ENCIL OINTS or July 1935



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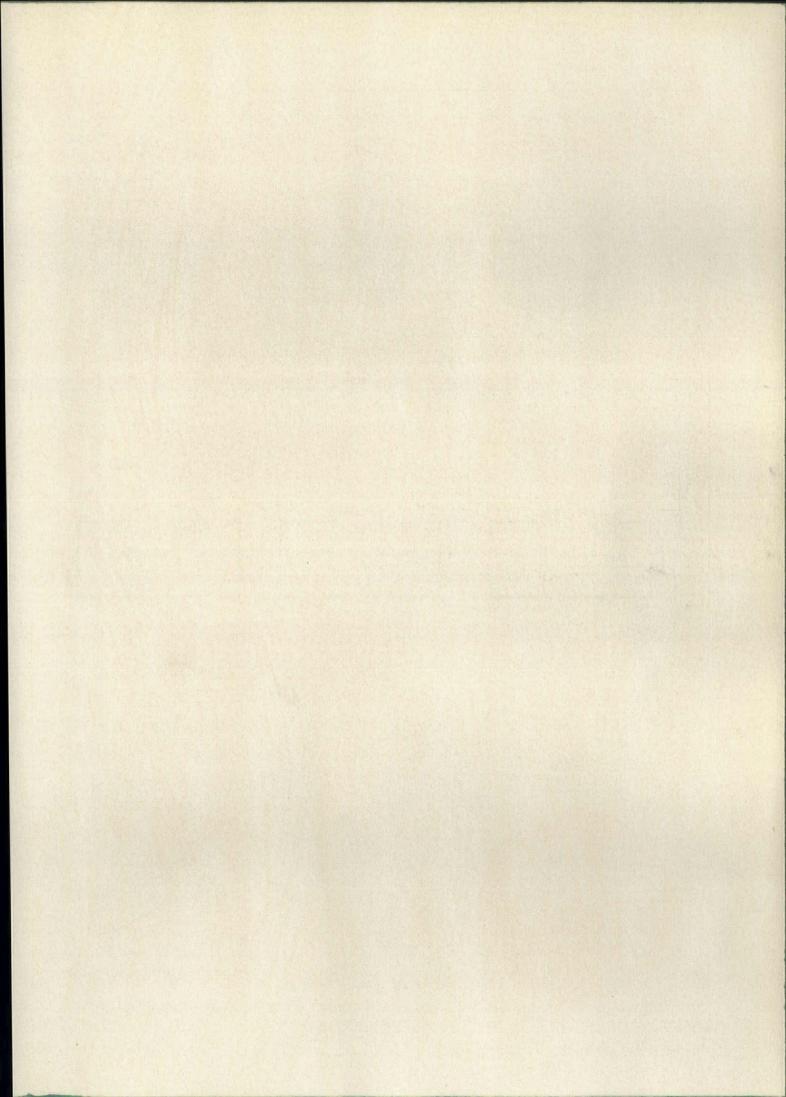
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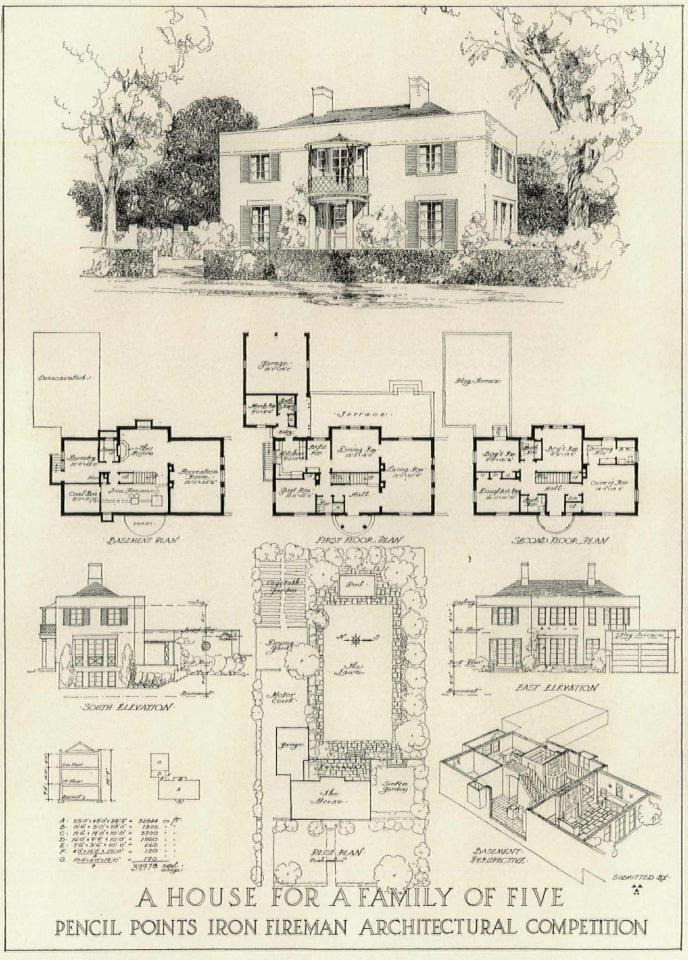


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REPUBLIC'S PERFECTED STAINLESS AND HEAT-RESISTING STEELS

Pencil Points, published monthly by Reinhold Publishing Corporation at 258 Atlantic St., Stamford, Conn. Publication office, Stamford, Conn. Editorial and Advertising Offices, 330 West 42nd Street, New York, N. Y. Yearly subscription \$3.00, single copies 35 cents. Entered as second class matter, March 10, 1930, at the Post Office, Stamford, Conn., under the Act of March 3, 1879. Volume XVI, No. 7. Dated July, 1935





Amedeo Leone of Detroit

REPORT OF THE JURY OF AWARD *Pencil Points 1935 Architectural Competition* sponsored by the iron fireman manufacturing company

THE Jury arrived at Yama Farms, a quiet, distinguished place in the Catskills, on the afternoon of June 13th, and immediately settled down to its pleasant but arduous duties. There was no scheduled date set for the announcement of the awards, a circumstance which insured that each drawing submitted would be carefully considered: in many cases they were reviewed again and again.

Many recent competitions have been as much puzzle contests as competitions for design plan solutions. Cubage has been so limited that the average family would have to use a shoe horn to get themselves as well as their possessions into the house designed. This forced the competitors towards an elimination of attic and basement space so valuable to the real seeker for a home. Many designers were compelled to go to the modern flat roof to accommodate the requirements. In this competition the program wisely allowed the competitors enough cubage so that a Houdini was not required to provide the proper number of adequately sized rooms.

The jury carefully considered Title II of the Federal Housing Act and, during its deliberations, many designs were graded by the percentage system worked out by the various architects appointed as State directors.

The program was apparently well studied by the contestants except for a number who disregarded the first sentence, "The design of a house for gracious...living" and later on "with the quality of a home (rather than a machine for living)." The jury considered all of the so-called Modernistic houses as carefully as possible and held for further consideration any that showed a real study of the problem. It regrets, however, that some were apparently designed in a language not understood by even the more liberal members and certainly not living up to the program conditions.

After two days and nights of careful consideration, forty-four drawings still received enough votes to remain in the running for the final awards. The following morning the jury reviewed those which had been rejected and brought back two drawings, one of which later received a mention.

Of the six drawings receiving the largest number of votes on the ballot mentioned above and by the percentage and point method, three were among the final prize winners. The fourth came up slowly from the mention group. The final awards were: FIRST PRIZE: Amedeo Leone of Detroit. A fine consideration of the plot, careful placing of the

house with a beautifully studied landscape layout, garage well screened vet conveniently located. An excellent plan on all three floors. Children's baths on second floor could have been arranged to give more privacy. Basement layout very well considered, both as to layout, light, and ventilation. Design fresh in feeling yet based on the best traditions of the past. All elevations show real charm. This sheet showed the best arrangement of all submitted and was beautifully presented. It was regretted that a basement lavatory was not provided. SECOND PRIZE: John W. Keyes of Philadelphia. A good plot plan, house also well placed, main portion on axis of garden. A practical garage treatment and more privacy for the garage could be obtained by better planting, the latter poorly presented throughout. First floor plan simple but complete, with study well planned for privacy with a guest room on a good, compact second floor plan. Again, a well arranged basement plan, well lighted and complete with all requirements. The jury felt that the sunken garden was rather narrow and the elevation had less character than the prize design. THIRD PRIZE: J. Floyd Yewell of New York. Another finely disposed plot plan, garage well located but turning court rather cramped. First floor plan well arranged for gracious living; hall could be most attractive but closet doors should be placed on ends so hall would have more wall space. Second floor baths too tight and not enough privacy. Basement too meagre and possibilities of outside lighting and ventilation not as carefully studied as the other prize designs. The principal elevation is the finest of all submitted. Sheet beautifully presented. This design will not easily go out of style. FOURTH PRIZE: Helmer N. Anderson and Frank Elmer Wood of Chicago. Plot plan not carefully studied, no provision for special garden features. A very practical plan, good arrangement of garage and service court, second floor plan tight but best of the compact plans submitted. Best arrangement submitted of basement recreation room as regards outdoors, the sunken court with different planting levels, paving around pool, etc., very carefully handled. Main elevation, while attractive, does not express the plan.

MENTION COMMENDED: Norman W. Alpaugh of Los Angeles. A sheet well presented, garden plan not especially inspired but elevation distinctive and one of the most individual submitted. Steps in main hall unfortunate in an otherwise good plan. Second floor small but well arranged and the basement was also considered too tight. MENTION COMMENDED: Anthon F. Darrin and Charles W. Beeston of New York. A fresh handling of the principal elevations that is most noteworthy, modern in design yet agreeable to look at, main entrance rather tricky, plot plan interesting but double service arrangement not good. First floor plan complicated: owner's suite attractive.

MENTION COMMENDED: Howard A. Topp and Malcolm P. Cameron of Los Angeles. Best solution of the forecourt plan, house well placed, good plot plan, garage far enough from front door so it is not objectionable. Good plans with all main rooms cross ventilated and good orientation. Would have gone further if basement plan had not been neglected: entirely too tight.

MENTION COMMENDED: J. Floyd Yewell of New York. A most interesting solution of the problem, picturesque in both plan and elevation and beautifully shown. Managed to get a very complete first floor plan, other plans rather tight. Jury felt roof lines were rather restless.

MENTION: Henry T. Aspinwall and Paul F. Simpson of Great Neck, Long Island, N. Y. A good first floor plan, good main elevation except that projecting wings are faked in perspective and, running around corners, would not build well.

MENTION: Dean W. Axline of New York. Plans too complicated, all elevations interesting but jury could see no reason for narrow porch or for running around front corner of house.

MENTION: Burton Ashford Bugbee of New Rochelle, N. Y. A good flat roof house, would have been better if there were not so many bay windows in both plans and elevations.

MENTION: Earl F. Cleland of Magnolia, Ohio. A modernistic scheme both for plan and elevation, a different manner of handling front of house which probably would be confusing. The best open type plan but the fireplace placed at an impossible location as to use. Only modernistic design to indicate use of materials. Not a friendly house. MENTION: Ferdinand Eiseman and Rees Weston of Washington. A most interesting plot plan and solution of recreation room with access to garden. MENTION: Howard G. Elwell of Bell, California. A different and interesting handling of the house in relation to the plot, simple straightforward solution of the problem in general.

MENTION: Charles M. Foster of Elmhurst, Long Island, N. Y. An attractive stylistic handling of design, simple yet distinctive in character; a smart plot layout and good lighting of basement but space is badly cramped.

MENTION: Leland F. Fuller of Santa Monica, California. A good solution of the small French villa type, both in plan with its interesting court, and elevations. Second floor plan especially good. MENTION: Robert I. Hillier of Brooklyn, N. Y. Best of the Colonial designs submitted: good presentation and handling of garage and service drive. MENTION: W. R. Hubbard of Temperance, Mich. Interesting handling of the so-called Monterey type: garage too conspicuous, plans weak.

MENTION: Clarence W. Jahn of Milwaukee. Second floor too tight, basement the same, good plot layout and service drive to garage.

MENTION: Theodore Kautzky of New York. Another beautifully presented sheet and by all means the best English type scheme submitted. Plans and general layout not equal to many others submitted. MENTION: Douglas P. Maier of Cleveland Heights, Ohio. A good Early New England Colonial design, well arranged garage court: general plot layout and basement not so well handled.

MENTION: Charles F. Mink of New York. Good plot solution, unusual plans except basement, jury felt that porch was very disturbing in design.

MENTION: Daniel F. Neilinger of New York. Jury felt that plans were too forced and garage and guest wings too conspicuous, taking away from the great charm of the main elevation. Good modern feeling and garden elevation also was commended for its simplicity. Orientation reversed.

MENTION: Y. W. Nibecker and Leslie Arthur of Los Angeles. One of the best modern designs submitted. Garden front well presented, plans not among the best, basement poorly considered.

MENTION: Arthur Florian Payne of St. Louis. A compact plan with fresh modern handling of a simple brick house, good service arrangement and plot plan, second floor plan too cramped and basement ignores possibilities of light and air.

MENTION: Arthur D. Roberts of Bell, California. Good open plan arrangement giving much outdoor living space on both first and second floors. Basement plan again neglected.

MENTION: Franklin G. Scott of Melrose, Massachusetts. Another modern scheme giving a great deal of outdoor living space.

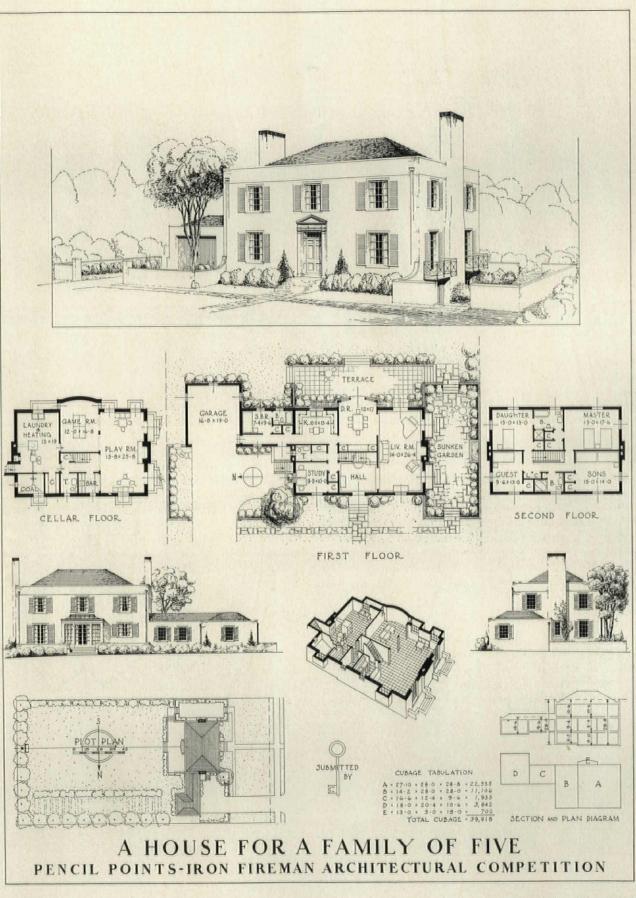
MENTION: Walter H. Smith of Pittsburgh. The jury felt that this competitor had produced a great deal of house for the cubage and one of the best English designs. A good handling of the garage in front, a complicated second floor and poor basement.

MENTION: Ides Van der Gracht of Washington. Another good adaptation of the Georgian town house, handled in a manner expressing a great deal of character, front drive in court well done.

Respectfully submitted,

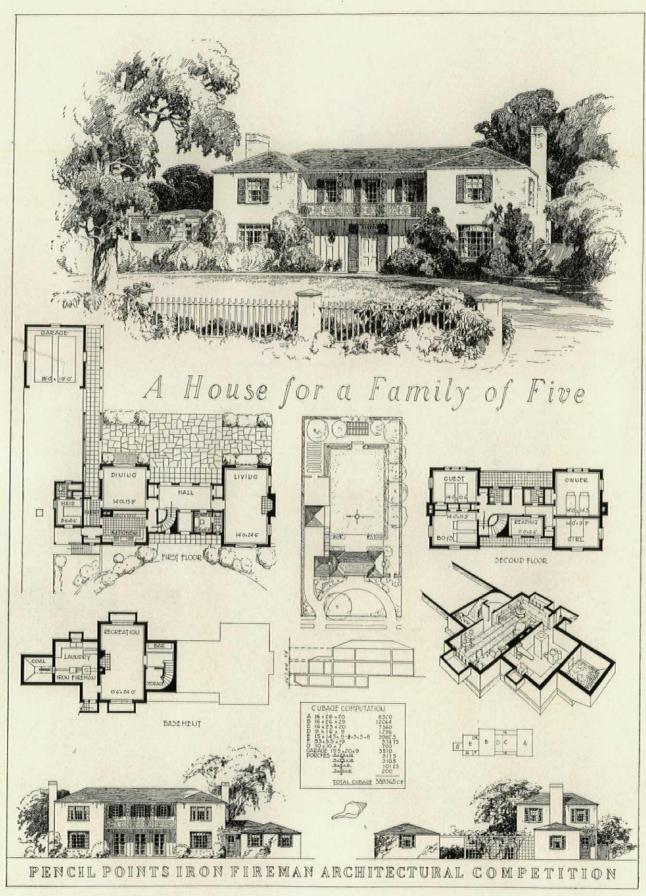
JURY OF AWARD	Edward W. Donn, F.A.I.A. Walter S. Frazier, A.I.A. Ralph W. Gray, A.I.A. James M. Hamilton, A.I.A. Hal F. Hentz, A.I.A. Edwin H. Hewitt, F.A.I.A. Dwight James Baum, F.A.I.A. <i>Chairman</i>
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Russell F. Whitehead, Professional Adviser Kenneth Reid, Assistant Professional Adviser



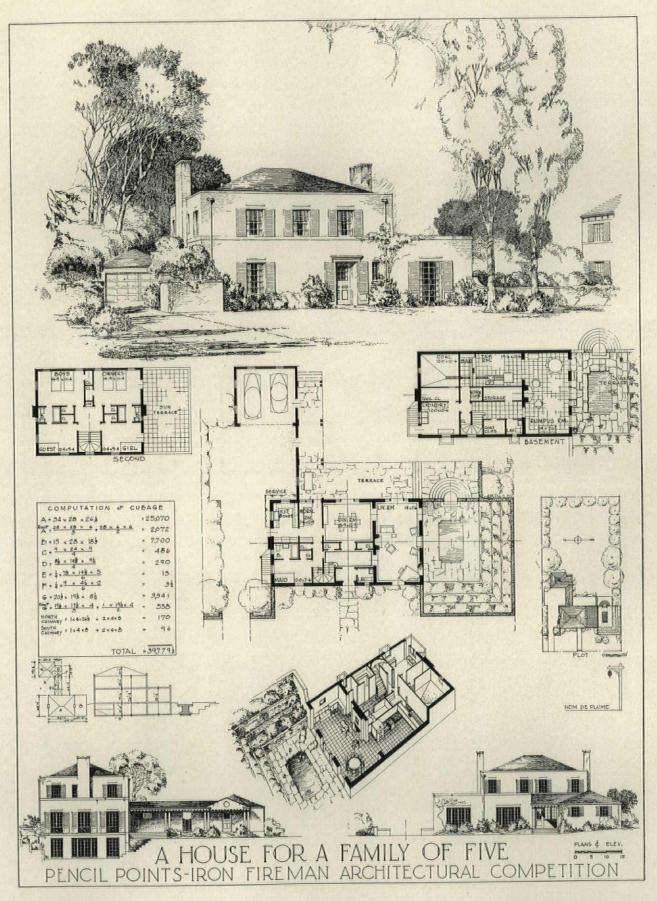
John W. Keyes of Philadelphia

Awarded Second Prize



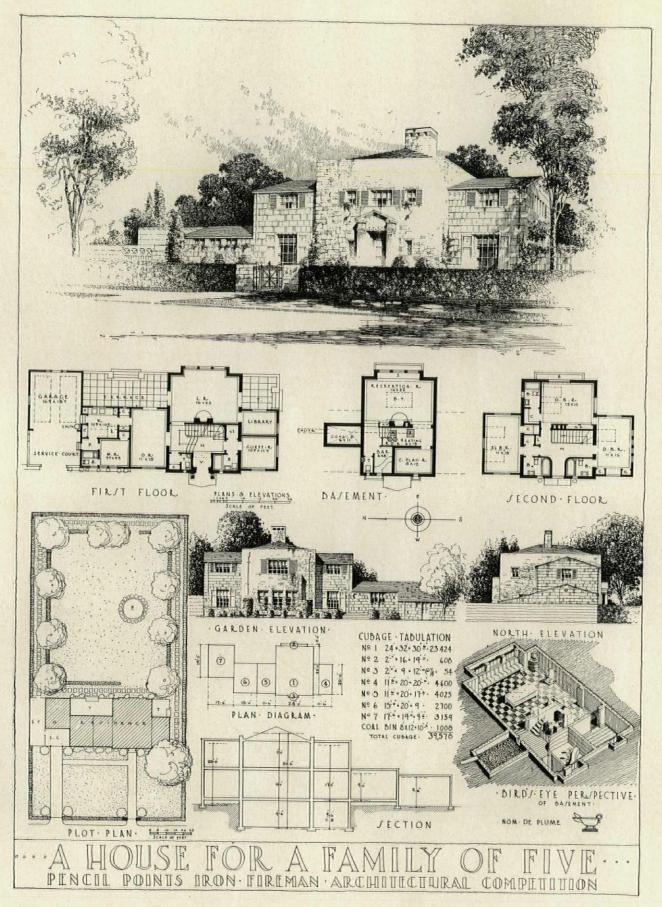
J. Floyd Yewell of New York

Awarded Third Prize



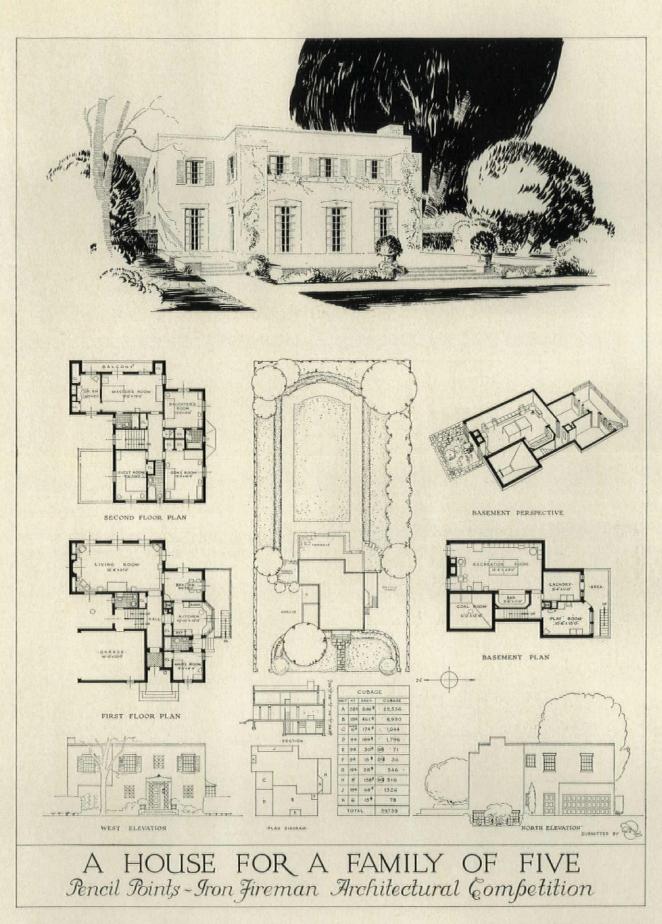
H. N. Anderson and F. E. Wood of Chicago

Awarded Fourth Prize



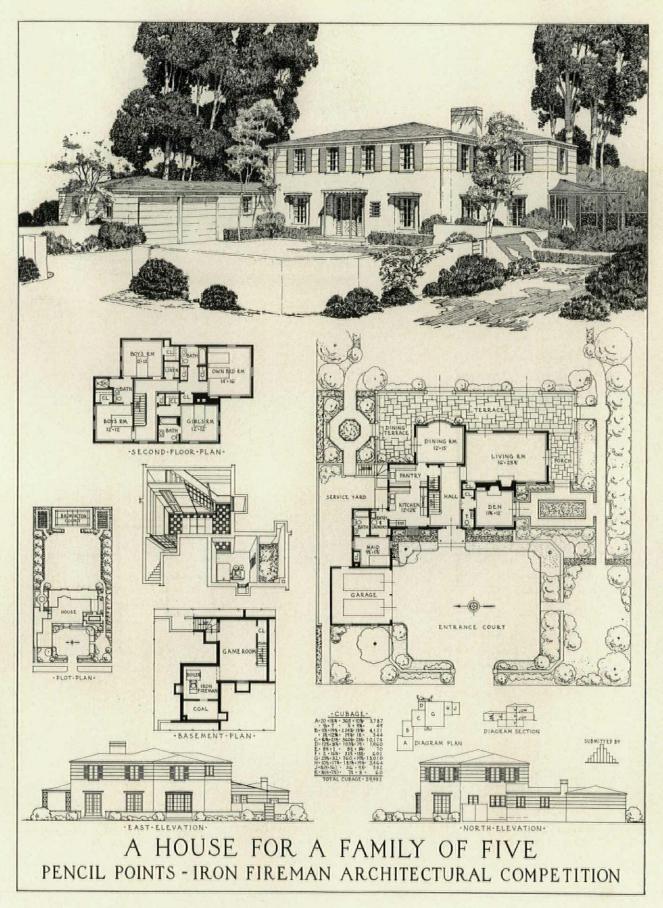
Norman W. Alpaugh of Los Angeles

Awarded Mention Commended



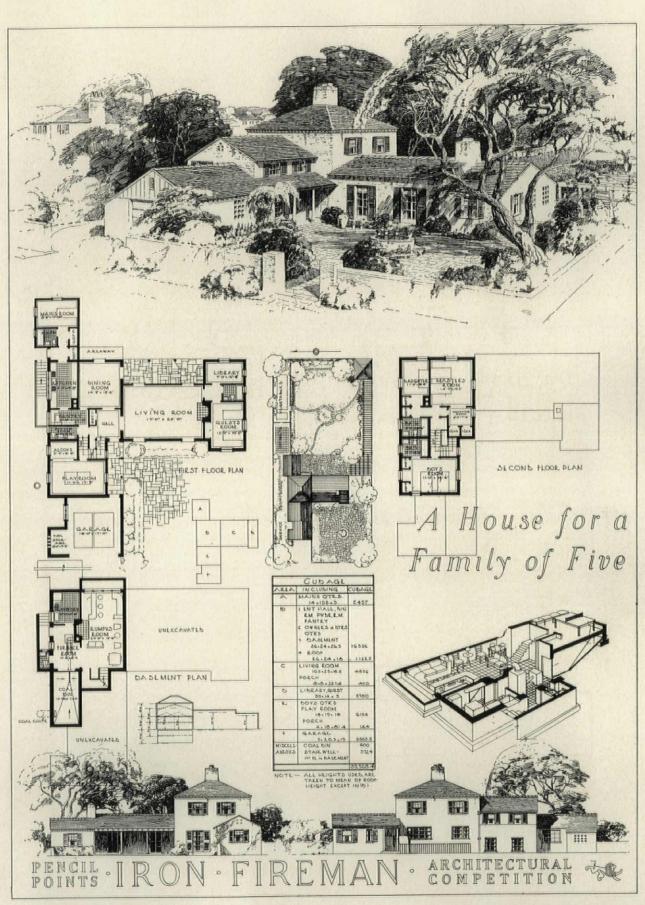
A. F. Darrin and C. W. Beeston of New York

Awarded Mention Commended



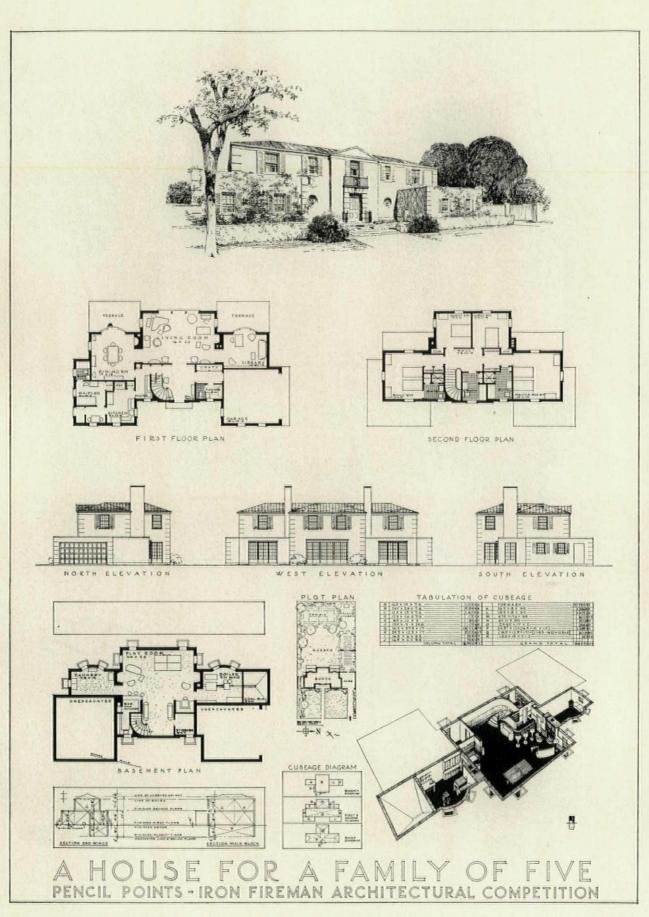
H. A. Topp and M. P. Cameron of Los Angeles

Awarded Mention Commended



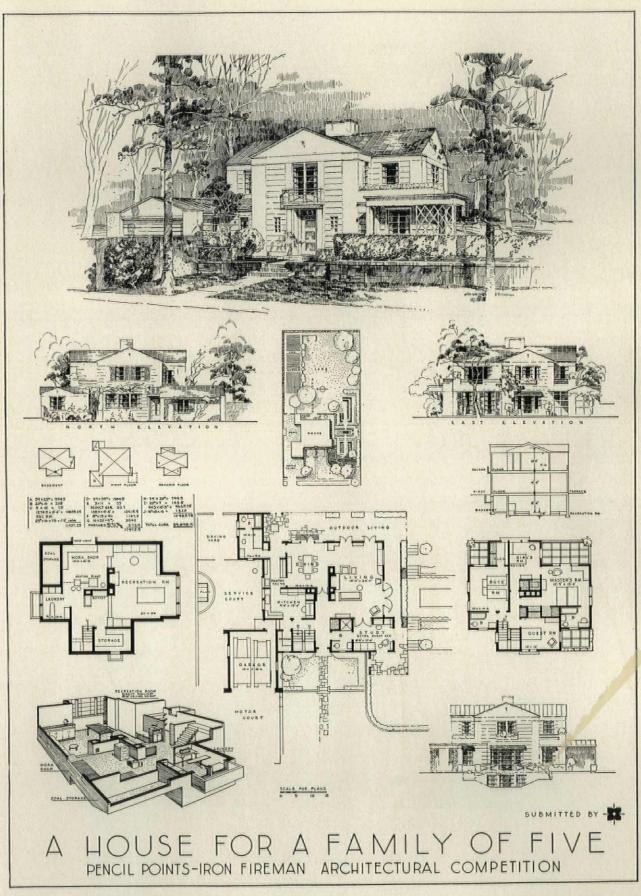
J. Floyd Yewell of New York

Awarded Mention Commended

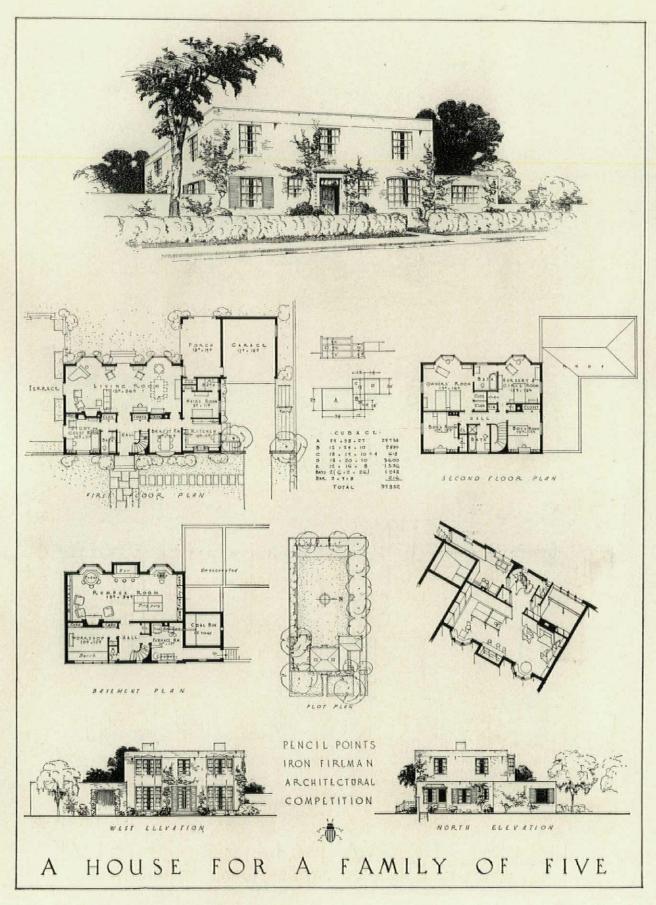


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H. T. Aspinwall and P. F. Simpson of Great Neck, L. I., N. Y.

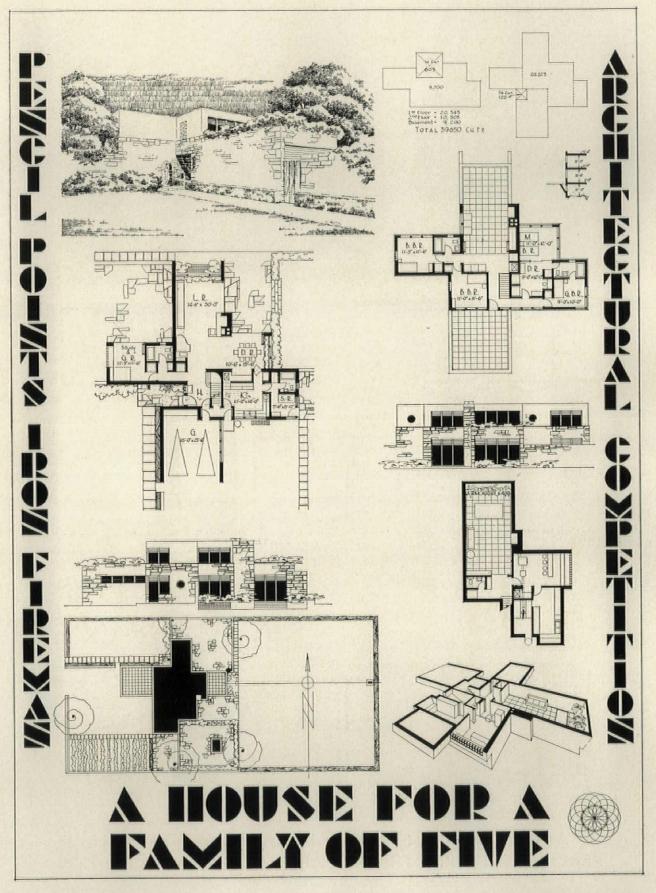


Dean W. Axline of New York

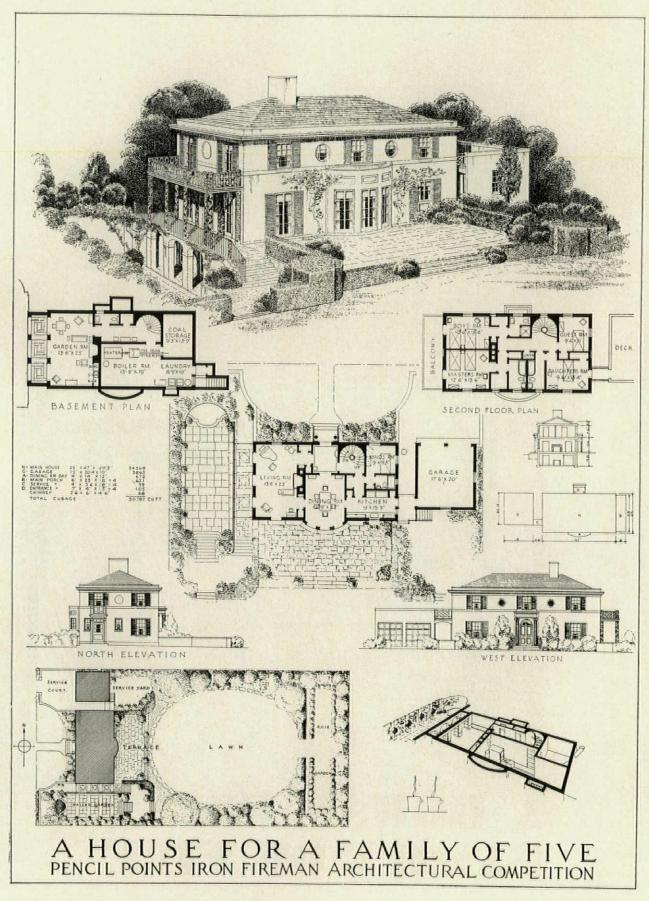


Burton A. Bugbee of New Rochelle, N. Y.

Awarded a Mention

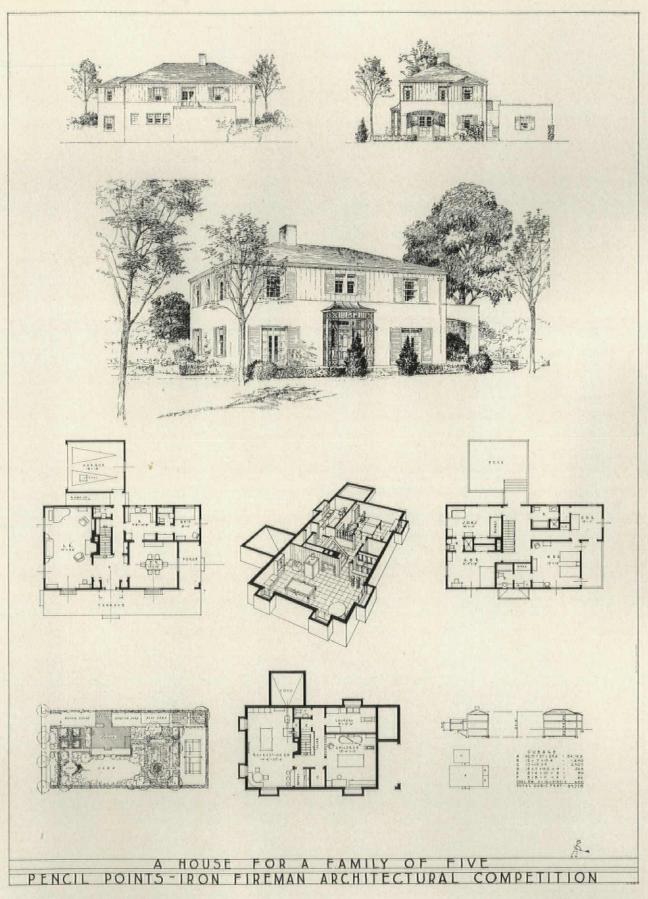


Earl F. Cleland of Magnolia, Ohio

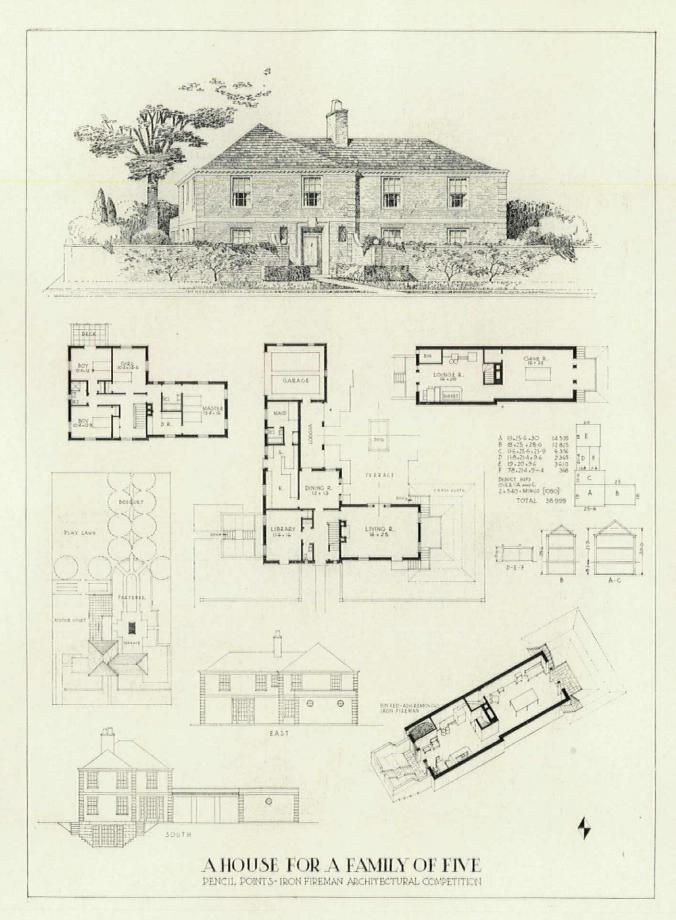


Ferdinand Eiseman and Rees Weston of Washington

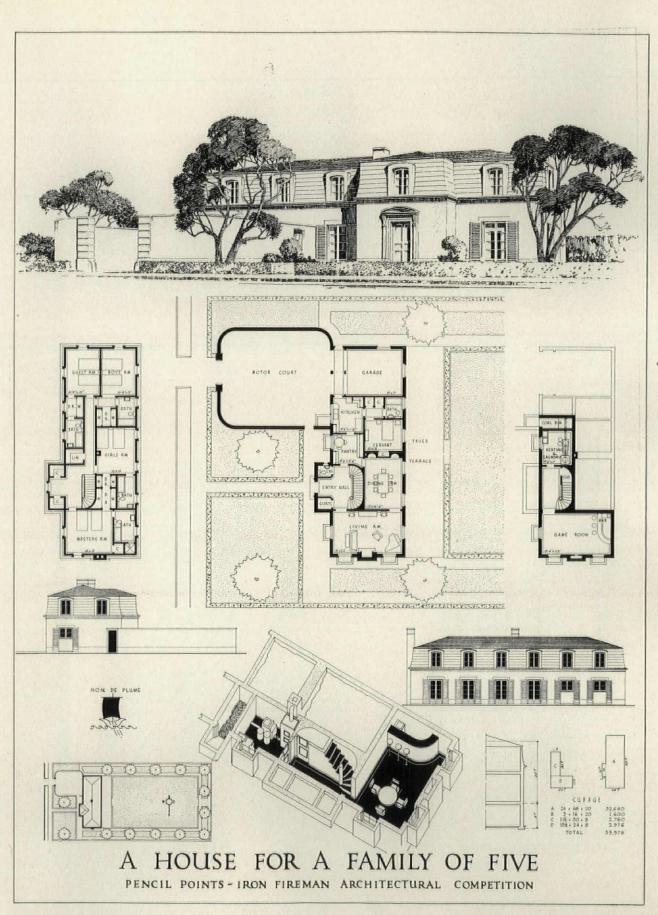
Awarded a Mention



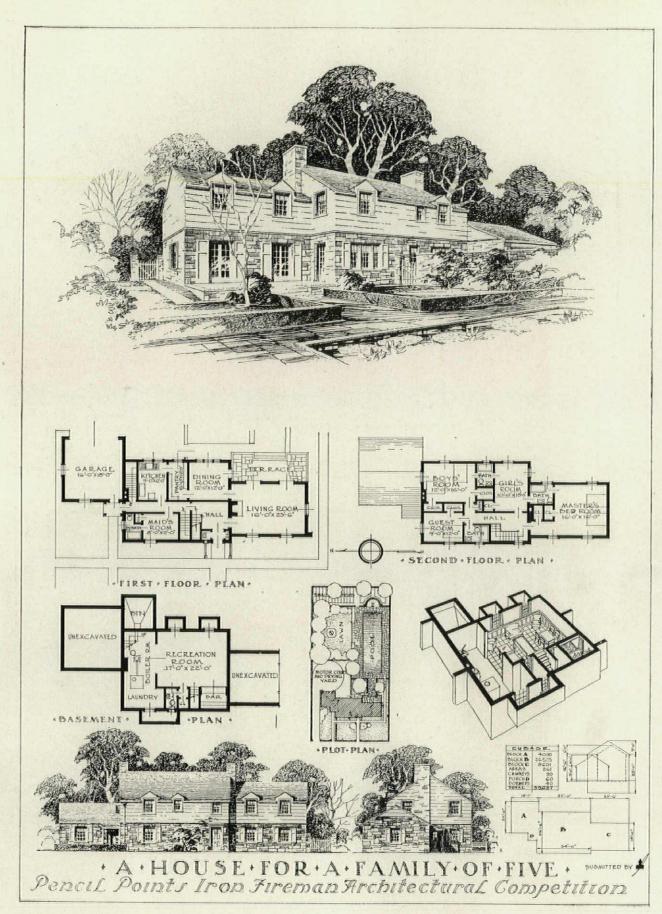
Howard G. Elwell of Bell, California



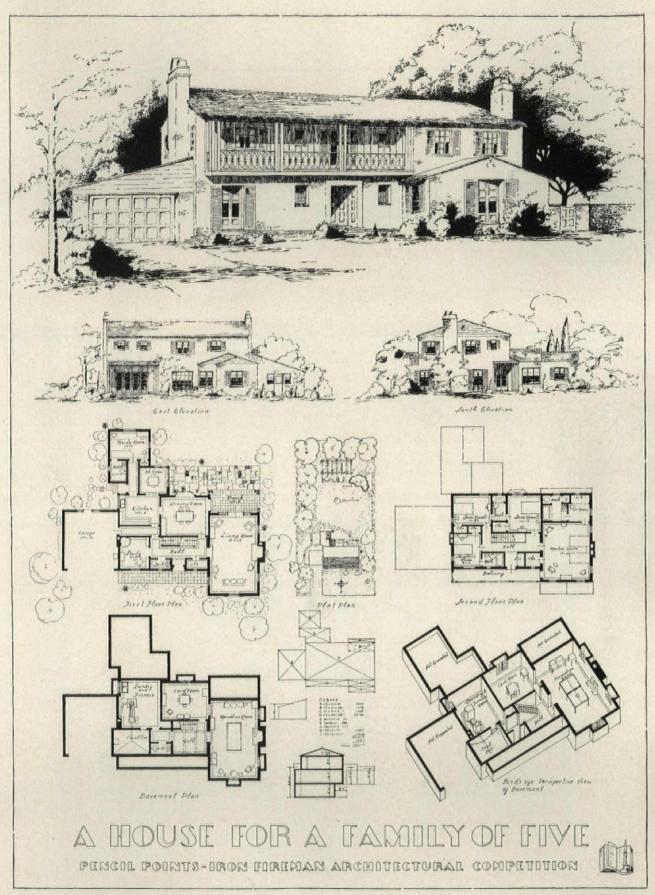
Charles M. Foster of Elmhurst, L. I., N. Y.



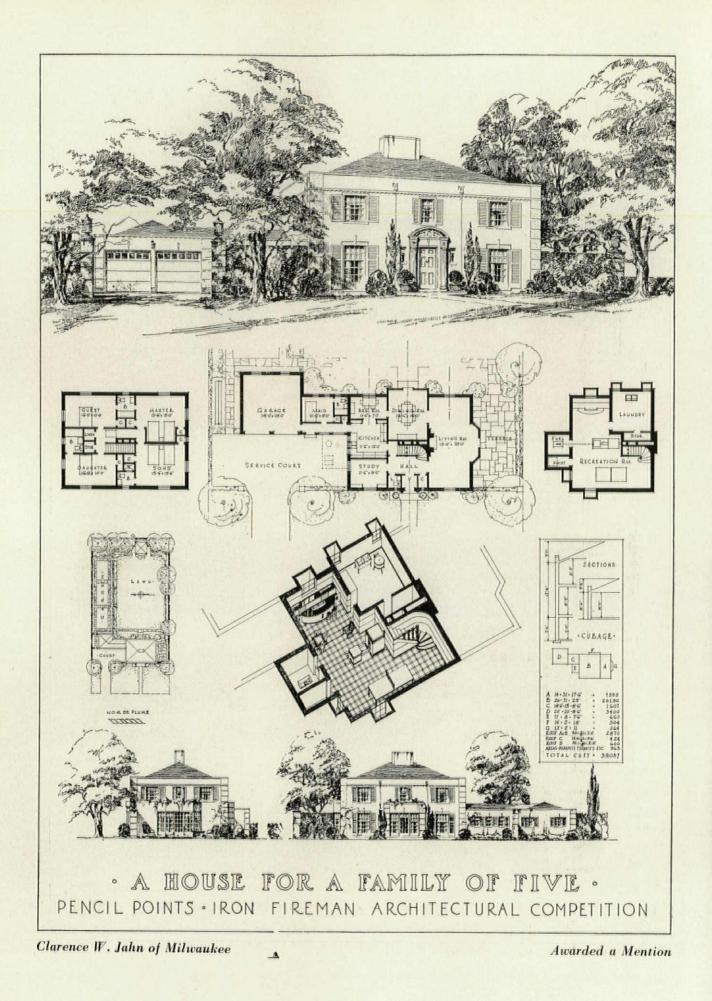
Leland F. Fuller of Santa Monica, California

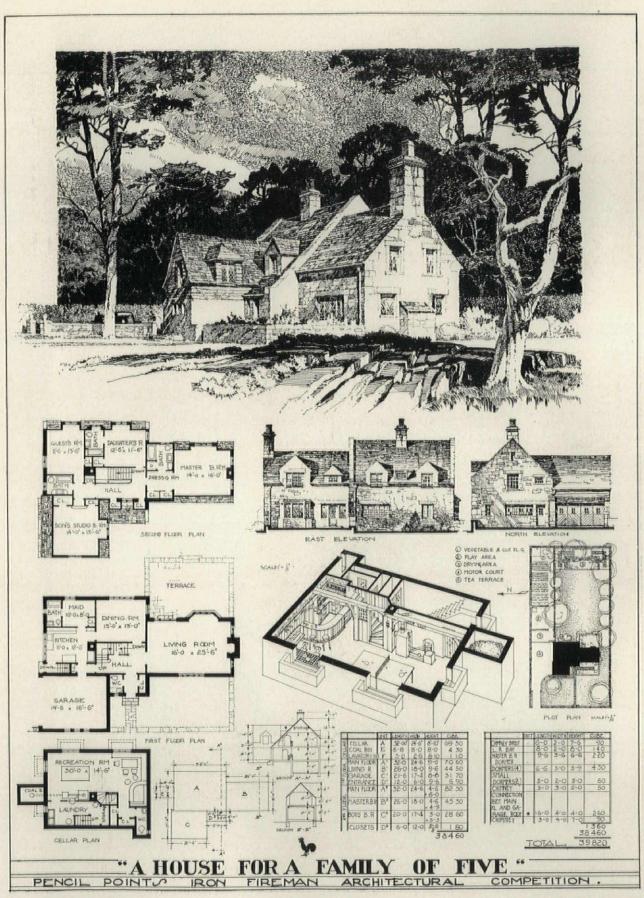


Robert I. Hillier of Brooklyn, N. Y.

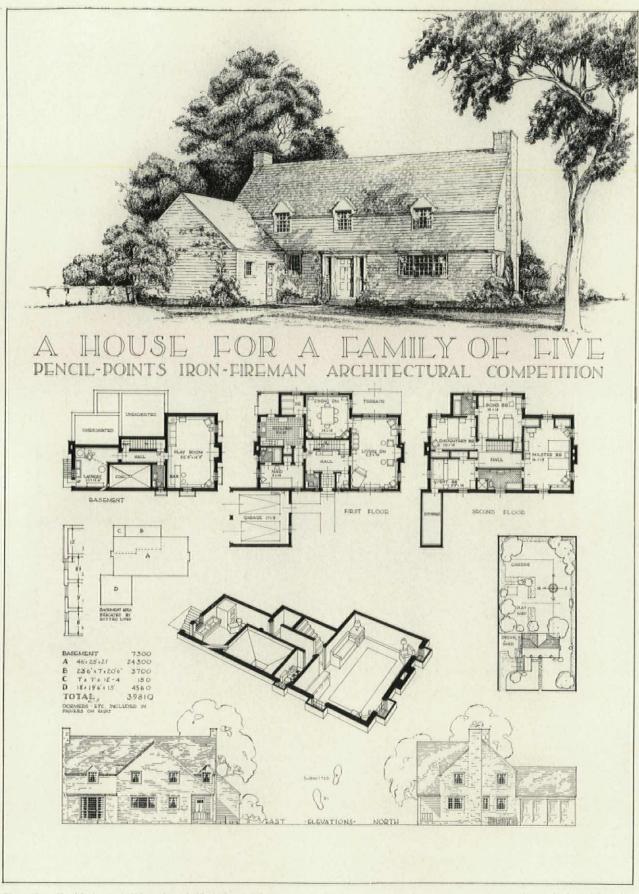


W. R. Hubbard of Temperance, Michigan





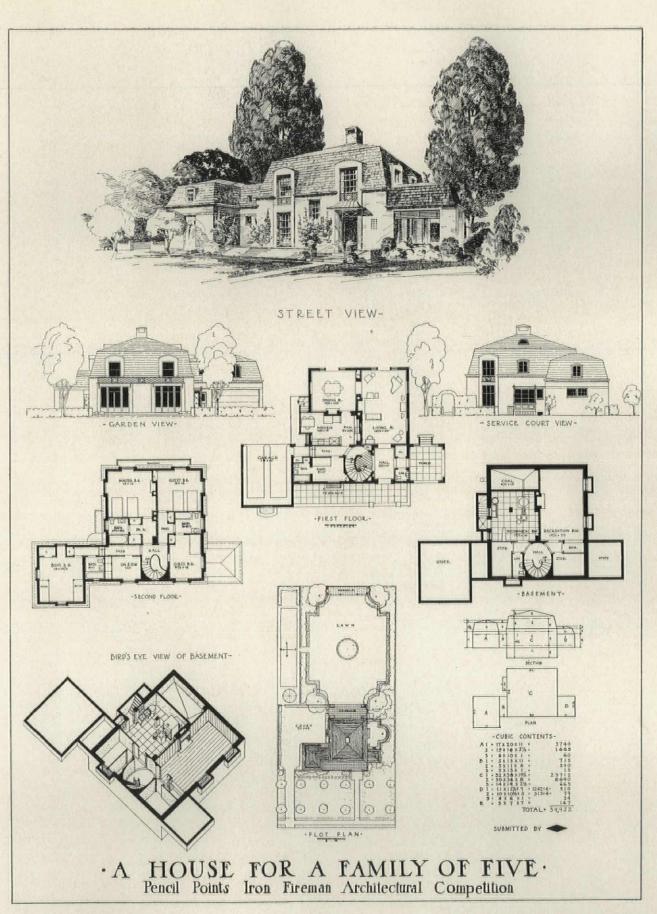
Theodore Kautzky of New York



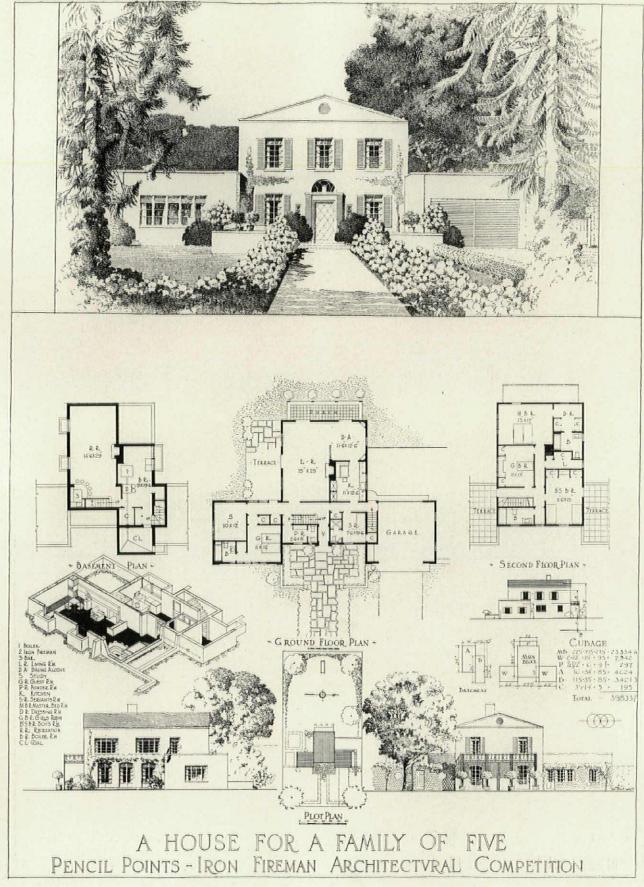
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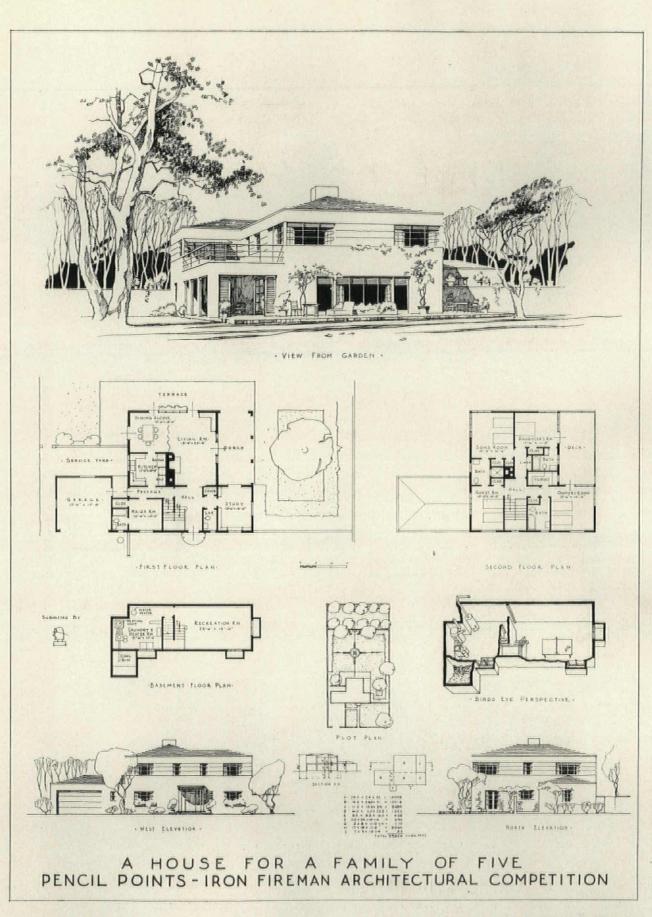
Douglas P. Maier of Cleveland Heights, Ohio



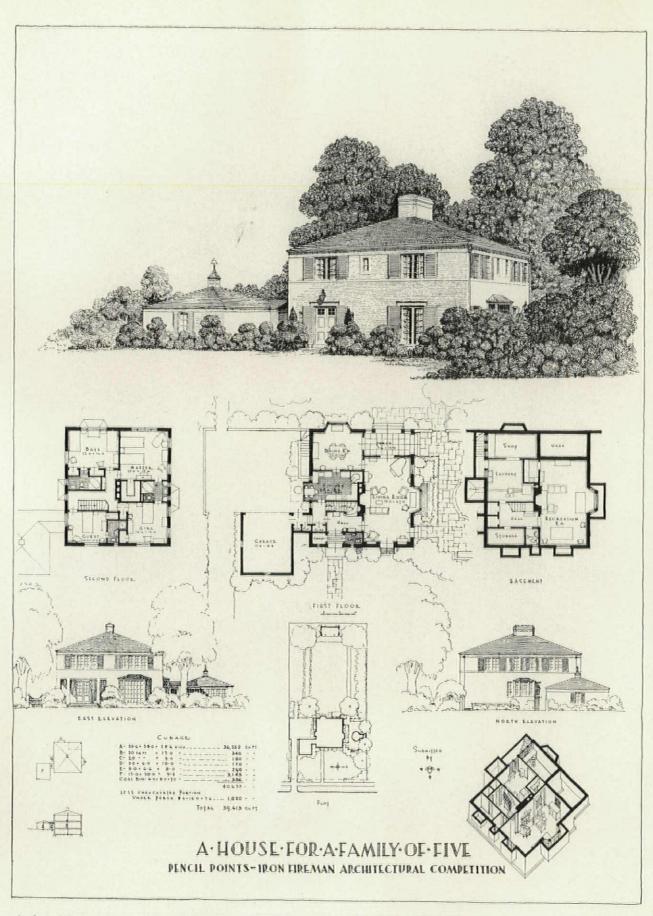
Charles F. Mink of New York



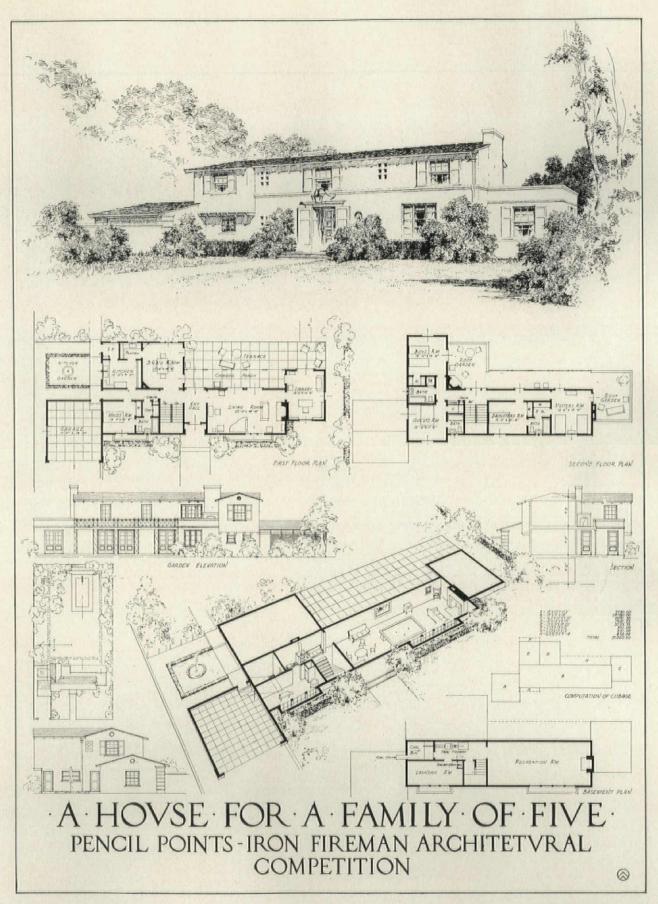
Daniel F. Neilinger of New York



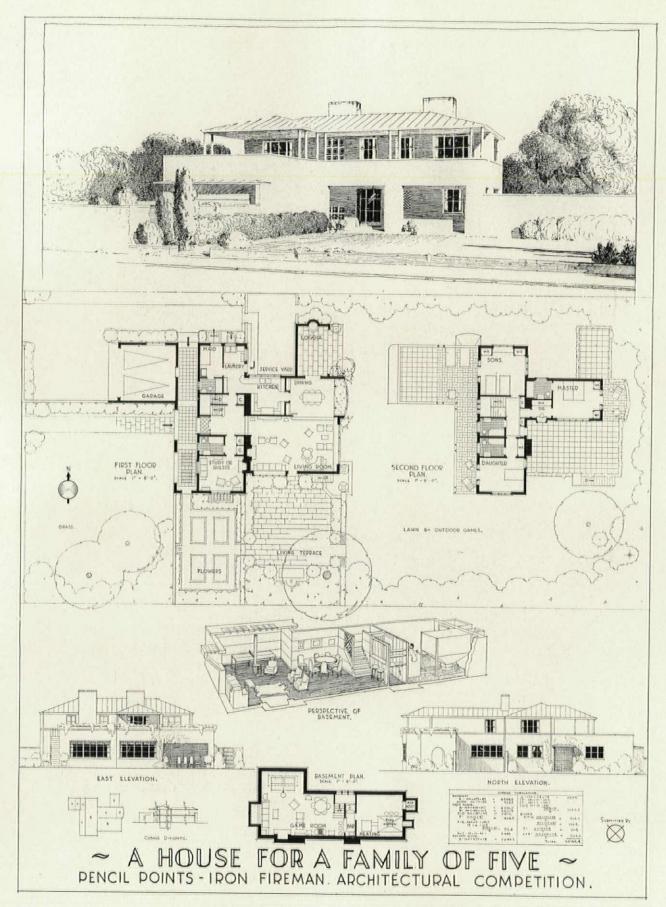
Y. W. Nibecker and Leslie Arthur of Los Angeles



Arthur Florian Payne of St. Louis



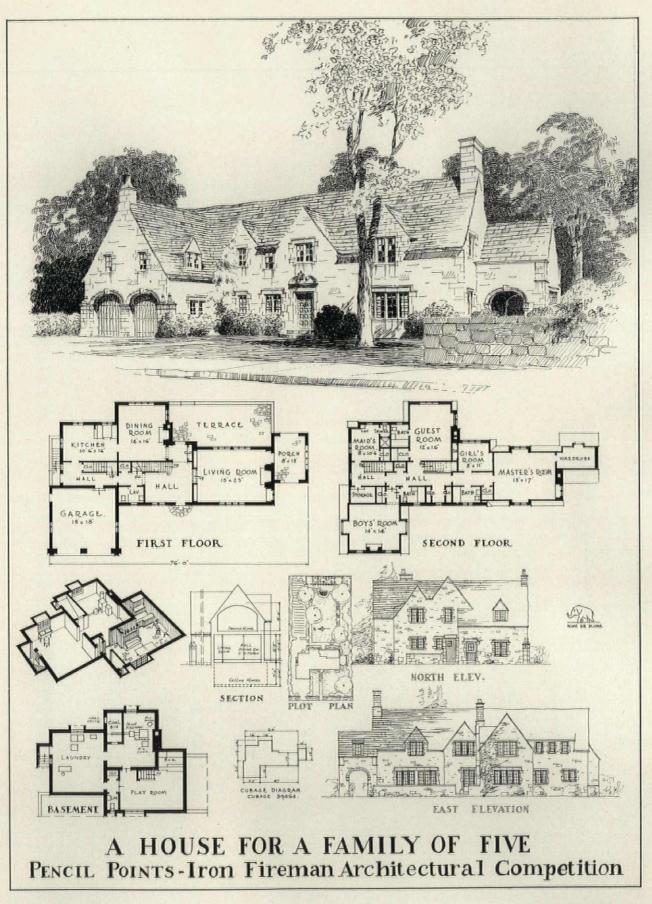
Arthur D. Roberts of Bell, California



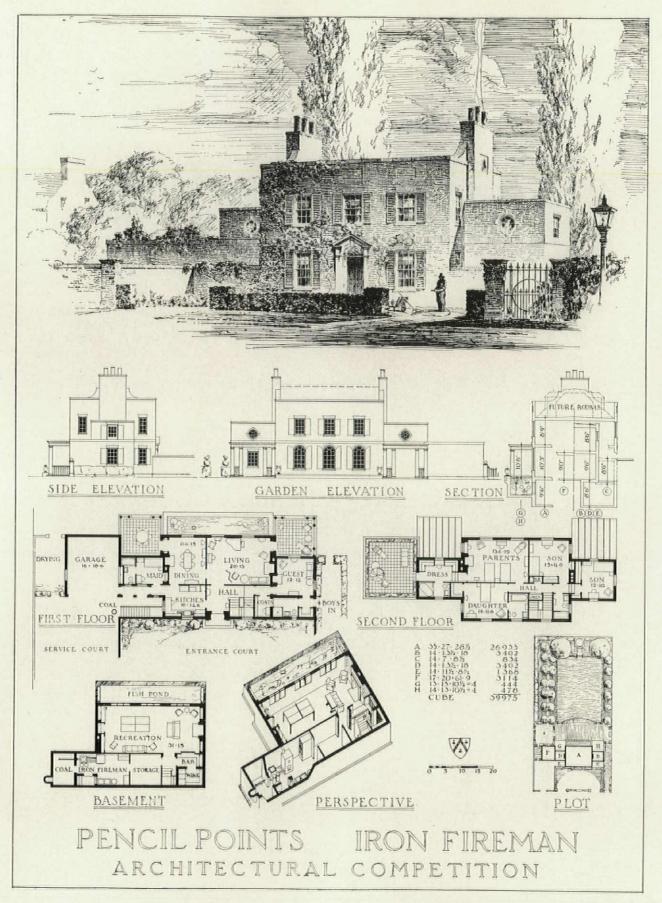
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Franklin G. Scott of Melrose, Massachusetts

Awarded a Mention



Walter H. Smith of Pittsburgh



Ides Van der Gracht of Washington

IDEALS ARE NOT YET DEAD

A Dozen Random Thoughts By HARRY F. CUNNINGHAM

HE other day, I received a card from an Architect in a Southern City. It was a nicely engraved card and it informed me that, "X. Y. Zelotes announces that he will continue the practice of architecture, with offices in etc." I liked that card. It was brave and optimistic. Bravery and optimism are essential parts of one's equipment to *begin* the practice of architecture. How much more necessary they are to *continue* it—especially in these days.

That card set me to thinking about a multitude of things. Or—to be more accurate—I should say that the card gave a sort of precision to certain vague thoughts which have been chasing each other through the chambers of my brain for a more or less long time. To aid further in the moulding of my half-formed thoughts into ideas which might be expressed, I have been reading.

Reading is so closely akin to thought (if one reads with his mind as well as with his eyes), that it might well be called, "Thinking's twin brother." I have been reading a well-made little book called Gracian's Manual, with the subtitle, "A Truthtelling Manual and the Art of Worldly Wisdom." It was written in the first half of the Seventeenth Century, by a Spanish Priest, and has just been put into very forceful English by a friend whom I admire, Doctor Martin Fischer, who is Physician, Philosopher, Chemist, Painter, Student and so on. I have enjoyed, also, another of Martin Fischer's translations-this one from the Japanese, with the help of Doctor Shiro Tashiro. It is the Fushi Ikai No Ryaku of Koan Ogata, a Japanese Physician whose living began in 1812 and ended in 1863. Since the Architect is both Priest and Physician (along with a lot of other things), the wisdom of the old Spanish soul-saver and that of the more recent Japanese body-saver fit well into any scheme of architectural thought.

The reading of these things, plus the card from my southern friend, plus the weather (which is divine, of the sort which keeps wise men indoors), plus the fact that I do not—for the moment—feel the least bit like drawing, have persuaded me to set into organized words the random thoughts which have taken form in my middle-aged mind during these days and weeks that have witnessed my slow recovery from the devastation wrought by Christmas. Since thoughts—even when random are valueless until they are shared, I set them down, hereafter, for you.

I

The Architect lives for others-not for himself. This may sound like a platitude and it will be hard for some to swallow. But, a little serious reflection will convince the honest Architect. I am sure, of the truth of the statement and he will agree, I am equally sure, that this is the very essence of his profession. Some Architects have overlooked this; in some cases deliberately, in others simply because they have not thought enough about such things to really know "what it's all about." They have followed the architectural highway, thinking it leads to high honor or to great profit, or to both. But they have been off the highway and in a by-road, almost ever since they started. Fame and profit can be neither bought nor begged. They come-or they stay away quite of themselves, but they do bear a direct relation to one's honest efforts to earn them. The Architect who strives, persistently, to build up a group of satisfied human beings whom he has served and whose human needs he has met, will go far toward high fame. Sufficient fortune (profit) to meet his own needs and satisfy his own desires will-almost automatically-follow along as the group grows.

Ш

The Architect's greatest asset is the good will of the public. Great knowledge and skill, faultless conduct even, are of small avail if that good will be lacking. The Architect must understand the state of mind of the individual and that of the public, and he must bend himself to that state of mind (or will), for he is the *servant* of the public —not its master. Architecture is actually the most servile of the professions. The Architect can—and must—be master of himself, of his art (with its incidental science), and of his time. But he is the servant of his public—of that part of *humanity* with which he has contact—and he wins to the good will of that Master through his own mastery of himself, his art, and his time.

III

Faced with a client and his problem, an Architect must never seek to make his client spend as much as possible. He must contrive to secure for his client a maximum of comfort and of that contentment which comes of comfort, and this he must do at a minimum of expense to his client. A friend of mine said just the other day—speaking of a client of his—"He's worth fifty millions; I'm going to get all of it I can." The friend has qualities which endear him to me, but that remark made me boil when I heard it—it grows worse the more I think of it. An Architect must never be cheap (which is quite different from being economical) and he must never allow his client to become so. Better no clients at all than cheap ones. Buildings can last a long time and, while their good points are *sometimes* recognized as stars in the Architect's crown, their faults are *always* hung about their designer's neck to drag him down. Every cheap item or method is a potential disaster, not so much to the building itself as to its Architect.

IV

An Architect must assure himself of a reasonable reward for his work, but he must never try to see how much he can "get out" of his client. Of what use will it be to create, for one's client, a comfortable frame for happy living, or an efficient sphere for useful labor, if one seeks to drain the client of that which is necessary to continue the living and facilitate the labor?

V

The client's problem must be recognized as the Architect's target—not his bow or his arrow. The Architect will not play with that target, but will study it without prejudice and lay on it with his best vision. He will not draw his bow until he knows that his arm and his aim are steadied by the highest purpose. The honest Architect will use his client's problem neither as a field for experimentation nor as an opportunity to exploit a "pet theory." He will remember that the money he is spending is his client's—not his own—and he will realize that this money becomes, in his hands, a sort of "Trust Fund" which must produce the maximum in *permanent* satisfaction.

VI

The wise Architect must strive to keep himself up-to-date, but he will avoid the bizarre as he will shun the un-tried. He must, in every true sense, be modern, but he will not be guilty of mere novelty. That which is good in our own today will be so because of its healthy growth forward and upward from the yesterdays of our fathers. Nothing is shorter-lived than mere novelty-it is already old tomorrow and quite forgotten the day after. It is safe to say that nothing is easier to invent, in Architecture and the other Arts, than a novelty; it is certain that nothing is less stable and less satisfying, for both stability and satisfaction are permanent qualities. Novelty is both pretentious and superficial-the Architect can hold no traffic with either pretention or superficiality.

VII

An Architect must be deliberate in his examinations and very serious in his considerations of all phases of his work. Quick glances, snap judgments and guesswork have no part in an Architect's experience. One should remember that time is the one thing which really belongs to us who are dedicated to the service of others, and we have all the time that is necessary to do things with that assurance which requires time. We must make the most of our time in all ways, employing it to broaden our culture and refine our skill. "Accuracy and thoroughness" is a good old slogan to stick to. One must not allow himself to become so hurried that he is unable to reflect that humanness which must be an Architect's and which will result in the exercise of patience and courtesy toward client, contractor, workman, material man. One must never let go his sense of humor.

VIII

If a client's problem appears to be insoluble by all the means at the Architect's command, the Architect must not attempt to bluff through to a quasi-solution that can never satisfy. He must remember the "pointing finger" which a completed building always is. Let it not be the finger of scorn or censure that our buildings will point at us. If a problem just will not be solved, the safe and honest thing to do is to admit to the client that one simply cannot hit the target. It is cowardly to blame the target. All of which is, not only simple humanity, but plain common sense as well. Common sense is so very *un*common as to be sure of a warm reception at all times and in all places.

IX

An Architect must endow his creations with three great qualities:—Stability, Economy, and Beauty. A building must satisfy the requirements of the three "Fates," as one might call them, who preside over the Structural, the Economic, and the Aesthetic phases of human thought and experience. And it is not enough for a building to be these things—it must declare that it is Stable, Economical, and Beautiful. If and when it does show that it is these things, it will, naturally, be perfectly "Functional" (as all good buildings have always been). Honest stability, honest economy, and honest beauty cannot be otherwise than "functional."

X

It is a sound practice to review, at night, the happenings of the day. It is an excellent thing to record one's experiences and observations. All too few are those who keep sensible, pertinent diaries. A brief daily record of experiences and observations, set down after serious reflection, is as fine a legacy as a father can pass on to his son—as fine a gift as a man can offer to society.

XI

An Architect should endeavor to love and respect his colleagues. If this is impossible in some cases —and it probably will be—one must, at least, be patient and charitable. One must avoid gossip and refrain from discussing his fellow practitioners unless he can give them honest and unqualified praise. A brief mention of an error may work everlasting injury to a reputation. One must consider, always, the consequences of a remark. One will talk less, if he does this, but he will be thinking more. An Architect will neither judge his confrères lightly, nor appraise them by comparison with what may be his own idiosyncrasies. Each Architect has his own characteristics and his own methods. Those of the other fellow may differ from yours and mine—but that condemns no one of us. Let us learn to respect the older men in the profession—for the years they have devoted to it (or spent in it), if for no other reason. Let us endear ourselves, through sympathy and understanding, to the younger men.

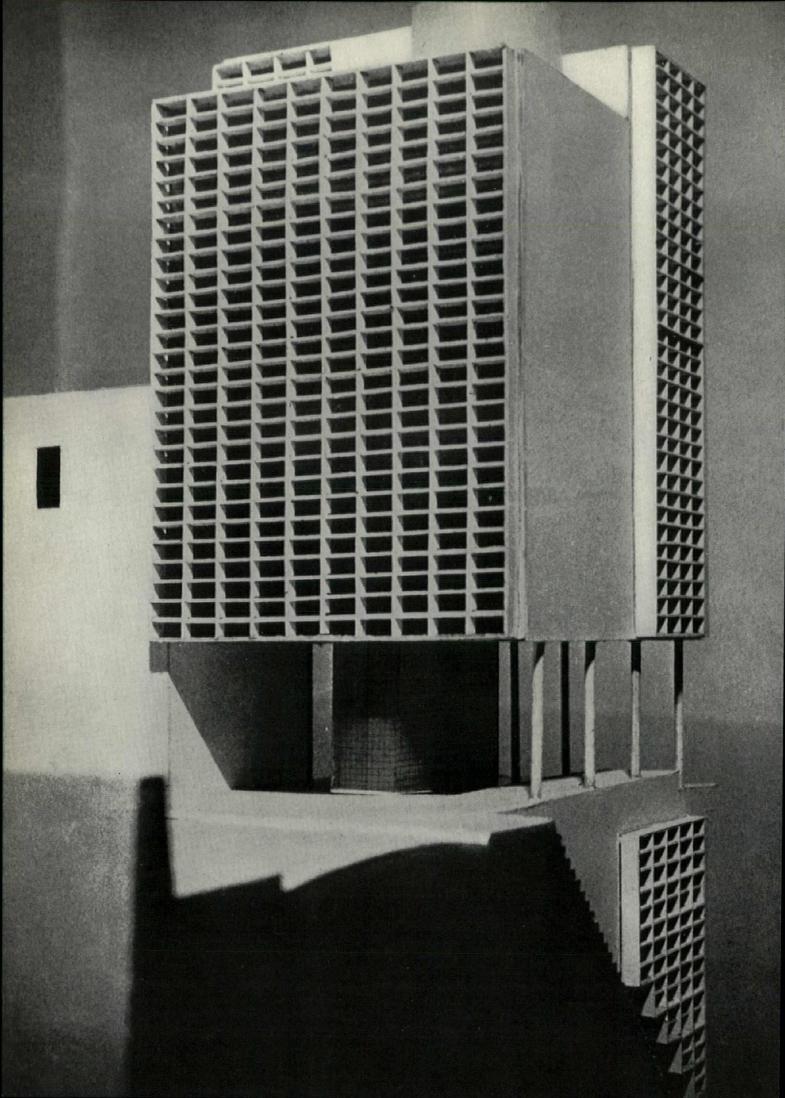
XII

The Architect must manifest an active interest in Civic affairs and he should participate actively in sound movements for improving conditions of living and working in his community. If he is wise, he will avoid "ballyhoo" and he will shun those weird things called "Drives" and "Campaigns" for this and that. These things (which are both pretentious and superficial) may put one in the public eye, but they do so at the dangerous risk of making one appear ridiculous to sensible and sensitive persons. One cannot bring about Civic improvement, or any other really good thing, by employing the methods which are used to sell cosmetics, vacuum cleaners, and favorite desserts.

The foregoing twelve "Principles," or "Maxims," or whatever you may elect to call them, seem—to this middle-aged practitioner—to be applicable in the daily life and activity of the good Architect at all times, even this curious present time. If it were not that some persons consider XIII to be an "unlucky" number, I should have added another. And that other—which sums up the twelve, more or less—would simply have repeated a one-time remark of Mr. Goodhue's; "The Architect should be, if possible, a gentleman." Only I should have liked to say "of course" rather than "if possible."



Old De Wolf Cove at Bristol, near the famous Herreshoff Yacht Works, sketched by Whitman Bailey





ARCHITECTS OF EUROPE TODAY 5-LeCorbusier, France By GEORGE NELSON

O anyone who has followed the development of architecture in the past two decades the name is hardly unfamiliar. To the layman who has dabbled in such matters, he is the man who builds houses that look like packing boxes, who asserts that a man's house is not his castle-it is a "machine for living in." He has been more widely copied, more bitterly attacked, than any living member of his craft. At the Paris 1925 Exposition his pavilion was herded into a corner, hidden from view by a larger one. His designs for remodeling a section of the city were barred from the Salon d'Automne with the comment that they were an insult to the city. He has "poisoned the minds" of the youth of France (of Italy, too, adds an architect in Rome) and his very name is anathema to the Academicians. Today there is scarcely a country in the world that cannot point to at least one construction based on his work, and there recently appeared an article on architectural education whose sole comment on France was that the ateliers of the brothers Perret and of Le Corbusier were worth all the schools in the country put together. A slight difference of opinion here!

It was more to get some idea concerning the man himself, to see where he stood in this turmoil of conflicting opinion, than to broadcast to a waiting world his already well advertised theories that I took advantage of his unexpected arrival in Rome to interview him. He commented, "Alors, vous faîtes ce sacré métier d'architecte?" It was hot, he added, did I not think beer was in order? We went around the corner and found some beer in a quiet café. The café itself is worthy of notice. Old, even for a city like Rome, it has had generation after generation of artists, poets, tourists, diplomats, all

meeting for the once with a common aim. Byron had frequented the place, so had Keats and Shelley, probably. Now you can see the pensionnaires of the various Academies, long-haired folk from the artist-infested Via Marguta nearby, elegant gentlemen with ladies who are possibly a shade too elegant, and on a good evening it has a vivacity which recalls Paris, but not for long. The weight of the centuries is too much. This day there was no one, and the rooms were dark and cool after the blazing sun and heat out of doors. The contrast between this dank place and the theories of the man with me was striking, and I said as much. The best thing about Rome, he answered, was the sky. It was incredible. Rome was best in the early morning. It was impossible after that; the noise, the congestion-frightful. The climate was bad, it gave him a headache. The hotel rooms were ghastly; dark except where light shot through the windows as if out of the mouth of a cannon. How could one live in such conditions? No, Paris was no better.

He is a plain-looking man, this Le Corbusier. No striking irregularity of feature, nothing unduly prominent except possibly a high forehead. He wore large tortoise-shell glasses whose blank stare disguised any facial expression; one could only see an immobile face, tremendous areas of glass, and thin hair. That such ideas as the organization of traffic in Algiers on fast motor highways three hundred feet in the air, and the demolition of the center of Paris could have originated behind this noncommittal façade seems a bit incredible until one hears him talk. Then anything is credible. He speaks invariably in a quiet, matter-of-fact way, whether talking to one person or addressing a hall, moving from conclusion to conclusion with a direct and relentless logic that nothing can budge. His more fantastic schemes are all traceable to this method, which, taken to its conclusion, often neglects the demands of existing conditions, becoming in consequence a kind of "reductio ad absurdum." But this is his method, and he stays with it. He is absolutely incapable of compromise solutions. He possesses a devastating sincerity so complete that to me it is a miracle that he has ever been able to get anything built. There is the example of his museum design. A Russian had been sent by his government to study all the museums of Europe; in time he got around to Le Corbusier,



who is well known in Russia, and spoke with him about it. "But you are going at it all wrong," protested the architect with impatience. "You are studying what has been done, and what has been done is bad. These museums are expensive, they are tiring to go through, they are badly lighted and ventilated, they cannot be enlarged without the greatest difficulty, and often it is impossible. Look, I will design you a museum as it should be. It will start with a few rooms, perhaps, and as need arises it can be extended indefinitely. It will be cheap to build and cheap to run. It will always be well lighted, there will be no glare on the pictures, and day or night the light will come from the same source. It will have no façade." He sketched on a piece of paper as he talked.

"What would you do if someone came to you and said, 'We want to build a museum. It must be an ideally working mechanism in which to show our collections. But it must also be a beautiful monument which improves the appearance of our city.' What would you do then?" I asked.

"I would say, 'Monsieur, vous êtes un imbecile.' "

He spoke at some length about his work in Paris. There is a group associated by common interests: a sociologist, a heating and ventilating engineer, designers, and others. They work on problems which reach all through the social fabric; he expresses their findings in his architecture. "We are of necessity revolutionary," he explained. "Not that we have given ourselves any particular name, but to realize with any degree of completeness the implications of the modern social and technical structure means that one will inevitably fall into this category. People say to wait, that changes will come automatically, naturally. They are going at it backwards. A given situation must be studied, a program must be formulated, then we can go ahead." He was insistent on this point. His writings are full of it. We talked about Italian architecture for a while, but he would say little beyond remarking that the young group in Milan seemed to be on their way to something or other. He was a guest in their country, and besides knew that what he said would be held against him, so to speak. But on the subject of the new towns built in what used to be the Pontine Marshes, now a great tract of planted fields, he waxed more eloquent. City planning is a topic very dear to him. "Look at this town plan," he said, pulling out his pencil again. "The young men who did it are sensitive artists. Here we find they have put their little poem of a town hall, here a bank, a church, a post office. Fine. And then see how they have scattered these little cottages all over the landscape. Why cottages? The man who lives in a single house is a slave. He has an infinity of little things to worry about that are a constant drain on his energies. Let these people be put in one great communal dwelling, perhaps two or three. Then these little things could be taken care of by people whose entire job it was. The inhabitants could enjoy advantages utterly unattainable under present conditions. Here is how I should do this town," and he drew his town center, then a large mass representing his apartment house, and that was all.

"These peasants wouldn't like it," I commented. "They don't give a damn about these comforts of yours. A house, once it is theirs, is something solid to own, to fall back on. See how they put their money into gold jewelry, pawn it when they have to, redeem it when they can. It is a different economy." He shrugged.

He will talk about air conditioning for hours. He and his group have studied it at length. The idea is at the base of his design. Air conditioning is not a gadget you buy and install, it is a method of reaching a new way of living, and has to be designed for. The first conclusion in designing for it is that windows must be hermetically sealed. He did an apartment house in Paris for sixteen families, designed for air conditioning, and considers it a substantial backing-up of his theories. He told several stories about it. Women, particularly, made a fuss about the sealed windows.

"Monsieur l'architecte, I will not live in such an apartment. I cannot open the windows!"

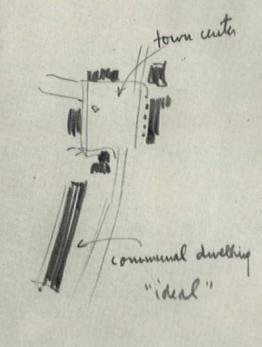
"Why, Madame, do you wish to open the windows?"

"To be able to breathe God's good fresh air, of course! Why else?"

"But this is not God's good fresh air, Madame, this is the air of Paris. It is filthy, full of coal, of bacteria, of poisonous fumes, of all manner of things that will do you harm. It is, in addition, either too warm or too cold, too dry or too humid. It is bad, this air of Paris. If you don't believe me, go for a walk on any warm day and look at your handkerchief when you return home."

It is a passion with him. One must get good air. He will, at the beginning of a lecture, illustrate a fundamental problem of city planning by drawing a pair of lungs, and the sun. Not light and air. Light and good air. Only a machine will provide it in the cities; it doesn't come in the windows. A machine will give the right proportion of moisture, the right temperature, absolute purity. Working conditions improved, living conditions improved, increased efficiency as a means of doing work more quickly so that there will be more time to enjoy life in his ideal cities. His sealed apartment house is full, he said, and the lives of the tenants have been transformed, literally transformed As he spoke his own face underwent a sort of transformation. Architecture, to this man, is not a series of monuments to the architect. It is a means of attaining a way of living.

I quoted what one of the biggest of Italian architects had said to me about his great expanses of glass: "Impossible in a country where the sun is blinding for eight months of the year." He started impatiently. "I know them, these people! They town center town center i scottered dwellings -"slavery"



Tindamental problems of anchitecture! Walts of glass for Good Light - hermetrically sealed for Good ain

say a thing cannot be done before they have tried, before they think. They are afraid. They think their positions are secure if only they can keep things from changing. In Russia I had a large building to do. I designed it with a glass façade, double walls of glass through which warm air circulated. The engineers said 'Impossible! Here in Russia we have a cold which is indescribable. With this temperature on the outside and warm air on the inside the glass will crack.' 'The glass will not crack,' I replied. 'Very well,' they answered, 'suppose it will not crack. Look at this butcher's shop. Of what use is his plate glass window? It is covered with frost. Your great glass façade will be covered with frost. Also, to maintain a comfortable temperature inside will require an enormous quantity of your heated air moving at a tremendous velocity. The expense will be prohibitive.'

"I went back and made experiments. We built a double wall of glass to a room. Inside we ran through warm air. Outside we maintained a temperature well below freezing, and waited for the glass to crack. Nothing happened. We raised the temperature inside, lowered it outside, still nothing happened. To maintain a comfortable temperature within the room a small quantity of warm air moving slowly was all that was necessary. Frost? How could there be frost? The amount of moisture in the air can be controlled, and if there is no moisture there is no frost."

The conversation veered back to Paris. "When we had the inauguration of the Armée du Salut, people came and looked at the building. One side, you know, is all glass. 'Poor devils,' they said, 'how will they stand the cold in this place?' The poor devils stood it very well indeed, and people then said, 'Wait until summer. They will roast behind that show window.' Summer came and went, and still the poor devils did very well. One must not speak without thinking, without finding things out. People are very stupid, particularly the ones who should know better. Academicians, of course, one expects but aviators! I did a pavilion on a flying field. It was a simple little thing, made of metal and glass, mostly. Do you know, it caused a furor. Where were the walls, the windows? The directors were incensed, insisted it would have to be done over. There was a prospect of annoyance, but the papers got hold of the story, ridiculed the objectors, and fearful of undesirable publicity they stopped their action. Think of it, aviators! They daily trust their lives to beautifully designed creations of metals and fabrics, they work in lovely concrete or metal hangars. And they want a pavilion with Renaissance windows!"

He talked about Algiers. A coal merchant had come to him one day with a map of some property he had, and a project to cover this land with lowcost housing for 2000 families. He had a sketch showing the houses laid out in rows. "This is how we will do it," he said.

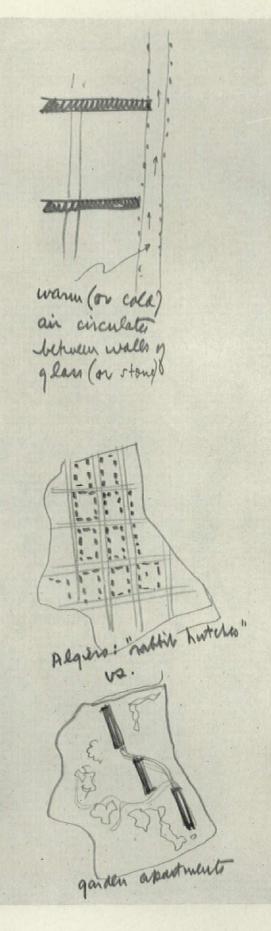
"No. This is not how we will do it," replied the architect. "You are covering a fine piece of land with many miserable dwellings. Look about you. On one side you have a magnificent view of the mountains, on the other, the wide expanse of the Mediterranean. You cannot put them in rabbit hutches. You must put them in great buildings from which they can enjoy the view. If you group them together the buildings will cover but a small percentage of the ground area; the rest will be available for gardens, for recreation. But down in Algiers there is a sun which is terrific, so, on the south side of each building we will have glass. for the view, but each floor will project out above the one below and form a screen from the sun during the hottest hours. The other side will be a series of open terraces." The coal merchant looked at the sketches, listened, was convinced.

Indubitably these constructions have a strange appearance. To the unaccustomed eye they are absolutely incomprehensible. For one taught, as most of us have been, that any example of architecture consists of a base, shaft, and crowning motive, these huge boxes perched precariously on concrete pillars are foolhardy efforts made in defiance of the law of gravity. To him, however, they evidently have no such odd appearance. It is not that he sees in them a kind of abstract charm, much as a mathematician may be said to find a sort of austere beauty in his graphs and equations. He sees no difference between these airy three-dimensional projections of his thoughts and the great monuments of antiquity, as far as essentials of composition are concerned. This is no guess of mine, put down here as a feeble attempt to justify anything he may have done. He told me so, in as many words.

We were looking at a perspective of his design for the Palace of the Soviets in Moscow. He pulled out a notebook from his pocket, turned to two sketches in it. One was of the drawing at which we were looking; the other was a rapid sketch of the group of the Baptistery and Cathedral at Pisa, apparently made from a train window. "Look at these two compositions," he said. "Each has a consistent design, a repetition of certain elements at a certain scale. Each has a unity of color, of material, of texture. One has studied volumes, consistency of surface treatment, and of structure, quite as much as the other. There is no difference."

"You are called by some a cold logician," I said, "either incapable of producing effects which appeal to the emotions, or uninterested in them. Why, then, did you curve the façade of the Maison Suisse?"

"It is very simple," was the calm rejoinder, "the plot had an odd form which demanded some such solution. The entrance had to be where it is. Walls met at an oblique angle, and blending them into one curve simplified the form and improved the appearance. It is very interesting," he added sud-



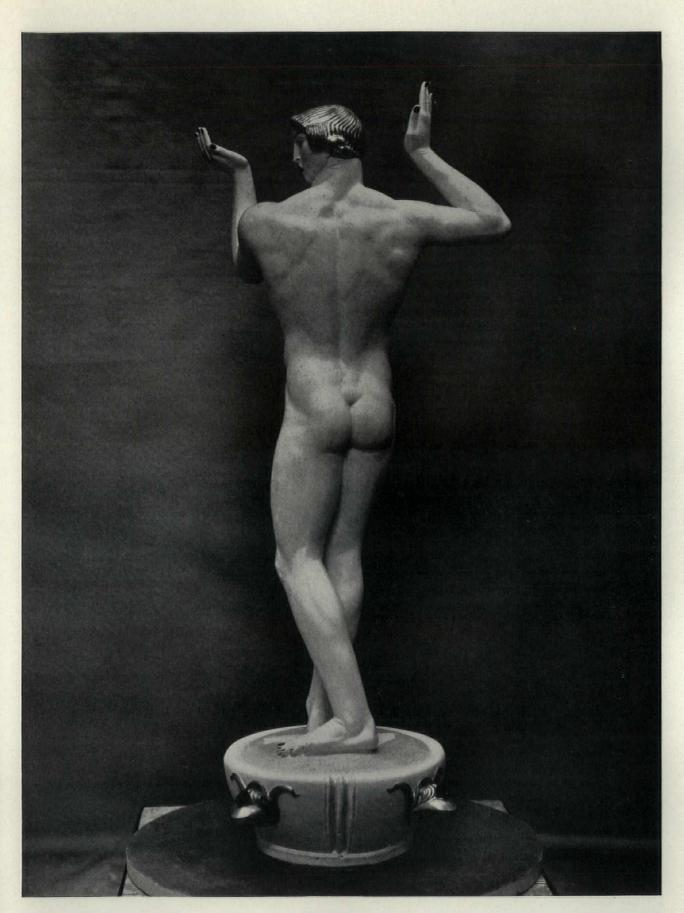
There is no difference petween Piso he days for the Palace of the Poriets."

denly, "to notice how the slight curve in the wall gives a suggestion of tremendous extent to a small building; it seems to pick up by its concave surface the whole surrounding landscape, and so to establish a relationship that carries its effect far beyond the actual bounds of the structure itself."

Of interest to those who consider him responsible for most of the inanities of the so-called "international style" are his comments on cities. "The problems of architecture are international. They are fundamental in that they relate to man and his needs, and today the mechanics of solving these needs are pretty much the same everywhere. Style? Style comes of itself. You can't prevent a city from assuming a characteristic physiognomy, and consequently it is useless to worry about finding one for-it. This physiognomy is influenced by topography, climate, and a multitude of other conditions, but these too are fundamental, not national." A case in point is a design for some houses in Algiers. Once again the blinding sun was the problem. He solved it by putting a "brise-soleil" in front of the building. It is a device which "breaks" the rays of the sun, a kind of grid which looks like the top of a General Electric refrigerator rolled out flat. The result looks anything but "international." "We got it from a trick the natives use," he explained. (See page 368.)

To those who try to pin the man down to one category, he is impossibly exasperating. Tags don't cling to him. He has been identified with a certain type of house, with all glass façades, with a doctrine of hopeless uniformity, with a dogma that everything, no matter what, must be built at minimum cost, and consequently employ only the cheapest of materials. To all these attempts at classification he remains apparently indifferent. It is the problem, the solution, that interests him. To reach his end he will go to work-in this there can be no compromise. I once mentioned the word "facade" in connection with something he said. It set him off. "Architecture is not a collection of fragments, of façades, of interiors. It is an organism." An organism-it is the key to his whole work. His buildings, good or bad, are inevitable results of his whole attitude towards life. They are more than dreams with him-they are his very life. They are the crystallization of an ideal, an ideal of living under conditions which will permit the liberation of a people from drudgery which is as useless as it is degrading.

His last remark was characteristic. As we left the café and wandered out into the hot street, a group of young priests passed. He gazed after them in silence for a while, then said, "There are too many *curés* here. Their black costumes are depressing." There was nothing to indicate that he was even conscious of the fact that they represented the faith of the Eternal City. Their clothes were dark, gloomy. He has no use for darkness or depressing colors. It was his eternal cry: "Light, more light."



"Narcissus." Figure by Warren T. Mosman, Sculptor. Fellow of the American Academy in Rome, 1931-34



"Philomela" Figure by Warren T. Mosman, Head of Sculpture Department, Minneapolis School of Art

THE UPPER G R O U N D Being Essays in Criticism By H. VAN BUREN MAGONIGLE D. ARCH., F.A. L.A.

"'Take the upper ground in manœuvrin', Terence,' I sez, 'an' you'll be a gin'ral yet,' sez I. An' wid that I wint up to the flat mud roof av the house and looked over the par'pet, threadin' delicate."

R. K. "My Lord the Elephant."

DRAFTSMANSHIP IS NOT ARCHITEC-TURE." This is the title of an article by Professor Walter R. B. Willcox of the University of Oregon, in the April number of *The Architectural Record*. And with almost all there expressed I am in hearty accord. Last month I said that I should like to supplement what Professor Willcox said by some further observations on the subject. It is not feasible to quote at length from him although the article merits it, and therefore these comments must be, in the main, another essay, by one who has been a draftsman all his life.

In the ordinary course of practice the " . . dolledup plan, the tricky rendering" should by all means be eschewed. The ordinary course of practice calls for clear, clean-cut, straightforward technical drawings to go into the hands of the builder for execution in the materials and in the manner specified. The simpler these drawings are, the better they serve their purpose. They must be complete at all the several scales. It is convenient to refer to the working drawings as "quarter-scales" although in some localities, such as Philadelphia, the favorite scale for them is eight feet to the inch. (I am not in sympathy with this latter practice for the reason that the areas in the drawing are too small for a clear indication of materials, readable figures, and lettering.)

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The average draftsman's tendency is, in my experience, to show too much and with too much detail on the quarter-scales, show things which should be reserved for the next scale which, in this office, is three-quarter scale. It has always required much vigilance to keep the draftsmen in check on this point. It is wasteful of time, and time costs money and consumes even reasonable profit. It makes for unnecessary repetitions. The vital difference between "indication" at small scale and "drawing" at the larger scales should be kept in mind by the draftsman for every line he makes.

Subtended are quotations from a booklet printed by this office for the guidance of the men, which they dubbed "The Office Bible." It has been published almost in full in PENCIL POINTS, but that was some years ago. It condenses into brief compass the practices I try to have the men follow. I tried to make it clear also—and yet I have found it to be frequently misinterpreted.

Let the quotations from that booklet speak for themselves for draftsmanship in the ordinary run of practice, and take up another aspect of it, very different and very necessary, the competition drawing and the "show" drawing intended to give a client as clear an idea of what the building will look like in execution as possible within reasonable limits. There is not much difference between them except that the "show" drawing is most often in perspective.

To clear the ground at once about the "tricky" drawing: I am aware that "tricky" is a part of the draftsman's vocabulary at the present moment and is indiscriminately applied. It seems to mean in the slang of the hour what we used to call a "chic" drawing—one in which there are clever passages of draftsmanship.

To me, a "tricky" drawing is a lying drawing made and intended to deceive. Planes are falsified, window values changed, and shadows wrongly cast, with the deliberate intention of hiding defects in the design itself. The usual excuse advanced is that in the limited time available in a competition it is impossible to give enough study to the design to eliminate defects that are known to the designer but which he would correct in further study—if he gets the chance. In the meantime he lies about his building and hopes the jury will not catch him at it. This is very silly because juries nowadays know too much to be fooled.

Perhaps some will disagree with me in my opinion that there should always be time found in the handling of a competition for agreement between plans, elevations, and sections. It is very easy to accomplish.

As to the "snappy" drawing, I can see no valid reason for avoiding it. It is a product of the draftsman's technical skill. On the contrary, I think that a dull statement of the facts presented is to be avoided, so long as there is no intent to deceive one's self or one's client. Why should one deliberately avoid giving any drawing snap and character? The life of the draftsman is hard enough without insisting that he should not get some fun out of his work. Regarding the "dolled-up plan": we are discussing show drawings whether in or out of competition. In order fully to express a design we must have plan, section, and elevation. It would seem reasonable that if the program requires rendered drawings (as it should, in my view) it is as necessary to model the plan, and make it "read," as it is to make the elevation and section read-and by "read" I mean, to make the facts clear. The principal thing one usually strives for in a drawing of a plan is to make the circulation obvious at a first glance, show how the rooms are reached. Practice varies; some prefer to keep the public spaces and corridors white, which means that the rooms must be made grey with lines or washes; others make the circulation grey and the rooms white. In either case, the drawing would come under the designation of the dolled-up plan. If it were "dolled-up" for no good reason and merely for the sake of the drawing itself, then it would be justly condemned in most cases.

Frankly, I can see no reason for not making every drawing in a competition and every "show" drawing a thing of beauty in itself. And there can be as much beauty in simplicity of presentation as the reverse. A messy and careless set of drawings surely must show the client that the author is a careless and sloppy person it would be well for him to avoid. The client has usually offered an honorarium to all competitors and he naturally expects to get his money's worth at this stage of the process of choosing the architect. It is totally unnecessary to make over-elaborate competition drawings. The best are often the simplest. It takes more skill and experience to make them simple and yet attractive and readable than it does to make them over-elaborate.

We should remember that in a competition the drawings must speak for us. Debarred, and quite rightly, from direct contact with the client, our only means of eloquence is the drawings we submit. We are forced to present our conception of what the building should be just as well as we can.

Architectural draftsmanship is a very delicate and difficult art—and I, for one, should hate to see it decline. The daily grind of technical drawings ought to be mitigated by an occasional excursion into the realm of the higher draftsmanship. Mr. Willcox was obviously objecting to its abuse—and with that I of course agree: but I am sure that he as much as I would mourn the loss of those marvelous drawings by Viollet-le-Duc in the Museum of the Trocadero in Paris.

Mr. Willcox refers to the influence of "the French School, where drawing has been so much emphasized." I do not agree with all he implies here. The object of the drawings the French make (particularly the practicing architects, not the students) is to find out how the building will look in execution. To this end they make many careful studies in wash of the same thing, each correcting the defects revealed by the ones preceding-many more, and much more careful, than any made in the ordinary course in any American office I ever knew. And they don't make them for the sake of making a mere drawing. They are for a purpose and that purpose is the building. They seem far more anxious not to make mistakes in execution than we. And their way of avoiding mistakes in the building is to study it in light and shade carefully, tirelessly. As a matter of fact the French care far more for the effect of the building in execution than they do for their drawings of it, which they treat, as drawings, with surprising contempt.

It has been my experience on Juries that the best drawings are usually presented by the best architects. And by "best drawings" I do not mean the most elaborate. This is very evident in competitions between architects of wide repute invited to compete with local men of less reputation. Unless, indeed, the local men hire "ghosts" to make their drawings for them. I remember the story of a certain competition in which a firm in the Middle West (and well-known, too) were entered. They had hired someone in New York to turn the competition out for them. The day approached when they would have to be shipped from the home town to be received on time. The day came and the very last hour was near. And the man who gave me the story told with great humor and gusto how frantic the firm were as the hours slipped by and still the manufacturer failed to deliver the goods.

"The easy use of color, of light and shade, deceptive entourage, the accent of some excellence, the obscuration of some deficiency, the happy point of a perspective, all too often mislead both architect and client." Mr. Willcox is evidently speaking here of the lying drawing. But a drawing need not lie and yet use color and light and shade "easily." This quotation follows one about line drawings: "Better a line drawing, that leaves the mind more free, at least, to dwell upon a building in its actual volume and form, and to work with that image, sensing its actual spaces and relationships, its solidity and construction, the color and texture of its materials." But a line drawing does not give "actual volume and form" nor "its actual spaces and relationships" nor "its solidity" nor the "color and texture of its materials." Nothing is more deceptive about such things than a line drawing. The test of it is to put a couple of washes on it and render the openings and see the surprises you get, some of them very disconcerting and disagreeable. A line drawing lacks the modeling which is the very object of rendering it. It lacks the sense of the real mass.

I spent a number of my formative years in an office where design was never studied in anything else but line, and it set me back years in an appreciation of the value of mass, of volume, and of fenestration. The firm themselves were good guessers and we learned to be fairly good guessers ourselves—but only guessers. And I am glad that later I came under the influence of the French theory of study, which is a study of light and shade, volume, silhouette, and fenestration.

After all, all architectural design must have as its goal the use and disposition of light and shade. And these cannot be judged in mere line. The fine use of light and shade in execution marks the difference between the best architects and the others, the guessers.

Some time ago, speaking here of the use of models in the schools, I said in effect that it takes a long time to make a model, that a rough one is of little value and that only an accurate one is of use in the real study of a problem. This is particularly true when the model is, as it has to be, at a very small scale, and where errors enlarge themselves in proportion to their actual enlargement in execution. Of course it is the best possible way to study a building. It gives you, if it is accurate, volume, silhouette, and light and shade. But in an office it takes too long, with the client baying for his building. Its next best substitute is rendered studies-not showy and elaborate, but giving light and shade, the relation of planes, and of fenestration to wall surfaces. Even when there are "bright sunlit shadows that never fall on the shady side of some street" you have at least studied the modeling of that facade and not guessed at it. And if you want to be very careful there is no reason why you cannot render that front or side or rear in reflected light, using back-shadows. You'll know what relation your voids bear to your solids at least; and you'll get a fair idea of its modeling.

* *

As for the "simple drawings made by the architects of our own Colonial period," may it not be that they knew no better and made the best drawings their knowledge permitted them? I think so. But they were at least, most of them, made in wash and were better than mere line.

And in reference to "the work of architects of the Renaissance and of the Gothic period" we must bear in mind that their practices as to drawings and execution were entirely different from the present. The men of those times were more nearly "architects and builders," as some of our country carpenters are now. In both periods the architect spent most of his time on the job and little in his *bottega*. A few general lines and masses and dimensions are all that have remained to us of their drawings—working drawings. Many must have perished. Full-size details were usually marked on the stone itself. And, as in the case of the great domes of Florence and Rome, they made careful models in wood to show to the Syndics or the Pope. Other times, other manners.

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Most of us know the architects who "could not make a really respectable drawing if they wanted to do so." I have known lots of them and the breed still exists. But they have never been the best architects. It is the business of the best architects to make themselves, in their earlier years, as good draftsmen as they possibly can. Then no one can fool them-not even themselves; for the drawing is the instrument the architect uses to build his building by. A good architect looks way beyond the drawings to the building itself. And the really sensitive designer must be able to draw and draw well; not well enough necessarily to make his living by merely making drawings for others, but well enough to be able to give his building that touch of personality that will make it different from the work of other men.

I could, but I shall not, give a list of men I have known in the past fifty years who were both fine draftsmen and fine architects. And I could give you another, which also I shall not, who were poor draftsmen and, I believe in consequence, were poor architects. And a third, of those who were fine draftsmen and mighty poor architects.

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It is a favorite theory of mine, based on close observation, that in any art the mind of the artist works through his own fingers and eyes, be he architect, painter, or sculptor. He sits down or stands up with a vague vision of what he wants to do, and his fingers and eyes produce the result. It is a totally different result from that obtained by using those of other men. It grows almost unconsciously under his hand. Subconsciously his fingers and eyes make for him modulations and spacings and light and shade as he goes along. Call it instinct if you like. But that is what happens. Instinct leads cerebration and dominates it.

* *

Here are some excerpts from "The Office Bible" whose official title is "Office Principles, Policies, and Practice":

- "Don't despise the practical side of your profession. Architecture is a plant of which the root is science—the flower is art. Neglect the root and what happens to the flower?
- "Don't despise the artistic side either, if you have a practical bent. Be a well balanced man.
- "If you will constantly bear in mind that you are training yourself to become a practicing architect, you will see every day's work from a new and interesting angle.
- "Therefore learn to think and act as an architect, not as a mere draftsman. See your job in the big, as a whole, and see the part you are working on at any time in relation

[&]quot;I require that my work shall be well studied, soundly constructed, sacrificing neither the esthetic to the practical nor the practical to the esthetic.

to the whole, in scale, in proportion, in color, and in materials.

- "Learn to use materials properly—their characteristics, textures, possibilities of finish, their suitability for various uses, their limitations and their durability. Wherever you go, keep looking at them to see how other fellows have used them and how well or badly.
- "Cultivate a sense of proportion between effort and result. There is a type of man who, if he has the plan of a room to make at three-quarter scale, draws the plan of every window box with every tongue and groove and shows the weights. Another type delights in the endless repetition of some insignificant detail. Others waste hours in elaborate titles instead of clear and simple ones.

"USE YOUR HEAD.

BE THOROUGH.

TAKE NOTHING FOR GRANTED. Check it up or look it up.

When you don't KNOW, ask or look it up. When you are not SURE, ask or look it up.

- "When in doubt, don't leave out. Too much information is
- better than not enough—but find the proper mean. "DO YOUR OWN THINKING—and when you strike a
- snag, don't put it up to me or ANYONE ELSE to do your thinking for you. Reason out for yourself the best solution of the trouble you can and give the results of your thought, NOT OF YOUR FAILURE TO THINK.

"Learn to think of architecture in three dimensions.

- "Take pride in making your work cost the office as little as possible.
- "DRAWINGS AND WORKMANSHIP. Draftsmanship, meaning the ability to express architecture in black and white, clearly and cleanly, IS EXPECTED of every man in the office. Messy, careless, sloppy, dirty drawings are not tolerated because there is no excuse for such work.
- "It is just as easy and takes no more time to make a clean, clear, well-arranged drawing than a dirty, mixed-up one. It is just as easy and takes no more time to draw a clean, good line than a ragged and sloppy one. A well sharpened pencil with a symmetrical point is the first step toward a good line. Strike the happy mean between the old maid and the slouch.

"Your draftsmanship should be suited and adjusted to the kind of work you are doing. The pencil you use and the line you make for small scale drawings are not the ones for full size. The same applies to sketches and working drawings.

"It requires the exercise of good judgment to make the right kind of drawing for the particular purpose for which it is intended.

"Don't work too close. Allow reasonable play between rough work and finish. To be stymied for an eighth of an inch is absurd. With the best of care the building will vary from the drawings and this must be discounted in advance.

"SKETCHES AND STUDIES: Sketches and studies are sketches and studies, not pictures.

Sketches and studies are for the purpose of establishing general forms and shapes, scale and composition. They should be free, rapidly drawn with a soft pencil. If they have an interesting and sympathetic quality so much the better. But that quality should be a by-product, not an end to strive for. Think of them as architecture not as drawings of architecture. Think of the thing to be built not the instrument.

"WORKING DRAWINGS: Working drawings are neither studies nor sketches nor pictures—they are working drawings.

A good working drawing is that which gives the builder exactly the information he needs to build from, no less and NO MORE.

It must be clear and clean and simple.

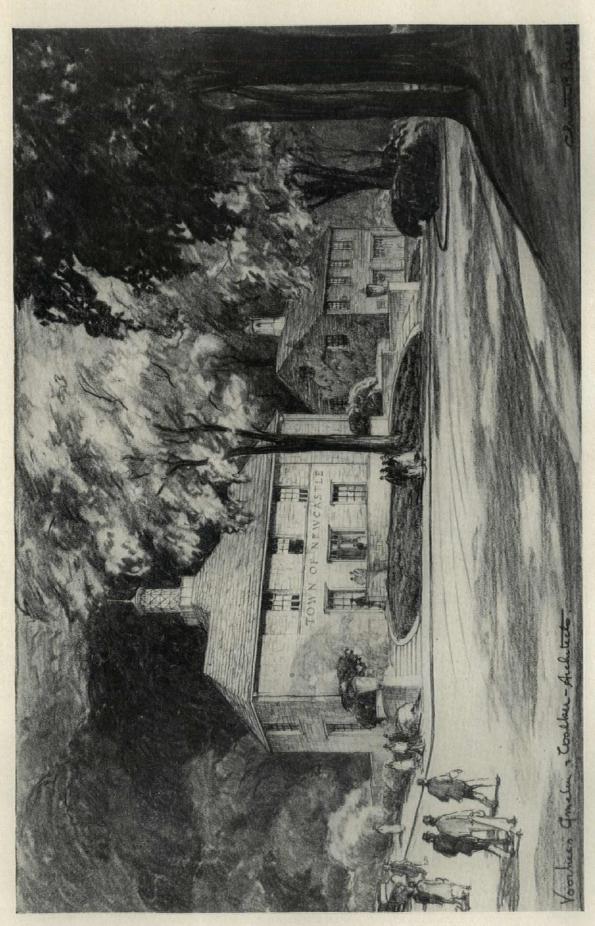
It must be arranged in an orderly and readable manner on the sheet.

It must be accurately drawn so that scaled dimensions will agree with figures.

It must avoid unnecessary repetitions.

It is impossible to state here everything to avoid or look out for, therefore I say once more and finally—USE YOUR HEAD."

The draftsman should remember that his job is TO DRAW. He has to think, of course, as above indicated. But he is also and primarily hired to draw. A draftsman once told a friend of mine that he was "a better architect than he was a draftsman." But my friend was not engaging an architect. He wanted a draftsman. He was himself a competent architect. Verbum sap. suff.



Proposed Town Hall for Newcastle, New York

Voorhees, Gmelin & Walker, Architects. Rendering by Chester B. Price

WASHINGTON MONTHLY LETTER By CHESTER M. WRIGHT

THE extent of the broadening of the field of operations of the Federal Housing Administration by the recent amendment to the Housing Act increasing modernization loans eligible to insurance from \$2,000 to \$50,000 is not generally appreciated. A reading of paragraph 24 of the regulations will tell a meaningful story to persons of imagination:

"An advance of credit in excess of \$2,000 but not in excess of \$50,000 must have been made for the purpose of (1) repair, alteration, or improvement of real property already improved by, or to be converted into, apartment or multiple-family houses, hotels, office, business or other commercial buildings, hospitals, orphanages, colleges, schools, or manufacturing or industrial plants, or (2) the purchase and installation, in connection with the foregoing types of property, of such equipment and machinery, with or without any structural changes in the buildings, as are peculiarly adapted to the business conducted therein or necessary to the operation thereof."

Section (1) of the foregoing paragraph is the field of the architect. That is according to the original plan. But it was not part of the original plan to open up the loan insurance provisions so widely to modernization of equipment as is done in Section (2). The FHA stands ready now to insure loans on almost any kind of permanently installed machinery, as well as on any type of construction project.

Enthusiasm for the \$50,000 amendment on the part of manufacturers selling industrial machinery as well as those selling construction materials is justified by the success of modernization loans in the small building division. Under the \$2,000 limitation the FHA underwrote \$400 millions of advances for home and small property repairs and alterations. In addition there was much more spending under private financing plans keyed to the better housing program. But the \$400 millions, since it was based on insurance against loss up to 20 per cent of the loan, actually used up only \$80 millions of the original \$200 millions allotted to the FHA. The remaining \$120 millions means insurance for \$600 millions of additional loans.

Now that this is available for machinery and for building alike, the question remains whether manufacturers looking for capital for new equipment will make applications for loan insurance which will materially curtail the residue available for construction. There was a feeling in Congress that the \$200 millions allotted for modernization was more than was necessary to cover needs. The record shows that it was more than was necessary to cover the \$2,000 needs. But whether it will be enough to cover the \$50,000 needs can not be safely predicted because of the volume of repayments into the revolving fund. The safe procedure for architects and builders planning to take advantage of the insurance features of the FHA is to get applications in as early as possible.

Red tape has been cut to a minimum by the FHA. The architect can take his prospect to any bank or financial institution qualified to get FHA insurance. Applications are made in the usual manner. Individual bargains are made. Terms are a matter for decision of borrower and lender, except the FHA requires that the loan should be payable in monthly installments, run not more than 5 years, carry an interest charge not exceeding the equivalent of a \$5 discount per \$100 face



Before and after views of a modernization job in Oakland, California, costing \$8700 and well worth it

amount of a 1-year note payable in monthly installments. Many lenders do not want insurance on loans, but if the lender wants to protect it up to 20 per cent, he will send the financial statement to the FHA, which will approve any reasonable credit risk.

Further red tape cutting has been effected by the invitation of the FHA to come directly to one of its offices if a lender can not be found, and the FHA will put you in touch with a source. And there is no limit to the number of loans an individual can make as long as he borrows the money on different properties.

One of the best groups of prospects for architects developed by the act of raising the insurance limit to \$50,000 will be store owners. Main street merchants have already spent millions in modernizing their stores without the benefit of FHA loan insurance. Observers think the main street modernization campaign has much farther to go. More attractive store fronts, more inviting interiors and more efficient equipment are necessary to the business man who is making a strong bid for new orders. Costs are comparatively low, and increased competition is the spur driving the merchant on.

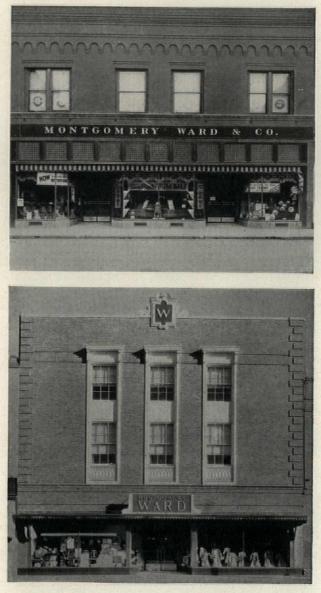
Among the larger modernization jobs which have served to stimulate emulation on the part of smaller merchants are these: Marshall Field & Co., Chicago, \$600,000 for installation of electric escalators; R. H. Macy & Co., New York, top to bottom overhaul, improved equipment and fixtures.

A partial survey of department stores shows that \$9,600,000 was spent in 1934, and so far this year \$15,000,000 has been spent, with expenditures of individual stores ranging from \$12,000 to more than \$1,000,000. Air-conditioning got the major slice of these modernization expenditures. Chain stores have gone in heavily for modernized store fronts and interiors.

CHURCHES. Congress did not include churches in the projects on which loans up to \$50,000 would be insured. Therefore the FHA will not insure church loans beyond the \$2,000 prescribed in the original act. Church architects may, therefore, be forced to live a more or less spiritual existence while the plate is being passed, unless they apply their abilities to designing "cathedrals of commerce."

MAIN STREET. The FHA reports that many Main Street Modernization projects have taken on new impetus since the \$50,000 amendment was passed. Architects have been taking the lead in suggesting to business men, by means of sketches and plans, what could be done to improve their properties and their business revenues. Block modernization plans are also being revived.

"CONSULT YOUR ARCHITECT." When the new pamphlet in which the FHA is preparing to tell



A store in Albuquerque, N. M., as effectively modernized

the country what the new \$50,000 amendment means sees the light of day, it will contain a special box notice advising prospective modernizers to consult their architects before embarking on an ambitious plan because the architect will save them money.

BANKS HAVE DISCRETION. Under the new regulations of the FHA banks have more discretion than before in granting loans. In fact, after a bank has passed on a loan the insurance procedure is practically automatic.

JOBS FOR DRAFTSMEN. The Federal Housing Administration's requirement that plans accompany applications for insurance under the Housing Act is going to mean increased work for architects and draftsmen.

At present the attitude of builders that archi-

tects' drawings are superfluous is presenting a problem of some concern to the Housing administrators. The "lock and key" technique is proving one of the most exasperating to FHA patience. Under it a builder contracts to reproduce Mrs. Jones' house "down to the lock and key." He disclaims need of plans.

But the FHA will not play ball that way, and the enforcement of its requirement for plans will probably do more for the idea that a good architect is worthy of his hire than have many years of educational effort on the part of architects.

The problem of supplying architectural or drafting service in communities where there are no architects has been referred to the American Institute of Architects for solution. So has the problem of giving clinic service to the prospective small house builder who cannot afford the services of an architect. The A.I.A. has in turn referred the problem to its chapters, which are offering solutions. President Stephen F. Voorhees of the A.I.A. has appointed Richmond H. Shreve chairman of a special Committee on Housing, which has been meeting this month with FHA officials.

A satisfactory final solution is confidently expected as a result of these efforts. At least a plan can be formulated for 99 per cent of the country; and the other one per cent is not likely to qualify for FHA loans for reasons other than the availability of architectural service. Much of this confidence is based on the fact that a borrower must make his application through a bank or a mortgage institution, whose contacts with communities large enough to support architects are usually well established.

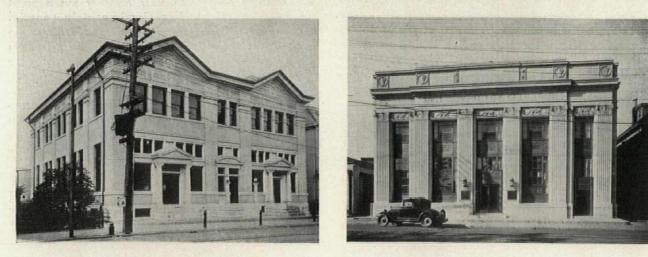
The only alternative to having the architects do the job of supplying the necessary plan service on a cooperative or "clinic" basis is to have the FHA provide stock plans which are acceptable to the FHA. The A.I.A. is unalterably opposed to any such procedure and believes the public generally would resent any such move toward standardization and regimentation. The Administration itself has no such ambition, so a successful solution of the dilemma is expected by the middle of July.

FINANCING TRENDS. Facilities offered by the Federal government for long-term home financing are at last making an impression on the country's financing agencies, forcing them to conform to a new pattern for the entire mortgage system. Longterm financing is here to stay. The second mortgage is on the way out. Interest rates are being cut. These developments forecast future activity in home building. It is not quite as obvious, but just as certain, that these financing patterns will affect mortgage financing of commercial and industrial structures.

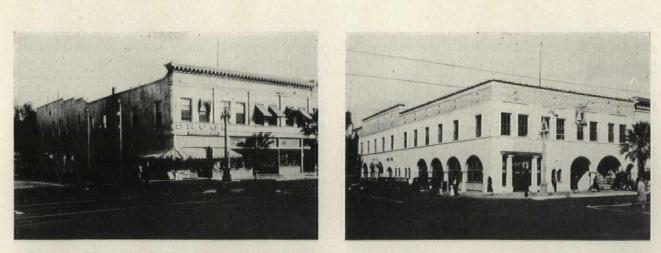
Further analysis reveals the conclusion that these developments tend to place a higher valuation upon the services of the architect. The financing is more liberal but not as reckless as in past boom periods. Standards are being set up which must be followed. These standards are the kind with which the architect is familiar. The tricks of the jerry builder will not in the future be as valuable to him.

This is not to say that the Federal agencies have wiped out the possibility of financial exploitation. Lax administration of standard regulations on the part of such an agency as the FHA might conceivably lead to a national scandal. Even now the boast is heard that a smart operator can obtain enough money from the banks, protected as the banks are up to 20 per cent of the value of the house, to more than cover the cost of the house and lot. But in the final analysis mortgage financing methods will be greatly improved by Federal cooperation.

With the \$50,000 amendment to the Housing Act there has appeared a vigorous effort to simplify the whole procedure of insuring mortgages. More significant is the heavy pressure from within the Government for a reduction in the permissible



First National Bank, Lansdale, Pa., indulges in a brand new exterior to the great advantage of everybody



A bank in Riverside, California, modernized in 1932, sets a good example for its community to follow

interest rates and other carrying charges. Gradually people are being educated away from the idea that the Mortgage Associations under Title III of the Housing Act are essential to the success of the insured-mortgage movement. This was the accepted point of view in the FHA at the beginning, and there were many gloomy predictions that the failure of investors to finance these associations would mean the collapse of Title II. But now it is found these associations were really unnecessary. The liquidity which was sought through the mechanism of mortgage associations was patterned after traditional banking experience. But Congress again said "pooh" to tradition and created comparable liquidity in the bill just signed by the President which permits Home Loan Banks to lend, even to non-members, 90 per cent on insured mortgages.

Bankers looking over the records of the HOLC have found that at least half of the mortgages could have been taken care of by private institutions had they been willing to offer reasonably long-term mortgages. This they are now doing. Insurance companies are taking the lead. The institutions which have been depending upon mortgages to provide earning assets realize that the only way to prevent further and further inroads by the government in the mortgage field is to meet, as nearly as possible, the competitive standards and terms set up by the government.

PWA. President Roosevelt has extended, enlarged, and liberalized the authority to function of the PWA as a result of the passage by Congress of the Emergency Relief Appropriation Act. His recent executive order gives the PWA the authority to perform all functions originally performed and also to make loans and grants to states, territories, possessions, sub-divisions, and agencies of the government; carry out projects for slum clearance or low-cost housing; sell securities acquired by the PWA; acquire by purchase or the power of eminent domain real property and improve, develop, grant, sell, lease, or otherwise dispose of such property.

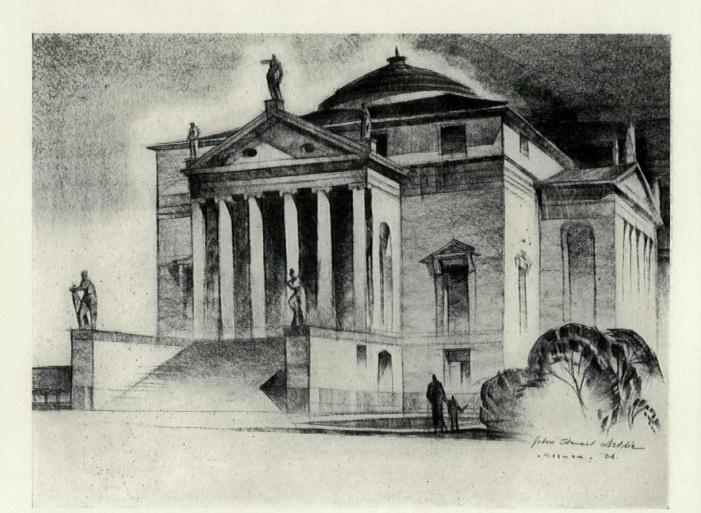
SLUMS. "Slums and Blighted Areas of the United States" is the title of Bulletin No. 1 of the PWA, prepared by Dr. Edith Elmer Wood, based on surveys made in 15 cities, including New York, Chi-



The Masonic Building in Oakland, California, now has an up-to-date appearance, thanks to an architect

cago, Philadelphia, Detroit, Cleveland, St. Louis, Baltimore, Boston, Pittsburgh, Milwaukee, Minneapolis, New Orleans, Cincinnati, Indianapolis, and Dayton. Dr. Wood says the state of housing is a national emergency requiring the intervention of the Federal government.

NATIONAL HOUSING DAY. More than 3700 houses were started in the United States on National Housing Day, June 15. The FHA regards the result as successful beyond expectations. The original quota was 1,000 homes. The majority of these homes were to be financed under the mutual mortgage insurance plan of the FHA. Financing statistics have taken an upward spurt. The week ending Saturday, June 8, made a new record, with a total of \$10,272,933 submitted for insurance. Of this \$7,000,000 covered applications for insurance of mortgage loans on dwellings, of which about 34 per cent covered new construction. The remaining \$3,000,000 covered insurance of modernization credit loans.



Church in Vicenza

From a crayon sketch by John Stewart Detlie-

ART VIA GEOMETRY Can it be Reached? By ALLEN W. JACKSON

HERE has always been about the architectural purlieu a fringe of pseudo-scientific seekers after a philosopher's stone that would transmute sterile desire into art in fact; searchers for a rule of thumb, a short cut, formulas for making designs without designing. They are the same breed that seek for perpetual motion, how to lift oneself by one's boot straps, or any *ignis-fatuus* that will lead to the promised land where one may get something for nothing.

In the earlier days we had Ruskin who taught that if one looked after one's morals, architecture would look out for itself, but he has been followed by a grimmer tribe, metaphysician-mathematicians with formulas of whirling squares, dynamic symmetry, the square root of figures that have none, the plane projection of fourth dimensional space, magic squares, golden means, the laws of crystals, phyllotaxis, Egyptian rope stretching, etc.

All of these as the road to perfect architectural design!

No doubt it is true one may find buildings whose façades can be contained in a double square (the cornices, steps, etc., to be included or not as seems best). The plane projections of fourth dimensional solids give interesting decorative designs—sometimes. The neatness of mathematics is demonstrated by the astonishing magic squares. (Disorderly π is not mentioned.) The golden mean is a good one. The geometrical relations of the parts of the human figure are amazing and the disposition of seeds in a sunflower and the whorls of a leaf system are impressive.

But what has it all to do with the design of buildings?

After all a façade is as good as it looks and the man in the street likes it or not with a wholesome refusal to befuddle himself by any proofs of the validity of art concocted from showy by-products, the odds and ends of serious sciences.

Nor can it be said that the designer unconsciously follows these esoteric laws of which he has never dreamed, else all worthy buildings by good architects would conform, whereas it is only a few here and there that even an enthusiast can find.

It proves nothing to show that a triangle, let us say, has a certain relation to the Parthenon for what shall we say when we apply it to the next building? Why then we find that the next building is contained in a circle plus the square root of five, etc. How does this help? And why should the relation of a façade to a triangle have anything to do with its success as an architectural front? Do the innumerable subdivisions of an elevation, its projections, fenestration, imaginative ornament and so on count for nothing? Such reasoning is out of Bedlam. As if Beauty owed everything to a hash of algebra and geometry instead of being a wild lawless thing, never twice the same like the emotional human temperaments which throw it off. "In everything beautiful there is something strange about the proportions."

The scientist says, "The world is mine!," but only half of it is his.

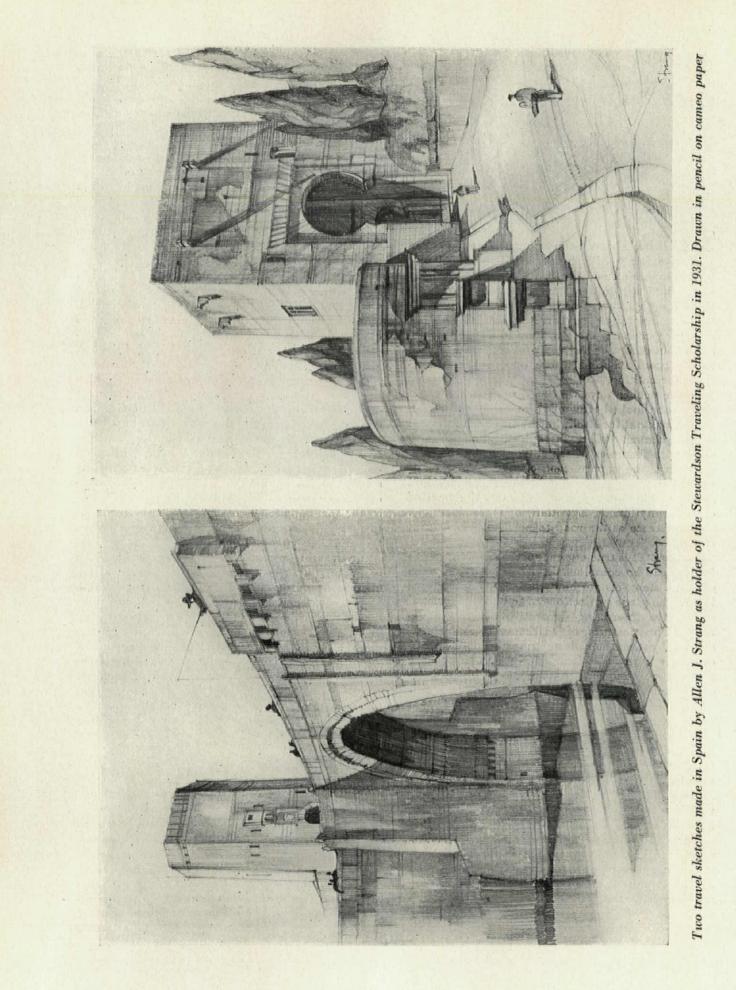
Art and science are opposite facets of the human mind and when they are mixed the result is sure to be epicine and futile. When art is subjected to science, it is stiffened and blighted. Where science allows art to take a hand, it becomes flaccid and inept. Of course one can see how attractive it is to the matter-of-fact mind that in order to recapture the dainty charm of Granada one only needs to apply the square root of two; or that the brooding mysticism of Chartres is to be had by designing with modules; or the wild splendor of St. Mark's is but an exercise in whirling squares. It is assumed that of course a mathematical answer is there and we have but to find it, and so the mathematicians offer a wealth of formulas to pick from, forgetting that the man who proves too much proves nothing.

Mr. Hambidge says the Parthenon is based on a square plus a root five rectangle. Mr. Bragdon exhibits a tomb fitting in a pentagon. Is the tomb wrong because it can't be fitted to a square plus a root five rectangle? Or is the Parthenon wrong because it can't be related to a pentagon?

They should try to get the distressing point of view that an artist is a poor irresponsible emotional creature who with a pencil in his hand and visions swarming through his brain puts down what pleases him. Without thought of justification, he does what he likes, for he believes with Sir Joshua Reynolds, that "art comes by a kind of felicity and not by rule."

It would perhaps not be fair to ask these searchers to exhibit synthetic designs based on their systems or even to demonstrate that all successful façades relate to their formulas. But if both of these tests prove sterile, it would seem to be premature in the present state of human understanding to recommend their logarithmic tables and slide rule methods to the patient designer.

Art is a very unsatisfying thing to prove anything about and after a long session with these researchers one finds oneself more and more content to keep science and art in separate compartments for the good of each and the happiness of all.



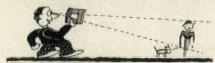




DO YOU RIDE THE SKETCHING HOBBY?

Outdoor sketching is rare fun. Hence, many architects turn to it as a hobby. And a grand little hobby it is, too. Yet it can prove of far more than mere pleasure-giving value, especially when practiced as an antidote for the T-square and triangle tightness (or stiffness of thought and result) which troubles so many architects and draftsmen who spend a good deal of time over the board. And it gets one into a three-dimensional point of view, too, helping to prevent the design of "paper" architecture.

sign of "paper" architecture. The biggest trouble with architects who go sketching is that they often pick subjects of too serious a nature, and try to draw them too exactly. At times such

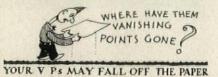


IT'S AN ART TO PICK A SUBJECT

study is all right, of course, as in the case of students like Strang who did the distinctive work, opposite; but for the purposes just mentioned subjects of little or no architectural significance are frequently just the thing. Overpage, for instance, I show a group of snapshots suggesting a type of matter which I recommend highly (though these examples would possibly prove rather difficult for the beginner). For when the architect sketches a boat or something equally foreign to his daily work he doesn't know too much about it (as he does about architecture) and therefore, unblinded by inconsequential detail, he is able to see its broader aspects.

These particular views, incidentally, came from the neighborhood of Frank Allen's school at Boothbay Harbor, Maine, where about the time you read this I shall be getting my classes under way sketching some of these very places. Wish I could share them with you, though one doesn't need to go way to Maine, by any means, to find good things to draw. Doubtless there are some under your very nose. Make a little view finder (a bit of cardboard with a rectangular hole through it will do) and hunt around with it much as you would with the view finder of a camera, peeking through it to select good views. You may discover what you want right in your own back yard. Simple things are best: if at some distance they are easier to do.

If you have used a camera you know how important good lighting is. This is also true in sketching. Subjects with definite contrasts of light, shade, and shadow offer the fewest difficulties. Study each one from various directions so as to pick the best point of view according to lighting and all. Then make yourself comfortable and sail in!

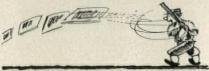


As you start blocking out your proportions, try to judge the level of your eye in relation to your subject. It's a good thing to locate the horizon line (which corresponds to your eye level) on the paper. Try to visualize, too, where the principal vanishing points would be. Probably one or both will fall off your paper at left and right, lying in the horizon line, extended. With them in mind (or located on your paper) draw the general proportions with reasonable accuracy, watching perspective slants. Hold your pencil at arm's length to test the slopes of doubtful lines. Don't feel that you must work with photographic accuracy, however. The main thing, always, is to catch the spirit of your subject. Decide on its leading attributes and go after them. Stick to simple methods. Stand back from your drawing once in a while so as to compare it with the matter before you.

As to medium, most anything will do. personally think the fountain pen, with ordinary blue ink, is one of the best instruments for quick sketching. I often draw with it very freely on slightly roughish paper (as in the typical sketchbook) and then with a brush and clear water soften some of the lines and work them into tone, touching up again with the pen if necessary. When I draw with pencil, my preference, just now, is for a block of cameo paper and a good soft graphite or negro wax pencil, keeping the values fairly simple but contrasty. One should think of technique as little as he can, expressing his subject in the quickest and most natural way. I never hesitate to smooch with the finger, soften with the eraser, etc.

Many subjects fairly cry for color, and for them a set of colored pencils isn't bad. Paper with some grain is necessary for the proper bite: tinted papers make possible interesting color effects. Water colors are perhaps even more popular than the pencils; if you haven't tried them outdoors why not get busy now? Turn through your back numbers of PENCIL POINTS and you'll find lots of suggestions on all sorts of media.

Whatever you decide on, and however you use it, remember that the spontaneous sketch, dashed off in the enthusiasm of your first impression of the subject, is often better, whatever its faults, than the more calculated effort. In other words, let your drawing be fun instead of work: you'll do a better job.



SO BAT OUT SOME GOOD SKETCHES

If you bat out some good sketches this summer, send us a few. We may not be able to publish them, but are glad to see them anyhow. And now and then we have space for a limited number, as you know.

Turning to another matter, I hope I haven't disappointed too many this month by not getting around to SKETCH COMPETITION NO. 2. It struck me that midsummer wasn't an ideal time for one. Maybe I'm wrong: if so, shout. At any rate it'll be along without too much delay.

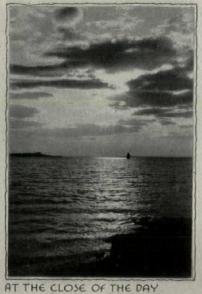
According to your letters, there is a strong present demand in this depart-ment for three things-a consideration of (1) rendering the interior, (2) pencil technique, and (3) the representation of trees. Some want perspective; some color dope. If you have a preference send it to me direct (until August 15th), c/o Frank Allen, Boothbay Studios, Boothbay Harbor, Maine. Do you want a continuation of the previous series of rendering projects? Several addition pages were planned, but I have a hunch you are "fed up" with this particular thing. Would you like those which have appeared reprinted as an inexpensive folio or brochure, perhaps augmented with some typical examples by other artists? It's for you to say!

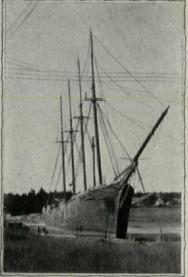


In the previous issue I'm sorry to discover that my Corner showed a grievous error, for I credited a splendid Mention Drawing (the spooky one!) from the competition to Frank J. Bruce, when the name should have been Frank J. Brince. See page 306, June issue. All I can do now is to offer this correction and most humble apology.

A PAGE OF SKETCHING SUBJECTS FROM "DOWN IN MAINE"





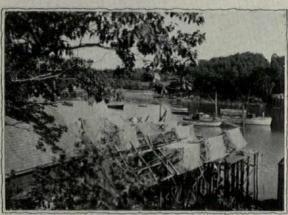


JOURNEY'S END

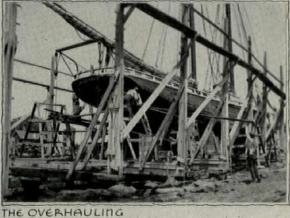
EBB TIDE



THE LOBSTERMAN'S PALACE

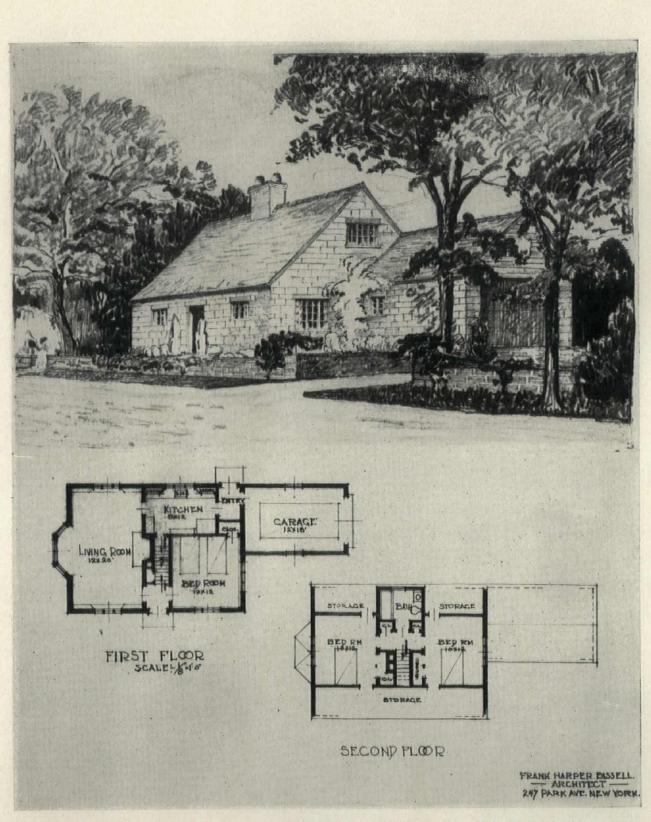


DRYING NETS

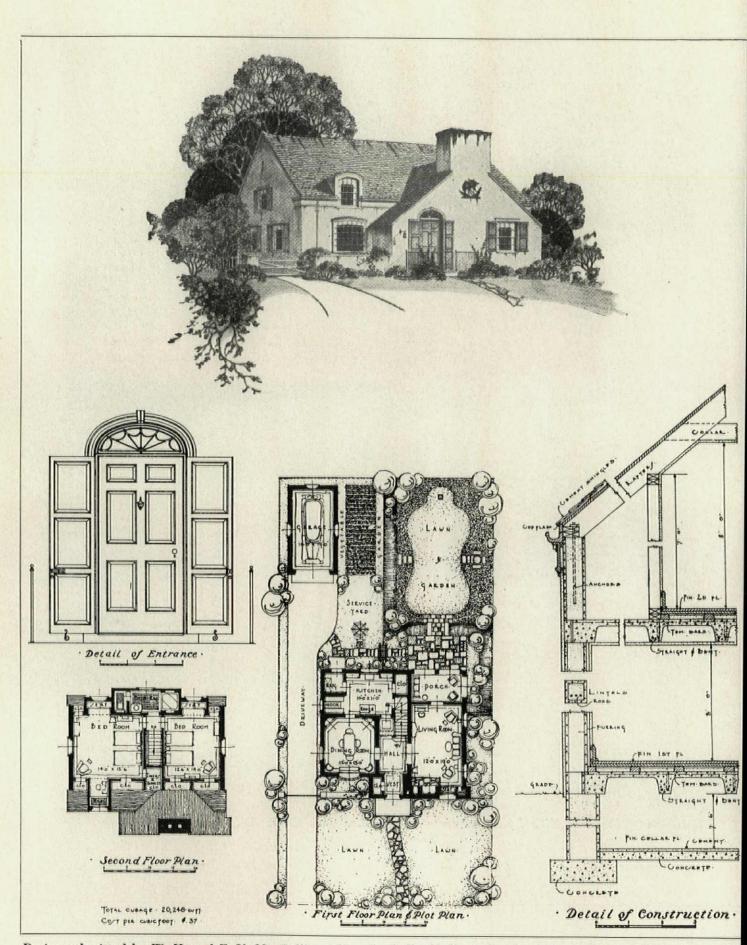




JUST PART OF THE JOB



Design by Frank H. Bissell for a concrete masonry house which can, it is claimed, be built for \$4000



Design submitted by W. H. and E. N. MacCollin of New Rochelle, N. Y., in Portland Cement Association's Westcheste County Competition for the design of a low-cost fireproof residence at a cost not exceeding seventy-five hundred dollar