

WHY NOT?

NOW that summer is over and everyone will soon be back on the job, why not plan to get as much good as possible out of club activities during the coming months? If there is an architectural club in your city or town, why not put your best effort back of it in your spare time, whether you are an architect or a draftsman? If there is no local club, why not organize one?

The value of the architectural club to all men engaged in architectural work has been recognized by PENCIL POINTS right along and we are stronger for the club idea now than ever before. If you have read the brief biographies we have published of young men who have distinguished themselves by winning scholarships, by making sketches of special interest, etc., you must have been impressed by the part some architectural club has played in the development of almost every one of these men. This feature alone justifies all the effort necessary to form and maintain architectural clubs. In addition, there is the benefit to the great body of architectural men who take part in the club activities in one way or another. Probably the men who benefit as much as anyone are the men who give their time to the conduct of the club work or co-operate in the carrying out of the program.

The greatest benefit unquestionably is the sense of unity of purpose between draftsman and architect that grows in a well-conducted architectural club.

The architect who has little time, under the pressure of his practice, to pass on to the men in his drafting room the results of his study and experience, finds an opportunity to reach a much larger circle in addressing an architectural club.

The more advanced men in the architectural offices find in the club a means of passing along to the younger and less experienced men the results of their experience, and they find a field for the exercise of whatever talent for organization and executive ability they may possess.

To the young man the architectural club is a god-send. In it he finds the men who open up new vistas in the vast realm of architecture which he has only just begun to explore. In the club he finds the congenial companionship of men of his own age and circumstances who have the same interests. In the club he finds, very often, a well conducted atelier in which he can follow the program of the Beaux-Arts Institute of Design under the guidance of an able Patron.

For all, for *ancien* and *nouveau*, for architect and draftsman, the social events of the club are enlivening and enjoyable and they have a very practical value that is apparent when we recall the old saying that "All work and no play, makes Jack a dull boy."

Now it is not difficult to organize an architectural club almost anywhere, for the size and type of the club will correspond to the size, needs and possibilities of its locality. A mere handful of men interested in sketching, drawing from life, listening to talks on architecture, doing the design problems, or coming together to chat and play games, if they are engaged in architectural work may truly be regarded as an architectural club. The elaborate program, the fine club house may come later; they are not indispensable.

We believe that it is essential for the best results that a number of the most able architects in the city or town be interested in the work of the club. The help such men can give is invaluable. One is needed as patron of the atelier, and it is well for a club to have an atelier unless there are enough other ateliers in the town.

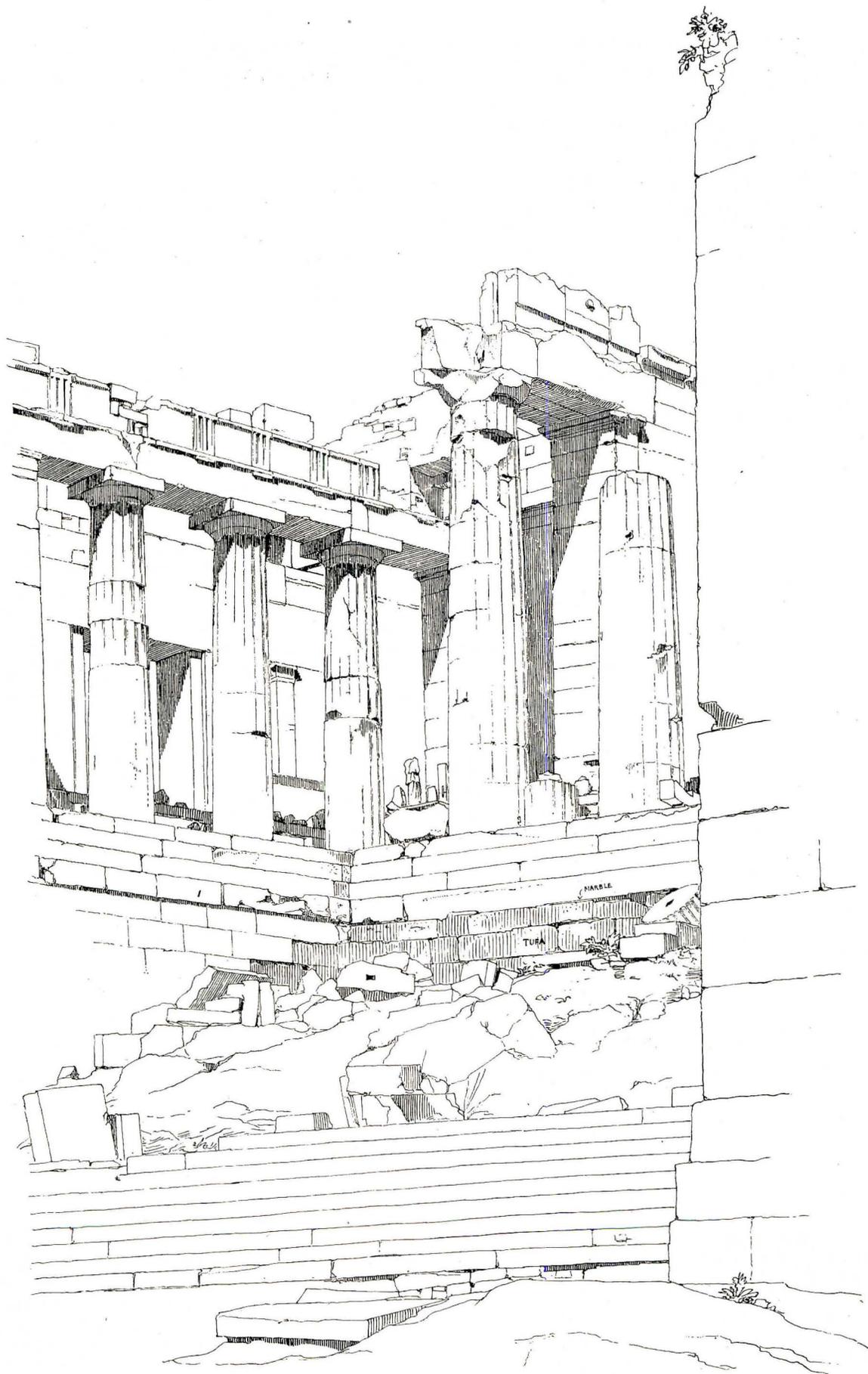
Several able men are needed to give talks in the course of the season's program. Men of business experience and stability can steer the club's craft through difficulties and, all in all, the architects who take an interest in the club are a most important factor.

The backbone of the club of course must be its general membership, made up of men of various degrees of attainment all bound together by their common interest in architecture.

In the next issue we are going to print contributions from as many clubs as possible in all parts of the country, telling about their organizations and their activities. We want to put into the October issue a fund of interesting, helpful matter from clubs everywhere.

We want every club represented by a letter—let's make this a regular get-together of architectural clubs.

Now, if there is no club in your locality, why not organize one, however small. Read the letters from clubs that will be printed in the October issue of PENCIL POINTS. There you will learn how some of the big clubs were founded, and how they grew. you will learn what the clubs, big and little, are doing and planning. Then make a start, talk to a few of the other men and get a club going.



Pen-and-Ink Drawing by Francis H. Bacon. Front of Propylaea, Athens.

MASTER DRAFTSMEN, V

FRANCIS H. BACON

FRANCIS H. BACON left the Massachusetts Institute of Technology in 1876 after finishing the Special Course in Architecture under Professor Wm. R. Ware. The following spring he went to New York to get a job as draftsman and first located in the office of Carl Pfeiffer "at nothing a week." Through a friend he got a chance to work evenings for McKim, Mead and Bigelow—which must have been an encouraging change from working upon Mr. Pfeiffer's drawings, the latter being usually, as I remember, reproductions of a German version of the Romanesque style. Mr. McKim would take the young fellows who worked in his office out to supper, tell them stories of Paris, and its students and, having aroused the imaginations of the younger men, they would return to the office and "work like beavers!" Stanford White was then head man for H. H. Richardson with an office at the other end of the corridor in the building at 57 Broadway. Mr. Bacon tells of White coming "rushing down the corridor to our end to see what we were doing, offering whirlwind criticisms, etc." Mr. Bigelow had just returned from Europe with some charming sketches made on metallic paper which were a great source of inspiration to young Francis Bacon. He afterwards used the idea and passed it on to others. (His younger brother, Henry Bacon, used the same kind of paper in making his sketches while abroad as Rotch Scholar, and Albert Kahn told me many years ago, of having met Henry Bacon in Europe and received that idea from him, while Mr. Kahn was making his memorable sketches, which he made while Traveling Scholar for *The Ameri-*

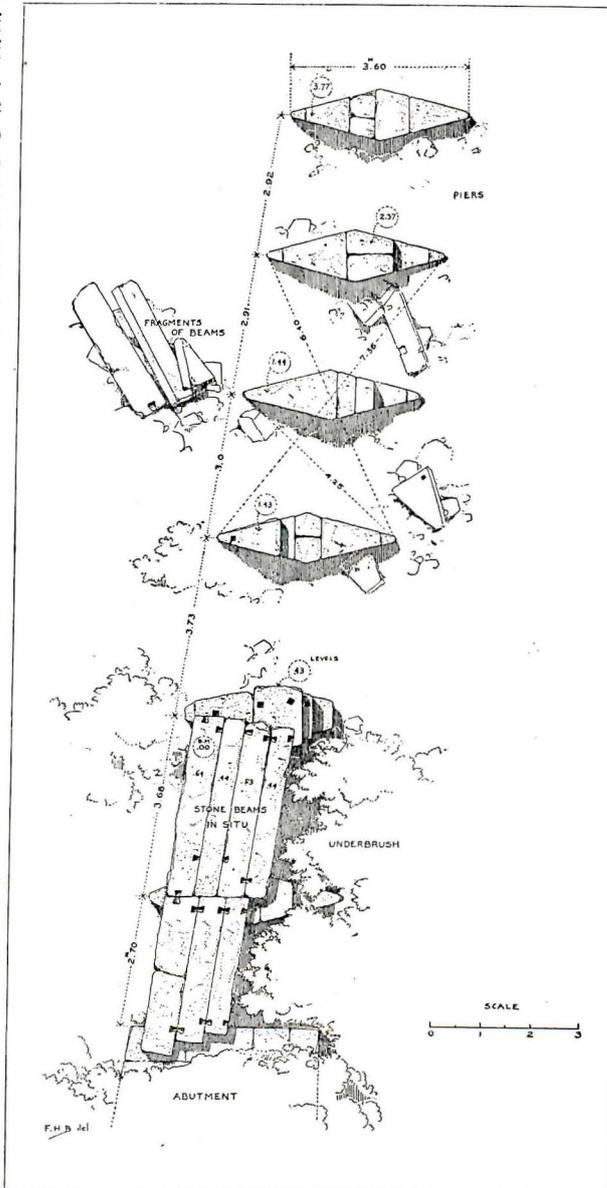
can Architect. It requires a sure touch to make sketches on metallic paper as no erasures can be made.

Mr. Bacon managed to let Mr. Mead know that he was after a better job than that which he had with Pfeiffer and through Mr. Mead's influence he obtained a position at Albany with Prentice Treadwell, as head draftsman, where he remained until the summer of 1878.

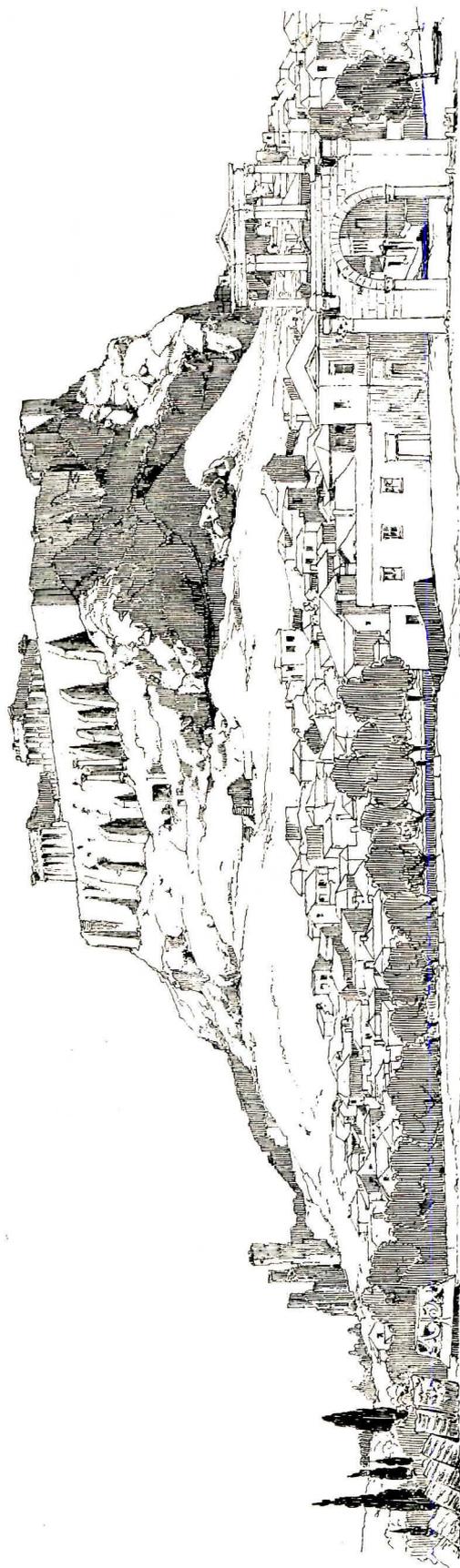
That was an eventful year. Bacon and his

friend, J. T. Clarke, each of whom had reached the ripe old age of twenty-two, sailed for England on the way to Turkey and Greece. Clarke was to write a history of Doric Architecture and Bacon was to make sketches of all the temples and sites. They had each saved up about five hundred dollars, and the Boston Society of Architects added a small subscription. On the way over they figured up the expense of all they wanted to do and found they did not have money enough to carry out their plans in the ordinary way; so they decided to buy a boat in England that they could live on, sail her across the channel, up the Rhine and down the Danube to the Black Sea, through to Constantinople and the Hellespont to the Aegean Sea, cruising through the Greek Islands and visiting the ancient Greek sites. All of which plan they executed and which Mr. Bacon recorded in "The Log of the Dorian,"—parts of which were published in the *Architectural Review*, 1912.

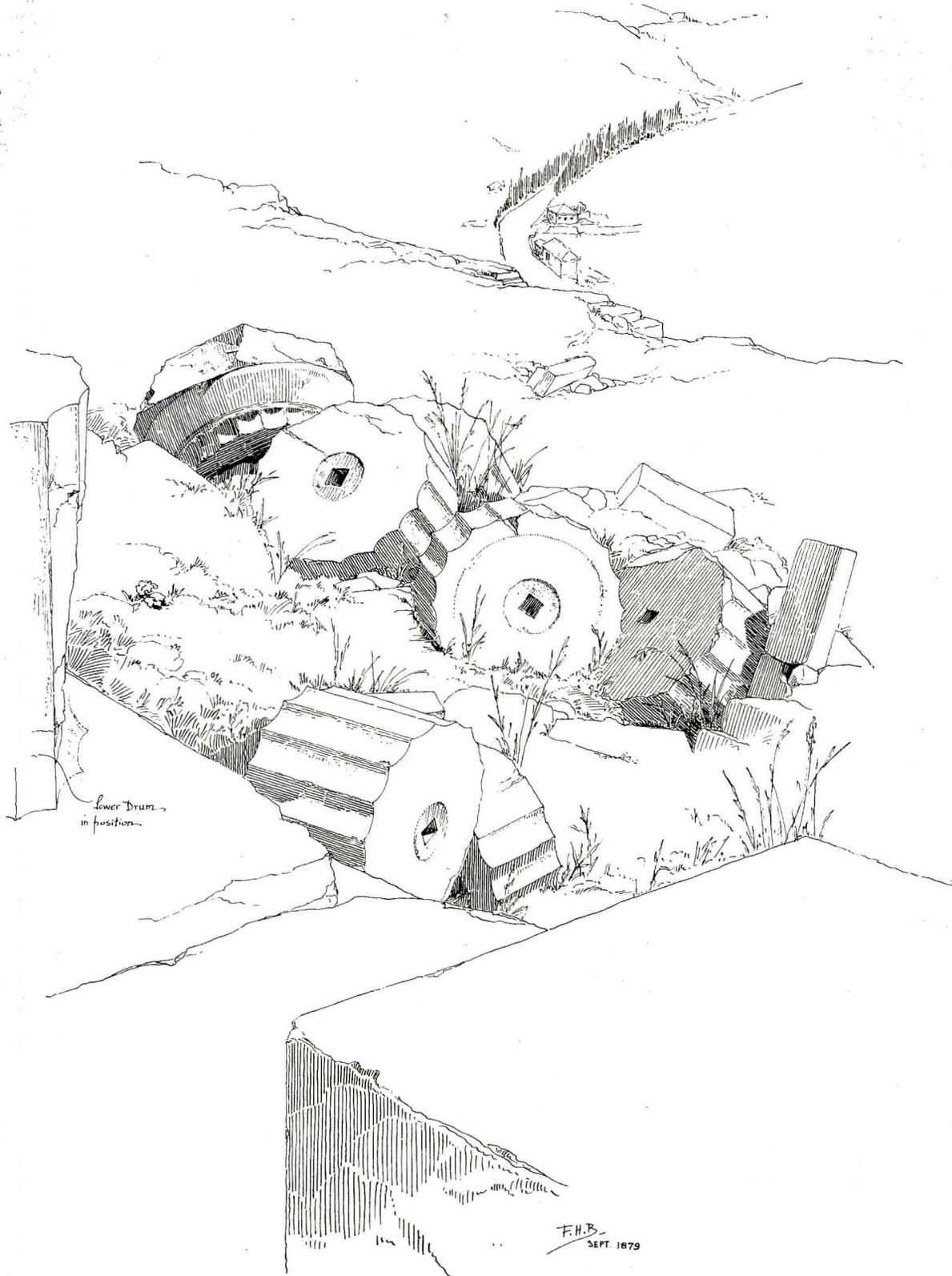
Among the sites visited was that of Assos in the Southern Troad opposite Mitylene, where there were the remains of a large Greek city and of a very early Doric temple. Mr. Clarke wrote an important report of this temple to Professor



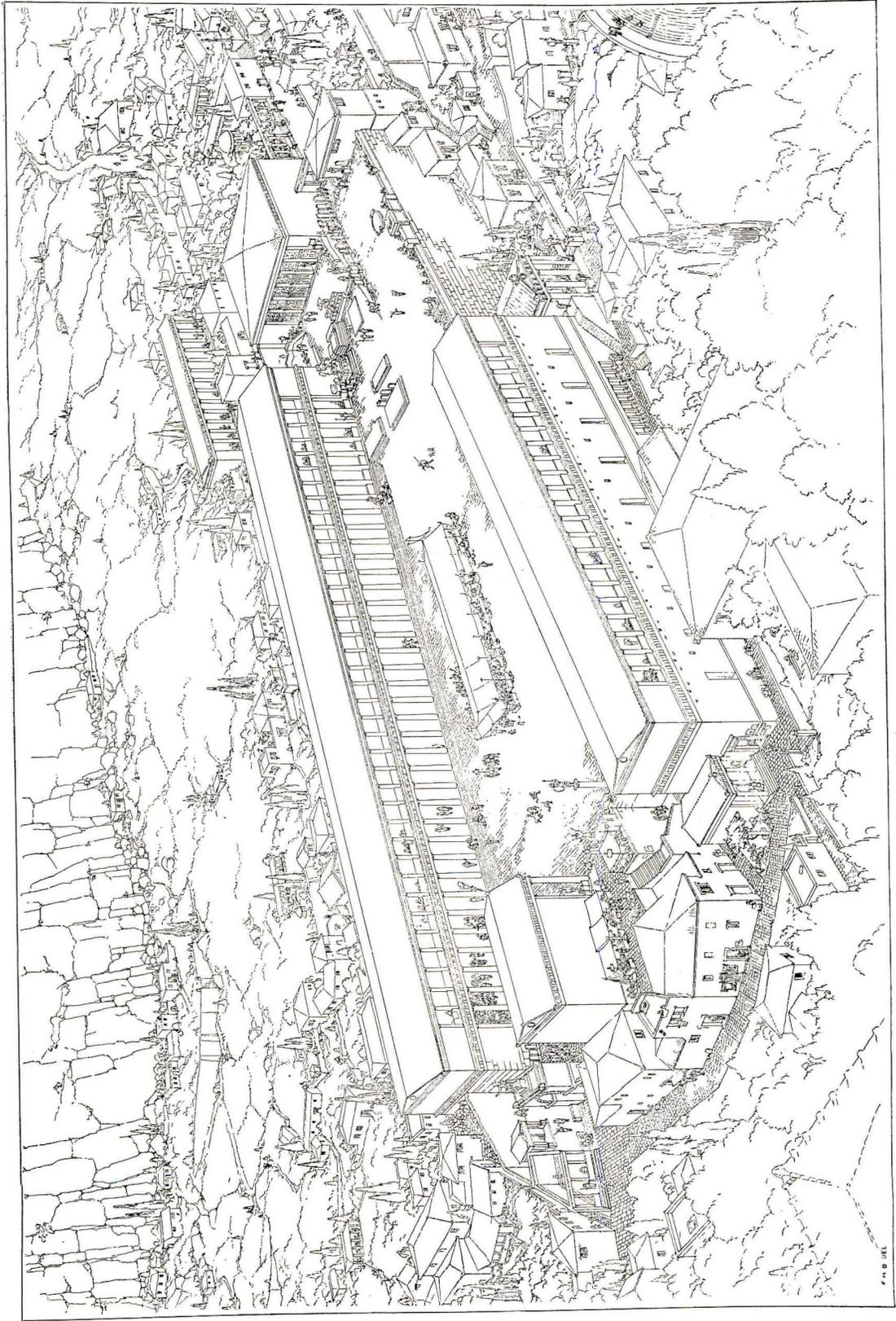
The Greek Bridge at Assos, Detail of Piers and South Abutment—Drawing by Francis H. Bacon. From "Investigations at Assos."



Pen-and-Ink Drawing by Francis H. Bacon. The Acropolis, Athens, Seen from the Temple of Jupiter Olympus. (August 27, 1879.)



*Pen-and-Ink Drawing by Francis H. Bacon. South Side of Parthenon, Athens.
(Column overthrown by explosion.)*



Drawing by Francis H. Bacon. The Agora at Assos, Restored. From "Investigations at Assos."

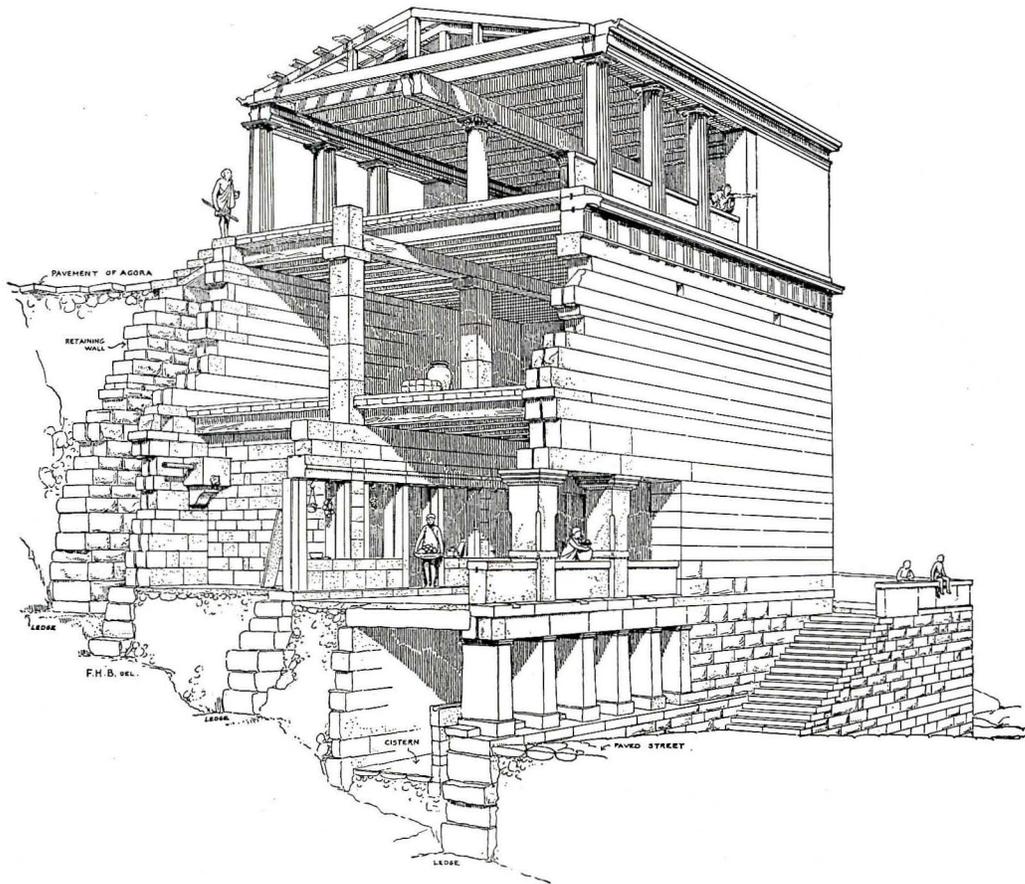


FIG. 1. PERSPECTIVE SHOWING CONSTRUCTION—ALTERNATIVE SCHEME OF RESTORATION

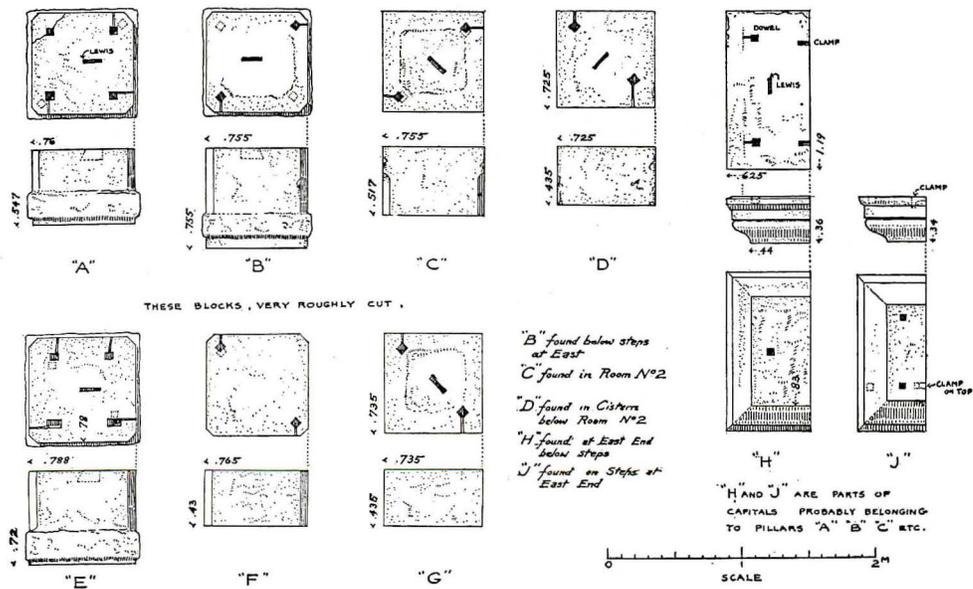
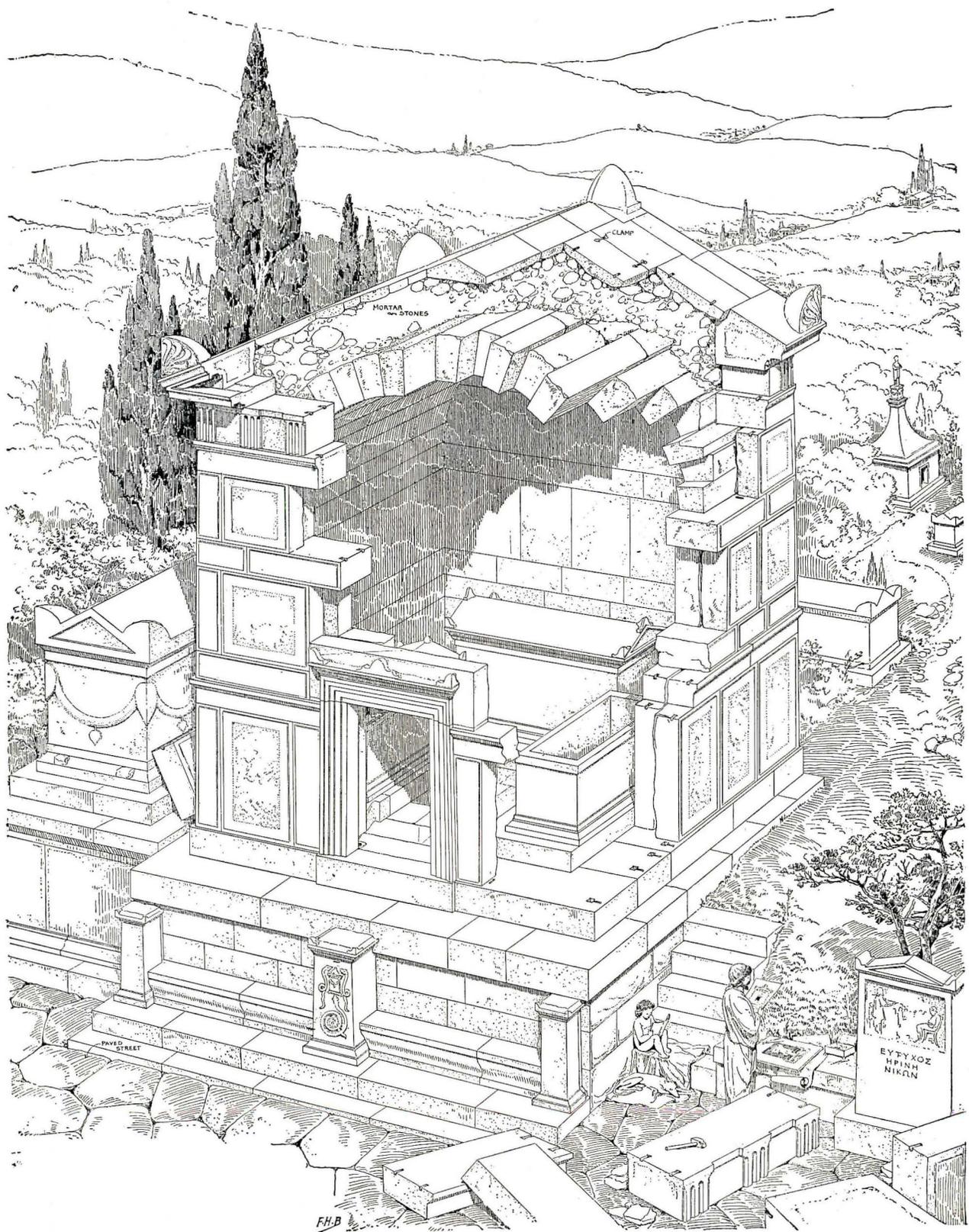
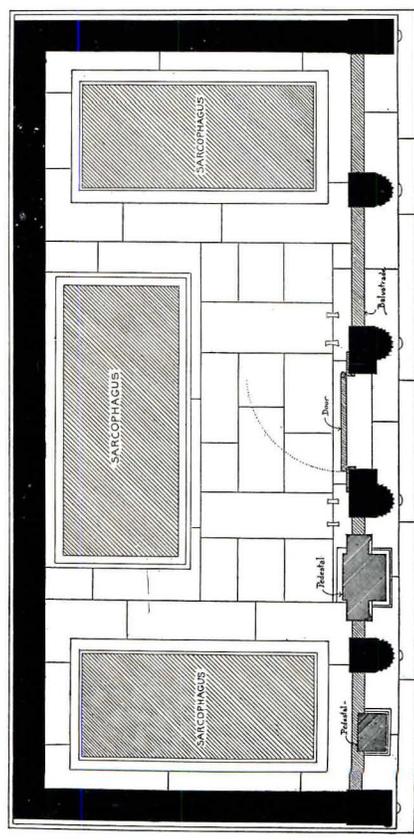
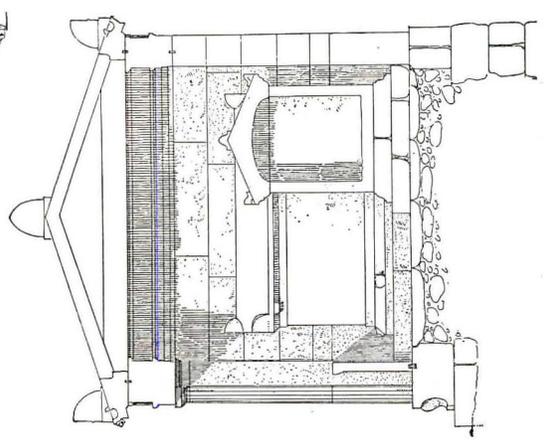
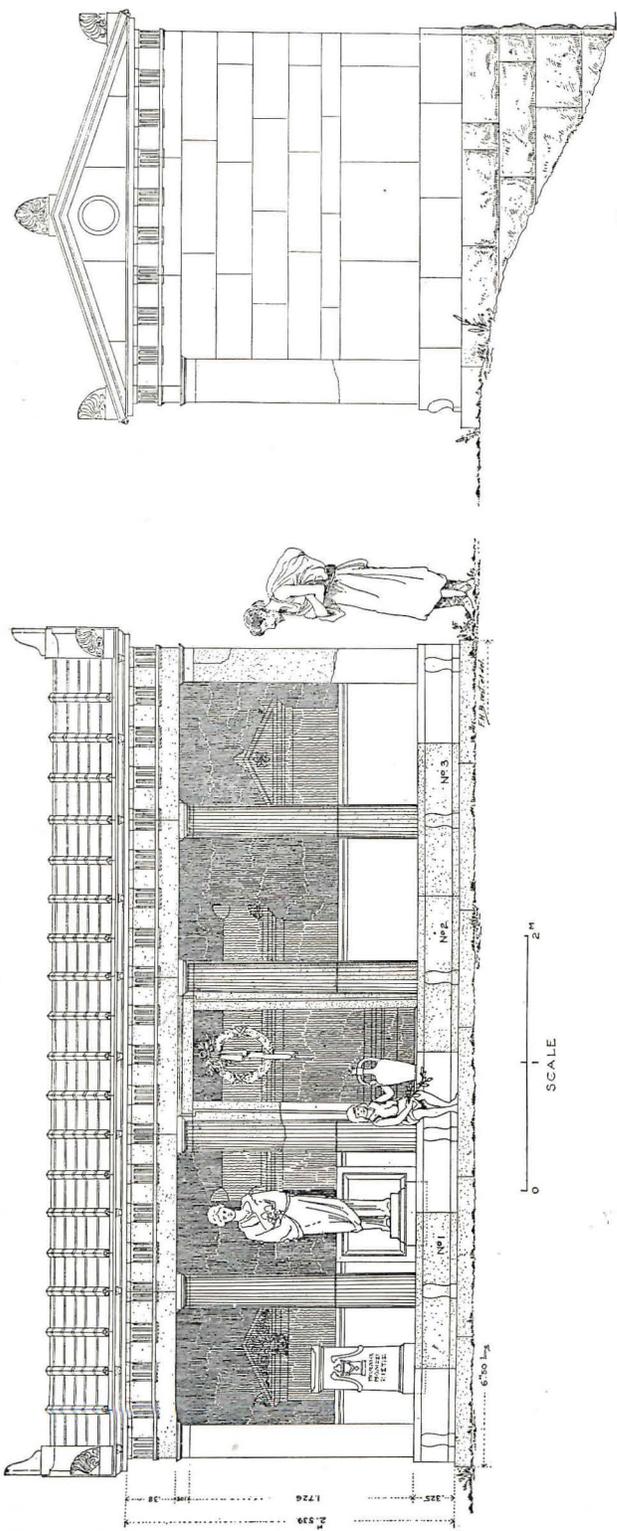


FIG. 2. EXISTING FRAGMENTS

Drawing by Francis H. Bacon. Bazaar at Assos. From "Investigations at Assos."

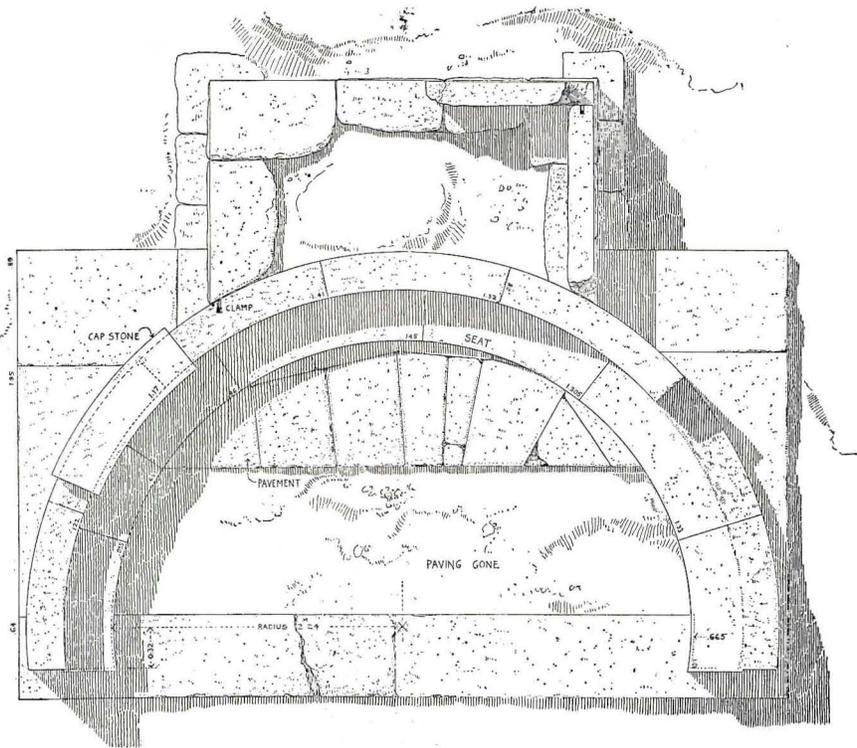


*Drawing by Francis H. Bacon. Vaulted Tomb in Field (Perspective Showing Construction).
From "Investigations at Assos."*

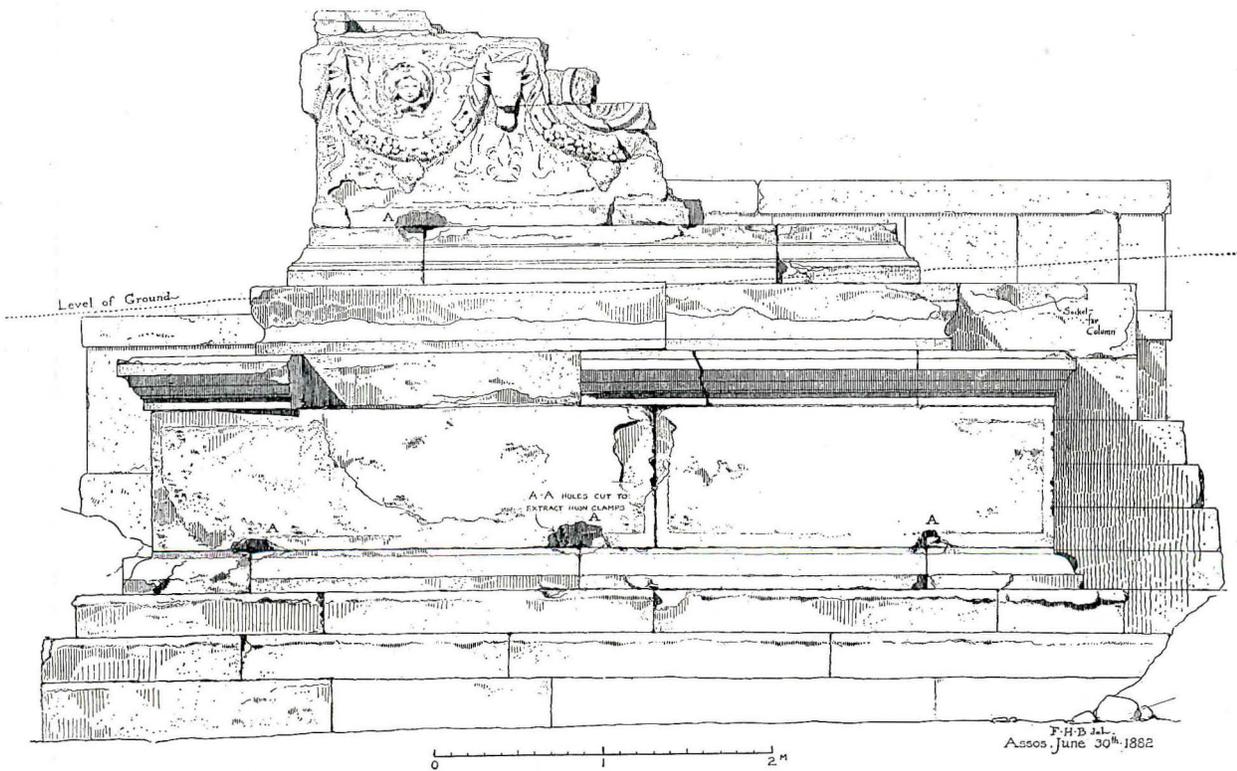


0 1 2
SCALE

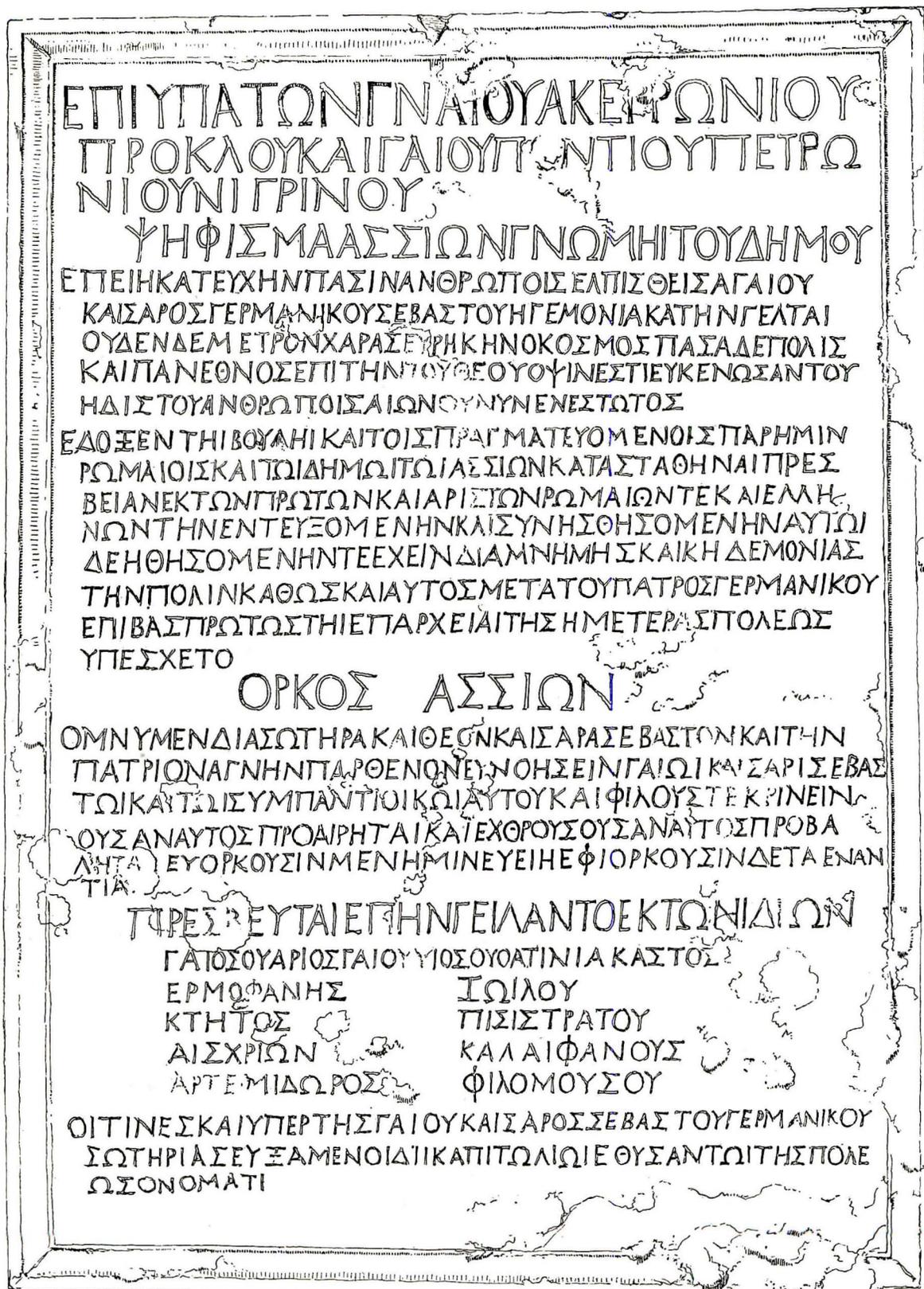
Drawing by Francis H. Bacon. Column Tomb, Restored. From "Investigations at Assos."



Drawing by Francis H. Bacon. No. VIII. Circular Exedra, Existing Plan. From "Investigations at Assos."



Drawing by Francis H. Bacon. Tomb No. XVI, Existing Condition.



F. H. B. del

Drawing by Francis H. Bacon. Inscribed Bronze Tablet. From "Investigations at Assos."

PENCIL POINTS

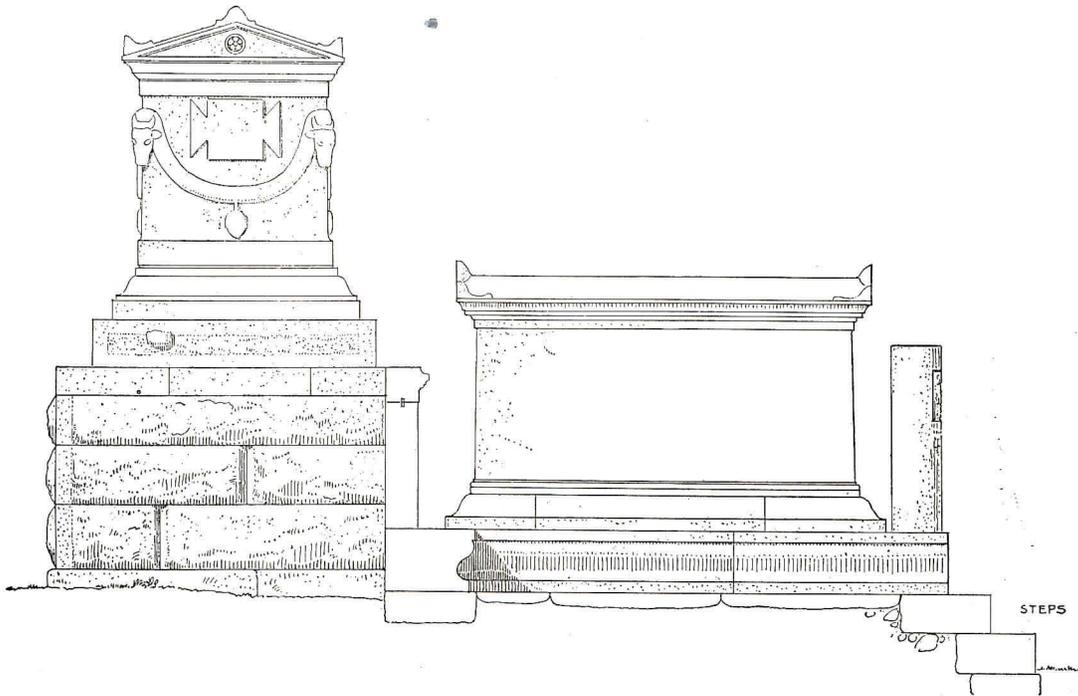
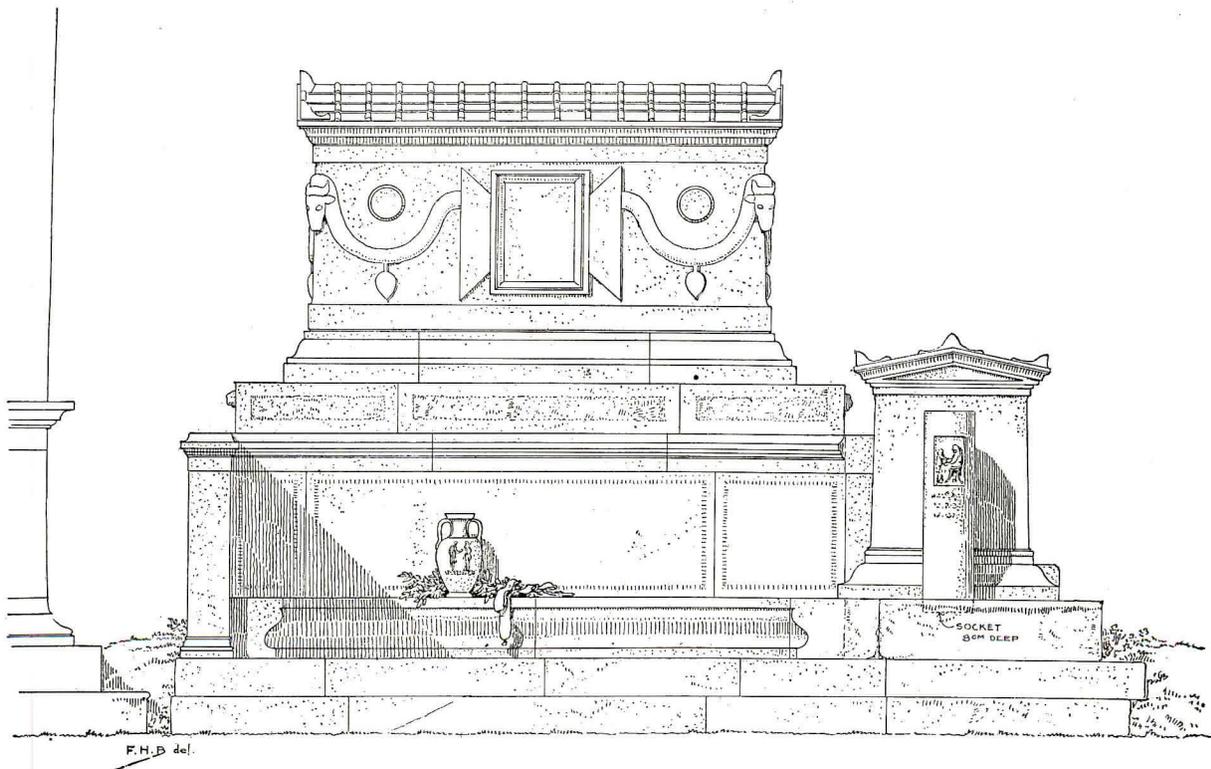


FIG. 1. SECTION RESTORED



0 1 2 3M

*Drawing by Francis H. Bacon. Tomb No. XI, Assos Street of Tombs.
From "Investigations at Assos."*

PENCIL POINTS

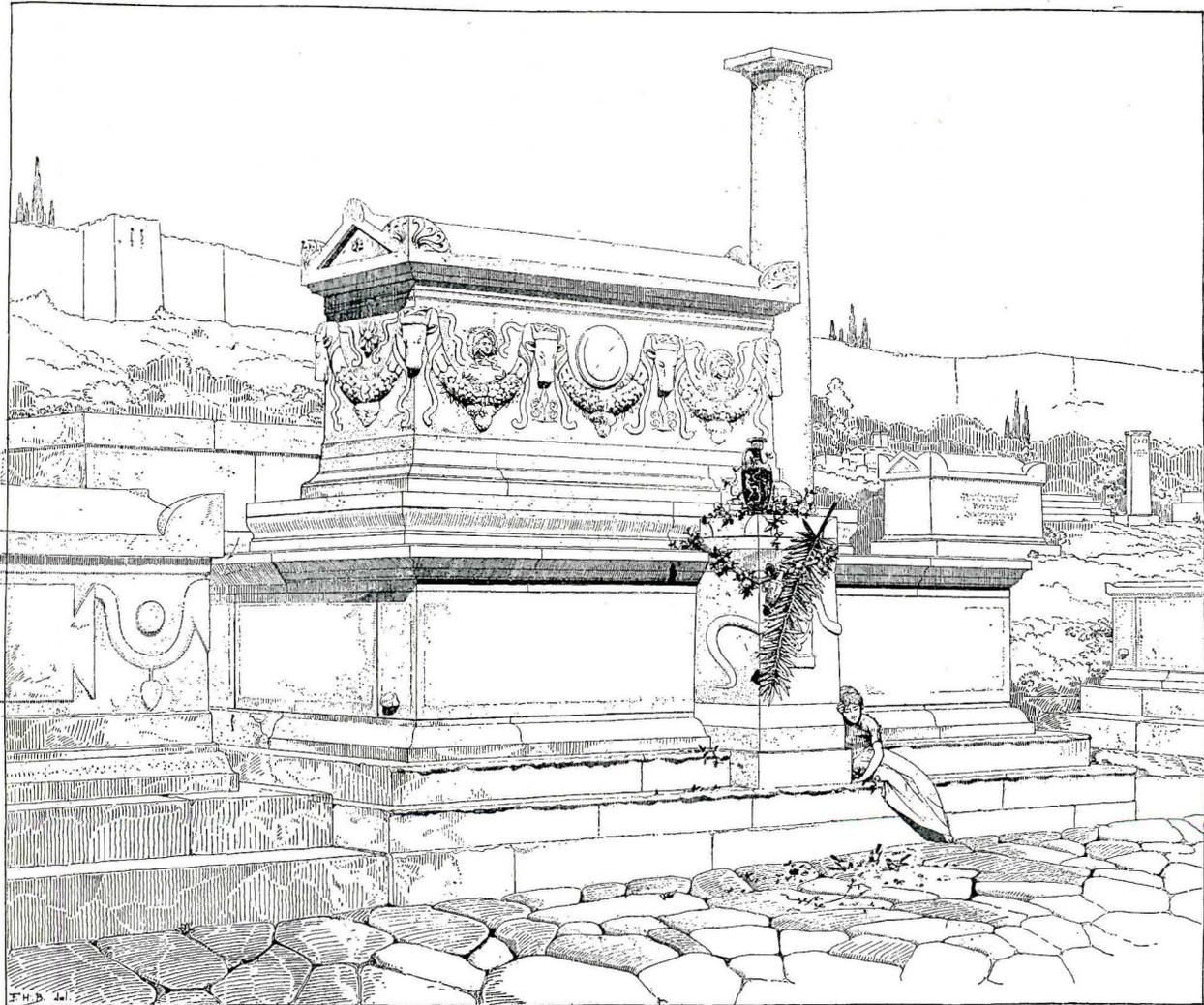
Charles Eliot Norton of Cambridge, who was so much interested that he got a group of men together and formed the Archaeological Institute of America with the idea of exploring this or some other Greek site.

After various adventures by land and sea, visiting Samothrace, Ephesus, Samos, Delos, etc., Bacon and Clarke finally reached Athens with their little craft rather battered and their money all gone. So they lived aboard their small boat at the Piraeus going up to Athens every day until a friend provided the wherewithal to bring the pair of young adventurers back to America. Bacon landed in New York in December 1879 "stone broke but in good health and having had a famous experience."

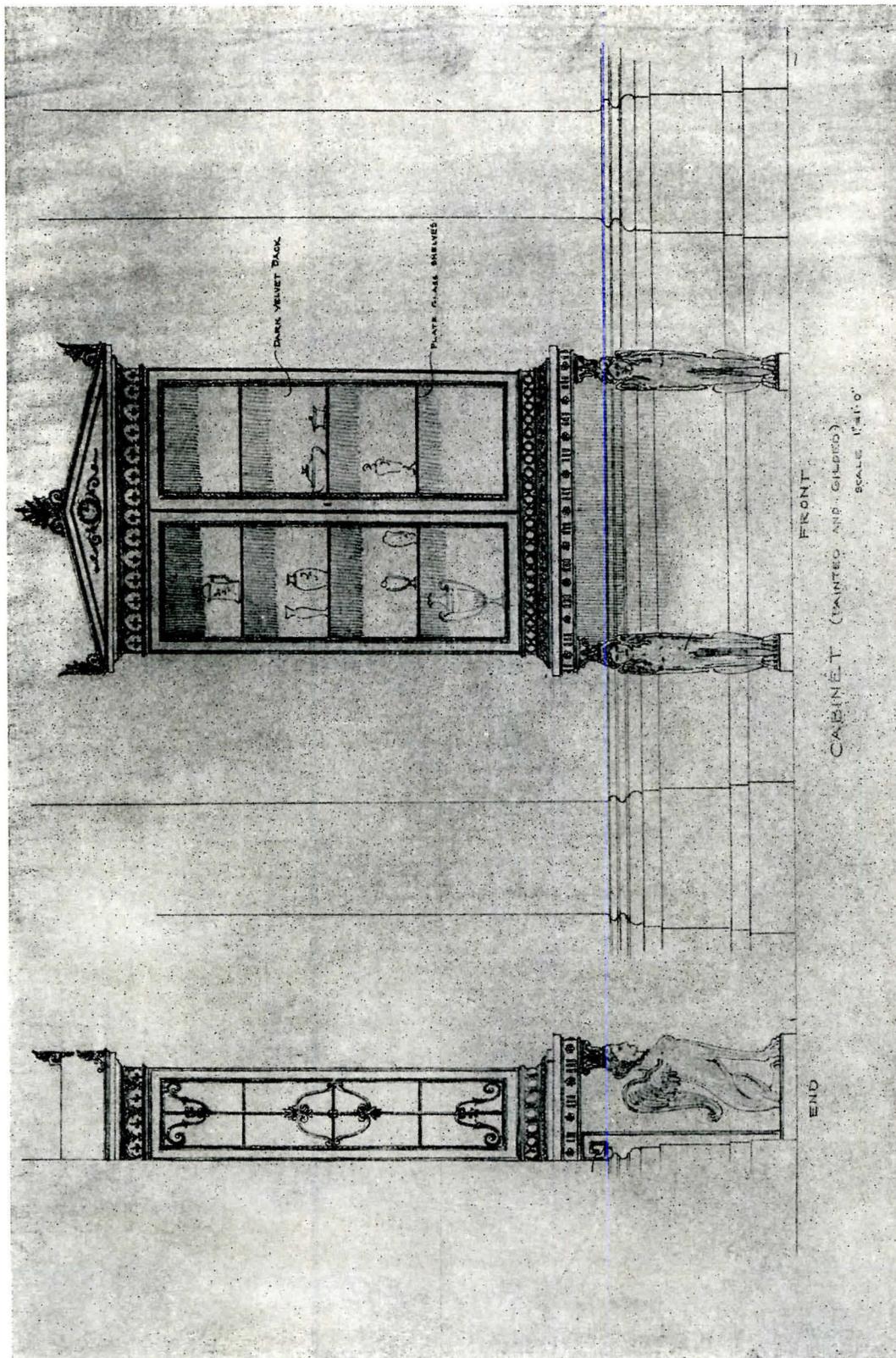
He was lucky enough to land a job the next day in the office of McKim, Mead and White as a regular draftsman. The following summer, tempted by larger pay, he went with Herter Brothers, interior decorators, who at that time were designing and building two large houses for William H. Vander-

bilt, on Fifth Avenue. Herter's drafting room was in charge of Charles B. Atwood and there Bacon found several young draftsmen who were afterwards to achieve distinguished reputations, C. Howard Walker, John P. Riley and Clarence H. Johnston, among several others. They used to meet evenings at each other's rooms and do sketch problems in design, the host giving the problem, furnishing the supper and keeping all the sketches. Among this company were C. H. Blackall, W. A. Bates and others, whose work has become nationally known.

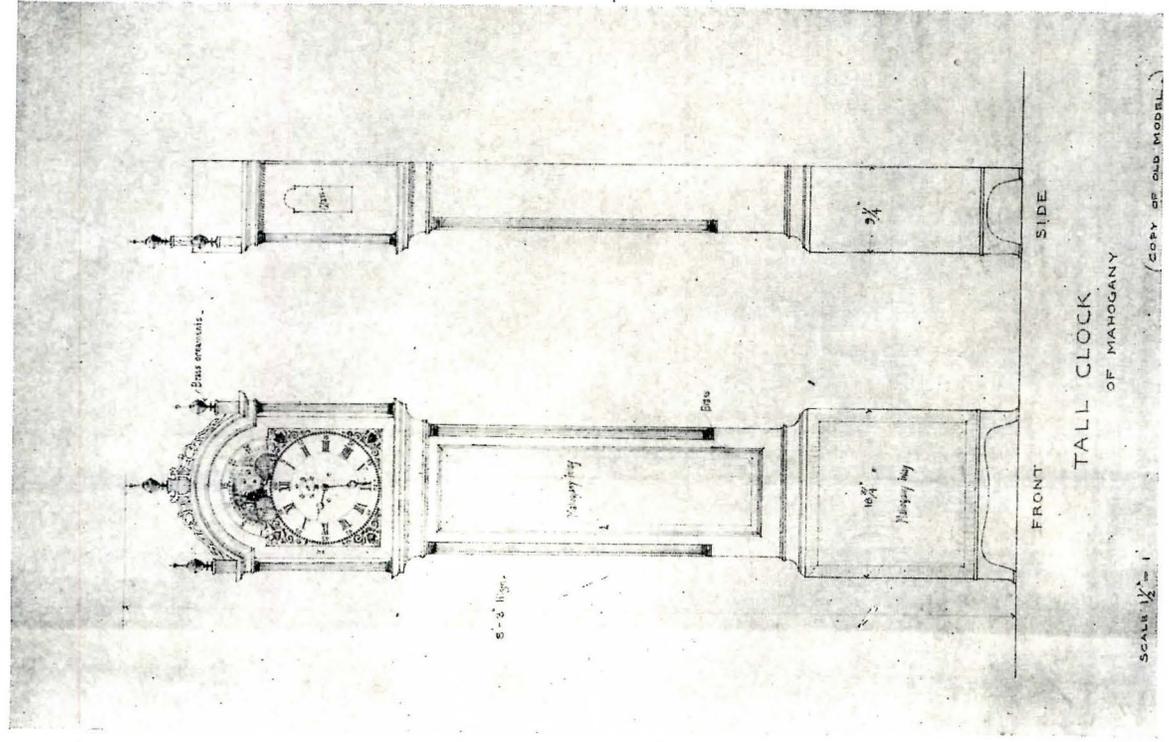
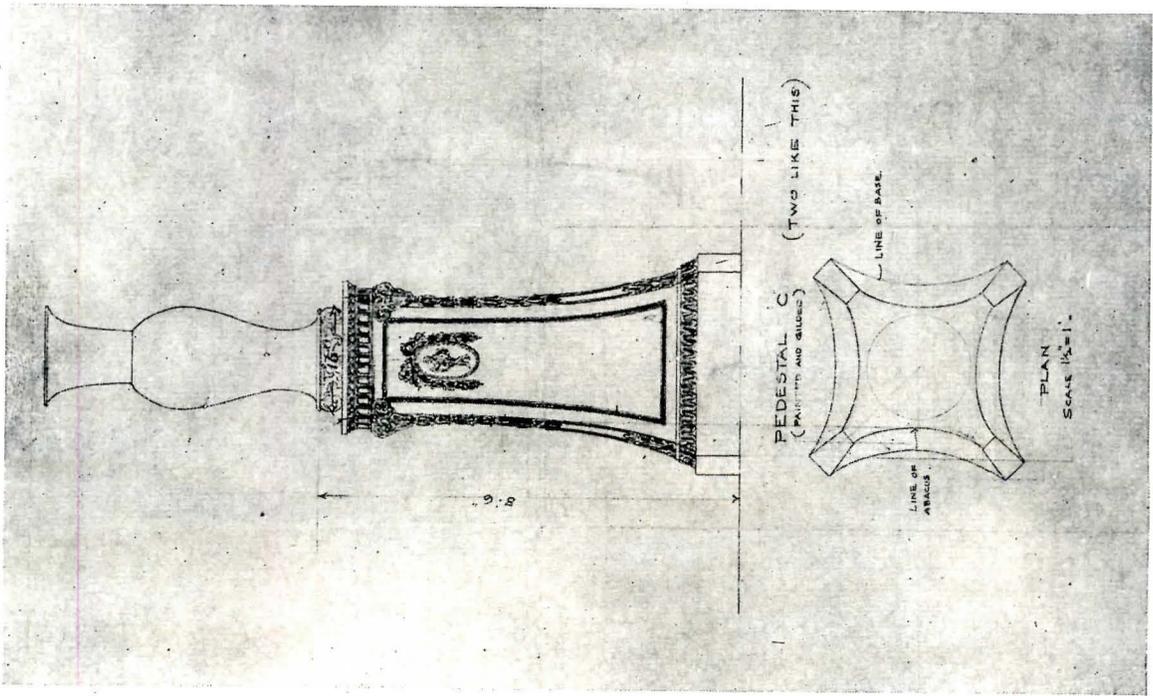
In the meantime the Archaeological Institute of America prospered and decided to excavate the site of Assos. Mr. Bacon was asked to join the expedition and finally consented and sailed again for Europe in January, 1881. Shortly before he left New York, Cass Gilbert arrived from Europe and started to work for McKim, Mead and White. He took Mr. Bacon's place in the little sketch club and so many others joined that a room was rented and



*Drawing by Francis H. Bacon.
Tomb No. XVI—Restored. Large Ornamented Sarcophagus. From "Investigations at Assos."*



Drawing by Francis H. Bacon.



Drawings by Francis H. Bacon.

PENCIL POINTS

a society formed—which was named the Architectural League!

Mr. Bacon spent three years in Asia Minor where he was joined one summer by Mr. C. Howard Walker and the two spent the following winter together in Rome. Another winter was spent by Mr. Bacon at Athens. He finished his drawings of Assos in 1883 and entered the office of H. H. Richardson at Brookline the following year. Seeing the long road ahead before he could become financially independent in architecture he decided to give up the idea of covering the land with castles and town halls and go in for interior decoration and furniture. He entered the employ of A. H. Davenport Company of Boston and remained with them in charge of their designing until Mr. Davenport's death when he established his own business in 1908.

It is mainly since that date that Mr. Bacon's work has become generally known by architects and due to the remarkable distinction of his designs for furniture. While architects in the United States had long regarded furniture as "a factory product" or something "copied from the antique," the quality of Mr. Bacon's designing has been such as to remind us—and we have needed the reminder—that furniture plays an important part in architecture. What, indeed, would the domestic architecture of England be without it? The low, depressing rooms of the average English house, barren and dull in effect, receive the touch of the fairy wand when the dark-toned, well-formed lines of the dull polished furniture is brought in and put in place and the fires lighted; and the 18th Century French interior

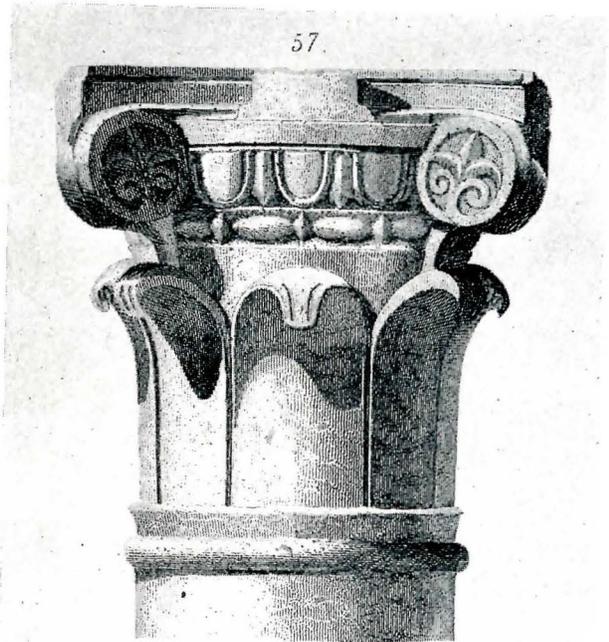
has, too, its center of interest in the beautifully proportioned and delicately decorated pieces of furniture. Then there are the collections of furniture in nearly all the museums of the world to prove the lasting popular interest in its beauty of design; and in the collections of drawings in museums are many designs for furniture; but I doubt that many possess as distinctive designs, so beautifully drawn as are contained in Mr. Bacon's files of his own studies. To many of us in the east, however, Mr. Bacon's personal influence in the cause of a high standard of design has long been known. His mastery of representation of the "glory that was Greece" was recognized in those early drawings which he made on the voyage with Clarke—a few of which were published from time to time in the eighties and nineties, and several of them together, as illustrations of "The Log of the Dorian" a dozen years ago, in the *Architectural Review*. His intimate study of Greek architecture has made him a leading authority upon the subject and one whose counsel and criticism has been sought by the very best of our scholarly designers of classical architecture, and obtained to their great advantage.

If the writer were called upon to dispense with his library except as much as he could carry under his arm, among the material that would surely be retained would be those reproductions of the drawings illustrating "The Log of the Dorian," made by Francis H. Bacon.

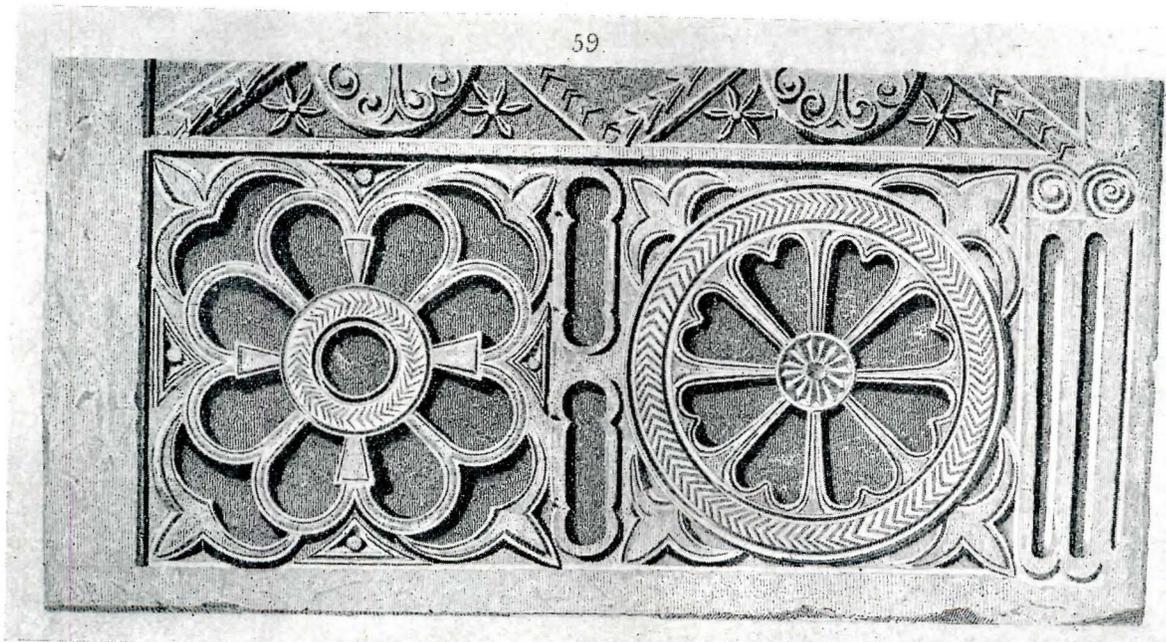
FRANCIS S. SWALES.



Casa de D. José Vigueras.



Catedral.



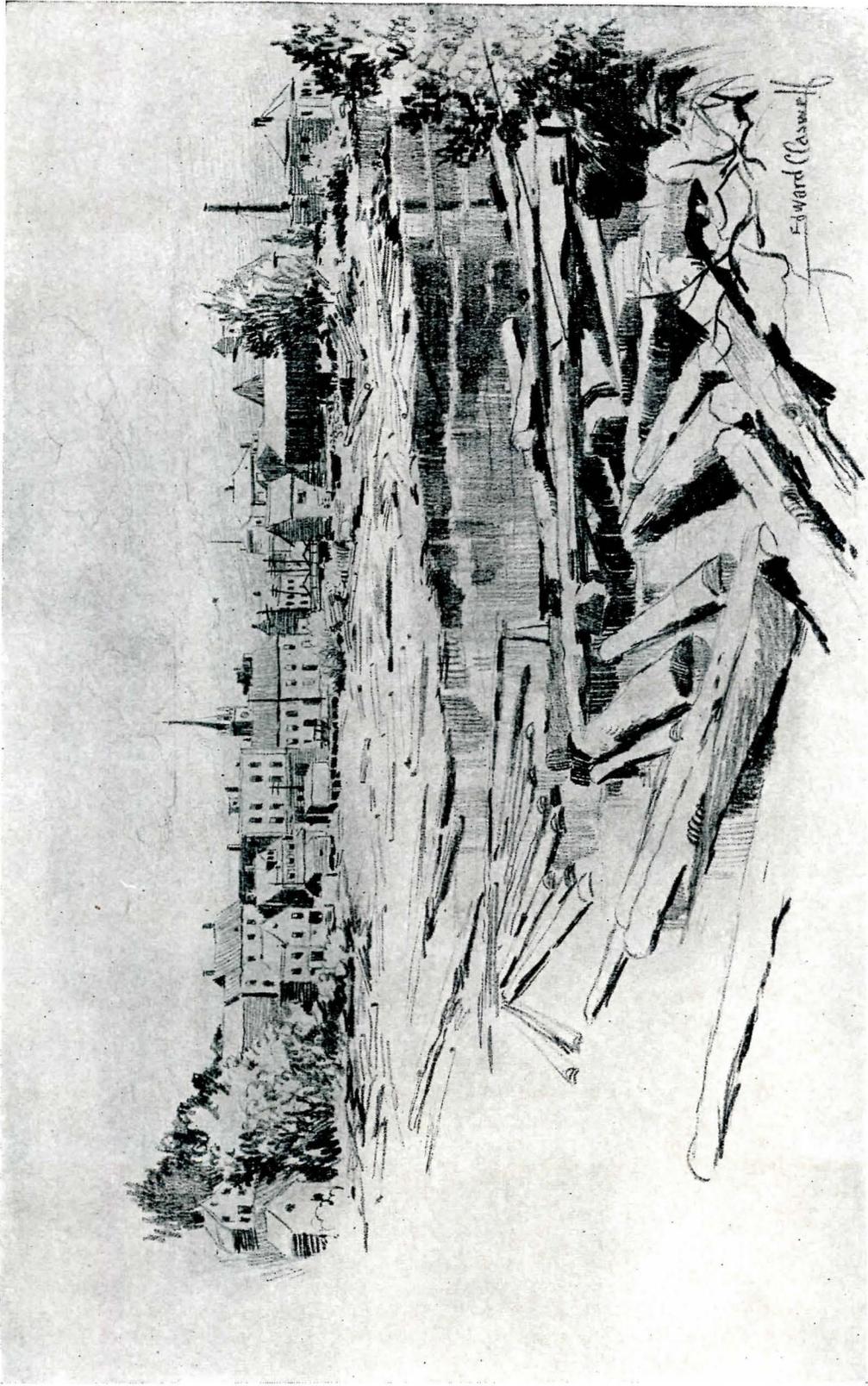
DETAILS IN THE CATHEDRAL AT CORDOVA
FROM "SPANISH MASTERPIECES OF ARCHITECTURE"

Three interesting bits of detail from the Cathedral at Cordova are shown on the other side of this sheet. This plate is one of the one hundred plates in "Masterpieces of Spanish Architecture," now being printed by the publishers of PENCIL POINTS. This book will be Vol. IV of "The Library of Architectural Documents."

PENCIL POINTS

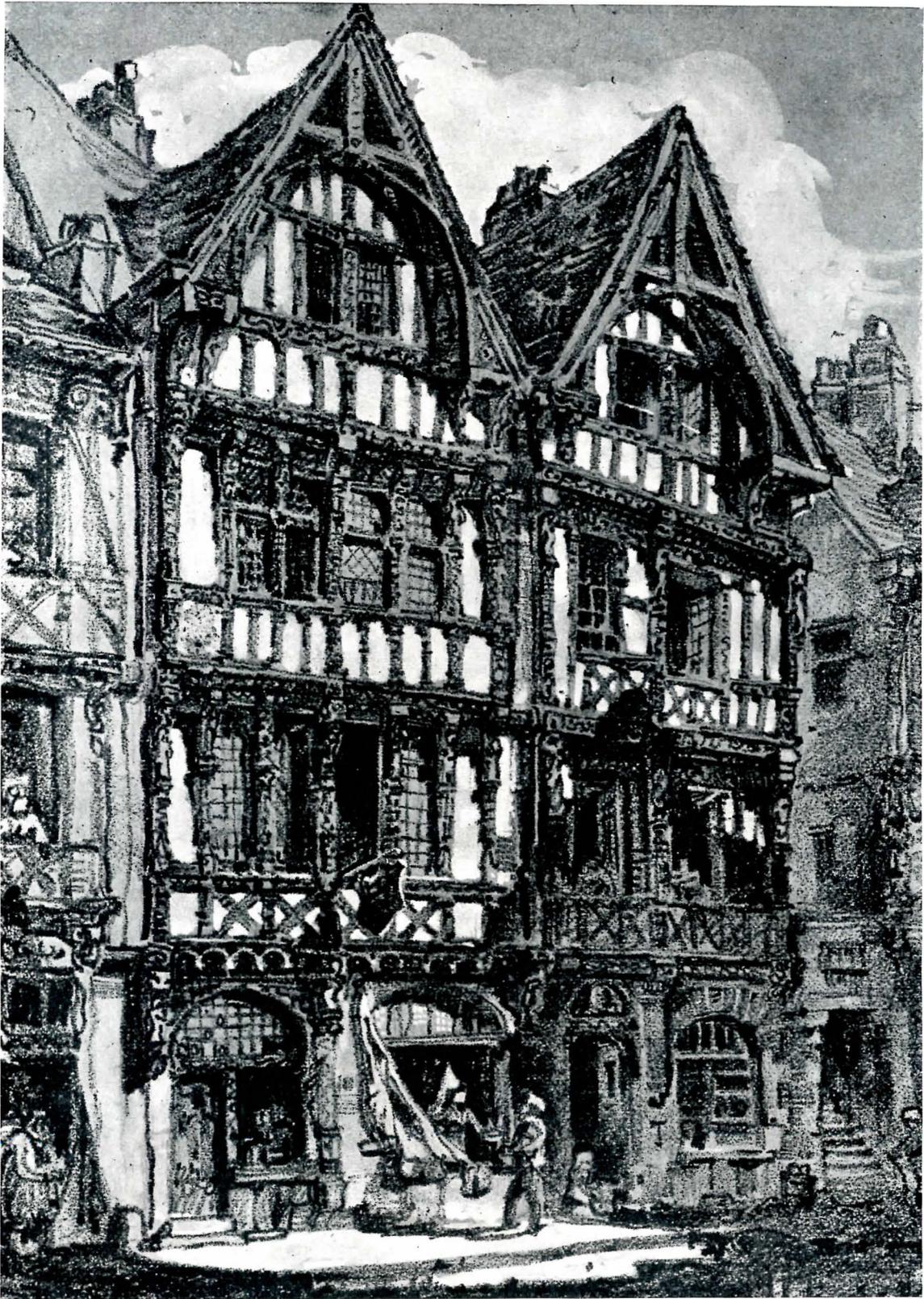
VOL. V, No. 9

PLATE XXXIV



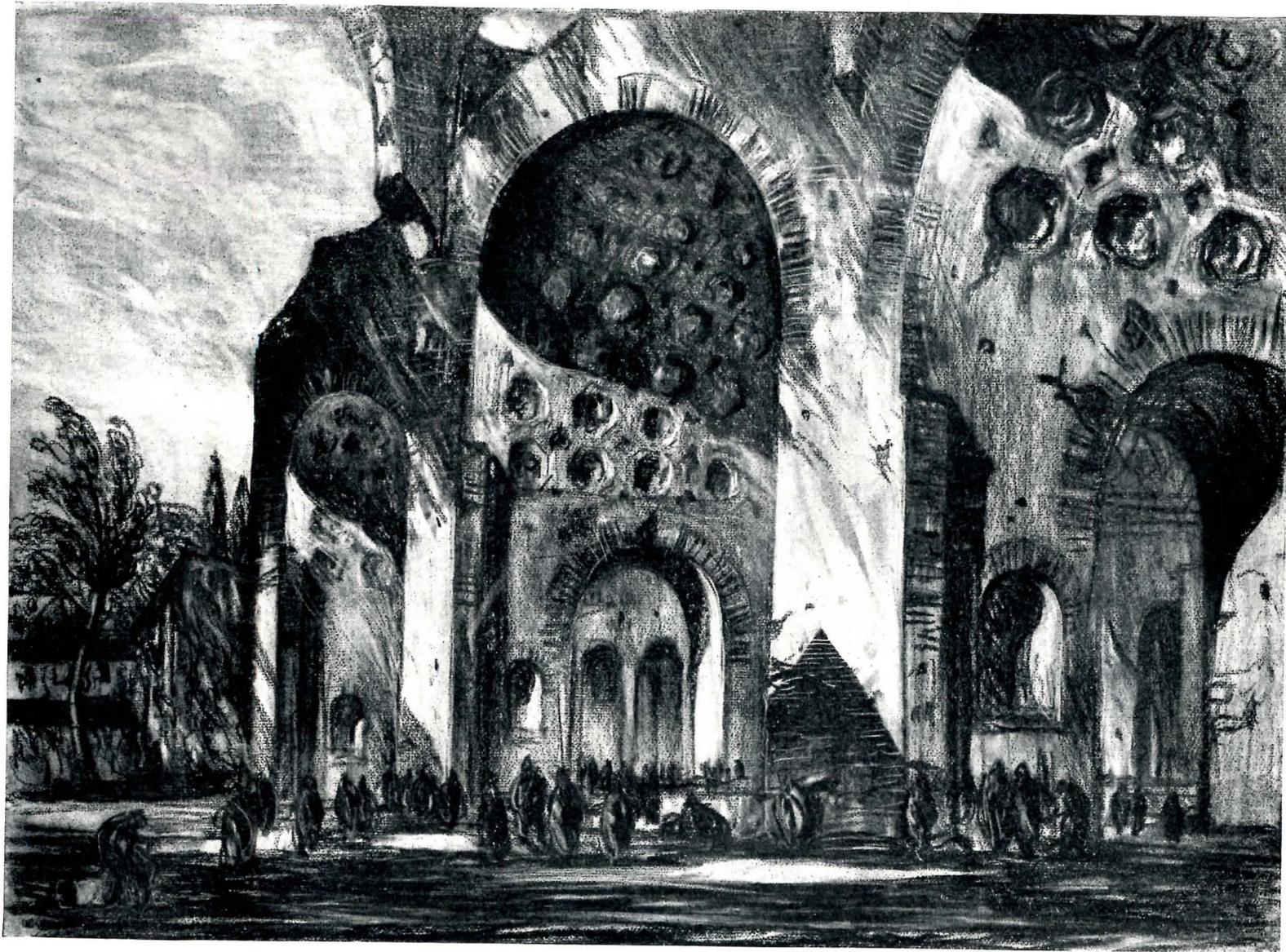
PENCIL DRAWING BY EDWARD C. CASWELL, EAST MACHIAS, MAINE.

On the other side of this sheet is reproduced one of the many interesting pencil drawings made by Edward C. Caswell for "Coasting Down East," by Ethel Hueston and Edward C. Caswell, Published by Dodd Mead & Co. This book is an account of a trip from Kittery to Calais.



DRAWING BY GEORGE D. CONNER. OLD HOUSES AT CAEN

The sketch reproduced on the other side of this sheet is done in lithographic pencil with the addition of Chinese white on brown paper. It shows two Fifteenth Century houses, at Caen, that are unusually rich in their timber-work detail.



CHARCOAL DRAWING BY FRANCIS KEALLY.
CONSTANTINE'S BASILICA IN THE ROMAN FORUM.

The charcoal drawing by Francis Keally reproduced on the other side of this sheet is an unusually effective representation of the Basilica of Constantine, Rome. It is one of the large number of drawings made by Mr. Keally during his recent travels abroad. It shows breadth, simplicity and strength of treatment that are excellent.

SHIPS AS ARCHITECTURE

BY FRANCIS S. SWALES

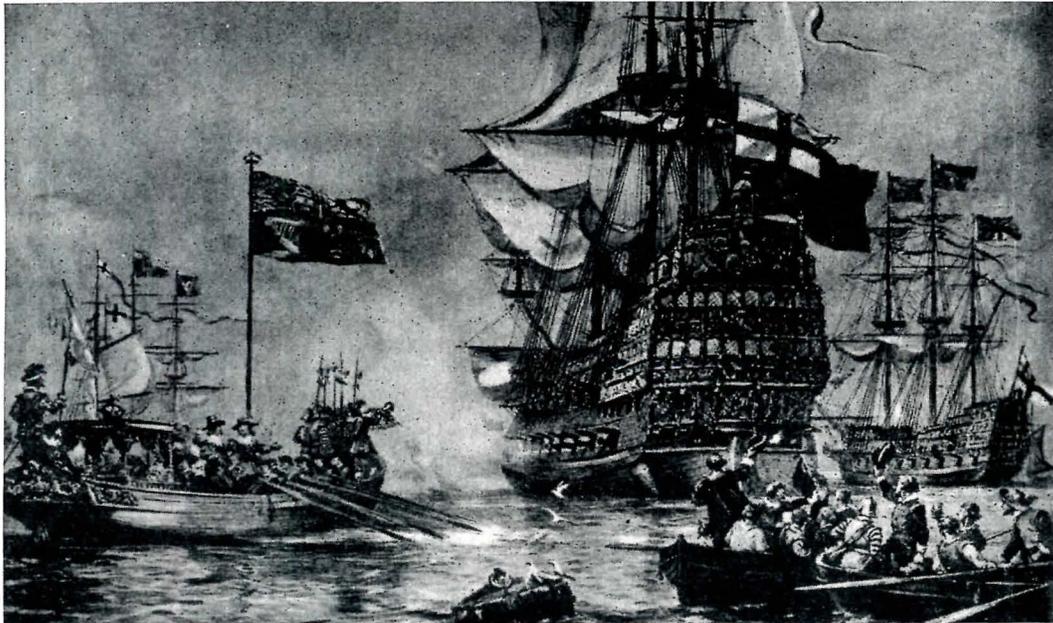
SOME people go to the pier to see a ship arrive, but most go to see her depart. Many do so without reference to friends aboard and only because of the fascination of the spectacle of the bringing to and making fast; or the loosing off and getting away of the large vessel. On our modern, busy, commercial piers, facilities are greater for seeing the vessel off than viewing her arrival; for the homeward-bound movement of arriving traffic tends to drive visitors to the pier ashore; while the outward bound movement occurs with the departing ship and the instinctive movement of the people left behind is towards the pier-head where the best view of the vessel may be obtained. The stern, therefore, becomes, in our time at least, the part of the vessel best adapted to decoration because it is the part most often looked at, and probably most often seen. It may account too, partly anyway, for the concentration of greatest elaboration on the sterns of ancient vessels.

Among the programs at the *Ecole des Beaux-Arts* one of those given out for the competition for the *Prix Rougevin* called for the design of the Decorative Composition of the Stern-End of a Naval Ship. It was supposed to be for the use of the *Ministre de la Marine*, or Secretary of the Navy, for excursions along the coast and for reviews of the navy.

The French idea of architecture is to solve modern problems in a practical way in terms of beauty. In using the term "practical" I mean a good, convenient way—a simple plan—not "prac-

tical" in the commonly used American sense of something cheap, to exemplify which Mr. Cass Gilbert exclaimed of a proposed plan for the Development of New York City: "The *practical* thing to do would be to plant a row of geraniums around City Hall Park!" Therefore, the program specified that the treatment should be of a steel constructed steamship; that it was intended that it should serve at receptions and *fêtes*, during day and night. The part to be decorated in place of the severe aspect of a warship was to be a rich decoration appropriate to the special purposes of the ship. The *salon* was specified to be six metres wide (about 20 feet) and three high, and the bridge of the ship seven metres in width: that the exterior parts were to be of "*bois précieux*" and metal sculptured with emblems borrowed from and characteristic of things maritime; an exterior balcony above the rudder (!); exterior stairs leading to the floor of the *salon* a sort of belvedere overlooking the bridge: a rich pavilion to shelter the Chief of State and his circle of high personages.

The design by M. Eugene Senes which won the prize and another by M. Fernand Lucas, awarded a first medal, herewith reproduced, were among the most interesting in character of the hundred or more of solutions presented by the students. The program, evidently designed to force original thought, prevented, to some extent, the adaptation of the fine old sterns of some of the ships of bygone days, by the requirement that it should be applied to a *steel* ship. Nothing could be imagined more

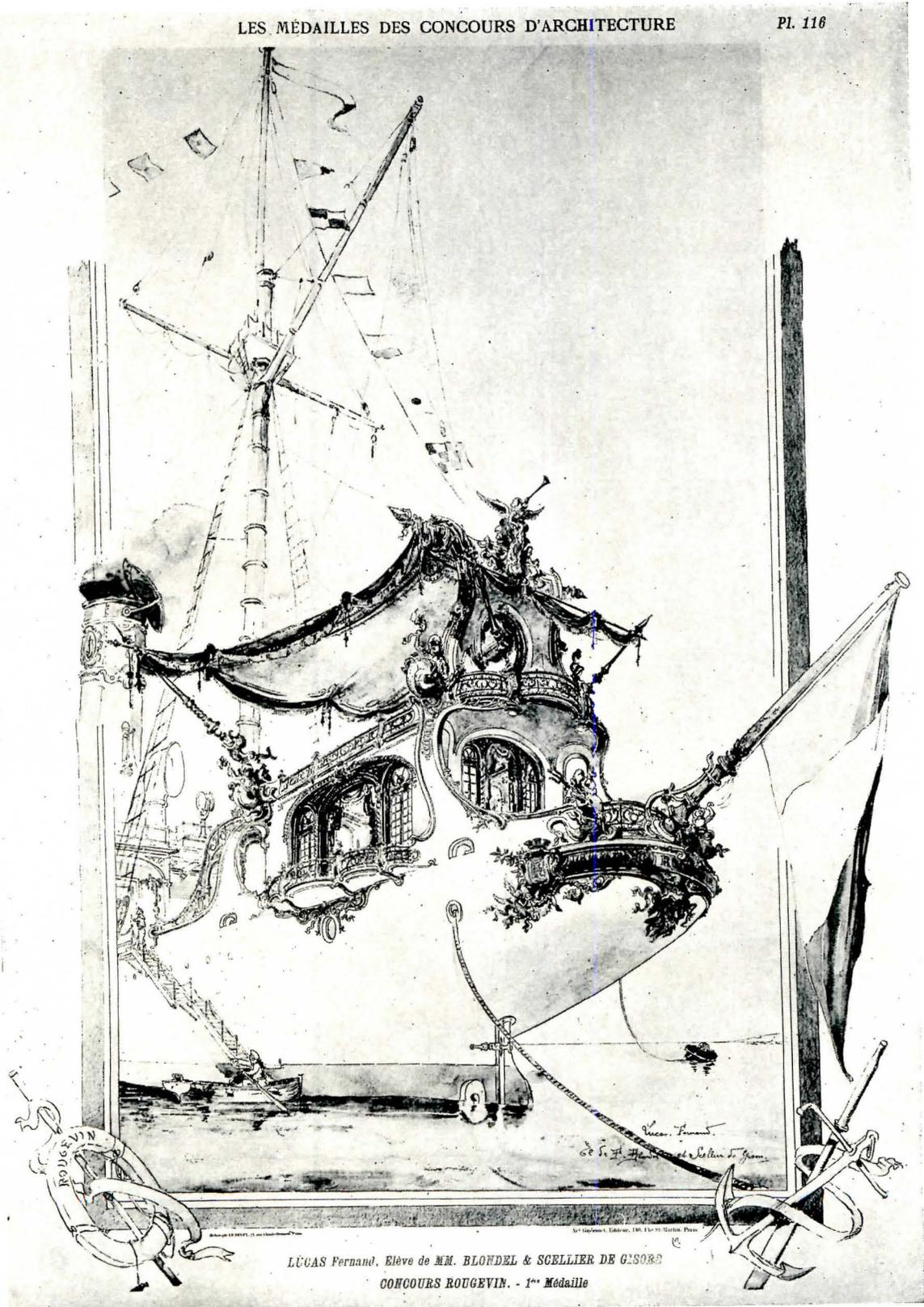


Reproduction of Christmas Card Used by the Prince of Wales in 1922. Reproduced by the courtesy of Raphael Tuck & Sons, Ltd., London and New York.

PENCIL POINTS

LES MÉDAILLES DES CONCOURS D'ARCHITECTURE

Pl. 116



LUCAS Fernand. Elève de MM. BLONDEL & SCELLIER DE Gisors
CONCOURS ROUGEVIN. - 1^{re} Médaille

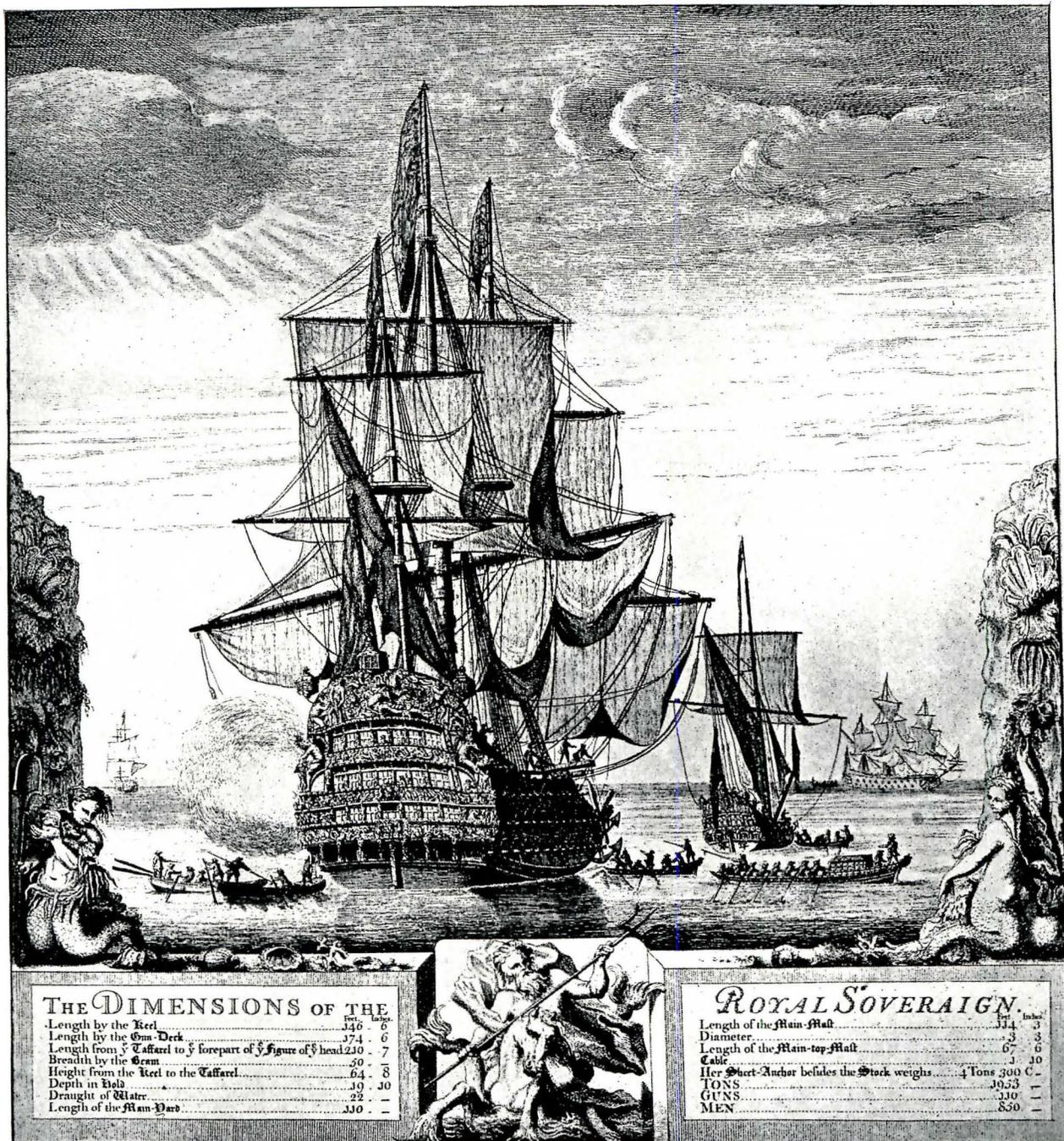
Design for the Stern of a Ship by Fernand Lucas. Concours Rougevin.

PENCIL POINTS



Design for the Stern of a Ship by M. E. Sénès. Concours Rougevin.

PENCIL POINTS



THE DIMENSIONS OF THE

| | Feet | Inches |
|--|------|--------|
| Length by the Keel | 146 | 0 |
| Length by the Gun Deck | 174 | 6 |
| Length from the Taffarel to the forepart of the figure of the head | 210 | 7 |
| Breadth by the Gun | 50 | — |
| Height from the Keel to the Taffarel | 64 | 8 |
| Depth in Hold | 19 | 10 |
| Draught of Water | 22 | — |
| Length of the Main-Mast | 110 | — |

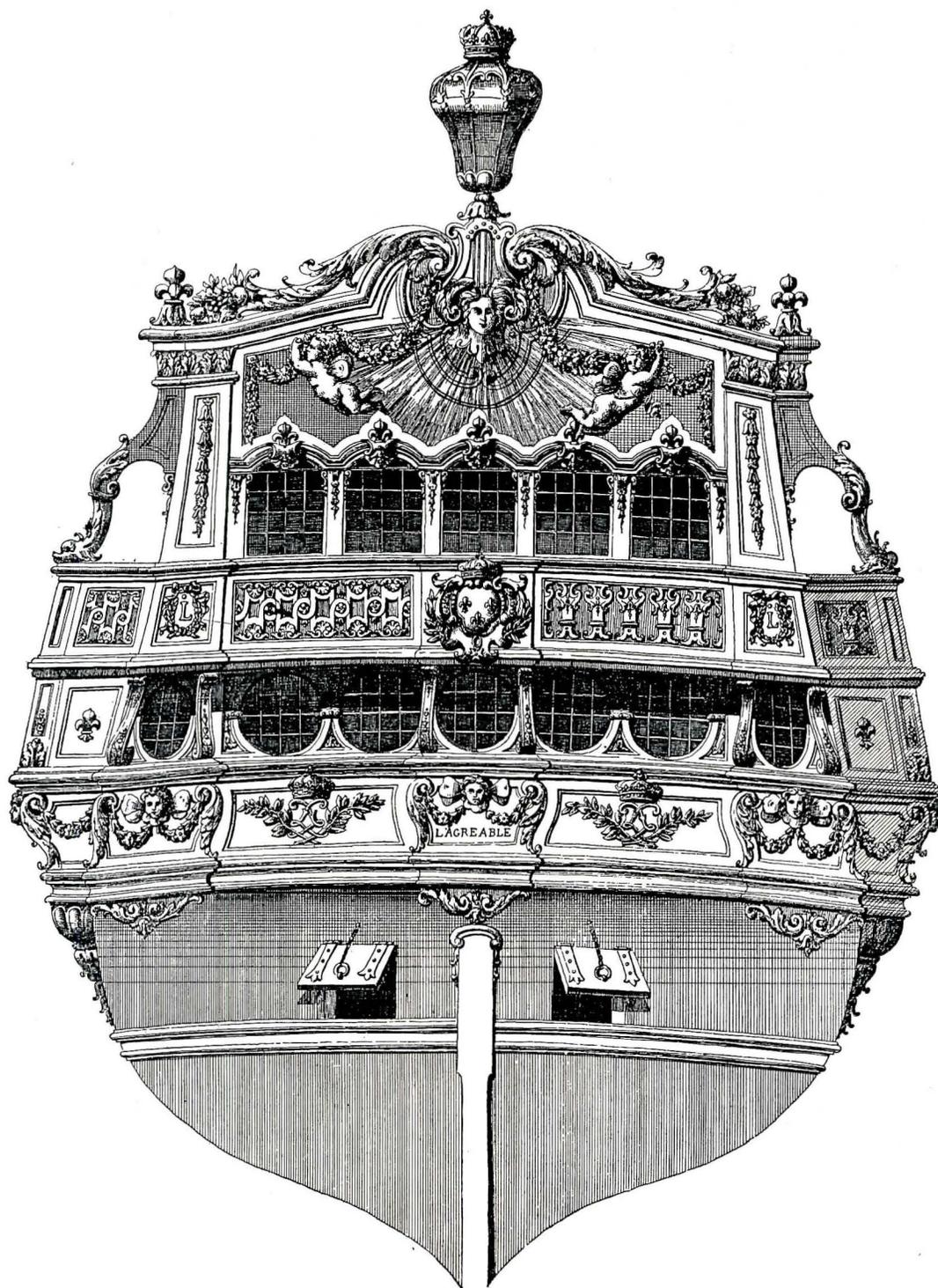


ROYAL SOVERAIGN.

| | | |
|--|--------|--------|
| Length of the Main-Mast | 114 | 3 |
| Diameter | 3 | 3 |
| Length of the Main-top-Mast | 67 | 6 |
| Cable | 1 | 10 |
| Her Short-Anchor besides the Stock weights | 4 Tons | 300 C. |
| TONS | 1953 | — |
| GUNS | 110 | — |
| MEN | 850 | — |

The "Royal Sovereign" Launched in 1637. From an Engraving by T. Baston.

PENCIL POINTS



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

The Stern of "L'Agréable." Period of Louis XIV.

PENCIL POINTS

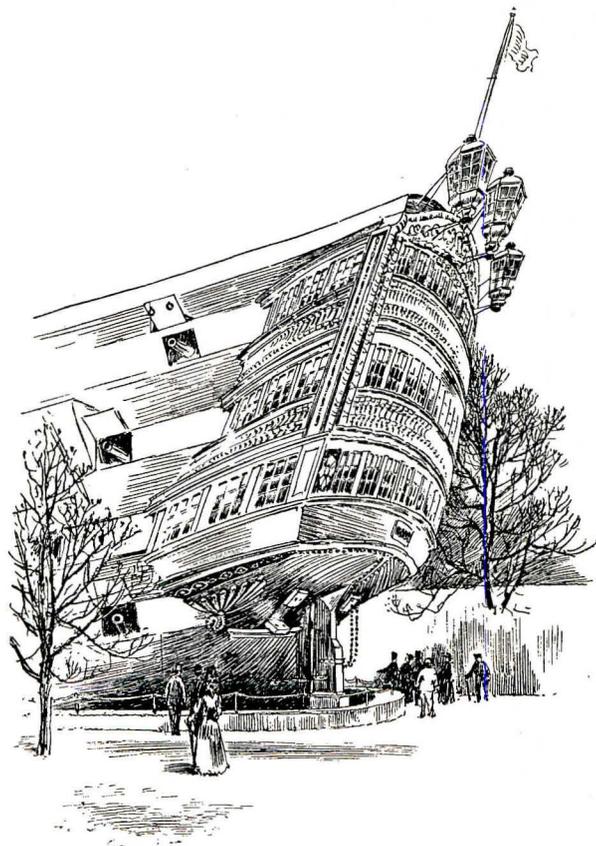
incongruous than one of those old wooden high-backs of the 16th to 18th century ships grafted upon a modern iron ship. Yet few things that can be found in architecture or decoration offer so much in the way of suggestion to the imagination for decorative use. Probably the earliest of the gorgeous ships were the Spanish three-deckers, or Galleons. Whether their sterns suggested or were suggested by the Spanish colonial architecture cannot be determined, but it seems probable that the earlier ships were designed after the fashion of the architecture of the period in the country in which they were built, and when seen in the colonial ports inspired ideas which the colonial architects—in the Netherlands for example—worked out in their houses in the forms of gables, bays, balconies, etc.

The ships of Genoa and Venice were probably very ornate. "Historical Novels" have made it appear that the English Crusaders were astonished at the richness and superiority of Italian ships of the period, but whether that is purely novelists' fiction, or an historian's supposed-to-be authentic story—"anyway it's a good story." Italian love of ornament and color is proverbial; and therefore color was probably applied as in their buildings, also in their ships. Renaissance decoration may have been first displayed to the British designers through the medium of the stern of the ship. Henry VII of England is said to have been keenly interested in ship-building; and

at his period the English ship had developed into a sailing ship of considerable importance,—the larger ones being independent, or mainly so, of oars for propulsion; the galley had passed into desuetude. "Great Harry," built to take Henry VIII to meet Francis I of France at the "Field of the Cloth of Gold" was a great ship of "1,000 tons burden and carried a crew of 700 mariners and soldiers including 50 'gonners.'" The sails and pennants are recorded as having been "cloth of gold, damasked; that the quarters and sides, as also the tops, were fortified and decorated with shields bearing the Tudor and other devices." From the painting of this ship by Vincent Volfe at Hampton Court Palace, she appears to have a palatial arrangement of two or three stories divided fore and aft above the main deck; and probably three or more decks below that. This was the first attempt to build "the biggest ship built to date in England."

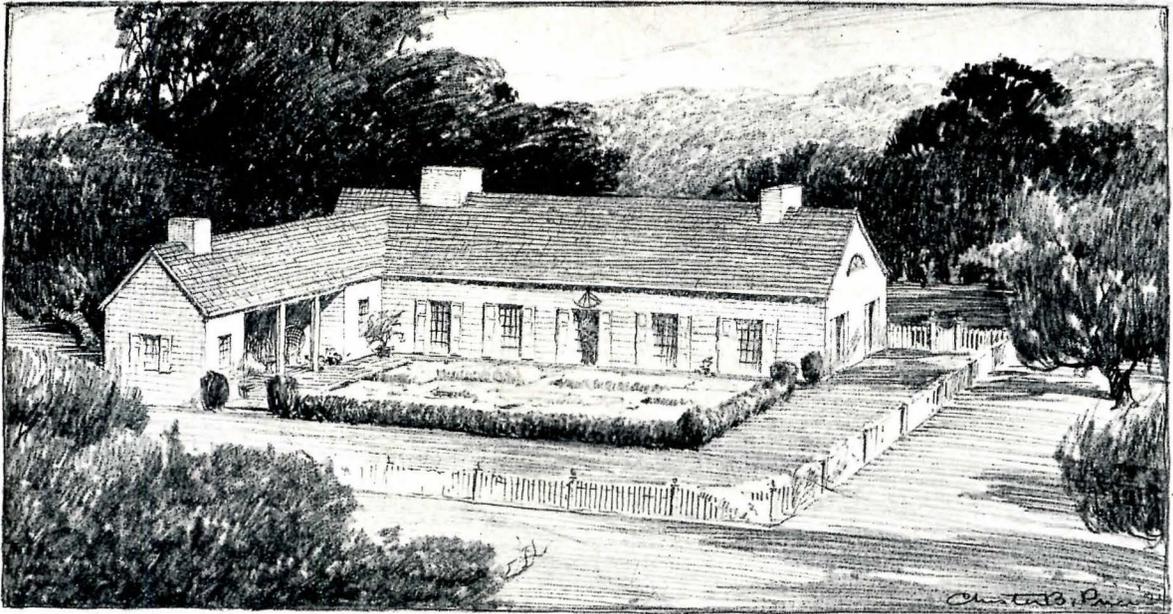
The Sovereign of the Seas—or the *Royal Sovereign*, built about 1637 was so elaborate and costly (about \$200,000 in nominal present-day cash but relative to the purchasing power of the times an amount that would correspond to two or three million dollars now), said to have been one of the contributory causes of the execution of King Charles. A beautiful model of this ship made by Mr. Henry Culver, assisted by Mr. Paul Chalfin, was shown at the Architectural League a year or two ago. It showed a

(Continued on page 74)

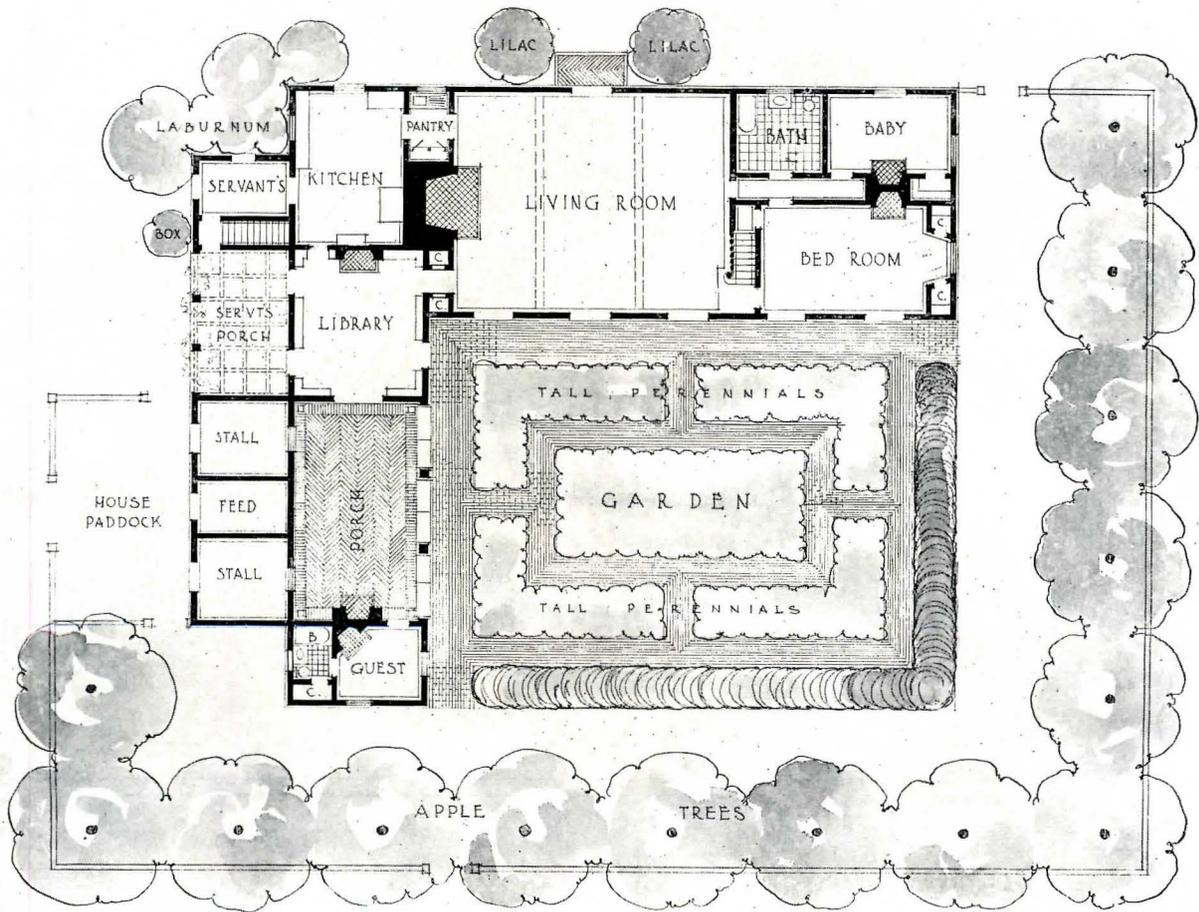


Sketch by T. Raffles Davidson.

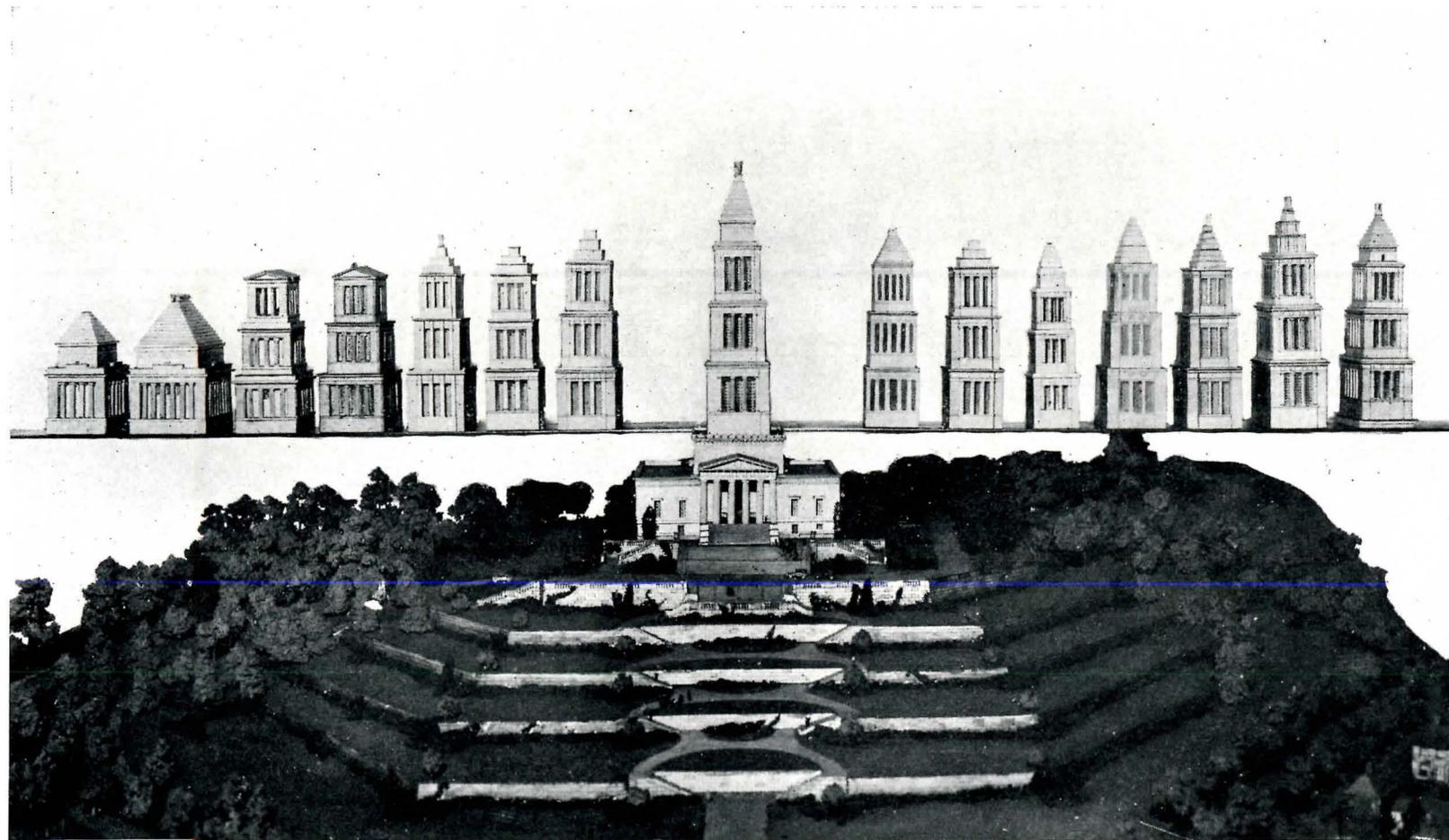
PENCIL POINTS



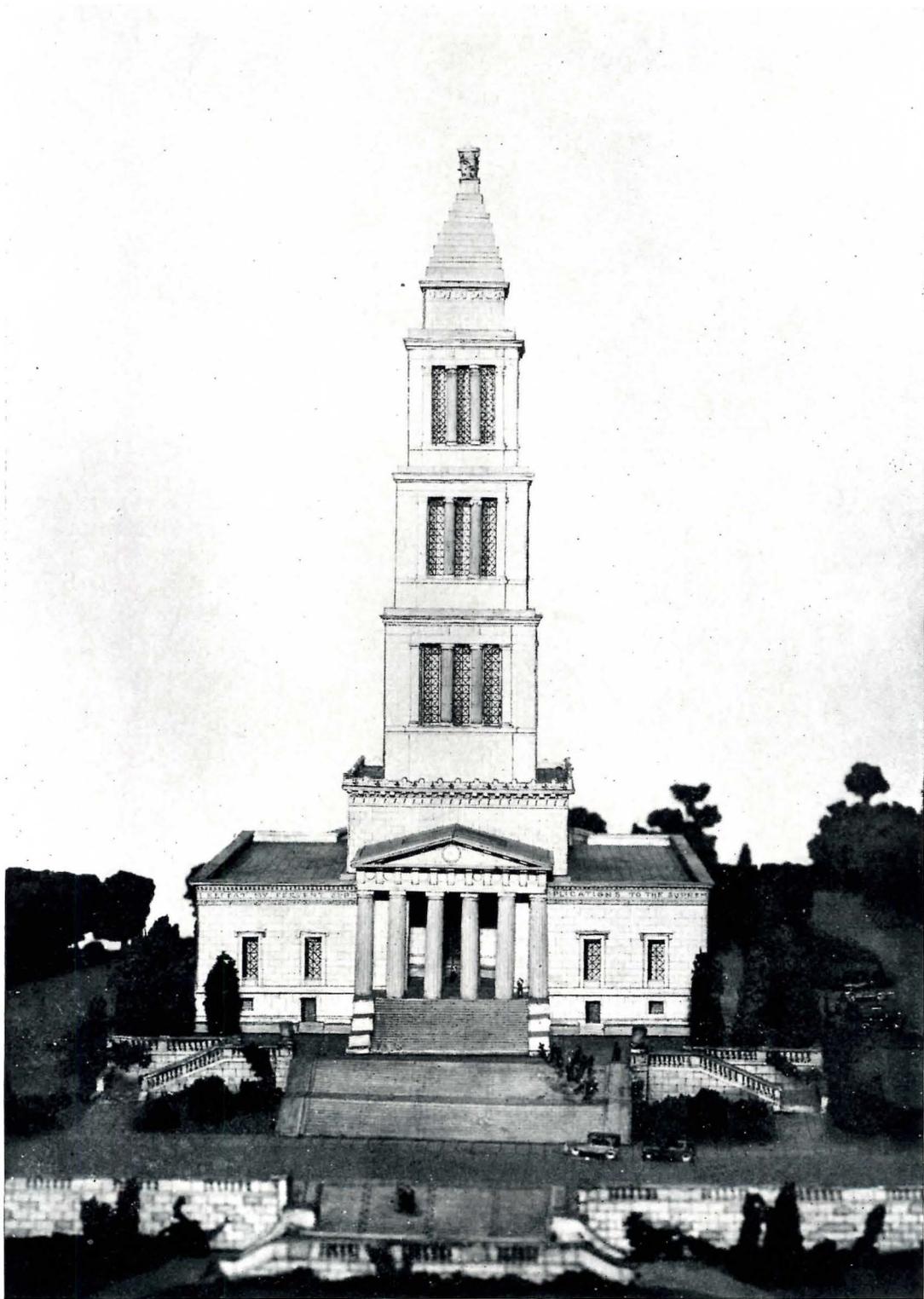
Rendering by Chester B. Price.



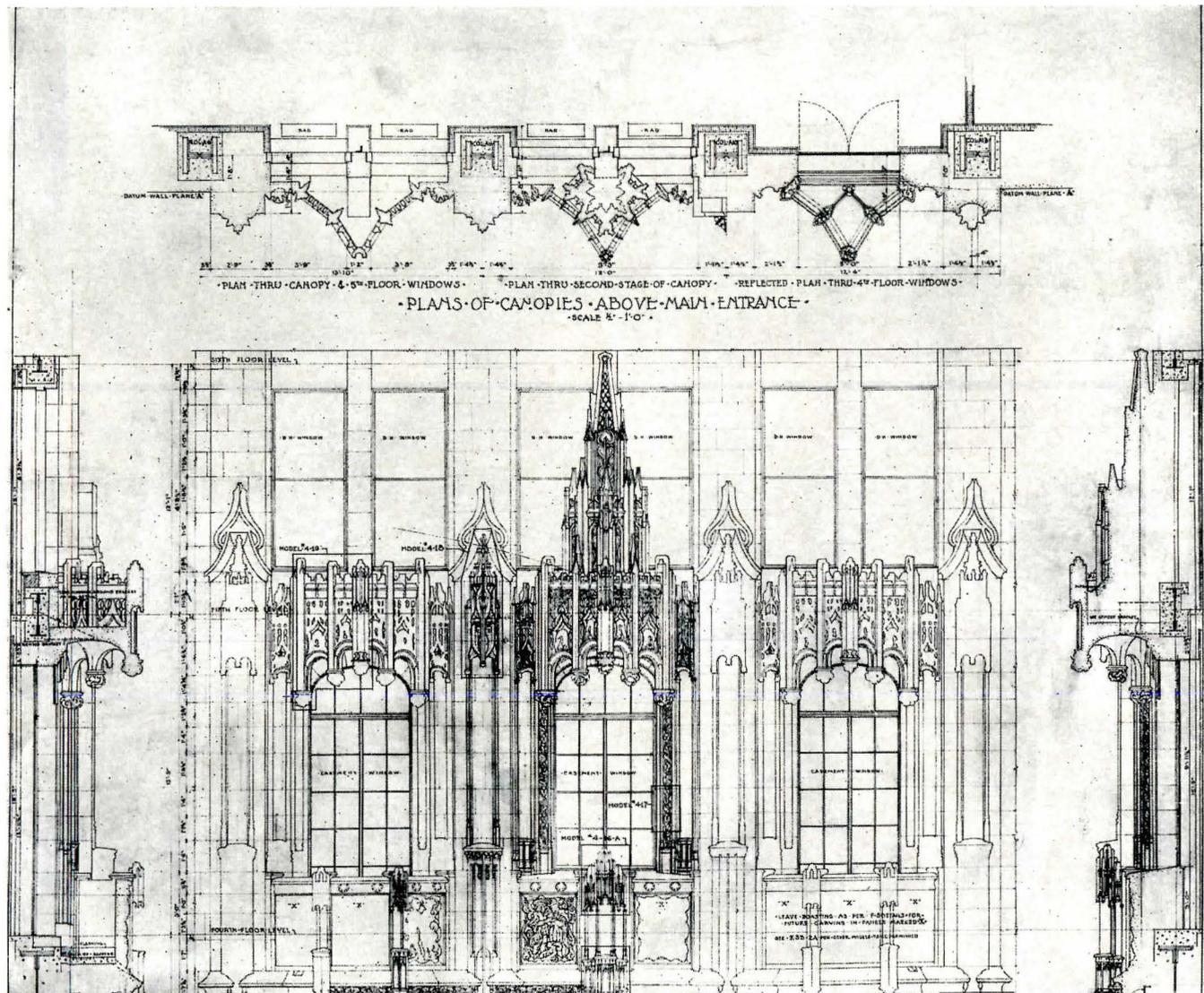
House for Mrs. J. Watson Downes at Locust Valley, New York. Eric Gugler, Architect.



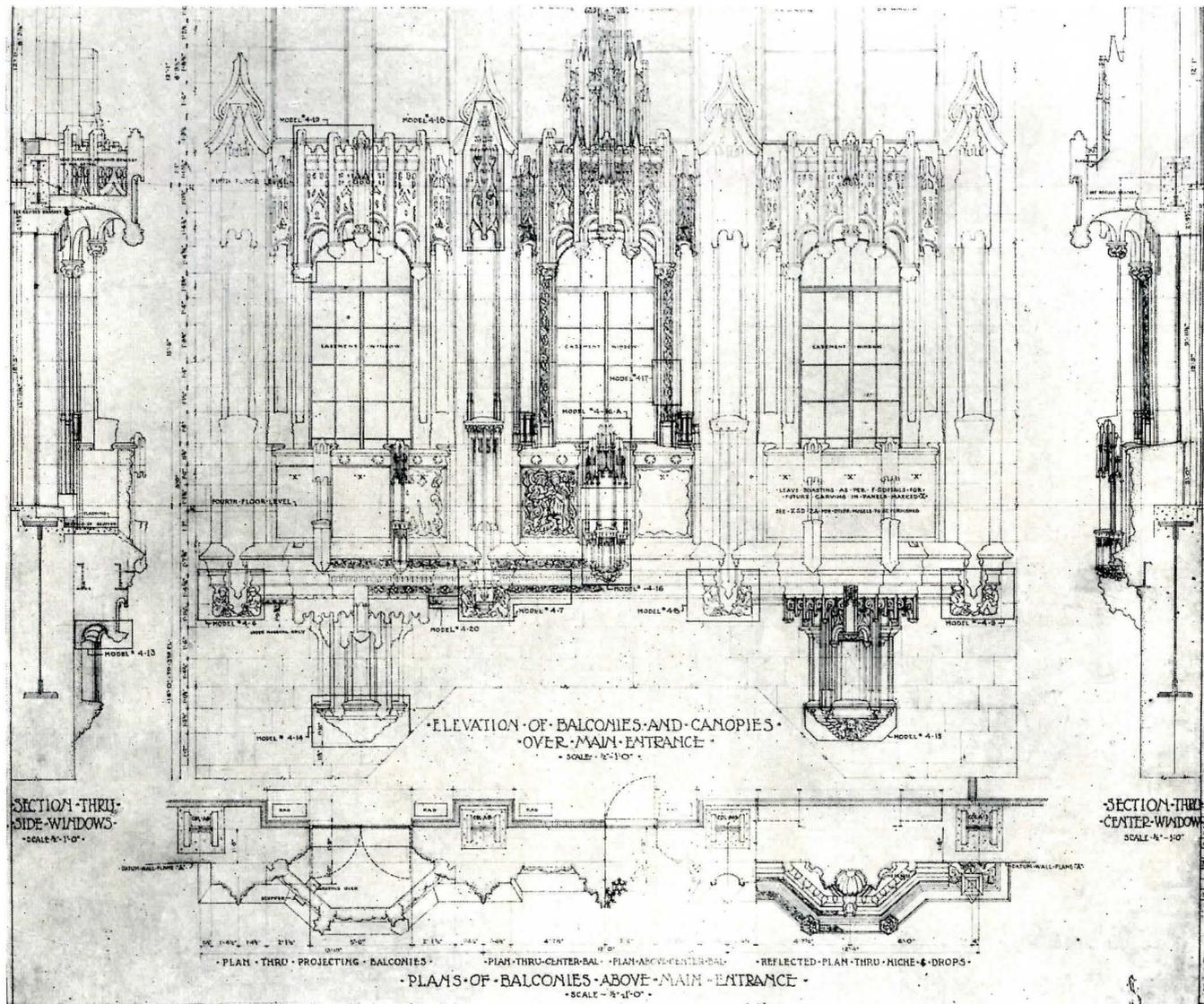
*Model of George Washington Masonic National Memorial at Alexandria, Va. Helmle & Corbett, Architects.
(Various designs for upper portion are shown.)*



*Model for George Washington Masonic National Memorial at Alexandria, Va.
Helmle & Corbett, Architects.*



*Details of Construction—Canopies Above Main Entrance, Building for the Chicago Tribune.
John Mead Howells and Raymond M. Hood, Associate Architects.*



*Details of Construction—Balconies and Canopies over Main Entrance, Building for the Chicago Tribune.
 John Mead Howells and Raymond M. Hood, Associate Architects.*

PENCIL POINTS

Published Monthly by

THE PENCIL POINTS PRESS, Inc.
Publication Office—Stamford, Conn.

Editorial and Advertising Offices — 19 East 24th Street, New York

RALPH REINHOLD, President F. W. ROBINSON, Treasurer
EDWARD G. NELLIS, Vice President and Secretary
EUGENE CLUTE, Editor W. V. MONTGOMERY, Business Manager
RAY D. FINEL, Advertising Manager

Copyright, 1924, by The Pencil Points Press, Inc.

Subscription rates per annum, payable in advance; to The United States of America and Possessions, Argentina, Bolivia, Brazil, Columbia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Honduras (Republic), Mexico, Nicaragua, Panama, Paraguay, Peru, El Salvador, Spain and Colonies (Balearic Islands, Canary Islands and Spanish possessions on the north coast of Africa), and Uruguay, \$2.00. Single copies, 25 cents. Canadian Subscription, \$2.50. Foreign countries not mentioned above but in the Postal Union, \$3.00. Payment for foreign subscriptions should be made by International Money Order or American Express Money Order drawn in terms of United States Funds.

All subscribers are requested to state profession or occupation. In changing address, please send old as well as new address.

UNIVERSITY OF WASHINGTON, SEATTLE

WE have an architectural club called the Atelier; membership includes all the students in the department who have successfully completed the first year.

The purpose of the club is to promote a high standard of scholarship, good fellowship and mutual assistance among the members. It gives three parties each year and has numerous trips and meetings at which speakers are entertained.

One of the traditions of the department is a banquet, one at the beginning and one at the end of each year, for the particular benefit of the freshman class, at which the year's work is planned and reviewed.

The officers of the Atelier for the past year were:

Massier, Wm. B. Glynn; Secy., Nell Strohn; Treas. E. W. Osgood.

In June of this year the Iota chapter of Tau Sigma Delta, national, honorary Architectural fraternity, was installed at the University of Washington. The charter members of the chapter are Prof. C. F. Gould, Prof. A. P. Herrman, Henry B. Hoover, J. T. Jacobsen, V. N. Jones, J. I. Mattson and Wm. B. Glynn.

SHIPS AS ARCHITECTURE

(Continued from Page 68)

very elaborate stern similar to a picture in the National portrait gallery, but apparently with somewhat less lean-home, and without the figures or the flying buttress-like engraving herewith reproduced; but it is in accord with and may have assisted in, the design of the *Sovereign* as shown on the Christmas Card of the Prince of Wales after his world trip of 1922. The lines are rather hard, stiff and architectural as compared with French ships of the same and later periods, but the lines of the upper part are much more pleasing than later British ships, for instance, the *Victory*—Nelson's famous flagship—which has the appearance of a lopsided barn with an elaborate bow-window projecting at odd angles and somewhat bent or twisted to intersect with its sides. The illustration of the *Victory* assists in understanding designs such as the stern of *L'Agréable* shown by a drawing of the period of Louis XIV of France. It seems probable that the bottom line of the drawing was a line of intersection with the hull; for the gun ports would be well above the water line and there would surely be more of the hull below than the drawing indicates.



CHARLES H. DORNBUSCH

CHARLES H. DORNBUSCH, winner of one of the Princeton University School of Architecture Prizes, was born in New York City and received his early education there. His first experience in an architect's office when a student, and later a draftsman, was with Mr. Elliott Lynch. Since that time, 1917, he has been with F. F. French Co., G. Howard Chamberlain in Yonkers, and with Helmle & Corbett where he is now employed. Mr. Dornbusch feels that when he came under the influence of such men as Harvey W. Corbett, John V. Van Pelt, Maurice Prevot and A. E. Flanagan at the Columbia School of Architecture he began to learn of what the substance of architecture consists and he attributes to the influence of these men any advancement he has made since he entered Columbia. Mr. Dornbusch will go to Princeton in the fall, where he will reside at the Graduate College.

POLYCHROMY

POLYCHROMY, Architectural and Sculptural Theory and Practice, by Leon V. Solon, with introduction by Ralph Adams Cram. 156 pages of text, numerous half tone illustrations and 9 full page color plates. The Architectural Record, New York, 1924, price \$6.00.

Mr. Solon was well known as a colorist and designer in ceramics before he left England to direct the polychrome work of the American Encaustic Tiling Company in New York. In matters pertaining to color he speaks with the sensitive perception of the artist as well as with the informative knowledge of the profound and painstaking student. In this book he is a pioneer for nothing as yet appeared so instructive and suggestive to the designer who desires to use color in architecture. His investigations and the principles he evolves are confined to Greek polychromy as he considers the art of the Sixth and early Fifth centuries, B. C., the most systematized and scientific in its use of color and the one most applicable to modern uses. The illustrations are reproduced from sources whose reliability are beyond question and are so excellent and profuse that the volume will be found of the greatest value to the draftsman as well as to the unfortunate architect who may be inoculated with "book-collectors disease." The last chapter contains a valuable descriptive bibliography of works on Greek Architectural and Sculptural polychromy.

PENCIL POINTS

THE DRAFTSMAN WITH A JOB

Dear Sir:

WE have read with interest the remarks of Mr. Samuel N. Crowen, Architect, regarding the practice of draftsmen doing work on the side and the complaint from the employer's point of view and the query for a solution of this problem.

There is no question but that this practice is most harmful to the profession, the "client" and the draftsman architect.

The blame may squarely be put on the shoulders of the architect who employs draftsmen to work "for" him at a salary insufficient to make him satisfied to work "with" the "boss" or firm and on the client who is looking for services at cut rates.

We have found ourselves in this situation, realizing the harm to ourselves as well as the other parties concerned, did the next best and proper thing by setting up our own business.

Such architects who seek to employ men at the "lowest salary they would consider" who produce a large part of the profits of the business but receive no share of same, cannot expect them to take a great interest in the affairs of the firm and cannot blame them for attempting to do for themselves what is being done by the firm. Of course where a man is well paid and made to feel that he is working with the firm, there is no excuse for taking work away from the office. However in our experience these instances are rare. In the majority of cases architects' best ideal draftsmen are those who can be hired and fired like common labor, and even the latter cannot be treated thus nowadays.

While some firms take in a few designers and capable executives, as far as the draftsman is concerned, it is up to him to look out for his own advancement in the firm or outside, returning such "honest" or "ethical" treatment as accorded him.

This is a problem that every business must contend with, one that will always be with us under present forms of business organization and operation and to which there is no solution other than to fire the man if he does not suit you.

Harry Lucht

PERSONALS

BRYON B. HARPER, will continue the practice of architecture at 205-7 Scott Lothrop Building, Alhambra, Cal. The architectural firm of Wright and Harper, of Alhambra, has been dissolved.

LOUIS T. ROULEAU, ARCHITECT, has removed his offices to 927 15th Street, N. W., Room 901, Washington, D. C.

SHEA & SHEA, ARCHITECTS, have removed their offices to 454 Montgomery St., San Francisco, Calif.

ALFRED GRANGER, ELMO C. LOWE and JOHN C. BOLLENBACHER, have formed a partnership to continue the practice of architecture under the firm name of Granger, Lowe and Bollenbacher, with offices at 332 South La Salle Street, Chicago.

ROBERT SWARTBURG, ARCHITECT, has removed his offices to 2 West 46th Street, New York City.

PAUL VERONE MARQUETTE, of Paris, has become affiliated with Mr. Swartburg as head draftsman.

L. T. BENGSTON, of Boston, Mass., and Richmond, Va., has been taken into the former firm of Wysong and Jones. Mr. T. P. Jones has retired and the firm name has been changed to Wysong & Bengston, with offices in the Professional Bldg., Charleston and at Princeton, W. Va.

F. EARL DELOE, ARCHITECT, has removed his offices to Melbourne, Fla.

ELMER P. MERKLE and WILLIAM J. ELBERTH have formed a partnership for the practice of architecture, with offices at 565 Fifth Avenue, New York City.

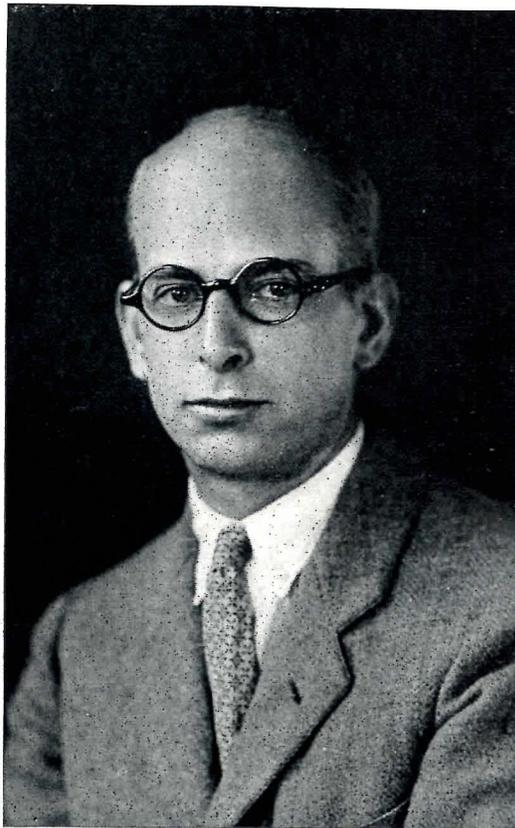
HENRY J. MOLONEY, ARCHITECT, will continue to practice architecture at 342 Madison Avenue New York, the firm of Moloney and Hallahan having been dissolved.

EDWARD M. ADELSON, ARCHITECT and ENGINEER, has removed his offices to Rooms 404-406, Municipal Bank Office Building, Brooklyn, N. Y.

HARRY KIRSHBAUM, ARCHITECT, has removed his offices to 25 West 43rd Street, New York City.

JEROME F. WOOD, ARCHITECT, has former a co-partnership under the firm name of Wood & Drechsler, with offices at 305 National Bank of Rochester Bldg., Rochester, N. Y. The firm of Brockett & Wood has been dissolved.

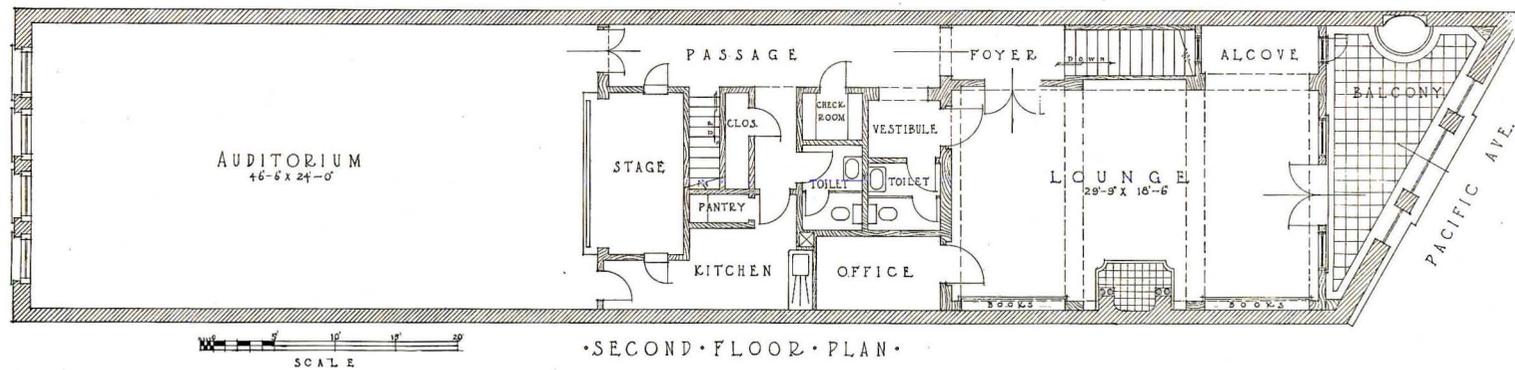
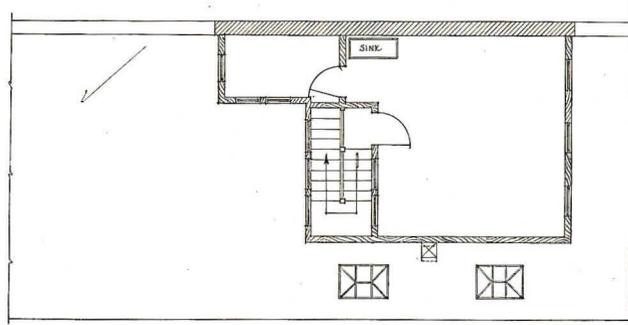
BUTTERFIELD & BUTTERFIELD, ARCHITECTS, have removed their offices to 306 Wesley Bldg., 2847 Grand River Avenue at Sixth and Temple, Detroit, Michigan.



WILLIAM DOUGLAS

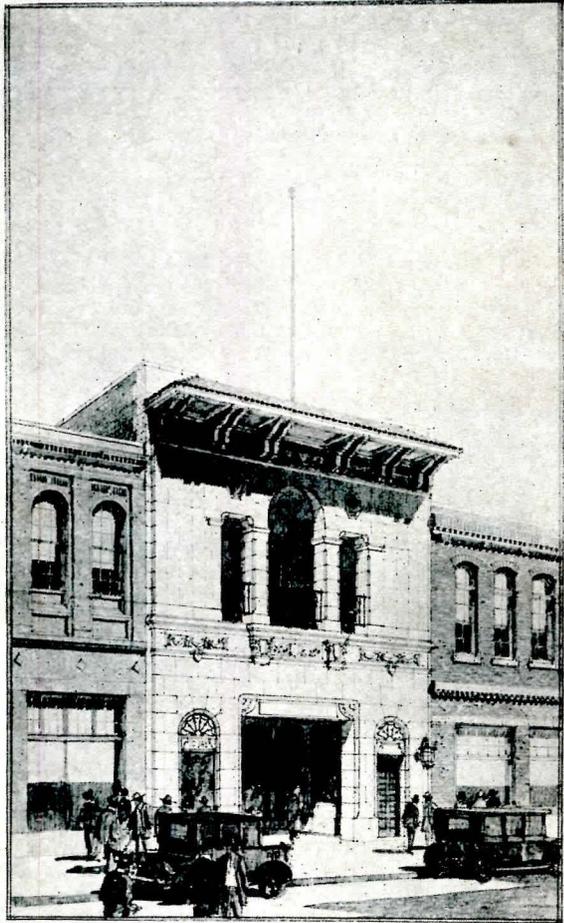
WILLIAM DOUGLAS, of the Yale School of the Fine arts, has been appointed Fellow in Architecture by the American Academy in Rome. The award was made on a competitive basis; an eleven day preliminary competition was followed by a final one lasting four weeks. For the first competition the problem assigned was "A Home for Disabled Soldiers," to be designed as a war memorial. Of the fourteen preliminary competitors, seven were chosen for the finals, in which the subject was "An American Embassy in Rome." This competition was held simultaneously at Columbia, Cornell, University of Pennsylvania and Yale. The members of the jury of award were Messrs. Breck, Trowbridge, W. M. Kendall, Louis Ayres and W. A. Delano.

Mr. Douglas was graduated from Yale College in 1918 with the B.A. degree, and in 1923 with the degree of B.F.A., from the Yale School of Fine Arts. He has been in the offices of Murphy & Dana, and Bradley Delehanty, both New York City firms. During the War, Mr. Douglas spent eighteen months in France with the Yale Mobile Hospital Field Unit. This year he was awarded the Individual Student Medal by the *Groupe Americaine des Architectes Diplômés par le Gouvernement Français*. The stipend of the Fellowship is \$1,000 a year and Mr. Douglas will remain at the Academy in Rome, where he will go October first, for a term of three years.



Plan of New Home for the Dallas Architectural Club, Dallas, Texas.

PENCIL POINTS



The New Home of The Dallas Architectural Club.

DALLAS ARCHITECTURAL CLUB

THE Dallas Architectural Club, after a period of comparative quiet, is finally breaking back into the big leagues with the letting of a contract for its new home—a perspective of which is shown in this issue. The story of the long, hard drag up to this point is, in brief, as follows:

A new street was recently opened up in Dallas when the Texas and Pacific Railroad tracks were removed from Pacific Avenue and the process of reclaiming the old two-story brick fronts, or rears, on that thoroughfare was begun, a process which will eventually make Pacific Avenue one of the four most important in the City. The Club, through the efforts of its Executive Board and its President, M. O. Carder, closed negotiations with an owner of one of the two-story structures whereby, in exchange for the Club's spending \$6,000.00 upon the remodeling of the front and second floor of said building, the owner would grant the Club a six year lease upon the second floor for its quarters—with an option for leasing the space at a fixed rental thereafter. As there is considerable agitation at this time among the citizens, architects, owners and builders of Dallas to stimulate the rapid and artistic beautification of this new street, the Club has been given publicity on its building as the "Model Front" and plans are being made to attract city wide attention to the building during its erection and upon its completion.

The design of the building was chosen by means of a competition among three designers in the city, the selected scheme being a composite of those submitted by Dudley S. Green and Ralph Bryan.

The plans for financing were drawn up by a building committee composed of C. D. Hill, Chairman, F. O.

Witchell, H. A. Overbeck, H. M. Greene and D. F. Coburn, Architects, Jas. F. Chambers and Louis W. Hickey, Contractors, and Walter Williamson and B. S. Wakefield, Sub-contractors. This Committee called a meeting of the entire building fraternity of Dallas in March and at this meeting by voluntary subscription raised over \$6,000.00, all of which was a tribute to the spirit of the builders of Dallas. The working plans were completed and, as has happened before, the final figure went somewhat over the \$6,000.00. Rather than sacrifice any of the features of the design by reductions and cuts, the Committee went to work again to raise additional funds, which process is now practically complete.

A total of \$8,000.00 has already been subscribed and the Club now has a matter of \$6,500.00 cash on deposit in a local bank. Material is already being fabricated for the beginning of the work and as soon as sufficient material is on the premises, wrecking of the present building will start.

The front is in limestone and terra cotta, Spanish Renaissance in design with a foyer for the first floor for a motion picture theatre, already on the premises. The Loggia in the second story leads into the Lounge, behind which are grouped an office, check room, toilets, storage closets and a kitchen. At the rear is an assembly hall seating about 160 and including a small stage. This hall is to be used for exhibitions and the Club's social activities and may be let out to private groups for dances, as a source of revenue to the Club.

The atelier is a half story above the second floor, directly above the service group in the center of the building, with window space on three sides above the roof line and accommodating eight tables.

In addition to cash contributions from the local building fraternity, most of the materials going into the building are being furnished at almost cost, not only because of the willingness of the donors to assist the Club but because the building will be the first thorough remodelling project on the new avenue and will to some extent set a precedent for future work—representing the best that may be had.

The actual erection work is in the hands of W. H. King, Dallas contractor and Club member, and is being done practically at cost. Construction will probably commence the middle of August and it is hoped that the first of October will see the Club at home in its new quarters, in time for the election of officers for the coming year. The present officers of the Club are:

M. O. Carder, President.
Walter Anderson, 1st Vice-President.
Hal Yoakum, 2nd Vice-President.
Chas. L. Kribs, Jr., Secretary.
Arch C. Baker, Treasurer.
M. C. Kleuser, Ex. Board
Edward E. O'Brien, Ex. Board.
Advisory Board.
D. F. Coburn
C. C. Bulger.
Herschel D. Smith

CLUB SYMPOSIUM

A FEATURE of the issue of PENCIL POINTS for October will be letters from various clubs describing their activities and telling how the club was organized and how it grew. The object is to present a mass of material helpful to men throughout the country, who are interested in the formation or conduct of architectural clubs. We want this material from everywhere, we want it to be representative of clubs of all ages and of all sizes. We want it to be representative of all sections of the country. This is a general invitation to architectural clubs to contribute a letter of from one hundred fifty to a thousand words on the subject of the club to this symposium, for the good of the club idea.

EDITOR.

PENCIL POINTS

CHICAGO ATELIER

NINE months ago a small group of architectural school graduates, under the leadership of Edmund S. Campbell, realized the need of a live Atelier in the City of Chicago and organized what is now known as the Chicago Atelier. Everyone following the architectural student competitions throughout the country must realize that the Chicago Atelier is succeeding in its purpose. Bieg, one of our charter members just won the Paris Prize while Cerny, our Massier, won the LeBrun Scholarship. That is certainly setting a pace for the rest of the Ateliers. Besides this, we have received eight publications of our work during the year.

The success of the Atelier was due almost entirely to Mr. Campbell, who with the help of a few older men brought the Chicago Atelier to the top. The Beaux Arts Society soon realized the ability of Mr. Campbell and he is now leaving us to become Director of Architecture of the Beaux Arts Society in New York. In leaving we wish him even greater success than he had with us.

In place of Mr. Campbell, we were extremely fortunate to be able to get Mr. Andrew Rebori to act as Patron. It is safe to say that there is no man in town with the personality of Mr. Rebori who has the interest of the young fellows at heart and the ability to put in words his knowledge. We are indeed happy to have Mr. Rebori as a Patron. Mr. MacCauley, a former logist of the Paris Prize and winner of all the minor Beaux Arts Prizes, will be our Sous Patron.

With leadership like that and George Conner just back from Paris to be our Massier, the outlook for the Chicago Atelier is extremely bright.

NEW YORK'S PROPOSED ARCHITECTURAL CLUB

AS a result of the notice in the July issue of PENCIL POINTS regarding the desirability of a club for Architectural men in New York a total of over four hundred names has been received to date. Such wonderful response certainly merits the broadcasting of tentative plans of such a club, as drawn up by the Executive Committee of the Architectural Bowling League of N. Y.

It might be well at this point, for the information of any readers of this magazine who are not familiar with the details, to recall our annual dinner at the Pershing Square Savarin, Tuesday, April 15th. The principal speakers of the evening, including some of the leading architects of New York City, made the first public announcements of the birth of the club idea. Architects as well as men were quick to recognize the great benefits to the entire profession to be derived from such a club as was proposed at that remarkable gathering. Various conferences which followed between members of the Bowling League and their employers developed a situation which lacked only the endorsement of the men of the profession to make the club an assurance. The notice in PENCIL POINTS was the result.

It must be understood that the following plan of organization has not been gone into in detail as yet and is merely a nucleus from which to work, at the same time expressing our ideals.

PURPOSE

Good Fellowship, Recreation, Education, Dormitories and Employment.

ORGANIZATION

Three classes of membership:—

A. Active members.

American citizens directly employed by Architects or Firms of Architects. From this body of men the following officers and directors will be nominated each year:— President, vice-president, 2nd vice-president, secretary, treasurer, assistant treasurer and financial secretary. A board of directors to comprise one representative from every office employing active members of the club, said representative to be appointed by the active members in his respective office and to have full power to vote for them at all regular meetings called by the president of the club, including elections of officers.

B. Honorary members.

Architects, Sculptors, Artists, Professors and other leading men as may later be suggested. These men though having no power of vote will be invited to sit at all regular meetings and at least one honorary member will be appointed in an advisory capacity to every committee.

C. Associate members.

All architectural men not included in the two foregoing classes. Members of firms and employees of allied industries. These men can only be appointed to committees or given the power of vote by the unanimous approval of the executive committee.

STANDING OF THE CAMPAIGN TO DATE

On the receipt of two thousand bona fide names of eligible active members signifying their endorsement of this movement, and pledging their active moral support, committees will be appointed to investigate practical building sites with a view to securing an option on the best and announcing in due time a competition for plans of a suitable club house. Consideration will also be given to the possibilities of re-conditioning some existing building.

DUES

It is impossible at this time to even hazard a guess as to what the dues, etc., will be, but as this club is designed primarily as a benefit for the employees, it is obvious that all charges must be based on the average man's salary in our profession.

Will at least one man in every office take the initiative and get the signatures of every eligible man in his office, who is really interested in this club idea, and mail them to Mr. E. L. Capel, Pres., or Mr. N. T. Valentine, Sec., Architectural Bowling League of N. Y., Hotel Shelton, New York City. It is the only way we will have of knowing whether or not the men of this City want a club. If they do, they are going to get it. If not we may as well drop the idea right now and go ahead with our present activities and their accompanying round of dinners, dances and other good times.

Mr. M. L. J. Scheffer, Chairman of the Baseball Committee wishes to announce that he is picking out an all-star-team to represent the profession in New York City and is open for challenges from amateur teams in this and other cities. Mr. Scheffer can be found at the office of Mr. James Gamble Rogers, No. 367 Lexington Ave., N. Y. C., and he will be pleased to hear of any prospective matches. Teams from the various offices in the League are now playing off their games according to the schedule prepared by Mr. McGuiness, of W. L. Stoddart's office, and their standings will be announced in the October issue of PENCIL POINTS.

The official year-book of the League for the season 1924-5 is now being made up and all allied industries desiring advertising space in this issue should immediately communicate with Mr. G. R. Paradies, Chairman Advertising Committee, McKenzie, Voorhees & Gmelin, No. 342 Madison Ave., N. Y.

N. T. VALENTINE.

THE SKETCH COMPETITION

NOW is the time to enter some of your summer sketches in the PENCIL POINTS SKETCH COMPETITION FOR 1924. Everyone everywhere is eligible excepting practicing architects maintaining their own offices, or members of firms, and professional renderers, i. e., men who derive their principal income from making renderings on other than a salary basis. Sketches may be in any medium or combination of mediums as pencil, pen-and-ink, water color, etc. Entry into this competition is entirely free. The conditions have been published in full in PENCIL POINTS and a copy of the conditions will be mailed free upon request addressed to the publishers of this journal.

The success of the competitions we have held in the past has been due in a great measure to the interest aroused by architects and educators who have directed the attention of members of their organizations or classes to the competition, we hope for a full measure of this kind of co-operation in the case of the present competition.

PENCIL POINTS



Edmund S. Campbell.

EDMUND S. CAMPBELL, DEAN OF THE
BEAUX-ARTS INSTITUTE OF DESIGN.

EDMUND S. CAMPBELL, recently appointed Dean of the Beaux-Arts Institute of Design, has taken up his duties at the headquarters of the Institute in New York.

Mr. Campbell's record of accomplishment as an educator in the field of architecture is a notable one.

For the past ten years he has been a member of the Faculty of the Department of Architecture of Armour Institute of Technology, Chicago, Professor of Architectural Design in charge of design and since 1919 in charge of the Department. Otto F. Cerny, winner of the Le Brun scholarship of 1924; R. Nedved, winner of the Chicago Architectural Club Scholarship, 1923; and H. R. Bieg, winner of the Paris Prize for 1924 of the Society of Beaux-Arts Architects are all recent students of Mr. Campbell's in the Armour Institute of Technology and of the Chicago Atelier, of which Mr. Campbell was Patron.

Mr. Campbell has been an exhibitor at leading water color exhibitions and is a member of the New York Water Color Club, the Chicago Society of Arts, the Pittsburgh Association of Artists and other art societies and clubs. At present he is exhibiting water colors at the Delgado Art Museum, New Orleans, La.

Before going to the Armour Institute of Technology as a member of the Faculty, Mr. Campbell was for seven years a member of the Faculty of the Department of Architecture of Carnegie Institute of Technology (1907-1914). During part of that time, (1910, 1911, 1912), Mr. Campbell was on leave of absence traveling abroad and a student admitted to the Ecole des Beaux Arts, in the Atelier Bernier.

He was born in Monmouth County, New Jersey. He graduated from the Freehold High School and Stevens Preparatory School and in 1906 and 1907, respectively, he received the degrees of S. B. in Architecture and S. M. in Architecture at the Massachusetts Institute of Technology.

The appointment of Mr. Campbell as Dean marks an important advance in the development of the B. A. I. D. for it will make possible more effective co-operation with educational institutions throughout the country.

ARCHITECTURE AND THE MACHINE

THE current issue of *The American Mercury* contains an interesting article by Lewis Mumford under the title "Architecture and the Machine" from which we quote the following extracts:

Foreign critics have sometimes hailed the triumph of engineering over architecture in America as an aesthetic achievement; but when one examines the matter a little one discovers that a good part of the aesthetic achievement is the result of excellent photographs, snapped in unusual positions, and so the triumphs turn out to be not quite so brave and formidable as enthusiasts make them out. If the modern factory is good to look at, so was the old New England mill; if the modern steamship gives aesthetic pleasure, so did the clipper. In point of fact, the effects of the machine upon the great run of our buildings have not been favorable to beauty or amenity; and if the engineer is steadily eliminating the architect from every province except the country-house, his success is mainly the blind result of economic forces over which neither engineer nor architect has any control. Building is the last province to be conquered by the machine; just as the architect himself is almost the last artist who retains a vestige of independence. To see what this transformation means we must recall what a building was internally before the coming of the engineer.

Up to the Nineteenth Century a house was a shelter and, frequently, a work of art. Once it was erected, however, it had few internal functions to perform: its physiological system, if I may use a crude and inaccurate metaphor, was of the lowest order. An open fire with a chimney, windows that opened and closed—these were its most lively pretensions. Palladio, in his famous little book on the Five Orders, has suggestions for cooling the hot Italian villa by a system of flues conducted into an underground chamber from which cold air would circulate, but this ingenious scheme was on the plane of Leonardo's flying machine—an imaginative anticipation rather than a project.

With the exception, indeed, of Wren's suggestions for ventilating the old Houses of Parliament, and Sir Humphry Davy's actual installation of apparatus for this purpose, it was not until the Nineteenth Century that engineers turned their minds to this problem. Yankee ingenuity devised central heating before the Civil War, and one of the first numbers of *Harper's Weekly* contained an article deploring the excessive warmth of American interiors. At one time or another during the century running water, open plumbing, gas, electric lighting, drinking fountains, and high speed electric elevators made their way into the design of modern buildings. In Europe these changes came reluctantly, because of the existence of vast numbers of houses that had been built without a mechanical equipment; so that many a student at the Beaux Arts returned from an attic in the Latin quarter where water was carried in pails up to the seventh story to design houses in which the location of labor-saving devices became an essential element in the plan. It is only during the last two decades that the full effect of these renovations has been felt, even in America.

A further effect of the machine process on the internal economy of the modern building is that it lends itself to rapid production and quick turnover. This has been very well put by Mr. Bassett Jones, in an article in the *American Architect*, which is either a hymn of praise to the machine or a cool parade of its defects, according to the position one may take. Says Mr. Jones:

"The writer well remembers the late Douglas Robinson, when outlining the location and property to be improved by the construction of a building some twenty years ago, ending his directions with the proviso that it must be 'the cheapest thing that will hold together for fifteen years!' When the amortization charges must be based on so short a period as this, and with land taxes constantly

PENCIL POINTS

increasing, it becomes obvious that construction must be based upon a cubic foot valuation that prohibits the use of any but the cheapest materials and methods."

With the features that govern the construction of the modern building thus conditioned by external canons of mechanism, it follows that purpose and adaptation to need play a smaller and smaller part in the design, and that the aesthetic element itself enters only by accident.

In this bare mechanical shell there is precious little place for architectural detail. Our first skyscrapers were designed by men who thought for the most part in terms of established architectural forms: Burnham and Root's Monadnock Building in Chicago, which has exerted such a powerful fascination over the new school of German architects, was an almost isolated exception. The academic architects compared the skyscraper to a column, with a base, a shaft, and a capital; and they sought to relieve its empty face with an elaborate modeling of surface, like that of the old Flatiron Building. Then the skyscraper was treated as a tower, and its vertical lines were accented by piers which simulated the acrobatic leap of stone construction: the Woolworth Tower and the Bush Tower were both designed in this fashion, and, in spite of numerous defects in detail, they remain perhaps the most satisfactory examples of the skyscraper that we have.

But neither column nor buttress have anything to do with the internal construction of the skyscraper, and so, following the veracious lead of the late Louis Sullivan, the buildings of the machine period have accepted the logic of the draped cube, and the only features of traditional architecture that remain are the ornaments that cling to the very highest and the very lowest stories.

AN ARCHITECTURAL CENTER FOR THE METROPOLITAN DISTRICT

IN THE Mecca of American Architecture, in the city whose training is an almost requisite post-graduate course in the architectural profession, there remains yet to be organized an association designed to bring into closer contact the various professions interested in architectural matters, and to facilitate the progress of new talent which is continually entering this field.

During the next few weeks there will be launched an organization to meet these demands, from whose tentative Constitution are quoted the following articles, covering GENERAL OBJECTS and MEMBERSHIP:

Article II

"To the promotion of closer friendship and cooperation among those engaged in, or associated with, the architectural profession, thru stimulation of individual and group activities—athletic, educational, professional, and social—this organization is primarily dedicated."

Article III

"Membership in . . . shall be individual and the only eligibility requirements shall be an interest in the purposes of the organization, as outlined in its Constitution and Specifications, and a courteous regard for the rights of others and for the law of the land, essential to the achievement of these objects."

Article II means that the organization will be architectural in the broadest sense of the word, inviting to participation in its activities and control, members of every calling in any way connected with architectural work.

Control of this organization will be thoroughly democratic—every matter of major importance will be decided by ballot of the entire membership. Constitutional provisions will eliminate the possibility of clique control in any administration, also of monopolizing of offices year after year by a small group of men. There will be opportunity for a large part of the membership to gain valuable experience thru official participation in organization affairs.

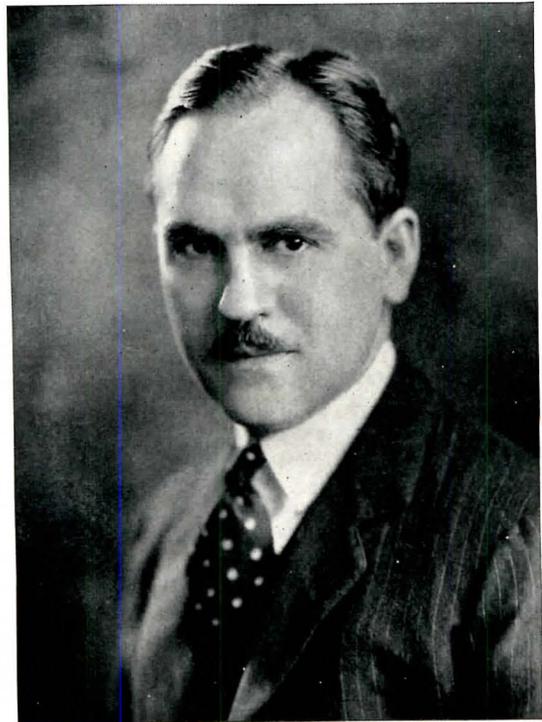
A number of influential individuals and organizations have expressed interest in this project, but the organization is not and will not become tied up to any single interest or group of special interests.

Sufficient response has already been secured to insure organization of this association, but there is still opportunity for additions to the charter membership. Tentative drafts of the Constitution and Specifications (By-laws) will be ready shortly, and these will be sent without obligation of any kind, to all who so desire.

This notice is an invitation to communicate with the undersigned, offering any suggestions, or criticisms, and asking any questions you may wish, concerning this project.

A. F. DARRIN.

949 Park Place, Brooklyn, N. Y.



Francis Keally

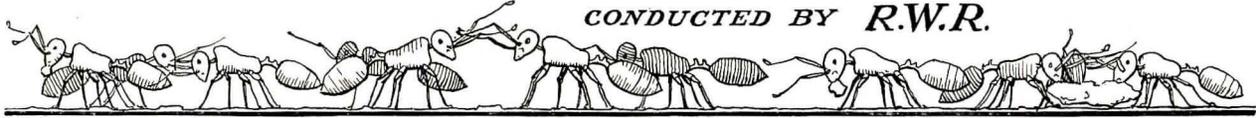
FRANCIS KEALLY.

FRANCIS KEALLY, one of whose drawings is shown on a plate page in this issue returned a few months ago from a two year study trip abroad. In collaboration with James Renwick Thompson he recently won the first prize of \$1,500 in "A Three House Competition" conducted by the Lighting Educational Committee, New York, of which Wm. P. Bannister, F. A. I. A., was the Professional Adviser. The purpose of the competition was to obtain designs for three types of dwellings: (a) A house costing fifteen thousand dollars. (b) A house costing ten thousand dollars. (c) A bungalow costing five thousand dollars. The program required that the plans for each house should clearly show a suitable layout of electrical outlets which, supplied with proper lighting fixtures will result in good illumination and also electrical outlets for other than lighting purposes, which will enable the use of various labor-saving devices advocated by authorities on the subject of Domestic Science. The jury of award was as follows: Frederick L. Ackerman, architect; Marcia Mead, architect; Bassett Jones, consulting electrical engineer.

Mr. Keally works in a broad bold manner, frequently using charcoal and pastel as his mediums in sketching and rendering.

Here and There and This and That

CONDUCTED BY R.W.R.



WE have with us today Ruth W. Rogers of Shreveport, La., who submitted the heading reproduced above in our justly famous Competition. Why the bugs? we hear everybody asking. That is just what we asked. But so far Miss Rogers has kept a discreet silence and has not tipped us off as to whether she thinks bugs should be the trademark of this column or whether she is comparing us with the busy and industrious ant, or what. Anybody's guess is as good as ours.

RUTH ROGERS in Shreveport and Ruth Gerth in Minneapolis! Why don't some of the Marys and Ethels, etc., send in things for this column? Must the Ruths do it all?

AND Mrs. Gerth is awarded the prize for the most interesting and valuable contribution for this department for August. Looks as though the petticoats were going to give the pants some competition!

WELL, the poets have sure come to life. Here they are—three—count 'em—three.
W. W. Beach contributes this:

An architect who'd worked a lot
Says "I need recreation,
This city's getting too damned hot;
I'll off on my vacation."

He found a farm of restful air
To pass his fortnight lazy.
The farmer's boy was also there
With headwork somewhat hazy.

They'd sent him home, his pa explained,
From school of architecture.
No meed of drawing had he gained
Nor comprehended lecture.

"Why," said the city man, "I'd think,
With this boy's thirst for knowledge,
And these broad acres, he'd best drink
At agricultural college."

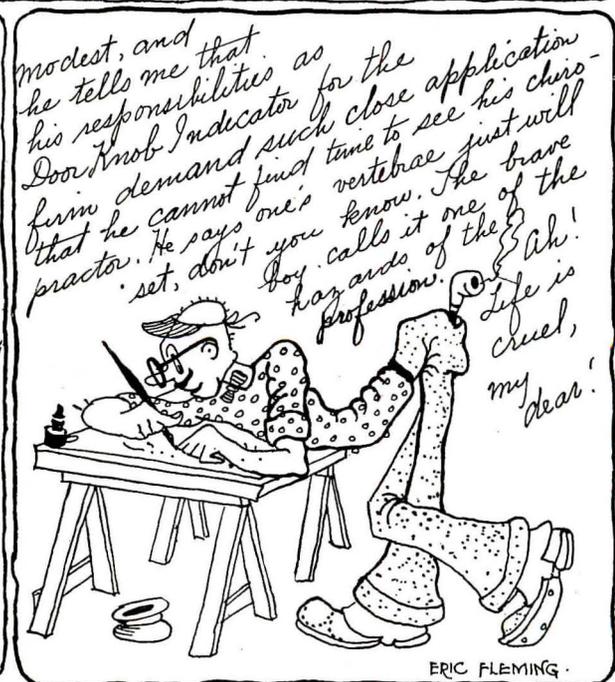
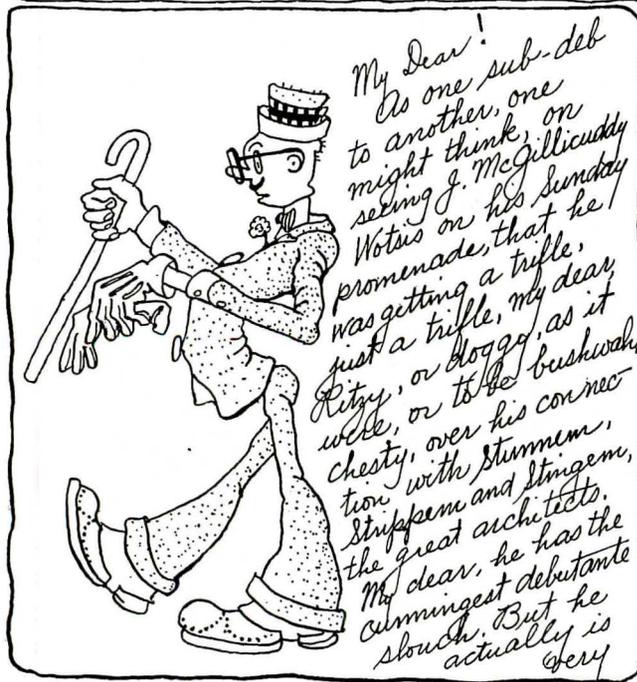
Quoth pa, "That's where he'd ought to be.
I'm gosh 'durn sure you're right;
And we'd have sent him there, y'see,
Only he ain't so very bright."

And our old friend Oong Gow is responsible for this one.

WHOM WOULD BE LEFT?

If we should find a fitting doom
For persons who still say "colume;"
Should we behind thick stone immure
Those folks who call a drain "the sewer;"
Were we allowed to slay with hate a
'n Engineer with all his "data;"
Should we send from our shores away
All members of the A. I. A.—
Who think that any concrete vase
May dignify a marble base;
Were some fate, harsh but just, designed
For plagiarists of lazy mind;
If we could give the farewell mit
To all the following, to wit;
The chaps who draw, (they are not rare)—
Potato clouds up in the air;
The numerous tribe who—uncouth hicks—
Good Roman and wild western mix;
The hundreds of uncultured souls
Who shoot a style all full of holes—
Could we all these together get
And drop them through the oubliette,—
Pray, who'd be left to act as chiefs?
Who'd make our laws and building briefs?
Who'd estimate,—our Tech. schools teach?
What celebrated FRIBA'd preach?

EXTRACT FROM FIFI'S LETTERS TO MIMI



Eric Fleming, New Brunswick, N. J., is responsible for this.

PENCIL POINTS

Who'd specify,—who'd superintend?
 Who'd typewrite or torn tracings mend?
 What member of the Institute
 Would not go down to just repute?
 And would the man who owns the mint
 An architectural journal print:
 Where could he find these bookish guys
 To write the breathing exercise?
 And last but direst woe of all—
 Whom do you think would read this call?

And PENCIL POINTER K. A. SNOW of Pittsburgh submits this one.

"THE GLORY THAT IS GREASE"

As architect the ancient Greek
 Had very nearly reached the peak.
 His temples were so much refined
 That cornices not quite aligned
 And columns subtly out of plumb
 To-day leave tourists standing dumb
 With admiration for the guy
 Who piled unmortared rocks so high.
 But tho his work in arts of form
 Could make his artist heart grow warm
 The selfsame Greek too often felt
 Quite empty just inside the belt
 Because at that time as to-day
 An architect with but his pay
 Could hardly tighten out the slack
 Between his front side and his back.
 In fact the people grew so weak
 Their land remained no longer Greek
 And over half of them left home
 To look for better jobs in Rome.
 While there one guy doped out the scheme
 Of selling candy and ice cream.
 The others quickly caught his speed
 And thought to obviate their need
 By vending other kinds of feed.
 Soon all those Greeks so thin and gaunt
 Each opened up a restaurant
 They then grew fat and free from want
 And now, as our poor stomachs know,
 Most every doggone place you go
 You find Greek lunch rooms row on row.

HOORAY for the summer poets! How they do their stuff this hot weather is more than we can understand. It is all we can do to paste it on a sheet and get it ready for the printer.

WHO says advertising in this column doesn't get results? Didn't somebody a couple of months ago ask for a formula for a "fixatif?" Of course somebody did. And Mr. U. McCleary of Los Angeles furnishes the answer. He says mix equal amounts of the best grade of white shellac and pure denatured alcohol. When dissolved spray on drawing with a fixatif sprayer or atomizer.

Anybody else want to know anything? If so send in your questions to this infallible fount of wisdom.

THIS month we are presenting a photograph of Mr. Albert Kahn's organization. Quite a snappy looking crowd, say we, and they are not all in the picture either. M. P. Wright, Mr. Kahn's secretary, in submitting the photographs says at least fifty more were away on vacations, busy on various jobs, etc.

We shall be glad to publish similar pictures of other drafting-room organizations if good photographs are submitted.

ELLIOTT HATCH, of Amarillo, Texas, thinks he and his brothers should be placed second in our great international and world-wide competition for the largest (most numerous) architectural family. Any other aspirants?

"We note from your August issue the Orlopp Bros, have gained first place in the nomination for a champion architectural family.

"There are four boys in our family, three are architectural draftsmen, and we wish to try for second place in the run off for a family of architectural draftsmen.

Eugene, Elliott and Marion, Jr., of Ft. Worth, and Amarillo, Texas.

Very truly yours,
 ELLIOTT HATCH."

MISS CONSTANCE GROSVENOR ALEXANDER, Dana Hall, Wellesley, Mass., would like a copy of PENCIL POINTS for February, 1922.

L. P. Fey, Seattle Architectural Club, 956 20th Avenue, Seattle, Wash., wants to secure the March, October and December, 1921, issues of PENCIL POINTS. He has an extra copy of June, 1922, which he would like to dispose of.

E. L. Williams, 3440 Cass Avenue, Detroit, Mich., wants copies of PENCIL POINTS for September, October and November, 1920, and May, 1922.

Agosto 6, 1924.

To R.W.R.

The "Papa Montero" of Here & There & This & That.

Dear "Papa Montero":

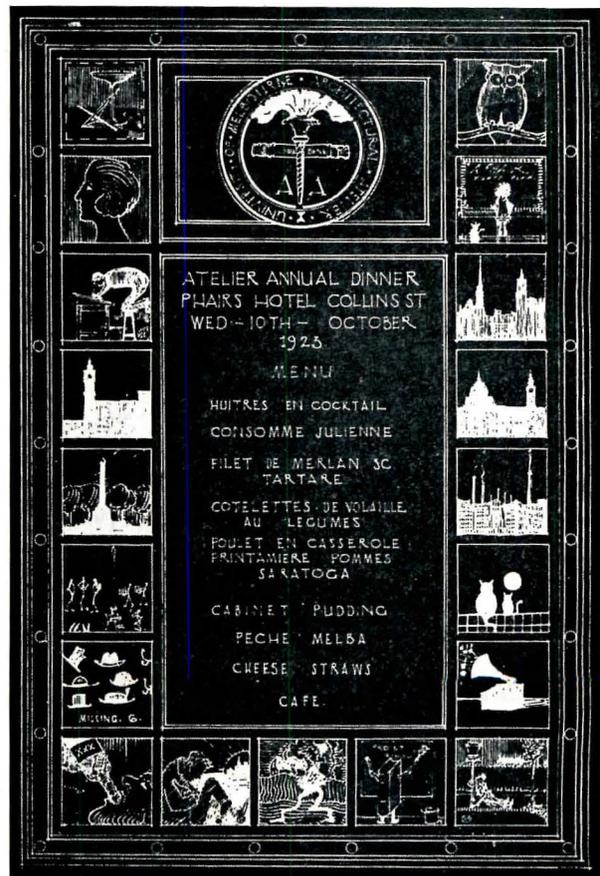
In your July issue you say you want more international stuff and, by the sake of Vulcano, you are going to get it. Yes sir you are going to get it, as far as I go up there and have a "bronca" (rough fight) with you. Yes, with you with you. You have no "endiablado" right to answer questions and write about *fire places* in this month and make your tropical readers sick. You have insulted us! You have made me read at 32°C and all "embarrado" with Prickly heat baby powder about *fire places*. Uff, too hot!

Fire Places Ice Boxes, yes I C E B O X E S! is the business to talk about. Y. or at least of electric fans, siphon vents, or refrigerating machinery.

Well, now you know, stop that *fire place* stuff in summer or no P. POINTS will be read in Cuba and adjacent islands.

Que Dios lo conserve y pueda venir a meterse un "high-ball" en la Habana en winter le desea.

F. Ga. Gamba, Havana, Cuba.



From the Annual Atelier Dinner of the University of Melbourne, Australia.

PENCIL POINTS



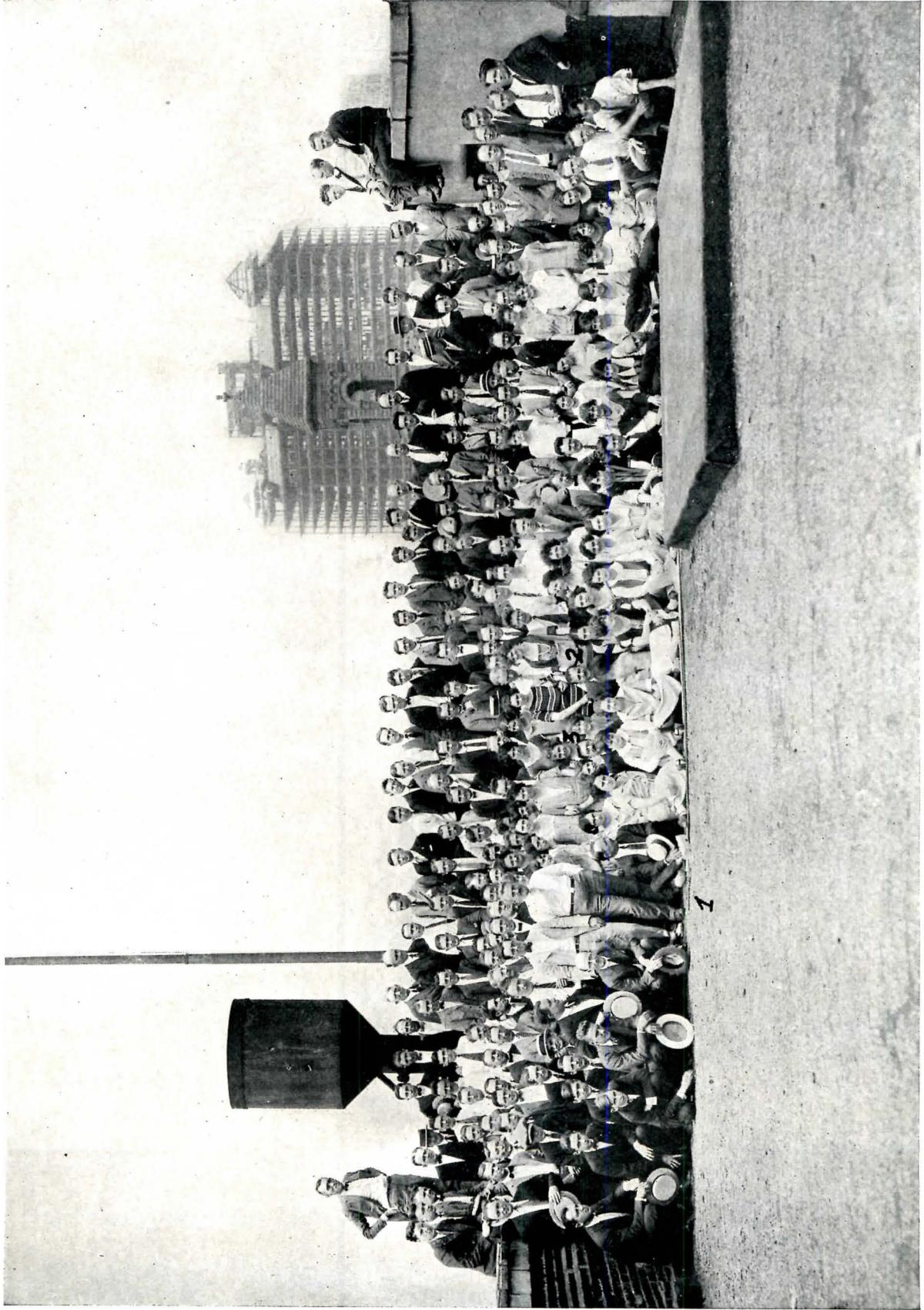
State Capitol, Providence, R. I., by Maxwell Fry, Liverpool, England.



*Sketch in Lithographic Pencil by Otho McCrackin,
Hutchinson, Kansas.*



*Sketch by George Rae,
Sydney, Australia.*



A Part of the Organisation of Albert Kahn, Architect, Detroit, Michigan. 1. Albert Kahn, 2. Louis Kahn, 3. Moritz Kahn.

THE SPECIFICATION DESK

A Department for Specification Writers

VERY SPECIAL NOTICE TO SPECIFICATION WRITERS!

We want more good, live material for publication in this department. Brothers Beach and Brostrom with their breezy and humorous contributions printed herewith have proved that something amusing can be said even about specifications. Has anyone else anything along the same lines? Or different lines?—Serious or not so serious—they are all welcome.—This is the place for us all to discuss specification problems.—This department is going to be better than it has been—and we want to hear from every specification writer who has a question to ask or some idea or method to contribute.—EDITOR.

HUMOR IN SPECIFICATIONS.

By Ernest O. Brostrom
(Read this and weep)

SPECIFICATIONS cannot usually be classed as fascinating literature, nor are they intended to fill a niche in the archives of humor. Still, every once in a while, there are passages in specifications that incite laughter. Sometimes it is a mere typographical error, or the omission of a word, or lack of, or improper punctuation. Or it may be a jumbling of phrases caused by inadequate notes or lack of knowledge on the part of the transcriber, and perhaps, oftentimes, of the transmitter.

The mere fact that the arrangement and wording of a specification clause may be droll, is not serious, unless it so confounds its intent and purpose as to leave that portion of the document without meaning. Then the final result may be exceeding grave.

The writer has come upon a strange example of specification writing. If it was not for the evident seriousness with which it was prepared, and the probable dire results that must come from the document's very incompetence, it would be a most humorous contrivance of headings, paragraphs, words and word omissions, capitalization, punctuation and lack thereof. As it is, it is a curio. Extracts therefrom are submitted in the following, under the title

SPECIFICACIONS

or

(Melodrama entering in by the rear gate)

"The Arch-i-tect and His Stenog."

These extracts are copies exactly as found, errors, and all. No attempt has been made to make them more ludicrous than the original. Omissions are not indicated except where they occur in the sentence, and these breaks are indicated by the use of the dash—. All matter omitted is written in customary specification form and, adding nothing to the interest hereof, has therefore been left out.

The "General Conditions" comprised sixteen pages of well written material (probably copied from the standard A. I. A. conditions) with one exceptional outstanding paragraph quoted below.

The "General Specifications" comprised six typewritten pages. From these pages the extracts have been taken.

S P E C I F I C A C I O N S

for

.....

GENERAL CONDITIONS:

The architects decisions, in matters relating to artistic effect, shall be final, if within the terms of the Contract Documents.

SCOPE:

Contractor to visit folding and check on the alternations, etc.

CONCRETE:

The floor construction—will be concrete joint & till construction.

Floor till will be 121212 with 2" concrete on top and a 4" joint.

BIRCHWORK:

The walls will be faced with brick to match that now

in the bldg. with holler block. All brick walks laid straight and well Bonded—constituted—by breaking joints at least 3" in every course.

the first floor except around light court & Elevator to 4" thick around light court & Elevator— and shall be indented at ceiling and flushed with mortar.

undone openings shall be made by filling tile with concrete and putting 2½" rods at

SUSPENDEDCEILING

The entire 3rd floor to be a suspended ceiling of ¾ inch—carried on partition tile where possible others wish suspended from ceiling slab with expansion butts.

PLASTERING:— — —

All walls, ceiling partitions, soffits, etc. throughout— and Sample in basement to be plaster 3 coats in best manner—applied in the customary weimer.

Bath will have the rooms mortered off to represent 3 x 6 tile from a height of 5—0" Bath Rooms.

Floors will be raised 7 inches using—floor tile laid flat with 2 on top.

Sash and Frames on the Frunts will be wood of same size as those in present building and glazed with clean double straight glass.

Windows on sides will be a hollow metal window Hung.

Metal used throughout shall be No. 24 guage tight coated galvanized and will carry the board of Under writers label. Heads and joints to have a moulded Staff—Stiles shall each be formed to provide for popes operation—Each joint to have a weight picket of ample size to permit of easy application of sash weights. Weight jackets to have ample cover which will fit tight and not offer abduction to operation Sash to be for glass divided with Minstrin bars into tightes as required by Underwriters. Muntives to have removable caps to prevent of glazing without renewing sash.

Bash to have bar lifts and iron hooks blocks finished—glazed clear with ¼" wire glass thoroughly in putty. Metal shall have on coat of an appeared metallis paint before leaving factory.

Stairs shall be of either cast iron or pressed steel with treads filled with 1½ tenago. Stringess shall be modeled. Treads supported at Ends securely bolted to stringers with Roner heads. Landings filled with Tenago.

Newd shall be either iron or No. 12 Blue armealed steel with caps or pendants with balistris of wriught iron.

STORE PAINTS:—

This contractor shall cut down glass of store paints where necassery, All to have same store front as now in place.

IRON WORK:

This contractor shall do all flashing and cements made by these changes. Where shown on the drawings put in gals, extending from 2nd floor up, in ducts, and roof to have a 12" star rec-tilation.

the roof extending down to the ceiling put in iron sky-lights.

All to be glazed with best Enality ¼ inch rough glass—left ole and clean at competition of work.

Sidewalk LIGHTS:—

Provide lights of the "71% daylight Construction" Simplex Fresinal fixler Prusia Co. 4' sq. lences of Lazalik glass set on 4-¾ inch ctrs.

(Continued on page 88)

PENCIL POINTS

THE PROBLEM SOLVED

SPECIFICATIONS:—That part of the service of an architect intended to prove to him that life is not all one long sweet song; to convince his client that his architect is both erudite author and likewise legal person of no mean ability;—and to inform the contractors as to just how ignorant or nutty an individual can be.

"Why hath a dog fleas?"

Why, indeed, except to keep him from becoming indolent?

If architects didn't have to write specifications, their "work" might be so delightful (when they had it) that "downy beds of ease" would be harsh and bumpy in comparison. Happily (or not) "those damn specifications" are the thorns on the rose stems, the flies in the ointment, the fleas on the dog. Thereby is the architect spared from degenerating into that despicable (and enviable) being, a happy, contented soul.

No chance for such evolution with *specifications* to harass him.

"Specifications" are a (more or less) legal document intended to stipulate the materials and manner of their fabrication and placement entering into the construction, equipment and embellishment of a given structure.

They must also be descriptive of said materials and workmanship, else how would the poor inspector or clerk-of-the-works know what ought to be, or how it ought to be or even if it ought to be?

And, if the author of the formidable document doesn't himself know how and what it ought to be, it shall at least be equal to "abracadabra" and then must the poor-wit yclept "Superintendent," search out an abracadabra, dissect it and study its catalog description and also compare the "Brocadabrit" which the contractor proposes to substitute either to oblige a sales friend or to save a secret ten (or fifty) bucks.

And, if the superintendent presume to reject Brocadabrit, shall not the owner be informed that the only reason the architect had for specifying the other (and worse) item was that he received a substantial quid pro quo for so doing—or "if he didn't he's a damn fool, because the makers are willing to pay for advertising in architects' specifications.

But the owner is trying his best to remain on good terms with his architect and kicks out the insinuating rascal. (*At least, they do in the movies.*)

But legal document our poor specifications must be, forsooth, for is it not stated in the General Contract that the contractor is a fraud, a villain and a horse thief and there is no good in him? And is not the architect a little tin god on wheels, the only one whom the owner can trust to watch the wretch?

Oh, if the architect might only remain on his pedestal! But it's so darn tipsy, being worn smooth on top and round on the bottom, that the poor ethical entity wobbles around on it like a roly-poly toy, only he hasn't always enough lead in his feet to land him right side up.

If only all "architects" were architects!

But they're not and the public can't always discriminate—seldom cares. In its mind, an architect is a composite—an average between the high-minded, trained expert he ought to be (and often is) and the novice, the mediocre and the crook.

By their specifications shall they be judged. But not altogether, let us hope.

In any event must these specifications be good and binding, not so you can "drive a Ford" through them anywhere—or even "throw a dog" through them—but good and tight—so tight that the general offender and all his sub-offenders must go down on their ham-bones if they wish to vary e'en so much as one fine, red hair from the "interest of architect,"—must even "raise their hands to go out."

"First-class" is first-class, whether it be in Mr. Pork Packer's palace or in his packing house, and nothing short of same is to be tolerated, in bathtub or scraping tank—and the sleepless detective must be on the job days, nights and Sundays to see that nothing short of first-class is put over.

Else why pay a detective?

Why, indeed?

If the contractor is scrupulously honest, why either specifications or detective?

It is inscribed upon the records of a certain court that a contractor testified that an owner had so high an opinion of him that he said, "Oh, to H— with the contract, Jack. You build me a good house and I'll pay you for it."

How perfectly simple!

How simply perfect!

"To H— with both contract and specifications!"

Let's just make drawings and have honest contractors do the buildings.

And there's the solution of the whole problem.

Why not?

W. W. BEACH.

LEAKY CHIMNEYS

By OTTO GAERTNER

THERE seems to be an increasing number of leaky chimneys in our finer residences during the last few years. It is difficult to account for this condition, as supposedly better materials are being manufactured now than in the past and the methods of using them are the same. It is true that labor has no longer so good a reputation; but then, this leaky chimney condition prevails under the best supervision. Exposure, no doubt, has much to do with it but the aim is to have the chimneys water-tight under the worst possible exposed conditions.

It has been found that some chimneys which were specified to have the bricks laid up in integrally waterproofed mortar absorbed enough water to soak the masonry of the lower part of the chimney and to ruin the decorations in the rooms below. Perhaps lack of supervision at the building was responsible for this as the joints of the brickwork were probably not entirely filled with waterproofed mortar and the water penetrated the joints as well as the bricks.

It has also been found that some leaky chimneys were flashed with metal, the metal only extending slightly into the masonry so that when the masonry over the flashing absorbed the water it penetrated enough to get behind the flashing and down to the rooms below. Often water will penetrate twelve inches of ordinary brickwork especially where the brickwork is exposed so that a free sweep of the wind during a storm will exert a heavy pressure against it.

Flashings are often specified to extend four inches into the masonry and to be turned up one inch but in many cases this is not enough and if the water gets behind the flashing it will get down into the masonry below. It is better to specify the flashing to extend through the chimney to the terra cotta flue lining before turning it up. Such flashing, however, should be continuous horizontally so that any water held on the flashing at one place cannot overflow to leak through a joint elsewhere. By far the best way is to extend the flashing through the chimney and through the joints of the flue linings in such a way as to make a continuous pan of concealed flashing.

This pan should preferably be of hot rolled copper, weighing sixteen ounces per square foot. Lead or zinc may also be used but the copper is more common. The roof rafters must be kept sufficiently clear of the masonry of the chimney. A small gutter, two or more inches deep and about six inches wide is then formed in the space between the roof rafters and the masonry. The flange of this gutter on the side away from the masonry is carried out on to the sheathing not less than four inches and cleated down with one inch cleats, of the same material as the gutter, every six or eight inches. The bottom and side of the gutter are run at the same pitch as the roof and the bottom of the gutter continues through the face brick work of the chimney. After passing through the face brick the copper is turned up behind over regular steps formed in the common brick to suit the pitch of the roof.

These steps are flashed across the top and sides to meet and lock with the gutter flashing, forming a continuous water-tight stepped pan completely covering the brick work of the chimney. But where flues penetrate this flashing it must be cut out to receive them, a collar being turned up two inches high and fitting snugly around each flue. Thimbles must then be formed for each flue and

(Continued on Page 88)