	1.75
" " " "	70	66	4	1.75	Schools, Grammar and Pri- mary.....	68	67	1	1.50
" " " "	100	98	2	2.25	" " " " " "	25	25	..	.50
" " " "	130	127	3	3.00	" " " " " "	40	40	..	.80
" " " "	130	116	14	3.00	" " " " " "	120	117	3	1.25
" " " "	40	36	4	1.00	" " " " " "	130	127	3	2.75
" " " "	150	131	19	3.75	High Schools.....	100	95	5	2.25
" " " "	75	61	14	2.00	" "	40	4	36	2.00
" " " "	100	75	25	2.75	" "	130	124	6	3.00
Seaside and Country Seats..	50	50	..	1.00	" "	50	46	4	1.25
" " " "	60	44	16	1.75	Country Houses.....	150	149	1	3.50
Stables.....	30	28	2	1.00	" "	200	199	1	4.00
English Halls and Manors..	100	100	..	2.00	Churches.....	180	177	3	3.25
" " " "	40	40	..	1.00	"	130	116	14	2.50
" " " "	170	170	..	3.50	"	40	36	4	1.00
Hospitals, Asylums and Con- vents.....	100	97	3	2.25	"	75	61	14	2.50
" " " "	160	148	12	3.75	"	100	75	25	2.75
" " " "	50	50	..	1.00	Towers, Spires, Etc.....	84	80	4	1.75
Italian Buildings.....	44	37	7	1.25	Small Country Houses....	50	47	3	1.25
" "	70	61	9	1.75	" " " "	25	25	..	.50

Address **THE AMERICAN ARCHITECT**
FLATIRON BUILDING : NEW YORK

PEERLESS RUBBER TILING

— CUSHION BACK —

The Most Durable and Economical
Floor Covering Made

BEAUTIFUL DESIGNS EFFECTIVE COLORINGS

Noiseless, Waterproof and Non-absorbent

¶ Peerless Rubber Tiling is made in large continuous sheets, and is impregnable to dirt and moisture.

¶ It is sanitary, beautiful and a durable rubber floor covering.

¶ Beware of cheap substitutions and imitations purporting to be sheet rubber tiling.

SEND FOR OUR CATALOGUE ILLUSTRATED IN COLORS.

PRICES ON APPLICATION.

MANUFACTURED EXCLUSIVELY BY

The Peerless Rubber Manufacturing Company

16 Warren Street and 88 Chambers Street

NEW YORK

CORRUGATED BARS

FOR
*REINFORCED CONCRETE
CONSTRUCTION*



WAGONER UNDERTAKING CO. BUILDING, ST. LOUIS.
P. C. Bonsack, Architect

YOU want an economical, efficient and reliable reinforcement that can be readily adapted to the various requirements of building work.

Let us explain how the corrugated bar meets these requirements in every essential particular.

Our nearest agent will call upon you if you desire and our catalogue may be had for the asking.

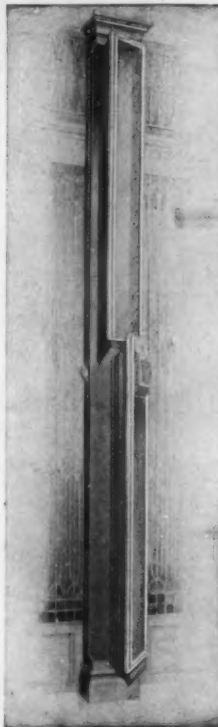
Our engineering department is ready at all times to co-operate with the profession in the design of work.

**EXPANDED METAL AND
CORRUGATED BAR CO.**

Frisko Bldg.

St. Louis

MODERN! RELIABLE! ACCESSIBLE!



SECURITY Mail Chute

(COPY)

November 30, 1907.

ORDER No. 896.

ORDERED: That, whereas the Security Mail Chute, manufactured by the United States Mail Chute Equipment Company of St. Louis, Missouri, appears to conform to the present requirements, it is declared in accordance with the Act of Congress, approved January 23, 1893, that in all mailing apparatus of this style heretofore installed, or to be installed hereafter, under the regulations of the Department, the chute shall be under the exclusive care and custody of Post Office Department.

(Signed) F. H. HITCHCOCK,
Acting Postmaster General.

**U. S. MAIL CHUTE
EQUIPMENT CO.**

OFFICE-AND
FACTORY: 1315 Chestnut Street St. Louis

PHOTOGRAPHY

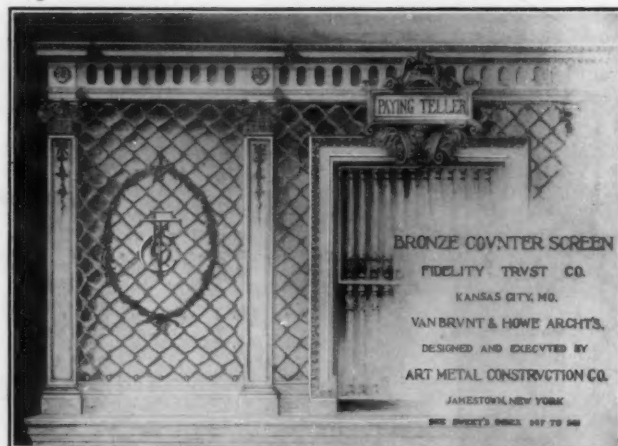
We are now prepared to execute high class photographic work at a moderate price.

- ✓ OUTDOOR AND INDOOR VIEWS
- ✓ COPIES OF DRAWINGS IN LINE, MONOCHROME OR COLOR
- ✓ NEGATIVES UP TO 11x14 INCHES
- ✓ PRINTS OF ANY KIND

FOR PARTICULARS ADDRESS

THE AMERICAN ARCHITECT

Flatiron Building, New York



RAYMOND

CONCRETE

PILES

do not require excavation to water level, shoring, sheet piling, or pumping; a greater bearing value is gained per pile than is possible with any other form of piling.

This saves on initial costs.

RAYMOND CONCRETE PILES are permanent.

This saves on ultimate costs.

*The Raymond Handbook on Concrete Piles
may be obtained free at any of our offices.*

RAYMOND CONCRETE PILE COMPANY

135 Adams St., Chicago 140 Cedar St., New York

Union Bank Building, Pittsburgh

GEO. W. VAN VRANKEN,
Gazette Bldg., Schenectady, N. Y.
COWING ENGINEERING Co.,
426 Citizens' Bldg., Cleveland, O.
CUDWORTH, AXTELL & Co.,
K. C. Life Bldg., Kansas City, Mo.
E. G. NAVE BROS. Co.,
Portsmouth, Ohio.

C. H. GLANDORF,
Temple Court, Cincinnati, Ohio.

GEO. W. OAKES & Co.,
Endicott Bldg., St. Paul, Minn.

W. A. TYRRELL, C. E.
620 Chestnut St., St. Louis, Mo.

KENTUCKY CONSTRUCTION Co.,
424 W. Jefferson St., Louisville, Ky.
THE HENRY J. SPIEKER Co.,
409 Michigan St., Toledo, Ohio.
BOWLUS & SHEPARD,
332 Baronne St., New Orleans, La.
LUPFER & REMICK, 590 Ellicott
Square, Buffalo, N. Y.



AUGUST PATZIG, PHOTO

Main Stair Railing, Residence of R. L. Beeckman, Esq., 854 Fifth Ave., New York. *Warren and Wetmore, Architects.*

MADE BY

THE GORHAM COMPANY

Architectural, Ornamental and Sculptural Bronze

PROVIDENCE

NEW YORK

THE CUTLER MAILING SYSTEM

THE NEW CHUTE AT A NEW PRICE.



MODEL F

INCREASED AND IMPROVED FACILITIES AND SIMPLIFIED DESIGN ENABLE US TO PRODUCE THE MODEL F CHUTE AT A SUBSTANTIAL REDUCTION IN COST.

WHILE MODEL C REMAINS THE BEST MAIL CHUTE THAT CAN BE MADE, THE NEW CHUTE IS NEAT IN APPEARANCE, AND SIMPLE AND SATISFACTORY IN OPERATION.

FULL INFORMATION AND ESTIMATES ON APPLICATION TO THE SOLE MAKERS.

Infringers are being prosecuted.

**THE CUTLER MFG. CO.
ROCHESTER, NEW YORK.**



FROM the simplest hoist by hand to the most comprehensive elevator equipment, embracing in one instance over 40 elevators in a single building, we are prepared to successfully cope with any elevator problem. Besides ordinary passenger and freight elevators, we manufacture and install dumb waiters, escalators (moving stairways), hoists for mines, docks, warehouses, building operations, blast furnaces, etc. We also build incline railways, gravity conveyors, etc.

CORRESPONDENCE INVITED

OTIS ELEVATOR COMPANY

New York Office, 17 Battery Place

OFFICES IN PRINCIPAL CITIES OF THE WORLD



Specify **CARTER** Strictly Pure White Lead

It is all right to specify "Pure White Lead"—that's a step in the right direction, but—

If you will carefully read North Dakota State Bulletin No. 70, "Paints and Their Compositions," you will no doubt be surprised to note that out of numerous brands of so-called white lead analyzed by State Chemist Ladd, but two were found to be Strictly Pure—one of the two was

CARTER *Strictly Pure* **White Lead**

Carter White Lead is the one brand of lead recognized by *discriminating* architects and painters as superior in *whiteness*, beauty of finish, spreading qualities and durability. Carter Lead is the only brand made by a modern process that eliminates all impurities and discolorations. Because of its superior whiteness, Carter produces the brightest and clearest tints.

You need a copy of our beautiful booklet, "Pure Paint," with a set of modern Color Schemes. You should also have a copy of North Dakota State Bulletin. Drop us a postal.

CARTER WHITE LEAD CO.
W. P. Station 100, CHICAGO, ILLINOIS
Factories: Chicago—Omaha



A Scientific Insulator

Contains innumerable minute dead-air spaces, giving highest insulating power. Warmer than back-plaster or six layers of rosin paper and costs less than 1c. a foot. Decay, moth and vermin proof and unflammable.



Samuel Cabot, Inc., Boston, Mass.
1133 Broadway, New York 28 Dearborn Ave., Chicago

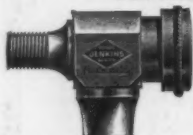
A Perfect Deafener

Prevents the transmission of sound through walls and floors by absorbing and breaking up the sound-waves. The only deafener that does this. Send for Report of Prof. Norton on Sound-proofing tests for New England Conservatory of Music.

Samples also on request

Jenkins' Improved Automatic Air Valves

FOR RADIATORS, HEATING COILS, ETC.



Fitted with an expansible, elastic plug of Jenkins Composition. They are perfectly automatic; thousands in use and giving entire satisfaction. Take up no more room than an ordinary air cock; neat in appearance, being finished all over and nickel plated; and can be applied after radiators are set.

Write for a copy of our 1907 Catalogue.

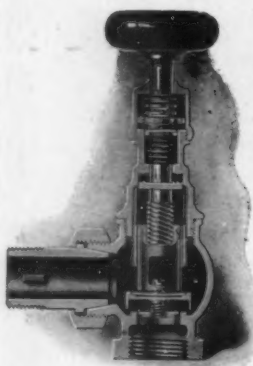
JENKINS BROS., New York, Boston, Philadelphia, Chicago, London

ASPHALT FLOORS, ROOFS, SIDEWALK and CARRIAGE WAYS

of Public Buildings, Hospitals, Warehouses, Stables, Cellars, etc., laid with VAL de TRAVERS ROCK ASPHALT

Durable, Fireproof and Impervious. For estimates and list of works executed, apply to

The Neuchatel Asphalt Co., Limited, 265 Broadway, New York



Leaky Radiator Valves

are not only a constant source of expense but an unmitigated nuisance.

SPECIFY

"NORWALL" Packless Radiator Valves and give your client a valve that is **AIR, WATER, and STEAM TIGHT**, and one which requires **NO PACKING AT ANY TIME**.

In **VACUUM HEATING** the Big Leak is through the packing box of the radiator valve. You can stop this leak by using "Norwall" Packless Valves besides giving your client the best radiator valve on the market in other respects. Let us submit sample.

NORWALL MANUFACTURING CO.

104 West 42nd Street
NEW YORK CITY

154 Lake Street
CHICAGO, ILL.

Philosophy of Protective Paint

A practical treatise on the subject of protective paint by a practical paint man.

Write for free copy No. 14 B.

—Joseph Dixon Crucible Co., Jersey City, N. J.



VAILE & YOUNG'S Patent Metallic Skylights

WITHOUT PUTTY

Construction adapted to all forms and styles of Skylights. Thousands of feet in use have proved its superiority. Particularly adapted for Depots, Mills, Factories, etc., where large and continuous lights are required.

Send for Illustrated Catalogue.

210 N. Calvert St., Baltimore, Md.

MANY a young man finds himself at work in the draughting room without having that equipment in certain rudimentary knowledge which is essential to secure advancement. He has, perhaps, a natural talent for drawing and this would carry him far if he were not handicapped by a lack of training in mathematics; for example: Our courses are devised for the special purpose of supplying just such a need. Elementary mathematics, algebra, geometry, trigonometry and logarithm may, by our system, be studied without interfering with office work.

Or, it may be that he is sufficiently grounded in these things but unskilled in these branches of drawing most needed in an architect's office. Our courses, which include projections, perspective drawing, shades and shadows, lettering and rendering, would then fit his case.

Freehand Drawing.
Mechanical Drawing.
Architectural Lettering.
Shades and Shadows.
Perspective Drawing.
Architectural Drawing.
Rendering.
Study of the Orders.
Building Superintendence.
Strength of Materials.
Masonry Construction.
Carpentry and Joinery.

The Steel Square.
Stair-Building.
Steel Construction.
Reinforced Concrete.
Contracts and Specifications.
Estimating.
The Architect and His Legal Relations.
Heating and Ventilation.
Plumbing.
Electric Wiring.
Electric Lighting.

Catalog free on request

AMERICAN SCHOOL OF CORRESPONDENCE

CHICAGO, ILL.

THE AMERICAN ARCHITECT

AND

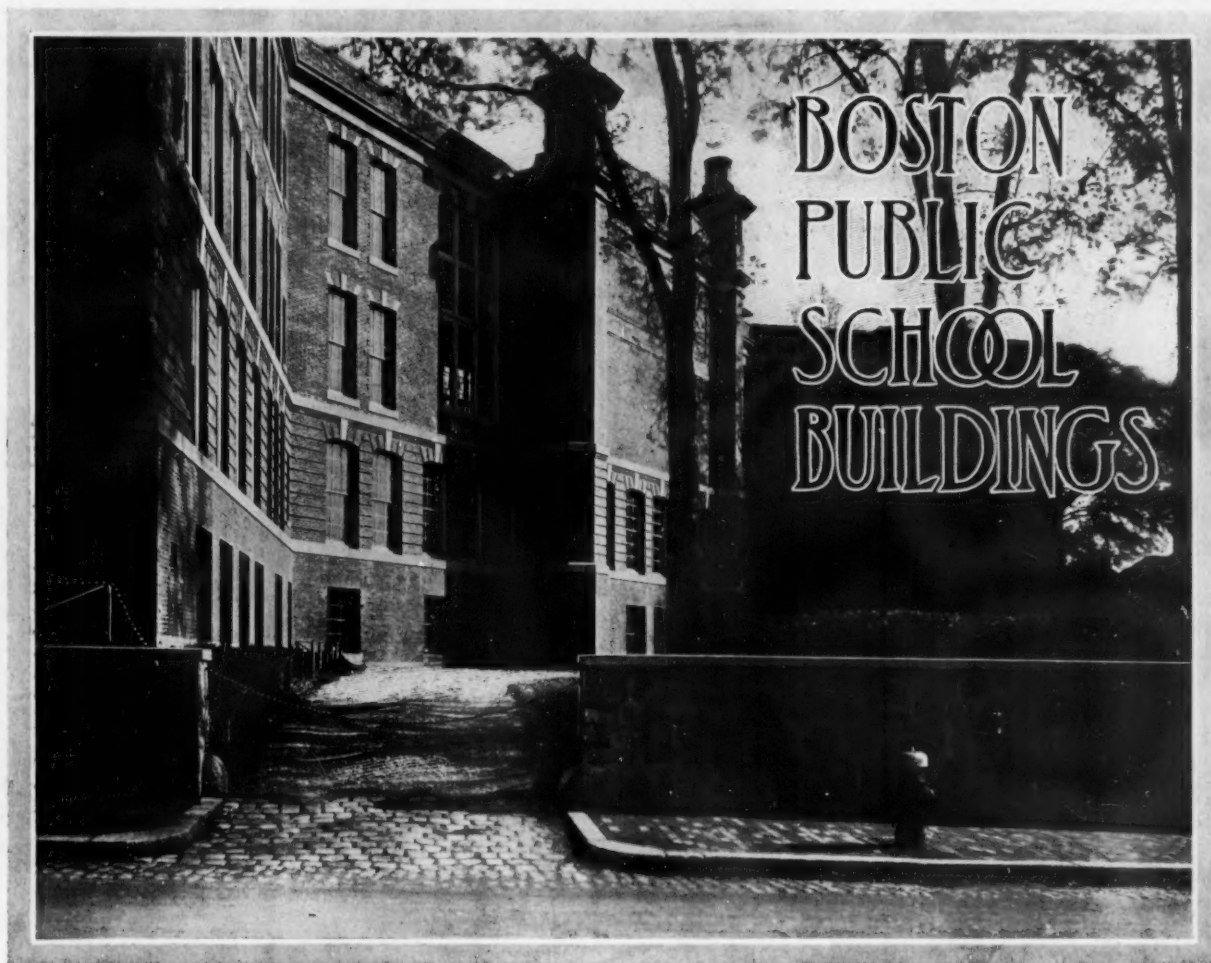
BUILDING NEWS

Public
RECEIVED
JAN 6 1908
Washington

Vol. XCIII.

SATURDAY, JANUARY 4, 1908.

No. 1671.



UNLIKE St. Louis, Chicago, New York and some other cities, the Boston School Department does not have an official architect, to prepare designs for its school-houses. Until the arguments of Mr. E. M. Wheelwright succeeded in inducing the mayor to abolish the office of City Architect, which Mr. Wheelwright had ably filled for several years, the incumbent of that office prepared the designs for and superintended the construction of all the public buildings erected by the municipality and, amongst these, school-houses required more of his care and attention than any others, so that the School Department was almost as well served as if it had its own special architect.

Naturally, the general body of architects in Boston were pleased with the abolition of the official City Architect, for the step seemed to promise to open to them a field that for years had been closed against them; and,

no doubt, a marked improvement in the architectural expression of Boston's public buildings was anticipated.

After a period of doubt and experimentation, it was perceived that, however it might be with bath-houses, police-stations and engine-houses, the well-being of the community was too vitally concerned in school-houses to leave them at the risk of fickle chance and political pull an instant longer than was needful. Consequently, about half a dozen years ago, there was established the School-house Department—which must not be confused with the Department of Schools, which has charge of the use of the buildings after they are built and of the education and well-being of the pupils—under the charge of three Commissioners, of whom Mr. R. Clipston Sturgis has, from the outset, been the chairman. This new Department has entire charge of the erection of new buildings and the selection of the architects who shall design them. It, to a con-

siderable degree, interposes itself as a buffer between the private architect accustomed to a quiet life and the pressure of politicians. In a very great degree it substitutes itself as the real client of the private architect, who has to satisfy its requirements rather than those of the City Government proper. On their appointment Mr. Sturgis



THE REAR OF THE MATHER SCHOOL, DORCHESTER, MASS.

and his colleagues set about making a comprehensive study of the school-house question for the last seventy-five years and, having searched records, examined contracts, drawings and specifications without number, they have, after duly digesting the material, produced a series of valuable annual reports that are classics in their way.

The mode of action under the Boston plan is about as follows: The School-house Department, being instructed by the School Committee that a new building is needed, studies the requirements, searches for and advises as to the site, recommends the amount it is desirable to spend and procures the appropriation. Then, having carefully prepared a statement of the requirements, it selects from the general body of private practitioners one who seems likely to handle the work satisfactorily and then leaves the selected architect free to prepare his design and specification, subject always to the correction and final approval of the Commission itself. In this way it has been possible to fix and determine certain standards of arrangement and equipment and then, by careful watching, to discover how and where they may be improved. In other words, the Commission stands responsible for the skeleton, as it were, while the designing architect has to do only with the fleshings. In a general way work has been assigned to private architects after a species of rough and ready rotation; no firm as yet, we believe, has had the designing of more than two school-houses, the intention seeming to be to give any capable man a chance if he cares to avail of it. It is plain, then, that these new school-houses must have a considerable variety of architectural expression, and it is equally plain that they would be likely to have quite as great variety in arrangement, accommodation and equipment but for the fact that these matters lie in the control of the Commission, and herein lies the safety of the present scheme.

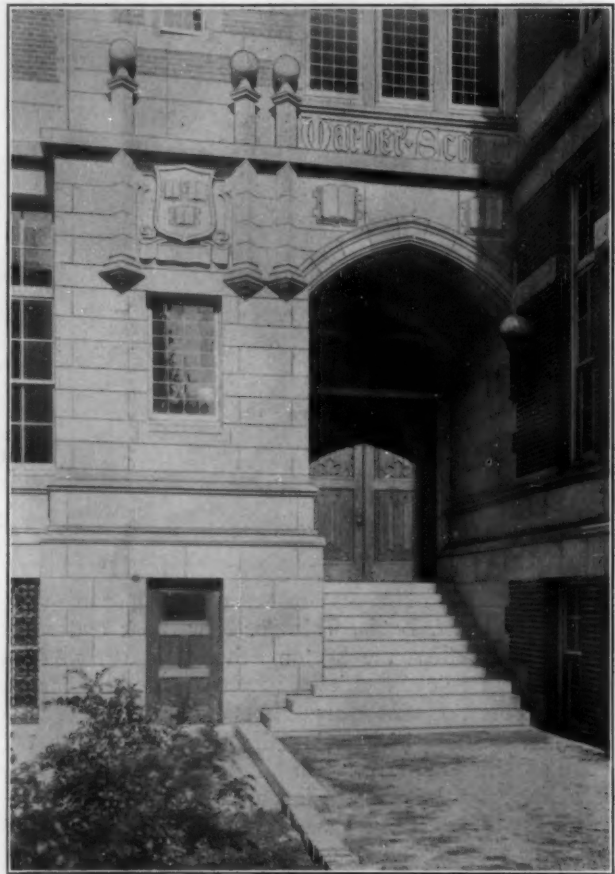
The scheme as a whole is well devised and it has been in operation long enough to produce a body of results that enable the observer to form an opinion as to the success of the experiment. One thing is very apparent, the Scylla of sameness has certainly been avoided, but it is not so certain that Charybdis has been escaped. There is variety of treatment and, taken individually, the treatment is gen-

erally good and satisfying, but when one comes upon a particularly good piece of work it is impossible to avoid wishing that the next job might have been given into the same hands.

We believe, however, that Boston architects generally are disposed to consider the method successful and have found themselves greatly assisted rather than hampered by the systematic methods devised by the Commission. And from a pecuniary point of view the result to them is satisfactory, for the Commission divides the work into two parts, leaving it to the architect to design and construct the building, while reserving to itself the control and oversight of all that goes to constitute the "domestic engineering" of the building—the heating, lighting, sanitation and equipment. Upon the cost of gross construction the architect is paid 5 per cent., while upon the cost of the domestic engineering, material and labor he receives but two and one-half per cent., the Commission reserving an equal amount to cover the cost of preparing in its own office the drawings and specifications that these important elements call for.

How far the present method is found satisfactory from a purely financial point of view, we do not precisely know.

It will have been noticed in the account of the St. Louis school-houses published a few weeks ago in this journal



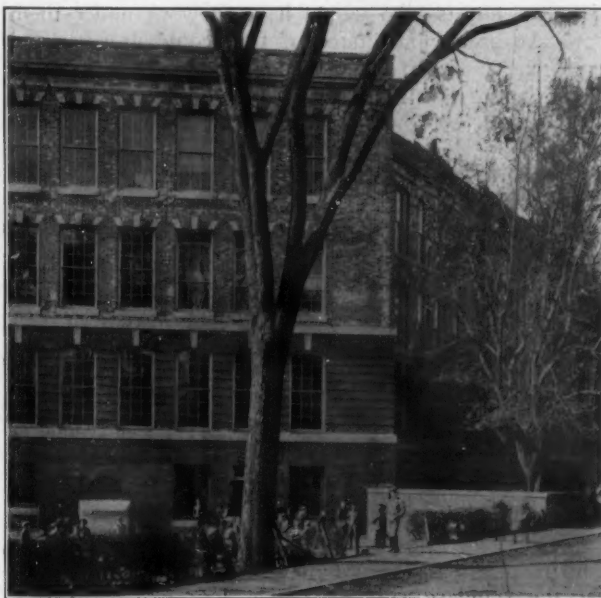
GIRLS' ENTRANCE, MATHER SCHOOL, DORCHESTER, MASS.

that the average cost per cubic foot for eight school-houses erected within the last three years was set down at 17 1-2 cents, varying from 0.157 to 0.194. Now the average cost per cubic foot in Boston seems to be much nearer 23 cents than 17. Unfortunately, in the tabulation before us there is included but a single example of a

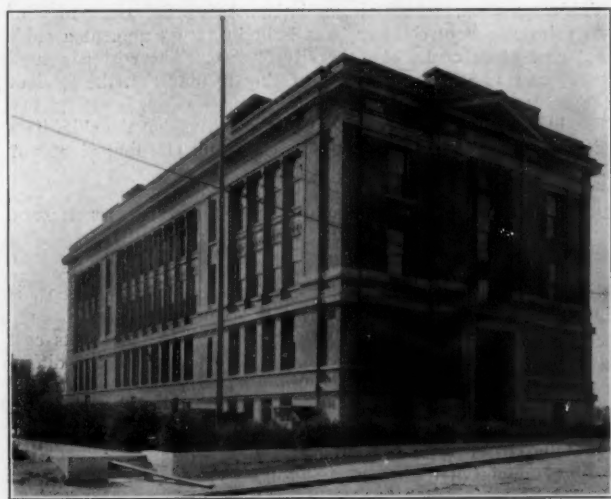
twenty-four-room building such as are all of the St. Louis examples, and here the cost was 24 cents, which implies a cost per pupil of \$146.32, as against an average cost per pupil in St. Louis of \$143.40. The Boston building was built during the same period and the market conditions were therefore the same, or at least as nearly the same as they ever can be in two widely separated places.

The Commissioners have under their charge 221 school-houses in occupancy and at the time of the issue of their last annual report there were five new school-houses building but unfinished. Very nearly one-half of these buildings were erected more than twenty-five years ago, the oldest building in use having been built in 1824, they have therefore, in most instances, no shadow of a right to be considered anything but dangerously combustible. In fact, the only school-houses of really fireproof construction are those recently erected by the present Commissioners, although all those built since the great conflagration of 1872 have had progressively incorporated in them fireproofing material and devices that accorded with the knowledge of their day on the science of fireproofing. Because of the age, hard use and neglect of so considerable a proportion of their charge, it is easy to see that the annual outlay for repairs must be large. In fact, the Commissioners, who do not have a regular stated annual appropriation, but have to depend on securing such sums as the Legislature is graciously willing to allow, have been seriously crippled in their building operations by the steady drain upon their funds which is occasioned by necessary, sometimes excessive, repairs. Once even, they were further embarrassed when the School Committee transferred away from their unexpended balance a considerable sum which was desired for increasing the salaries of teachers! Yet, in spite of this and in spite of the fact that such a policy must tend to increase the number of teachers—who, seemingly, must be paid and at a progressive rate—the Commissioners avow their belief

the newer school-houses have shown much ingenuity in adapting their plans so as to meet this stipulation. Their solutions of this problem are often very interesting and their treatment of the considerable areas of plain wall without door or window openings, which also result from this requirement, seems in most cases to be very satisfactory. At the same time the Commissioners admit that



O. W. HOLMES SCHOOL, SCHOOL STREET, DORCHESTER, MASS.



JEFFERSON SCHOOL, HEATH STREET, ROXBURY, MASS. SHEPLEY, RUTAN & COOLIDGE, ARCHITECTS.

in the wisdom of building a number of school-houses of moderate size rather than a smaller number of the twenty-four or thirty-room school-houses common in other large cities.

The school authorities have adopted the system of unilateral lighting and the architects who have designed

circumstances may arise where, through the general unsuitability of a site affected by the position and height of neighboring buildings, bilateral lighting must be adopted in some of the rooms, if they are to have the minimum amount of illumination their use demands. But the admission of a sufficient amount of light is not the only consideration; regard must be had for its proper diffusion and more careful provision should be made to prevent its needless absorption. In other words, the surface finish of walls, ceilings and floors should be the best for their purpose and the color given to them should be determined by competent specialists. In this connection the studies on the reflecting efficiency of different colors made by Dr. Louis Bell and by him laid before the late convention of the Illuminating Engineering Society in a brief paper, which may be found in another column of this issue, should be found of much value to architects who have to advise as to the decorative treatment of school-rooms.

Of course, the great invariable light-absorber in school-rooms is the standard blackboard, whether of natural slate or an artificial coating applied to plaster or wood. Against the use of these blackboards Dr. C. H. Williams, the oculist who advises the school authorities and has devised and directs the methods used in the examinations of pupils' eyes now established by law, is waging war and hopes to bring about the substitution for them of light-colored surfaces upon which colored chalk can be used in place of white. We will go farther and point out that if, in place of colored chalks which would crumble into dust just as white chalks do, there should be used on these light-colored "blackboards" crayons compounded with

wax or grease a distinct hygienic gain would be made at the same time the diffusion of light was promoted. No small amount of the dust in school-rooms has its origin in the chalk used on the blackboard, and the less dust school-rooms contain the more surely will respiratory and pulmonary diseases be avoided.

In approaching their work, at the outset, the Commissioners perceived that not only their own work but that of the architects who would have to work under them would be greatly facilitated, if they could discover and fix standards which, as units, could be used over and over again, not only in different buildings but in compiling the arrangement and composition of a single building, and their attempts to "standardize" their requirements have been markedly successful.

Perhaps the most interesting "standard" they have fixed is that 22 cents per cubic foot is a fair and proper cost for a "first-class" school-house as defined by the Boston building-laws, and it must be understood that the Commissioners' attempts at standardizing have been both helped and hindered because of their having to conform them with the provisions of the general building-law.

In operation it has been found, in the case of the twenty-two buildings completed by the Commissioners, buildings which provide accommodation for 18,500 pupils, that in sixteen cases the standard cost has been exceeded, though in six of these cases by but a single cent per cubic foot. In another six cases the final cost was standard or less. The test of experience seems to show that the standard cost per cubic foot of "first-class" school-houses under the Boston building-law is 23 cents.

All school-houses are to be built of "common" brick, with or without stone finish, and the smaller buildings are to be relatively less ornate than the larger ones. Of course, there are exceptions to all rules, and it was decided to build the Charlestown High School-house of granite, a happy conclusion since, because of the similarity of material, it groups better with the shaft and office-building of Bunker Hill Monument standing in its park just opposite.

Further "standards" may be discerned in the "General Information for First-class Construction" that with certain diagrammatic illustrations of standard methods of fitting wardrobes, cooking-rooms, manual-training-rooms, lavatories and so on are republished with each annual *Report*. For instance, class-rooms in primary schools are to measure 24x30 feet, while in grammar schools they are to be 26x32 feet, 13 feet in the clear. Window glass, in small panes, is to equal in area one-fifth of the floor-space of the room lighted. Corridors in small buildings are to be 8 feet wide, or 10 feet in the larger buildings. General toilet-rooms, preferably in the basement, are to be provided on the girls' side with two water-closets per class-room, while on the boys' side one closet per class-room is allowed, but, in addition, slab urinals having a running length of 36 inches per class-room are to be provided. In addition to this equipment there is provided on each floor two so-called "emergency" water-closets, one for boys, one for girls.

It is quite impossible to give an adequate idea of the standardizing that has been developed in the department of domestic engineering unless by practically giving complete specifications for heating, ventilation, plumbing and artificial lighting, and this is obviously impossible here; even in skeleton form the statement of the standard re-

quirements consumes many pages in the Commissioners' *Reports*.

But in spite of the care with which the scheme has been worked out and after the thorough trial it has had, the Commissioners announce a qualified dissatisfaction with the present method of school building that they are obliged to administer. They announce their preference for extending their own control and now desire to have the architectural designing done in their own office just as already the domestic engineering is there looked after by the staff of engineers regularly in their employ. They would like to discover the right man for the place by examination and then put him and the other members of the force under the protection of the Civil Service laws. They propose the substitution of a single architect, an official one to be sure, who shall carry out the intentions of the Commissioners just as private architects now try to do. The Commissioners would still continue to be the final and controlling authority.

ILLUSTRATIONS

THE TUCKERMAN PRIMARY SCHOOL, FOURTH AND L STREETS, SOUTH BOSTON, MASS. MR. CHARLES K. CUMMINGS, ARCHITECT, BOSTON, MASS.

This ten-room building, to build which only eight months were allowed, was finished and occupied in September, 1905, at a total cost for the building itself of \$78,980.04, which is equivalent to a cost of 24 cents per cubic foot, or \$157.96 per pupil, the rated accommodation being for 500 pupils. The building is of brick with the sparsest relief of light stone dressings. Although the position itself is admirable, the site is trapezoidal in outline, but not enough in itself to suggest or compel the devising of the ingenious arrangement the architect has reached.

THE JOHN GREENLEAF WHITTIER SCHOOL, SOUTHERN AVENUE, DORCHESTER, MASS. MESSRS. PARKER & THOMAS, ARCHITECTS, BOSTON, MASS.

This ten-room school-house, intended for the occupancy of 500 primary-school children, was built in 1904-5 and, at a cubic foot cost of 24 cents, cost the city \$77,866. The cost per pupil therefore was \$155.73. It is interesting to note that the total of the contract price at the time the work was let was \$72,193. The increase in cost was due to divers causes, but the chief item of additional cost was \$2,150 for a vacuum cleaning plant not included in the original requirement.

THE CHRISTOPHER GIBSON SCHOOL-HOUSE, ELIOT STREET, DORCHESTER, MASS. MR. E. M. WHEELWRIGHT, CITY ARCHITECT, BOSTON, MASS.

This fourteen-room school-house, which was built in 1895, is introduced here with the newer buildings because it is an interesting example of Mr. Wheelwright's work. Moreover, its cost per cubic foot, 14 cents, serves to draw attention to the difference between the "first-class" building of the present day and the "fireproof" building as that article was understood so short a time ago as a dozen years. In spite of the low cost per cubic foot, the cost per pupil is \$158.61, the building accommodating only 700 pupils of the grammar grade.

THE JEFFERSON SCHOOL-HOUSE, HEATH STREET, ROXBURY, MASS. MESSRS. SHEPLEY, RUTAN & COOLIDGE, ARCHITECTS, BOSTON, MASS.

This building, an oblong parallelogram in plan, is arranged, as shown in our issue for July 4, 1903, with a central corridor on the long axis running north and south. On either side of this corridor, the stairs being at each end, are arranged symmetrically four class-rooms, lighted, of course, from one side only. The building provides nineteen class-rooms, which accommodate 950 pupils at a cost per pupil of \$227.85, the total cost of the building being \$216,455.85. It follows naturally that the cost per

cubic foot has been high, three cents in fact higher than the "standard" price set by the School-house Commissioners.

[NOTE.—Lack of space prevents the publication of a large number of the new school-buildings, but those who are interested in the subject can find other school-houses illustrated in earlier issues of this journal, *e. g.*: "Washington Grammar," Everett & Mead, Architects, January 10, 1903; "South Boston High," H. D. Hale, Architect, February 21, 1903; "East Boston High," J. L. Faxon, Architect, May 2, 1903; "Jefferson," Shepley, Rutan & Coolidge, Architects, July 4, 1903; "Wm. Russell," J. Mulcahy, Architect, June 15, 1904; "Farragut," Wheelwright & Haven, Architects, July 6, 1904; "Ticknor," Andrews, Jaques & Rantoul, Architects, March 18, 1905; "Sarah J. Baker," Schweinfurth & Craig, Architects, August 12, 1905.]

THE MATHER SCHOOL-HOUSE, DORCHESTER, MASS. MESSRS. CRAM, GOODHUE & FERGUSON, ARCHITECTS, BOSTON, MASS.

The Mather School-house, a thirty-room building, is one of the largest and most costly of the buildings erected by the School-house Commission, for though the standard cost per cubic foot, 22 cents, has been observed, the cost per pupil, \$197.77, is high in view of the fact that the building provides accommodation for 1,500 pupils. The total cost of the building itself was \$296,655.

THE CHARLESTOWN HIGH-SCHOOL BUILDING, CHARLESTOWN, MASS. MESSRS. STICKNEY & AUSTIN, ARCHITECTS.

We are enabled, through the courtesy of the architects, to present some interesting notes, arrangement and equipment of this building.

The Charlestown High-school Building, Charlestown, Mass.

THE Charlestown High School building, which was completed in the late spring of 1907, is approximately one hundred and fifty feet in length by one hundred and seven feet in width and covers the entire lot which falls about twelve feet in its longest dimension. This inequality in levels has been so utilized as to obtain a five-story building above the lowest, and a three and one-half-story above the highest sidewalk. The exterior of the building is of cut granite throughout and the entire constructive features are first-class (*i. e.*, fireproof) in character.

The accommodation for pupils in this high school differs from that in any other high school in the city in this respect, that each individual pupil is assigned a locker in which the pupil's books are kept; and this is the only location in the building which is necessarily the property of any individual pupil. It follows that the capacity of the building is estimated by the number of these lockers that are provided, instead of by the number of desks in regular class-rooms. There have been provided three hundred and ninety-six of these lockers. There is opportunity for a much larger number of pupils to work in the school, on account of the large space for recitation and laboratory use; and if lockers were provided, it is undoubtedly true that nearly seven hundred pupils could be accommodated in the building. The number of pupils registered this year (1907) was over three hundred and fifty. Besides the various large and small class-rooms the building is provided with the following additional halls, rooms and laboratories:

1. Gymnasium, about 46 feet by 62 feet—with a gallery about 8 feet by 62 feet on one side, on the level of the first floor.
2. Dressing rooms adjoining the gymnasium, furnished with thirty separate dressing compartments, each provided with a seat and hooks for clothing and a door with a lock, of which the key is in the possession of the occupant for the time being.
3. Showers, bowls and w.c. adjoining the dressing room.
4. Office of the Physical Director connecting directly with the gymnasium and with the dressing room.
5. Locker room in which the pupils' exercise clothing is kept when not in use, under the supervision of a matron.

This room is provided with 500 separate small compartments or pigeon-holes.

6. Drying room for the drying of exercise clothing.
7. Counter for distributing exercise clothing.

The arrangement of the gymnasium with its above-mentioned accessories presupposed the following procedure: Classes not exceeding thirty would apply at the counter for the special clothing belonging to each pupil and which would previously have been collected by the matron from the respective pigeon-holes in the locker-room. With the clothing would be given a numbered key, on a rubber ring, controlling a correspondingly numbered dressing compartment. During the exercise period the pupil would leave the compartment locked and wear the key around the neck. At the completion of each period the pupils leave their exercise clothing in the compartments, whence it is promptly taken by the matron to the drying-room and later replaced in the proper compartments in the locker-room.

8. Office of the Matron.
9. Locker room for the officers of the school military companies.
10. Coat room for all the boys.
11. Coat room for all the girls.
12. Small cooking room.
13. Large lunch room, to accommodate the entire school.
14. Toilet rooms.
15. Office of the Principal of the evening school.

It may be noted that the general coat-rooms are not provided with individual lockers. Past experience with these in other high schools has convinced the authorities of their undesirability chiefly because of the constant loss of keys by the pupils and the consequent expense of replacing them and of repairing locks. With the new system the rooms themselves are kept locked and are under the control of the janitor or matron during the school sessions.

First Floor.

1. Headmaster's private office.
2. Women teachers' retiring room.
3. Recitation rooms.
4. Handicraft room.
5. Reading room for the Charlestown Branch of the Boston Public Library.

This reading room is regarded as temporary in character, for the space it occupies will be converted into an additional class or recitation room whenever the growth of the school requires it.

The handicraft room contains a large lathe, which can be used either as a speed lathe or an engine lathe, a grindstone, an emery wheel and a circular saw, all driven by electric power. There are twenty individual benches and a wall bench with proper tools, a stock room and quite an elaborate system of cabinets.

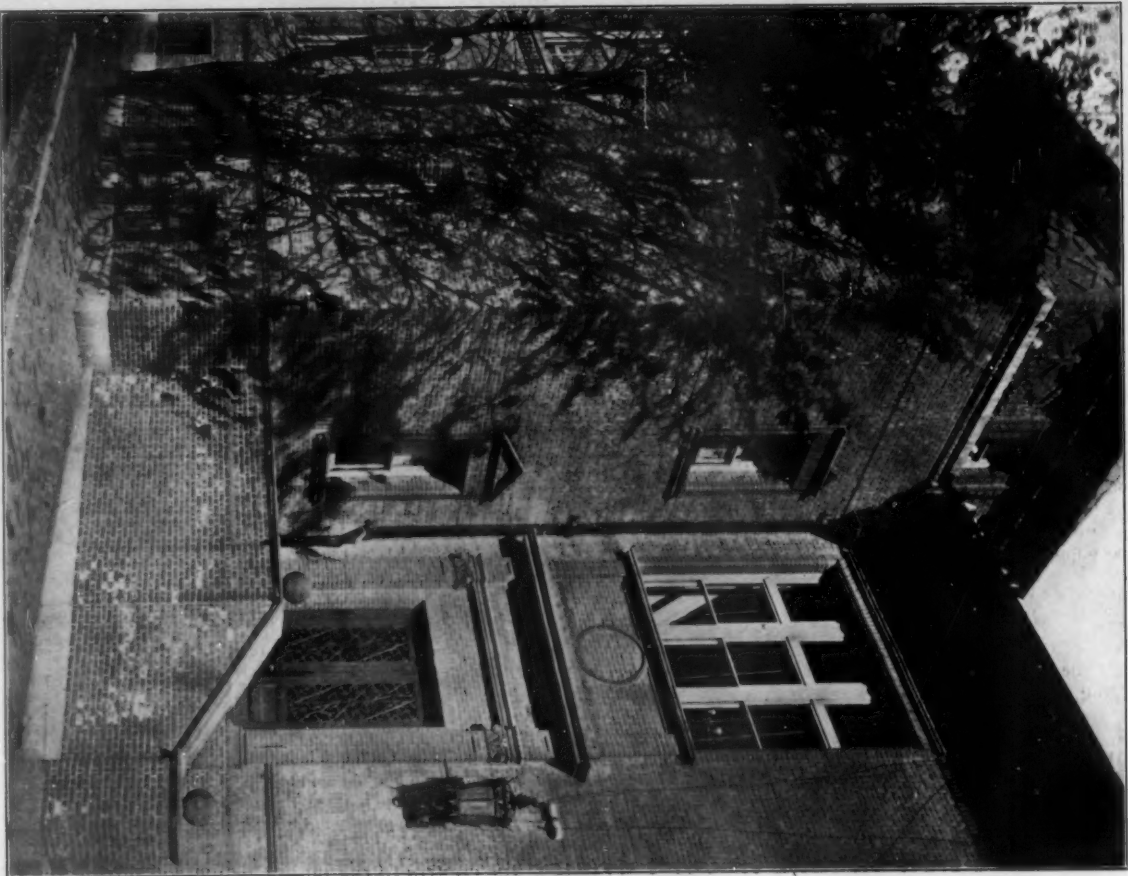
Second Floor.

1. Assembly Hall, with a capacity for about four hundred opera chairs.
2. Commercial room, fitted up with a private room, bank counter-till drawers, tellers' glass windows, etc., etc.
3. Library.
4. Men teachers' retiring room and a boys' toilet room in a mezzanine story over.
5. Additional toilet accommodations.

Third Floor.

1. Chemical laboratory.
2. Preparation room.
3. Stock-room, dark-room in mezzanine story over.
4. Office.
5. Lecture-room.
6. Physical laboratory.
7. Physical apparatus room.
8. Botanical and zoological laboratory, in which is a glassed-in conservatory for plants.
9. Drawing room.
10. Recitation room.

The equipment of these various laboratories and other rooms consists of the usual apparatus, hoods, cases, tables, sliding blackboards, bookcases, cupboards, shelving, etc. This equipment cannot satisfactorily be described without the aid of the detailed drawings and specifications, and these it was found not feasible to publish.



BOYS' ENTRANCE, CHRISTOPHER GIBSON SCHOOL, DORCHESTER, MASS.

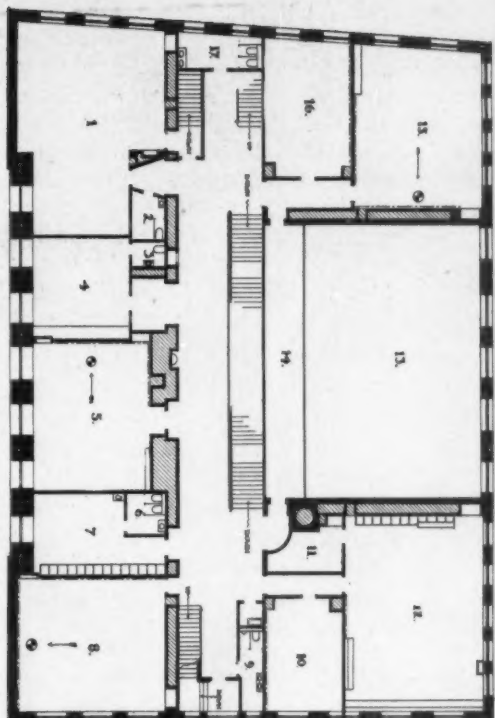
The American Architect and Building News.
Regular Edition.



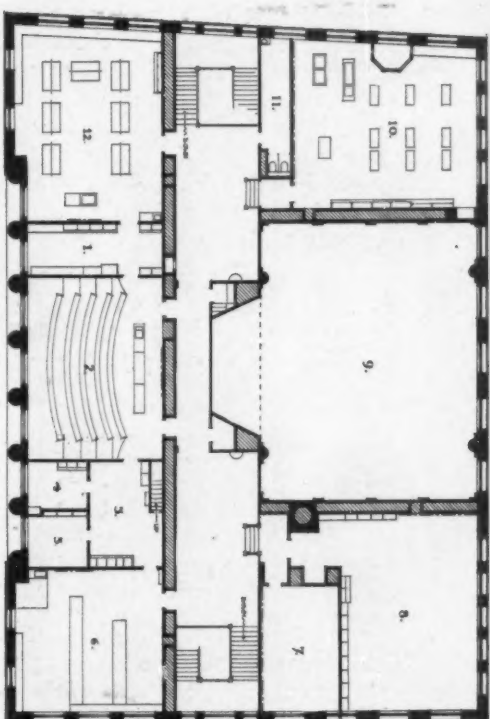
VIEW SHOWING RELATION OF MATHER SCHOOL TO THE MEETING HOUSE, DORCHESTER, MASS.

Volume XCIII. Number 1671.
January 4, 1908.

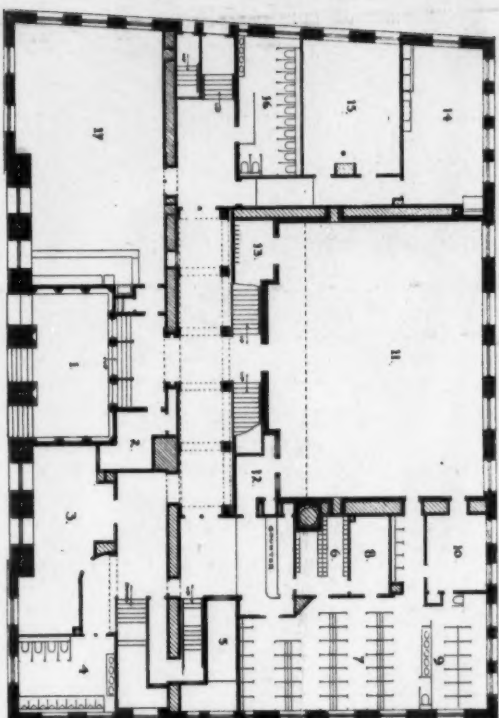
Copyright, 1908, by the Sweetland Publishing Co.



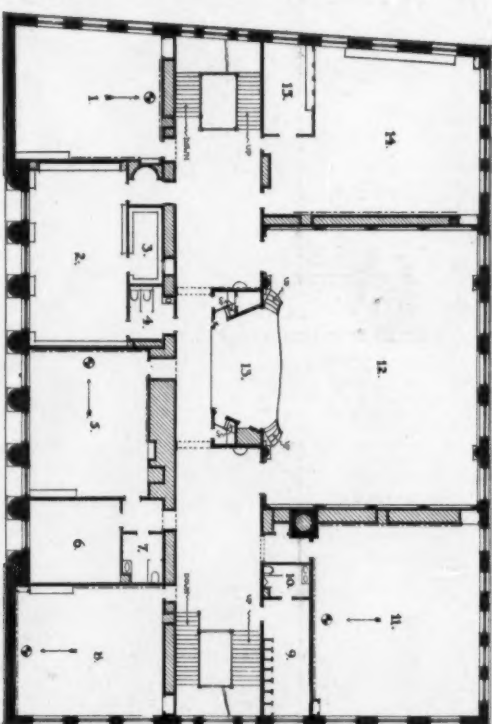
FIRST FLOOR PLAN.



THIRD FLOOR PLAN.



GROUND FLOOR PLAN.



SECOND FLOOR PLAN.

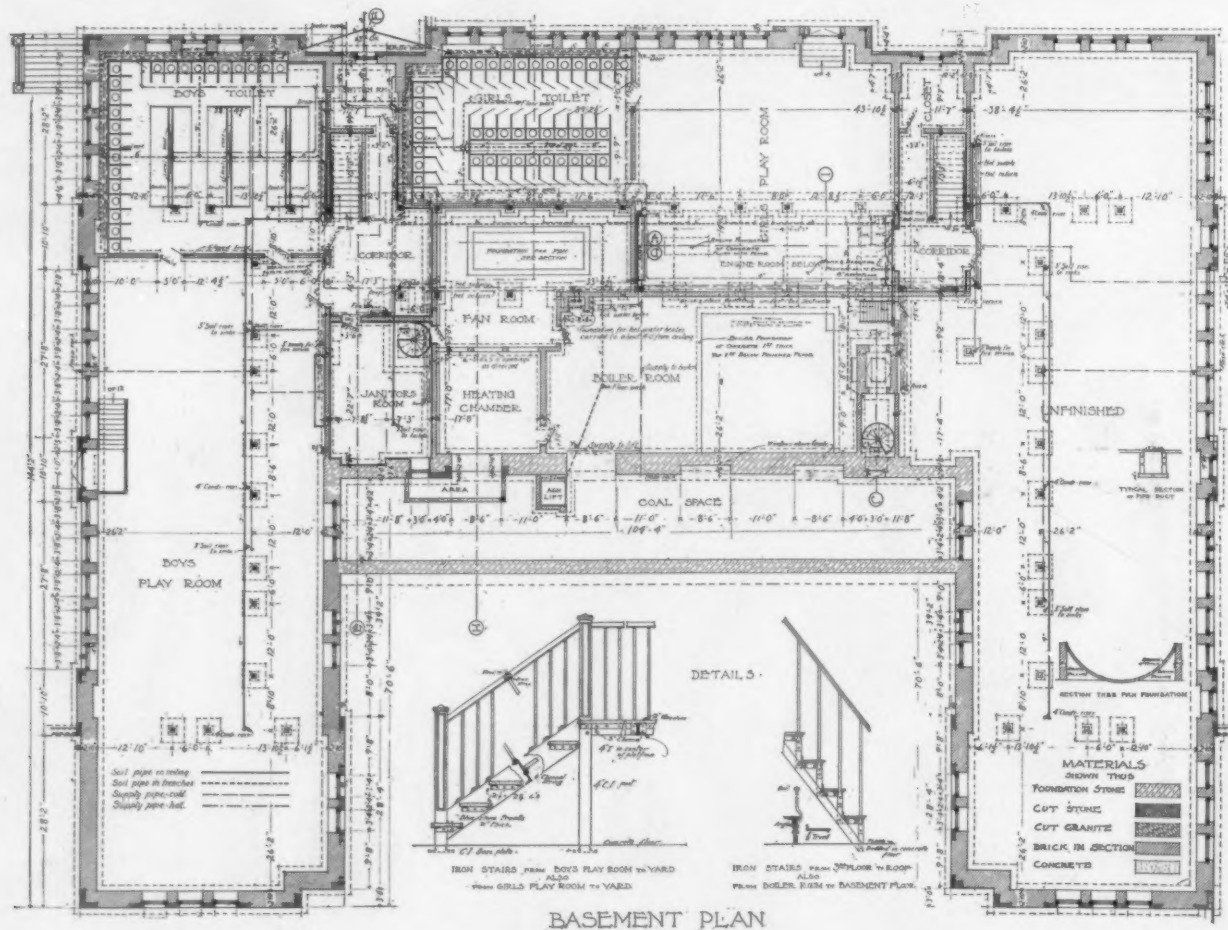
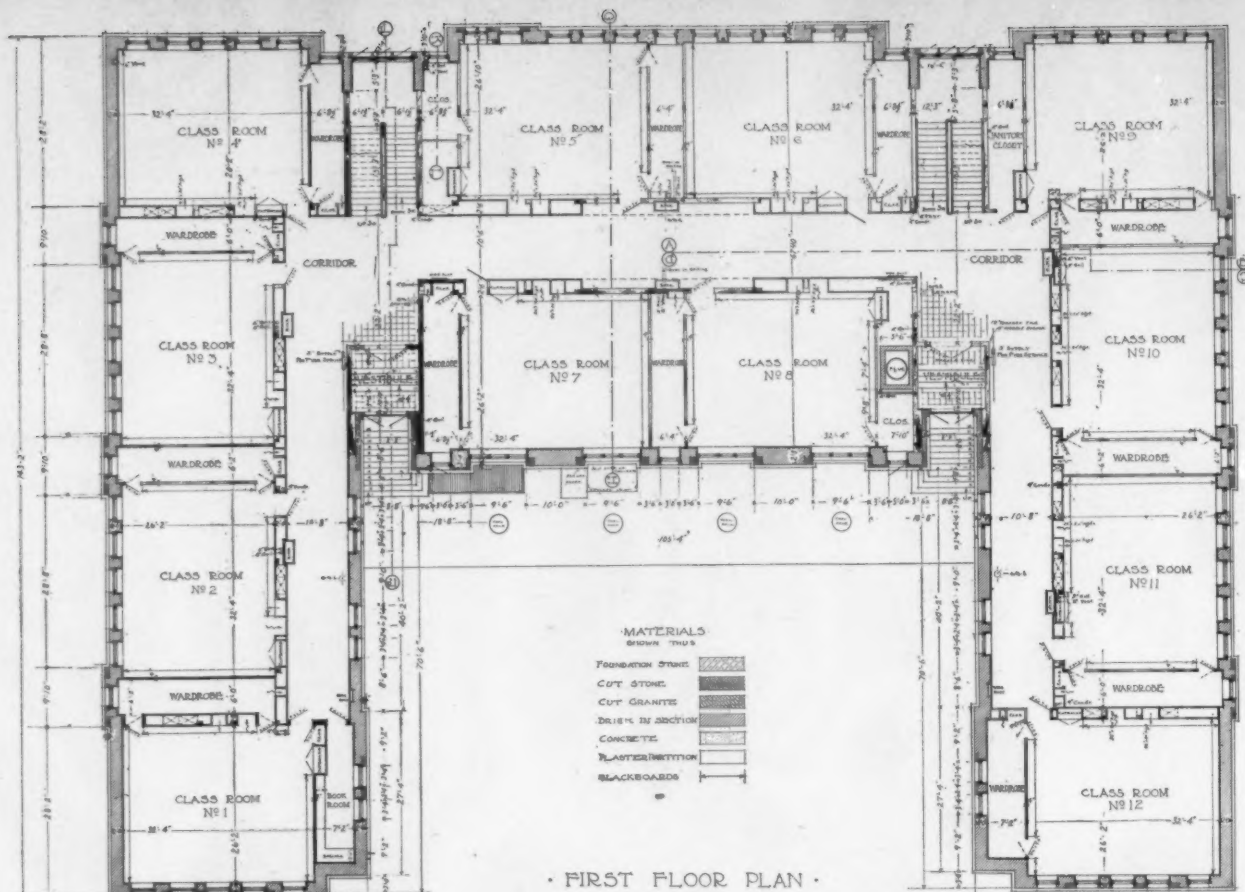
CHARLESTOWN HIGH-SCHOOL, BUNKER HILL SQUARE, CHARLESTOWN, MASS.

The American Architect and Building News

Stickney & Austin, Architects.

Copyright, 1908, by the Swetland Publishing Co.

Volume XCIII. Number 1671.
January 4, 1908.



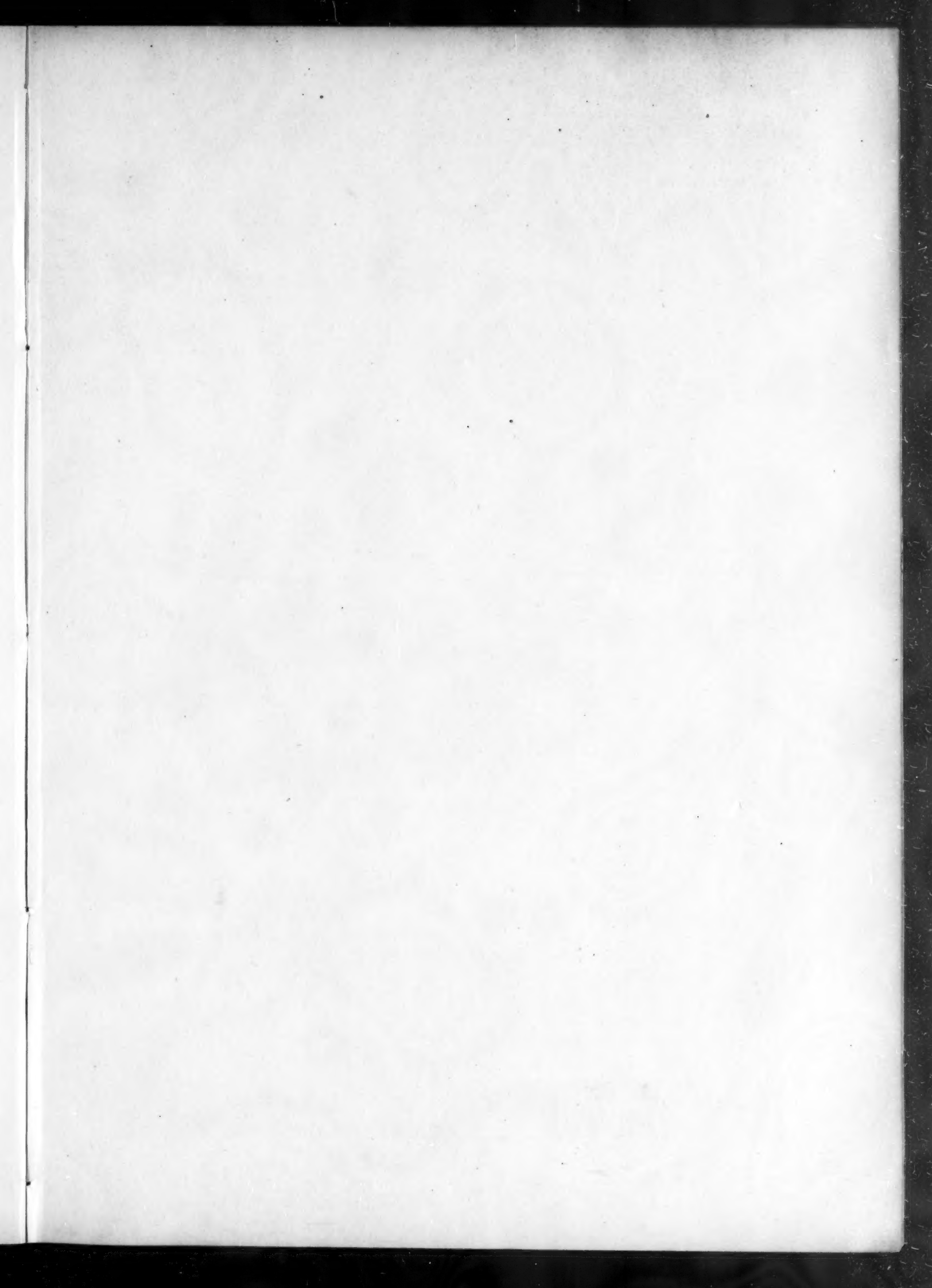
PLANS: MATHER SCHOOL, DORCHESTER, MASS.

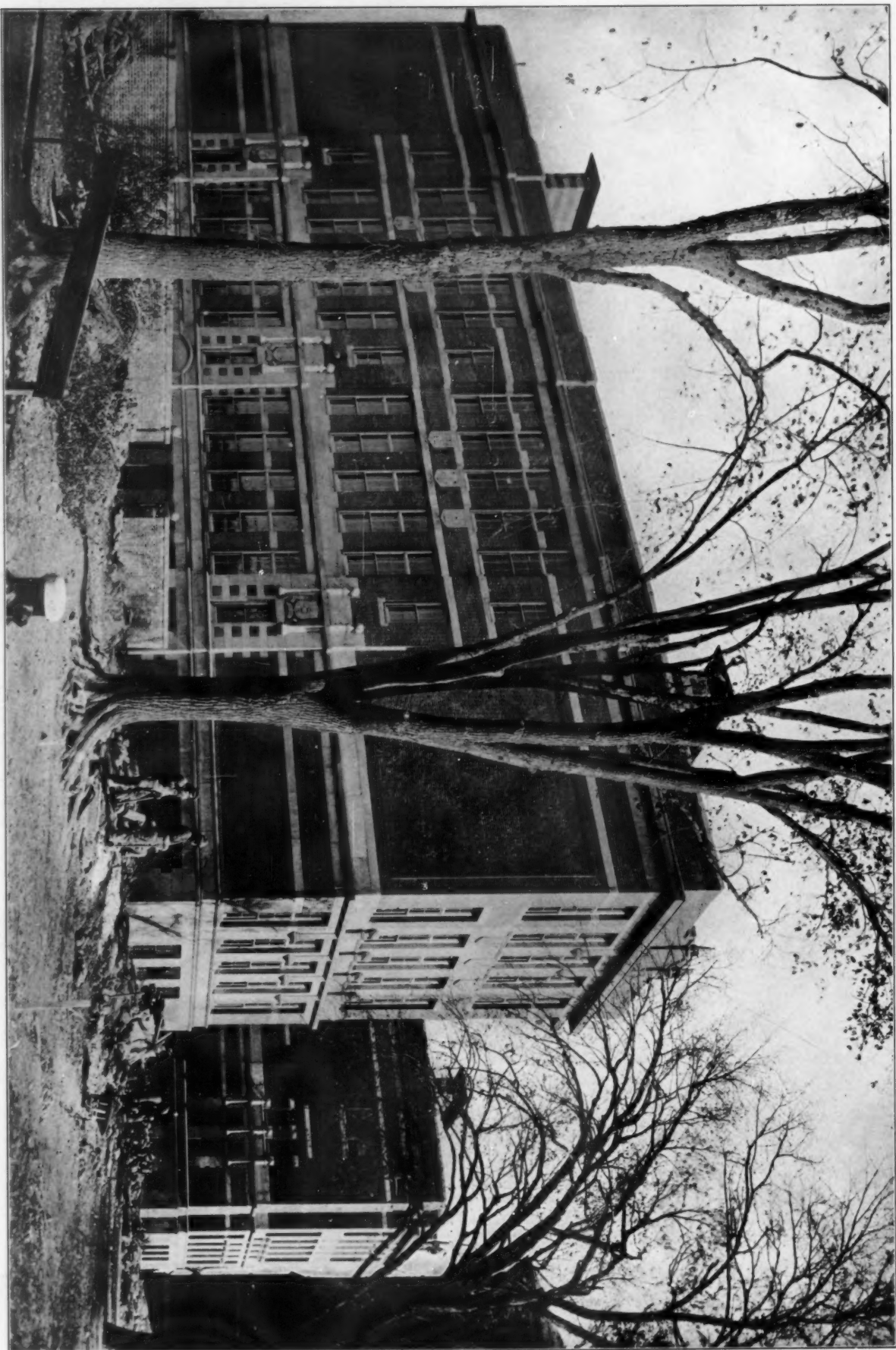
Cram, Goodhue & Ferguson, Architects.

The American Architect and Building News.
Regular Edition.

Copyright, 1908, by the Sweetland Publishing Co.

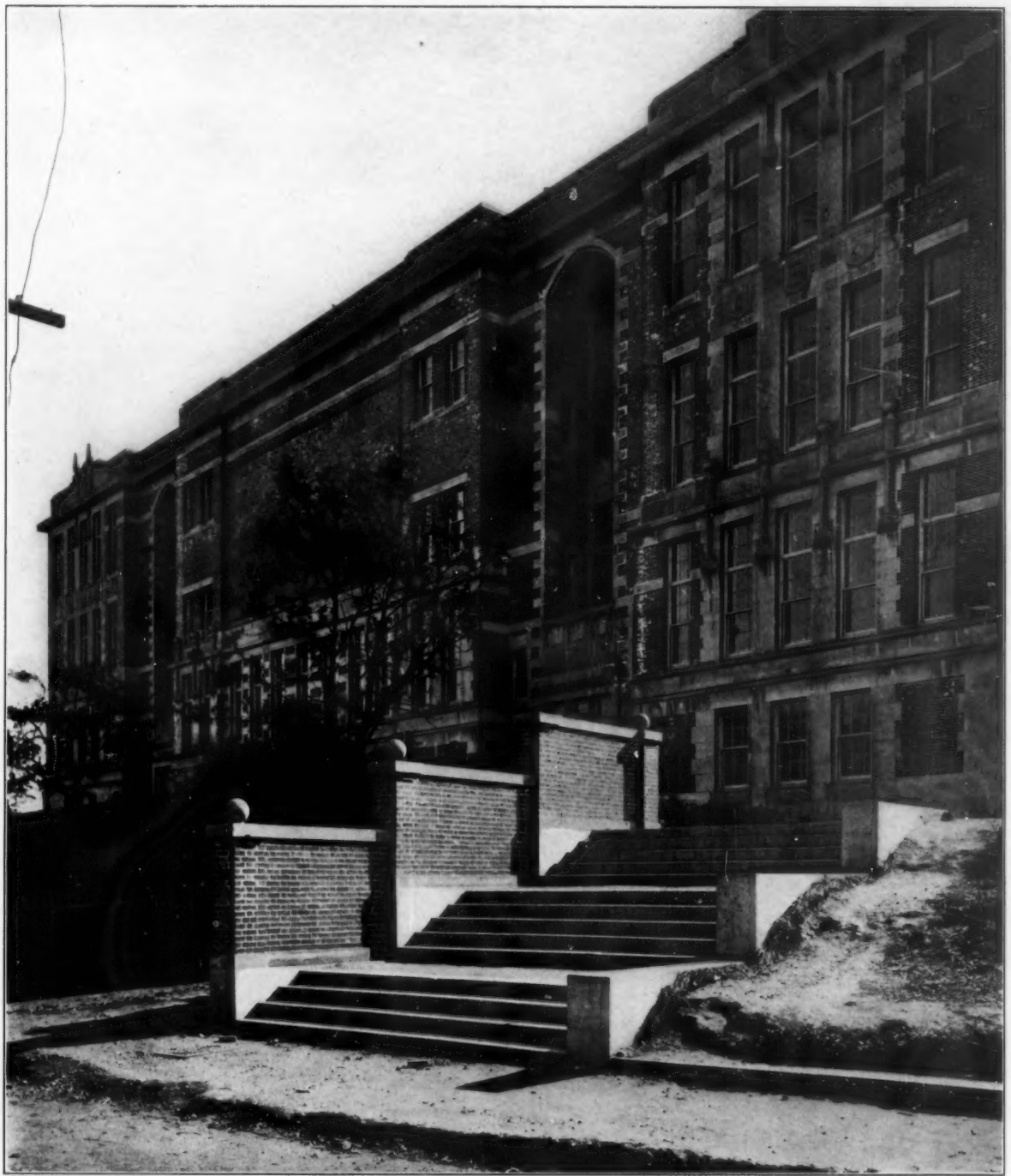
Volume XCIII, Number 1671.
January 4, 1908.





MATHER GRAMMAR SCHOOL, MEETING-HOUSE HILL, WORCESTER, MASS.

Cram, Goodhue & Ferguson, Architects.



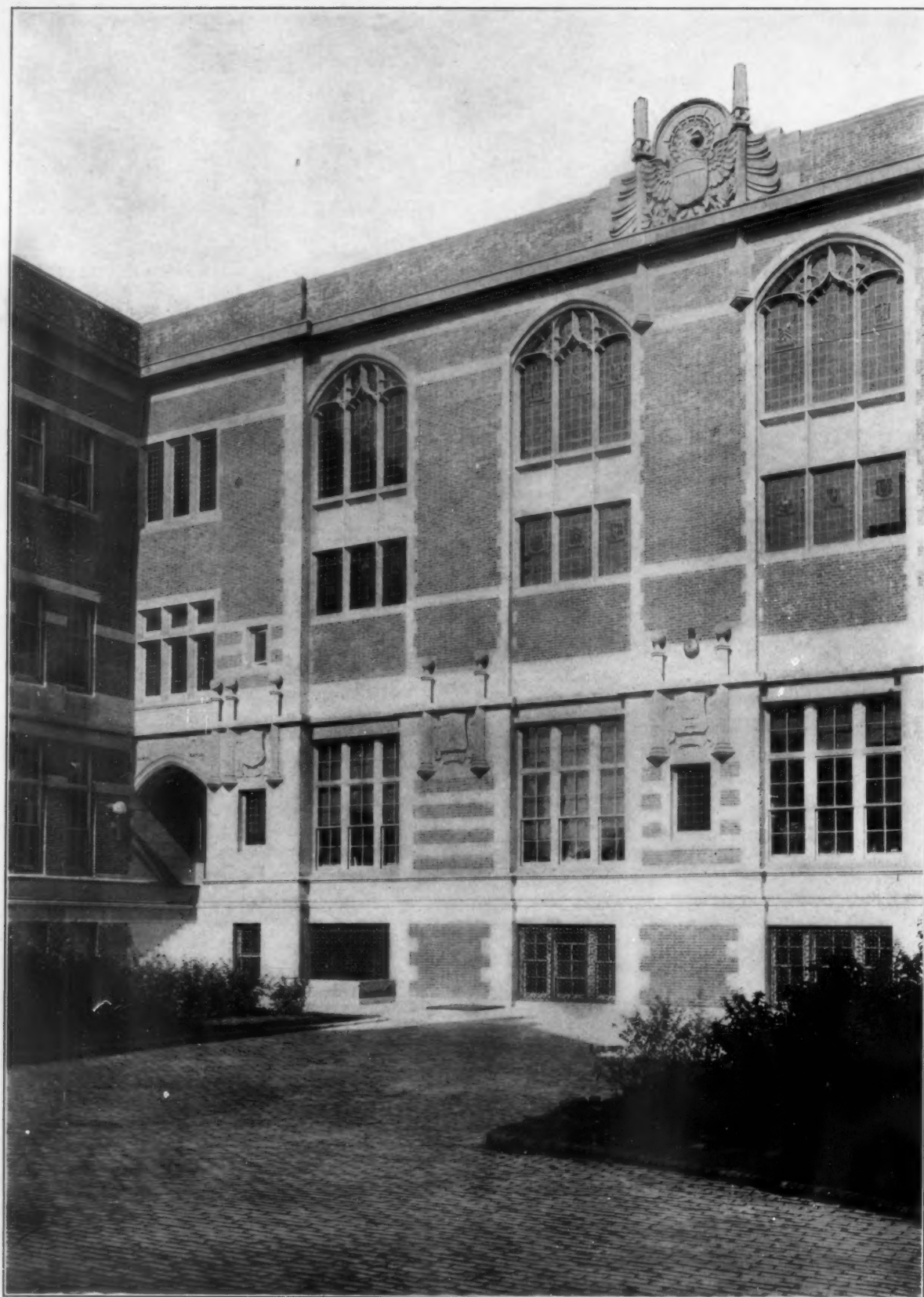
REAR VIEW (NORTH): MATHER GRAMMAR SCHOOL, MEETING-HOUSE HILL, DORCHESTER, MASS.

Cram, Goodhue & Ferguson, Architects.

The American Architect and Building News.
Regular Edition.

Volume XCIII., Number 1671.
January 4, 1908.

Copyright, 1908, by the Swetland Publishing Co.



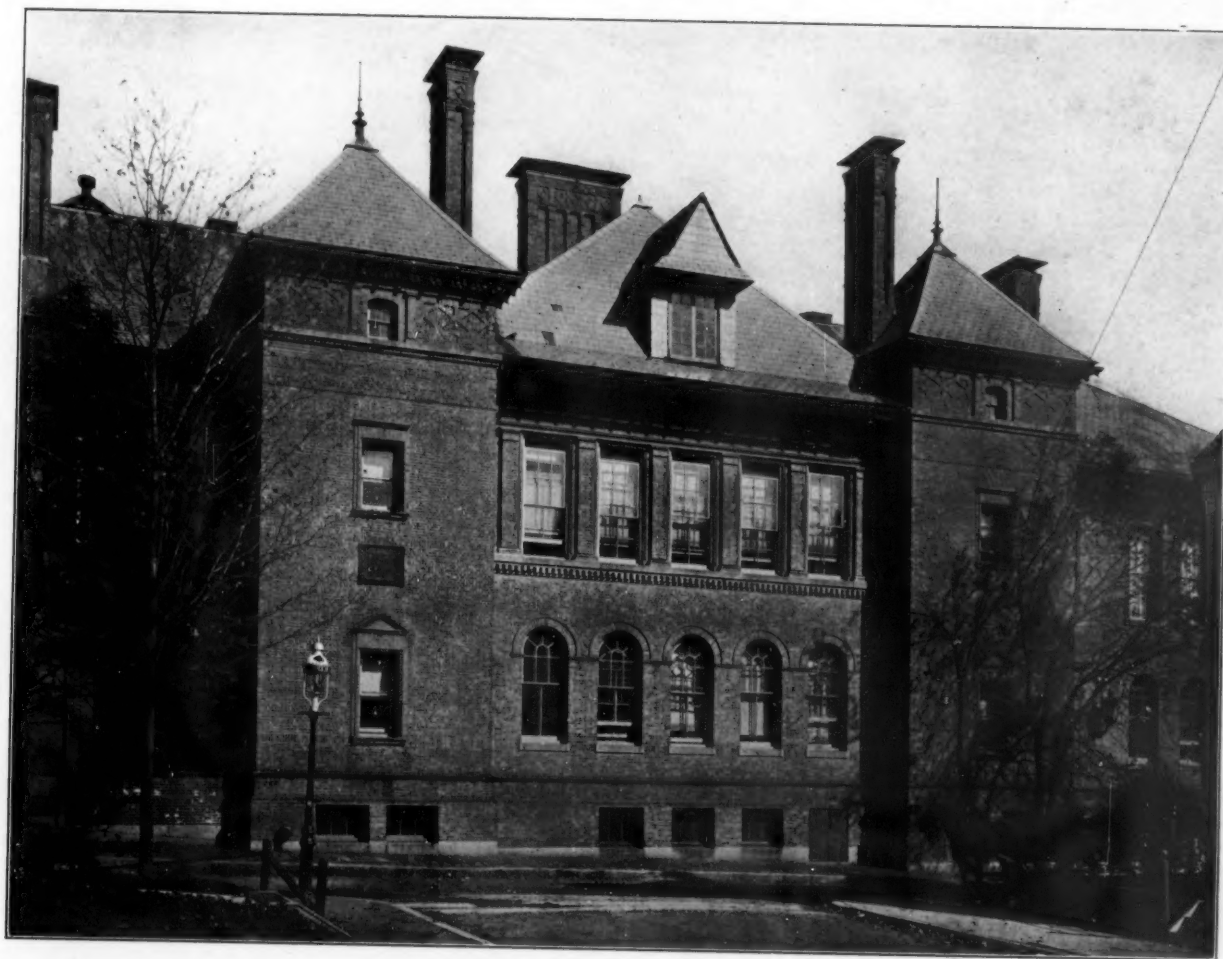
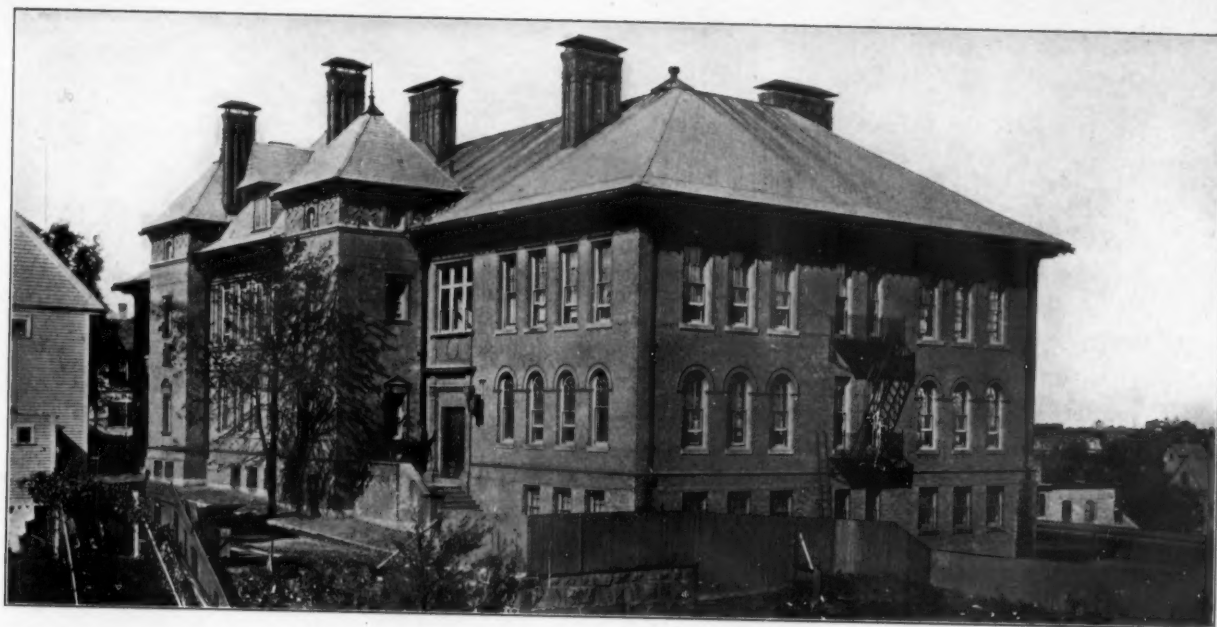
BOYS' ENTRANCE, ON THE MAIN COURT: MATHER SCHOOL, DORCHESTER, MASS.

Cram, Goodhue & Ferguson, Architects.

The American Architect and Building News.
Regular Edition.

Volume XCIII., Number 1671.
January 4, 1908.

Copyright, 1908, by the Swetland Publishing Co.



CHRISTOPHER GIBSON SCHOOL, TILESTON STREET, DORCHESTER, MASS.

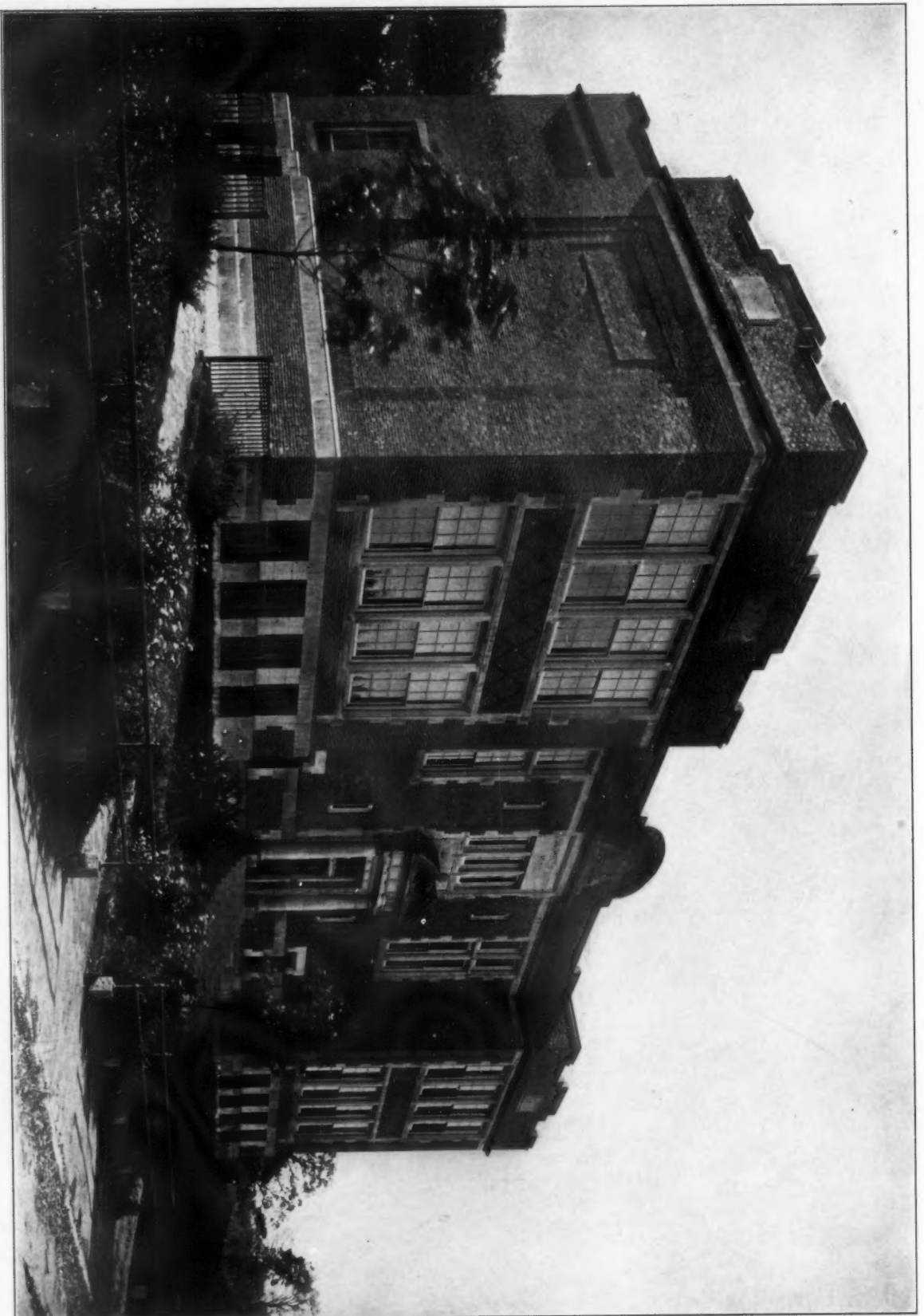
E. M. Wheelwright, Architect.

The American Architect and Building News.
Regular Edition.

Volume XCIII, Number 1671.
January 4, 1908.

Copyright, 1908, by the Sweetland Publishing Co.

PUBLIC LIBRARY
WASHINGTON D. C.



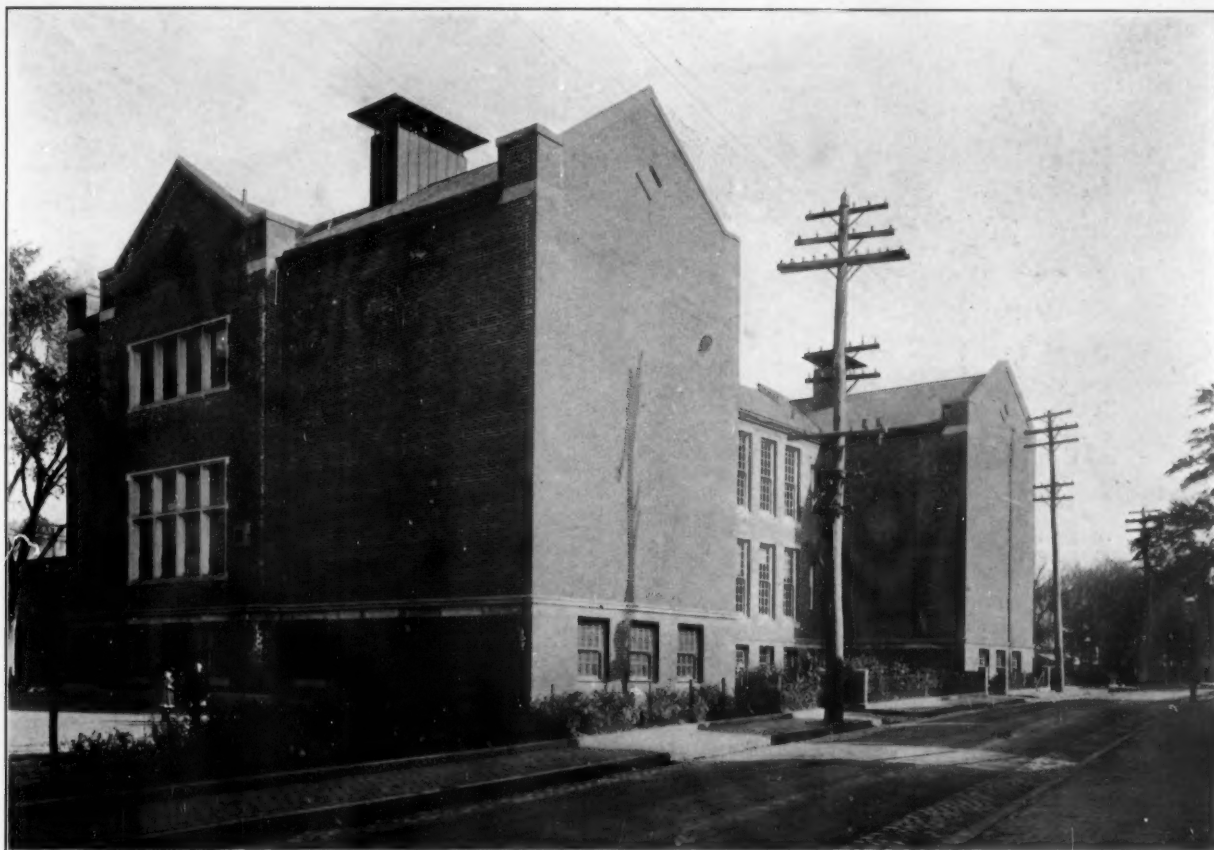
JOHN GREENLEAF WHITTIER SCHOOL, SOUTHERN AVENUE, DORCHESTER, MASS.

Parker & Thomas, Architects.

The American Architect and Building News.
Regular Edition.

Copyright, 1908, by the Sweetland Publishing Co.

Volume XCIII, Number 1671.
January 4, 1908.



TUCKERMAN PRIMARY SCHOOL, FOURTH AND F STREETS, SOUTH BOSTON, MASS.

Charles K. Cummings, Architect.

The American Architect and Building News.
Regular Edition.

Volume XCIII., Number 1671.
January 4, 1908.

Copyright, 1908, by the Sweetland Publishing Co.



BOYS' ENTRANCE: TUCKERMAN SCHOOL, SOUTH BOSTON, MASS.

Charles K. Cummings, Architect.

The American Architect and Building News.
Regular Edition.



ENTRANCE TO WHITTIER SCHOOL, DORCHESTER, MASS.

Parker & Thomas, Architects.

Volume XCIII, Number 1671.
January 4, 1908.

Copyright, 1908, by the Swetland Publishing Co.



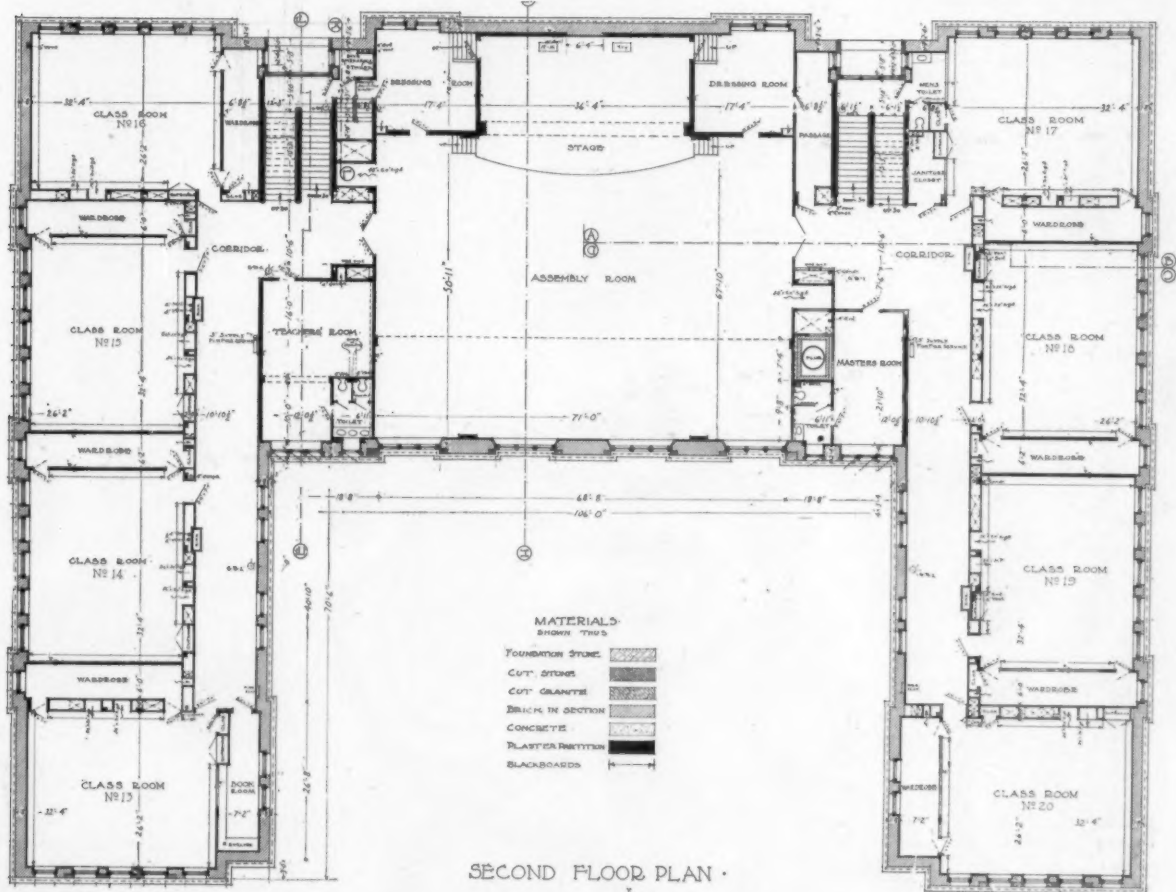
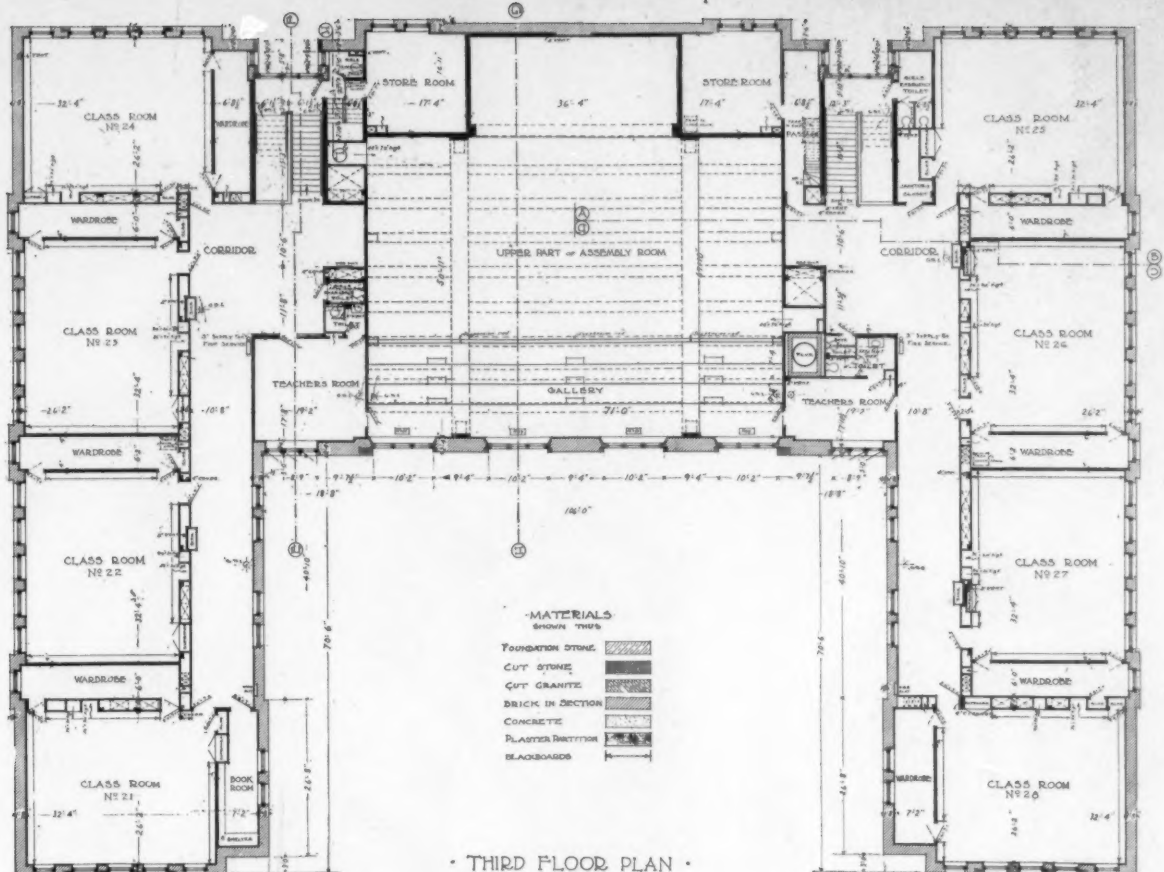
CHARLESTOWN HIGH-SCHOOL, CHARLESTOWN, MASS.

Stickney & Austin, Architects.

The American Architect and Building News.
Regular Edition.

Copyright, 1908, by the Sweetland Publishing Co.

Volume XCIII. Number 1671.
January 4, 1908.



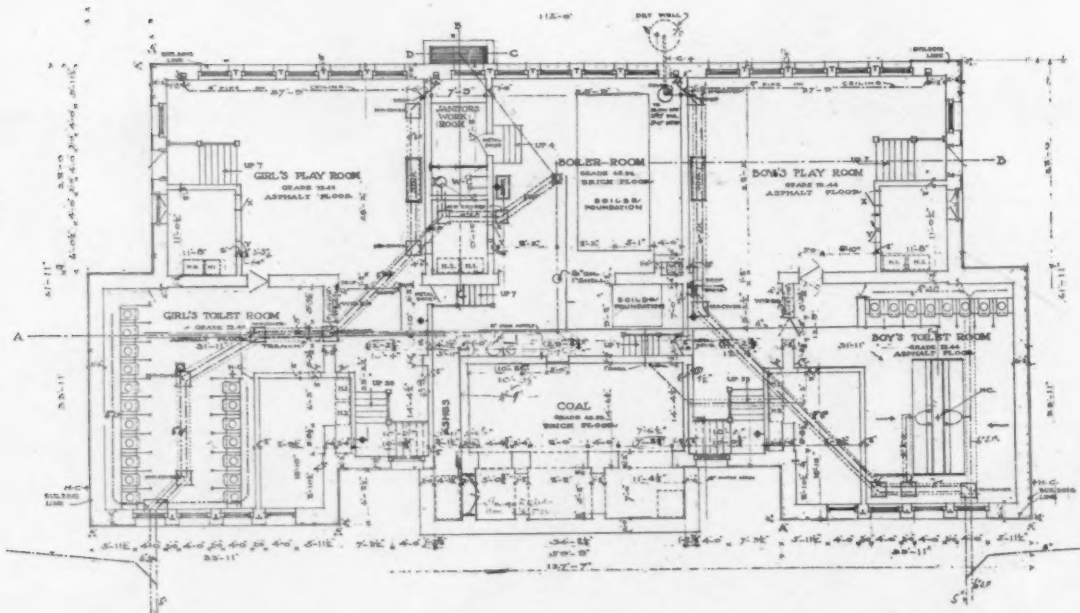
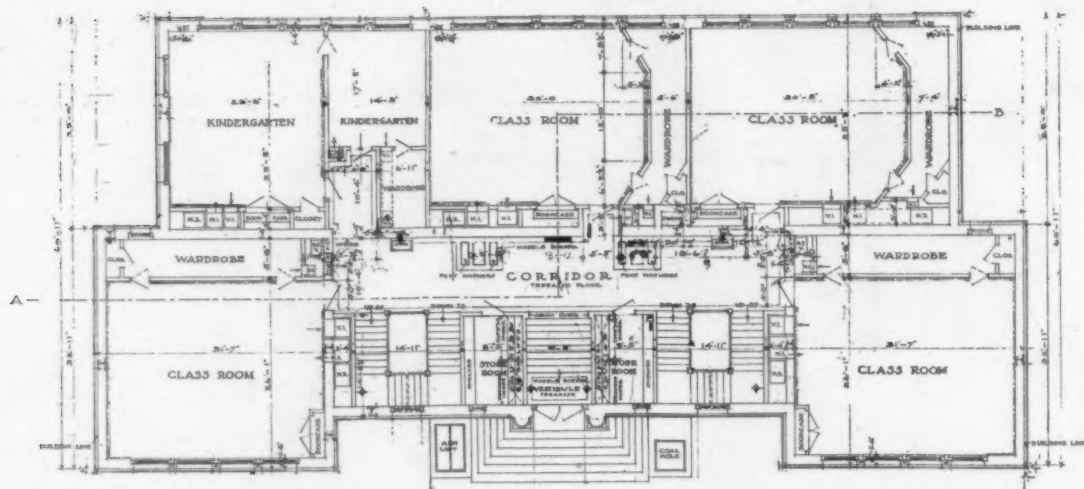
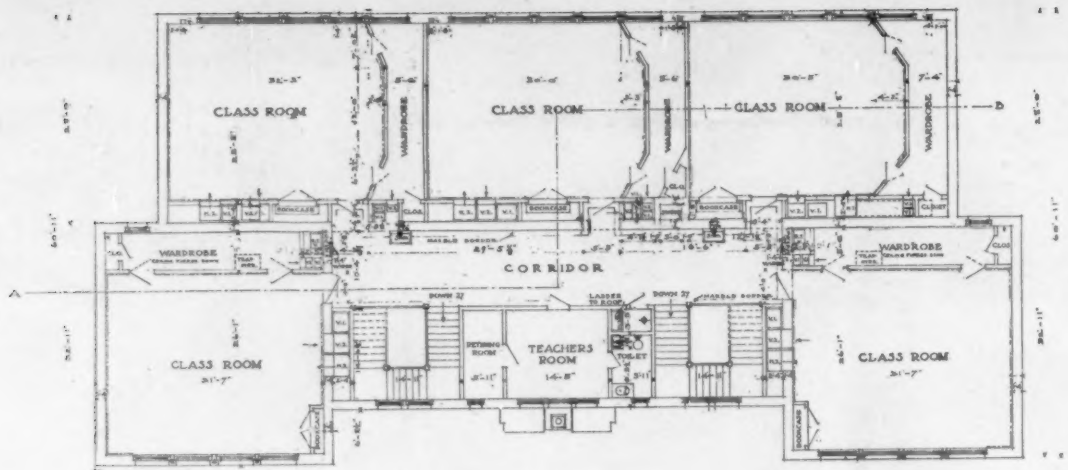
PLANS: MATHER SCHOOL, DORCHESTER, MASS.

Cram, Goodhue & Ferguson, Architects.

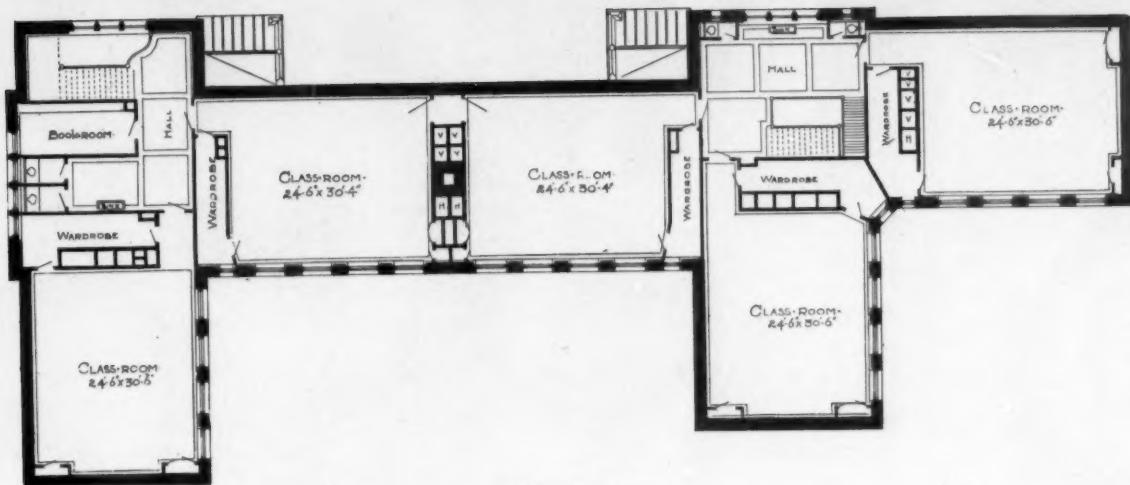
The American Architect and Building News.
Regular Edition.

Copyright, 1908, by the Swetland Publishing Co.

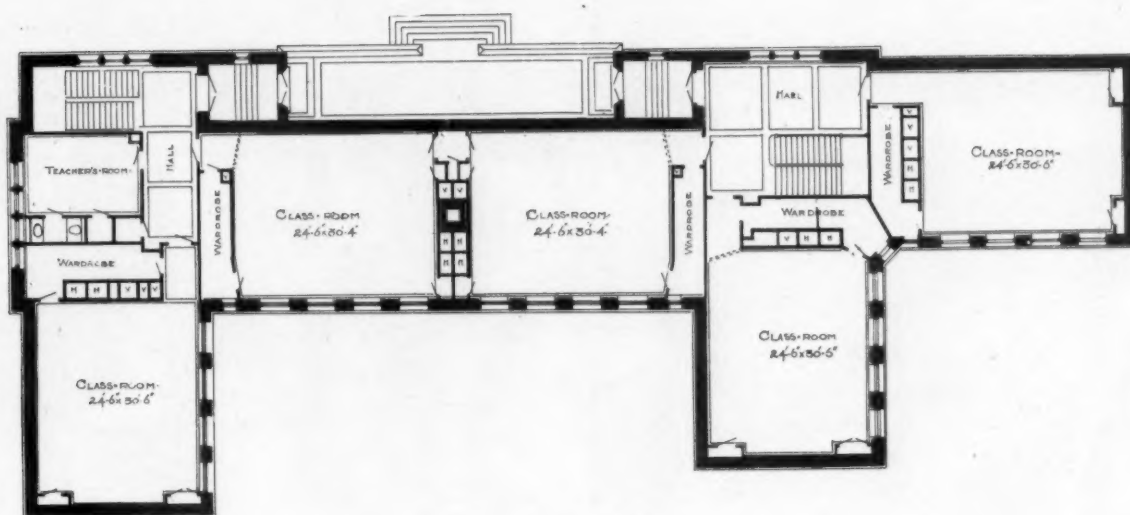
Volume XCIII, Number 1671.
January 4, 1908.



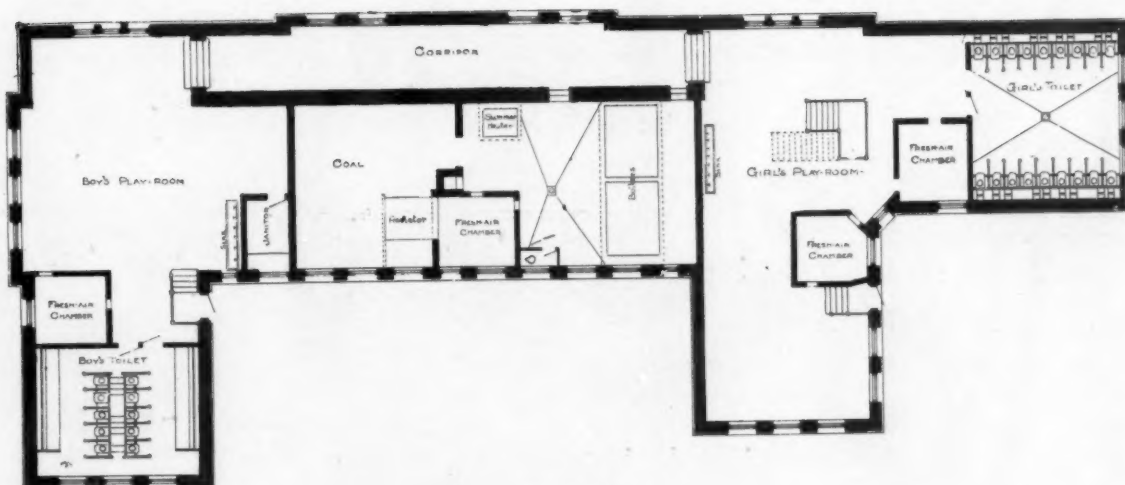
PLANS: J. G. WHITTIER SCHOOL, DORCHESTER, MASS.



SECOND FLOOR.



FIRST FLOOR.



BASEMENT.

PLANS: TUCKERMAN SCHOOL, SOUTH BOSTON, MASS.

Charles K. Cummings, Architect.

The American Architect and Building News.
Regular Edition.

Copyright, 1908, by the Sweetland Publishing Co.

Volume XCIII., Number 1671.
January 4, 1908.

THE AMERICAN ARCHITECT

AND BUILDING NEWS

PUBLISHED EVERY SATURDAY BY THE

SWETLAND PUBLISHING COMPANY

Flatiron Building, New York

H. M. SWETLAND, *President*. F. P. BURT, *Secretary*. J. T. MORRIS, *Treasurer*.
G. E. SLY, *Advertising Manager*.M. C. ROBBINS, *Western Manager*, Monadnock Building, Chicago, Ill.

SUBSCRIPTION RATES

Regular Edition, . . \$ 6.00 a year; Single Copies 15c. to \$1.00

International Edition, \$16.00 a year; Single Copies 40c. to \$1.00

Foreign Postage, \$2.00 a year

To insure the accuracy of our mailing lists, subscribers are requested to notify us promptly of any change of address, stating at the same time the address to which the paper was formerly sent. Our Subscription Department should also be notified if, for any reason, copies are not received promptly.

Entered at the Post-office, New York, as Second-class Matter

Vol. XCIII., No. 1671.

JANUARY 4, 1908.

CONTENTS

BOSTON PUBLIC SCHOOL BUILDINGS.	1
COEFFICIENTS OF DIFFUSE REFLECTION.	8
TYPICAL SCHOOLS IN NEW YORK, CHICAGO AND ST. LOUIS.	9
EDITORIAL COMMENT:	7-8

The Prospects for 1908 in the Field of Architecture—The Publisher's Need of the Co-operation of Architects—Mr. Cass Gilbert's Withdrawal from the Competition for the New Municipal Building, New York N. Y.—Objectionable Points in the Competition Programme.

ILLUSTRATIONS:

The Tuckerman Primary School, South Boston, Mass.—The John Greenleaf Whittier School, Dorchester, Mass.—The Christopher Gibson School, Dorchester, Mass.—The Jefferson School, Roxbury, Mass.—The Charlestown High School, Charlestown, Mass.—The Mather School, Dorchester, Mass.

A CAREFUL consideration of the prospects for the new year in the field of architecture can only prove encouraging. The unparalleled progress of a decade, coupled with the enormous productive resources of a great country, may be temporarily halted without cause, but cannot remain so unless the sources of supply are affected. An illogical financial stringency at the flood-tide of commercial and industrial activity, produced and fostered by sheer lack of confidence in more or less tangible investment, must tend towards the more stable if less spectacular interest in income realties. Municipal and Government building extends over too great a period to be influenced by temporary conditions, and private and corporate enterprises are most interested where conditions offer at least a competitive inducement. The action taken at the recent Convention of the American Institute of Architects, establishing a more equitable and generally higher compensation, is an expression of confidence in future operations entirely in keeping with the spirit of progress which marks an epoch of evolution in constructive architecture. In a comparatively brief period the architect has utilized advanced engineering in the production of certain types of structures to an extent which has materially increased his responsibility. No other profession has encountered and mastered such a vast number of new conditions and requirements in so brief a period.

IT will be the purpose of THE AMERICAN ARCHITECT to record closely the progress of the coming year and to describe and depict in its pages the best architectural product in enterprises large and small; and while valuable additions have been made to the editorial staff and new departments have been arranged, it will remain with those who are in close contact with actual undertakings to furnish what is most desirable and of paramount value to the reader. To this end we bespeak the co-operation of all who are interested in the authentic literature of modern architecture in its constructive as well as its artistic phases. Thus, with all departments fully equipped and the co-operation of the profession, the paper will hope to reflect the progress of the great industry which it has for so many years represented.

IN our last issue we referred to the competition for the new municipal building for the City of New York in order to illustrate the need for some more definite understanding as to the time when the conditions of a competition should become binding on competitors and projectors. A good deal has been said in the daily press about the withdrawal from this competition of Mr. Cass Gilbert, one of those who were invited to take part, as mentioned in our issue of December 21. Mr. Gilbert has given the following statement of his reasons for withdrawing:

I refused Mayor McClellan's invitation to enter a competition for designing the proposed city building at the Bridge Terminal, because there was no assurance that the award of the Jury of Experts would be conclusive. The design selected by the Jury may be thrown aside at the "desire" of the Bridge Commissioner, or may never be carried into effect, for lack of appropriation.

It is not a question of my personal service, which I would gladly devote to a public matter, but when it involves, as in this case, the expenditure of thousands of dollars in the preparation of elaborate competition drawings without any definite assurance of appointment even if successful, it becomes a serious question. I therefore requested twenty-four hours in which to consider it further. As the Mayor wanted an immediate answer, I declined his invitation.

If the law would not permit the Mayor to offer more definite conditions, it is, of course, to be regretted.

When one is asked to undertake a heavy expenditure he should either be proportionately recompensed or have a reasonable assurance that if successful he would be retained.

I appreciated Mayor McClellan's invitation but could not accept it.

A READING of the competition programme shows that objections may reasonably be made to some of its terms. For example, the seventh clause, referring to the report of the Jury of Award, reads as follows:

This report will be examined by the Commissioner of Bridges, who will thereupon select as the winner of the competition the author of the design placed first and recommended by the Jury of Award, unless in his judgment there is reasonable and sufficient cause to depart from such recommendation.

In such case the Commissioner of Bridges shall select another of the designs submitted and will report his decision to the Jury with a full statement of the reasons on which his decision was based. The Jury will then review its action in the light of the objections raised by the Commissioner of Bridges and, in case the Jury does not agree with the Commissioner of Bridges, the author of the design placed first by the Jury will be paid by the City of New York the sum of Five Thousand Dollars (\$5,000) in full discharge of the obligations of the city to him.

This evidently permits the Bridge Commissioner to disregard the jury's award and select any other of the designs submitted. Moreover, although it tells what will be paid to the first prize winner if the jury does not agree with the Commissioner, it does not specifically say what shall be paid to the same competitor in case the Jury, on hearing the Commissioner's reasons for disagreement with their first decision, decide to rescind that decision and join with the Commissioner in awarding the first prize to another competitor. From the wording of the

clause it is quite presumable that he might only receive one thousand dollars.

The eighth and ninth clauses provide that:

Eight.—The author of the design finally selected by the Commissioner of Bridges shall be notified within five days after such selection and shall be appointed Architect of the Building, should the Commissioner so decide and the appropriation be on hand.

Nine.—The City of New York and the Architect of the Building may, whenever the necessary appropriation has been obtained, enter into and execute a contract, should the Commissioner of Bridges so desire, with the Architect, conforming in all essential particulars to the "Final Contract for Services," a copy of which is annexed to this programme.

These paragraphs show that the author of the design finally placed first may or may not be appointed

architect of the building; that is, his appointment as such depends on the decision of the Commissioner and the existence of a sufficient appropriation. Even if the appropriation be in hand, the execution of the final contract for services is made to depend on the Commissioner's "desire." Provisions of this sort give an element of uncertainty which, without questioning the good faith of the present Mayor and Commissioner of Bridges, might make one hesitate to incur the great expense of taking part in such a competition when later incumbents of these offices would be free to make a different interpretation of its terms.

Coefficients of Diffuse Reflection¹

IN all problems which have to do with practical indoor lighting, the coefficient of diffuse reflection of the walls plays an important part. In lighting such as we have here in the convention room, the coefficient of diffuse reflection is the permanent factor in determining whether the lighting shall be good or bad; and in all cases there is more or less uncertain factor of wall reflection with which we have to deal.

It, therefore, seems desirable to add somewhat to the meagre data which are at the disposal of the illuminating engineer by measuring the coefficient of diffuse reflection of wall finishes, chiefly papers, in various colors, both by daylight illumination and by illumination from incandescent lamps. The coefficients of diffuse reflection, of course, vary both according to the color of the finish and according to the color of the incident light, the two mutually intersecting. I, therefore, started in to determine a series of coefficients of diffuse reflection varying both these conditions. The material was chiefly wall paper of various finishes and of various colors. The method adopted was to compare each sample with a piece of white cardboard, taken merely for the purpose of a working standard, using the Munsell photometer for the purpose. This photometer gives fairly consistent readings, with a reasonable degree of accuracy, subject only to the condition which affects all photometers, that surfaces of widely different colors are somewhat difficult to compare. Then the coefficient of the standard cardboard which had served for reference was determined in absolute measure by comparing the incident and the reflected flux of light.

The results of this comparison I have expressed in the accompanying table. The sum and substance of the matter is this: that nearly all the colors, certainly all the strong colors, give somewhat lower coefficients than we have been tempted at times to estimate for them. The absolute coefficient of the standard cardboard was .74. The highest coefficient obtained with any wall paper was .64, and that was with a very light cream tint, scarcely perceptibly different from white. That gave a coefficient of .64 with the incandescent lamp, and .53 with diffused daylight from a north window and a clear sky, which was the uniform condition under which the daylight measurements were made. The coefficients of the various colors, which ranged all the way from those nearly white in tint to deep greens and deep reds, ranged down-

ward from .64 to .05, the latter figure applying to dark greens and dark reds. The various results from the papers divide themselves somewhat as follows: Far and away the best, incomparably better than any of the deeply colored finishes, come the very light creams and yellows. These have coefficients of the order of magnitude of .4 to .6; next come the medium papers of gray, yellow, bright red, very light red, pink and lilac. The coefficients of these run roughly from .20 to .40. Finally, last in the line, come some of the present fashionable papers in dark tones, which run down from say .15 to .05, winding up with the deep reds and deep greens, which are nearly equally bad.

As respects the differences existing between the coeffi-

TABLE OF CO-EFFICIENTS OF DIFFUSE REFLECTION.

KIND	TRADE NO.	COLOR	CO-EFFICIENT SKY INC.	REMARKS
Plain Ceiling.	3105	Faint Greenish.....	.50	.53
	3158	Light Ecu.....	.27	.20
	3157	Very Faint Gray Cream..	.53	.64
	3159	Light Gray Green.....	.20	.23
	3107	Light Yellow.....	.53	.40
	3101	Faint Ecu.....	.47	.55
	3102	Faint Pinkish.....	.41	.43
	3106	Pale Bluish White.....	.42	.31
	950	Medium Green.....	.25	.10
	3147	Deep Yellowish Green....	.13	.07
Crep.	3150	Darkish Coffee Brown....	.08	.06
	900	Deep Green.....	.05	.00
	3148	Deep Yellow Buff.....	.41	.41
	370	Full Green.....	.00	.06
	958	Deep Red.....	.05	.05
	373	Medium Red.....	.00	.08
	944	Medium Green.....	.15	.11
	3136	Dull Green.....	.11	.07
	954	Dull Yellowish Green....	.09	.07
	942	Light Pinkish Brown....	.21	.20
Cartridge....	948	Light Green.....	.23	.18
	940	Light Blue.....	.21	.20
	932	Pale Gray.....	.35	.27
	936	Faint Yellowish Green Gray	.43	.33
	934	Salmon Buff.....	.31	.33
	938	Medium Light Buff.....	.44	.44
	1071	Medium Full Green.....	.11	.07
	956	Medium Dull Red.....	.06	.07
	952	Light Red.....	.10	.10
	946	Very Deep Ecu.....	.18	.15
Silky Finish..	930	Pale Pink.....	.25	.10
	3139	Deep Yellow Gray.....	.18	.13
	3137	Medium Crimson.....	.08	.12
	3138	Medium Gray Green.....	.17	.12
	1664	Deep Cream.....	.50	.60
	1664b	Deep Cream Silvery.....	.50	.57
	1667	Yellow Medium.....	.50	.53
	1667a	Deep Buff.....	.53	.58
	1670	Medium Red.....	.06	.08
	1670a	Medium Red Satin.....	.07	.11
Stripes.....	1665	Light Strawberry Pink....	.43	.43
	1665a	Light Strawberry Silvery	.51	.49
	1668	Light and Dark Green....	.06	.07
	1668a	Silvery Light Green.....	.13	.14
	1666	Light Green.....	.36	.26
	1666a	Silvery Light Green.....	.36	.23
	1650	Dark Green and Gold....	.24	.10
	1653	Light Green and Gold....	.31	.28
	1631	Deep and Light Red....	.12	.20
	1604	Light Bluish.....	.46	.47
Miscellaneous	1603	Light Gray.....	.38	.38
Pique.....				

¹A paper by Dr. Louis Bell, read at the annual convention of the Illuminating Engineering Society, and published in its "Transactions."

cients for skylight and those for incandescent electric light, in most cases the incandescent lamp gives a little less satisfactory coefficient by a few per cent. In a few instances, and specially in the light creams and very light yellows, the reverse is the case, these showing up distinctly better by incandescent lamp light than by the light of the north sky, which is strongly bluish.

A particular point of interest is the very deceptive character of some apparently light finishes, grays in particular, and what the decorators are pleased to call "warm" grays more especially. These colors kill the light in a way that is perfectly astonishing to one who is not familiar with them. The coefficients, for example, for a light gray green drop to a little over 20 per cent. in either light, and the light brownish grays are similarly bad. Gray generally contains a more or less strong mixture of black, and frequently a little tint of red; both of these tend to destroy its color-reflecting value.

As between the textures of the papers, except for the silk finishes, which in certain directions tend to absorb light very strongly, there seems to be very little difference, the crepe, the cartridge and plain papers of similar colors having coefficients which are remarkably similar.

A few experiments were made with striped papers, and the difference between the several stripes of the papers found in practice was, as a rule, remarkably small.

In closing I should say that these figures, so far as lights are concerned, refer to light from the north sky on the one hand and light from the ordinary incandescent electric lamp on the other hand. As regards the angles of incidence, which are a very important feature in determining the coefficients of diffused reflection, in all cases the figures apply to medium angles of incidence, say from 35 to 45 degrees. They do not apply in any sense to grazing incidence, but they will be approximately true for the moderate angles. It would be almost impossible, even if it were desirable, to make a detailed investigation of the angular distribution of coefficients of reflection for a large series of papers. It would not be sufficiently instructive, even if made, and these figures will be sufficient to give a fairly clear idea as to the coefficients found with the finishes which are in common use and of which the coefficients do not always bear their values on the face of the paper. The data are for diffusion from a surface where there are no questions of either grazing incidence or grazing reflection coming in, and where there is no element of specular reflection.

Typical Schools in New York, Chicago and St. Louis¹

THE New York type is a most skilful adaptation of the necessities of a city block to the requirements of a school, and the development of the plan that is bounded by party walls is particularly good. The chief requirements are (1) for the class-rooms, light; (2) for the play-rooms or gathering spaces, including gymnasiums, accessibility and light, but the latter not so all-important as in class-rooms; (3) for the Assembly Hall, accessibility and a large area, and light; the last no longer of supreme importance, as artificial light will answer, and in many cases (lectures with stereopticon or evening meetings) daylight is of no importance; and (4) the corridors, sufficient for easy circulation with ample light, the stairs sufficient in number and so placed as to allow rapid emptying of the building.

This New York type meets these requirements admirably. (1) The class-rooms get their light from central areas that cannot be interfered with by other buildings, the distances between the arms of the H (about eighty feet) insuring ample opening to the sky. On the lower floors, and especially in the rooms near the internal angles, a larger amount of glass is desirable than what would be ample on the upper stories. The corner rooms have prism glass to help obviate this. (2) The play-rooms or gymnasiums occupying the basement or the street floor, or both, if two stories high, are very convenient and are so planned as to have good daylight. (3) The Assembly Halls, having the gallery on the first floor level, have the main floor but a short flight of stairs below the sidewalk, and are as accessible as it is possible to be. (4) The corridors occupying the space against the party wall depend on light borrowed from the rooms and on light from the small area placed about in the centre between streets on the party wall. At a slight sacrifice of exterior wall (i. e., class-room space) they might have been carried

through to the front and had really good light. The stairs are well placed, and, being of the twin type, are double the number that appear on the plans. We believe that a single good staircase at each of these points would be better than a twin staircase, with its feeling of enclosure and of cramped headroom, and the slight confusion caused by the alternating direction of landings, but New York has found them very satisfactory in operation. Incidentally they require a slightly greater distance from floor to floor than what is used in Boston. The plan as a whole answers the chief requirements of a modern school building admirably. The system of wardrobes which in New York has been in corridors and does not seem to be ideal has been replaced in this building by wardrobes with sliding doors, occupying one side of the class-room. The development of this idea is shown in a suggested plan coming from Chicago, which will be noted later. If it proves practicable, it will be economy as compared with the Boston type—*independent little rooms adjoining the class-rooms, which is a plan extravagant in area.*

The De Witt Clinton High School is an excellent example of the H plan applied to a city block with light on all four sides. The bars of the H have a thickness of two class-rooms and a corridor, the cross-bar is nearer one street and leaves open areas of unequal sizes. The larger, in basement and first floor, forms the Assembly Hall. The smaller, in basement and part of the first floor, forms the gymnasium. The Assembly Hall with its stage, etc., occupies not only the central area, but all the class-room space on the three sides, and the gymnasium occupies the central area at the rear and the class-rooms adjoining. This is an excellent block, good rooms, well placed stairs and economical corridor space, the latter possibly too economical to insure ample outside light, especially when wardrobes are placed in it. The stairs

¹An appendix to the Annual Report of the Boston School-house Department for the year ending February 1, 1907.

are the twin type. The exterior is a system of bays, which does not express the plan and in many cases gives inadequate light for rooms, which, except for the requirements of the exterior, might have had ample light. This, however, is no reflection upon the general principle of the plan.

New York depends on a certain amount of direct heat in all rooms, a distinct economy (perhaps a justifiable one), over a complete plenum system, but we feel that fresh air is as important as abundant light. Possibly we provide more than is essential; at all events the Board receives frequent complaints as to draughts.

The Chicago plan is a logical development of the New York block plan. It occupies a complete lot about 300 by 300 feet in size (larger than a New York block). In some respects it is a step in advance of the New York plan. It contemplates having a low basement, given up wholly to heating apparatus, the heating, unlike the New York plan, being wholly from a fan. The first floor is on the street level with the Assembly Hall in the centre wholly top-lit, and the rooms surrounding it comprise not only class-rooms, but also the play-rooms, toilets, etc., which would ordinarily be in the basement. The toilets in this plan are distributed on the various floors. The play-room is also equipped as a gymnasium. It is quite ideal to have so much on the street level, and having no children in the space below grade is a very decided advantage. On this large plan of sixteen rooms on a floor, there is opportunity on this first floor for the play-rooms for the boys and girls above referred to, for the offices of the administration and also for six class-rooms. The Assembly Hall is accessible from all four corners. Additional light for the boiler-room below is obtained by making the rooms of administration, which are all small rooms, of lower stud, the floor being above the general level of the first floor. Tested by our floor plan test this gives the following results, showing that it is not an economical floor plan, for notwithstanding the economy of the small wardrobes, the upper floor plans are considerably more than twice class-room area:

Cubical contents.....	1,835,475 cubic feet
Area, second floor.....	27,114 square feet
Area, 16 class-room.....	11,616 square feet
Cubic feet per class-room (54)...	33,990 cubic feet

On cubic contents it is far below our limit of 40,000 cubic feet per class-room. Here there are six class-rooms on the first floor and sixteen each on the second, third and fourth, a total of fifty-four, which would allow with us a cube at 40,000 of 2,160,000. It is, however, to be noted that the rooms, 22 by 33, are the area of our primary standard (24 by 30) and will not accommodate an average of fifty. So that from the point of accommodation it is not yet reduced to the economical minimum. The points about the plan which seem to have a direct bearing on our problems are the abandonment of the occupation of the basement by anything except the heating apparatus, and keeping the first floor down, and distributing the toilets on the various floors, thus reducing the amount so as not to have additional expenditure. Instead of separate wardrobes it is proposed to utilize the wardrobe in the room as the mouth, as it were, of the vent. All foul air goes through the wardrobe and then out. It is doubtful if this is hygienically wise, and the varying bulk of clothing hung there might have a dis-

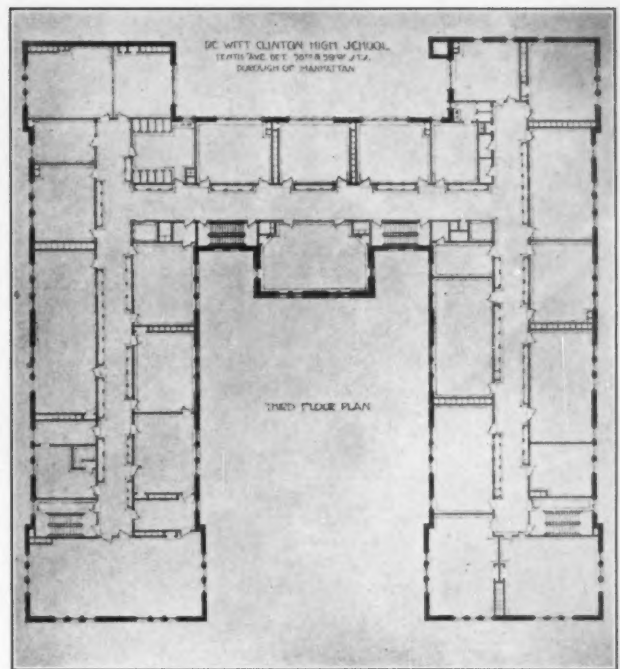
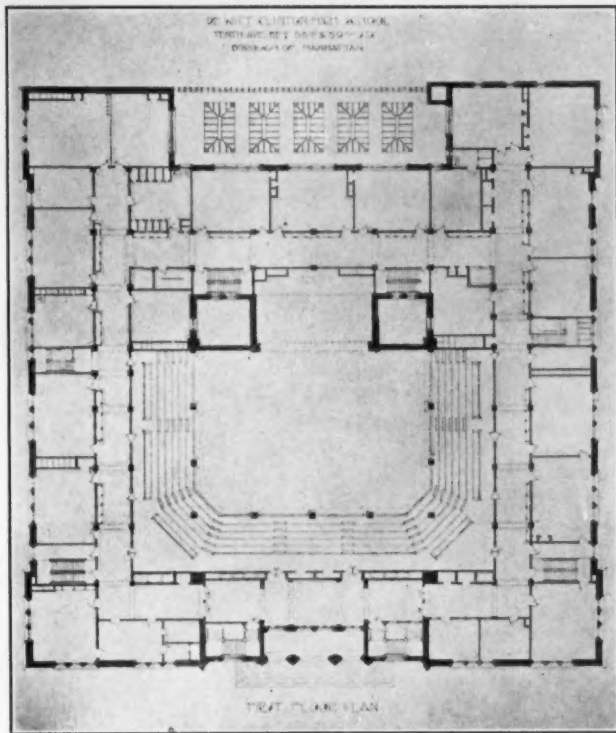
tinct influence on the flow of air. The wardrobes are closed by doors that slide up, and which, when down, have blackboard surface. On a very large plan, and both the Chicago and New York schemes require a very big building, there is space to spare on the first floor for a few class-rooms, and compared with a building having a basement and three stories, this building, even without an additional story, would have a large accommodation, and with an additional story the class-rooms on the first floor would be a net addition over the old scheme of three stories, although the top floor, the fourth, would be but a half story higher than the other third floor. The through corridors with their ready access to either street are excellent, and even on the first floor are well lighted.

Both these plans, however, presuppose schools of such size as are never contemplated for Boston, and hardly likely ever to be required. The St. Louis type is therefore much more of an attempt to solve our own problem here. The plan illustrated is a fair example of an ideal open, well-lighted school, a very large lot, admitting of an extended plan and a twenty-four room building on two floors only. All this is quite ideal, but, until land and building are cheaper, it is too ideal a plan for any part of Boston, except outlying suburbs, like the borders of West Roxbury, where land is still cheap. This building, judged on its cost per cubic foot, is economical and the price far below what we must pay per cubic foot. Examined, however, by the standard of accommodation, it is seen to be an expensive school, and the cost per cube is low only because corridor and roof space, of no service educationally, are less expensive than class-room space. The plan is a generous one, its area being far more than double the area of the class-rooms; its cube is excessive, being more than 30,000 cubic feet per class-room. On our standards, twenty-four class-rooms at 30,000 cubic feet, would have given the limit of the cube as 720,000, but the St. Louis cube is 977,200 cubic feet; and 22 cents by 720,000 would have put the cost at \$158,400, but the St. Louis school cost \$190,000. To be sure, this \$158,400 is the Boston "low limit," which has rarely been reached, but the Sarah J. Baker school, a twenty-four-room building, as is the St. Louis one, was built, without bonus, for \$157,344.23. We may at least learn from the St. Louis school the desirability of keeping our suburban schools strictly to two stories in height.

NOTES AND CLIPPINGS

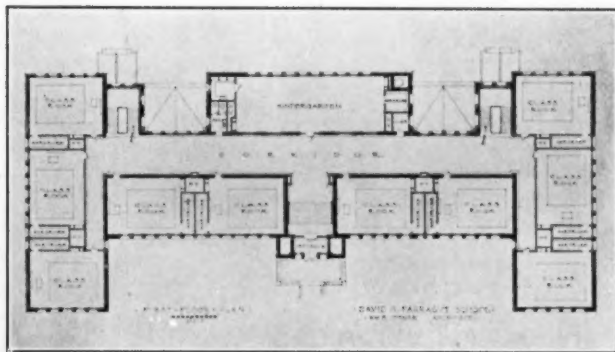
THE FIRST WESTERN COLLEGE.—The old log college which was built by John McMillan on the Fulton farm, about two miles south of Canonsburg, in 1775, was the first institution of learning west of the Alleghenies. In this rude building was founded Jefferson College, which afterward was moved to Canonsburg and in later years was united with Washington College to form the present Washington and Jefferson College. The old log building is about to be removed to the campus fronting Central Avenue and College Street. The contract for moving the building has been let to Thomas Cook, of Washington, and work will begin at once.

THE TOWER OF ST. MARK.—The Campanile of Venice is emerging from its ruins. Substantial progress has been made during the past few months and the new tower now stands nearly eleven meters high. Construction goes on at the rate of about 48 inches per week, and it is estimated that the work will be completed in two years.



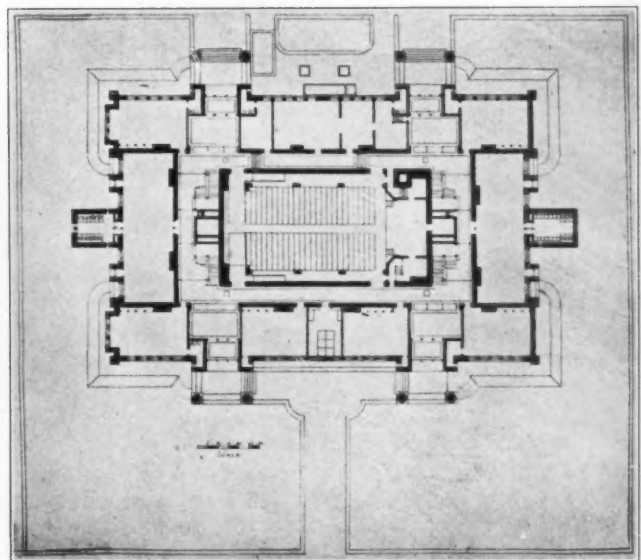
DEWITT CLINTON HIGH-SCHOOL BUILDING, NEW YORK, N. Y.

C. B. J. Snyder, Architect.



THE DAVID G. FARRAGUT SCHOOL BUILDING, ST. LOUIS, MO.

William B. Ittner, Architect.



NEW TYPE OF PUBLIC SCHOOL BUILDING, CHICAGO, ILL.

D. H. Perkins, Architect.

— TYPICAL SCHOOLS IN NEW YORK, CHICAGO AND ST. LOUIS.

CURRENT NEWS SECTION

SOCIETIES

THE NEW JERSEY CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS.

PROGRAMME OF COMPETITION FOR DRAUGHTSMEN—SUBJECT: THE STREET FRONT OF A THREE-STORY DWELLING ON A CITY LOT 25 FEET WIDE.

The general treatment of the design, as well as the choice of materials, to be left to the designer. The treatment of the basement story below the three stories named above, to be left likewise to his discretion. The floor of the basement may be either below or at the sidewalk level and the main entrance of the house may be either at the first story level or at the basement level as preferred by the designer.

Each design to be mounted when delivered, on heavy cardboard 30x8 inches, so as to permit of ease in handling and exhibiting. No framing or glazing will be allowed.

Designs to be rendered in black and white only, either in pen-work, brush-work or pencil. No color allowed.

Each design to be drawn to a scale of 1/2 inch to the foot and to consist of the front elevation and the vertical section of the wall of front, drawn on a sheet of white paper 28x36 inches with border line one inch within the edges of the paper.

Drawings made by each competitor must be sent to the office of the Secretary, Mr. Charles P. Baldwin, 45 Clinton Street, Newark, N. J., on or before Wednesday, February 26, 1908. No device of any kind will be allowed upon the drawings, which would in any way identify the author thereof, but the name of the person presenting same must be contained in a sealed envelope. Upon the receipt of the drawings, each drawing and envelope will be numbered for the purpose of identification at the proper time.

The competition is open to all persons, male or female, not over twenty-five years of age.

The participants in said competition will be invited to attend the March meeting of the Chapter to be held upon Thursday, March 5, when names of the prize-winners will be announced. The various drawings will be criticised in the presence of the competitors. Prizes will be awarded as follows: First prize, \$25; second prize, \$15, and third prize, \$10.

Those who intend to enter this competition should signify their intention of doing so by notifying in writing the Secretary of the Chapter at as early a date as possible, and not later than February 1, 1908.

All designs will be returned to their authors.

THE NEW YORK SOCIETY OF ARCHITECTS.

The secretary of the society has sent to the editors of the AMERICAN ARCHITECT the following letter explaining in detail the society's position in the matter of amalgamating the Tenement House Department with the Building Bureau:

Dear Sirs:—The charter report, recently

issued, is a document whose aim may be excellent, but whose provisions certainly remain open to discussion.

The report of the commission states that "no material change in the Fire, Tenement House, Building, Bridge or Law Departments is recommended, but the appointment by the Mayor of a Deputy Tenement House Commissioner in any borough where conditions necessitate it is suggested." It is to this announcement or "provision" that we take exception—not so much for what it conveys as for what it fails to promise—and that alike on the ground of broad principle and for reasons of a very practical nature. For some time past our society has been advocating the amalgamation of the Tenement House Department with the Building Bureau under a single head in each of the boroughs of the greater city. We have been urging this amendment of the charter upon the Revision Commission which has just concluded its session; and from the way in which our representations were received by Chairman Ivins, we felt confident of a better result than appears to have attended our efforts. The situation of matters at present, briefly stated, is as follows: The Tenement House Department and the Building Bureau, though operating separately, are practically identical in character and jurisdiction, each being a bureau established by the legislature for the regulation and control of building construction within the city limits. A tenement house is merely a dwelling house in which three or more families are allowed to live in separate suites of rooms—this on condition that certain structural and hygienic requirements imposed by the legislature are complied with.

So far as the planning and erection of such a building are concerned, there is *prima facie* no valid reason whatever why the control of these should be transferred from the regular municipal building department to a separate bureau, the former having to deal with far more extensive and complicated structural problems than are involved in the erection of any tenement house. It is true, however, that the tenement house act contained a number of novel and, in the opinion of many, needlessly involved and impracticable provisions; and this, in the judgment of its framers, rendered it advisable—presumably for political or tentative reasons—to create a new department for the administration of the act. Had this department been entirely independent and vested with full power to issue permits and superintend the construction of tenements, irrespective of the already existing Building Bureau, there might have been little objection to its establishment. As it is, however, it is neither independent nor subordinate to the Building Bureau; while its requirements are not only frequently at variance with the latter, but involve an amount of duplicated labor and loss of time, which constitute a serious grievance and hardship to all parties concerned.

Under the present régime it is required

of any owner or his architect, before commencing the erection of or alteration to a tenement house, to obtain two successive permits—the first from the Tenement House Department and the second from the Building Bureau. These permits not only overlap each other to an absurd extent in the information required to be furnished by the applicant, but the time required for securing them is seldom less than five weeks, and sometimes runs on to two months; the time required for the issuance of an ordinary building permit being rarely more than a fortnight. We affirm that this fact alone ought to be considered fatal to a continuance of the present bicephalous system.

In addition to the foregoing, however, there are economic reasons, equally cogent, and such as may be supposed to appeal to a much larger section of the public than those directly interested in building operations. Taking one branch of the service in each department as a fair criterion of the rest, as respects needless duplication of expense, we have under the present arrangement the following inspectors employed to secure the due enforcement of the law in the erection of a tenement house:

Tenement House.—One chief inspector, one light and vent inspector, one sanitary inspector, one special inspector.

Building Bureau.—One chief construction inspector, one chief sanitary inspector, one construction inspector, one sanitary inspector, one iron inspector.

Allowing for a similar overlapping of functions, etc., throughout the two departments, it will readily be believed that Borough President Coler's estimate of a saving of not less than 20 per cent. in cost of administration, in case the two departments in question are combined, is a conservative one. We therefore urge the adoption of this amendment to the City Charter as being distinctly in furtherance of the cause of good government and the public interest.

THE NEW YORK SOCIETY OF ARCHITECTS (INC.),
C. Whitley Mullin, Secy.

BOOK NOTES

REINFORCED CONCRETE IN FACTORY CONSTRUCTION. The Atlas Portland Cement Company, 30 Broad Street, New York City.

A pamphlet of more than two hundred pages, recently issued by the Atlas Portland Cement Company, is a most valuable and comprehensive addition to the literature on the subject of Reinforced Concrete.

The widespread interest in concrete construction demands an authoritative treatment. This treatise presents to the architect and to the engineer who are not concrete specialists a brief treatise which gives a thorough idea of the value of concrete as applied to factory construction. The work has fourteen chapters. The first three treat generally of Factory Construction, Design and Construction, and of Concrete

Aggregates. The remaining chapters are each devoted to the detailed description of specific examples, illustrated by many photographs, plans and working drawings.

This valuable book, the publishers advise us, may be had without cost by any member of the architectural or engineering profession.

HENDRICKS' COMMERCIAL REGISTER OF THE UNITED STATES, FOR BUYERS AND SELLERS. S. E. Hendricks Company, New York, N. Y.

With each succeeding year this Commercial Register increases in size, until the present or sixteenth annual edition, just distributed, numbers more than 1,200 pages. Since 1891, when the first edition was published, this work has been of greatest value to the buyer and seller. To instance the very thorough manner in which this work has been compiled, it may be stated that there are seventy-six pages of index. Each page of this index contains 412 classifications, making a total of more than 31,000 classifications. The method of classification employed affords a quick and accurate reference that will be appreciated by busy men who want to know just where to buy or where to look for a market for their goods.

BUILDING NEWS

(The editors greatly desire to receive information from the smaller and outlying towns as well as from the larger cities.)

MASSACHUSETTS

AMHERST.—It is stated that bids are now being received for erecting the biological and geological laboratory at Amherst College, which is to cost about \$100,000. McKim, Mead & White, of New York, N. Y., are the architects.

CAMBRIDGE.—The Boston and Albany Railroad (W. Shepard, Chief Engineer, Boston) has secured a site on Binney Street, in Cambridge, on which it is proposed erecting next spring a freight station. About \$100,000 will be expended in the site and building.

FORT ANDREWS.—Bids will be received until 10 A.M., January 14, by Captain Ira L. Fredendall, Constructing Quartermaster, 263 Summer Street, Boston, Mass., for the construction, plumbing, heating, electric wiring and electric lighting fixtures of one brick barrack building at Fort Andrews, Peddock's Island, Boston Harbor, Mass.

MELROSE.—It is said that the citizens voted in favor of appropriating \$75,000 to erect an addition to the high school.

NEWTON.—Reports announce that the trustees of Boston College have purchased thirty acres of land in the Chestnut Hill section of Newton as a site for its projected group of college buildings.

NORTH ATTLEBORO.—Louis Destremps & Son, Fall River, Mass., are reported to have plans for a church for Rev. Fr. Villandre, North Attleboro, that will seat 700 persons and cost \$75,000. Bids will be asked for about the last of February or the first of March.

SPRINGFIELD.—Plans for the new biological and geological laboratory for Amherst College have been sent to the contractor. The design was made by McKim, Mead & White, of New York, and the

building is to cost \$100,000; \$75,000 of this is the result of a gift from Andrew Carnegie, while the remainder and \$50,000 for the maintenance of the structure was raised by subscription. The building is to be of brick with terra-cotta facings and is to be erected on the lot west of the natorium. It will be equipped in the best manner possible. Special exhibition cases are being planned in order to accommodate the collections now in Appleton cabinet.

RHODE ISLAND

NEWPORT.—Bids will be received until January 14 by the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., for constructing stable at naval station, Newport. Applications for proposals should refer to Schedule 655.

PROVIDENCE.—The members of the Christian Science Church, it is reported, contemplate erecting a \$250,000 edifice on the East Side.

CONNECTICUT

ALLINGTON.—It is reported that the plans for the new county home to be erected in Allington for the city of New Haven have been completed by Architects Allen & Williams and estimates are being received. The structure will be of red brick with marble trimmings and slate roof. Estimated cost to be \$100,000.

NEW YORK

ALBANY.—It is said that plans are being prepared for the erection of a hotel in Erie County. Edward A. Milliman, of Alden, is director. Cost, \$100,000.

AMSTERDAM.—Bids will be received in the spring for a brick and stone edifice to be erected by the Trinity Reformed Church at Amsterdam. Cost, about \$30,000. Arthur G. Lindsley Co., Schenectady, are the architects.

BROOKLYN.—Plans are being prepared by Architects Lord & Hewlett, 341 Fifth Avenue, for the erection of the municipal building, to be 250x250 feet, ten stories high.

Contracts have not been let for interior furnishings and decorations for the new church and parochial school which the Sixth Avenue Methodist Episcopal Congregation is about to build at the northwest corner of Sixth Avenue and Eighth Street, Brooklyn, from plans and specifications by George Constable, 35 Wall Street. It will be a brick and stone building, to have steam heat, electric light and all modern improvements. Cost, \$70,000.

Architect David Spain, Brooklyn, has completed plans for a store and flat house for S. Wilner, 67 Jay Street. It will be located at 245-247 Metropolitan Avenue, Brooklyn, and plans provide for a six-story building, measuring 50x98 feet. It will have the customary flat construction and interior improvements. The cost will be \$50,000.

Reports state that Parish & Schroeder, architects, 5 West Thirty-first Street, New York, have plans for a six-story addition to the Naval Y. M. C. A. building, Sands Street, Brooklyn. The addition will follow the design of the present building. Contracts will be let in the spring.

MALDEN.—Bids are also being received by Architects A. G. Lindsley & Co. for a new high school for Malden, to cost about \$30,000.

NEW ROCHELLE.—It is said that Charles E. Currier, 10 Summer Street, Boston, Mass., has the contract to erect a recruit station and officers' quarters for the Federal Government, New Rochelle. Cost, \$172,000.

NEW YORK CITY.—Reports announce that Architects McKim, Mead & White, 160 Fifth Avenue, have been selected to prepare plans for the new military station and buildings to be erected on Governor's Island.

Plans are being prepared by Architects Rouse & Sloan, 11 East Forty-second Street, for two six-story apartment houses to be 150x160 feet, at Riverside Drive and One Hundred and Sixty-first Street, for Klein & Jackson, 49 Wall Street. Cost, \$400,000.

Plans are reported to have been filed for the twelve-story store and loft building to be erected by Louis Sachs on the plot, 67.2 by 92, at 38 to 44 West Twenty-first Street. The structure will cost \$300,000, according to the estimate of Architects Schickel & Ditmars.

Plans have been filed for a new six-story apartment house, with part of the first floor apportioned as stores, to be built for Murray & Hill, as owners, at the southwest corner of St. Nicholas Avenue and 165th Street. It will have an avenue frontage of 36.3 feet and a depth of 110.2 feet, and will have accommodations for forty families. It is to cost \$125,000. J. C. Cocker is the architect.

RIKERS ISLAND.—It is reported that plans are being prepared by Architects Trowbridge & Livingston, 424 Fifth Avenue, New York, for the erection of the new penitentiary, to cost \$2,000,000.

ROCHESTER.—It is stated that bids are being received for a four-story apartment house which is to be erected on East Avenue, according to plans prepared by Leon Stern, Chamber of Commerce Building. Estimated cost, \$225,000. J. S. Quicke, manager of the Security Building Co., may be able to give further information.

Announcement has been made that the New York Central Railroad Company has appropriated \$1,500,000 for a new passenger station in this city. It is said that the new building will be located east of Clinton Avenue.

SCHENECTADY.—Bids will be received during the spring on a brick and stone church for the Mount Pleasant Reformed Church of Schenectady. Cost, \$30,000. Architects, A. G. Lindsley & Co.

Architects A. G. Lindsley & Co. have drawn plans for a new \$100,000 office building for the Schenectady Illuminating Company and bids are being received. This will be built in the spring.

WAMPVILLE.—The Board of Supervisors of Madison County is reported to be preparing a county building here, to cost about \$150,000. It will be of fireproof construction, with steam heat, and will comprise a full equipment of offices for all county purposes, as well as a jail. Plans have not been adopted.

NEW JERSEY

ATLANTIC CITY.—It is said that all bids for the addition to Green's Hotel have been rejected and the job will be done by day work. Cost, \$100,000.

BAYONNE.—Plans are on foot, according to report, looking towards the erection of a Y. M. C. A. building in this city to cost approximately \$50,000. Frank W. Edwards, Superintendent of the Tide Water Oil Company, is reported interested.

NEWARK.—A tentative plan of the proposed new Young Women's Christian Association building has been made by a local architect, showing the administration building and the two dormitories to be built at 562 Broad Street. The structures, ground and furnishings will cost about \$200,000, and it is hoped to raise this money in a campaign in January. Louis J. Bayard Kirkpatrick is reported interested.

WOODBURY.—Reports state that the City Council has passed an ordinance appropriating \$60,000 for a new high school building in this city. The Board of Education is reported to be negotiating for the purchase of the property on South Broad Street.

PENNSYLVANIA

GETTYSBURG.—Henry L. Rheinhold, Jr., 1004 Chestnut Street, Philadelphia, Pa., it is stated, has completed plans for a hotel building to be erected at Gettysburg, to be known as the Battlefield Hotel. The structure will be of brick and terra-cotta, seven stories high, and contain 125 rooms and 50 baths.

PHILADELPHIA.—Watson & Huckel, 1211 Walnut Street, it is stated, have prepared plans for a three-story 122x120-foot garage to be erected at 229 North Broad Street, by Henry G. Lea, to cost \$400,000.

READING.—Reports announce that the Reading Hotel Company has been organized for the purpose of building a ten-story hotel on the site of the old jail building, at Fifth and Washington Streets, at a cost of \$300,000. John D. Mishler is at the head.

UNION CITY.—Architects Hoggson Brothers, of New York City, according to report, have prepared plans for a brick and stone bank building to be constructed for the First National Bank, to cost \$30,000.

YORK.—The erection of a school in the West End to cost about \$56,000 is reported contemplated by the School Board.

OHIO

ADA.—It is reported that President Smith of the Ohio Northern University has made the announcement that a large college building will be erected in the center of the campus to be known as the H. S. Lehr Memorial Building. The entire basement, according to the plans, is to be an armory with drill room, etc.

CINCINNATI.—Architects Elzner & Anderson, Ingalls Building, are reported to have completed plans for a two-and-a-half-story brick school building to be constructed for the Board of Education. Cost, \$160,000.

It is said that Edward H. Dornette, Pickering Building, has completed plans for the three-story and basement addition to the Eighteenth District school building for the Board of Education. William Grautman, Clerk. Cost, \$125,000.

CLEVELAND.—The Board of Education, Charles Orr, director, according to report, has instructed F. S. Barnum, superintendent of buildings of the Board of Education, to prepare plans for the John Hay high school building, to cost \$300,000.

COLUMBUS.—Plans and specifications for the proposed United States postoffice here have been completed by James Knox Taylor, Supervising Architect, Treasury Department, Washington, D. C., and bids will be asked for at once. The structure will cost \$400,000.

DAYTON.—Reports state that plans are on file at the Exchange for the new manual training high school which is to be erected in this city at a cost of \$150,000.

The County Commissioners, according to report, will pass a resolution providing a \$50,000 bond issue for the erection of a new county infirmary building. Particulars may be obtained by addressing County Auditor Kauffman.

LIMA.—Reports state that J. C. Thompson is having plans prepared for another \$50,000 business block to be erected on North Main Street.

MADISONVILLE.—The Board of Education of the Madisonville Village School District will receive bids for the service from architects for preparing plans for the construction of a \$100,000 school building. Estimated cost, \$100,000.

WAPAKONETA.—It is said that plans are being prepared by Architects Marriott & Allen, Columbus, for a two-story county infirmary building for the commissioners of Anglaize County. Cost, \$65,000.

INDIANA

INDIANAPOLIS.—According to reports, bids will be received about January 15 for the construction of the proposed four-story building for the Y. W. C. A. Estimated cost, \$140,000. D. A. Bohlen & Son, Majestic Building, Indianapolis, Ind., are the architects.

KOKOMO.—A site for a new Government building has been purchased in this city, according to report, and also in Frankfort. Appropriations of \$100,000 for each building are pending in Congress.

ILLINOIS

CAIRO.—It is said that the Elks Club of Cairo is to be formed for the purpose of erecting a \$50,000 building.

CHARLESTON.—L. G. Lord, of Charleston, president of the State Normal School, reports that bids will be received until January 21 for the erection of a dormitory, to cost about \$100,000. Architect W. Carbys Zimmerman, 1101 Steinway Hall, Chicago.

CHICAGO.—Press reports announce that the special committee appointed by President Busse of the County Board is now seeking a site for Cook County's proposed new \$1,000,000 infirmary, or poorhouse. The committee has before it for consideration twenty sites, located in different parts of the county. The committee is composed of President Busse of the County Board; A. C. Bartlett, of Hibbard, Spencer, Bartlett & Co.; C. D. Norton, of the Northwestern Life Insurance Company; Ernest P. Bicknell, secretary of the Associated Charities; John M. Ewen, consulting engineer for the county, and County Commissioners Lindblom, Hartray, Lanio, Schroder and Van Steenberg.

Albert H. Wolf, it is stated, has secured a site at Woodlawn Avenue and Forty-ninth Street on which he intends erecting a residence to cost \$50,000.

Reports state that Architect W. Carbys Zimmerman, 1101 Steinway Hall Building,

17 Van Buren Street, is revising the plans for an armory to be built at Wentworth Avenue and Thirty-fourth Street for the Seventh Infantry, I. N. G. It will cost \$150,000. The revised plans will be ready after New Years. Previously reported.

It is said that plans are being prepared by Marshall & Fox, 164 Dearborn Street, for an apartment-house to be erected on Lake Shore Drive, at a cost of \$300,000.

Plans will be prepared, according to report, by C. F. Herman, architect, 326 City Hall, for a cell-house for the House of Correction, Twenty-sixth Street and California Avenue; to be four tiers in height, 50x265 feet, of brick, stone and fireproof construction, and to cost \$150,000.

Plans for a hospital and school-building to be erected at Washington Street and Fifth Avenue, are being prepared for the Chicago Eye, Ear, Nose and Throat Hospital, by Nimmons & Fellows, 204 Dearborn Street. The building will be twelve stories high, 40x80 feet. Estimated cost, \$250,000.

Holabird & Roche, architects, Monadnock Building, it is said, have started plans for the proposed City Hall building for the city, to cost \$4,500,000.

Press reports announce that a permit has been issued for the eleven-story brick clubhouse to be erected on Michigan Avenue for the University Club.

Reports state that Joseph Downey, Commissioner of Buildings, has in view the construction of a twelve-story building on his property at the northwest corner of Washington and Franklin Streets, to cost \$250,000. The land is eighty-one feet square and is now occupied by a four-story building formerly known as the Keller House. Mr. Downey is undecided whether it shall be an office structure or a manufacturing block. Should it be the former it will cost \$250,000, but a building for the latter use could be erected for \$200,000. He will begin in the spring the construction of an eight-story building on the land at the northeast corner of Washington Boulevard and Green Street, to cost \$100,000.

EAST ST. LOUIS.—Bids will be received about February 1 by the School Board for the erection of a school, to cost \$65,000. Architects Riester & Rubach, 412 Missouri Avenue, East St. Louis, Ill.

KANKAKEE.—It is stated that a \$70,000 building is to be erected at the Illinois Eastern Hospital.

SPRINGFIELD.—It is reported that the Academy of Our Lady of the Sacred Heart is to be enlarged at a cost of \$75,000, according to plans prepared by W. H. Conway, 104 East Side Square.

URBANA.—Jas. M. White, of Urbana, supervising architect, University of Illinois, writes that plans are now being prepared for the erection of a physics laboratory and addition to the Natural History Department building, to cost about \$400,000. W. Carbys Zimmerman, of Chicago, is State Architect.

MICHIGAN

DETROIT.—Architects B. C. Wetzel & Co., 404 and 405 Hammond Building, have prepared plans for a five-story and basement business block, 250x140 feet, at Fifteenth Street and M. C. R. R. for Dinan Brothers, 316 Abbott Street. Estimated cost, \$100,000.

LANSING.—Plans are being prepared for the erection of a hotel at the northwest corner of Washington and Ottawa Streets, to cost \$225,000.

MOUNT PLEASANT.—Press reports state that bids are being asked until January 30, by Luther L. Wright, for the construction of a physical training building for the Central Michigan Normal School at this city.

WISCONSIN

LA CROSSE.—Bids will be opened by the State Board of Normal Regents, Madison, at the first meeting in January, for the erection of the normal school-building at La Crosse. Cost, \$210,000. J. A. Peacock, president board, Oconomowoc, Wis. Van Ryn & De Gelleke, architects, Milwaukee, Wis.

MILWAUKEE.—The Sterling Engineering and Construction Company, 406 Uihlein Building, according to report, will erect a six-story reinforced concrete store-building on Second Street, between Sycamore Street and Grand Avenue, to cost \$60,000.

SHEBOYGAN.—It is reported that plans for the new Eagles' building have been submitted. They provide for a building 125 feet long, 60 feet wide and three stories high. On the main floor will be a large auditorium with a balcony which will accommodate 360 people. If arrangements can be made with Company C the building will also be used as an armory.

MISSOURI

HANNIBAL.—It is reported that Architect M. S. Martin has prepared plans for a five-story office-building for the Hannibal Trust Company, J. P. Hinton, cashier. Estimated cost, \$100,000.

JEFFERSON CITY.—It is reported that the Christian congregation, Rev. Mr. Widger, pastor, will erect an edifice, 50x80 feet, at a cost of about \$45,000; plans by Miller & Opel.

KANSAS CITY.—Architect Albert S. Owen, Scarritt Building, according to report, will take figures soon for a five-story office-building, 48x111 feet, at 1005 Walnut Street, for Henrietta B. Green, 3522 Harrison Street, to cost \$60,000. Previously mentioned.

Architect George Carman, 309 Hail Building, is said to be preparing plans for Patterson & Sanford, who will erect a five-story building, 48x106 feet, for mercantile purposes, at 1008 and 1010 Walnut Street. Estimated cost, \$50,000.

KENWOOD.—It is reported that A. F. Haeussler, 514 Roe Building, St. Louis, is preparing plans for a three-story clubhouse, to be erected at Kenwood, to cost about \$250,000. Bids for construction will be received about February 1.

ST. JOSEPH.—Plans have been approved for the erection of an agricultural building, to be erected on Horticultural grounds at a cost of \$100,000. Address the Executive Committee of the Board of Curators of Missouri.

It is said that the Harvard Realty Company were granted a permit to erect a four-story brick and steel building at the northwest corner of Sixth and Felix Streets. Estimated cost, \$100,000.

ST. LOUIS.—Reports state that the W. Rus. Samuel Construction Company will erect an apartment-house after plans by same company; 74x110 feet; four stories

and basement; reinforced fireproof construction; steam heat; electric lighting; hydraulic and electric elevators; 48 hydraulic lifts or dumb-waiters; refrigerating plant; vacuum cleaning; cost, \$200,000.

The St. Francis de Sales congregation is having plans prepared by V. J. Klutho, Benoist Building, for the erection of a church to cost about \$250,000. Rev. T. G. Holweck is pastor.

Barnett, Haynes & Barnett, architects, Frisco Building, are reported to be preparing plans for a four-story industrial school building for the St. Philomena's Industrial School. Estimated cost, \$150,000.

It is reported that Architect William B. Ittner, Board of Education Building, will soon start plans for a three-story addition to the Humboldt school building for the Board of Education. Estimated cost, \$50,000. Previously mentioned.

John H. Long, according to report, has filed an application to erect a four-story concrete apartment house at Clara and Von Versen Avenues, to cost \$60,000.

The Board of Directors of the St. Louis Coliseum Company held a meeting at which the building plans drafted by F. C. Bonsack, the architect, were inspected. It was agreed to submit the building plans for final approval at a meeting of the Board on December 16, at which time estimates of the contractor, showing the exact cost of the structure, would be ready. The plan calls for an expenditure of about \$300,000 on the building, which is to cover the entire Ubrig's Cave site at Jefferson and Washington Avenues. There will be two main entrances, one on Washington and one on Jefferson, with exits on Locust Street and on the alley. A row of from fifteen to twenty stores will extend around the building on the three streets. These stores will occupy the space under the seat tiers of the amphitheater. Under the new plan control of the Coliseum for the purposes of management will be vested in a syndicate composed of members of the Business Men's League.

SPRINGFIELD.—Press reports state that Drury College, Mr. George, president, contemplates the erection of a gymnasium and academic hall, to cost about \$500,000.

IOWA

BURLINGTON.—Architects Temple, Burrows & McLane, McManus Building, Davenport, Iowa, are reported to be preparing plans for a three-story high school-building for the Board of Education, Richard Turpin, secretary, Burlington. Estimated cost, \$75,000.

CEDAR RAPIDS.—Reports state that the Scottish Rite Masons will erect a temple at A Avenue and Sixth Street.

DES MOINES.—It is said that bids will be received in February or March by the Board of Public Works for the erection of the proposed City Hall, to cost about \$350,000. Proudfoot & Bird, Crocker Building, are the architects.

GLENWOOD.—It is stated that a gift of \$25,000 has been bequeathed to the Glenwood Baptist Church by the late Mrs. J. V. Hinchman, to be used to erect a new edifice.

SIoux CITY.—The directors of the German Lutheran Hospital, it is stated, are considering the erection of a new building.

MINNESOTA

STILLWATER.—Reports state that plans are being prepared for the erection of the State's prison building by C. H. Johnson, Manhattan Building, St. Paul. Cost, \$200,000.

ST. PAUL.—It is reported that the School Board decided to ask the City Council to authorize \$75,000 bonds to build additions to the Hill, Ramsey, Hancock and Murray schools.

NORTH DAKOTA

LA MOURE.—It is stated that plans have been accepted for the Court-house.

SOUTH DAKOTA

MITCHELL.—Bids will be received until 3 P. M., January 22, by James Knox Taylor, Supervising Architect, Washington, D. C., for the construction (including plumbing, gas-piping, heating apparatus, electric conduits and wiring) of the U. S. Post-office at Mitchell.

PIERRE.—It is reported that Jeffers & Henry, architects, Aberdeen, S. D., have prepared plans for a three-story brick and stone office-building, 65x165 feet, for Charles Hyde. Estimated cost, \$65,000.

NEBRASKA

FALLS CITY.—The first steps towards securing a Federal post-office building are reported to have been taken. Senator Burkett has introduced a bill in Congress for an appropriation of \$75,000.

LINCOLN.—The Regents of the State University have approved plans of Professor C. R. Richards for buildings for engineering department, to cost \$50,000, and ordered call for bids.

NORTH PLATTE.—Reports state that the Commercial Club is interested in the erection of a hotel, to cost \$50,000. Address Thomas Stevenson.

YORK.—It is said that plans for the new Government post-office building for York have been received by the Postmaster in that city. The building will be 86x88 feet. The exterior will be stone and white brick and tile roof. Bids on the new building will be received until January 15.

KANSAS

CANTON.—Arrangements have been completed whereby the town will have a Masonic Temple, opera house and city hall in the early spring. A stock company has been organized to build the opera house and the city will have room in the front part of the building and the Masons will occupy the second floor. The building will be built of brick and will be 48x125 feet.

COFFEYVILLE.—The Chamber of Commerce, it is said, is negotiating with W. P. Brown for the erection of a large convention hall in Coffeyville.

CONCORDIA.—It is stated that Congressman Calderhead will introduce a bill for a \$75,000 public building at Concordia.

LEAVENWORTH.—Wm. P. Feth, of Leavenworth, according to reports, is preparing plans for a residence, to cost \$35,000, to be erected for D. H. Pike, of Denver.

SALINA.—The committee of the Board of Education appointed to secure plans for the proposed new high school building will confer with the architects this week. While nothing definitely has been decided upon, it is said that it is proposed to erect a building at a cost of about \$50,000.

COLORADO

DENVER.—It is reported that Architects Edbrook & Co. have plans for a complete remodeling of the Brown Palace Hotel, for the executors of the Stralton estate. It is probable that fully \$300,000 will be spent by the estate in the work. None of the applications for leases will be considered before the estimates on the improvements have been received by the executors.

A. E. Wilson, of Denver, according to report, will construct a power plant on South Platte River, a short distance from Denver, to cost about \$1,000,000.

Reports state that a building to cost \$500,000 will be built in the spring at the corner of Fifteenth and Champa Streets. It will be nine stories high, built of steel, with brick facing, and entirely fireproof. Bennett & Myers, 1010 Sixteenth Street, Denver, are interested.

It is said that the German-American Indemnity Association is having plans prepared for a \$100,000 office-building which it is proposed erecting, but no definite location has yet been decided upon.

Reports state that an apartment house to cost from \$250,000 to \$300,000 will be built on Grant Avenue, between Fourteenth and Colfax Avenues, opposite the entrance to the State House, by a syndicate headed by N. C. Merrill and Architects Fallis and Stein. The building will be eight stories high, will cover three lots and will be of reinforced concrete. One of the novel features is that it will be fitted up with wall furniture. There will be ninety-six suites and the proposed apartment house will have marble entrances and stairs and tile floors. The window casings and the window sash will be of metal. Architects Fallis & Stein plan to make it fireproof.

TRINIDAD.—John Aiello, president of the Southern Colorado Mercantile Company, it is stated, has secured plans for a five-story brick warehouse, to be erected at a cost of about \$75,000.

MONTANA

HELENA.—Reports state that Bishop J. P. Carroll has had plans prepared by A. O. Von Herbulis, architect, of Washington, D. C., for the proposed Catholic high school, a college building, House of the Good Shepherd building, and a cathedral, the cost of all to exceed \$1,000,000.

MARYLAND

BALTIMORE.—Certain architects have been engaged, according to reports, to prepare plans for a seven-story apartment-house, to be erected at Eutaw Place and Dolphin Street, at a cost of about \$175,000. Harry Brown, 109 Clay Street, is to superintend the construction. Alonzo M. Hurlock and E. J. W. Revell are the owners.

DISTRICT OF COLUMBIA

WASHINGTON.—Press reports state that a naval hospital is to be one of the features of the naval training stations on the Great Lakes. Plans have been prepared for a structure to cost about \$250,000.

The Chief of Staff of the Army, it is stated, has recommended the construction of officers' quarters at the Army War College, at an expense of \$100,000. He also asks \$197,000 for the construction of necessary buildings for two companies of the Signal Corps at Forts Riley and Leavenworth.

It is reported that Congressman Haggott introduced bills for public buildings at Grand Junction and Durango, appropriating \$125,000 for each.

Reports state that the Chief of Staff of the Army has recommended the construction of officers' quarters at the Army War College at an expense of \$100,000, which is included in the general item for barracks and quarters in the estimate for appropriations just submitted by the Quartermaster General. Another item amounts to \$197,000 for the construction of necessary buildings for two companies of the signal corps at Forts Riley and Leavenworth.

VIRGINIA

RICHMOND.—Sealed proposals will be received until 3 o'clock P. M., January 20, 1908, for the construction of a high school building to be erected by the city of Richmond, Va., in accordance with plans, specifications and details furnished by Charles K. Bryant, architect, 1014 East Main Street, Richmond, Va.

KENTUCKY

GRAYSON SPRINGS.—Mercke Bros., according to report, will have plans prepared by McDonald & Dodd, Lincoln Bank Building, Louisville, Ky., for erection of brick hotel, to have 300 rooms; steam heat; electric lighting; electric elevators; laundry; cost, \$150,000.

LOUISVILLE.—Reports state that plans are on foot looking towards the erection of a building for the Y. M. C. A., to cost approximately \$200,000.

TENNESSEE

NASHVILLE.—George W. Wilson, of Cincinnati, O., and W. R. Elliston, of Nashville, Tenn., according to report, will erect an eight-story apartment house to be located on the triangle near Centennial Park. Plans have been prepared by J. L. Adkins of the firm of Werner & Adkins, Cincinnati, O.

Announcement is made that a movement is on foot by the Y. M. C. A. of this city to start a campaign to raise \$200,000 with which to erect a new building on Union Street and Seventh Avenue. Further particulars may be obtained by addressing General Secretary W. S. Frost.

NORTH CAROLINA

ASHEVILLE.—Bids will be received until 3 P. M., January 20, by James Knox Taylor, Supervising Architect, Washington, D. C., for the construction (complete) of the extension to the U. S. Post-office and Court-house, Asheville.

GEORGIA

AUGUSTA.—It is said that plans are being prepared for the erection of a general hospital building for the Children's Hospital Association. Cost, \$50,000. Address Joseph R. Lamar, chairman board of trustees.

Reports state that a movement is well under way to erect a modern hospital in this city at a cost of about \$50,000. Dr. Joseph E. Allen, Dean of the Medical College, is reported interested.

GAINESVILLE.—Bids are asked by James Knox Taylor, Supervising Architect, Treasury Department, until 3 P. M., January 21, for construction, complete, of U. S. Post-office at Gainesville.

THOMASTON.—It is stated that bids are

wanted until January 7 for \$50,000 school bonds. Claude Worrill, Clerk, School Board.

ALABAMA

AUBURN.—We are advised that the general contract for the Auburn Polytechnic Institute, known as the "dining hall and dormitory," has been awarded to J. A. Cullars, Auburn, Ala. Warren & Welton, of Birmingham, are the architects.

BIRMINGHAM.—The erection of a high school in Jefferson County, to cost \$50,000, is reported under way.

UNIVERSITY.—It is stated that the Board of Trustees of the University of Alabama on December 16 rejected all bids received for erecting the engineering building and a chemical and geological laboratory building. It is reported that new bids will be asked in about sixty days, to be submitted on the following: Stucco; pressed brick; stone. The two buildings are estimated to cost \$165,000.

ARKANSAS

FORT SMITH.—It is said that there is a movement on foot among physicians at Fort Smith to establish in this city a \$100,000 sanitarium after the model of the Battle Creek, Mich., institution.

LOUISIANA

NEW ORLEANS.—Andry & Bendernagel, 211 Camp Street, New Orleans, are reported to have completed plans for the three-story Richardson Memorial building, 241x65 feet, to cost \$150,000.

We have been advised that in the recent preliminary competition for the selection of five competitors to be invited to the final competition for plans for the proposed United States Postoffice and Courthouse Building for this city the following architects were selected: York & Sawyer, New York; C. C. Zantzinger, Philadelphia; Parker, Thomas & Rice, Baltimore; Hale & Rogers, New York, and Hewitt, Stevens & Paist, Philadelphia. The judges of commission of award were William Martin Aiken and Arnold W. Brunner, of New York; James Rush Marshall and James Knox Taylor, Washington, D. C.

RAMSAY.—St. Joseph's Abbey of St. Tammany Parish, recently reported burned, will be rebuilt at a cost of \$150,000. Building is to be partly fireproof and mill construction, with acetylene gas lighting.

OKLAHOMA

ENID.—Reports state that Edward Kline plans the erection of a four-story business building, 75x140 feet, to cost \$100,000.

Captain Winfield Scott, of the Oklahoma National Guard, is in Guthrie pushing a bill to be introduced in the Legislature making an appropriation for a State Armory. He will endeavor to secure the location of the armory at Enid. The citizens of Enid, if the bill passes, are planning to build a convention hall in conjunction with the armory, the entire building to cost \$100,000, the lower part to be used for the National Guard and the upper floors for a convention hall.

OKLAHOMA.—It is stated that the Security Building Company will erect a three-story addition to the Security Building, making the structure six stories high. Estimated cost, \$300,000. W. T. Hales is reported interested.

TULSA.—The erection of a Court-house and jail costing about \$100,000 is reported under consideration.

TEXAS

AUSTIN.—It is reported that the Catholic congregation will erect an edifice. Address the pastor, Catholic Church.

The First Baptist Church, it is said, will erect a two-story addition to edifice, expending about \$50,000. Address the pastor, First Baptist Church.

Plans have been prepared, according to report, for the erection of a \$100,000 Y. M. C. A. building and a \$50,000 office building on Congress Avenue.

HOUSTON.—Reports state that construction work on the Federal building will begin about the first of the year. The building will cost \$400,000, an appropriation of that amount having been passed by the last Congress. The ground cost the Government \$125,000, making a total cost for building and grounds of \$525,000. The building will occupy the block bounded by Capitol and Rusk Avenues and Caroline and San Jacinto Streets, being two blocks from the proposed new passenger station of the Yoakum and Santa Fe interests, which will be built within the next year or so. The building will be three stories with a basement, the first floor to be elevated several feet. The bids are to be in the office of the supervising architect by January 15, when they will be opened and possibly the contract awarded. The specifications are for granite extending to the top of the battlement or up to the first floor and for white brick for the remaining portion of the building. However, duplication bids are called for, it being requested that the duplications give the cost of stone instead of white brick for the upper portion of the building.

Geo. F. Horton, County Engineer, reports that plans for the new Harris County Court-house, as prepared by Lang & Mitchell, Wilson Building, Dallas, have been accepted (bids opened November 5). The building consists of basement, four stories and dome, and is of fireproof construction throughout. It will be built of concrete to base line, Texas granite to second story,

and from there to roof line of pressed brick. Total cost, \$500,000.

MARBLE FALLS.—C. H. Alexander, of Dallas, is reported to be promoting the proposed \$100,000 resort hotel, for which plans are now being prepared.

SAN ANGELO.—Plans are being prepared by Architect Carl Boller, New Nelson Building, Kansas City, Mo., for a theater for the San Angelo Opera House Company, at a cost of \$50,000.

It is said that plans are being prepared for a theater building to be erected here. Carl Boller, of Kansas City, Mo., is architect.

SAN ANTONIO.—Plans have been prepared by Architect Fred B. Gaenslen, 209 West Commerce Street, for the erection of a church for the Sisters of Divine Providence. Cost, \$50,000.

UTAH

OGDEN.—Bids will be received by James Knox Taylor, Supervising Architect, Washington, D. C., until February 17, for the construction (except heating apparatus and conduit and wiring) of an extension to the U. S. Post-office and Court-house at Ogden.

PROVO.—Architects Ware & Treganza, of Salt Lake City, according to report, have been commissioned to prepare the plans for the memorial building to be erected at Provo in connection with the B. Y. University. Estimated cost to be \$100,000.

SALT LAKE CITY.—It is reported that the Crane Company, of Chicago, Ill., proposes erecting a six-story office and warehouse building here, to cost \$200,000.

CALIFORNIA

LA JOLLA.—Reports announce that Architect H. L. Gay has plans for the new \$50,000 mission style hotel to be erected near the caves here, by the La Jolla Hotel Company. It was organized with a capital stock of \$75,000. The active heads of the company are: George K. Boulden, Charles S. Easton, Arthur C. Thompson, George H. Clarke and George J. Leovy.

OAKLAND.—J. Cather Newson is said to be preparing plans for a five-story apartment-house which is to be erected at Telegraph Avenue and Sycamore Street, at a cost of \$150,000.

It is stated that revised plans have been prepared by J. Galen Howard, 456 Montgomery Street, San Francisco, for the Y. M. C. A. building, which is to be erected at a cost of \$250,000.

PASADENA.—Reports state that plans being prepared for enlarging the Throop Polytechnic Institute at Pasadena will call for an expenditure of about \$2,000,000. About 22 acres of land fronting on South Wilson Avenue will be used as site for the new buildings. Walter A. Edwards is president.

The Christian Science congregation has had plans prepared by Franklin P. Burnham, Pacific Electric Building, Los Angeles, for a church to cost \$100,000.

SAN FRANCISCO.—It is reported that Mary L. Phelan proposes to erect a four-story building at Battery and Market Streets, to cost \$80,000.

Frank Sullivan, it is said, proposes to erect a \$500,000 store building at Grant Avenue.

The Board of Education is said to be planning the expenditure of about \$8,000,000 in school improvements.

WASHINGTON

SEATTLE.—Somervell & Cote, Walker Building, it is stated, have completed plans for the hospital which the Sisters of Providence propose erecting at Seventeenth and Eighteenth Avenues and Cherry and Jefferson Streets, at a cost of about \$800,000.

The citizens are reported to have voted in favor of issuing \$500,000 school improvement bonds.

SPOKANE.—Plans have been prepared, according to report, by H. J. Williams, 428 Sinto Avenue, for the erection of a hospital building for the Sacred Heart Hospital Company, to be built at Eighth and Ninth Avenues and McClellan Street. Cost, \$400,000.

CANADA

LONDON, ONT.—Reports announce the King Edward Company has been incorporated to build a new hotel to cost not less than \$100,000. Directors appointed are George Christie, G. G. Gibbins, Edward Meredith and Thomas Beattie.

POSITIONS WANTED.

ARCHITECT of high standing and some clientage, college graduate, with artistic abilities, winner of competitions, familiar with perspectives, etc., desires employment with large firm, as architect, or with prominent decorators; best references. Address 28-A, care American Architect. (1671)

EXPERT DRAUGHTSMAN—Fifteen years' experience in ornamental iron and bronze, very accurate and practical, also able in designing; to say in all, accurate and artistic; open for engagement; no objection going out of New York City. Address 21-C, care American Architect. (1671)

ARCHITECTURAL engineer open for employment; age 40; expert in framing all kinds of heavy and difficult buildings in either wood, steel, or reinforced concrete; competent to prepare complete designs, estimates, plans, reports, and specifications, and to superintend construction; also experienced manager and executive. Address Chief Engineer, 93 Turner Street, Grand Rapids, Mich. (1671-1683)

PROPOSALS.

NOTICE TO CONTRACTORS.

Sealed proposals, suitably endorsed on envelope, for construction, heating, plumbing

and electric work for an industrial building at the New York State Reformatory for Women, Bedford, N. Y., will be received up to 2 o'clock p.m. on the 22nd day of January, 1908, by Hon. James Wood, President of the Board of Managers, at the New York State Reformatory for Women, Bedford, N. Y., when bids will be opened and read publicly.

Drawings and specifications may be consulted and blank forms of proposals obtained at the Institution, or by application to F. B. Ware, State Architect, Capitol, Albany, N. Y.

Contracts will be awarded to the lowest responsible and reliable bidders, unless the bids exceed the amount of funds available therefor, in which case the right to reject all bids is reserved. A certified check for 5 per cent. of the amount of the bid must accompany each proposal.

Only proposals for the complete work of construction, heating, plumbing and electric work combined will be considered. (1670-1673)

Treasury Department, Office of the Supervising Architect, Washington, D. C., December 28, 1907.—Sealed proposals will be received at this office until 3 o'clock p.m. on the 11th day of February, 1908, and then opened, for the construction (complete) of the extension to the U. S. Post Office and Court House at Chattanooga, Tennessee, in accordance with the drawings and specification, copies of which may be had at this

office, or at the office of the Custodian at Chattanooga, Tennessee, at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1671-1672)

Treasury Department, Office of the Supervising Architect, Washington, D. C., December 24, 1907.—Sealed proposals will be received at this office until 3 o'clock p.m. on the 17th day of February, 1908, and then opened, for the construction (except heating apparatus, and conduit and wiring) of an extension to the U. S. Post Office and Court House building at Ogden, Utah, in accordance with drawings and specifications, copies of which may be had at this office, or at the office of the Custodian at Ogden, Utah, at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1670-1671)

Treasury Department, Office of the Supervising Architect, Washington, D. C., December 1, 1907.—Sealed proposals will be received at this office until 3 o'clock p.m. on the 18th day of January, 1908, and then opened, for the installation of a vacuum cleaning system for the U. S. Post Office, Court House and Custom House, Providence, R. I., in accordance with drawings and specifications, copies of which may be had at this office or at the office of the Architects, Clark & Howe, 72 Weybosset Street, Providence, R. I., at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1670-1671)



Notice Sliding Sleeve Damper. Patented.

degree of opening desired, and is storm and dust proof, opened or closed.

Burt Ventilators are made with glass or metal tops as desired, and can be arranged to close automatically by heat in case of fire.

Send for our new 80-page catalog giving fine illustrations of mills, shops, foundries, and residences where Burt Ventilators are in successful use.

The Burt Mfg. Co., 550 Main Street, Akron, O.

Largest Manufacturers of Oil Filters and Exhaust Heads in the World.

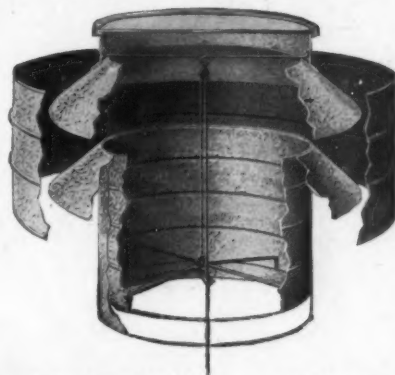
One Cause of Purity

in Ivory Soap 99-⁴⁴/₁₀₀ pure—is the fresh pure atmosphere in which it is made.

This good ventilation in the Ivory Soap factories is furnished by

Burt Ventilators

No other ventilators have so great a "pull,"—no other ventilators are made better, no other ventilators are provided with the patented sliding sleeve damper, which can be adjusted to any



Notice Sliding Sleeve Damper. Patented.

Appropriate Steel Ceilings for Churches

You can get them in *Berger's "Classik."* WRITE FOR CATALOG D-9 C, which shows ceilings to harmonize with prevailing styles of church architecture—

GOTHIC ROMAN ROMANESQUE

Many effective combinations in each of these designs. Cut shows one of the many combinations in Romanesque. We also make appropriate steel ceilings in a great variety for other classes of buildings. Write for Catalogs D-9 and D-9 C.

THE BERGER MFG. CO., CANTON, OHIO
 NEW YORK PHILADELPHIA BOSTON ST. LOUIS
 CHICAGO ATLANTA SAN FRANCISCO MINNEAPOLIS

UNIVERSITY OF PENNSYLVANIA SCHOOL OF ARCHITECTURE

FOUR-YEAR COURSE. (*Degree B. S. in Arch.*) (Architectural engineering may be taken in lieu of advanced design, etc.)

GRADUATE YEAR. (*Degree M. S. in Arch.*) (Allowing specialization in design or in architectural engineering, etc.)

SPECIAL COURSE OF TWO YEARS. (*Certificate.*) (For qualified draughtsmen; affording option in architectural engineering.)

COMBINED COURSES IN ARTS AND ARCHITECTURE, by which A. B. and B. S. in Arch. may be taken in six years.

COLLEGE GRADUATES granted advanced standing.

SUMMER COURSES in elementary and general subjects through which advanced standing may be secured.

For full information address: DR. J. H. PENNIMAN, Dean, College Hall, University of Pennsylvania, Philadelphia, Pa.

UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

DEPARTMENT OF ARCHITECTURE

Four-year course in Architecture and in Architectural Engineering. Draftsmen and others adequately prepared are admitted as special students. For Bulletin describing work, address Dean of Department of Engineering.

WASHINGTON UNIVERSITY

St. Louis, Mo.

DEPARTMENT OF ARCHITECTURE

offers a professional four-year course in Architecture. Admission by examination or by certificate or diploma from other schools and colleges. Draftsmen are admitted as special students.

THE SOCIETY OF BEAUX-ARTS ARCHITECTS

has established

A FREE COURSE OF STUDY

open to draughtsmen and students of any city, modeled on the general plan pursued at the Ecole des Beaux-Arts in Paris, and comprising frequent problems in Orders, Design, Archeology, etc.

For information apply to the Secretary of the Committee on Education, 3 East 33d St., New York City.

UNIVERSITY OF ILLINOIS

Four-year professional courses in Architecture, in Architectural Engineering and in Architectural Decoration. Special courses for draftsmen and constructors. Excellent library and equipment. University fees nominal.

Department of Architecture
W. I. PILLSBURY, Registrar, URBANA, ILL.

"NORMAN MONUMENTS OF PALERMO"

BY ARNE DEHLI

Illustrated with 50 Plates, 13"x17".
Price, bound, \$10.00. Unbound, \$9.00.

The American Architect, Publishers

J. W. TAYLOR'S Photograph Series of American Architecture

324 Dearborn Street, CHICAGO, ILL.

PERSPECTIVES RENDERED

In Pen-and-Ink and Water Color

WALTER M. CAMPBELL
8 Beacon Street Boston, Mass.

E. ELTON DEANE

Architectural Colorist and Draughtsman
63 Seymour Building, Fifth Ave. Cor. 42d St.
NEW YORK CITY

FREDERICK B. WIRT PERSPECTIVES

84 Adams St., Care Chicago Arch'l Club, CHICAGO, ILL.

THE MONUMENT POTTERY COMPANY

MANUFACTURERS OF PORCELAIN PLUMBING GOODS AND
VITREOUS WARE. SPECIAL GOODS MADE TO ORDER

WRITE FOR OUR COMPLETE ILLUSTRATED CATALOGUE

TRENTON, N. J., U. S. A.

LUFKIN

Tapes and Rules

are indispensable for accurate work. Made in all styles and sizes, for all classes of work. Send for Catalog



THE LUFKIN RULE CO.

SAGINAW, MICHIGAN, U. S. A.

NEW YORK

LONDON, ENGLAND

WINDSOR, CANADA



Vellum Tracing Paper

is Waterproof, Very Tough and Extremely Transparent, and is perfectly adapted on both sides to Ink, Pencil and Water Colors.

Guaranteed not to Deteriorate
Beware of Imitations (for several very good reasons). GENUINE VELLUM is encased in

Large Convenient Tubes

SOLD BY LEADING DEALERS EVERYWHERE
Favor, Ruhl & Co., New York and Chicago Distributors.
Eugene Dietzen Co. Sterling Vellum is same product
MADE BY

CARDINELL - VINCENT CO.,
OAKLAND, CAL.

SAMPLES CHEERFULLY SENT ON REQUEST

Fire Protection that Protects



REAR VIEW NEW BUILDING, SHOWING GENERAL CONDITION
OF VOIGTMANN WINDOWS AFTER FIRE
Myerford Factory, Chicago, Ill., engulfed in flames for three
hours without loss to building or contents

Voigtmann Standard

Automatic Closing and Locking

FIRE WINDOWS

With Wire Glass and Hollow Metallic Frame Protected Building and
Contents against Loss

FOR FULL INFORMATION ADDRESS

Voigtmann & Company

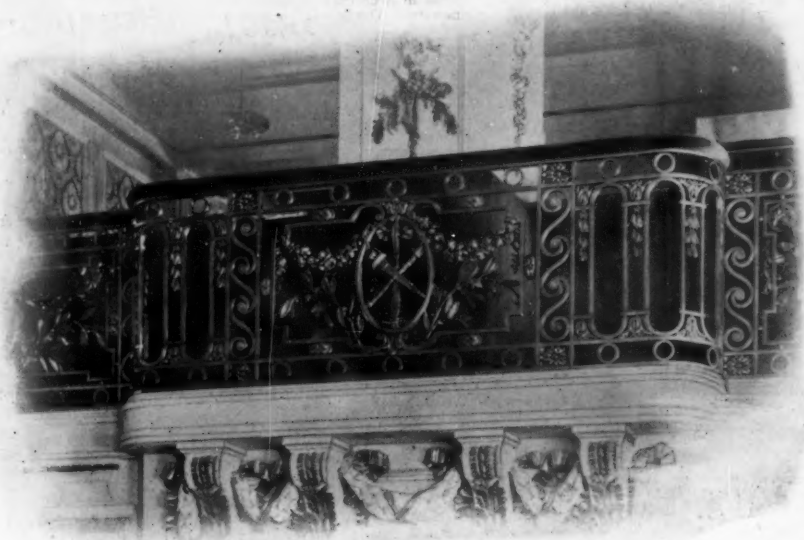
Manufacturers of their Specialties under Patents in

Metallic Window Frames and Sashes

427 West 13th Street
NEW YORK

42-54 E. Erie Street
CHICAGO

ORNAMENTAL IRON AND BRONZE



Bronze Railing, Musicians' Balcony, Plaza Hotel, New York.
H. J. Hardenbergh, Architect.

The Winslow Bros. Company

CHICAGO  NEW YORK

THE KELLY OCTOPUS CLOSET FITTING

PATENT APPLIED FOR

BY our method we install eight closets in a space of seven feet six inches (7' 6") in diameter.

Plans below show the roughing in for sixteen water closets (16)—one is the **KELLY METHOD** and the other the customary method. No argument is necessary.

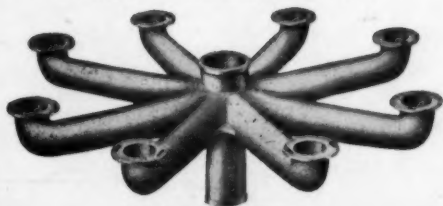
The fitting is cast in one piece. No joints to leak. No long runs of pipe to clog up.

Perfect ventilation secured—does away with necessity of back trap venting. Write for complete information, it is very interesting.

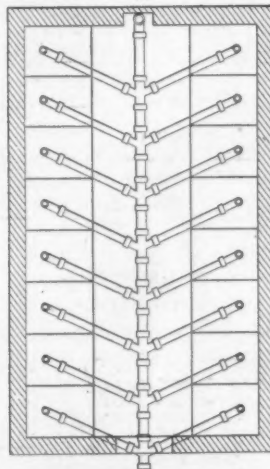
THOS. KELLY & BROS.

CONGRESS AND 45th AVENUE

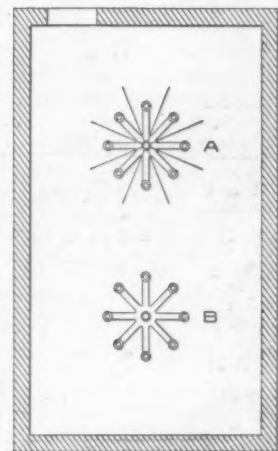
CHICAGO, ILL.



Octopus Closet Fitting



The Customary Method

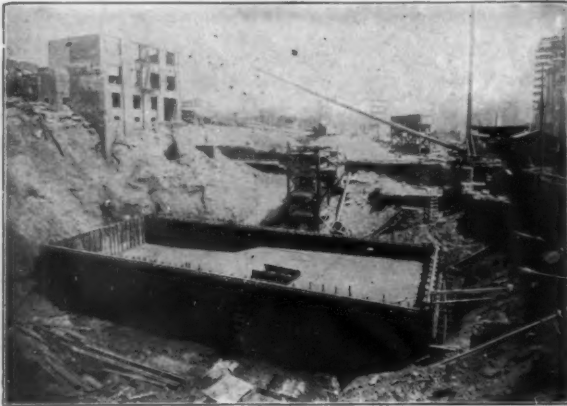


The Kelly Method



Medusa Waterproof Compound MAKES ALL CONCRETE IMPERVIOUS TO WATER

It is not a wash or experiment. Gives permanent results and will not affect the strength of concrete. Beware of imitations and adulterations that are sold for less than it costs to manufacture **MEDUSA**



MEDUSA USED IN THIS WORK

Picture of Water-proofed concrete swimming pool. Olympic Club Bldg., San Francisco, California. Thompson-Starrett Co., General Contractors

WRITE FOR PAMPHLET

SANDUSKY PORTLAND CEMENT CO., Sandusky, O.
Send for free sample of true Portland White Cement

A New Year's Resolution

RESOLVED, by every architect or contractor who reads this advertisement, that he will write for samples of Woodbury Gray and Hardwick White Granites, with a view towards using them during 1908 in some of his building work.

With our extensive quarry and stone-working equipment, we can guarantee deliveries that will surprise you.

Write to-day, or better still, send in your plans for estimates.

WOODBURY GRANITE COMPANY
Hardwick, Vermont

MR. GEORGE H. BICKFORD, General Manager

New York: 1 Madison Ave.

Pittsburg: Farmers Bank Bldg.

Chicago: 832 Monadnock Block

SAMSON SPOT CORD FOR SASH

Note the results of tests made by The Massachusetts Institute of Technology

The wear was determined by pulling the weight up and letting it down over the pulley. Every lift corresponded to once opening and shutting a window.

Weight used, 25 Lbs. Pulleys used, 2½ In. Diameter	Number of Lifts before Breaking			Cost per foot	Cost per One Hundred Windows
	Highest	Lowest	Average of All Tests		
SAMSON SPOT CORD No. 8	428,188	96,988	214,371	¾ ct.	\$ 18.00
Best Metal Sash Chain	382,002	20,735	75,848	5 cts.	120.00

There is no device for

HANGING WINDOWS

which will stand comparison with SAMSON SPOT CORD. Tests and actual experience have proven it. Let us send you full tests, samples and complete information.

Samson Cordage Works, Boston, Mass.



STANLEY'S BALL BEARING HINGES

In WROUGHT BRONZE and STEEL

Never Wear Down. Never Creak. Never Require Oiling.

The improved washer protects the balls against moisture and dust. For Sale by Leading Hardware Dealers.

Attractive Literature for the asking

THE STANLEY WORKS
NEW BRITAIN, CONN. NEW YORK CHICAGO

1908 IS THE 65TH YEAR
of the use of

Buck White Lead

by succeeding generations of the American people.
(Is the evidence convincing?)

Manufactured with improved machinery and original formula by
SAMUEL H. FRENCH & COMPANY
PAINT AND VARNISH MANUFACTURERS
Established 1844 PHILADELPHIA, U. S. A.

MASON SAFETY TREADS

For Stairs, Wood, Iron, Marble or Cement, new or old
HUNDREDS OF THOUSANDS IN USE

American Mason Safety Tread Co., Boston

LOOMIS FILTERS

Improved System Established 1880 Simple and Effective
LOOMIS-MANNING FILTER CO.

Main Office:
828 Land Title Bldg., Broad and Chestnut Sts., Philadelphia
Boston New York Baltimore Washington

J. S. THORN CO.

ARCHITECTURAL SHEET METAL WORKS

Manufacturers and Erectors of Ventilating
Skylights, Fireproof Window Frames and
Sash, and Opening Fixtures to operate
Ventilating Sashes.

Nos. 1223-33 Callowhill St., PHILADELPHIA, PA.

Corrugated Concrete Pile Co. of America

34 West 26th Street, New York

LICENSEES

CHICAGO—Alling Construction Co. BOSTON—William L. Miller.
BALTIMORE—The Engineering-Contracting Co.

ELECTRIC SIGNALS For Passenger Elevators

ELEVATOR SUPPLY & REPAIR CO.
136 Liberty St., NEW YORK 34 W. Monroe St., CHICAGO

Monumental Staircases

40 Gelatine plates, on bond paper
9"x11". In envelopes. Price, \$3 00

THE AMERICAN ARCHITECT, PUBLISHERS

Cluster Reflectors

in great variety of sizes and shapes for lighting stores,
store windows, schools, offices, hospitals, banks, libraries,
etc. Made well Reflect well. Last well.

I. P. FRINK, 551 Pearl Street, New York

Mineral Wool

FIRE, SOUND and VERMIN PROOF **INSULATOR**
SAMPLES AND CIRCULARS FREE

U. S. MINERAL WOOL CO., 140 Cedar St. NEW YORK

ESTABLISHED 1868

THE "HAYES" METALLIC GLAZED STRUCTURES

SKYLIGHTS FIRE PROOF WIRE GLASS WINDOWS

71-8TH AVE. NEW YORK

METAL LATHINGS ETC.

THERMOSTATS

The Most Efficient

THERMOSTAT

for the automatic control of direct or indirect heat. Write for list of installations and new catalogue

National Regulator Co.
334 Dearborn Street, CHICAGO, ILL

Eastern Office:—National Regulator Co.
1135 Broadway, New York.

Pacific Coast:—Machinery & Electrical Co.
Los Angeles, California

SENSITIVENESS

EFFICIENCY

SIMPLICITY



"Standard" Fixtures the Houseowner's Choice



"Standard" Plate P-1285 Porcelain Enameled Flat Rim Laundry Trays, with 12-inch Porcelain Enameled Backs, Nickel-plated Union Strips with Hardwood Wringer Holders, Nickel-plated Soap Dishes, Waste Plugs, Couplings and Rubber Stoppers, Nickel-plated Fuller Adjustable Flange Bibbs, Continuous Waste and Vented "S" Trap.

It is always profitable to specify "Standard" Porcelain Enameled Ware for dwelling places of any kind as the majority of houseowners are already prejudiced in its favor. Your client knows that "Standard" Fixtures are indestructible and absolutely sanitary and that, dollar for dollar, they give longer and more satisfactory service than any other plumbing equipment he can buy.

Standard Sanitary Mfg. Co. PITTSBURGH, PA., U. S. A.



Rider & Ericsson HOT AIR PUMPS

Send for Greatly Reduced Prices

Catalogue "B" on application

RIDER-ERICSSON ENGINE CO.

35 Warren Street, New York.

239 Franklin Street, Boston

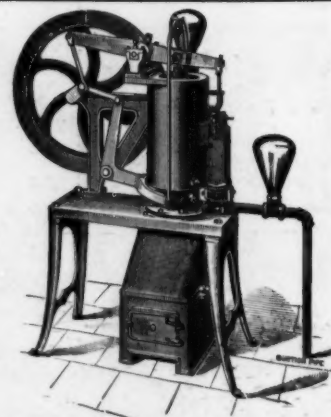
234 Craig Street West, Montreal, P. Q.

22 Pitt Street, Sydney, N. S. W.

40 Dearborn Street, Chicago.

40 North 7th Street, Philadelphia

Amargura, 96, Havana, Cuba.



The Standard Plastic Relief Co.

G. M. KNOCHE, Pres. and Manager.

Manufacturers of

Plastic Relief Ornaments

— FOR —

Interior and Exterior Decorations



Write for Catalogue A

2101-2103 Reading Road

Cincinnati, O.

No Question About It

Found absolutely fire-proof by an actual fire test, withstanding and deflecting all flames and heat.

Mullins Fire-Proof Windows Proved Best by Every Test

Frames, sills and sashes will withstand the hottest flames and heat like a solid wall. No breaking, warping or buckling. All lockseamed and riveted, no soldered joints. Automatic closing sashes if desired.

Let us send you our instructive catalogue. Drop us a postal today.

The W. H. Mullins Co.
206 Franklin Street, Salem, Ohio.

