The

Architectural Record.

To build up "a pile of better thoughts."—Wordsworth.
"And the worst is that all the thinking in the world doesn't bring us to Thought; we must be right by nature, so that good thoughts may come before us like free children of God, and cry "Here we are."—Goethe.

OCTOBER-DECEMBER, 1892.

CONTENTS.

TEMPLE ST. JEAN, POITIERS, ........................................ PAGE
FRANCIS CATHEDRALS—No. I. ........................................ 125
HISTORY OF TERRA-COTTA IN NEW YORK CITY, With 17 Illustrations. 137
VARIOUS CAUSES FOR BAD ARCHITECTURE, WM. NELSON BLACK. 149
THE GRAMMAR OF THE LOTUS, PROF. WM. H. GOODYEAR. 165
WATCHMAN WHAT OF THE NIGHT? (Poem), HARRY W. DESMOND. 184
MODERN FRENCH RESIDENCES. Illustrations, PROF. AITCHISON. 193
BYZANTINE ARCHITECTURE. (Secular), THE NEW BLEECKER STREET SAVINGS BANK AND SOME RECENT DESIGNS, 209
ARCHITECTURAL ABERRATIONS.—No. V, CROSS-CURRENTS. (Editorial), 213
NEW BOOKS. (Reviews), 221
RAYMOND LEE.—Part VI, 222

ILLUSTRATIONS.

Eglise St. Etienne, page 126; A Church Interior from MS. in Library of Troyes, 130; Map of French Cathedrals, opposite page 134; Capital from St. Denis, 135; Montanik Club, Brooklyn, 136; Residence, East 36th Street, New York City, 137; Russell & Erwin Building, New Haven, Conn., 138; Astor Building, New York City, 139; Warehouse adjoining Grace Church Parsonage, New York City, 140; Harrigan’s Theatre, New York City, 142; Lincoln Building, New York City, 143; Catholic Apostolic Church, New York City, 146; Residence on West 36th Street, New York City, 147; Residence, 10th Street, New York City, 150; L. I. Historical Society Building, 152; Casino Theatre, New York City, 154; Moss Building, New York City, 155; Cotton Exchange, New York City, 158; De Vienne Press Building, New York City, 160; Schermerhorn Building, New York City, 161; Racquet Club, New York City, 164; illustrations to "The Grammar of the Lotus," 165 to 179; French Residences of Bois de Boulogne, Paris, 186, 187, 188, 189, 190, 191; D., L. & W. R. R. Office, New York City, 192; Theotocas, 193, 194; St. George Salonica, 196, 197; Daphne, near Athens, 198, 199; Santo Sophia, 200; Plans of, 201, 202; Apse of, 203; Section of, 204; Pendentes, Construction of, 205; Byzantine Cupalo, 207; Bleecker Street Savings Bank, New York City, 209; The Arundel Apartment House, Baltimore, Md., 210; Mail and Express Building, entrance of, 211; United Charities Building, 212; The Daily Record Building, 214.

Copyright, 1892, by Clinton W. Sweet. All rights reserved.
Entered at New York Post Office as second class matter.

Price, 25 cents a number; $1.00 a year.
IMPORTANT NOTICES TO OUR SUBSCRIBERS.

BINDING.—We will bind Vol. I. of The Architectural Record in a specially designed rough calf binding for $1.50. Copies for binding should be forwarded, charges paid, to Binding Department, Architectural Record, 14-16 Vesey Street, New York City.

A HANDY BINDER.—Subscribers should supply themselves with one of our handy binders (terra-cotta cloth with gold lettering), which will hold one year's numbers of the magazine. It will be sent to any address in the United States upon receipt of $1. This is a perfect binder, superior to any other in the market.

A YEAR'S SUBSCRIPTION to The Architectural Record costs $1, payable in advance. Unless otherwise stated, subscriptions will always be commenced with the current number.

SUBSCRIPTIONS will be discontinued at expiration unless specifically renewed.

THE ARCHITECTURAL RECORD
PUBLISHING DEPARTMENT,
14-16 Vesey Street, New York.

Any of the following books will be sent, safely packed, to any address, upon receipt of price and (unless otherwise stated) mailage or expressage.

I.—Pen Drawing and Pen Draughtsmen: Their Work and Their Methods.
A study of the art to-day, with technical suggestions. By Joseph Pennell.

This magnificent volume, which has been for a long time in preparation, contains no less than 158 illustrations, 12 of which are photogravure plates executed by Dujardin, Amand-Durand, A. and C. Dawson, The Berlin Photographic Company, etc., while the remainder are relief blocks of various kinds, many of them full pages and printed with the text. The edition consists of 1,000 copies, 500 of which are offered in the United States. The book is a complete treatise on the art of Pen and Ink Drawing by one of its best known professors. The author has described the characteristics of the various schools of pen draughtsmen in Spain, Italy, France, Germany, England, and America, and has illustrated his remarks with specimens of the work of the greater Artists.

This work is invaluable to architects and architectural draughtsmen. It is in one volume, super royal, 4to, and will be sent in box upon receipt of . . $17.00
(This is a special offer; the usual price of the work being $20, besides cost of expressage.)

"There is no exposition of Gothic architecture extant so completely satisfactory, because there is none in which an equal intelligence has been brought to bear upon so wide a field." See Review, pages 113–114 of No. 1, Architectural Record.

This handsomely printed and illustrated book will be sent upon receipt (with postage) of 

$4.00


5.50

IV.—A Short History of Art. By Julia B. De Forest. Octavo, with 253 illustrations, numerous charts, a full index, giving the pronunciation of the proper names by phonetic spelling and a glossary, 

2.00

"It is a library of art histories crystalized into a most useful hand-book. The author has made by far the best text book for beginners in art.

V.—A History of Ancient Sculpture. By Lucy M. Mitchell. Imperial 8vo. With 295 wood-engravings in the text by some of the most skilled artists of this country and Europe, and 6 full-page photo-engravings prepared by Frisch, of Berlin. Elegantly printed, bound in cloth, gilt tops, $12.50; half morocco, $18.00; full morocco, 

$20.00

Student's Edition. Printed from the same plates with all the wood-engravings. 2 vols., half roan, $7.50; half morocco, 15.00; half levant, 

17.50

Selections from Ancient Sculpture. 20 heliotype plates, printed in Berlin in the highest style of the art from original negatives taken expressly for Mrs. Mitchell, and intended to accompany her book. With descriptive text. In portfolio. Folio, 

4.00

"Our author has brought to her stately task a thorough understanding of her subject, an exquisite modesty, and long years of thoughtful travel in lands where art was cradled and where its greatest glories were achieved."—Chicago Tribune.

"One of the most valuable contributions so far made to the history of art. Mrs. Mitchell treats of the productions of the sculptor's chisel in connection with all the different phases of life—religious, political and social."—New York World.

VI.—Stone Sculptures of Copan and Quirigua. By Henry Meyle. With descriptive text by Dr. Julius Schmidt. With 20 plates. Folio, half morocco, 

20.00

The sculptured monoliths of Copán and Quirigüa, reproduced in the plates, rank indisputably with the most interesting and noteworthy monuments of tropical America. They clearly betray the end for which they were produced—to display, embodied in stone, to the population settled in these regions, and to hand down to after-generations the religious ideas and traditions which reigned in the spiritual life of these people. The number of places in Central America which at the present day attract attention by the presence of these monolith statues is by no means large—that is, if we look for an assemblage of many such statues on one spot. In most of the better known collections of ruins, the statues occur singly, or else, as in the case of Santa Lucia Cosumalhuala, the sculptured figures are represented exclusively by reliefs.

Student's Edition, complete. Two vols., 8vo, half roan, $7.50; half morocco, $15.00; half levant, $20.00; 17.50

"In the new interest in art, awakened in this country, these volumes ought to be the primer of our artists and art admirers."

VIII.—A History of Architecture in all Countries, from the earliest times to the present day. By James Fergusson, D. C. L., F. R. S., F. R. A. S., Member of the Royal Society of Architects, etc. Uniform with Lubke's History of Art. 2 vols., 8vo., with 1,015 illustrations, half roan, $7.50; half morocco, $15.00; half levant, $20.00; 17.50

IX.—A History of the Modern Styles of Architecture. Thoroughly revised and brought down to the present time by Robert Kerr, Professor of Architecture at King's College, London, with many new illustrations added. 2 vols., 8vo, half roan, $10.00; half morocco, $17.50; half levant, $20.00

A Supplementary volume devoted to Modern Architecture in America by Montgomery Schuyler, Esq., will be issued hereafter.

X.—A HISTORY OF INDIAN AND EASTERN ARCHITECTURE. With many hundred illustrations. A new edition. 2 vols., 8vo, half roan, $10.00; half morocco, $17.50; half levant, $20.00

Advertisements

<table>
<thead>
<tr>
<th>Business</th>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architects' Supplies,</td>
<td>Queen &amp; Co.,</td>
<td>34</td>
</tr>
<tr>
<td>Architectural Modelers,</td>
<td>Klee Bros.,</td>
<td>21</td>
</tr>
<tr>
<td>Architectural Sculptors,</td>
<td>Joseph Smith &amp; Co.,</td>
<td>20</td>
</tr>
<tr>
<td>Architectural Wood Work,</td>
<td>George &amp; Clifford Brown,</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>White, Potter &amp; Paige Mfg. Co.,</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>E. H. Purdy Mfg. Co. (Limited),</td>
<td>20</td>
</tr>
<tr>
<td>Brick,</td>
<td>Sayre &amp; Fisher Co.,</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Anderson Pressed Brick Co.,</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Philadelphia and Boston Face Brick Co.,</td>
<td>viii</td>
</tr>
<tr>
<td>(Enameled)</td>
<td>Griffen Enameled Brick Co.,</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Empire Fire-Proofing Co.,</td>
<td>10</td>
</tr>
<tr>
<td>Builders' Hardware,</td>
<td>White, Van Glahn &amp; Co.,</td>
<td>43</td>
</tr>
<tr>
<td>Building Material (Second-hand),</td>
<td>J. Reeder's Sons.</td>
<td>45</td>
</tr>
<tr>
<td>Books</td>
<td>Architectural Record Publishing Departmont,</td>
<td>iv-v</td>
</tr>
<tr>
<td>Cabinet Makers,</td>
<td>Radley &amp; Greenough,</td>
<td>23</td>
</tr>
<tr>
<td>Cement,</td>
<td>J. B. King &amp; Co.,</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>New York and Rosendale Cement Co.,</td>
<td>23</td>
</tr>
<tr>
<td>Closeis,</td>
<td>Beekman Salutary System Co.,</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>The Henry Huber Co.,</td>
<td>7</td>
</tr>
<tr>
<td>Designer,</td>
<td>J. H. Gratacap,</td>
<td>20</td>
</tr>
<tr>
<td>Dumb Waiters,</td>
<td>John Q. Maynard,</td>
<td>25</td>
</tr>
<tr>
<td>Elevators,</td>
<td>Morse, Williams &amp; Co.,</td>
<td>viii</td>
</tr>
<tr>
<td></td>
<td>Otis Brothers &amp; Co.,</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Moore &amp; Wyman,</td>
<td>26</td>
</tr>
<tr>
<td>Fire-Proof Construction,</td>
<td>Guastavino Fire-proof Construction Co.,</td>
<td>9-45</td>
</tr>
<tr>
<td></td>
<td>Pioneer Fire-proof Construction Co.,</td>
<td>11</td>
</tr>
<tr>
<td>Business</td>
<td>Name</td>
<td>Page</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>----------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>FIRE-PROOF CONSTRUCTION,</td>
<td>Empire Fire-Prooing Co.</td>
<td>13-21</td>
</tr>
<tr>
<td>* Steel lath,</td>
<td>Central Expanded Metal Co.</td>
<td>42</td>
</tr>
<tr>
<td>FIRE-PROOF BUILDING MATERIALS,</td>
<td>Henry Maurer &amp; Son</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Leonard De Rache</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Lorillard Brick Works Co.</td>
<td>12</td>
</tr>
<tr>
<td>FURNACES AND HEATERS,</td>
<td>Abram Cox Stove Co.</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>The Thatcher Furnace Co.</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Richardson &amp; Boynton Co.</td>
<td>31</td>
</tr>
<tr>
<td>FURNITURE,</td>
<td>R. J. Horner &amp; Co.</td>
<td>37</td>
</tr>
<tr>
<td>GLASS,</td>
<td>The Falck Art Glass Works</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Alfred Godwin</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>The Tiffany Glass and Decorating Co.</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Heinigke &amp; Bowen</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Potts Brothers</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Bissell &amp; Company</td>
<td>31</td>
</tr>
<tr>
<td>GRATES,</td>
<td>The Plenty Horticultural and Skylight Works,</td>
<td>4</td>
</tr>
<tr>
<td>HORTICULTURAL AND SKYLIGHT WORKS,</td>
<td>Lord &amp; Burnham Co.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Thos. W. Weathered's Sons</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Hitchings &amp; Co.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>The Henry Dibblee Co.</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>A. H. Andrews &amp; Co.</td>
<td>43</td>
</tr>
<tr>
<td>INTERIOR FITTINGS,</td>
<td>Jackson Architectural Iron Works,</td>
<td>Cover</td>
</tr>
<tr>
<td>IRON CONSTRUCTION,</td>
<td>Hecla Iron Works</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Passaic Rolling Mill Co.</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Richey, Brown &amp; Donald</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>The Columbia Iron and Steel Co.</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>The Winslow Bros.</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>H. L. Judd &amp; Co.</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>Samuel Nichols &amp; Son</td>
<td>41</td>
</tr>
<tr>
<td>IRON WORKS,</td>
<td>Oakley &amp; Keating</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Charles R. Yandell &amp; Co.</td>
<td>21</td>
</tr>
<tr>
<td>LEATHER DECORATIONS,</td>
<td>Walter T. Klots &amp; Bro.'s Sons</td>
<td>27</td>
</tr>
<tr>
<td>LIME, LATH, BRICK,</td>
<td>W. &amp; J. Sloane</td>
<td>i</td>
</tr>
<tr>
<td>LINOLEUM,</td>
<td>John K. Graham, Jr.</td>
<td>16</td>
</tr>
<tr>
<td>LUMBER, MAHOGANY, ETC.,</td>
<td>Wm. E. Uptegrove &amp; Bro.</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>D. C. Newell &amp; Sons</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Wilshaw &amp; Co.</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>The Universal Lock Co.</td>
<td>36</td>
</tr>
<tr>
<td>LOCKS,</td>
<td>Robert C. Fisher &amp; Co.</td>
<td>37</td>
</tr>
<tr>
<td>MARBLE AND GRANITE,</td>
<td>U. S. Mineral Wool Co.</td>
<td>41</td>
</tr>
<tr>
<td>MINERAL WOOL,</td>
<td>Batterson, See &amp; Eisele</td>
<td>40</td>
</tr>
<tr>
<td>MOSAIC WORKERS,</td>
<td>Prince &amp; Muir</td>
<td>35</td>
</tr>
<tr>
<td>PARQUET FLOORS,</td>
<td>Review and Record</td>
<td>35</td>
</tr>
<tr>
<td>PERIODICALS,</td>
<td>Architectural Record</td>
<td>viii</td>
</tr>
<tr>
<td>PICTURES AND FRAMES,</td>
<td>J. S. Bradley, Jr.</td>
<td>45</td>
</tr>
<tr>
<td>PLASTER (ROCK),</td>
<td>Consolidated Rock Plaster Co.</td>
<td>24</td>
</tr>
<tr>
<td>PLASTER SLABS,</td>
<td>The Grooved Plaster Slab Mfg. Co.</td>
<td>42</td>
</tr>
<tr>
<td>PLUMBERS’ SUPPLIES,</td>
<td>Henry McShane Mfg. Co.</td>
<td>6</td>
</tr>
<tr>
<td>PNEUMATIC TUBE APPARATUS,</td>
<td>The Meteor Dispatch Co.</td>
<td>45</td>
</tr>
<tr>
<td>RAILWAYS,</td>
<td>The Burlington Route</td>
<td>38</td>
</tr>
<tr>
<td>RANGES,</td>
<td>Isaac A. Sheppard &amp; Co.</td>
<td>30</td>
</tr>
<tr>
<td>REAL ESTATE,</td>
<td>Geo. R. Read</td>
<td>Cover</td>
</tr>
<tr>
<td></td>
<td>J. Romaine Brown &amp; Co.</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>S. F. Jayne &amp; Co.</td>
<td>Cover</td>
</tr>
<tr>
<td>REFLECTORS,</td>
<td>Bailey Reflector Co.</td>
<td>37</td>
</tr>
<tr>
<td>ROOFERS,</td>
<td>James A. Miller &amp; Bro.</td>
<td>39</td>
</tr>
<tr>
<td>ROOFING SLATE,</td>
<td>E. J. Johnson &amp; Bro.</td>
<td>27</td>
</tr>
<tr>
<td>ROOFING (TIN),</td>
<td>Merchant &amp; Co.</td>
<td>41</td>
</tr>
<tr>
<td>SEATS,</td>
<td>Andrews-Demarest Seating Co.</td>
<td>43</td>
</tr>
<tr>
<td>SHINGLE STAINS,</td>
<td>Dexter Bros.</td>
<td>33</td>
</tr>
<tr>
<td>STEAM AND HOT WATER HEATING,</td>
<td>Samuel Cabot</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Gillis &amp; Geoghegan</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>The H. B. Smith Co.</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>American Radiator Co.</td>
<td>i</td>
</tr>
</tbody>
</table>
IN ADVERTISING,

Bear these matters in mind concerning

THE ARCHITECTURAL RECORD:

Its circulation with the Architect and the General Reader.

Its Place in the Office and the Home.

The Wide Field it Occupies.

Its High Character and Permanent Interest.

The Superiority of Magazine Advertising.

ADVERTISING is worth MUCH, or Nothing.

Don't advertise at random or upon hearsay. Test the statements made to you. Ask any of the leading architects about THE ARCHITECTURAL RECORD.

MORSE ELEVATOR WORKS

MORSE, WILLIAMS & CO.,
Electric, Hydraulic, Belt and Hand Power PASSENGER and FREIGHT ELEVATORS.

Works: Frankford Ave., Wildey and Shackamaxon Streets.

Offices: 108 Liberty St., New York; 33 Lincoln St., Boston; 1116 E St., N.W. Washington
TEMPLE ST. JEAN, POITIERS, FRANCE.
FRENCH CATHEDRALS.

PART I.

INTRODUCTORY.

I.

It was at the table d'hôte at Chartres. There was the usual company that gathers at the commercial dining tables of the smaller French cities. The only English speaking guests besides myself were a lady and gentleman busily engaged in discussing the wondrous cathedral, oblivious of the fact that one was present who understood what they were saying. Presently, some new comers came in, speaking in that tongue too little heard in French cathedral towns—English. Their compatriots looked at them in amazement. "Fancy," exclaimed the gentleman, "they speak English."

The surprise so frankly expressed is the same that every visitor to the great churches of France experiences when he realizes the amazing beauty and exquisite art in these too much neglected buildings. Americans and English alike are to a certain extent permeated with the idea that there is no architecture out of England as good as that within it. The average tourist from either country is consumed with amazement when it is intimated there are finer and grander cathedrals in France than in England, and the person bold enough to make such a statement runs the risk of being looked upon as most singularly misinformed indeed.

Notre Dame alone, of the great churches of France, enjoys a worldwide celebrity and is seen of all men, but only because it is in the one and only Paris. Other churches, as great monuments of art, with histories scarcely less momentous, are ignored altogether by the vast army of sightseers who yearly precipitate themselves upon Europe in search of the rare and the beautiful. Students of architecture need not be told of the beauties of French cathedrals. Notre Dame, Laon, Soissons, Reims, Chartres, Senlis, Sens, Bourges, Tours, Troyes, Noyon, Le Mans, Angoulême, Angers, Coutances, Rouen, Séez, Bayeux, Amiens, Beauvais, are names as familiar as Canterbury, Lincoln, York, Ely, Peterborough, Durham, Winchester, Salisbury, Wells, Gloucester, Worcester, Lichfield, Norwich, Rochester, Oxford, Westminster Abbey. But apart from those who take a studious interest in the subject the great achievements of French cathedral
EGLISE SAINT-ETIENNE, BEAUVAIS.
architecture are a sealed book even to the most indefatigable of European travelers.

Within the boundaries of modern France, no less than one hundred and fifty cities have been the seats of bishops, each of whom had his cathedral. But there are not now as many cathedrals in France. Fourteen sees were united, forming now but seven. A number of others date from modern times, and have cathedrals of little architectural interest. The four bishops of Savoy have but lately come under French jurisdiction, and may, therefore, be omitted from the list of actual French churches. But even these reductions leave a very large number of cathedrals, though unfortunately they are not all of the same interest. Perhaps a score of these churches are known to general readers; by far the larger part are strange names of strange places, sometimes within easy reach of Paris, sometimes beyond the reach of railroads. It goes without saying, there is ample material for exploration and adventure here, and in fact it has only been within a very few years that the River Saône has been explored from the Rhône to its source, by a company of English and American travelers. It is a significant commentary on the propensities of the average tourist that hundreds of thousands of people traverse Europe each year, are thoroughly satisfied they have seen everything worth seeing, left unexplored no nook, left hidden no treasure, left unvisited no single point of interest, and are wearied with the "beaten tracks" of foreign travel, while whole rivers are unknown and three-fourths of the cathedrals of a thoroughly accessible and most delightful country never so much as glanced at. Fortunately there are indications that this state of affairs is passing away; it cannot go too quickly, nor should the great beauties of the French cathedrals longer remain unknown to the reading or traveling public of America.

II.

It is unnecessary to draw a comparison between the cathedrals of France and the cathedrals of England. The English churches are of England English, those of France French. Of two different people they represent two different civilizations. The motives that inspired the one were not the motives that inspired the other. Architectural forms were different, though similar. And so foreign cathedrals need not be considered in a study which has for its subject the cathedrals of France. Foreign parts borrowed very much more from France than they returned to it. Gothic architecture reached its highest point of perfection in the Ile de France, which, in the thirteenth century, was an architectural centre, a school of art and a storehouse of knowledge of building and building craft scarce surpassed in the history of civilization. The Gothic churches of England and of Germany are more illuminated by the study of French cathedrals than the French churches benefited by a comparison with them.

To understand the architecture of the cathedrals it is necessary to go back a bit to the time prior to the cathedral building age. The cathedral is simply the bishop's church, and though usage has to a certain extent limited it to the mediæval and modern building, the basilica was frequently as entirely a cathedral as the later edifice. Whatever may have been the primitive form of the cathedral, the transition from the early basilica to the cathedral is well marked and readily traced. The Christian church apparently passed from the private room in the private house to the private basilica attached to many Roman houses for oratorical purposes, and which was sufficiently developed to serve as the germ of subsequent structures. The early Roman basilica bore little resemblance to the Gothic cathedral in appearance or in construction, but in plan the cathedral is simply an extension and modification of its predecessor. The basilican plan was a T, that of the cathedral a cross. In the basilica the apse was applied immediately behind the transepts, which were short or absent altogether. The altar stood under a canopy on the chord of the apse, the semi-circular recess of which was utilized for the seats of the
bishop and higher clergy. Before the apse, stretching into the nave, was the choir, bounded by low walls, with an ambon or reading desk on either side. The altar, the choir, the seats for the clergy, the reading desks or pulpits comprised the essential internal parts of the church.

Admirably suited as the basilicas were to the ritual of the early church, they were most uninteresting architecturally. The low exteriors, devoid of decorative features, inclosed a nave and two aisles, though double aisles were included in some of the larger buildings. Rows of columns supported the clearstory of the nave, which was lighted by plain windows. Mosaic was the chief decorative art employed; it was lavishly used and formed a wonderfully effective and brilliant decoration. A single tower, round, and of which the churches at Ravenna preserve the best type, formed the only conspicuous external feature. The church was prefaced by a large court or atrium, and by a porch; sometimes the atrium was omitted altogether, occasionally the porch or narthex was internal instead of external.

In studying the French cathedrals or, in truth, any group of cathedrals, it is well to keep in mind the primitive type of the Christian church, since the later forms are but the amplification of the earlier, and the reasons which underly the construction of the primitive edifice illustrate and explain the reasons which produced the development of the more complex. In studying any phase of Christian architecture it is absolutely necessary to remember the Christian ideas underlying them. They were built for Christian purposes, consecrated to Christian usages. Christian ritual suggested certain architectural ideas; Christian customs necessitated certain parts. It is true enough that the cathedrals are splendid studies in architectural art and evolution, but it is also true—though very generally overlooked in architectural text-books—that they are equally noteworthy as examples of Christian thought and ideas.

Architecture being an idea, it follows that, in order to understand any phase of it, the ideas which brought it into existence must be thoroughly comprehended. The Christian principles and ceremonies practised by the Church were the chief motives in determining the form and disposition of the basilica. In reality, however, it was far from expressing the ulterior ideal of Christianity in architecture. The accomplishment of this task was reserved for the builders of the mediaeval cathedrals, and enormous as are the structural differences between the basilicas and the cathedrals, their difference in expressing the relative development of Christianity is not less marked. The low and mean exteriors of the early Christian churches, which the small tower scarcely made conspicuous, were thoroughly typical of the incipient stages of Christianity. If the Church realized its power over men it was not yet ready to express it in its buildings. In the cathedral no such hesitancy is exhibited. It was the largest building in the city; its massive walls, ornamented with two, four, six, seven or nine towers—if we take the original intentions of the builders indicated in the ground plans—rose high above every surrounding building. The transepts were strongly marked and were provided with fronts scarcely less majestic and imposing than the great western front itself. The choir was now wholly beyond the transepts in an arm of its own, making the plan markedly cruciform; in place of the shallow apse there was a circlet of chapels forming an unparalleled architectural perspective, and sometimes covering, with the choir, as in the cathedral of Le Mans, a greater area than was occupied by the nave.

Within, the primitive programme of essential parts was still adhered to, but a multitude of decorative arts now took the place of the mosaic of the basilica. Carving, painting on glass, wall painting, rich work in metals and in precious stones and enamels and elaborate tapestries, every art of an artistic age was pressed into the service of religion, and helped to illustrate the truths of Christianity. The sculptures and glass paintings especially, in which tales of Christian heroism and
doctrinal parables were set forth in a pictorial language all could understand, helped to make the cathedral the most Christian of Christian edifices. Christianity had long since passed the experimental stage; the civilization of Europe was Christian in a more thorough way than it had been Roman. The missionary enterprise and pious fervor of the monks had carried both a common religion and a common architecture to all parts of Europe.

III.

Few chapters of architectural history are as fascinating as that relating to the monks. In modern times it is the fashion to look upon the monks as the most unprogressive product of civilization; the art work they produced is a sufficient commentary upon such criticism. The monks and the lay builders, the latter an outgrowth of the former, did, between them, the bulk of the building of the Middle Ages. This condensation, as it were, of the building interests, hastened the growth of one style of architecture, which was further strengthened by the constant movements of the master builders and workmen from one point to another, thus widely distributing the knowledge of a single form of work. Gothic architecture did not fail to assume national character in different countries, but its modifications were variations on one model, not the evolution of distinct types.

The English cathedrals are better types of monastic buildings than are the French. The typical English cathedral was a monastic church; the typical French cathedral was a secular church, a monument built by the secular clergy as an offset to the immense popularity of the monks among the people, a popularity too well illustrated for them in the magnificent churches and monasteries thickly scattered over Europe. For although cathedrals never lost their importance ecclesiastically as seats of bishops, the rise of the monks was so rapid, especially the Cistercians in the eleventh century, who came into existence about the time of the revival of building, that the abbey churches speedily surpassed the cathedrals in architectural grandeur. As far back as the time of Charlemagne and his immediate successors the monastic establishments in France had been very numerous and some of the most famous houses had their origin at this period. In the eleventh century monastic fervor took a fresh lease of life. Mont S. Michel, S. Georges at Boscherville, S. Étienne at Caen, S. Benoît-sur-Loire renewed their youth or came into existence. The abbey of Cluny was founded in 909. The great church, however, was not begun until 1089 and its narthex not finished until 1220. The abbey of Citeaux, the mother house of the Cistercians, was founded in 1098. From this institution came an immense number of monasteries. New orders sprang into existence, and the eleventh and twelfth centuries were especially characterized by the activity of the monks which in no way was more thoroughly manifested than in architecture. Seven hundred and two new monasteries were established in France in the twelfth century; in the thirteenth but two hundred and eighty-seven were added to the number already existing.

The monastic churches, without preserving either the style or the form of the basilicas, are the connecting link between them and the cathedrals. In France the preliminary problems of the Romanesque were largely worked out in them, and they thus paved the way for the Gothic, the art par excellence of the cathedrals. The change from the basilica to the cathedral is a story of constructive progress. Few architectural problems are so complicated or so interesting as the transformation of the basilica into the Romanesque church, and then the birth of the Gothic. Yet there is no more delusive study than the ascertaining of the actual beginnings of the Gothic style. That it originated in the Ile de France does not admit of doubt, but as it is known in its most developed form it did not originate at any one spot. Gothic characteristics abound in many French buildings which cannot in any sense be called Gothic, and the most that our present knowledge permits is the determination of some one edifice
in which Gothic characteristics appear with such completeness as to warrant its being accepted as a genuinely Gothic structure. And this, it is now admitted, is the abbey church of Morienval. It would not be proper to say that in this building Gothic architecture had its origin, but here the characteristics and component parts were first grouped in one structure, which, it is well to note, was a monastery church.

The new style spread quickly; S. Étienne at Beauvais, the churches of Cambronne, of Angy, of Thury-sous-Clclmont, of Bury, of Noël-S. Martin are some few examples of what a recent writer has termed rudimentary Gothic. The church of Poissy, the choir of S. Martin des Champs, Paris, the church of S. Pierre, Montmartre, the abbey church of S. Germer and S. Martin at Étampes are specimens of a transitional style, more developed than the preceding group, and at the end of which stand the base of the towers of the cathedral of Chartres, part of the cathedral of Sens and the abbey church of S. Denis.

The architectural activity of the monks was an unmistakable indication of their tremendous hold upon the people. The eleventh and twelfth centuries saw the culmination of their wealth and power. The monasteries were the single source of culture and learning; they commanded the intellect of Europe and contained the leaders of men. Their resources increased with enormous rapidity, enabled them to build great establishments and magnificent churches, and finally caused their ruin in making the monastic life luxurious. The secular clergy viewed the rapidly increasing power of the monks with unconcealed uneasiness. They had a large personal following among the people, and some monasteries went so far as to boldly deny the authority of the bishops and maintained an independent connection with Rome. The French bishops thoroughly realized the necessity of asserting themselves, and engaging in some enterprise that would excite widespread public interest, and bring to their coffers the vast sums annually poured into the treasuries of the monks. It was in these circumstances that the building of the French cathedrals was undertaken.

No more auspicious time for the development of a great architectural style could be imagined than the cathedral era, the reign of Philip Augustus. It was, above all, an art age; art, in one shape or another, but especially in architecture, was the most expressive form in which people gave expression to their intellectual and religious feelings. The building of a cathedral not only excited the greatest enthusiasm as an enterprise of vast magnitude, but as a work in which every one had some personal interest. Romanesque architecture had reached a point where the Gothic was its natural and logical consequence; the experience gained in the earlier edifices gave the builders of the newer that self-confidence necessary to undertake venturesome experiments in Gothic churches. The spread of the monastic orders helped largely in the new work, carrying skilled knowledge of the style to distant quarters, and creating a taste for the Gothic art where otherwise, perhaps, might never have existed. The rapidly increasing power of the French sovereigns, and the constant additions made to the Royal Domain, not only gave a necessary stability to French life, and greater encouragement to building enterprises, but brought a larger extent of country under one ruler and rendered ideas and art more uniform. Both politically and artistically the preliminary stages required for a healthy artistic growth had been passed. It needed but the stimulating action of the bishops to arouse the people to architectural enterprises greater than they had heretofore undertaken, and which would create their own structures, built with their personal help and money, by them and for them.

More than any English cathedral, the French cathedrals are people's churches. They were not the product of civic pride such as the Italian cathedrals of Florence, Sienna, Pisa or S. Mark's at Venice. They were religious in their origin, but it was a democratic church that undertook them
and carried them, as near as may be, to completion. A church like Notre Dame, or Amiens, or Chartres, or Rouen standing in the centre of a busy, bustling city, the houses of the people crowding its very doors, the market place, the chief place of assembly perhaps before the great west portal, came closer to the daily active thoughts of the people than a Canterbury or a Salisbury or a Gloucester in its grassy close, apart from the noise of the worldly life, a silent, uninterested spectator from the distance of the active concerns of men. These were monks' churches, built by the monks and for them: the French cathedrals are monuments of secular and popular religious enthusiasm and feeling, that gives them a unique place in the history of humanity, of religion, and of architecture.

Yet the movement here termed French, and rightly so, was confined to that small portion of the great country we now call by that name, known as the Royal Domain. Here it was that the building enthusiasm chiefly centred, and here Gothic architecture reached its highest development. Modern France is the union of many districts which in the Middle Ages were held together by rather loose ties. The history of that time is largely concerned with bringing these outlying regions under the rule of the monarchy, and hence it was that the great architectural development manifested in the Royal Domain was only partly reflected in the other districts. The Cathedral of Provence, of the early thirteenth century, was a very different building from the Cathedral of the Île de France of the same time. It is only later that northern fashions came into vogue in the south, and the developed Gothic is more to be sought in southern France in the fourteenth and fifteenth centuries than in the thirteenth. This fact does not, however, lessen the claim of the churches of the Île de France to be known as typical French churches, nor the conditions under which they were built to be accepted as typically French conditions. From the vantage ground of the end of the sixteenth century, when the reign of the Gothic had all but closed, it is possible to estimate properly the full effect of the architecture of the Royal Domain upon the whole of France.

IV.

The ecclesiastical history of France goes back to the earliest times. Provence is rich in the legends of men and women personally connected with Christ. Very early a goodly company journeyed down into Gaul, having been, so runs the tale, driven from Jerusalem by persecution. There were Mary Jacobi, the sister of the Virgin; Mary Salome, the mother of the Apostles James and John; Martha, Mary Magdalen, Lazarus, who had been raised from the dead; Restitutus, the man born blind who had been healed by Christ; and a servant Sarah. It may be readily imagined that men and women such as these would leave indelible marks of their work. Lazarus founded the bishopric of Marseilles, Restitutus that of S. Paul-Trois-Châteaux; Mary Jacobi and Mary Salome settled in the now desolated town of Les Saintes Maries; Martha founded the church of Notre Dame des Doms, at Avignon, in honor of the still living Virgin, and endeared herself to the people of Tarascon by delivering them from a dragon which threatened their destruction. The tombs of the Marys may still be seen in their city of Les Saintes Maries, and the good folk of Tarascon cherish the memory of Martha and the dragon to this day with their immortal Tarasque.

Nor were these the only travelers of Apostolic times in Gaul. Pontius Pilate was exiled to Vienne under Caligula and committed suicide by precipitating himself from the summit of the Mont Pilat, in the Cevennes, which is still known by his name. At the head of the list of the bishops of Béziers stands the name of S. Aphrodisius, who was, so the story says, governor of Egypt when the Virgin and Joseph went down with the infant Jesus. Converted after the Ascension, he resigned his lofty post, was baptised, and became a humble bishop in southern Gaul. Still another name is that of Trophimus, the famous first bishop of Arles, who is mentioned by the Apostle Paul as one of his compan-
ions who accompanied him on one of his journeys. Paul, the first bishop of Narbonne is said to be one Sergius Paulus, the proconsul converted in Cyprus by the Apostle Paul when Elymus the Sorcerer withstood him.

Whether there be any truth in these tales we need not inquire; certainly there is no need to demolish them. It is more to the point, perhaps, to know that the first authoritative reference to the Christians in Gaul is the slaughtering of a thriving community at Lyons in a persecution in the year 177. From that time on the list of French bishops rapidly increases. In these good old days every bishop was a saint, or deemed so by posterity, and the records of the times are crowded with the names of holy men who hesitated at no sacrifice in carrying the Gospel of Christ to distant and unknown regions. Many of these names are now lost beyond recall, many others cannot be accurately dated. Omitting doubtful ones, and accepting only ascertained dates, fourteen sees had their origin in the third century, thirty-five in the fourth, thirty in the fifth, and twenty-five in the sixth. These centuries were the periods of episcopal development in Gaul: no single century, save the fourteenth exceeding them in the number of foundations. The years 317 and 1318 saw the erection of fifteen sees, chiefly by the conversion of monastic establishments into bishoprics. The revolutionary epoch, in which fifty-six sees were suppressed, alone approaches these first centuries in episcopal changes.

The culminating event in early French ecclesiastical history is the conversion and baptism of Clovis, baptised by S. Remi at Reims on Christmas Day, 496 or 497. The conversion of the emperor Constantine had scarce more momentous consequences to western Europe than that of the Frankish chieftain. While it is doubtless true that the savage Frank fell far short of the modern idea of conversion and well doing, it is from this event that the real beginnings of Christianity may be counted in what is now known as France.

No English bishopric antedates the year 597—one hundred years after the conversion of Clovis—in which St. Augustine landed in Britain, the clergy and bishops of the native British church being of too dim personality to have historical value, however great their ecclesiastical interest. Yet at this time Gaul was thickly dotted with bishoprics; in the sixth century it contained two hundred and thirty-nine convents, and from the sixth to the eighth no less than eighty-three church councils were held within its borders. When the light of the Church first illumined Britain the foundations had been firmly laid in Gaul for that superstructure which was to find such complete and glorious illustration in the cathedrals of the Middle Ages.

Each primitive bishop had his cathedral, though what manner of edifice it was we can scarce by conjecture. The *Historia ecclesiastica Francorum* of Gregory of Tours, while abounding in interesting details of the early history of the Franks, is peculiarly deficient in archaeological information. We gather from his narrative that the basilican form was usual in Gallic churches, as would be natural, since in architecture as in religion the usages of Rome and of Italy would be closely followed. He tells us that the basilica built by Bishop Perpetuus at Tours was 160 feet long, 60 feet wide, and 45 feet high from floor to ceiling. It had thirty-two windows in the choir, and twenty in the nave. It had 120 columns, and eight doors, of which three were in the choir and five in the nave. And then, after these highly interesting arithmetical details, he leaves the subject, simply adding some references to the services held there. As this edifice existed when the description was written, it may be assumed to be fairly accurate, but it was a building of exceptional importance.

Obviously the pious bishop allowed his rhetoric and fondness for the marvelous to get the better of him in describing the baptism of Clovis. The church, he writes, was sumptuously adorned, brilliant with the light of innumerable tapers, and filled with perfume of such sweetness that those who were present supposed themselves to be breathing the air of Paradise.
It is needless to undertake to restore edifices of which now no stone remains upon another, and of which our knowledge is so limited. Both wood and stone seemed to have been used as the building material, the choice depending, perhaps, upon both conveniences and the means at hand. But the descriptions of Gregory and the few other early writers who make mention of architecture in any way must be taken with some allowance for their ideas of the importance of the buildings. Certainly until the time of Charlemagne Gaul was in no condition to support expensive or elaborate church buildings, nor was there the mechanical knowledge to build them. Such few edifices as have survived from the ninth century are apt to be better guides to the earlier structures than the impasioned and patriotic descriptions of ecclesiastical chronographers.

Buildings like the Basse-Œuvre at Beauvais, the Baptistry at Poitiers, the churches of Savernières and Gennes, the crypts of S. Aignan and S. Avit at Orleans, part of the crypt of the cathedral of Chartres, the churches of Cravant, near Chinon, of S. Généroux (Deux-Sèvres), of S. Laurent at Grenoble, of S. Pierre at Vienne (Isère), of Vieux-Pont-en-Auge (Calvados), of S. Martin at Angers, of S. Christopher and S. Lubin at Suèvres (Loir-et-Cher), of La Couture at Le Mans, which in whole or in part may be attributed to the Merovingian and Carolingian eras, show better than the ancient descriptions what manner of buildings the early French churches were. With Charlemagne began a new epoch in architecture, and his chapel at Aachen is not only a great advance on preceding edifices, but, notwithstanding its obvious modeling after S. Vitale at Ravenna, a really important monument to the abilities of northern architects.

It is well to remember, however, that all the great churches of the earliest times were destroyed to make room for later and more sumptuous buildings, if indeed they had not fallen into decay from inefficient workmanship. Most of the churches of Merovingian and Carolingian eras are very small and give few hints of the Italian methods of church building which may have been more closely followed in more important structures.

A capital from the crypt of S. Denis, attributed to the eighth century by Lenoir, gives us the exterior and interior of a church and enables us to form some notion of architecture at this time. The façade shows two towers with low pyramidal roofs. In the centre is a round-headed doorway, greatly exaggerated in height, and over which is a round-headed window representing an early stage of the wheel or rose windows of the French mediaeval front. The interior of the church, which stretches along the capital parallel to the façade, exhibits five round arches supported on single columns. Two of these columns are interrupted in order to make place for the worshippers. The furthest bay is occupied by an altar.

A manuscript in the library at Troyes, exhibiting the miracles of S. Benedict and dating from the eleventh century, contains an illustration of a much more pretentious structure. As in the preceding example a transverse section across the choir is combined with a longitudinal section down the nave. The choir shows two arches, an unusual arrangement which would bring a row of columns down the centre of the nave. Two explanations are possible here: either the central column behind the altar indicates an apse, in which case the columns would not be continued in the nave, an hypothesis which is strengthened by the curved apses which appear on either side of this portion of the figure; or the artist, deeming the space filled by the altar too wide for a single arch, has drawn two for appearance’s sake. The probability is that we have actually a transverse section, since the art of drawing at this time had not sufficiently mastered perspective to render any other explanation likely. The really important things in the sketch are the semi-circular apse on either side of the choir, which may be taken as indications of the semi-circular form of one apse, rather than as two separate apses one at each end of the church; and the central tower, erected over the altar to give greater emphasis to this part.
FRANCE
Map showing the Cathedral Towns and Railroad connections.
By BARR FERREE.

For description, see note on page 135.
The arcade under the roof of the apse shows a motif in high favor in Italy; the roof of the choir, represented in projection, shows the same. The two towers, with their open galleries at the top, doubtless represent the façade of the building, and, like the decoration of the apse, indicate Italian models.

---

The cathedrals marked in the accompanying map may be classified as follows:


Cathedral cities with modern cathedrals, that is built after the sixteenth century, in **CAPS**:—Arras, Cambrai, Gap, La Rochelle, Marseilles, Montauban, Nice, Paniers, Rennes. The cathedrals of Belley, Moutpellier and Annecy have been so completely modernized as to warrant inclusion in this class, to which also Orléans cathedral properly belongs. All these sees are of ancient foundations, but the cathedrals of Blois, Laval, Nancy, Versailles and Alais, which are modern churches, except the last, which is much restored, are of modern foundation.

Cities formerly sees of bishops, now without episcopal rank, but containing ancient cathedrals, in **small caps**:-—Agde, Apt, Arles, Auxerre, Bazas, Béziers, Bourg, Carpentras, Cavaillon, Châlons-sur-Saône, Condé, Die, Dol, Elné, Embrun, Entrevaux (Glandéves), Forcalquier, Grasse, Laon, Lavaur, Lectoure, Lescar, Lisieux, Lodève, Lombez, Luçon, Mirepoix, Maguelone, Narbonne, Noyon, Oloron, Orange, Rieux, S. Bertrand-de-Comminges, S. Lizier (Conserans), S. Omer, S. Pompul, S. Paul-Trois-Châteaux, S. Pol-de-Leon, S. Pons-de-Thomières, Saintes, Sarlat, Senlis, Senez, Sisteron, Treguier, Toul, Toulon, Vabres, Vaison, Vence, Vienne.

Non-episcopal cities with modern cathedrals, in **italics**:—Castres, Dax.

Cities not now episcopal with ruined cathedrals or with none at all, in roman:—Alet, Ambèse, Avanches, Boullogne, Eauze, Maillezais, Riez, S. Servan (Aleth), Thérouanne, Mâcon.

Modern sees with ancient churches, that is, churches not built as cathedrals, now used as such, tall **Condensed Letter** :—Dijon, Moulins, S. Claude, S. Dié, S. Denis.

This classification is general only; it is independent of the amount of restoration or modern additions the buildings classed as "ancient" may have been subjected to, as well as to whether they were originally built as cathedrals or not. The cathedral of Ajaccio in Corsica is not included in this list.

Both Arras and Cambrai had medieval cathedrals which were destroyed at the time of the Revolution. The present cathedrals are modern. The cathedral of Riez has been rebuilt during this century, but as the see was suppressed in 1801 prior to the rebuilding it cannot now be rightly termed a cathedral.
Brooklyn, N. Y.

MONTAUK CLUB.

(See page 145.)

F. H. Kimball, Architect.
THE FIRST TERRA COTTA BUILDING ERECTED IN NEW YORK CITY.

East 36th street, near Madison avenue.

THE HISTORY OF TERRA COTTA IN NEW YORK CITY.

In the spring of the year 1870 a young architectural clay-worker, who had recently landed, was walking up Broadway with a venerable and white-haired old gentleman, who at that time was well known and respected in New York. They were engaged in a study of the various materials used for the exteriors of the buildings on that thoroughfare. The old gentleman was Marcus Spring, a retired dry-goods merchant.

While standing on the east side of the street, looking up at old Trinity Church, Marcus Spring was recognized by an influential and popular architect, who was then conducting an extensive and lucrative practice. To this architect Mr. Spring explained the object of his presence at that place, and requested him to give his professional opinion concerning the probability of success attending any attempt to introduce architectural terra cotta work into New York and its vicinity. The reply was prompt and positive:

"My dear sir, there can be but one opinion upon that subject. It would most surely fail. Terra cotta has been tried over and over again, and every attempt has resulted in loss and vexation to all parties concerned. We know all about that material; it is useful enough in Europe, but it will
not withstand the rigors of our American climate. If that young man intends to continue his trade of terra cotta making I would strongly advise him to return to England, for he will find it impossible to earn a living for his family at that trade in the United States. Our architects and builders will most certainly refuse to make any further experiments with the material."

This emphatic opinion, from one who had apparently given the subject consideration, was very discouraging to Marcus Spring. But it did not so impress the clay-worker, for looking over at the Trinity Building, north of the graveyard, he said, "that looks to me like a brick building, and if brick will withstand the climate of New York terra cotta most certainly will, because I hold that terra cotta is only a higher grade of brick-work." The true significance of the value of the Trinity Building in helping to demonstrate the permanent utility of terra cotta was not then apparent, for the grotesque animal heads which form the keystones to the window arches, and the modillions which decorate the main cornice of the building are actually made of terra cotta, the material being hidden under a coat of paint, which had been used to make the terra cotta resemble brown
Wall street, New York City. ASTOR BUILDING. H. J. Hardenbergh, Architect.
WAREHOUSE ADJOINING GRACE CHURCH PARSONAGE.

Broadway, New York City.

Renwick, Aspinwall & Russell, Architects.
stone. This very building, therefore, was one of the few successful attempts, but our friend, the advising architect, did not know of it or he might have reconsidered his opinion. The terra cotta work used in this building is still perfect, although it has been found necessary to recut the damaged and disintegrated faces of the brown stone work in the walls and mouldings.

Here let us define the difference between "terra cotta" and "architectural terra cotta."

"Terra cotta" is simply "baked earth," a term technically distinct from porcelain; it may be lacquered, painted or decorated in any color to represent various materials. But "architectural terra cotta" presents itself in the natural color which it receives from its constituent ingredients during the process of being burned into an imperishable material. It does not represent any other material, it is not an imitation of stone or iron or wood (although attempts are often made to make it such), it is a recognized building material having its own quality and purpose, and when used ought to be distinctly recognizable. Therefore, although Richard Upjohn did use terra cotta in the construction of Trinity Building in the year 1853, he did not use architectural terra cotta. He simply used a material of burned clay painted to make an imitation of brown stone.

A very earnest contemporary of Richard Upjohn in that early effort to produce terra cotta was Mr. James Renwick, who is still an earnest worker and a believer in the value of architectural terra cotta. No one did more than Mr. Renwick to introduce terra cotta work into New York, and one of his most successful efforts still remains in the window trimmings of the St. Dennis Hotel, located on Broadway, opposite Grace Church. No architect recognized the higher claims of architectural terra cotta more thoroughly than he did. It is an interesting fact that Mr. Renwick has been personally identified with all the progressive history of terra cotta work in New York City from 1853 up to the present time. The architectural firm of Renwick, Aspinwall & Russell have designed very many special uses for this material. One especially good example of decorative terra cotta work is the altar and reredos of St. Mark's Church, at the southwest corner of Avenue B and Tenth street, New York. This was made in Boston about 1882. It is designed in early English Gothic and is exceedingly well executed in both modeling and color. Another design by Mr. Renwick that called for especial care in construction and detail is the Church of All Saints, recently erected on the northeast corner of Madison avenue and One Hundred and Twenty-ninth street, New York. The traceried rose and mullioned windows, the pinnacles and gables, have all been made of gray terra cotta.

In 1870 the New York architects and builders certainly were not ready for the reception or use of architectural terra cotta, and therefore no organized effort was made at that time to manufacture it in this vicinity; yet old clay-workers, such as John Stewart, of West Eighteenth street, Henry Maurer, of East Twenty-third street, New York, and C. W. Boynton, of Woodbridge, N. J., can very well remember that the subject was submitted to them at that time, and that they agreed with the architect who said it would not do to make any new attempts.

The first American city to welcome architectural terra cotta work was Chicago. The Western metropolis teems with men who, like the Athenians of old, are ever on the lookout for some new thing. The cost of stone, the rusting of iron and the danger of wooden structures to city property led them to cheerfully welcome a material that would conjoin with their vast brick-making industries, and give them a decorative and useful building material.

W. Boyington, John Van Oxdell, Burling & Adler (now Adler & Sullivan), Carter, Drake & White, W. L. B. Jenney, and Burnham & Root, were the pioneer architects who first recognized the utility and advantages of architectural terra cotta. The great fire at Chicago in 1871 converted the real estate owners and builders to a belief
New York City.

HARRIGAN'S THEATRE.
(See page 145.)

F. H. Kimball, Architect,
Union square, New York City. LINCOLN BUILDING. (See page 148.)

R. H. Robertson, Architect.
in its usefulness, and they used it very extensively in the rebuilding of the city, so that the manufacture grew in demand rapidly. Especially was this true of the trade in the outlying Western cities, as Des Moines, Omaha, Milwaukee and others—for its light cost for freight and the scarcity of skilled labor rendered it desirable.

In 1887 Architects Geo. B. Post, of New York; Whitney Lewis, of Boston; H. H. Richardson; and Messrs. Stone & Carpenter, of Providence, began to use the material. Messrs. Stone & Carpenter used it for the Brown University and the City Hall in Providence, R. I. H. H. Richardson used it upon Trinity Church, Boston. Whitney Lewis used it upon a large residence on Commonwealth avenue, Boston. G. B. Post used it upon a residence on West Thirty-sixth street, New York. These formed the Eastern foundation upon which the vast architectural terra cotta industry of America has been organized and developed.

To Geo. B. Post belongs the honor of having erected the first strictly architectural terra cotta building in the City of New York. This is located on the north side of West Thirty-sixth street, near Madison avenue. It was built by Jas. B. Smith in 1877, and is a good evidence of the weather qualities of terra cotta, all of its detail being as perfect to-day as when it was set up fourteen years ago. The ornamentation of this work is worth especial notice, for we believe it to be the only example in New York City of that description of work. It was not modeled as clay ornamental work is generally done, viz., in a plastic condition, but the slabs were formed solid, and when partially dry the designs were carved with wood-carving tools, no hammers being used. Isaac Scott, of Chicago, was the originator of this method of producing ornamentation, and it met with great favor among the Chicago architects. The terra cotta for this building was made in Chicago by the man who in 1870 had been advised not to attempt to induce New York architects to use the material. New York now has two large establishments employing more than six hundred men. It has more than half a million of dollars of capital invested in the business, and is producing upwards of eight hundred thousand dollars worth of building material per annum. Boston, Baltimore and Philadelphia also have extensive works engaged in the same industry, and there are many small concerns in various places spread all over the United States. All these are the direct outgrowth of the Chicago Terra Cotta Works, which are still in prosperous operation.

The next step in the progress of this industry was made by Silliman & Farnsworth when they introduced it (in the erection of a large commercial building) in connection with moulded red and black brick-work; this was done in the Morse Building, at the corner of Nassau and Beekman streets, erected in 1879. In this building the raised or protected vertical joint was first used. This form of joint prevents the rain from scouring out the pointing mortar, and it is an important and necessary precaution which ought to be used upon all exposed surfaces.

When once the architects of New York began to recognize the use of architectural terra cotta they caused a vast amount of development in the production of it. Having no precedent, they made all kinds of demands, such as had not hitherto been required or expected; but these very requirements have tended to lead the makers into new channels, which have produced successful results in regard to color, ornamentation, construction and surface treatment, so that now there is no reasonable doubt that architectural terra cotta as it is designed and made and used in America is far better in many respects than the best products of European factories.

The Brooklyn Historical Society's Building was designed by Geo. B. Post in 1878, and it was the first important or public building in which the material was used by a New York architect. This was followed by the Produce Exchange Building, the Cotton Exchange Building, and many others by the same architect, to whom the clay-worker owes a large measure of thanks for his practical assistance in the development of this industry.
The introduction of highly ornamental work in terra cotta was begun by F. H. Kimball and Thos. Wisedell about 1880, when they designed the New York Casino, Thirty-ninth street and Broadway. In this specimen, which is of Moorish design, it was shown that terra cotta was capable of elaborate decoration at moderate cost. This capability has been constantly put before the public by F. H. Kimball in the various buildings which he has designed, viz., the Catholic Apostolic Church on West Fifty-seventh street, which has an elaborate rose window, in which several features were introduced that had not before been attempted in America. The Corbin Building at the corner of John street and Broadway is another example of profuse decoration of surfaces, which, together with the color of the terra cotta, produces effects at once agreeable and varied, and almost unattainable in any other material. The Montauk Club House furnished still another opportunity for taking advantage of the facility which the use of terra cotta furnishes the designer. The name of the club gave an Indian significance to the design which the architect made use of, and the result is an ensemble of Indian trophies and implements utilized in decorative features that are both pleasing and suggestive, while the sculptured friezes enabled the architect to record in a durable material many incidents of Indian life and customs which makes this structure an object of interest to the general public. The façade of the new Harrigan's Theatre was treated in the same spirit, and subjects connected with the Harrigan's successes were used as motifs for the decoration. For this purpose there is no other material so useful to the architect, because it permits of the original sketch models being burned and used (a process which prevents the defacement and mutilation incident to remodeling and casting). The subject of "color" in terra cotta was first brought under consideration by, and it received its present importance from, Eastern architects. Previous to 1877 almost all American architectural terra cotta was of a stone color, Joliet limestone being the Chicago ideal, grayish buff was the prevailing color of Chicago terra cotta. Eastern architects, however, demanded other colors. Geo. B. Post asked for red, Whitney Lewis called for yellow buff, while Messrs. Stone & Carpenter wanted brown. Thus the old fashion passed away and the polychrome prevailed, and is now the present demand. This has done very much towards increasing the demand for architectural terra cotta, and Architects McKim, Mead & White were perhaps the foremost leaders in this branch of the business; certainly it is that to them belongs the credit for the introduction of the Pompeian or mottled color which they used on the Tiffany House, also a neutral reddish color used for the Russell & Erwin Building (New Britain, Conn.), and the white used upon the Hotel Imperial, the Madison Square Garden and other buildings.

One of the most serious problems in the proper use of architectural terra cotta was the treatment of its surfaces, and this quality has been most successfully developed by Architect Cyrus L. W. Eidlitz. The bold and massive character of his style (Romanesque) forbids the use of the usual old-fashioned smooth surface. Therefore he made a study of the subject, and the result of his efforts was the introduction of the combed or crinkled surfaces, by a method which he personally devised, and which method is now the common property of all clay-workers. It has helped greatly to improve the artistic value and appearance of terra cotta work. This surface treatment was used upon the Art and Library Building (see Architectural Record, Vol. I., No. 2, p. 167) in Buffalo which is made of red terra cotta; also upon the Telephone Building in New York which is of a warm reddish buff, and upon the Racquet Club-house which is of dark or so-called Pompeian color. In all of them the advantage of the surface treatment is apparent. It is a truly distinctive feature, which shows clearly that it is done in plastic material and therefore indicates terra cotta work.

Thus have the architects of New
RESIDENCE ON EAST 36TH STREET.

Near Madison avenue, New York City.  (See page 144.)  Geo. B. Post, Architect.
York urged on the terra cotta makers, compelling them to new efforts, and in many instances these efforts have been successful, so that by the cooperation of the architects and the clay-workers architectural terra cotta in America is probably in many respects in the van in comparison with older countries.

It would be impossible to mention all the architects who have made this progress and development possible, and we must be content to specify a very limited list of buildings that are especially instructive to the architectural terra cotta makers as suggestive of various matters of detail which may prove profitable to them if examined in an inquiring mood, with a view to the improvement of their processes of production. Such lessons may be learned by a study of the Astor Building, Wall street; the Western Union Building, Broad street; the Schermerhorn Building, corner Great Jones street and Lafayette place—H. J. Hardenberg, architect; the De Vinne Press Building, corner of Fourth street and Lafayette place—Babb, Cook & Willard, architects; the Church of the Messiah, Brooklyn; the Railroad Men's Reading Rooms, Madison avenue and Forty-fifth street; the Lincoln and other office buildings on Broadway, between Fourteenth street and Eighteenth street—R. H. Robertson, architect; the Carnegie or New York Music Hall, corner Fifty-eighth street and Seventh avenue—W. B. Tut- hill, architect; the Colonial Club House, 72d street and Boulevard; the West End Presbyterian Church, One Hundred and Fifth street and Amsterdam avenue—Henry Kilburn architect; the Collegiate Church, corner Seventy-seventh street and West End avenue—R. W. Gibson, architect. Upon this spirit of cooperation depends the future development of this industry, and doubtless it will lead to greater advancement in the future than that it has produced hitherto, because the improvements hoped for are to be based upon so much good work already done.

James Taylor.
VARIous CAUSES FOR BAD ARCHITECTURE.

The general effect of all buildings in no city of the world is satisfactory. Every city has its squalid and dilapidated looking quarters, where the buildings, commonplace and tasteless enough in the beginning, have fallen into some one of the various stages of ruin that only invite the coming of fire, or the hand of the dealer in second-hand building material.

Neither can it be said that the condition of any of the most celebrated streets in the world is architecturally such as to compel unqualified commendation. There may be streets in Paris that display nothing glaringly defective; but the city, it will be remembered, was rebuilt by political machinery during the reign of the last Napoleon, and, like everything else done by machinery, it lacks the variety of handmade manufactures. The Mansard roof has been used in Paris until the streets look like unhelmeted battalions of men, all with retreating foreheads, drawn up in line of battle. Many of the streets of Paris are beautiful; but it is sometimes thought that they are too much like an exhibition of pictures all by the hand of one master. Everywhere in the world there is something imperfect or incomplete architecturally, and it will be interesting and possibly useful to study some of the reasons for the defects. If it be found that there are sometimes defects too radical to be removed, we may still look to discover errors that education can amend.

The first obstacle to perfect architectural development is one, of course, which can never be removed either by time or training. All the cities of Christendom, except some of our exhalations of the night in this country, and in some colonial countries, are the growth of many years, generally the growth of many centuries, and in their social conditions they have risen gradually from poverty to the different degrees of opulence now displayed. They are advancing, also, with greater or less rapidity according to their environment and opportunities, in civilization and the desire for comforts and luxuries. But their buildings were largely the product of a period when poverty only was the common inheritance; and the humble origin of such structural objects as they display is stamped indelibly on every story. The chief object in their construction was to protect the inmates and their goods from the inclemency of the weather. They were not always built without any decorative motive. Occa-
TENTH STREET HOUSE.
(See "History of Terra Cotta."

New York City.
Renwick, Aspinwall & Russell, Architects.
sionally we see attempts at architectural decoration in the measure of those old-time rookeries; but the results in such cases suggest the freak of some house carpenter or mason whose architectural instincts were irrepressible. The buildings as they stand were simply a product of domestic needs of the commonest kind. But here is the obstacle that still stands in the way of improvement. Society is becoming more opulent and more highly civilized; but the relative condition of its members has not radically changed, and, though we may reconstruct whole districts as fast as ruin compels their reconstruction, poverty has not yet been completely eliminated from the architectural problem. We may look to see a perpetuation of like causes producing like effects.

This obstacle in the way of good architecture is not only a peculiarly obstinate obstruction but it is very serious in its effects on the architectural improvements of our cities. The day can never come when men of moderate means will not be found constructing their own shelter, and the chief part of the structural work in all cities must continue to be done with no aesthetic motive. An alternative might be temporarily found in the new nationalism of the cranks; but it is an alternative that will not be worth considering. We must expect to see in the future, as men have seen in the past, all our buildings with any pretension to aesthetic merit concentrated in opulent quarters, while the larger parts of our cities remain commonplace.

There is also another obstacle in the way of tasteful architecture which follows upon the first obstacle as a corollary. Or, rather, it is the same obstacle differently manifested, or interposed in a different form. If men of moderate means cannot build very expensively when they build for themselves neither can the rich build expensively when they build for the use of men of moderate means or for the poor. The ability of the tenant to pay rent must regulate the standard of all buildings built for tenancy. The landlord proposing to build examines the plans of the architect with his head necessarily full of his rent roll, and he must see that everything redundant is shorn away. Certain structural requirements must be observed, for the law interposes here, and decrees if it does not always obtain immunity from danger for the tenant. The building must be constructed, too, with an eye to sanitary requirements. There must be good ventilation, often to be obtained only at the sacrifice of considerable space, and the plumbing must be well done. All this is regulated by law so far as the law can regulate the hidden and inscrutable, and if there be any irregularity in complying with legal provisions the gain is not likely to accrue to the landlord. He must meet the legal requirements by putting the cost upon the building; and by the time health and safety have been considered there may be only a slight margin left for administering to those aesthetic sentiments which alone he is free to forget.

Many difficulties beset the construction of tenement quarters which do not appear on superficial observation, and which must continue to make those quarters the representatives of the architecturally commonplace. No agency in active operation for their improvement is yet visible. Every now and then we hear of some philanthropically-disposed persons, or association of persons, who have determined to build model tenement houses where quarters may be obtained at the minimum of cost, and everything shall be luxurious and perfect. But the experiments usually end with the first attempt. There are two chief causes for their want of success. First, the number of philanthropically-disposed men in the world is not relatively large, and, secondly, the number of persons who are willing to live on the charities of the philanthropically disposed is relatively still smaller. We cannot divest model tenement houses, built without any eye to profit, of their eleemosynary character, and no high-spirited man, whether rich or poor, will care to publish to the world that he is saving money by asking other men to forego their profits.

These are the chief obstacles to be seen in the way of model tenement
houses when the subject is considered morally and economically. But even could such dwelling places be made popular their success would not improve the character of our tenement-house districts aesthetically—the main consideration here. It would rather injure it, indeed, for even the philanthropist who had determined to furnish quarters for the poor at, say, 2 per cent interest, would not object to making it 3 per cent if he could obtain the advance by pruning away some of the architectural decorations of his building. He would justify himself by the reflection that with the additional 1 per cent he could build more model tenement houses. The rapacious landlord on the other hand will be forced to be a little tasteful for the purpose of making the quarters offered for rent inviting. He will lay tiled floors in the corridors, erect marbled mantels, and otherwise try to beautify his premises. But the model tenement-house landlord can afford to disregard all such meretricious embellishments.

There is probably but one way practicable in this country, or desirable in any country, through which the tenement-house districts can be made to wear an improved architectural appearance, and, without any intention of making an Irish bull, it must be said that that way will be found in abolishing those districts altogether. When the inhabitants of the tenement houses have gained sufficient financial intelligence to prompt them to act collectively, and, making use of insurance as a means of offering security, to become stockholders in their own dwellings, a newly-awakened sense of pride and responsibility will lead them to expend money in the decoration of the homes which may be also the homes of their children. But until that time comes it is probable that the rapacious landlord will be about the best philanthropist, and, architecturally, the most highly-cultivated gentleman, whom we shall meet.

Next, after the influences which control the tenement-house districts in the production of the commonplace in architecture, come the precisely corresponding influences that work mischievously in our mercantile districts. In both districts it is the desire for low rents which compels aestheticism to step to the rear while construction comes to the front. But there is this difference between the two districts. In the mercantile districts there is wealth with the ability to pay high rents, and the desirability of elegant warerooms and office rooms is so great that landlords may find a profit in liberal expenditure. But the temptation that leads to shamming is also great; and the inducement of cheap material throws a powerful obstruction in the way of the architect who would build conscientiously if he was only furnished the means.

This mention of material suggests a broad field for discussion. Next in order after the already-mentioned two causes for tasteless architecture, or the one cause operating differently in different districts, comes the use of bad building material. There are four chief vehicles for the expression of architectural ideas, stone, brick, wood, and iron; and it is in every way desirable, vitally necessary, indeed, if we wish to build well, that we learn to distinguish the different degrees of merit to be found in these various substances.

Wood, probably the first material used in buildings on account of the facility with which it could be fashioned into structural forms, has always remained in common use either for entire buildings or for parts of buildings. In this country it has always been the chief material used for the construction of entire buildings. This statement might not be thought quite true by persons visiting only within the fire limits of our large cities; but if we go abroad through the country districts or visit the suburbs or outlying wards of the cities we shall find the vastly larger number of dwellings, and even of factories and mercantile buildings, built of wood. A farm house built of any other material than wood is the exception save in localities where stony fields almost compel the farmer to pile up the material at hand in the form of a dwelling. Wood has been so largely the
New York City.

ENTRANCE TO CASINO.

(See page 145.)

F. H. Kimball, Architect.
ENTRANCE TO MORSE BUILDING.
Nassau street, New York City.
(See page 144.)
James M. Farnsworth, Architect.
building material in the United States that it has modified our architectural ideas both structurally and aesthetically. It would be better to say that it has prevented the development of our architectural sensibilities; and it will properly be the first material to consider when discussing the question of merit in the different substances used in architecture.

It may be said in the beginning that for the expression of the higher language of architecture wood has no merit whatever. The architect cannot ever attempt to give expression to his sentiment of grandeur in wood without becoming in a measure, and in a pretty large measure, too, ridiculous. This is said in the full knowledge that in country towns, and sometimes in our large cities also, one may often see Doric, Ionic, and Corinthian porticos, and even whole façades, done in wood. The Greek proportions are observed; and the Corinthian columns are fluted in strict accordance with the most approved features of the art. But it cannot be said that the display discredits the assumption of absurdity. Such architectural exhibitions are usually survivals of a past generation. To confess the truth, however, they are much more dignified than the erratic Queen Anne cottages that have more recently sprung up in their neighborhood. Were one authorized to apportion the houses of the town among the inhabitants for places of residence we would feel inclined to give the dwelling with the Greek portico, or façade, to the county judge and his accomplished family of grown-up sons and daughters, and one of the Queen Anne cottages to the veterinary surgeon. This would appear to be the most appropriate disposition that could be made of two dwellings both wrong, but the one erring rather in material and the lack of original feeling than in principle. Nevertheless, the error is radical. Those massive columns in wood are too suggestive of sections of the mast of some tall ship to be in keeping with the architectural style of a people who build of stone or marble. They look ponderable and strong, able to sustain the shelf of a mountain. Yet we know that they are light and brittle, and that the load sustained, as represented in the entablature or pediment, is quite inconsiderable. The modern builder is guilty of a double offense. He not only made a too literal copy, or imitation, of the style, but he caricatured the material. His work is suggestive of neither the firmness, durability, nor richness of his model, and those are properties that enter very subtly into our conceptions of architectural beauty and grandeur.

Wood, as a material for exteriors in building, is suitable only for the expression of lightness, an exceedingly questionable architectural quality at best. It is easily fashioned into architectural forms, but to be consistent they must be forms that avoid rather than follow any architectural style. None but a lunatic would undertake to build a Gothic building in wood, though it would not do to say that the task has not been attempted. The same reflection might be made with reference to its adaptability for the Romanesque. The Greek style with its horizontal lintels is more flexible; and custom, as we have seen, has sanctioned its use for imitations of this style. Wood is really a suitable material only for buildings that make no architectural pretensions whatever, and that may be said to be conglomerated by the house carpenter for the purpose of giving protection against the inclemency of the seasons. It may be conceded that a certain measure of elegance has been attained in the construction of wood buildings; but it is an elegance hardly up to the standard of architectural aestheticism. The best wood building ever constructed will look better still when its porches, doorways, windows, and clapboards are covered all over with trailing vines, and it is made to retire behind the veil of a nearly impene-trable green. Thus decorated it may make a very attractive dwelling.

But what shall be said of wood as a material for interiors? Here we stand upon new ground, for the interiors of buildings differ largely from exteriors in the laws that should govern their treatment. Decorative art assumes
greater importance as we pass the portals of a house and enter the rooms and corridors. We cannot, it is true, escape the law of mathematical proportion wherever we go. A square room, notwithstanding the frequency with which it is seen, is less agreeable to the eye than a room prolonged half the dimensions of the square into a rectangular form. A square room having walls just equal in height to the dimensions of the floor is peculiarly offensive, though such proportions are often seen in small rooms. A room with a ceiling too low for the dimensions of the floor, when measured in accordance with mathematical ratios, is still more disagreeable to the eye. Stairs, too, must hold their proper relations to their environment, and interior mouldings, or columns, should be as accurately in proportion as any object of exterior decoration. But the combinations to be taken in at a single coup d'oeil in any interiors are much less complex than the combinations of exteriors, and proportion, therefore, is less likely to be considered than decorative effect. From the decorative point of view, then, is wood as good a material for interior finish as stone or marble? Is it even as good as some of the substitute materials such as marbled slate, or artificially colored marble?

There is no doubt about the adaptability of wood for the production of decorative effects. The natural grain of some wood is exquisitely beautiful, and the material is easily cut and moulded into shapes that are pleasing to the eye. But just in this facility is the first objection. It is somewhat like terra cotta, too easily moulded, and hence the moulding machine in place of the carver, and stiff, inflexible forms where everything should be wrought out lovingly by hand. Even the wood-carver was once an artist almost in the front rank. He was even more than a mere decorative artist, and had it not been for the perishable nature of the material in which he wrought we might have galleries of his productions still extant instead of the few examples that are preserved in museums. His work could show an infinite variety in the days when wood was the standard building material in Europe, a variety almost up to the level of bas reliefs in marble or marble statues. But he is a factor in the building art no longer. In place of his work we have now merely stereotyped forms never quite up to the standard of even the best decorative art, and rooms are finished by the architect as they are furnished by the upholsterer after patterns that may serve half the country. This surely is an incitement to bad architecture.

Again, interior decorations of wood are not suggestive of durability. They lack the solidity in appearance that marble displays. "Only for to-day" is the legend borne upon all wood mouldings, mantels, or what not of decorative art, and herein they are suggestive rather of fashion than of architectural style. This may not be an objection when we reflect that all really fine art is something to be preserved. It is certain that the legend is true, because we are moving continually in the direction of a higher expenditure in architectural construction, and most of the work that is called fine to-day will be replaced within a period to be measured by the lives of persons now living. It cannot be said, therefore, that the perishable nature of wood as a material for interior decoration should weigh very heavily against its use. Its sins are of another complexion.

Finally, wood interiors are objectionable because they lead to the excess of decoration. Of all the arts architecture should be the most chaste. More than any other art it creates an environment which casts upon our daily lives the reflex of its own character. If it is florid, redundant, superficial, coarse, or sensuous in its decorative suggestions it is a disparaging measure of our civilization, a mirror in which we may see ourselves as others see us and find the reflection not flattering. Architecture should display taste in every line, and interiors should be objects of special study. But while speaking of the excess of decoration it will be well to define the character of the decoration that is to be condemned. Cost precludes the possibility of carrying certain decorative
New York City.

COTTON EXCHANGE.
(See page 144.)

Geo. B. Post, Architect.
forms to excess and against this style of decoration, even were there any danger of its misuse, it would not be necessary to file a caveat. Panels executed by accomplished artists may not be strictly decorative productions; yet as they do service in a wall, and bear a relation to general effect and proportion, they have an architectural significance. The same may be said of works of sculpture executed for any purpose co-operative with architecture. These are the kind of interior decorations that will live when wood interior have crumbled and gone. But their coming is delayed by the inflammable material with which we are covering our walls. Our buildings are made so unsafe that it entails the risk of heavy loss when we undertake to decorate too expensively.

But, now, what shall be said with reference to iron as a building material? Were it only a question of the use of iron as a subsidiary material to take the place of wood beams, and the like, very little but good could be said, though we should be forced to deplore the fact that it is such an excellent conductor of heat. Restricted in its use, too, and tastefully moulded, it is not altogether to be condemned for window and door posts where the close grouping of windows and doors is thought architecturally desirable. Then, again, the tornado exposed sections of the West should be able to find in iron something that can be anchored and held down when the winds blow. Iron may have its uses, certainly, and they are many. But its conceded merits are thus far mainly structural; and as this article deals rather with the aesthetic than with the mechanical or engineering side of architecture the question at the head of the paragraph must be asked differently. What shall be said with reference to the aesthetic utility of iron as a building material? Put in these terms it will be possible to discuss the question in language sufficiently explicit, for if there was ever a building constructed in all its parts of iron that was aesthetically good it was not brought to the attention of the writer, and he will hardly be expected to commend what he has not seen.

In the first place the temptation to copy all the vices of wood building is ever present with the workmen in iron, with a further temptation, on account of the greater strength of the material, to magnify those vices. A post that needs to be four or six inches in diameter to sustain its load when constructed of wood might be safely reduced one-half or two-thirds when constructed of iron, and the reduction would be economically a gain to the landlord. Corresponding reflections might be made with reference to every part of a building. The great tensile strength of iron enables the builder to reserve mere fragments of wall faces between his apertures. It may be said, indeed, to have almost demolished the wall as an architectural feature in a majority of the examples to be observed along our urban thoroughfares, mere columns and pilasters offering all the support needed for the tallest façades. And such columns and pilasters! The good genius of the designer of stone posterns must have presided at their conception and wrought industriously in their execution. Indeed, to such an excess is this reduction in material carried that men who profess to build of iron, or to build iron fronts, are building mainly of glass and using the iron as a foil to cover their deception. The iron parts of the building are merely an ugly frame work to hold the windows and glass doors in place. The wall, so elaborately and lovingly designed in ancient structures, has disappeared, and in its place we have façades composed chiefly of windows and glass doors.

Now this might be an advantage to architecture were we building conservatories; but as we are building nothing of the sort for mercantile uses our iron fronts are constructed in contempt of architecture. As already suggested even the little of iron that they contain is hopelessly tasteless in design, conceived in a spirit on a level with only the lowest of decorative art. Were our iron builders to study utility only, and leave out their imitations of architectural decorations true art would be greatly the gainer. It would no longer be caricatured, and the mis-
DE VINNE PRESS BUILDING.

Lafayette place, New York City.

(See page 148.)

Babb, Cook & Willard, Architects.
SCHERMERHORN BUILDING.

Broadway and 4th st., New York City.  (See page 148.)

Geo. B. Post, Architect.
chievous influences of caricatures on popular taste would be withdrawn.

What has been said may sound like a complete condemnation of iron as a building material for anything more than structural use in places where it is entirely hidden from view. But it is not intended that the condemnation shall be so sweeping. It may be that the architect for iron buildings has not yet come. It may be that like the architect for wood buildings, he can never come and bring a head full of very grand ideas. Iron is equally with wood unsuitable for the expression of the highest aesthetic sentiment, and this stricture must remain valid even when it is fashioned into a mere imitation of the forms of brick and stone. Conceive of the Equitable Life Insurance Building transformed in its interior from its costly colored marbles and polished stone into an iron finish decorated by the house painter and glider after this conception, we may have some idea of the hopeless inferiority of iron as a material suitable for the representation of the beautiful. But it is idle to make any conjectures on the possibilities of iron when an attempt is made to fashion it in imitation of brick and stone. No conscientious architect would make the attempt, and were it made only the coarser forms of the models could be imitated. But may not iron, after all, have something higher than a merely structural place in the building of the future? It will not be worth while to ask if it can have a higher place in the strictly aesthetic building of the future, because the question has been answered negatively in the context.

There can be little question but that iron could be made an available building material for cottages of the class that are now built of wood, and were it not for the greater cost we should long since have seen it largely made a substitute for wood in this kind of construction. But the day may come when the cost will be more nearly equalized, and then, in the language of the athlete iron may have its inning. The processess of its manufacture are much cheaper than the processes for manufacturing wood, and this would give it an advantage after the lumber forests have disappeared. It is more flexible than wood, too, for moulding into those decorative forms which are thought pretty in cottage architecture.

But, this is a speculation in futures which is hardly fair dealing. Before iron can enter the field as a competitor for cottage building contracts, wood must be abandoned. This only we know for certainty. The use of iron as a material for exteriors in building or for visible interiors has had a mischiefous influence on the architectural development of the period. We even observe a disposition among architects who make plans for brick and stone structures to give more space to apertures and less to wall face than was thought either tasteful or prudent a few years ago, and this practice does not represent an architectural advantage. It is a sign rather of corruption and decadence.

We find, then, in want of resources and the use of bad material the first two causes for bad architecture. They should be sufficient without any supplementary influences to account for the greater part of the unsatisfactory building that we see whenever we walk along the streets for a distance, even no greater than the length of a block. But there are other causes, some of which are also moral and structural, and then, again, there are still other causes that are purely aesthetic.

A common cause for architectural failures, greatly deplored by architects, is the interference with their plans on the part of building landlords. Much that is unsightly in design and defective in arrangement is directly charged to this interference; and it is probable that the architects who build for the market on plans made in advance are the only men who are quite free to follow their own tastes and suggestions. It will hardly be worth while to say that it is a very foolish practice. An architect must have studied his profession to very little purpose if he does not know better than any layman the best use that can be made of the best materials under hand. Exceptional cases may be found in the construction of
factories, and sometimes of mercantile buildings, where special needs which no architect could be expected to thoroughly comprehend must be met. But a building landlord who would interfere with an architect for the purpose of securing greater convenience in his dwelling, or for any modification of its architectural appearance, shows more self-confidence than good judgment. Yet it would probably be useless to enter any protest against this practice of interference. Architects are just as plenty as employing landlords; and were any one of the designated fraternity to set himself too vigorously against the intelligent dictation of his patron he might be discharged for a conceited coxcomb. The alternative cognomen for conceited coxcomb might be blockhead. The architect might be arraigned for a stupid fellow on account of his inability to appreciate a good idea when it is offered gratuitously.

But not all the bad architecture is due either to the poverty of resources, defective building material, or divided counsels. There are a great many bad architects just as there are bad painters, bad sculptors, bad poets, and bad musicians; and it is our misfortune that the bad architect has the power of placing his work so conspicuously before our vision that we cannot fail to observe it no matter how persistently we try to close our eyes. To the studio of the bad painter we need not go, and the chances are that his work will not get into the houses of any of our friends if we keep good company. The bad sculptor is somewhat more obtrusive. He may even drive us from the mall in Central Park if we seek to pass beyond the ideal Shakespeare at the entrance. But he can compel only a slight detour when we wish to escape the misshapen images that he occasionally finds an opportunity to set up. As to the bad poet we need not read his works, and the bad musician, passing us with a glare, is rarely heard again. But the works of the bad architect are set up along highways which we may be forced to pass daily, and sometimes several times each day, and the eye cannot help but rest on his ugly structures.

Again, there are many architects who are not altogether bad, but who lack comprehension and comprehensive training in their profession. The architects who conceive decorative art to be the chief end of architecture are legion, and no amount of money placed in the hands of such men will ever secure good building. The larger their resources, indeed, the worse will be their achievements. An architect with the United States' Treasury at his back built the New York Post-office. It is easy to expend millions on work that will only help to make the decorative details a covering for architectural deformity. A thoroughly trained and meritorious architect would do more for art with one hundred thousand dollars than a bad architect would do with all the money that could be put in his possession, unless, indeed, he had the good sense to employ the good architect to take charge of his work.

There are various causes, it will be seen, for bad architecture; and not the least disagreeable of the reflections suggested by this fact is raised by the certainty that men can never look to see it all banished from public view. Could we reconstruct Athens as it existed in the days of Pericles we should no doubt find many very ugly structures to one Parthenon. The productions of men of supereminent ability are the only works that live in either material or history. But the very word supereminent means that the great mass of art producers are gifted only with mediocrity. They are imitators and copyists rather than the creators of fine combinations. Yet they have not even learned to use the rule and compass with any true estimate of their comprehensive utility, and it follows that their works are not contributions to really æsthetic production.

The best that we can do is to increase by careful training the number of the supereminent, and to curtail as far as possible the operations of the un instructed and incompetent.
I. HAVE been requested by the editor of The Architectural Record to prepare for his readers a summary of my conclusions regarding the origin of classic ornament as recently published in my "Grammar of the Lotus.* Its expense, size, and technical form of presentation all tend to make this work somewhat difficult of access to readers who are not professional archæologists. Moreover, since its publication, I have been complimented by an extraordinary number of reviews, largely of a favorable character as regards the main features of the work, but in certain cases taking issue on important points, which require consideration and answer. These reviews have been of great service to me, as making me aware of those objections to my positions, which would naturally occur to non-specialists in general, and I have consequently undertaken to furnish in a series of papers a more popular presentation of my studies on the evolutions of the lotus, written out in such a way as to meet the objections which have been raised.

There is a great deal to be learned about my work from a summary of the verdicts passed upon it, and as far as these are known to me I shall mention or quote from a number of the more important. I should say that the main thing to be gathered from this summary is that the facts presented were not previously very largely known to the gentlemen writing the reviews. The New York Independent and the London Saturday Review have passed a verdict of wholesale condemnation. According to the Independent, my work belongs to "a class of studies in art which are unchecked by scientific

principles and reach visionary results." According to the Boston Literary World "every chapter bears witness to the careful scholarship and the judicial spirit of the author." According to the Saturday Review, I have advanced "a collection of theories of the most novel

and amazing character that it has been our lot to encounter within a long time." According to Dr. E. B. Tylor, in the London Academy, "there is no question as to the solid value of his evidence on the development of ornamental design." According to the New York Independent, my knowledge of botany is at fault. "The sepals of the water-lilies of the Nile do not become reflexed and never did." According to the botanist employed to catalogue the ancient Egyptian specimens of the museum at Kew: "I have often seen the sepals of the white water-lily (Nymphaea Lotus) curl over when the flower is fading. . . . The blue water-lily (Nymphaea Caerulea) also curls in the same way." According to the New York Independent,* "one of the most unfortunate failures of Mr. Goodyear is his determination to make out the papyrus to be a lotus." According to Mr. Cecil Smith of the British Museum, in the London Graphic: "The papyrus, which has always been held up as the origin of much Egyptian ornament, is effectually disposed of." Dr. E B Tylor, in the London Academy, also takes issue with my views on the papy-

* Review written by Professor Paine of the Metropolitan Museum of Art.
bird and solar deer. The New York Tribune says on this special point that "the testimony of the plates carries conviction with it." Dr. Tylor accepts unconditionally my view of the egg-and-dart moulding, but appears to hesitate about the Ionic capital. The New York Christian Union says of the egg-and-dart moulding: "We confess that we do not feel convinced," but remarks that "the evolution of the Egyptian lotus into the Ionic volute is conclusively and ingeniously made out." The New York Independent says of "the Ionic capital hypothesis": "His whole elaborate theory has absolutely nothing to rest upon;" and the Nation says: "The derivation must, we think, be accepted." The Christian Union and the Nation raise doubts about the rosette, but Dr. Tylor appears to consider my matter on the rosette the most important portion of the book: "The part of the book which strikes me as best, is that which treats of the Egyptian rosette." The Independent says of the voluted lotus on Cypriote pottery: "No amount of assertion that the Cypriote plant is a lotus will ever make it such," and the New York Critic says: "In the archaic art of Cyprus and the Ægean Islands he has, we think, fully established his position." In 1888 the Critic said of my theory of the Ionic volute: "It cannot be accepted at all." In 1892 the Critic said: "The egg-and-dart moulding, the Ionic capital, and the Greek anthemion may have been developed out of it" (viz., the lotus). The Nation says of my matter on the lotus in Ancient America that "the argument proves too much." The Tribune says that "Mr. Goodyear's remarks on lotus forms in America, including the Swastika, with the illustrations which he gives, will help to remove some prevalent notions about the spontaneous generation of folk-lore and myth."

The most serious charge of all has been brought against me by the Independent. I have been accused of entering into a contention with the Bible on the subject of pomegranate ornament. "This new doctrine conflicts with the direct testimony of the Scriptures." I am not able at present to find any quotation among other reviews which will clear me from this afflicting charge. I can only cite a passage in the Christian Union which proves that a religious Weekly has been guilty of the same dangerous heresy: "Perhaps the sacred lotus of the Nile suggested also the bells and pomegranates [of Solomon's Temple]. Certain it is that the lotus of conventional Egyptian art is bell-shaped and the pomegranate of ecclesiastical art resembles the ovary of the lotus as it is bursting."

I think the above quotations will show that my critics are not entirely agreed among themselves, and when critics disagree I know of no refuge but the general public. The fact is that my positions are all intact, that in fifteen years all my main results will be accepted axioms of science. Meanwhile let us see what can be done toward a popular presentation of the subject. It is not only archaeologists or professional specialists whose interests are involved. The whole question is one for all who are interested in the subject of Evolution and in the Darwinian Theory, and that is to say for most cultivated people of our day. I have personally found in Professor Youmans a most interested listener, and I believe that Anthropologists and students of natural history, from a Darwinian point of view, will find much to interest them in the history of pattern ornament. My elementary proposition is that primitive man naturally makes a picture before he makes a pattern. This proposition is supported by the fact that the spirited drawings of natural forms, on bone and ivory, of the Palæolithic Epoch, are the earliest designs known to the history of our race. According to my view, abstract or conventional patterns are evolutions from pictures. My proposition is that abstract or geometric patterns are, as such, initially foreign to the habits of barbaric or primitive man. In other words, I have asserted for conventional patterns what has been already proven for the letters of the alphabet. These are now known to have been derived from hieroglyphics which in their turn are derived from pictures. A pattern is originally a re-
peated hieroglyphic, arrested at the pictorial or symbolic stage of picture writing and preceding in natural order the evolution of the phonetic sign.

The importance of picture writing (which is really symbol writing) for primitive man is naturally overlooked by moderns who are not anthropologists; but it has been suggested by some evolutionists that writing by pictures even preceded the use of language as being a more natural means of primitive communication, and it is well known that the gestures which assist so much the speech of barbaric man, and which naturally would have preceded speech, are all pictorial in character.

II.

It is not unknown to persons of average culture that the Egyptian water-lily was a flower and plant of great vogue and popularity in the land of the Nile. It is a popular error, however, which I have noticed also in the expressions of professed critics to suppose that the plant grows in the river itself.* It is, moreover, as far as Egypt is concerned, a plant almost unknown by sight to modern travelers, for it is now confined to pools in the Nile Delta, a portion of the country not much visited by tourists. In ancient times it must have been common throughout the country and was undoubtedly artificially propagated as a food plant, for there

*See, for instance, my critic of the "New York Independent," June 16, 1892.
are two distinct water-lilies, both known by the name of lotus, whose seeds were used by the ancient Egyptians for making bread.

It is in the Egyptian art of our museums, in the painted pictures of Egyptian tombs and on the sculptured walls of the temple ruins that the great vogue of the flower becomes apparent, and let it not be forgotten that all art in ancient Egypt was religious in use and in significance. Among the enamel amulets (or mystic charms) placed in the tombs the lotus makes a frequent appearance. On mummy cases it appears constantly. On the tomb ceilings of Thebes it is the element of many decorative patterns. In the temple of Denderah the wall surface of every interior apartment is paneled to the height of the waist with patterns of the plant. Every column in the temple at Esneh is decorated in similar fashion. The Egyptian capitals which represent the water-lily flower and bud are familiar illustrations.

The location of all the lotus ornament above mentioned is sufficient proof of its religious meaning, but this meaning is also mentioned by many hieroglyphic texts and by several classic authors. Moreover, this meaning is familiar to Hindoo literature and Hindoo art, and it is even known to the Theosophists of our own time. I once met a distinguished member of the sect to whom the symbol was so sacred that he avoided conversation on the subject. There is a French Theosophist journal which is called Le Lotus.

The most generally recognized meaning of the lotus symbol is creative power or "life," an idea associated with resurrection and consequently with the tomb, but there are no such people known to whom the lotus was not a symbol of sun-worship and finally of divinity in general. Both the Hindoo god, Brahma, and the Egyptian god, Horus, were conceived as rising from a lotus. The pictures of Horus rising from the lotus (apparently seated on it) are familiar to every Egyptologist. We know that the Egyptians conceived the sun (and other heavenly bodies) to have been evolved from vapor or the watery element (a conception which reminds one of modern scientific theories as to the originally gaseous form of all matter). Plutarch tells us that they painted Horus on the water-lily to represent this idea regarding the birth of the sun from moisture. The Brahmans have a similar theory regarding the symbolism of the lotus (see Blavatsky, "Isis Unveiled"), and it is, moreover, the most noted religious symbol of the Buddhists.

At all events, both texts and religious pictures inform us very explicitly as to the sacred character and meaning of the flower and its plant in Egypt, and I have collected some of the obvious cases of its association with acts of worship; with Egyptian gods, and with funereal rites or superstitions in the text-cuts herewith. The appearance of various birds, animals and reptiles
Osiris (the Sun in the lower world) before altar with Lotus.

The Sun lions, Ra and Osiris, supporting solar disks in the Lotus bower.

in these illustrations deserves a word of explanation, which may be extended to include a mention of some leading deities of the Egyptian Pantheon. Osiris is the sun of the lower world during its supposed return beneath the earth to the dawn of a new day. Hence he is peculiarly the god of this world of departed spirits, the god of the Resurrection and of the mummy. Therefore we find him frequently in the guise of the mummy. Horus is the son of Osiris. He is the sun of the day in general, but the dawning sun and the rising sun more especially. This is why he appears as youth or infant. The winged sun-globe which surmounts the portal of every Egyptian temple is another form of Horus. The wings of the globe are the wings of the hawk, who was sacred to the sun on account of the swiftness of his flight and of his shining eyes. Horus frequently has the head of a hawk, like

Tothmes III offering Lotuses and Geese to Ra (the Sun).
The sun-god Ra, who appears in the same way. Horus also appears as a hawk entire, as a lion and human-headed lion or Sphinx, and as the gryphon combination of solar hawk and solar lion. The goose is sacred to a god named Seb, styled the father of Osiris, to Osiris himself, to Horus and to Isis. This goddess was the spouse of Osiris and mother of Horus. One of her forms was the fish; another was the cow. Isis personifies the moon and the fertility of the earth watered by the Nile.
The bull, lion, asp and serpent purpose. As regards the animal forms, were all sacred to various solar gods. it will be understood that they are in

The gods Ammon and Khem are equivalents of Osiris. The ram is a form of Ammon, who appears also with the ram's head. Finally, we have the funereal significance of the lotus, as sign of immortality, illustrated in the quaint figures of the Genii of the Dead standing on the lotus, from a picture of the "Last Judgment"), and in the human head resting on the lotus. This design is found in illustrated copies of the "Book of the Dead," and belongs to the chapter which relates to the lotus as one of the habitations of the blessed dead. We have also the mummy in its sacred barge confronting the water-lily. The god Toum is the setting sun and appears crowned with the lotus.

I have only specified the Egyptian deities whose own forms or equivalent sacred animals appear in my illustrations, but they are sufficient for my
every sense equivalents and representatives of the given deities. That these animals were originally themselves totem gods is probable, but in the development of solar worship which the Egyptian religion had reached when first known to us they had all been assimilated with solar gods. Hence in each illustration specified the lotus is an equivalent and additional symbol of divinity in general, of the sun, of the resurrection and of creative power. All these ideas were interchangeable or present at one and the same time.

III.

I am not responsible for the great vogue of the lotus in ancient Egyptian ornament. The facts which I have proven for the history of Greek art have, however, an appearance of extreme improbability until this vogue is appreciated, and for the benefit of those who have no time to consult the folio publications of Egyptian antiquities it seems advisable to explain it. The following facts are elementary.

Oriental nations and barbaric nations do not make pictures unless they have a meaning to convey or an idea to express. Pictures for the sake of the picture itself as a "work of art" are unknown to them. Orientalists are well aware that all the so-called decorative art and decorative patterns of Chinese, Japanese and Hindoo art are connected with religious or symbolizing uses and originally derived from pictures. The facts about primitive or Oriental humanity which we so clumsily express to ourselves by the word "symbolism," simply go back to pictorial methods of expression which are natural and necessary to peoples which did not know printing, to whom literary expression was foreign, clumsy, or difficult, and whose imagination was child-like and vivid. To the savage and the primitive man the picture or image has a magical quality.* There is not one line on the most ordinary piece of Zuni pottery which has not magical significance to the maker. The picture or image is supposed to retain the qualities and the powers of the original.† We have the authority of Maspero for the assertion that in Egypt every picture painted on a piece of furniture, a utensil, or the wall of a house, was a talisman endowing the object with the mystic power of the original. We must then for the moment move back from the picture to the original—that is, to the phenomena of fetichism.

Animals and plants are to primitive man mysterious and magical creatures—gods or the dwelling places of gods, and furthermore endowed with human intelligence and faculties. The plant is not less a living thing than the animal‡, may therefore like the animal be a dwelling place of a god, or of a transmigrated man§ who is or may be himself a god.

Given the above elementary facts and we understand why an Egyptian museum is a collection of mummiied cats, of wooden hawks, of small bronze bulls and of porcelain beetles. Among the various forms of life conceived as habitations, counterparts and representatives of divine power, the water-lily was to Egypt of peculiar importance, and its picture or simulacrum, according to principles stated, carried with itself the mystic power of the plant itself. The fertilizing power of the Nile water and of its slime was the most important fact in Egyptian daily life, and therefore in Egyptian Cosmogony. All created things were con-

* See Frazer's "Golden Bough.
† Hence the magical use of small images of persons who are tortured or killed through the image—an art known to the negroes and to the Middle Age.
‡ Frazer's "Golden Boughs."
§ See Frazer's account of the Turtle clan among the Zunis.
ceived to be an offspring of this prim-
eval slime or of its watery basis, and
the lotus was "the flower which was in
the Beginning, the glorious lily of the
great water." The sun, which was
worshiped as the greatest of gods, was
also believed to be an emanation of
moisture. Therefore, the water-lily
was its counterpart, its sacred flower,
its divine sign—laid on the altar of
every god, given to the guest at the
funeral, buried with the mummy, painted
on the tomb, carved on the temple. It
is not I, but the Egyptian, who was the
monomaniac, the enthusiast, and the
man of one idea. For my own part I
have several.

All this, it may be said, that you have
told us is an argument that destroys
itself. The lotus was great but it was
not almighty; were there then no pic-
tures of lions, or of asps, no images of
beetles? Were there no other sacred
plants? How, then, can the lotus
alone be the basis of all Egyptian dec-
orative art and the pattern of all the
forms of Greek ornament. To this I
should answer that I have never as-
serted all Egyptian patterns or all
Greek patterns to be derived from the
lotus, although this has been sup-
posed by several published criticisms. I
have proven, or attempted to prove,
that certain patterns are lotus deriva-
tives, but I have left it to my critics to
specify the origin of those patterns
which I have omitted to mention. In
my book I have made no general as-
sertions denving the existence of pat-
ters not derived from the lotus. There
is in my book no summary of facts to
be proven and no recapitulation of
conclusions drawn. Each chapter stands
by itself and each chapter has a differ-
ent topic. It may appear that when
the volute, spiral scroll, concentric
rings, meander, rosette, "honeysuckle," "ivy-leaf," and egg-and-dart moulding, have been specified—there is not much left—but this is not my fault. It is the limitation of Greek art, not I, that is to blame.

The odd thing is that I could have reviewed myself much better in an adverse sense than any of the critics who have antagonized a position I have not taken; supposing that I had taken it. Some of my reviewers appear to have been limited in their knowledge of Greek and Egyptian ornament to the patterns described and illustrated by my book. Regarding prehistoric ornament in general (Ancient American, Polynesian, etc.,) the following passage will be found in the "Grammar of the Lotus" (p. 373): "It is by no means assumed that the naturalism which invaded ancient ornamental art as early as the fourth century B. C. has not had also an influence of a widespread character. Nor is it assumed that a Dyak, for instance, does not, from his own motion, supplement the patterns which have been in question, by others drawn from naturalistic instinct or his own peculiar symbolisms. The position taken is simply that the civilization which first perfected pattern ornament had so high a degree of development in very early times, as compared with any other, that it has insensibly affected all, first by its civilization, second by the patterns which went with it. It is a matter of historic fact which is in question, a matter of fact to which the history of the alphabet offers surprising analogies and which the history of the alphabet largely explains." In the discussion of prehistoric and (supposed) barbaric ornament I have confined myself to four patterns—the chevron, concentric rings, the spiral scroll and the meander (of which I have proven the Swastika to be a section). It is true that these are practically the only patterns of Prehistoric Europe, but here again the limitation is not one for which I am responsible. If I were to assert that all known liqueurs are made in Europe, it is no argument to reply that the assertion is improbable because whiskey is made in America. The fact is that the limitations of conventional pattern ornament are of so peculiar a nature that they offer a very strong argument in behalf of my positions, but these limitations also appear to be unknown to my adverse critics, and it is useless to ask them to account for a fact of which they are ignorant.

To return to my demonstrations for Greek ornament, I will again admit that the Ionic form, spiral scroll, meander, rosette, anthemion, "ivy leaf," and egg-and-dart patterns (with its variants), cover most of the ground, and I am positive that in fifteen years there will not be found one archæologist who will not admit that they are all lotus derivatives—but there are two points to be made here against my adverse critics. First—the limitation of Greek ornament to certain elementary forms, from which all others are evolutions, is a very peculiar fact, demanding an explanation, which explanation has not previously been offered. Second, not one of my adverse critics has brought me to book for my omission of the so-called "acanthus leaf" from the list of Greek patterns—no one of the persons assuming that I had claimed all Greek patterns to be lotuses in derivation has called attention to the profusion of these "acanthus" patterns in later Greek ornament. This was about the only criticism that I expected on my chapters for Greek art, and it is the only really serious one that could be offered. I omitted the "acanthus"
from the "Grammar of the Lotus" because I did not reach a satisfactory solution until the work was in press. I will now announce the apparently impossible fact that the evolution of the acanthus motive was by way of the egg-and-dart pattern and I will furnish the demonstration in another paper. I omitted the Corinthian capital from my work because no solution of its problem which does not include the acanthus would be satisfactory, and I will say here that various suggestions that the Corinthian capital is a lotus derivative, which have been made by other students,* must be considered premature until my acanthus demonstration has been published.

I have apparently moved away from a point to which I am really returning. It has been assumed by some critics that I have announced the lotus as the basis of all Egyptian patterns.† Now I have not announced the lotus as the basis of any pattern which has not been published in my book. There are a number of diaper patterns which I have not published, although many or most of them might be included as lotus derivatives by a person willing to carry assertion further than proof, which person I am not. Yet no one of those assuming me to have taken a position I have not taken, has used as an argument against me the existence of the star pattern in Egyptian ceilings, which is positively not a lotus. No one has specified against my assumed position the ceiling pattern of grape bunches and vine leaves at Thebes. Furthermore, no one has urged against my assumed position that patterns of "anks" and "tats" are fairly frequent in Egyptian art and projected asp patterns very frequent. From which I argue two things—that some reviewers have not read my book very carefully and that they were willing to accuse me of being an extremist without knowing themselves much about the

subject of patterns—or, in other words, that they did not know much and what they did know they learned from me in too great a hurry.

Now I am prepared to come back to the initial objection. Admitted the significance of the lotus and its symbolic use in Egyptian ornament, how can we account for the exclusion of other symbols from pattern ornament. Answer first—other symbols were not excluded, although they were not nearly as common and none of them are known to have influenced the Greeks or the prehistoric nations.

I will pose a second answer by putting another question to my assumed antagonist. Why is it that when the lion, bull, ram, cow, serpent, asp, cat, crocodile, ichneumon, ibex, gazelle, fish, hawk, goose, ibis, vulture, heron, cynocephalus, jackal, scorpion and beetle (scarabæus) were all solar or divine animals, representing deities whose worship was more or less equally popular in Egypt—that the enameled clay and stone amulets of the scarabæus outnumber the enameled clay amulets of the other animals named all added together by the proportion of about ten thousand to one. One answer certainly is that the form of a beetle as represented with closed wings can be fairly copied in enameled clay without any mechanical difficulty. It is oval above and flat below and can be moulded easily. These amulets are very small and it is much more difficult to make a small clay lion, hawk or bull, and the object would be much more fragile when made. Then, in the next place, the Egyptians were extremely conservative and absolutely tied down by tradition. They never did anything which they were not in the habit of doing, to put the matter in an Irish way. This answer appears sufficient in most cases. In other cases—for instance, the fish—we are able to say definitely that the symbol had not nearly as great a vogue. On the other hand, the beetle is almost, if not absolutely, unknown in bronze, in which material most of the animals above named are very frequent. Scarabs are unknown in wood and so are serpents and lions. Wooden hawks are very common. Now to give an

---

*For instance, by my reviewer of the New York "Nation," and by Professor Allan Marquand, of Princeton.

†For instance, by the New York "Critic," which in general passed a very favorable verdict on my work—"It is not too much to say that Mr. Goodyear has put a new complexion on the whole subject"—and by the New York "Nation," whose notice was highly complimentary in all senses, although questioning a number of my positions.
explanation is not always possible but the fact is there. And the fact is; as small amulets (amulets proper) are largely confined to enameled clay; that the scarabæus is the typical Egyptian amulet for animal forms. It may easily be conceded that its vogue was also much greater. (It was especially an emblem of the god Ptah of Memphis). Now what holds of the scarabœus in amulets holds of the lotus in surface patterns, but to an enormously greater degree. The lotus was not only an emblem of one god, but it was an emblem of all. It is found also as the counterpart and equivalent of every sacred animal mentioned, which again enormously increases its ascendancy or repetition. It also appears on nearly all pictured altars of offerings, however varied the other offerings may be. To explain the general frequency of the lotus picture we may suggest also that it was a fetich of greater antiquity or greater popularity than most. That it was more popular is certain, and it has been a symbol with nations like the Hindoos and Japanese, which in other respects show no trace of Egyptian influence. This points either to a high antiquity of lotus fetichism with a race from which both Hindoos and Egyptians sprang, or else it points to an influence of Egypt on Hindoostan by way of Assyria and Assyrian lotus patterns. In either case the resulting argument is the same. If the Phenicians and Assyrians show so many traces of lotus worship when in other respects they were less obviously Egyptian, this again must point to the fact that a foreign influence is most apparent in what was most peculiar to the race having the influence—or else the fact again points to an earlier community of race. Now, in the case of the lotus for surface pattern, as in the case of the scarab for amulets, the fact is there, explain it as you will, that its ascendancy as regards amount of use and repetition is simply phenomenal.

But the main point appears yet in reserve. I have observed that some people do not sufficiently consider what fact is involved in the distinction between a picture and a pattern—the fact, namely, of indefinite repetition. An artist would scarcely attempt an indefinite repetition of pictures of lions or rams; the effort is too laborious, because the picture is too complicated. On the other hand, the repetition of lotus flowers, lotus buds, lotus leaves, or lotus rosettes is easy. Patterns grow: they are not made; and they grow from what is repeated. The question may then be raised, why not other flowers and plants beside the lotus? I answer, that is the affair of the Egyptian priests, not mine—invent your own explanation. If you care to accept mine, here it is. There does not appear to have been any plant which was as significant or as sacred as the water-lily (the reasons for this significance have been mentioned), and
nothing was tolerated in Egyptian art that was not significant and sacred.

From a contrary point of view the New York Nation says: "We see in their ornament, for instance, a variety of campaniform flowers, of very distinct types, carefully discriminated. They had undoubtedly a great variety of such flowers before their eyes in nature, and while they gave the lotus pre-eminence it is easier to believe that they took their decorative material where they found it than that they laboriously travestied their sacred symbol into such various and uncharacteristic forms as are ascribed to it." It is the theory and habit of modern decorative art with which the reviewer has here mentally endowed the Egyptians in his own fancy. This use of "decorative material" so natural to us and so matter-of-course to the mind of a modern reviewer was foreign to their stern and solemn fancy. The Egyptians did not "decorate"—they painted talismans. Before we can invent or suggest a botanical original for any Egyptian conventional form of flower, campaniform or otherwise, we must have texts and religious documents to prove that this flower had a divine meaning, or else we must have the flower in an unmistakable realistic pictorial appearance in a divine association. Now this cannot be shown for any flower but the lotus. In the next place, the Egyptians did not "laboriously travesty" anything. A conventional decorative art taught by theory has never existed before the decorative art craze. All conventional departures from nature in historic ornament are the result of copying copies hastily with, or on, tractable materials—or they are the result of rapid indication, subsequently misunderstood by artists using a pictorial symbol without reference to nature. (In the case of the egg-and-dart moulding the empty space between the flowers became the element of the pattern.) For a thousand years Byzantine art never looked at a human figure to copy it. It copied a traditional type of picture. Egyptian art can only be understood and studied in the same sense. The whole assumption that the Egyptians went to nature is erroneous—they went to tradition. Finally, I should turn the tables on my reviewer by asking why the Egyptians who had "a great variety of flowers before their eyes in nature" always selected a "campaniform flower." Are there not many flowers which are not campaniform? The fact is there are only two types of "campaniform flower" in Egyptian ornament; not a great variety. One type is the natural lotus, with various conventional evolutions—the other type is the outline copy of a lotus amulet made of hard material (the so-called papyrus) with conventional evolutions.

If we appeal to pictorial art or to hieroglyphic texts we find next in importance to the lotus as a divine plant—the Persea tree. Isis in the Persea tree is a common thing in Egyptian art, but we find no pattern of Persea trees or of details of Persea trees in Egyptian ornament.

There still remains the question of the papyrus. Of this it may be said that there is not one case in Egyptian art of a pattern formed of realistic papyrus. There is not one case in Egyptian ornament of a so-called papyrus form which has not been called a lotus by some Egyptologist. But I will deal with the "papyrus" at some other time. It is enough to say now that if I know little about it others know less. Extinct to-day in Egypt, it is unknown to Egyptologists by personal vision. In the year 1854 only one correct modern picture of the realistic papyrus had ever been published. That picture was made in the eighteenth century for Bruce's "Travels," and that is the original of the picture used to-day by Webster's Dictionary and by the Encyclopædia Britannica.

I have devoted this much attention to the criticisms of various reviewers not to "best" them or even to vindicate myself, which is not the affair of the public, but because the objections of the reviewers clearly suggest difficulties which will occur to the public in general. It appears, for instance, to the reviewer of the Critic that I have included all Egyptian patterns in my work: "We cannot agree with him in assuming that it was the sole origin of
every sort of pattern, even in Egypt." Now this overlooks the point that I have proven the "pot-hook" of North European prehistoric ornament to be evolved from the goose. The fact is really that the conventional ornaments I have described do include the elementary forms of nearly all the purely conventional patterns of the later civilized world; but this is because our own conventional art is of classical derivation. Probably there is not a single form of typical ornament in classical art which cannot be traced to the lotus, but I have not said so in my book. As already stated, the ornaments of the "bronze culture" of prehistoric Europe are very limited in number. That they all have Egyptian counterparts is indisputable, and that they came from Egypt with the arts of metal to the Stone Age of the North is my assertion. That normal lotus forms together with the meander, chevron, concentric rings and spiral scroll, as found in ancient American art, are derived from Mediterranean art is also my assertion—but I have not asserted that Dyak or Zuni ornament have no other elements.

In the very appreciative review in the Nation I also find a similar passage misstating my position as to Egyptian ornament: "It is incredible that the Egyptian having once accepted that plant (viz., the lotus) as the symbol of his deity and luminary, and used it for ornament, never admitted any other, never associated with it a single line of his own fancy or from any of the myriad natural or geometric forms that were forever under his eyes, but in the slow course of centuries developed all his great store of decorative forms out of this single flower." The fact is mainly that he did this incredible thing, but not in such an incredible way as to make it incredible.

It is incredible that a school of independent landscape painting was unknown to history until two hundred years ago. It is incredible that, since antiquity, landscapes were only found as the backgrounds of religious paintings until the fifteenth century; only found as the backgrounds of classical and religious paintings until the seventeenth century. It is incredible that the crucifixion of Christ is not found in the earliest Christian art, and that it is omitted from one mosaic series where
every other event of the Passion is represented. It is incredible that the whole sixteenth century, all over Europe, abandoned its Gothic naturalism for a return to classic conventionalism without reference to surrounding nature in its pattern ornament. But these are all facts, however incredible.

To the eighteenth century it was incredible that the Furies of Greek art are placid and beautiful figures, or that the Rondanini Medusa was evolved from the type of the Gorgon of Palermo. As I have already said, there are certain Egyptian patterns which I have not published, and I have asserted nothing of any pattern that I have not published. The main fact remains that Egyptian and classic ornamental art are very curiously limited, and that I have been held responsible in some quarters for the character and religion of the ancient Egyptians, which explain this limitation. It is so much easier to correct a modern author than it is to understand an ancient nation.

Still debating this question of the limitation of ancient ornament, let me turn again to the topic of Greek art. It may be said: "If the star pattern, the ankh pattern, the tat pattern, and a pattern of grape bunches and vine leaves are found in Egypt, how do you know that they were not found in Greek art?" I answer—possibly they may have been or were so found. I have asserted nothing except for the patterns published in my book. I have found that I have given the average critic credit for a knowledge which he does not possess regarding the patterns which I have not published. And still I am willing to admit that I have published most of the Egyptian and classic patterns and perhaps all the fundamental classic patterns except the "acanthus" which are known, and therefore I have entitled my book a "New History of Classic Ornament as a Development of Sun Worship."

IV.

This is a long introduction, but I have found the point of supposed absurdity, inherent improbability, etc., to outweigh some of the most absolutely conclusive proofs which were ever put on paper. The Nation says: "This bold thesis is maintained with great acuteness and range of evidence and with an opulence of citation from other authorities, and especially from examples of the early art of all countries, that surprises the reader and at times almost takes his breath away... the recurved petals of the lotus are shown to produce the Ionic flower, the flower begets the volute, the volute the scroll, the scroll the concentric rings. The addition of tangents to the rings produces the curvilinear meander,* the meander the fret, the fret the Swastika; and the argument is persuasive at every point." But—now comes the but. "The argument is persuasive at every point," but "the argument proves too much."... In the "logic of probabilities the conclusion is weakened at each remove. It is not a chain which is as strong everywhere as its weakest link. The uncertainty is cumulative."

This may so appear to a student who has rapidly read through my book for the purpose of review, but it will so appear less and less to a student who, for a series of months or years, examines the monuments and the publications from which I have culled a number of illustrations large for a book, but very small, considering the number of monuments and publications and the importance of the facts involved.

What is requisite for the professional archaeologist is first and foremost a patient study of Cypriote vases. In spite of the length of many reviews given my book, I have not met one mention of my chapter on the Geometric lotuses of Cyprus, and yet that chapter is the key to the entire situation. All my studies were inspired by the problems of the Cypriote vases. The evolutions of ornament which they exhibit must be the initial education of the lotus expert. They stand midway between the art of the ancient East and the art of Greece. I have not

* Argument not quite correctly stated; intention good. Concentric rings were derived from rings with tangents, rings with tangents from the spiral scroll.
made one discovery which was not inspired by them.

I did not begin my studies with any theory to prove or any definite end to attain. In July, 1887, I sat down to write two pages for the American Journal of Archaeology on the problem suggested by the pottery lotuses of Cyprus. The result has been a work of four hundred royal quarto pages, containing thirteen hundred illustrations. It is the logic of the evolution itself which has led me. Where I started most of my critics stand already. I have not found one review except that of the Independent which has antagonized my theory of the Ionic volute, and Dr. Tylor, who does not seem thoroughly convinced, has not made his reputation in the field of classic art. My first observation on the lotiform origin of the Ionic volute was made in 1873, and I did not prove the point to my own satisfaction till 1887. The critics have done well who have reached the same conclusion through the study of a few plates of illustrations in a day or a month. But it has not been sufficiently considered what is involved in the theory of the Ionic spirals. Not only is there philosophically no line to be drawn between one form of spiral and another, but the identity of the Ionic spiral with the spirals of the anthemion “honey-suckle” has already been proven by another archaeologist (Dr. Joseph Thacher Clarke). Whatever proves the Ionic Capital to be a lotus carries the anthemion with it. I never yet have met a specialist in architecture, art, or archaeology, who did not immediately concede the origin of the egg-and-dart moulding, as soon as illustrated. The Christian Union critic is the only one who expresses a doubt on this head. The demonstrations for the rosette are so conclusive that it is only a question of a little time and independent observation. There is not much left in Greek ornament when these elements are disposed of. The “acanthus” evolutions are all of a late period.

Now comes the question, can we admit the spiral to be a lotus in Greek art invariably (a point which can be proven to satiety) and deny it to be a lotus in the Egyptian art from which this lotus ornament came. It is here that the argument from concentric rings applies—it fixes the solution. Itself the most improbable of lotuses, it demonstrates the spiral scroll—just as the meander is proven a lotus evolution through the Swastika.

When the Ionic volute has been once accepted, I do not see where to draw the line, and I would gladly have done so to avoid the appearance of being an extremist.

V.

It will be observed that I have aimed in this paper to meet general objections before offering subsequently special proofs, and I have acted on this principle, because it appears to me necessary to meet my critics before appealing to the public. The latter would otherwise distrust me.

From this point of view I have still an objection to meet. As very well stated by the Nation, this is “the extreme probability that different nations were working out apart their own habits of ornamentation, and the fact that there is a considerable number of forms so obvious and inevitable that it would be a wonder if they were not nearly universal. In point of fact, as we all know, certain ones are practically universal, and are reinvented every time an untaught person tries to invent ornament; others, such as the fret, meander and rosette, we may fairly say, are found wherever a people have by practice developed a system of ornament. Most of these simple elements are found in the ornament of every savage tribe that has attained a little skill.” As the Christian Union puts it, “Children who never saw a lotus draw rosettes.” Or, according to the Critics: “Given the tools and an instinct for decoration, geometrical ornament will spontaneously follow.”

These assertions simply beg the question whether or no I have proven my points. They restate the belief which has so far been universal, and which I have shared with the rest of the world until I saw cause to think differently. First, they overlook the surroundings
and facts of modern civilization. No child draws rosettes who is blind, and every child, who sees, has seen rosettes before attempting to draw them. These rosettes, in modern use which the child has seen are a direct traditional inheritance from classical antiquity. Our own meanders are all of classical origin and so are all our spiral scrolls. Our trefoils and anthemions are all a traditional inheritance from classical antiquity. Why should we assert for savage nations a talent and inventive capacity which we do not put in practice ourselves? It appears to me that critics who make these assertions have not studied the history of Renaissance ornament, or have forgotten it, or that they are led astray by the artificial efforts to teach off-hand conventional design to children which have come into fashion since the decorative art craze and the discovery of Owen Jones that good historic ornament has been mainly conventional. Since the decorative art movement we have seen many diaper patterns on oil cloths and wall-papers which are a product of this new artificial training; but the conventional patterns of wood-work, metal-work and stone-carving, the traditional forms of trefoil, scroll, meander and anthemion are still the most prevalent, and they are traditional. There is not a spiral scroll ornament in the civilized world to-day that does not show Renaissance influence and origin, and down to 1850 there was not a conventional design in civilized countries that was not traditional. I reassert, then, that the inventive faculty boasted of, is not even found in modern artificial civilization. When we move back to the Greeks it becomes a question of fact that, whatever the origin of the ornament as regards nature, the ornaments themselves were all borrowed. The nation which is conceded to have had a supreme talent for decoration did not invent one elementary motive of its own ornament.

When these facts are conceded, shall we continue to claim for savage tribes a general faculty for inventing meanders, spiral scrolls and rosettes? I hold that the contention that savage tribes ever make an abstract pattern that does not go back to nature by a series of conventional variations is one which has to be proven. More than all, I challenge the assertion most distinctly that "most of these simple elements (viz., the fret, meander and rosette) are found in the ornaments of every savage tribe that has attained a little skill." Within my observation the rosette is unknown to savage African ornament.* It is so little known to Polynesia that I can only quote one case (viz., Samoa) in one individual instance. The rosette is not common in ancient American ornament. I know it in stone carving (at the top of stone posts) at Labnah, but I do not know it at Uxmal (where the Nation reviewer thinks he knows it). The rosette is fairly common on Zuni vases. In all the above cases I assert it to be derivative. The rosette is absolutely unknown to North European prehistoric ornament.† The meander is so rare in Polynesia, that I have never seen an instance; it is unknown to savage Africa. My contention is that all forms of the spiral in Polynesia have moved from a Malay centre, and when we strike Malay ornament we stand on solid ground as regards the lotus. The Dyak (Malay) ornament is conclusive testimony and points to Hindoo or Phenician transmission.

To quote again from the Nation:
"The argument amounts to the assertion that the art and religion of all the world and, therefore, almost necessarily the civilization, were the gift of a single people, transmitted in turn to every other, to the absolute denial of any other initiative or independent development." This approximates to a statement of my position, not as regards art (although certain forms of ornament are in question), not as regards religion—but as regards civilization—decidedly yes! My position is that the first substantial step in civilization was the discovery of bronze, that this discovery was made in Egypt, and that the patterns of the chevron, meander, concentric rings and spiral scroll were

* It is found in the gold jewelry of the Ashantes, who also have the swastika and the normal lotus.
† It traveled from the south as far as Halstatt.
transmitted to the Stone Age of Northern Europe with the arts of metal. My position is that Ancient America experienced influences of Mediterranean culture through Phoenician voyages or otherwise. My position is that any of the patterns in question, as sparsely found in Polynesia, are traceable to Malay influence. My position is that Greek ornament is Egyptian throughout in elementary origin, and that the particular elements of Egyptian design which are known to have influenced Greek art were all evolutions from the lotus. Not having reached a solution of the acanthus, I did not announce this last position in the "Grammar of the Lotus," but I announce it now.

Wm. H. Goodyear.

(to be continued.)
"WATCHMAN, WHAT OF THE NIGHT?"

WATCHMAN, what of the Night? What of the Night?"
“No sign of Day, my Heart, no sign of Day.
The wheeling stars drop down into the Night,
And, for the coming of the light, my Heart, I pray."

“Watchman, what hearest thou? Some whisper stirred
Within the vastness, like a summer air.”
“No. No, my Heart, ’t was thy own throb I heard;
This silence is God’s voice, and I despair.”

“Watchman, what hopest thou, of Joy, or Pain?”
“Oh! hush, my Heart, Hope is a thing so frail;
I dare not think, lest Thought should prove Hope vain
And rob Life of a light that burns so pale.”

“Watchman, what thinkest thou: ’T were well to pray?”
“I have sent a prayer, my Heart, beyond the Night;
Dove-like, perchance, it may have reached God’s Day,
And yet may bring glad tokens of the light.”

*Harry W. Desmond.*
Modern

French

Residences

[From "La Construction Moderne."]
Bois de Boulogne, Paris, France.

GRAND STAIRCASE.

M. F. Gaillard, Architect.
Bois de Boulogne, Paris, France.

SALON.

M. F. Gaillard, Architect.
S Constantinople was a Christian city as well as the seat of the lower Empire, we might expect that when it was taken by Mahomet the Second (May 29, 1453) all the national buildings would be destroyed, and as Mahomet and his Turks were Mussulmans that, if nothing else were destroyed, the churches would be; in fact most of the secular buildings were destroyed, but curiously enough the Christian churches were found to be so perfectly adapted to the Mussulman ritual, that a great number of them, including Sta. Sophia were converted into mosques, and the conversion they required was small, the altars, iconostases, and the ambos were removed, the Mihrab or Kibla was set out on the line of Mecca, which rarely coincides with the orientation of the Christian churches, and the step in front of the Kibla was put at right angles to it, which makes many believe that the churches are out of the square.

James Ferguson believed that many of the Turks were still housed in the old palaces; but, from domestic privacy being fanatically cherished by them, it is impossible for antiquaries to enter them, and to settle the question.

The Marquis de Voguë has found ruins of churches, of secular public buildings, and of private houses in Central Syria; but their requirements must have been different from those of the Roman palaces at Constantinople, even if the difference of climate were alone to be taken into consideration. The nearest approach we have to the Byzantine palaces of Constantine’s time is probably the Palace of Diocletian at Spalato; still there are plenty of de-
scriptions in the Byzantine writers of parts of the Imperial Palace at Constantinople. As the Imperial Palace was of great magnificence, I will give you a description of it. Through the indefatigable industry of Labarte, particulars were gathered by him from the Byzantine authors, and from these he drew out a plan of it, as it existed in the tenth century, mainly from the description of Constantine Porphyrogenitus. I am mainly indebted Romans migrated to Byzantium; but, on the contrary, the Byzantine emperors, who were mostly of barbarian origin, tried to make up for the loss of art by the lavish use of gold, silver, enamel, and jewels. The Bulgarian peasant, Justinian, had a passion for costliness, not only in his own palace and for his own court, but for churches too, and the new Sta. Sophia having been built by him, and being the court cathedral, he spared no expense to

LONGITUDINAL SECTION OF THE THÉOTOCOS.

to him for the description. If this description were of no other use, it would at least enable you to comprehend much of the doings of the Emperors at Constantinople, which without it would be incomprehensible. And you will also hear of the magnificence with which it was decorated.

Up to a certain period, Rome had given the ideas of sumptuous decoration to the barbarians, and to this day certain words in general use bear testimony to it. The oriel window was the window to the golden parlor of the monasteries, and these golden parlors were imitated from the gilded or gold-plated rooms of the imperial palace. We know that as early as the days of Horace, grand houses had ceilings of ivory and gold. These habits of magnificence were not given up when the make it sumptuous; he had all the fittings and furniture of the Bema made of gold or solid silver, and this silver was mostly gilt. Procopius tells us that 40,000 pounds weight of silver was given by Justinian for this purpose, and he, the Empress, and the whole court and its attendants were clothed in equally sumptuous apparel. This latter taste, however, was antecedent to Justinian, for not to speak of the dresses of Diocletian and Constantine, we read in Gibbon of the Emperor Julian calling for a barber soon after his entrance into the imperial palace, when an officer magnificently dressed presented himself. "It is a barber," exclaimed the prince, with affected surprise, "that I want; and not a receiver-general of the finances," and on questioning the barber he was told that, besides a
large salary and some valuable perquisites he had a daily allowance for twenty servants and as many horses. The savage, and often naked, Arabs rapidly fell into this taste for costliness, and even surpassed the originators, for we read of the ambassadors of Constantine (the 7th) Porphyrogenitus, the Artistic Emperor (916-959), visiting the Caliph El-Muktedir (917-942) in 927, and being astonished at the magnificent of his court. Lane, in his notes to the "Arabian Nights" gives the following account: "In the beginning of the year of the Flight, 305 (June A.D. 927), two ambassadors from the Roman Emperor (Constantine 7th, Porphyrogenitus) arrived in Baghdad on a mission to the Khaleefeh El-Muktedir, bringing an abundance of costly presents;" and the scenes which they witnessed are thus described, apparently, however, not without some exaggeration: "They were first received by the Wezeer, who, at the audience which he granted to them in his garden palace, displayed on this occasion a degree of magnificence that had never before been manifested by any of his rank; pages, memlooks, and soldiers crowded the avenues and courts of his mansion, the apartments of which were hung with tapestry of the value of 30,000 denárs; and the Wezeer himself was surrounded by generals and other officers on his right and left, and behind his seat, when the two ambassadors approached him, dazzled by the splendor that surrounded them, to beg for an interview with the Khaleefeh. El-Muktedir, having appointed a day on which he would receive them, ordered that the courts, and passages, and avenues of his palace should be filled with armed men, and that all the apartments should be furnished with the utmost magnificence. A hundred and sixty thousand armed soldiers were arranged in ranks in the approach to the palace; next to these were the pages of the closets, and chief eunuchs, clad in silk, and with belts set with jewels, in number 7,000; 4,000 white and 3,000 black; there were also 700 chamberlains, and beautifully ornamented boats of various kinds were seen floating upon the Tigris, hard by. The two ambassadors passed first by the palace of the chief chamberlain, and, astonished at the splendid ornaments and pages and arms which they there beheld, imagined that this was the palace of the Khaleefeh; but what they had seen here was eclipsed by what they beheld in the latter, where they were amazed by the sight of 38,000 pieces of tapestry of gold-embroidered silk brocade, and 22,000 magnificent carpets. Here also were two menageries of beasts, by nature wild, but tamed by art, and eating from the hands of men; among them were 100 lions; each lion with its keeper. They then entered the palace of the tree, inclosing a pond, from which rose the tree; this had eighteen branches, with leaves of various colors (being artificial), and with birds of gold and silver, of every variety of kind and size, perched upon its branches, so constructed that each of them sang. Thence they passed into the garden, in which were furniture and utensils not to be enumerated; in the passages leading to it were suspended 10,000 gilt coats of mail. Being at length conducted before El-Muktedir, they found him seated on a couch of ebony, inlaid with gold and silver, to the right of which were hung nine necklaces of jewels, and the like to the left, the jewels of which outshone the light of day. The two ambassadors paused at the distance of about a hundred cubits from the Khaleefeh, with the interpreter. Having left the presence, they were conducted through the palace, and were shown splendidly-caparisoned elephants, a giraffe, lynxes, and other beasts. They were then clad with robes of honor, and to each of them was brought fifty thousand dirhems, together with dresses and other presents. It is added that the ambassadors approached the palace through a street called the street of the 'Menarehs,' in which were a thousand menarets. It was at the hour of noon; and as they passed the mueddins from all these menarehs chanted the call to prayer at the same time, so that the earth almost quaked at the sound, and the ambassadors were struck with fear." ("The Thousand-and-One Nights," Lane, 3 vols.,
8vo., London, 1859. Note to the story of the Second Lady of the Three Ladies of Baghdad.)

I give you this extract partly because the Imperial Palace as shown is of the date of Constantine Porphyrogenitus, and partly to show you that the rarities and ceremonials of the Caliph's palace were almost a counterpart of those of the Byzantine Court. The Grand Triclinium of Magnaurus was built by Constantine the Great, and much resembled the great hall of Diocletian's Palace. It was used by the Emperors for the reception of Princes and Ambassadors, and was a vast hall formed into two aisles and a nave, by six columns on each side; at the end was a dais, reached by steps of green marble, with an apse at the back; two columns on each side of this apse supported curtains with which the end of the hall was draped.

"The Emperor was robed in the Imperial dress before mounting the throne, called the throne of Solomon, and all the Senators and grand dignitaries were there assembled. The throne was of gold, enriched with precious stones. There were birds that warbled by ingenious mechanism; close to the throne there was an enormous cross of gold covered with precious stones; beneath it were placed the golden seats for the members of the Imperial family. At the bottom of the steps of the dais on which the throne was placed were two lions, which raised themselves on their paws and roared like real lions; not far from the throne golden trees bore on their branches birds of different sorts who imitated the harmonious song of the birds whose form they borrowed; a great organ, enriched with precious stones and enamels, was also placed there."

The palace of the tenth century was built piecemeal. Constantine built his palace, which was largely added to by that great builder, Justinian; subsequent Emperors made additions, built new palaces, or new suites of apartments for themselves. We can easily understand that those who had murdered their predecessors had delicacy enough to prefer using new rooms which did not remind them of their
crimes. These additions were made until a new palace was built at Blachernæ, on the Golden Horn, and the old palace was less and less used, until it was finally abandoned. Benjamin of Tudela, the Jewish Rabbi, who visited Constantinople in the twelfth century, only speaks of the palace at Blachernæ, and when Mahomet II. took Constantinople there were only the ruins of the old Imperial palace.

Constantine the Great, though professing Christianity, had not done away with the old Pagan worship, and was only baptised on his death-bed by an Arian bishop. In the old Roman days religion was intimately connected with every act of life, and as the Christians increased in number and power they substituted the Christian worship for the Pagan, but kept up the old custom of associating it with every act of life, so that cathedrals, churches, baptisteries, chapels and oratories became as frequent as the old temples and shrines. You will find the Imperial Palace crowded with these new religious buildings. Eventually the Emperors, before they were crowned, had to make profession of the orthodox Christian faith, and as, in an ecclesiastical point of view, they were inferior persons to the Patriarch, they frequently had to attend public worship in the cathedral, and to have chapels and oratories at hand to say their prayers in. The bulk of the rooms on the south side of Sta. Sophia were mainly devoted to the Emperor’s use. The hippodrome acted the part of the old Roman forum, where the people assembled and criticised the Emperor’s ways, and the games were always presided over by the Emperor. The hippodrome begun by Septimius Severus was finished by Constantine the Great. It had a great influence on Constantinople, for Constantine set out his palace at right angles to it, and subsequently Sta. Sophia was set out in the same way parallel with the palace. The hippodrome was once a museum of art; the horses of St. Mark, which were taken by Theodosius II. from the Island of Chios, came from it, now nothing remains but the obelisk, the bronze tripod of Delphi, with headless serpents, though one head is in the museum, and the built obelisk of Theodosius stripped of its brazen covering. The palace was not one building with an architectural front, but was a conglomeration of buildings, open areas, passages, baths, churches and oratories, stables and gardens. The main group consisted of three palaces, called the Chalce, the Daphne and the Sacred Palace; this last is considered by many as the palace proper; but the Hippodrome, the Forum Augusteum, the Baths, the Cathedral and the Palace were joined together and really formed a sort of whole, while smaller palaces were dotted about the grounds and were called the Aetos, the Boucoleon, the Porphyry Palace and the Penta-cou-bouclon.

I think the simplest plan will be to begin with the Hippodrome and describe the position and collocation of the parts. It had the form of the Roman circus, only the triumphal gate at the south end was obliged to be left out on account of the steepness of the ground. It had four gates, two to the east and west, nearly opposite the south meta, the southeast gate being called the Gate of Death, for though Constantine had abolished the gladiatorial games, it
seems that the name of Porta Libitinensis was still used; it was originally so called because the bodies of the slaughtered gladiators were taken out through it; and two gates, also east and west, at the north end, nearly in a line with the platform in front of the Emperor's throne. At the back, farther north, was the Palace of the Caithisma, and beyond that the Baths of Zeuxippus. The northeast angle of these baths touched the southwest angle of the Forum Augusteum, a moderate-sized square, about 623 feet from east to west, by 460 feet from north to south, about the size of the Place Vendôme at Paris. The Forum was surrounded by a peristyle or cloister; on the south side it bounded the Palace of the Chalce; on the north Sta. Sophia, the Emperor's rooms, however, projecting into it; on the east it touched the face of the Senate House, the Church of St. Mary Chalceopatiana, and the front area of the grand Triclinium of Magnaurus; on the west side I know not what it touched, but on this side were the chapels of St. Constantine and St. Mary of the Forum. This Forum of Augustus contained most of the sculpture and statues that had been taken from the different provinces of the Roman Empire by Constantine to adorn his new capital. To the south of the Chalce was the Palace of Daphne, and to the east of these two the Sacred Palace. The Palace of the Chalce was almost entirely rebuilt by Justinian after it had been burnt in the riots of the Nika, and was entered from the southwest corner of the Forum Augusteum by an iron door; the Atrium ended at the south by a hemicyle covered by a semi-dome. South of this was a domed hall, ending southwards with a smaller hemicycle. I here give you the de-

FAÇADE OF DAPHNE, NEAR ATHENS.

scription of it from Procopius (Lib. I., cap. 10):—"As, according to the proverb, we know the lion by his claw, so my readers will learn the magnificence of this palace from the entrance hall. This entrance hall is the building called Chalce; its four walls stand in a quadrangular form, and are very lofty; they are equal to one another in all respects, except that those on the north and south sides are a little shorter than the others. In each angle of them stands a pier of very well-wrought stone, reaching from the floor to the summit of the wall, quadrangular in form and joining the wall on one of its sides; they do not in any way destroy the beauty of the place, but even add ornament to it by the
symmetry of their position. Above them are suspended eight arches, four of which support the roof, which rises above the whole work in a spherical form, whilst the others, two of which rest on the neighboring wall towards the south and two towards the north support the arched roof which is suspended over those spaces."

From this vestibule to the westward you enter into the oratory containing the tomb of the Emperor John Zimisces (969-976); to the north and east of this was the Noumera, used as a prison; from the vestibule to the east you entered through a splendid bronze door into the Triclinium of the Scholars. They were a part of the Praetorian guard. At the southwest end of this was the chapel of the Apostles; to the east of the Triclinium of the Scholars was a passage and the lychnos, where the Emperor received the homage of his servants and bestowed dignities on them; to the east of this was the Triclinium of the Ex-cubitors, another band of Praetorians, and that of the candidates, a cohort of the Emperor's guard; at the west end of this hall was a dome on eight columns, under which was a great silver cross. Near it was the grand consistory, which had three ivory doors. At the end was the Emperor's throne, covered by a cyborium, where he received the homage of the great officers of the crown. At the side of it was a large dining-room where the Emperors dined the dignitaries on festivals; in front of these four halls last mentioned was an open yard, about 65 feet wide, divided in the middle by a fence and gate, called the curtains, through which the Emperor occasionally rode; it was prolonged up to the Church of Our Lord, the Royal Chapel, up to the time of Basil the Macedonian (867-886). At the back of this church was a passage that led into the Phiale of the Sacred Palace, but by passing through the sacristy of the church one entered the Heliacon, or open area of the grand Triclinium of Magnaurus, the splendors of which I have before described. On entering the Palace of Daphne from the hippodrome by the door, you come into a large open court having a guard room called the porter's lodge in the southwest angle, and to the south of this was the covered hippodrome of the palace originally used by the Emperors, but it afterwards served as a shelter for the Senators' horses when the Senators waited on the Emperor at his palace; at the west corner of this was a staircase by which a garden called Phiale was entered; then came open courts with peristyles; then the ancient chapel of St. Mary of Daphne; then the oratory
of the Holy Trinity, the baptismery and a staircase leading into the Justinianos; the Triclinum Augusteos was a vast hall used for receiving the homages of the functionaries, and was often used for crowning the Empresses; beyond was an octagonal hall and the Emperor's bedroom, where he left his imperial robes and crown after attending service in state at Sta. Sophia; then a long open corridor or peristyle, which led to the Church of St. Stephen, that preceded the platform of the Cathisma Palace, and overlooked the race-course; from the windows of this church the ladies of the court saw the races and games. The Emperor Heraclius was crowned here, and it was used for celebrating the marriages of the Emperors. Above, to the north of this open corridor, and between the Palace of the Chalce, were the remaining open courts and chambers of the Palace of Daphne; the Grand Triclinum of Nineteen Couches; it was divided into three parts—the portico, the dining-room and the bedroom. Here the Emperor entertained guests at Christmas. All the plate used was of gold, and fruit was served in three gold vases, so heavy that they had to be wheeled on carriages, which were covered with purple, and they could only be lifted on to the tables by gilded leather ropes and pulleys; there were two silver columns at the end, between which was the Emperor's throne. It was not only used for grand dinners, but for grand receptions; many of the Empresses were crowned here, and the Caesars were here installed. I may say that at the close of the old Roman Empire, and during the continuance of the Lower Empire, the second of the joint Emperors was called Augustus, and the heir to the throne, Cæsar. For instance, Constantine was made Cæsar by Galerius, but claimed to be made Augustus; and the same dispute took place between Constantius and Julian. In this Triclinum of the Nineteen Couches, deceased Emperors were laid in state.

The Sacred Palace had an atrium semi-circular at both ends, and the mysterious phiale of the τρικογχος, or triple shell, its mysteriousness was probably owing to its acting as a whispering-gallery. The original meaning of the word phiale was a
PLAN OF SANTA SOPHIA, CONSTANTINOPLE.
saucer, or round, flat drinking-cup; but the word was afterwards used for the flat basin of a fountain, and then for any open space with a fountain in it. The triple shell applied to the half domes of the apses; there were three apses. I believe στολής is used when the inside of a squinch is hollowed out like a shell. From the north side of this you entered into the Chapel of St. John and from the south side into the baths; in the parts behind the hemicycle was a guard-house and a door to the under part of the terrace of Daphne. There was also a door into the hemicycle, a door to the under-portico of Daphne and a door to the baths; there was also a door into the hemicycle, and another into the courtyard. The phiale was also used for the games played before the Emperor and his friends. Two flights of steps round the eastern hemicycle led into the sigma, a large and long room, with apses at both ends, and three doors on its east side, so called from its resemblance to the old Greek sigma, or C; fifteen columns of Phrygian marble supported the ceiling, the walls were lined with precious marbles, on which verses were engraved. At the south end two bronze lions' heads spouted water into a vase, and in the middle was a little edifice of four columns supporting a dome, under which the Emperor's throne was placed when games went on in the courtyard; in front of the throne was a balcony; to the north of this was the Triclinium Eros, used as a museum of arms. From the south end was entered a room called Triclinium Pyxites, used as a vestry by the clergy of the palace. The two side doors that led into the triple shell were of bronze, the middle one of silver. The room itself, the triconque was a hemicycle, from which three apses were recessed; the half domes of these were called the shells or conchs. Two columns on each side of the east apse carried the archivolt, and this apse had steps or seats round it; the walls of this Triclinium were covered with various-colored marbles, and its ceiling was gilt, and pierced for light. The Emperor Theophilus (829-842) built this part of the Sacred Palace, and used to work here with his ministers. This probably also acted as a whispering gallery, as well as the
room under it. To the east was a T-shaped gallery; to the north of this gallery were the offices, with an open court in the middle; to the south were the kitchens, lit from the garden. The north end of the top of the T-shaped gallery ran into another very long gallery, called "The Gallery of the Forty Saints"; to the north of this passage was the "Pearl," or an apartment wholly built by Theophilus (829-842), surrounded on three sides by passages, and on the fourth by the gallery of the Forty Saints. It consists of an ante-room, a bedroom, and a sitting or dining-room. The roof of this dining-room was supported by eight columns of Rhodian marble (black and gold), and its walls were covered with marble mosaics of animals. The bedroom was vaulted, was carried by four marble columns, and was gilt, or of gold mosaic. Out of the third apse of the three-shell Triclinium were the upper winter rooms of the same Emperor, called the Carian, from being lined with Carian marble; and to the east of it was the gallery. To the east of this was the "Camias," consisting of an ante-room and a vast hall lined with verde antique, with six verde antique columns carrying the roof; above the marble lining were mosaics of people eating fruit; at the south end was a double-apsed oratory to the Virgin and St. Michael. Under it, on the ground-floor, was a room converted into a library by Constantine Porphyrogenitus; beyond was the coubouclion mesopatos; the ceiling carried by four columns of Phrygian marble; the wall was covered with gold mosaic, on which were trees of verde antique; beyond was the Empress's dressing-room, and below it was her bedroom, called the mosaic-room; the vaulted ceiling was supported by seven columns of Carian marble, its walls and roofs were covered with mosaic, and its floors are said to have resembled a meadow enameled with flowers; then a room and an oratory to St. Agnes. The last had a staircase for the Empress on one side, and the remaining part was decorated like the former chamber, and had to the south a vestibule into the garden, through which she could go under the Triclinium Lausiacos to the Cenourgion. The Lausiacos was a long passage, the north end of which went into the gallery of the Forty Saints, and the south into the grand Triclinium of Justinian; in the middle of the garden to the east of the former rooms, and nearly opposite, was a garden.
pavilion with two rooms on the ground-floor and two above. This passage Lausiacos separated the golden triclinium or throne-room from the part connected with the triconque. To the west of this passage, and adjoining the kitchen, is the oratory of St. Basil; to the east is the tripeton, horologion, or vestibule to the throne-room. The Patriarch waited in the tripeton while he was being announced to the Emperor. The throne-room was entered on the west by a silver door, the work of Constantine Porphyrogenitus. It was an octagon inclosed in a square, its interior is not unlike St. Vitale in plan: on each of its eight sides were apses; above the arches of the apses was an entablature whose projecting cornice formed a circular gallery round the hall used on grand occasions by the Empress and her ladies; the dome, which rose from the back of this, had sixteen windows. The west apse formed the entrance, and its front was covered by a purple curtain, hung by silver rings, called the curtain of the Pantheon, or the Pantheon only; there was another doorway into this apse to the north, communicating by an irregular-shaped room with the "Passage of the Forty Saints." As each of the apses of the throne-room were inclosed by curtains they formed separate rooms. One was used as the vestry of the Patriarch. The other was the entrance to the Emperor's private apartment; when the Emperor gave a grand banquet the musicians were here. The other apse was called that of St. Theodore, and was used as the robing-room of the Emperor; at the back of it was the oratory of St. Theodore, the Emperor's robes, his crown, his arms, two shields of enameled gold, and all the arms and insignia of office of the head officers of state were kept here; another apse had a silver door of two leaves, which led to the Heliacon of the lighthouse; this apse had a picture in mosaic of Christ on his throne, to which the Emperor prayed
on entering or retiring, and in this apse was placed the imperial throne. Another apse is supposed to have communicated with a staircase to the gallery.

There is another staircase communicating with the dining-room of the cenourgion, and it is supposed that the Empress and her court went into the gallery on great occasions. Another apse communicated with the "Gallery of the Forty Saints." There is a place supposed to have held the porter of the Sacred Palace, and, when he was absent, the keys of the palace; the pavement was designed in the tenth century by Constantine Porphyrogenitus, and seems to have been of Opus Alexandrinum, bordered with silver; the walls and vaults were covered with mosaic, and from the centre of the cupola hung a huge candelabrum called Polycandelon. Basil, the Macedonian, after having murdered his colleague and benefactor Michael the 3rd, did not care about living in the late Emperor's apartment, and had one built to the south of the throne-room, which was called the cenourgion. This apartment afterwards became the private dwelling of the Emperors, until they migrated to the palace at Blachernae. The first room of the apartment was the Emperor's private dining-room, entered from the tripton, which also communicated with an irregular chamber in the outer square of the throne-room. The makron, or long gallery of the bedroom, touched the narthex of St. Mary of the lighthouse, from which it was shut off by silver doors. The narthex before mentioned extended across the Chapel of St. Demetrius. From the makron the door into an apse of the throne-room opened. The dining-room and makron must have been lit from the roof. Constantine Porphyrogenitus gives the following description of the vast hall: "It is sustained by sixteen columns, disposed at equal distances. Eight are of verde antique, and six of onyx, sculptured with branches of the vine, in the middle of which all sorts of animals disport themselves. The last two columns are also of onyx, but the artist has decorated them with oblique stripes; spiral reeds or flutes, I presume; in all this work variety of form has been sought as an additional pleasure for the eye. All the hall from the top of the columns to the vaults, as well as to the east cupola has been ornamented with most beautiful mosaics, representing the orderer of the work, enthroned in the midst of the generals who had shared the fatigues of his campaigns; these present him the cities he has taken as an offering; immediately above, on the vault, are reproduced the herculean feats of arms of the Emperor, his great works for the happiness of his subjects, his efforts in the field of battle, and his victories granted by God." To the east of this hall is a little vestibule, which preceded the bed-room; its ceiling was a cupola, in which doubtless were windows; the mosaics which decorated the walls were remarkable for the composition of the subjects and the harmony of the colors. Constantine Porphyrogenitus had constructed in this vestibule a basin of porphyry, surrounded by marble columns, admirably polished; the water-pipe was hidden by a silver eagle with its neck turned aside, and with the proud air of a lucky hunter it held a serpent in its claws. Near by were serving rooms, one of which had a staircase in it, for although the throne-room was on the ground, the ground sloped so rapidly to the sea that here it admitted of there being a lower story. Constantine Porphyrogenitus has also left an account of the bedroom: "The bedroom built by the Emperor Basil is a veritable masterpiece of art. Over the ground in the middle a peacock spreads itself—a fine piece of mosaic. The bird of Medea is inclosed in a circle of Carian marble. The streaks of this stone stand out in such a way as to form another larger circle. Outside this second circle are what I shall call brooks of the green marble of Thessaly, which spread themselves in the direction of the four corners of the room. In the four spaces formed by these brooks are four eagles, rendered with such truth that one could believe them living and ready to fly away. The walls on all sides are covered at the bottom with slabs of
glass of different colors, which reproduce different sorts of flowers. Above these is a different work, of which gold is the ground, which separates the ornament of the lower part from that of the upper part of the hall. One finds in this part another work of mosaic on a gold ground, representing the august order: of the work upon his throne, and the Empress Eudoxia, both clothed in their imperial robes, and with crowns on their heads. Their children are shown round the hall, having their imperial robes and crowns. The young princes hold in their hands the books containing the divine precepts, in the practice of which they have been brought up. The young princesses also hold similar books. The artist has perhaps wished to make it understood that not only the male children, but those of the other sex have been initiated in the holy writings and have taken part in the teaching of Divine wisdom, and that the author of their days, although he was not able on account of the vicissitudes of his life to addict himself early to literature, has nevertheless wished that his offspring might be instructed, and has also desired that the fact might be patent to all through this painting, even though it was recorded in history. These are the embellishments which are seen on the four walls as far as the ceiling. This ceiling, which is square in shape, is flat. It is resplendent with gold. The cross, which gives victory, is reproduced in green in the middle. Round the cross the stars are seen like those which shine in the firmament, and there the august Emperor, his children and his imperial companion lift their hands towards God and towards the divine symbol of our salvation."

We should give him more credit for piety if he had not had his benefactor murdered.

The Heliacon of the Lighthouse was a vast peristyle forming an atrium to the Church of St. Mary of the Lighthouse and the Chapel of St. Demetrius. It had a doorway sheltered by a porch by which the Sacred Palace is left.

The Church of St. Mary of the Lighthouse, became the Imperial Chapel of the Palace after Basil the Macedonian had built the Cenourgion. The main door of the church was of ivory. In the church was kept an enameled crown of gold and a great cross, the handiwork of Constantine Porphyrogenitus.

In the Chapel of St. Demetrius an enameled image of the Virgin was kept near the entrance door. The chapel had a trefoiled apse.

Near by was the lighthouse. In Asia,
on the other side of the Bosphorus, was another lighthouse, and there were a succession of them up to the confines of Cilicia. By their means intelligence could be conveyed to the Emperor of the incursions of the Saracens. Polybius describes the way of signaling by means of lights (Polybius, Lib. 10, cap. 43-47).

We must now go back to the Lansiacos; the south end of this abuts on the Triclinium of Justinian III.; this was commonly called the Justinianos. It was a covered gallery about 70 feet wide and 336 feet long, running westwards; it was occasionally used for banquets, but more generally for properly arranging the persons or bodies that were going in processions to the Emperor; its west end abutted on a vast vestibule called Scylla, one of the entrances from without to the Sacred Palace; from the north side of this vestibule there was a door to the staircase and on the south side another to a raised terrace, level with the top of the inclosing walls of the Palace; this terrace faced the east side of the great Hippodrome. From the end of this terrace ran an open passage southwards to the extremity of the hill; the lower part of this was called the Peridromes of Marcian; the upper part was level with the terrace and was called the exterior gallery of Marcian. At the south end of the Peridromes was a chapel built in one of the towers of the wall, dedicated to St. Peter, and to it was annexed an oratory dedicated to the Chief of the Heavenly Host; above this was an oratory dedicated to the Mother of God.

The description of the Palace is now completed, with the exception of the outlying buildings, including the Emperor's baths. I may here mention that the Porphyry Palace lies to the south on the shores of the Propontis and is nearly touched by the north and south meridian of Sta. Sophia when prolonged southwards. It was a small square palace with a pyramidal roof; its walls were wholly covered with slabs of porphyry brought from Rome, and the floors were also paved with porphyry. This palace must have been dismal, and one would think not calculated to promote the health of the imperial scions. On the approach of winter the Empress used to assemble in it the wives of the great dignitaries, and present them with purple robes. This palace was built by Constantine the Great for the use of succeeding Empresses during their confinement, and those sovereigns who, like Constantine VII., were born there were called Porphyrogeniti. The new Basilica, the chapel of Elijah the Tishbite, the oratory of St. Clement, the victory of the Saviour complete the building.

_Professor Aitchison._

_TO BE CONTINUED._
CARYATIDES—"MAIL AND EXPRESS" BUILDING.

Broadway, New York City.

Carrère & Hastings, Architects.
Philip Martiny, Sculptor.
UNITED CHARITIES BUILDING.
Twenty-second street and Fourth avenue, New York City.  (From a water-color sketch.)  R. H. Robinson and Rowe & Baker, Architects.
ARCHITECTURAL ABERRATIONS.*

No. 5.—THE "DAILY RECORD" BUILDING, BALTIMORE, MD.

T is related that a good old professor, desirous of illustrating Paley’s “Evidences,” produced in his class-room his own bulbous silver-cased time-piece and was beginning to argue from it the necessity of a watchmaker, when his exposition was rudely frustrated by an impertinent undergraduate who observed that he could not perceive any evidences of design about that watch.

There are a good many edifices scattered about these United States that recall this anecdote; but there are few indeed that recall it with more vividness than the building of the Baltimore Daily Record, herewith illustrated. In a watch, even the professor’s, there is in fact a correlation of structure and function, and though there be architects who deny that this is essential to architecture, and others who cheerfully ignore its necessity, yet it must be admitted to be an evidence of design. The designer, if we must call him so, of the edifice now under consideration, had a very trying problem, for he was required to compose a building six stories high on a corner lot sixteen feet wide by something like five times that depth. This is a misfortune that most architects would try to mitigate by making the very utmost of the narrow front through emphasizing its very inadequate breadth, and dissembling, so far as might be, its very disproportionate height. A single opening at the centre in each story would have left a tolerable pier on each side, and emphatic horizontal lines might have “kept it down” into respectability. The notion of cutting such a front into two vertical slices is one that would have occurred to few architects but the one who has not only had but executed this conception. He has, in effect, made two buildings instead of one, in his sixteen feet. This seems in itself a sufficient protection against breadth, but it did not so appear to the designer, for in the wall that is left after the corner tower has been taken off, he has not only introduced no horizontal lines between the ground-story and the attic, but he has actually constructed a single opening at the centre running through four stories so as still further to exaggerate the height of the wall. The sacrifice of the front is made, of course, for the benefit of the tower at the angle, and what an object that is for which to make sacrifices! It will be agreed in the illustration to be an awful monument. The notion of erecting a tower of these dimensions and proportions over an opening, carrying it above the roof, and crowning it with an acute “extinguisher,” so as to leave no room for doubt that what is in fact a

* We are making a collection of “Aberrations,” and shall present one to our readers in each number of The Architectural Record.
THE "DAILY RECORD" BUILDING, BALTIMORE.
ARCHITECTURAL ABERRATIONS.

A polygonal sash-frame is intended to be regarded as a tower is, as it was meant to be, "original." It is necessary to add that the illustration does not do full justice to the iniquity of this monument. The entire-fatuity of the detail can, indeed, be appreciated, but not the fact that not only the sash-frame proper, or tower improper, but also actually the heavy-looking pediment at the base, is made of wood, covered with galvanized iron, and painted cream color, the wall being of dull yellow brick. Anything more preposterous and vulgar it is impossible to conceive.

The same aversion to symmetry that appears on the shorter front appears also on the longer, where there was nothing in the dimensions or proportions to prevent the architect from producing a quiet, respectable edifice. The obstacles here must have existed entirely in himself, and they have proved insurmountable. The unit of the composition here, it will be perceived, is a three-story bay-window in the principal wall, with a round arch over it, a perfectly plain segment-headed window in the ground story and a double-lintelled opening in the attic. This is susceptible of being developed into something good, though it may be remarked that the purpose of a bay-window is defeated when bay-windows are ranged so close together that whoever looks out of the window looks into his neighbor's window. However, if the bay-windows had been equally spaced, with a pier at each end of the wall, something like repose and something like harmony might have resulted. In fact, there is an ample pier at one end, and there is no pier to speak of at the other, three bay-windows are huddled together and a fourth is isolated, and between the group and the single opening is a wonderful central feature which is yet not central, consisting of the pedimented doorway, and above it a piece of wall, crowned with a gable, pierced with windows following the slope of the stairways, two to each flight, of different sizes and different shapes and different treatment. The force of lop-sidedness can no further go. But except lop-sidedness it is difficult to tell what object the designer proposed to himself, or to detect in his work anything like the amount of design that is revealed by even an old-fashioned bull's-eye watch. How a draughtsman can have endured to look at either of these elevations, while it was yet upon a drawing-board and could have been rubbed out, is a puzzling question, but not so puzzling as how he can have given it out for execution in more or less durable brick and pine and galvanized iron, where it cannot be rubbed out except by fire or a well-directed mob.

So numerous are the "things" and so promiscuous the placing of them that the network of telegraph wires in the foreground, which would be very annoying in the view of a building that had been designed, seems to belong to this building.

Apparently the artist was dissatisfied with his work only because it was not sufficiently diversified, for he proceeded to add things to it. The variegation of the skyline by means of the extinguisher at the corner, the gable in the long side, and the pinnacles at the outer angles, is a wonderful piece of work. The notion of corbelling out square pinnacles is a repulsive novelty, yet hardly so novel, nor yet so repulsive, as the notion of building out slabs of brick-work, carrying them through a cornice and stopping them against the wall, in such wise as to show that they are quite meaningless, and mere sacrifices to beauty. There is not a piece of studied detail in the whole building, but the badness of the things, taken singly, is not so remarkable as the complete lack throughout of a relation of anything to any other thing. As an example of the absence of design, the building is really remarkable and eminent among bad buildings. We are informed that it is extensively admired in Baltimore, but we utterly refuse to credit that slander upon a respectable and cultivated community.
A NUMBER of months ago the promise of a new art magazine came to us from Boston. That the seat of publication was to be the New England capital was at once a presumption in favor of the new venture; it would no doubt be free, we thought, from the vulgar commercialism which permeates the very stones of New York, the coarse effrontery of "popular enterprise" which whirls through most things emanating from Chicago, the unfathomable prosyness of Philadelphia. There was not only reason for hoping that it might be an art magazine that held a really serious relation to art, but the prospectus sent anticipation traveling still further. It was to be a pure shrine of art; no booths nor stalls nor tradesmen's cries around its precincts—it was, O Rara Avis! to be without advertisements of any kind, and it was, moreover, to be edited by Devotion and sustained by Love—in plainer speech, the contributors were to do their work without pay, profit or emolument of any sort. There was, no doubt, an air of impracticability about the project which should have stirred suspicion, for never, as in these days, has it been so fatal to be impracticable. The name, too, _The Knight-Errant_, had a ring of phantasy or remoteness (far indeed from art) about it as though springing from the arbitrary working of some notion or croquet. These matters, however, were overlooked. It was so pleasant to anticipate the coming of a real art magazine which would deal with Art as though it were too important an affair of Life to be either a modish, whimsical plaything, as it is largely these days with the public, or a shop article for publishers to deal in.

The new publication is now in our hands; and alas! this _Knight-Errant_ proves to be a luny, Quixotic champion, to whom we might extend the courtesy of silence did it not represent an evil tendency which it is the duty of all to oppose, all who believe that Art is deeper than any single mood, be it ever so sincere, and wider than any single manifestation of the Beautiful, be that manifestation ever so complete, exquisite and enduring.

From one aspect, art is the revelation of personality; the realization of the artist's mind. But it is also the harmonious revelation of the world, all that which the individual is not—the realization of the Beautiful through the artist's mind. Now, it is from the personal phase of Art that we get the schools—Greek, Italian, French, Mediaeval art, the art of the Renaissance and so forth, and our shibboleths also—Idealism, Realism, etc., and, indeed, all those divisions and parts of art which we cover with a name. Greek art is the Hellenic mind revealed in Art. Idealism—a wider manifestation—is one phase of the human spirit realized in Art. Greek art, or Gothic art we can imagine completed: conceivably, the possibilities of either might be exhausted, the last letter of one evangel and of the other could be learned. But, Art in its impersonal, universal aspect, is something infinitely wider than the Grecian spirit or the Gothic spirit. It transcends all schools, eludes all nomenclature, stretches beyond the possibility of exact definition. Idealism does not exhaust its possibilities; Realism is not the sum of its possessions. It is the same yesterday, to-day and forever, be it revealed in the Greek Temple, the Gothic Cathedral, Raphael's paintings, Shakespeare's plays, or Beethoven's symphonies.

The conception of Art, which the _Knight-Errant_ comes to champion, is, at the widest, a
limited personal conception, in short not art, but a certain phase of art, and it happens that this phase is, we regret to say, at present too often confounded in public judgment with the greater whole of which it is but a part. So far as we can make out, the *Knight-Errant* stands for the resuscitated Medievalism of recent years, which has deluded the Public into the belief that Art is, in no small part, an affair chiefly of andirons, bric-à-brac, oddity and quaintness, a matter centered in the Middle Ages, or any age other than the age of to-day, and is to be derived by us not by living our own life as completely as possible, but by reflection from old churches and gabled buildings and illuminated missibles. Say the Editors of the *Knight-Errant*: "Far other is this battle in the West that calls the *Knight-Errant* into the field, than the brave fights wherein the Knights of the Round Table fought close and fierce with the Paynim in the name of Christ; other even than that last great fight 'among the mountains by the Winter Sea,' when 'the goodliest fellowship of famous Knights' ceased, and Sir Bedivere went forth alone, and the days darkened round him and the years. It is no longer to strive against the Paynim in the Holy Land, to contend with raving dragons, to succor forlorn ladies in distress that he is called to action; but rather to war against the Paynims of realism in art, to assail the dragon of materialism, and the fierce dragon of mammonism, to ride for the succor of forlorn hopes and the restoration of forgotten ideals." Here we have Art narrowed to a cult, with a jargon of its own; pressing away from the spiritual vernacular of the day, from the market place, the shop, the activities of the living generation, in short from the sources from which all great art—Egyptian, Grecian, Gothic—sprang. 'From the point of view of the modern Mediaevalist, it is no doubt lamentable that the crusades have given place to Cook's Tourists, that a sound but unimaginative natural history has locked up all dragons in children's story books, and that unpoetic modernism has confined the duty of succoring 'forlorn ladies in distress' to the police. The crusaders can never be gathered together again, nor the dragons liberated, and as to the 'ladies' I am told the species is extinct; only women (or should we say females and reduce the matter at once to the lowest common denominator) are left.

All these things and much else that accompanied them are gone. The whole Round Table of Arthur is dissolved, because it was not large enough for the spirit of a world greater than the Arthurian to feast at. The old order has changed giving place to new, 'lest one good custom should corrupt the world,' and there is no inspiration for the newer generation in mere affection for old things.

The *Knight-Errant*, indeed, declares that his quest for beauty is "not to restore a fictitious and evanescent similitude of things that were;"—good words—but, nevertheless, he feels the stress of necessity "to return in a measure to that time when beauty began to fade from life," and the fact is, despite the disclaimer, the measure of the return is scarcely less than a complete retreat from the Present to the Past. "Beautiful things have disappeared," we are told, the world has "grown old and ugly," it has discredited beauty "in thought and motive, beauty in life and death until the word has become but a memory and a reproach." Is not this the complaint of the impotent or the dilettanti against their age? It is a protest against the new forces which, while they may limit the true artist, are also the only vital sources of inspiration for him. The soul of every living art is the life of the day that creates it. The artist may find himself thrown upon barren times, may find his day and generation unpromising for great works, but he cannot transcend the conditions given to him, or create a really favorable environment for himself by a fanciful retreat into some corner of the Past. To preach the necessity of such a retreat, as the *Knight-Errant* does, is to misunderstand the nature of art, to overlook the prime fact in all great artistic achievement. The Greek artist was great by being so thoroughly Grecian, Grecian even in his defects and limitations; the same is true of the Gothic artist, and of the great masters of the Renaissance. The abiding achievements of Modern Times will be those wherein the vernacular of the day has been most thoroughly and naturally employed.

It is permissible, indeed, perhaps it is a healthy sign, for the artist to be dissatisfied with his age (we are not quarreling with that), but he will not despise it. He cannot get higher than upon its shoulders. Besides, what are our judgments about our own age worth? It is not improbable that our age will be greatest in the estimation of posterity at the very points where we are most intimate with it, where it is most peculiarly ourselves; but are not those the very points which it is most difficult for us to perceive? We know best what we are the least conscious of knowing. For instance, we carry the weight of our own language with less mental stress than a smattering of a foreign tongue. And, is not
a man blind to his own most individual traits? Likewise, we may be sure it is no easy matter for us to see our own Art with the eyes of another generation. Over and over again we have learned that. Much that we ourselves admire to-day we ourselves condemn to-morrow, and we may be sure that, despite the Knight-Errant, there are beauties in this "old and ugly age" which some equally foolish fool in years to come will be calling his generation to return to and live by. The best thing that can happen for the art of to-day is that the sunlight of the Present shall break in upon it and illumine every nook and corner of it. If, then, flowers do not preponderate among the weeds, we may be sure that no scattering of dead seeds from other generations will create for us a garden for the soul to delight in.

—Primus.

The epithet Quixotic, which Primus fixes upon the Knight-Errant, is, we fear, not unjust. That periodical only makes itself impotent when it mounts the high horse of heroism. Its form, programme and temper together isolate it from the very people it wishes to influence, and if it survives at the expense of its editors and contributors it will survive chiefly as the organ of a coterie. Far from being the champion of forlorn hopes and forgotten ideals, it is the picturesque but foolish victim of a very common and commonplace delusion; it is mistaking steam engines for dragons and wind-mills for giants. What is called modern materialism is not a devouring, consuming monster, it is a prodigious Power that is just beginning to stir the sluggish masses into something like motion; with all its drawbacks it is distinctly a humanizing influence. Like other Powers it is blind; but so much more does it need the assistance of them that can see. Such assistance, particularly when corrective, is sure to prove fruitful, while fruitlessness is the inevitable characteristic of mere opposition. As for the Paynims of Realism, if we may not call them wind-mills rather than giants, we may, at all events, deny them abnormal proportions and brutish nature. "The dirty drab," says George Meredith, "is the price we pay for the rose pink." Every Don Quixote has his Squire Sancho Panza. The two necessarily ride in pairs. The Knight-Errant—half-phantom as he is—is, in truth, setting out to slay another phantom—practically of his own creation, and he will never succeed, even in finding his intended victim, until he alters his manner of warfare. He must dismount from his angular steed, doff his battered armor, place his rusty sword among the antiquities in the garret and settle quietly down to make himself more at home among the realities of life. As they find their proper place in his view of things he may recognize among them his old dragons and Paynims transformed into things that are measurably helpful to men and consequently deserving of respect as well as of rebuke.

Primus has, then, something of a case against the Knight-Errant; but the case is stated in such a contradictory fashion that we fear his readers will be somewhat bewildered. At one moment the Knight-Errant is reproached for a "limited personal" conception of Art; and the "universal impersonal" view of Art as "something infinitely wider than the Grecian spirit or the Gothic spirit" is exhibited for admiration and approval. Moreover, according to Primus, this impersonal universal aspect of Art, while it transcends the Gothic spirit and the Grecian spirit, can not include them, for it is "the same yesterday, to-day and forever," whereas it is very obvious that the Grecian spirit and the Gothic spirit contain, at any rate, many elements of difference. Yet later our instructor tells us that the "soul of every living Art is in the life of the day that creates it," and "that the Greek artist was great by being so thoroughly Grecian, Grecian even in his defects and limitations." But what, then, becomes of the universal and impersonal aspect of Art, which but a short time since was placed before us in such a favorable light? If the Greek artist is great by being so thoroughly Grecian, how can he be also great by being everything which Grecian Art is not; by sharing an aspect of Art which is the same yesterday, to-day and forever? In truth Primus here falls into a very ordinary error. He speaks of the individual in Art as one aspect of Art; and the universal in Art as another aspect of Art, whereas the individual and the universal are not aspects of Art at all; both are vital elements in the artistic spirit. Each has its place, and the place of each is different. Every work of Art is a concrete living reality, reaching out towards a reality infinitely more comprehensive than itself. It is a great mistake to place the two elements in only an external relation and call them aspects, for the wholeness of the artistic spirit is thereby shattered. "Art," says Robert Browning, "instinctive Art,"

"Must fumble for the whole, once fixing on a part,
However poor, surpass the fragment and aspire
To reconstruct thereby the ultimate entire."

For the fragment, the individual, the beginning
is endlessly related to the Whole—Reality itself; and all that artists have ever expressed or can ever express will serve to suggest only a small share of its inexhaustible nature.

Primus has also failed to point out a way in which the *Knight-Errant* may be useful and in the end influential. Its retreat into the Art of the Past has a certain promise of achievement because of the need which the Present has for the Past. The two should always be vitally related, and in so far as the *Knight-Errant* desires to affirm that relationship, it is undertaking a perfectly proper, and be it added, a very much needed work. Its error consists in using the Past as a refuge from and a reproach to the Present, instead of using it as a powerful and necessary supplement to the art and life of to-day. Erroneously, then, as is its purely negative attitude towards all that is modern, it may have its place if it can only help to bring the Past somewhat nearer to us. This is the service which all reactionaries tend to perform. Thomas Carlyle condemned Industrialism and Democracy, and exhorted the Heroes of the Past—the men who had succeeded in achieving something—and whatever his condemnations were worth, he certainly did not fail to make his Cromwells and Fredericks more real, and hence more valuable to us. Ruskin is as foolishly mistaken about Materialism and Realism as is the *Knight-Errant*; but with all his limitations no man has done more than he to stimulate among English-speaking people the reverential and fruitful study of the History of Art. So we might multiply examples. Indeed, we would not be far wrong in saying that our whole modern historical movement had its beginning—not its cause—in just such a retreat into the Past. The Schlegels and others of the Romantic School in Germany found contemporary ideals and opportunities as little satisfactory as does the *Knight-Errant*; like the *Knight-Errant* they, too, beat a retreat into the Past, then an almost unexplored wilderness. It was their studies, and the studies of scholars stimulated by their influence or example which first prompted the application, and finally resulted in the formulation of the historical method.

These few illustrations will indicate sufficiently in what way a periodical like the *Knight-Errant* may be useful. Of course we do not say that it will exert any such influence; we say only that there is work of that kind for the *Knight-Errant* to perform. The History of Art is too much neglected in this country. In our larger universities comparatively little attention is paid to it. Harvard, for instances, offers only one element-

ary course a year in that branch (which is taken by the students as a "snap"), while it offers two in the principles of design and delineation. Compare with such meagre opportunities as these, the fact that there are seven professors or instructors lecturing on the History of Art, at the University of Berlin. If the large universities are weak in this department, the smaller colleges pay no attention to it whatever. The study scarcely enters into the popular conception of a liberal education. Art is to many well-dressed people merely a matter of spring exhibitions, a rather tiresome but indispensable incident of a European "tour," a desirable something which is to be found in the Metropolitan Museum, editorially proclaimed to be of peculiar benefit to workingmen—anything in short but the crowning glory of humanity, which a man in order fully to live must realize. We believe that lately there has been some improvement in this respect, but the improvement has not as yet gone far enough, nor has it been sufficiently popularized. Fortunately a collection is now being made that, when completed or largely completed, ought to do something to inspire a more respectful treatment of the History of Art in this country. We refer to the collection of casts, more than half completed, for the museum in New York City—a collection which, it is stated, will be, taken as a whole, more complete than that possessed by any museum in the world. In time other collections of the same kind will be made for the enrichment of museums in other cities. Chicago, for instance, with metropolitan aspirations, will not permit New York City to be ahead of her in "Art" for long; and after her rich men have thoroughly established a great university and recovered from the temperamental and financial exhaustion of a World's Fair they will scarcely fail to equip their museum with all the "Art" that history affords—if, indeed, the collection of casts now being made for the Fair will not remain permanently in that city. Boston, too, considering the amount of money that she is spending in the new Public Library building, will not be likely to be niggardly in bringing her Art Museum "up to date," and perhaps in the sacred cause of Beauty she may even in time destroy the Temple in which her treasures are housed and erect in its stead a building that does not spit at the purpose to which it is devoted.

By these means may the *Knight-Errant* be assisted in his self-ordained task of making the Beautiful a little more real to the Present. It is less, however, to the *Knight-Errant* than to the universities that we look for bringing to pass
this result. Hitherto they have been spending their available funds principally in equipping themselves with the expensive laboratories and apparatus needed for the scientific department, and this is natural, for in an industrial community the claims of useful knowledge are irresistible. The time is coming, however, when they will be obliged to spend money more liberally in improving their Art courses. Not only will large sums be left to them specifically for this purpose, but there will be more demand for such instruction on the part of the students. The increased interest in architecture has already in many of the more important universities and colleges been recognized by an enlargement of the opportunities for studying principles of construction, and to a less extent the history of that Art. When the time does come for the universities to enlarge the number of their courses in Art considered as a transition and a growth, the collections of casts already referred to will be of the greatest assistance. It will not be necessary for every university to have its own collection, provided the cities wherein they are situated possess well-stored museums; and undoubtedly it is the absence of such museums at the present time which helps to make the universities of the country so backward in the matter of Art courses. Museums and galleries, are, of course, intended principally for the public; but they will always be of most use to students—not merely to copyists, but to students of culture. To read the newspapers one might imagine that the day-laborers particularly delight to wander in pensive observation past painting and statue; in truth, however, while every opportunity of entering the museum should be offered to the poorest and the meanest, it is not the day-laborer that is materially benefited by what is displayed therein. Above all objects of study, Art demands a qualified medium; it can convey a vital meaning only to educated adults.

"And what do they gain?" some, perhaps, may ask. Well! they gain for one thing the advantage of living at the end of the nineteenth century. People who lack culture, who have failed either from want of opportunity or from want of desire to study literature and art fruitfully may obtain the benefit of centuries of progress in their physical lives and in the laws and institutions of their country, but spiritually they will be in a measure barbarian. They will have failed to transcend their individual limitations and the limitations of their time; they will have failed to incorporate in their own being, spirit of their spirit, all the momentous, healing, leavening, abiding experience of their race. "What from thy fathers thou dost inherit," says Goethe, "be sure thou earn it, that so it may become thine own." Let no man flout or scorn such a purification and enlargement. We are not recommending culture for its own sake, because culture is only part of life, and will not serve to develop all the possessions of the spirit. But how sweet, how compensating it is! By means of it the many that are born with little may come into much, may take their humbler places beside them that are gifted. We are frequently reminded that observation does not make up for insight, nor any accumulation for constructive imagination. Neither it does. But we must not confuse these truths with untruths that are frequently deduced from them. Observation cannot displace insight, but insight cannot dispense with observation. The methods of seeking Reality are different, but the end is the same. He who steadfastly, hospitably, patiently, and humbly tries to make the best experience of mankind his own cannot perhaps compass Heaven and Earth, as can one who is gifted; but by placing himself as completely as possible in relation to the best Humanity has thought and felt, he has surely paid his tribute of self-sacrifice and fulfilled his mission of self-realization.

—The Editor.
NEW BOOKS.


Safe Building. A treatise giving in the simplest form possible the practical and theoretical rules and formulae used in the construction of buildings. Louis De Coppel Berg, F. A. I. A. Boston: Ticknor & Co.

We do not believe that Mr. Kirby's reputation will receive any particular enhancement from the portfolio of drawings which he has published under the title of "Architectural Studies." Perhaps it is not intended that these sketches should be taken too seriously, and, indeed, there is more of the air of sport and whim about them than something more serious. Mr. Kirby has set his pencil playing in an airy region where clients and other circumscriptions to the imagination evidently are unknown, and the drawings are the result. This is the impression we get from a great number of the designs, although several of them, we can well believe, "have been made in connection with actual projects." Perhaps we ought not to grumble with the sketches because they possess so little variation of idea, and are mostly matters of towers and turrets and steep pitched roofs. The result, however, although often wontonly picturesque, is not always a good architectural composition. It is apparent that the author is a man of some artistic temperament, of decided poetical tendencies in things architectural, but in these drawings too many parts of the designs seem due merely to a fidgety pencil. The collection could be reduced one-half with immense advantage, and among this smaller number one might find five of sufficient meaning and import to merit some study. The remainder are of small value to the public, and we fancy of little to Mr. Kirby, unless as preludes to more serious work or as reminiscences.

Probably we owe Mr. Chandler's excellent collection of plates to the recent revival of interest in "Old Colonial." However that may be, lovers of good architecture everywhere will welcome this publication, for, contrary to what one might expect at first thought, a very large part of the work that has come down to us from the carpenters and masons, who were the architects of Colonial times, possesses in a marked degree a delicacy, a reserve, the gentlemanly quality of distinction—the very characteristics which are perhaps most lacking in contemporary architecture. The statu of this old work was rural. It belongs to the country or, at any rate, to cities very differently conditioned from ours of to-day where building is carried on under lateral compression. Consequently any practical influence to come to us from the "revival" or "fad" belongs naturally to the suburbs and the country. And there it is at work already. Succeeding, as it does, "that absence of style called Queen Anne" it can be but salutary, not only to the beholder, but as well to the designer who had passed into a state of "incoherency" in dealing with country residences. Mr. Chandler's plates are well selected; they cover the field typically. We heartily recommend them to our readers. In size and mechanical execution they are all that can be desired, but we have to point out that the index to the plates is unfortunately not free from error.

Mr. Brimmer's three essays deal with the History, Religion and Art of Ancient Egypt—indeed, in the case of that bygone civilization the three are so bound together that they cannot be treated apart. The essays, we are told, were undertaken for the self-instruction of the author during a recent journey in Egypt. They are therefore chiefly a putting in order of information acquired largely at second hand, and not new utterances on subjects which are becoming wider every year and require changes of opinion and restatements of facts. Mr. Brimmer's Essays—they cover but eighty-six pages, including the illustrations—are a very readable, clear, and in the main accurate compendium of the researches of Brugsch Bey, Maspero and others. The writer, however, keeps to elementary facts, and from the limitation of his space tells his story in outline. The essays make as excellent a textbook on Egypt as any in the market. Mechanically, the book reflects great credit upon the Riverside Press. It is a pleasure to handle it.
ON Wednesday afternoon Ralph set out for the Bungalow. Not for a moment did he doubt that he was on his way to a conventional feast of little cakes and small conversation. He half repented that he had accepted Marian’s invitation. His surprise, therefore, was great when he arrived at the Bungalow and encountered a little string of vehicles, from which two or three score of noisy, joyful children were alighting. Marian and Miss Batters were superintending the disembarkation.

"Form into line, children," piped the schoolmistress, whose life had been passed in striving (with how much success, see testimonials) to get select young ladies physically and morally "into line." The usual form of her command was "form into line, young ladies," but Miss Batters was blessed with an acute perception of the infinite difference between orphan children like these, and children whose parents were financially capable of patronizing her establishment. There was a shuffling of little feet, a fluttering of little pinafores, and a great quickening of little hearts when Miss Batters snapped "March," as though it was the velocity of the word that set the children moving, and the head of the column passed through the gates into the garden.

"Where is Clare?" asked Marian, missing some one.

"Here, Miss, here," said a 'bus driver, in a soothing tone, from his high seat. "The little 'un's fell asleep. I was waitin' till you was ready."
A small head, surely not five years old, was resting on his shoulder, and golden hair, tossed by the wind, fell down his back.

"I've got her, Miss, she's safe," he said, descending from the vehicle.

"Whoa, there, you Tom. Oh! Ah!" The 'bus driver was fat, and as he secured each foothold in the course of his descent, he uttered a word.

"There!" Both feet were now on the ground. "She's a gold 'un, isn't she, Miss?"

The man's hand passed gently over the child's hair, and he put her into Marian's arms.

"Thank you, Mr. Hardy."

"No thanks, Miss. I ain't got none, but it does 'un good once in a while to hold 'em. Whoa, you Tom."

The sound of the voices, or the change of position awakened the little girl. She looked for a second into Marian's face, smiled contentedly, pressed closer against her bosom and fell asleep again. Could trust and confidence say more? All the woman in Marian quickened at the touch. Her arms folded more tightly around the little thing. She pressed her lips against the golden head. For a moment there flashed into her eyes the light of that love which men can never quite comprehend. It is only because it has fallen upon us and lingers with us that we can marvel at it.

As Marian turned to enter the garden with the last stragglers of the little cavalcade she found Ralph by her side. He was so far from her thoughts at the moment that his appearance surprised her.

"Am I come too early?" he asked. Seeing the children, Ralph wondered whether he had not made a mistake.

"No, no; indeed, you are just in time, Mr. Winter; but, perhaps, I have misled you. These are my guests to-day."

—pointing to the children whom Miss Batters had "lined" along the garden walks—"they come to me once a year. I thought perhaps you wouldn't mind helping me to entertain them. Oh! Miss Batters, do let them play anywhere, everywhere; there is nothing to spoil. Mr. Winter, if you don't..."
"Not another word, please, in that tone. I know what you would say. I do like children, I assure you, and if you will show me what I can do for you it shall be done."

"For them."

"Very well, then, for them."

"Now, children," said Miss Batters, standing general-like in front of her juvenile army, "if you will deport yourselves quietly, as becomes little girls, whose manners should always be gentle and modest, you may play about in these beautiful grounds; but be most careful that you do not harm anything."

"May we pick some flowers?" piped a shrill voice.

"Well! Indeed!" cried the head of the Select Establishment in amazement. "What is your name, child?"

Miss Batters made the demand as though the name might enable her to understand the abnormal moral condition of a child who could make such a request; and, indeed, we do expect from Polly Perkins what would surprise us in Guinevere De Lancy.

"Dear Miss Batters, let them pick them," said Marian. "Go along, children. Gather all you can and put them in a heap on the lawn."

"What, Marian, those roses!" cried Miss Batters alarmed as scores of little hands attacked the bushes and scattered the full-blown leaves to the ground.

"Yes, everything," said Marian.

"You extraordinary child!" cried the spinster; but there was something in her thin voice softer than her words.

"And who is this little one?" asked Ralph, looking at the child in Marian's arms. As he glanced upward from the child's face to Marian's, he saw it was bright with quiet exultation. Can we wonder that the happiness in the voices of the children around Marian was whispering in her heart, or that sunshine and sunshine were in the garden—one from a heaven so much higher than the other?

"This is Clare," she said buoyantly, answering Ralph. "She shall be Queen to-day, my Clare. We will crown her with white roses."

"She is your pet, eh?" asked Ralph.

"She is such a lovely child, Mr. Winter. Look at those
little white hands, and those delicate eyelids with the blue veins. Wouldn't you think the light passed through them; and her hair, doesn't it seem to hold the sunshine?"

"It is beautiful," said Ralph. "Beautiful."

"But she is so frail." Marian's voice dropped to a lower key. "I didn't think that anything so sensitive could live. You have no idea what delight can thrill through that little body. We fear whether we can keep her with us. Her heart is very weak. The only hope the doctor will give us is that she may grow out of it."

"That often happens," Ralph said, cheerfully.

"Please God," said the girl.

The garden surrounding the Bungalow was of goodly dimensions and was maintained in excellent order. The broad lawn in front of the house was perfect. The flower beds and shrubbery were almost at the fullness of their summer glory on the day when Marian's children arrived to spoil them. That very morning, Tom Hopper, the earthy old gardener whom Marian had installed at the Bungalow, with his son for assistant, surveyed the result of his toil and complacently felt that it was good.

"Ther hain't a garden in Eastchester like it," he said. And now the old man's heart was to be broken—he regularly declared it was broken every year "when them brats came." He could not be brought to make his scheme of horticulture harmonize with Marian's philanthropy. To waste the sweat of his brow "in confusion upon a lot of horphins" was an intolerable indignity. For several years past, on the day of sacrilege, he had regularly, gloomily and reproachfully resigned his position, declaring that his heart was broken. Fragile as that organ was, Marian always succeeded in mending it the next day, and the old man would withdraw his resignation, "under protest," he said—a phrase in which he found both comfort and justification for his return upon himself.

This year, when the children rifled the rose bushes and the beds of geraniums, pinks and lavender, the old man declared, as he watched the proceedings in anger from afar, that he "would be blowed if this wasn't the last time." By apronfulls and handfuls the children gathered
the flowers, sparing nothing. They heaped them in a large mound in the centre of the lawn, working like a colony of busy ants, running to and fro. Laughter and voices and the trampling of little feet were everywhere in the garden. Marian sat with little Clare in the midst of the growing mound of flowers making a garland. Ralph thought she was more radiant than the roses, as he watched her while he carried on a stiff conversation with Miss Batters. Like the gardener's, the good maiden's spirit was up in protest. Her idea of an orphan was that it was something to be repressed, religiously, of course; for the good spinster was one of those who believe that a narrow charity is a pretty broad road into heaven. 

Dear me! what a comfort old clothes charity is to many of us, who trade in the cheapest market in the things of Salvation as well as in more worldly commodities? Ah! that rich glow around the heart when we piously bestow an old cast-off coat, or shall we say a petticoat, madam? upon some shivering brother or sister of ours, who will begrudge it to us? The junk-man would not pay very many pennies for either, whereas Heaven is an extravagant purchaser.

"Marian knows," said Miss Batters to Ralph, "that I don't approve in the least of her extravagant proceedings. If everybody acted as she does, it wouldn't be very long before the poor were dissatisfied with their lot."

"That would be a pretty state of things," said Ralph, who couldn't resist the temptation to poke fun at the schoolmistress.

"Indeed, it would. Why, none of us, Mr. Winter, would be safe in our beds. It is positively sinful, this entire course of Marian's; but it is impossible to do anything with her. She is perfectly deaf to reason. Look at that little girl in her arms. She is quite unfitting it for its station in life."

"Indeed!" said Ralph. "You don't mean it?"

"I do, Mr. Winter, really I do."

"And what is its station in life?"

"Its mother is a mere washerwoman, and its father, if I may speak of such things, is, dear me! a drunkard—a drunkard, Mr. Winter."
“How terrible!” exclaimed Ralph.
“Yet, there is Marian treating that child as though it were her own flesh and blood.”
“It seems she loves the child.”
“Dotes on it, all because it’s a sensitive little thing that loves flowers. Well, well,” sighed the schoolmistress, “it’s just like Marian. Everything strange attracts her.”

While talking, Ralph furtively watched Marian. He had not yet fully recognized the influence which the girl was acquiring over him; for it was manifested merely in a quiet satisfaction which he felt in being in her presence. Ralph, projecting his own feelings into Marian, had come to possess a belief that she had a warm friendliness for him, that flowed out to him none the less surely because it was, at the moment, an under-current. As with heat in light, Ralph’s feelings always expressed themselves in his speech and actions. A girl more self-conscious than Marian would have noticed at once Ralph’s attitude toward her; but Marian’s eyes were not closely enough upon herself to perceive it quickly; and her soft frankness assisted in establishing Ralph’s delusion. We must add to this the fact that Ralph’s was a tropical nature and his feelings, were they flowers or weeds, grew apace. He watched Marian with a glow of pleasure, as she sat on the lawn, unconscious of his observation, binding the roses together.

“This is to be a crown for my Clare,” said Marian, speaking softly to the child, who sat watching her intently. The little face brightened.

“Just a minute, darling. We must put one or two more roses here yet, and then my Clare shall have it.”

The child folded her hands intently in her lap.

“There is a lovely one,” said Marian, taking a large tea-rose from the mound beside her. “We will make that the star in the crown, eh?”

The golden head nodded assent.
Marian put her nose to the flower and inhaled deeply.

“Oh, how sweet! Smell, Clare.”
She held the rose to the child.

“Oh,” said the child, just as Marian had said it; and the two little hands seized Marian’s and the rose that was in it.
"Does Clare want that one?"
The child folded her hands across her breast with the flower between them.

"What, not put it in the crown?"
The little head was shaken for dissent, and while Marian sought for another flower the child nursed the rose and kissed it.

"Once upon a time," commenced Marian in a low voice as her fingers worked amid the wreath. The child's attention was seized at once by the sound of that irresistible Open Sesame to fairy land—old Graybeard, what would not some of us give to feel again the magic of that childhood spell. "Once upon a time, there was a little girl who had never, never seen a flower, for she lived in a great forest where none could grow, the giant trees being so greedy they took all the sunlight for themselves. But, one night a great white rose came to the little girl in a dream, and kissed her, and said it loved her. When she awoke in the morning the room was filled with so sweet a perfume that she longed to go to the rose and kiss it, and tell it she loved it ever so much, as it loved her."

The child's face was uplifted to Marian's eagerly.

"But in all that forest, oh, where could she find the rose?"

Clare's face fell, and she looked sadly for a moment at the rose which now lay in her lap.

"Well," continued Marian, "this little girl went to her godmother, who was a good fairy, and told her she wanted to see the rose. And what do you think the godmother told her to do? She bade her go alone far into the dark forest, to a distant spot where the wind had smitten down one of the arms of the great trees, so that at night time the moonlight came in from Heaven and made a little silver pool. Well, the little girl set out that morning, and all day long wandered into the woods. The black night came and she was very frightened and hungry and tired before she reached the broken tree and the silver moonlight pool. The little girl searched the pool for the rose; but it was not to be seen anywhere. There was only a great ugly toad there, sitting right in the middle of the light, blinking at her with his big green eyes. The little girl was so sad she began to cry."
Little Clare, too, was downcast.

"And the big toad asked her what she was crying for; and, as she told him, she crept up to him, for she loved him because he spoke kindly to her, and stroked his back, oh so softly, for fear of hurting him. But, as soon as she touched the toad, he vanished, and on the very spot where he had been was a big white pearl. Do you know what a pearl is?"

The little head was shaken.

"It is like that in this little pin of mine; only the pearl I am speaking of was so big that the little girl was able to sit on it. But she wasn't as big as Clare is. When she left her home she was; but, the moment she touched the toad she became no bigger than the point of this little green thorn on this rose. Only the little girl didn't know she had changed. She thought she was just as big as ever. So she sat on the pearl, very, very lonely, wondering how she could get home again. Now, the Dew saw her as he came through the forest, and he built a little glassy bell around her. It was just like a bit of the rainbow, and it shut her in. The air inside the bell was sweet, like the rose she had seen in her dream, just as the air around my Clare is—you smell it, don't you?—well, that made the little girl happy, so that she sat quite still and looked out of her bell and saw the moon sail away with her long silver robe and the sun come out. And presently the sun stood high up in the sky, right over the pearl, so that the dew-bell, where the little girl was, shone like a diamond. Mr. Winter, please lend me your ring."

Ralph brought her the piece of jewelry, of which he was very proud.

"That is a diamond, Clare. See how it sparkles!"

Clare clapped her hands as Marian made the stone sparkle in the sunlight.

"Now, that is what the little girl's bell was like. But, the Sun wanted the bell, for really it was his. The Dew had only borrowed it from his great palace. So the Sun dropped down a golden chain and fastened it to the bell and began to draw it up to him. He carried the bell and the little girl in it up above the trees into the sky, so high
that the little girl couldn't see the forest as she looked down. Now, the Winds, which are always wandering about, saw the bell going up, up; and it was so bright they seized it and commenced to play with it. They swung it to and fro, on its golden cord like that (Marian swung her watch by the chain), only they made it swing, oh, so far that way and then this way, that the little girl was rocked fast asleep. High, high above the clouds, I cannot tell you how high up, there is a rocky ledge, and the Winds, boisterous in their play, blew the bell against it so that the bell broke, and the little girl was left sleeping on the ledge, on a bed of moss. When she awoke, the sky was pink like this rose, and when she looked over the ledge she could see all around her and beneath her nothing but lovely pink clouds. But behind her, where the land was, far back, stood a great palace made of gold and pearl. A wide path of flowers led to it, and the flowers whispered sweetly as the little girl passed over them to the great steps and up into the palace, which she found was bigger than all the world and filled with ever so many children whiter than any pearl. They were singing, and oh! my Clare, they were so happy.”

Marian's eyes were full, her voice quivered, she folded Clare in her arms. The spirit of the story had grown too big for fairy land; it had passed into a vaster region of enchantment, which is encompassed only by angels' wings.

“And the children begged the little girl to play with them, but she wouldn't, for she had not yet found the rose. She passed through the children, on, on, till she came to a throne of gold where a great, kind King sat, and there she saw on his breast her white rose, the rose that had called her in her dreams. The little girl was so glad that she cried for joy, and the great King, when he heard her, stooped down and lifted her into his arms and kissed her, as she told him, with her head on his breast, that she loved him. For the rose was the great white heart of the King.”

In spite of herself, a few tears did escape and flow down Marian's cheeks. The compass of the story, of course, was far beyond the reach of little Clare's apprehension; but, her childish imagination made use of the tale as far as it was able to, and the little thing was pleased. As to Marian,
her heart had been singing to itself as well as to the child, and she, too, was happy. Her face was radiant when she turned to Ralph.

"Mr. Winter," she said, striving for composure, "please tell the children to come here. The crown is finished, and here are the garlands, white and red ones. Which does my Clare like best, the red?"

"The white ones," said the child.

"Well, the crown is for Clare, and that is all of white roses, except the big one in the middle."

Miss Batters had captured the entire little army of children, and had imprisoned them in a corner of the garden while she explained to them where it was and how it was the bee extracted the honey. At Ralph's summons they scampered readily enough to Marian, who formed them into two wide circles, linked together with the garlands she had made. In the centre of the rings she placed little Clare, and crowned her Queen, and covered her with flowers. Then she joined hands herself with the children; and singing, they danced, circling around the child. Ralph felt his own heart beat unwontedly. The summer sunshine, the joy of the children, the new light even brighter than the sunshine, that shone in so many little pale faces, and the sweet spirit of the mistress of the garden, which was the life of all he was witnessing, moved him deeply. It threw into such sharp contrast, he thought, the very selfish and worldly activities of Posner and his "mu-sik tem-per;" his father and the great Tee palace, and the Rococo movement; his professors at Harvard and their cold pedantic aims; the Rev. Septimus Blessing and his dull sanctimony; his own weak, sensuous inactivity—ah, surely, he thought, God is here if he is anywhere, in the light and sweetness of this moment.

But, ah me! a Shadow, too, was in the garden—the Shadow at whose dark feet we all have to lay, sooner or later, every precious possession of life—our loves, our enthusiasms, our hopes—and one by one see them crushed to dust; everything, until we ourselves creep to the Conqueror, and kiss the foot, and yield ourselves to its pitiless power.

Still, the little feet danced around and around, and the little voices filled the air:

"This is the way we all go round, all go round, all go round,
This is the way we all go round, early in the morning."

"Ha, ha!" cried a tall man entering the gate. "Go on; don't stop."

"Mr. Fargus!" exclaimed Marian in chorus with several others. Plainly, the visitor was well known.

"Round we go!" cried the clergyman, dropping the portmanteau he carried and joining hands with the children.

"What is it? This is the way we all go round, up te-dound, up te-dound"—and he sang out loudly.

The appearance of Mr. Fargus stimulated the children. Their feet quickened, and louder than ever their voices rang out. Ralph was forced to join in the chorus. Little Clare too, sang, and clapped her hands in glee. The blue eyes sparkled with joy, and the golden curls swung to and fro with the music.

"Hurrah! Hurrah!" cried the clergyman. "Hurrah for Queen Clare!"

"This is the way we all bow down, all bow down, all bow down.
This is the way we all bow down..."

So runs the song, but the song was never finished, for the Shadow stepped into the dancing circle and it fell upon the Queen. Did the Shadow join hands and sing, too, "All bow down?" An arrow in the joy struck little Clare. Her heart stopped. With a look toward Marian, the Queen's head sunk upon her breast and she lay amid the flowers.

Little Clare was buried in the cemetery that sleeps on one of the hills overlooking Eastchester. Inexpressibly deep is the sorrow that haunts its green lawns and plots of flowers and shaded, winding pathways. The sobs of how many broken hearts linger around each white headstone? how pitiable is every indication of the struggle of affection with Death and Time, to perpetuate the loved ones? That bed of pansies fluttering in the wind like captive butterflies—she who is beneath, loved them. "Sacred to the memory," sa
an aged, totterimg stone, and as we pronounce the half-obliterated name, what meaning has it now in all the world? It awakes not a single memory, stirs not a single heart. Its magic is gone. It is a dead thing. "Is not my victory complete?" cries Death in triumph. "Four short generations ago he made these hills yellow with the harvest, and gathered his children around him at evening and taught them of God. Of what use is even the stone now?" Ah, Conqueror, what can we mortals say to thee? Over our dead the angel Hope watches silently, and in her keeping are all our forgotten names.

It was the first time in Marian's life that Death had touched the deep sorrow chord of the heart, and to its vibrations every other chord now moved in sympathy. When she returned home from the cemetery, it seemed to her, as she looked about the familiar place, that there had come a pause to her old existence, a hush to its activities. She endeavored to busy herself, but her hands were listless, and her thoughts persisted in flying away to the little grave beside which she had stood that day.

"Ashes to ashes, dust to dust," Mr. Fargus' voice filled the silence. The sun sank in the glow behind the hills. "I am the Resurrection and the Life" Marian heard, as she watched the crimson in the West fade and the twilight steal quietly over the earth. Loneliness came to her as the darkness spread over the garden, and she was glad to welcome Ralph when she saw him coming along the walk to her.

The events of the last few days had not been without a profound influence on Ralph. They had loosened somewhat, as such experiences are wont to, his touch upon his old life—the outer world whence he came into Eastchester. His sympathies and feelings became more at home with his new friends. Particularly, he felt drawn towards Marian. The spell which had been working upon him since his arrival was complete. The voice of his own heart became audible to him. "I love her," it said, and Ralph was conquered. Was it a commonplace conquest?—philo-progenitiveness taking to housekeeping—the dull, colorless, ephemeral passion which often is dignified by the name of love, or was it with Ralph a vision that had burst in upon him of
a wide charmed sea? ἡαλαττα. The sea! the sea! Have not some of us felt the ringing exultation of the old Greek cry when during the weary journey through the commonplace of to-day's life we catch sight of the wide prospect of the magic waters of Romance where Love is Lord? Golden is the sunlight that dances upon that sea, the winds whisper music which tempts and yet defeats the power of song, and we know that below the horizon, whose bright light beckons us from the shore, stretches the unmeasurable world of our ideals. "Mere delusion, stuff," cries our practical friend, who believes in nothing that won't bear his own weight. Delusion! Well, good sir, what is there that is not delusion? Are your narrow commonplaces, your ledger account of Life any less of a delusion than our romances and ideals. The final hunger of the Last Man dying will be for an ideal. The human race is only to be saved from mockery by the truth of its dreams. As to Ralph—well, we shall see. Love at the very first is always a trifle afraid of its own shadow.

"I am glad you are come," said Marian.

"Are you?" asked Ralph. He held her hand for a moment longer than usual. "Mrs. Carrol has gone to the Cathedral with Mr. Carrol, and, as she thought you might like to come too, she asked me to call for you."

"Both of you are very kind," said Marian. Ralph noticed the sadness in her voice. He would like to have tried to cheer her, but he felt the effort would be vain and that silence was best.

As they entered the Cathedral Close, they could hear the organ rolling forth like a solemn evening prayer. Mr. Carrol had left the north door ajar for them. Entering the building, its darker twilight, deeper shadows and stiller atmosphere constrained them almost to a sudden pause. The great aspiring piers and spreading arches, the high, shadowy roof, the silent tombs, the ghost-like statues of the dead of many centuries, the mystic distances along the nave and aisles, faintly lit by the pale flush of the vast stained-glass windows, all was instinct with, and indeed seemed bound together by, a solemn, sanctified peace. It stole in upon the heart, made it, too, one with the building, so that
it was as though for a time it beat within a larger frame, to
the murmur of prayers, the echoes of chants, the whisper of
sacred hopes; for surely every wandering footstep, every
beating heart, every uplifted voice that had ever been
within the building lingered in the spirit of the place.

Themselves like shadows, Ralph and Marian stole into
the organ-loft and took a seat beside Mrs. Carrol without
speaking a word, in order not to interrupt the old organist.
No one could be more sensitive than Ralph to the influences
of such a moment and such surroundings. Old Mr. Carrol’s
musical ideas were commonplace enough, and his power of
expression limited. Yet, despite the deficiencies, his play-
ing set chord after chord in Ralph’s heart sympathetically
vibrating until, for the younger man, the air was ringing
with melodies and vast harmonies to which the old
organist was deaf. Marian’s feelings, too, against which
she had been struggling all day, were heightened by the
moment.

After a while, the organist ceased playing, and sat irres-
olute.

“Let Mr. Winter play something, Mr. Carrol,” Marian
whispered.

Without a word, the old man arose and gave Ralph his
seat. No moment so attuned to every aspiration and feeling
had ever come to Ralph before. It seemed to him as he
glanced upward that the pipes of the vast organ
were huge golden bars imprisoning a great spirit. His
fingers tingled for a full touch of the keys; and when
they descended on the board the whole soul of the man
went forth in the triumphant roll of the organ that burst
forth like a cry and echoed with a hundred voices. The
spell that had bound Marian all day was broken—the pent-
up tears were liberated. Ralph has never had any idea of
what he played that evening; whatever it was, it was com-
pletely transfused by his own passion and was a perfect
expression of his feelings.

The first outburst of the organ had scarcely died away,
the music had just sunk into a softer strain, when our
friends in the organ-loft were startled by the uprising of
a voice from the darkness below them. It was so clear and
sweet, so perfectly attuned, in spirit as in tone, to the music, that it didn't break in upon Ralph as an interruption, but, as another and subtler inspiration and impulse for him to bear along. The first sound of the voice thrilled Marian like a lonely cry in the twilight. It was instinct with her own sadness and longing for comfort. It was what the organ tones were not—it was human. Instantly, Ralph felt that he and the singer were one, their hearts beating in the same rhythm, throb for throb. From height to height the inspiration carried Ralph, but high as he might go, he could gain no mastery over the voice. The ecstasy of the moment was such as Ralph had never experienced before. His entire nature was at the pinnacle of exultation; it cried in triumph through the music. He liberated the whole power of the organ, the gloomy air of the Cathedral seeming to tremble under the power and passion of the song. Higher and higher the music rose, but from height to height the voice of the singer mounted easily with it. Only once in a hundred lifetimes do these full moments come; but they, too, pass away as all things pass away, and as Ralph ceased playing his very soul lingered with the last echoes as they died in the vast building.

"Brother," cried Ralph, excitedly, as he arose from the organ, "you have been with me where I shall never be again."

"Who is it?" asked Marian, almost as deeply stirred as Winter.

Ralph hurried down from the loft, making his way as fast as he could in the dimness, which had deepened apace. He caught sight of somebody like a shadow hurrying for the open door at the end of the transept. He reached it barely in time to intercept the singer, who pushed past him without a pause out into the Close.

"Who are you, friend?" asked Ralph.

"God knows." The bitterness of the reply startled Ralph. Before he could speak again, the stranger, whoever he was, was gone.
A FEW days after the events recorded in the last chapter, Mr. Pilgrim found it necessary to visit London in search of material needed for the "great history." That gentleman frequently found the thread of his narrative tangled with his facts, and to straighten matters out usually had to hurry off to the metropolis to explore the libraries or purchase a small wagon load of books.

Mrs. Carrol had divined the state of Ralph's feelings for Marian. One evening she hinted playfully that she feared "somebody" was planning to rob her of her "treasure." Ralph was quite willing to make a confidante of the old lady. He frankly confessed his "presumption," declared that Marian was the perfection of womankind, and acknowledged that his heart, inadequate as that very inferior article was, had been completely given to her. Of course, Ralph made his confession in perfervid language, which we spare the reader because it adds nothing to the fact.

The open acknowledgment of his sentiments gave Ralph somewhat the feeling of being formally established in his position, particularly as the old lady said, at the close of his declaration:

"I would like to see Marian married. I think it would be a good thing for her. But, you must see, Mr. Winter, her thoughts, so far, have run little in that direction; not that it signifies anything, for girls that marry soonest are very often those who have determined never, never to wed. Marian is tied, however, to what she regards as her work, and I am inclined to think she will not yield easily or without a struggle with herself. You must be discreet, Mr. Winter, and very patient."

The old lady emphasized the last words significantly. When Ralph thanked her for her advice she said perhaps she could help him. She would see.
Probably Mrs. Carrol was carrying out part of her scheme of assistance when she insisted that Marian should stay with her while Mr. Pilgrim was away in London. As the old lady seemed so bent upon having her way Marian kissed her and consented. There was one room in the organist's home which no one but Marian was ever allowed to occupy—the room which had belonged to the old couple's daughter.

Mr. Pilgrim was in London for nearly two weeks, and during that time, naturally, Marian saw a great deal of Ralph, although she spent the greater part of the day at her schools at Smeltham. She was driven to them early every morning, returning home in the afternoon; but in the evenings she strolled with Ralph and Mrs. Carrol through the lanes and roads of Eastchester and the country around, or sat in the parlor listening to Ralph who, at times, played without interruption even by so much as a word until the evening was far spent. In this way the acquaintance between Ralph and Marian passed into a familiar friendliness which naturally was very delightful to Ralph. His exaggerated attitudes, his over-strung admiration of admirable things, his sweeping denunciations of what displeased him, his fierce, fighting opinions, quietly amused Marian, who had a gentle sense of humor which was always wide awake. But she perceived behind the exaggeration a certain stable earnestness which she admired. She told Mrs. Carrol she thought Mr. Winter a very interesting man, a statement which drew from the old lady:

"Yes, dear, I find he improves very much, the more one gets to know him."

These quiet evenings were the pleasantest in Ralph's life. It seemed to him he was on the very brink of complete happiness, merely abstaining for a brief time from seizing the bliss that, after all, was really his. The self-repression he felt he was exercising possessed a sort of subtle ascetic sensuousness which I think is ofttimes even more delightful than complete enjoyment; for appetite therein is ever keen, and imagination never sated. There was not a discord in those peaceful days. They
were of the kind that bring sunshine into Memory forever.

The Egotist is seldom very far away from the lover. When the Princess arrives we hasten to don our most becoming clothes, for the inner man as well as the outer; and, from the real King downwards, who can wear his "best" without posing? Old Mr. Tuck, of Tuck & Bias, the Fifth avenue tailors, is of a philosophic turn of mind, and has a very interesting work, still unfortunately in manuscript, treating of the beneficial effect of clothes upon the physical and moral man. He is courteous enough to read it, in parts, to certain of his customers; and I must declare, even at the expense of being, by the uncharitable, suspected of disingenuousness in revealing the fact, that I was deeply interested by his account of how many cases of physical and moral slovenliness he had cured by frequent additions of fine clothes to the individual's wardrobe. Ralph attired himself in his spiritual "best" for Marian; and if we, who know him too well to be deceived, find him posing a little at times, we mustn't be surprised or think very badly of him. The world is forever trying to draw men's characters with straight lines. The feat is as impossible as to depict their faces in straight lines. If the portraiture is to be truthful, the lines must cross and curve and blend and loose themselves in one another. Not only are men not good or bad, but I am half inclined to think it may be said that every excellence and every defect of character must have its reverse side; at any rate, in the present condition of human nature it usually has. The kind, loving, charitable heart lacks moral firmness with others and shuns dealing sternly and righteously with a brother's failings and weakness. The clear, strong intellectual vision, like a perfect lens, is achromatic, deficient in poetic color. The busy worker is a poor dreamer (and the dreamer, too, has a place in the world, though a despised one these days). The keen touch for actualities, lacks the forward feeling for possibilities, generosity tends to become a spendthrift, and Justice cannot forgive.

After the garden party, Ralph had a strong desire to visit
Marian's school at Smeltham, so one morning our two friends arranged to walk over the hills to the manufacturing town which was some five miles distant. The Marl, as it flows through Eastchester, is a slumberous stream. It meanders among the hills as though it loved the way. It is navigable to an extent even further up than Eastchester, and cumbersome, barge-like boats can be seen at times creeping up through the hop fields and corn fields to the old Cathedral town, laden with coal or some such bulky commodity. The road from Eastchester to Smeltham keeps, as it were, within elbow touch of the river on its way, and it was along it that Ralph and Marian set out. The summer was in its fullness; fields and gardens and hedges and trees were all at the height of their glory. Like a true wanderer, who doesn't count his steps, but seeks rather a direction to travel in than a destination to reach, the Smeltham road meandered, like its companion, the River, between the hills, past old farmhouses and residences, often only the roofs of which were visible among the trees. The weather the day before had been stormy, but now the sun was triumphant and a brisk, fresh breeze was driving huge fleecy clouds across the blue sky like remnants of a retreating army. Ralph and Marian had to breast the wind, which was so strong that it impeded progress. On the hill tops our two friends had to bend forward to meet it.

"Oh, isn't this exhilarating?" cried Ralph, loudly, for the breeze whirred in his ears.

"Yes, delightful," cried Marian, busy trying to keep her hat in position and wayward locks of hair out of her eyes.

"Grand," said Ralph. "This is the weather I like. It stirs a fellow to motion. We get so little of it in America. Do you know, Miss Marian, I'm getting to like the English climate."

"For a good American," said Marian, "I'm afraid you are getting to find too many charms in England."

The words went further than Marian dreamed of. Ralph looked at her for a moment.

"Yes," he said, "I'm in love with a great many things in England."

"We'll make a monarchist of you yet, Mr. Winter."
RAYMOND LEE.

"I wouldn't object a bit, if I could choose my own kingdom."
"What kingdom would your Republicanish select?"
"The United Kingdom of course," Ralph said, smiling at the double-sided conversation.
"You couldn't make a better choice, Mr. Winter."
"I am certain I couldn't."
"I shall have to tell the Dean of this and your—friend, Mr. Kneesman." Marian laughed; Ralph laughed, too.
"Oh, wait 'till I'm King."
"You are being naturalized very quickly, Mr. Winter.
How long have you been in England?"
Ralph told her.
"And nearly two years in Germany. You must long to be home again?"
"On some accounts, yes; but I haven't accomplished yet what I left home for."
"May I ask what it was? You have never told me?"
"Certainly," said Ralph; "but to make matters plain I must tell you a little more than you ask. Do you care to hear?"
"Indeed, I do," said Marian, earnestly.
"Well, then," began Ralph, and the Egotist drew a picture of his life, the perspective at least of which was quite subjective. Certainly no one else would have viewed his life exactly as Ralph did, nor would any one else have made the central figure quite so interesting. That is to be expected however. Every man's account of his own misfortunes, failings or disappointments is largely a story of how he was sinned against or defeated in his good intentions by somebody else. The successes of our lives are wholly our own; it is our failings that we share in so liberal a way with others.
"A useless life," said Ralph, in conclusion, with disingenuous frankness. "I wonder what is yet to come of it."
"Great things, I hope," said Marian.
"Do you really?"
"Of course I do."
"It would help me, Miss Pilgrim, I think, if I felt I had to justify your good opinion of me."
How excellent an opportunity, fair reader, for a little sentimental byplay! How easy to drop a handkerchief to the mock knight! Perhaps he may pick it up and really treasure it, but pshaw! what matters it if he does not; cambric is cheap. But Marian was not given to playing sentiment. We may divide mankind into two classes; those who say more than they mean, and those who mean more than they say. Of the former was Ralph's, and his speech sounded weak and false to Marian. Character, she thought, should stand firmly on its own feet, and not morally be a dependent upon anybody else.

"You don't mean that, Mr. Winter, I know. I am sure you don't need any such silly help as that to do your part in the world. You have your duty to fulfill, not an opinion of mine to justify."

Ralph winced.

"Duty! Miss Pilgrim. With a man duty, in the large sense usually is his ambition. I wish somebody would show me what my duty is. I mean beyond merely pointing to the general moralities. Duty! Pshaw, it's as much a Will-o'-the-Wisp as anything else we run after. Now it's here and now it's there."

"May not the instability be in yourself, Mr. Winter."

Ralph admitted the possibility.

"I think it is you that are unstable. You have the artist's temperament, Mr. Winter, you are selfish." The last word was uttered emphatically. This vigorous pushing home of criticism wasn't pleasant to Ralph.

"Selfish!" he repeated, awkwardly. "Well, I suppose I am; few of us are as generous either in word or deed as we should be."

"Are you trying to hit me?" Mr. Winter. "By selfish, I do not mean that your hand or your purse is closed. Perhaps selfish is not the word I should use. By selfish, I mean you are the centre of your own life; you are your own life; you rest in yourself. A few minutes ago you said your life had brought you few satisfactions, that even these were fleeting and disappointing; that unhappiness was the under-current of your existence. That is natural. What reason have you for expecting anything else?"
"And why not?"
"Because he who seeketh his life shall lose it."
"Texts, texts, Miss Marian. To order one's life by texts and expect to make anything of it is about as hopeless as—as—well, trying to run a locomotive with paper."
"Ought we to reject the truth because it is given to us in a text?"
"No, no! not if it is the truth, of course."
"Ah, Mr. Winter, it is the truth that I tell you. Your own career should testify that to you. You have been a seeker from the first of your own life and you acknowledge that you have realized nothing, not even from your music, your last and fullest search for yourself."
"But wait," said Ralph, significantly.
"Ah, wait! Time will make no difference; the hundredth experiment will be as the first. There is nothing in your music to save you. It is a degraded thing at best, Mr. Winter; a noble gift which you are using as the servant of a narrow personal gratification, something that in a way whistles your moods and then bows to you and says: 'Oh, Mr. Winter, how admirable you are.'"

Despite the earnestness of the girl, Ralph could not refrain from smiling. At the same time her words had gone home and were whispering uncomfortably in Ralph's inmost soul.
"No wonder, Mr. Winter, you do not believe in Christ. I see it all now. We must understand the Christian life first before we can understand Christ, who is the sum of it all. Beyond Christ is God, and with God is immortality and all that we hope for, but only dimly comprehend."
Ralph was silenced. Marian waited for him to speak.
"Surely," said Ralph, "Faith is the only road to Christ; and, believe me, I am not perverse. I cannot find Faith. Faith is a matter quite beyond our control. It is something given to us. Am I not right?"
"Not quite, Mr. Winter, I think. I believe it is possible to build up our faith in the Christian life little by little, until at last we reach Christ through it."
"Proceed experimentally; construct our Faith, as it were, scientifically?"
Marian objected to the phraseology. Science was
scarcely more than a name with her of something reputed to be very disturbing to Faith, and consequently to be feared. However, she answered “Yes.” Neither spoke for a moment.

“How would you advise one to proceed?” asked Ralph.

Marian was looking over the hills, half lost in thought. Her eyes lit with anticipation when she heard his question. “Do you mean it?” she asked, turning to him.

“Yes,” answered Ralph, half in earnest.

“That is good, Mr. Winter,” said the girl, joyfully, and the accent of gratification pleased Ralph.

“Take any one of Christ’s teachings, that very one we were speaking of a moment ago, and see if as you live for others you do not find your life happier and fuller than it has ever been.”

“But may not that be a very self-seeking life, doing good in order that we may be happy ourselves?”

Marian was confused for a moment.

“That mustn’t be your motive, for what we are striving for is not to be selfish.”

A turn of the road brought Smeltham into view before our two friends. How unlike Eastchester, this town of to-day! Factory chimneys, huddled houses, grime, smoke, din—all charm, all peace, all enchantment gone. Even the heavens could scarcely be seen through the smoke, and the fresh waters of the Marl, as the river flowed through the town, under arches and between canal banks, were polluted with acids and dyes, and the scourings and refuse of scores of factories. And for what? What had been obtained by this great sacrifice of the soul’s possessions. A larger humanity? or merely a larger market, full of things? A civilization of calicoes and brass and iron goods, or greater dignity of life. Hard as it is to believe, let us hope the best; let us pray for it; let us work unceasingly for it. The cost of modern life is tremendous. It is appalling to count. It staggers the soul. On Fifth avenue, dressed in fine linen, after an excellent dinner we can be optimistic. The drowsiness of comfort is on the eyes. What magnificent homes! What elegance! What lovely children! What handsome women! How perfect the dressmaker’s
art! There is millionaire Tallowfat and his wife in that handsome equipage with those really (will no one tell Tallowfat of it?) too gentlemanly-looking flunkeys. There is the Billionaire Club, where the other day, so the newspapers say, who are delighted with such things, young Maltby, the great brewer's son, called for a Cleopatra cocktail, in which a pearl that cost nearly a thousand dollars was dissolved. Who, with these indubitable evidences of the worth and greatness of our civilization, can fail, my dear sir, to be optimistic.

Dare we stop to think of what lies underneath all this—the squalor and dirt and din of our factory towns and factory existence, that vast engrimming of humanity that accompanies modern life, the dirty existence which the masses lead which one may almost say is founded upon the factory, and factory conditions? Among Tallowfat's 1,600 workmen I happen to know that there is one, Jenkins, a miserable bag of bones, so thin you would think he made tallow of himself every day. He has been "blessed" with four children, and the eldest is dying of consumption. They live in a close, fetid tenement house in New York, over a butcher's store in Tompkins square, one of the East Side "People's breathing places"—dusty, trodden grass-plots, littered with paper and old tin cans, where a few stunted city trees struggle for life. I happened to be passing that way some weeks ago. Knowing that the girl had had a relapse, I made my way upstairs through the smells and children to the Jenkins' apartment. "Oh, Mary is much better," said Jenkins' wife, who was "cleaning up" in a sort of tornado fashion. (Why is it the poor are always "cleaning up," ever without visible results?) "She's in the front room." I passed through the narrow, dark, shaft-lit chambers, where the night smell of the unmade beds was still quite strong, to the parlor—(Oh, the fearful machine-made furniture and chromo-pictures)—where I found Mary propped up with pillows at the window. I asked her if she was enjoying the sunshine. "Yes," she said, smiling faintly. "It's so good. It's like the country look-
ing out here. The doctor said I oughter go to the country, but this is almost as good."

Hear this factory child, ye nymphs and dryads of stream and wood. Tompkins square! I took a peep at the "country." The whole picture was too sad for words, for at that moment it occurred to me that the Sunday previous the papers published an adjectival description of 'I allowfat's new "cottage" at Tuxedo. Why! the wines served at one of the millionaire's swell dinners would have kept Mary in the country for months. Shall we take off our hats, Reader, and hurrah for this sort of civilization, and declare that it is all right because it is not easy to prove logically that it is all wrong? Argue as we may, the heart cannot be satisfied with the spectacle of the tragic contrast between the rich and the poor—"the State in a fever," to borrow old Plato's phrase. Despite the harsher judgment of our financial sense, we turn with longing to the dream of a simpler, sweeter life.

Smeltham is noted for its tanneries, iron works and breweries. Englishmen are very proud of the town. Its manufactures go to every part of the globe, and, like Manchester, Birmingham, Sheffield, it is one of the props of Britain's "greatness." It is quite as filthy as the worst of our purely manufacturing towns, but comparisons are not necessary. It is very squalid, very dirty, very prosperous; except in the central part it is a great huddlement of factories and workingmen's homes. Marian conducted Ralph rapidly through an entanglement of narrow, winding streets. The girl was evidently well acquainted with the way.

"Is this your route every day?" asked Ralph.

"No, except when I walk. Usually I drive to Miss Spinney's house and then walk to the school with her. Miss Spinney has charge of our little girls. We are late this morning. She leaves home at half-past eight."

After the pleasant morning tramp over the hills from Eastchester, each step of the way into Smeltham seemed to Ralph like a descent into a dreary inferno of ugliness, where creatures were confined who had committed some crime against the nobility of mankind.
“This place is enough to make one shiver,” said Ralph.

“It is not very pleasant,” said Marian, gravely, “but the greater part of Smeltham is no better.”

“What sort of life can people possibly live in a hole like this?”

“Thousands know nothing better. They are born and live and die here.”

“It's fearful,” said Ralph.

“Ah! Mr. Winter, you must get beneath the surface if you really want to see what life is here.”

“Poverty, drunkenness, misfortune, I suppose.”

“Yes, there is that; but the worst feature of all is that so many human beings are part of these surroundings, born from them you may say. There is the school, Mr. Winter, at the end of this street.”

“The low factory building on the right?”

“Yes. It was used as a small tool factory. We moved into it only a short time ago. We whitewashed it inside and out, put in new windows, and are much better housed than ever before. We were on Pitt street, the second turning from here.”

The street which Marian and Ralph had just entered was only a few hundred feet long, terminating at the river. It was lined with a number of low, irregular factory buildings, brass foundries and ironworks, whence issued the din of busy hammers. The school was a structure two stories high, the upper of which was reached by an exterior flight of stairs. The passer-by would have mistaken it for a workshop, but for its clean, tidy look, and the words “Tubal School” painted in large black letters on the front wall. The legend formerly ran Tubal Iron Co., and when the repainting was done Marian let the old name stand, merely changing the latter words in accord with the new use of the building. The ground floor was a single barn-like room, the ceiling of which was supported by rough iron columns. It had been converted into a school-room, as Marian had said, by filling in the windows with glass, by whitewashing the walls and ceilings, by laying a wooden floor, and building a large brick fireplace in the place where the big forge fire had stood. Several maps and a number of framed engravings.
taken from the illustrated papers decorated the walls. The window sills were filled with hardy plants. These additions, with the ranges of desks and the blackboards completed the furnishings of the room. When Marian and Ralph entered, about two hundred children, boys and girls, apparently of every possible age, from four to perhaps twelve, were standing in long rows before a harmonium which one of the teachers was playing. They were singing a simple air. The voices dropped almost to silence when it was seen that a stranger accompanied Marian. Without a word, Marian took a place with the teachers by the instrument and joined in the hymn. The sweet childish chorus rose again, though scores of little eyes were fixed on Ralph, many recognizing him as the stranger who had played with them at the Bungalow. The thrill of the music was pleasant to Ralph. It was the first agreeable sensation he had felt in Smeltham. When the song was finished Marian introduced Ralph and the teachers to one another, and afterwards asked Winter to play for the children, which he did willingly. He recalled all the childish airs he could think of, and when Marian called for the chorus the children joined in with spirit and carried Ralph along from one song to another.

"Perhaps I'm stopping the studies," said Ralph.
"No, no!" answered Marian, eagerly. "Don't stop, play on," and for nearly an hour Ralph led the school. When he ceased, he felt a glow of satisfaction, such as had not been his for many years. It was strange and very pleasant.

Marian revealed the pride and pleasure she took in the school by the quiet diligence which she exercised in showing it to Ralph, and by her delight, expressed in a half-restrained smile, at his interest or admiration. She took him to the different classes, showed him the work the scholars were doing, and to the kindergarten where Marian herself was the principal teacher. Outside, in the rear of the main building, was a long, low workshop, which had been converted into a rough refectory, furnished with tressel tables and wooden benches.

"Do you feed your children too?" asked Ralph, as he was conducted through the room.
"Yes. Many parents wouldn't see that their children attended regularly if knowledge was the only gift we had for them."

"I understand," said Ralph.

Marian then led her visitor to the floor above, by way of the exterior steps already spoken of, which were in reality little more than a substantial ladder. Here Ralph was surprised to find a more elaborate establishment than the school below. The greater part of the floor was arranged as a meeting hall—a small stage, equipped for lectures or concerts, with a reading-desk, a huge blackboard and a piano—and beyond, circle after circle of benches. Off from the hall was a reading-room quite comfortably furnished, the walls of which were lined with books all in rough canvas covers.

"And this?" asked Ralph, looking around.

"These are the Tubal Club Rooms."

"And do you manage this too?"

"Oh, no. The men, most of them the parents of the children downstairs, manage this themselves. Indeed, they manage the school as well—that is, there is a committee, four of the men, the Dean, Mr. Kneesman, and—myself."

"Why the men? Isn't the Dean and yourself and my friend, the Rev. Mr. Kneesman enough?"

"No, management is education; besides, the men know their own lives and necessities better than we do. If it wasn't for their aid we would do a great many foolish things that would thwart success. I don't think you have any idea, Mr. Winter, of how much rough wisdom and hard common sense the working people possess. Besides, they know their own wants so much better than any one else, and for practical results it doesn't do to build above the heads of people. Does it?"

"Miss Wisdom," exclaimed Ralph, laughing.

"But, am I not right?"

"Of course you are right," said Ralph. "But what are these I see?" continued he, glancing at the book shelves. "Karl Marx, Henry George, Toynbee, Bellamy, Webb, the Fabian Essays, Economics of State Socialism, Death and Disease Behind the Counter, Labor Movement in America,
Tom Mann, England for All, George Howell. Why, Miss Pilgrim, is this a revolutionary club?"

"No. It's a Workingmen's Club. Why?"

"Do you think this literature of disaffection is the proper sort of reading for working people? Have you gone through it yourself?"

"No," said Marian, quietly. "I have never read any of it."

"If you had," said Ralph, "I am sure you'd banish it all."

"I don't think so, Mr. Winter."

"What, not if you disagreed with its teachings, which I am sure you would?"

"No, indeed; the workingman must develop his life from his present position; must work out his own ideas, strive for his own ideals, work on to wisdom from his own point of view. His ideas and methods may not be yours, Mr. Winter, but they are the only ideas and methods that can be real and vital to him. He cannot possess the drawing-room view of life, nor strive for drawing-room ideals by drawing-room methods."

"But suppose he is on the wrong track, as we say in America."

"He is not, Mr. Winter, despite mistakes and shortcomings. God may forsake the individual, but never the people. In the end, He will bring good out of the effort of these people for a fuller life. Besides," she added, "I have only a voice in the management here."

"But you supply the funds?"

"The Committee," said Marian, hesitating, "find what is needed."

Ralph was standing in front of the girl. He took both of her hands in his. The words were wrung from him:

"You noble girl," he cried.

It was the uplifting of a strange, worldly voice in the sanctuary. Marian blushed deeply. For a moment she bowed her head in a sort of shame. Her hands still remained in Ralph's. When she lifted her face to his it was marked with something like pain, and big tears were in her eyes. Without a word, she hurried down to the school-room. The Tempter had spoken to her, the Evil One that stands so close to the Good, so ready to whisper and desecrate.
Try as Marian might to silence Ralph's words, they would not be silenced. They sang to her with a siren sweetness. They thrilled her very being with pleasure; a deadly pleasure she felt. It was as though the nun had seen her face reflected in the Virgin's eyes and read there that she was fair. What was Eve's temptation to this one threatening the peace of Innocence of the Garden of Eden. As to Ralph, though the words were uttered quite without premeditation, reflection approved of them thoroughly. She must be pleased, he thought. Besides, they are true. He felt he had advanced one step nearer to Marian.

His admiration for the girl, however, acted reflectively. The light of her goodness revealed to himself critically his own narrow life. The Teacher was busy with him. The neophyte was getting to his knees. But was the Teacher God or Love? Ralph himself could not tell. The lesson was accompanied by a gentle feeling of elation. Ralph perceived what he regarded as the goodness of his own nature. It was like witnessing a mild apotheosis of one's self. "No common nature," he thought, "would be stirred by the admirable as I am."

Whoever was the teacher, chance visited the Tubal schools that afternoon and pressed the lesson closer home to Winter. Ralph spent the remainder of the morning in the Library, and then dined with Marian and the children. By this time his interest had pretty completely traversed Marian's little establishment, the novelty was exhausted, and he felt a sneaking desire to get away from the place. He wandered into the town through the finer business streets, and when tired of walking hired a cab to drive him about. In this way he obtained in a few hours a wide glance of Smeltham, and though the town, even at its best, lacked charm or beauty of any sort as completely as the machine-made goods it turned out in such vast quantities, it impressed Ralph, for it was after all a great living thing. The strong pulse of modern life beat in its activity, and its bustle and manifold noises whispered of multitudinous desires which had traveled by devious ways from the four quarters of the globe, and were the genii which had created the town,
and day after day crept into the machinery and the very muscles of the great army of toilers, and kept all in motion. There was a grim kind of poetry in the thought for Ralph.

If modern commerce forges the chain of a dirty and prosy slavery for millions of mankind, is not the same chain also binding the world together in a brotherhood that year by year becomes closer? Who knows but that some day the iron fetters will be transmuted to gold? Turk, Russian, Australian, Indian, Chinaman, were all in a way at work with the mechanic at the Smeltham factories, and beyond the doors of the noisy buildings the imagination could see Rhenish vineyards, American cornfields, Canadian forests, strange tropical lands, busy cities under the Western sun, minarets of the Morning Land, sleeping little villages and wide seas. Ralph's unpleasant impressions of the morning were crowded from his mind by the sight of this larger vision. "Patience and Faith, Faith and Patience," an inner voice cried. "All will yet be well. God who is Love, and Beauty has not forsaken the World. But do thou thy part in Patience and with Faith."

These thoughts were at work with Ralph when he returned to the schools. The children had departed, and Marian was awaiting him.

"I didn't mean to be gone so long," he said. "I have kept you waiting?"

"No," replied Marian, vacantly. She hesitated before saying anything more. "Mr. Winter," she recommenced, diffidently, "I have just received—a telegram—from—Mr.—Professor Dunsey. He has disappointed me."

"How so? What has he done?"

"It is what he has not done." Marian lifted her eyes to Ralph's from the paper she held in her hand. An experienced coquette could not have acted better. "Mr. Winter," she said, eagerly, "I want you to do me a great favor. Will you?"

"Indeed I will, with pleasure."

"Well, Professor Dunsey promised to lecture on Iron to the club to-night. Once a month, you know, we have a lecture. This is the first time I have undertaken to make the arrangements, and here's the result: Professor Dunsey
telegraphs that his wife has been taken very sick, and he cannot possibly leave London."

Pause.

"Well," asked Ralph, after a minute, "what can I do with the dilemma? Go to London and drag the Professor to his engagement by the hair of his learned head—if he has any?"

"No," said Marian. "It is too late for that." Then she continued, diffidently: "I want you to take the Professor's place."

"Lecture on Iron! Me?" cried Ralph, in amazement. "Why, my dear Miss Pilgrim, I couldn't tell iron from steel to save my soul from everlasting perdition. A lecture from me would be very funny. Gentlemen and—will there be any ladies? iron is a very useful metal of a black or grayish color, found, if my information is correct, in the bowels of the earth, in a great many places. It is made into pigs and sows, too, I think. It is....."

"No, no," said Marian, "I want you to take the Professor's place, not his subject."

"Oh, and?" asked Ralph.

"And," said Marian, coaxingly, "tell our people something about Music. You will be at home there."

"Yes, but my house isn't in order for company."

Marian felt she was gaining her point.

"But the visit is an informal one," she said, laughing.

"Will you come upstairs, Mr. Winter. Come along, Miss Spinney." When the trio entered the hall Marian said, "Sit down at the piano, Mr. Winter."

Ralph did as he was bidden. "Now?" he said, striking a chord.

"Your audience is before you, Professor Winter. We want you to tell us what sound is—what a musical sound is—how it differs from an unmusical sound. What is melody? what is harmony? We want you to illustrate the matters for us. We....."

"Hold! Hold!" cried Ralph. "One thing at a time, pray."

"Well, then, what is sound? What is the difference between a high or treble sound and a low or bass sound?
Remember, Professor, we are very ignorant, and would take it as a favor if you will give us the simplest explanation you possibly can. No big words."

Step by step, in this manner, Marian led Ralph along from vibrations of the air, the length of waves and strings, to the nature of musical concords and discords, the formation of chords, and the rudiments of harmony. At every point possible Marian cried: "Show us on the piano, Professor," and she got Ralph to remove the front of the piano, so that "the audience" might see. When Ralph had finished, she gravely proposed a vote of thanks for the Professor and three cheers.

"There, Mr. Winter," she said; "you see how much buried treasure you have. You will repeat that lecture for me to-night, won't you?" She put her hand on Ralph's arm. The appeal was too strong to be refused.

"I will do anything for you," said Ralph, so fervidly that Marian blushed. "But," continued Ralph, who would have given a great deal to be free from the task, "it will be no lecture, I can do no more than chat as I did with you, and I'm not sure I can do that before a crowd."

"Nothing could be better than a chat. It's the very thing."

"Will you be present to help me along with a question or suggestion in case I come to a stop anywhere?"

"To be sure. I will be with you, and so will Miss Spinney and Mr. Kneesman, and the Dean's wife ..."

"Pray stop—don't make me afraid of my audience before I face it."

The "personages" Marian had named and a few others were present when the lecture began, with one hundred and fifty workingmen of the neighborhood and their families. The Rev. Kneesman introduced Winter to his audience, alluding to him as "a great musician, really one of the greatest I have ever heard." The compliment made Ralph smile, but nevertheless it was pleasant and, of course, it raised the expectations of those present. The rows of inquisitive faces uplifted to Winter's disconcerted him at first, but little by little, as he began to speak, the inquisitive look gave place to one of interest. The illustrations on the piano
were particularly attractive, and as many of the audience seated in the rear of the hall were too distant to see the keyboard of the instrument they crowded on to the stage. Ralph soon became at home with his hearers, and then all hesitation, either of ideas or speech, vanished. "Here, Sir," he said to a tall, bony, long-armed workman who had edged up to the side of the piano, "please strike these three notes—so. You notice they are in harmony." The lankey fellow was thrown into awkward confusion by the request and endeavored to sidle away.

"Go it, Bill," cried a voice in the crowd. "He is a musician, mister. He's preached 'armony to us many er time."

A roar of laughter followed, amid which Ralph took hold of Bill's reluctant big, coarse fingers and tried to get them into the position to strike the chord.

When they did touch the keys there were at least six notes beneath them. Louder laughter followed the performance and "Bill " fled the stage.

"See if he can strike three five pun notes at once, mister," cried a voice.

This sally brought down the house again.

At the close of the lecture, the entire audience gathered around Winter and they kept him playing 'until Kneesman declared it was time for the ladies to be getting home. Then three cheers were given for Ralph, and right lusty cheers they were too, and everybody smiling voted that the evening was the "pleasantest yet."

On the way home, Marian gratefully thanked Ralph. She was delighted with his success. Her praise rang in his ears. "You don't know, Mr. Winter, how much you have been keeping to yourself."

"Such as it is, it has taken you to find it and bring any of it to the surface."

"No, Mr. Winter, you are finding yourself."

Marian gave him a warm good-night. Her hand lingered in his.

One step more, thought Ralph, when he was alone. You are an angel, my Marian, and I love you. No wonder I have been a discontented cuss. She is right, I've lived a selfish life.
The old Hildesheim dreams faded away. The future would be with Marian.

I will help her in the schools, said he; and as Ralph constructed project upon project, he became more and more pleased with himself in the role of teacher and philanthropist.

To be continued.