NORTHWEST CHITEC

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EOPLE will be very likely to value a thing at your value if they know that it is genuine. Impressive cost, and the appeal of new materials, snappy fashions, or assumed importance are all passing quickly to what is old, dull and faded. Only that which appears to be just what it is, remains eternally fresh and interesting. W. G. P.

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NORTHWEST

WOOD IN THE MODERN WORLD "ONE WORLD" ALSO IS THE WORLD OF MATERIALS AND LABOR ARCHITECTS you have a debt to the SOURCE as well as the DESTINY of the forces entrusted to your experienced direction —

• "ANOTHER EPOCH has begun. Fire, animal strength, and written language have in turn advanced man and nations. Something like a new capacity was developed with the discovery of explosives and again in the invention of printing; but the capacity of man has always been limited to his own individual strength and that of the men and animals he could control. His capacity is no longer so limited; man has now learned to **manufacture power**, and with the manufacture of power, a new epoch began." George S. Morrison, 1903.

By William Gray Purcell

S TEEL battleships are a matter of course. We admit that the less wood the better. The bigger the guns the thicker the armour plates and the lumberman doesn't expect to see his product going forth to war on the ocean. But I notice that serious consideration by navy men shows that war ships of oak plank may offer an answer to serious defects in accepted construction. Damage from shells would be confined to small areas instead of long opened seams; fire could not make headway anymore than in standard mill construction, and after

severe punishment instead of going down like an iron kettle, the ship would automatically become a pretty effective raft.

♦ Keep Moving ♦

We must not get into habits of mind. We must occasionally review even things that seem to be foregone conclusions. We must test even things that we are quite sure we know. One of our common bad habits of mind in regard to architecture concerns

the idea of durability. People generally, believe that to be enduring is one of the first principles of good architecture. It is not the enduring quality of the *building* that is so important. It is the enduring quality of the ideas and institutions behind it that really counts. The flower by the roadside springs up and lives but a day or so, but it keeps on springing up year after year. The little habitation which the spirit of the buttercup builds for itself soon passes, but the *buttercup idea* endures and repeats every season.

When we build expositions to last but a single season, we sometimes wish they could be cast in more durable material, but we enjoy them just as much. Frequently exposition buildings designed in such a way as to indicate their holiday spirit, and declaring their intention of standing for but a brief season, are the ones that we like the best.

Wood has too often been asked to do what it cannot successfully do, and it is very seldom asked to do the very things it can do best. We must insist upon wood being asked to do all the things that it can do so well and so beautifully. It is not right to ask any material to do service that is contrary to its character and qualities. Each thing works best in its own realm. Certainly as we think of a school building three or four stories high, we know that we do not want to build it of wood and then place our children within it. But let us think of a building that is even more remote from the type ordinarily considered as a proper field for the best use of wood. Let us take a hospital. Let us take a special kind of a hospital, one for little children or for the oldest people. I am choosing that as an example because of all buildings one might think of, it is the last sort of a building that, thinking about it for the first time, one



Dr. W. H. Arnold Dwelling, Vancouver, Washington. W. G. Purcell, Architect, 1927

w. d. Parten, Architect, 1927 past; let us take the primary idea of the word, "hospice" — a place of refuge. In the early centuries of this era there were homely, quiet places of refuge for the tired soul, places where one would long to go, rather than where one would go with reluctance and misgivings. Let us concern ourselves with the spirit of hospitals, a sheltering, welcoming home where one may escape from disease and from the cares and worry of the world. Our standard words, "Sanitarium," "Hospital," "Asylum," and "Institution," surely picture in our mind no idea that could be defined as a hospice, no idea of welcome or of sheltering refuge and no such spirit.

Let us think then of such hospice with human qualities as the place where children are to be growing up, and where the oldest people may be passing quiet years. If we plan for such hospitals do you not think that we will be at least getting where we can begin to think of wood in the construction of hospitals without alarm.

The sentence you are now reading does not belong in here at all. But the Editor feels that the reader is entitled to a tip-off about this piece. So if you wouldn't mind turning to page 6 you will find under the caption "1916" a rather surprising account of what happened, when and why.

Note—Since the above was written the **transportation** of the power which we have manufactured has become our biggest economic problem. Wood plus manufactured power is the new economic team which art, industry and business must drive with skill and understanding.

would wish to see constructed generally of wood. A hospital must be of steel and concrete. The floors must be of tile, the walls of tile and plaster; there must be no cracks to accumulate germs; surely wood is the last thing we want in this building.

♦ Back to "Earth" ♦

But let us not be too

sure about this. Let us think

about some hospitals of the

♦ Practical Example ♦

Considering then this true meaning and idea of an asylum, we could imagine hospitals as of not more than one story high. They might be built as a group of buildings, a little intimate village of sunny rooms and nurseries and gardens. Surely in such an extended group the question of fire hazard practically disappears, for if opened freely to the gardens, as they naturally would be, any personal danger from fire would be wholly removed. If a unit or two were destroyed before our efficient fire apparatus arrived, the loss would not be great.

As to absolute cleanliness, in a case of this kind where all the rooms are open to sunshine and ozone, we have called into daily service the greatest of cleansers. If our bacteriologists use dry cotton fibre as the only safe way with which to close up test tubes against the egress of germ life, we must know that the dry fibres of wood will provide no good conditions for their growth. As to the much feared bacteria our problem resolves itself into one of keeping our hospital dry and making the best use of the out of doors.

♦ Buildings Make People ♦

What is more important is the effect which such a place of refuge would

have upon the minds of people who must look upon it as their dwelling place. Think of children growing up in such an environment or the oldest people in the gardens, as compared with the factory-like hospital structures of sanitary cells of concrete and white tile. Consider the child looking up from his play, or the grandmother from her knitting to gaze upon the germ free, sanitary, cubical, blue and white walls of our standard hospital rooms, as compared with the same child, or the same grandmother, looking up possibly to watch an old hen scratching by the garden door, or winter sparrows, picking seeds from the snow under twig and red berry. Certainly such a mental experience repeated upon a single individual a hundred times a day, and upon thousands of individuals every day throughout this antiseptic land, is going to have its fortunate or unfortunate effect, as the case may be, upon our future citizens.

The opportunity of living near the growing flowers and in an environment that is human and homelike is surely an interesting inversion of the recognized custom in such matters, and in such a view as we have been considering I do not think we are so very unreasonable in expecting to have a few *live chickens* in the real hospice-hospital of the future.

♦ Futile Perfection ♦

I had an interesting conversation with a professor the other day about metal doors. He was remarking what a wonderful thing these doors have become — how they are now made to resemble wood so closely that an expert simply cannot detect the difference. I told him I thought it was a very unfortunate thing, if the imitation of the wood door was as successful as he claimed it to be, for the only really wicked thing about an imitation is, that it deceives someone, so it appeared to me if a metal door was a very *excellent* imitation, *everyone* would be deceived, and considered as works of art, they would be really abominable; but if the imitation of a wood door in metal was a poor imitation it would deceive no one, and as a consequence no great harm would result. The fact that so many imitations are an attempt to duplicate the beauty of wood is a pertinent comment upon real values. The appearance given to metal doors, linoleum parquetry, composition wood carving, mahoganized steel sleeping cars, galvanized iron colonial porch columns, patent shingles and stamped metal cornices and clapboards is unconscious index of a genuine affection for, and appreciation of, the forms things took because they were made of wood.

But there are several things which are of more impor-

Salesmanship which persuades a man to use a material that does not exactly answer all the conditions is poor salesmanship. It makes the sale but unmakes the business. The use of wood will increase in exact proportion to our understanding of basic needs, with resulting structures that want to be of wood, must be of wood and cannot be either practical or beautiful in any other material. tance to us than a clear understanding of the philosophy of the imitation, however important it may be as a principle. We must rest our actions upon something more substantial than statements of philosophical truth.

The real trouble with the metal door, where it was made to look like wood instead of being made to look like what it actually was, lay in just this fact — that it could not grow old beautifully. The knocks and scratches of time instead of adding to its human interest, served no better purpose than to reveal its deceit, and The Fine Art of Building is particularly the one where this quality should be carefully conserved. What we want is an architectural quality in the use of our build-

ing materials which will enable them to grow old in a beautiful way. The quality of the work of past times which we enjoy most, the one which makes old buildings perennially the most interesting to us, is the fact that in the old work as long as the one stone remains upon another, as long as the ancient beam rests upon its post, some life of the original building remains.

♦ Not Only Wood ♦

We must understand wood as a material. It is not the qualities of wood as a good physical material that we need to know more about, but an intimate understanding of the essential, intrinsic, nature of this material. We must come to be sensitive to its qualities, not only as a building material, but as a part of the world with which we have to live, along with the rocks and earth and moving forms about us. We must learn to understand wood not merely with the intellect and the book of rules which tells how great a load it will sustain but to know it through having grown up with it, worked with it, and enjoyed it in everyday affairs. Our children get a certain fine knowledge of the qualities and characteristics of wood in the manual training courses of our schools, but this opportunity for real knowledge and understanding stops almost as soon as it is well begun.

Learning to do something, not merely learning about it, brings permanent pleasure. Working with wood in technical schools or upon buildings makes contented, active boys and men. Not by mere brain invention, but through the understanding of trained hands and knowing fingers new and interesting ways of using wood will arise as naturally and simply as speech.

♦ Classic Carpenters, Too ♦

Scholars have for years been interested in trying to trace the origins of the various forms in architecture, and, in particular, in trying to connect the stone forms of the Greek temples with the wooden forms which preceded them. We have been led by these scholars to believe that the stone Doric column and cap, with its lintel and architrave, are merely translations in stone of wooden types which preceded them. According to these students of Greek buildings the three great blocks of stone which make up the lintel, were originally simply three great chunks of timber about 12x24 inches by 8 feet long, laid side by side on top of the columns, and that there were other similar billets of wood, making up the various parts that compose the Greek Temple.

In the picture thus drawn for us they would have us believe that these Greek Temples originated from a habit of building, one upon the other, with what we would today consider the mill ends, very much as children pile up blocks to make their little houses. They would have us believe that the highly efficient and thoroughly practical Greek took beautiful dimension material, 30 or 40 feet long, which he had patiently worked out of the splendid timber available, and then proceeded to saw this up into pieces about the size of concrete building blocks and to use this collection of poor excuses for a building material as a means for erecting a Temple in honor of the gods.



1914 A RECORD IN WOODS

Dwelling and Furniture by Purcell and Elmslie 2328 Lake Place, Minneapolis, Minnesota

THIS PHOTOGRAPH RECORDS a dwelling of wood construction, with beech for wear in floors, wood as a "hem" for protective margins, wood as a fabric woven of delicate square rods for panels. Then there is the Cuban, white "prima vera" one loves to touch in furniture, and wood as jewelry in the English holly and ebony inlays. In the cupboards are carved wooden chessmen and cute Swiss animals split and whittled out of turned tree trunk rings. In the kitchen are many good utilities of wood, with friendly wood speaking dozens of more places outdoors and in . :: :: LET'S SHOW WHAT FUN THERE IS in using wood to "use-it-up." WHO CARES whether our things will last forever if it builds happy families while we "burn-it-up" for wholesome living.

THIS IS WHAT I MEAN by a "sustaining program" for all kinds of wood by humane businessmen who want to sell their particular kind of wood.

Now, the Greeks were not only highly intellectual people, as we unfortunately use that word, but they were very sensible, practical and straightforward people as well, and what is more, they knew and understood the qualities of wood and used it with regard for its fine qualities. When they had a piece of dimension material a couple of feet square and 40 feet long, which they had to work out of the log by hand, you may be sure they proceeded to make the very best use of it.

Just what was the nature of the wooden forms used by the Greeks, and in what fine and splendid way they built their early Temples of wooden posts and spanning rafter, weathering in the sunshine and filled with odor of Cedar, we do not know, but I am sure that it was of such a nature that any lumberman would have thoroughly enjoyed it and no one would have dreamed of wishing that it had been made of stone, or that it ought to be "painted and sanded" and striped with painted joints to keep it from looking like wood, and make it look like stone.

We surely must hold to this fundamental necessity for recognizing and expressing the true nature of wood in our buildings. We must organize our buildings on a wood basis.

♦ Wood the Intimate Material ♦

We must use our wood in such a way that it is not so very important whether we spend much time learning how best to fireproof it, but in such a way must our buildings be fundamentally conceived that we do not care whether a given building be fireproof or not. The idea is illustrated in a perfectly practical way by school buildings erected of late years on the Pacific Coast. Many one-story high school buildings of large size have been built, the rooms opened on both sides, so that the children can pass quickly

> THE LUMBER INDUSTRY is already entering a business era where conventional sales technique will not contain the many kinds of wood users who are now breaking towards plastics, synthetics and every imaginable ingenuity for displacement of old building habits. The advertisers of forest products face the same problems as do the radio message makers. If they do not supply a sustaining program of sufficient interest, the listeners turn them off. If their commer-cials are too insistent, the customer gets tired of both lumber and laxatives. The businessman who turns trees into products of general service can no longer let himself think in terms of dimensiontimber, lumber and select mill stock. He has got to "get religion" and become an evangelist for every possible relation between human beings and every sort of furniture for their lives which can be harvested in God's first temples.

into the yard in case of an emergency. Far more important than the negative aspect of preventing disaster through fire, is the positive effect upon the children and upon the community of these wholesome open air, close-to-theground, close-to-nature, homelike and human school buildings.

With such possibilities in view, with inexpensive construction in an honest material honestly expressed, a material that the knocks and scars of time will only make the more beautiful, we can picture to our minds an environment so vastly different from the standard fireproof, several-storied Minnesota school building, efficient as it doubtless is, that we can at once begin to see many of our



Studio of Paul S. Mueller, Landscape Architect, Minneapolis.

Purcell and Elmslie, Architects, 1912

"Half of architecture is the relation of a building to its environment," said the ancient Chinese building authorities, who were architect-astrologers. They were consulted with sincere respect for their wisdom concerning shelter and prospect, convenience and neighbors, winds and water, soil and market, stars, fairies, and ghosts. They helped people on with a life one could live well or otherwise might find hard. We trouble ourselves too much with aesthetics, we worry the gadgets and tricks of design. Architecture is the flower of beautiful living. The Fine Art of Building may include the mechanics of convenience and construction, or rise in majesty above such scaffoldry.

complex social, economic problems solving themselves. In the decade immediately preceding the war there came to be a very changed attitude, both on the part of the public and of the Architects, in this country toward the use of brick. It used to be thought that brick was not a monumental material, but people have now come to recognize it as the monumental material which it may be. Unfortunately for the manufacturers of wood, people have yet to be taught to see that the monumental quality of any building material is something more than the material itself, in fact, the monumental quality rests not in the material, but in the quality of mind and heart of those who make use of it.

♦ Dignity or Starched Shirt ♦

The leading firm of Architects in New York City at one time refused absolutely to design a building to be built of brick. They considered it beneath their dignity. Since that time many brick buildings have voluntarily come from their designing boards. The change is significant. Certainly we have enough examples of monumental buildings in the past that were built of wood to indicate to us that it is a monumental material just as fine and splendid and full of character as brick, and the enameled terra cotta of Ancient Babylon proved it to be. But people generally do not now believe wood to be an essentially monumental material. In the larger sense it is looked upon to a great extent, as a substitute material, to be used as a matter of architectural designing where other materials cannot be had or are prohibitive, on account of expense.

We had formed a fixed habit of building all important buildings in stone and now in a very few years we have watched the process by which we people have come so quickly to a point where we are willing to build the finest buildings in brick. How long will it be before those events transpire and those forces are put into action which will come to make the builders and the people of this country realize that wood also is a worthy material for the most splendid building? But in this we must remember that the monumental use of wood demands the taking of an entirely different attitude towards buildings and the development of an entirely different form of building than anything we have produced to date.

When material needs in dwellings and appliances to supply them are seemingly endless and while the study of how to live convenient, comfortable, outdoor lives has only begun, the daily price we pay for noninflammable building material seems too great and may not be appreciated by our descendants. I wouldn't trade my wooden house, with its pool, and flowers, and many windows, to found a domestic heirloom and proudly hand it on.

♦ Organized Experiment ♦

For this reason modern domestic architecture must concern itself with scientific and essentially wooden forms. The method of developing such an architecture should be clear, and this does not mean merely the building of one story substitutes for other types of buildings. Nor does it in any sense mean the casting aside as unworthy, the architectural experience that has come down to us from the past. It means on the contrary that we must truly profit by past knowledge and experience in Architecture and not settle back into a mere copying or translating of the ancient forms, however splendid, which archeology has revealed to us. This knowledge and experience shows us, as Rodin the great French sculptor has said, "the thing is to find out how the Greeks did what they did, to learn their methods, not to copy their works." With this clean cut, practical attitude determining our course, and laying aside the forms of historic architecture with reverence and appreciation, we face the machinesized tasks of this wonderful, far flung, modern age.

But to insure something more than factory-like forms, vital and necessary as they are, we must not only permit the forms of modern American architecture to develop naturally from the construction, mechanics and practical needs of the building, but the problem must also be approached with a poetic insight and understanding of our own times that will permit these forms to become lovely, significant, and expressive of the best in this nation. In this way, and in no other, can a universal Architecture arise which will be worthy of this fascinating modern world of ours, — expressing itself naturally and freely in all materials and exposing to general appreciation the native dignity and fineness of woods in all uses.

♦ Still Much to Learn ♦

We certainly cannot expect to accomplish this in a year or so. We must begin with the educational basis. We must concern ourselves with the schools and see that problems are presented which will encourage active thinking, not only in terms of wood, but careful thinking with regard to the use of all the various materials. Only in this way will the true significance of wood as a building material come to be generally recognized, not only with regard to its own intrinsic quality, but enriched and beautified through contrast and comparison with the special qualities of the other materials.

I carry in mind a picture of a familiar scene in a little modern Greek village; a man standing on top of a great piece of timber, propped up on stakes about six feet from the ground, and another man standing below whip-sawing the timber into boards. Anyone having to produce lumber in that manner would have an entirely different feeling about lumber than one who is accustomed to go to the yard and buy what he needs. Where material is hard to get one feels much more respect for it and becomes more intimate with its qualities.

The planks which were used by the contractor of Ancient Rome were a part of his permanent stock in trade. They were capital property and were not to be used up in a few weeks as wheelbarrow runways. Under the concrete vaults of the Palace of the Caesars on the Palatine, one may see not only the marks of these planks of which the forms were made, but may also clearly see the imprint of the bronze strips with which the ends of the planks were bound to prevent splitting so that they might be used over and over again.

So if one has to actually cut the wood himself he soon realizes not only its good qualities, but takes an especial joy in what it is. This means, of course, that he will wish to give this pleasure to others. As far as expression of material is concerned, that is the vital basis of architecture, old and new.

♦ Elbert Hubbard Schooled the Nation ♦

The so-called "Mission" idea which arose in this country forty years ago has a special significance for lumbermen. The "Mission" idea does not mean so much in itself as it does in the intimation it gives of an anomalous condition that was rectifying itself. This "Mission" idea was but a means to an end. Not only in the matter of socalled "Mission" furniture, but in the design of buildings, this idea had such a powerful effect from one end of the country to the other that we would do well to consider its significance.

The basic idea underlying the movement was really a desire on the part of the people for a return to the simple, honest use of materials, and particularly of wood. Wood had been used with so little regard for its particular qualities — it had been so generally abused that people had reached the point where they were simply tired of looking at imitations of other building materials made out of wood and imitations of wood carving made out of papier-maché.

Architecture and indeed the Fine Arts themselves had come to a point where everything was made to appear to be something that it was not and human interest in architectural design simply disappeared because what was being done by the designers represented to the public simply a series a delayed disappointments. There was no satisfaction in anything, nothing was genuine. People were hungry to see a good, clean, honest piece of wood. They would

ARCHITECT

prefer to have things out of proportion; they were willing to have a piece of furniture that was heavy enough to serve in a circus — but they did not want any more papiermaché ornaments in imitation of wood carving.

This return to constructional furniture and to the constructional use of wood in the externals of domestic architecture has had a very wholesome effect. It has taught people generally to understand again what wood is and what uses of it are dignified and just what attitude in design will enable it to grow old beautifully. But after all, the really important thing is for us to determine what, in these times, is to be the architectural expression in wood. What qualities of wood, what methods connected with its production and what habits connected with its everyday use, both in the large and in detail, are going to determine and point out the forms in architecture by which wood is to express itself?

If we go back to Colonial times it is interesting to find that dwellings were not only built of wood, but that their architectural expression, what they had to say for themselves, was all in the nature of telling the story of wood and its fine use. It is true that the architectural forms, to one who is intimately familiar with the history of Architecture, reflect the stone forms of ancient Greece, but in gradually being translated to modern uses the ancient architectural phrases become changed and modified to suit the nature and spirit of wood.

Porch posts for instance, which we have familiarly come to call "columns," were, in Colonial times, not merely Doric stone columns transformed into wood, but were truly wooden posts ornamented with wooden mouldings and fillets, whose forms only suggest the ancient mouldings of the Greeks.

♦ 1745 A Long Ways to 1945 ♦

Since Colonial times a great many changes have taken place in America. We are now living in a machine age and the spirit of machinery enters into nearly everything we do. Few realized what was to be the far reaching effect of the use of machinery. Buildings which were built fifty years before machine made products came into general use, now look old fashioned. We now like best the modern buildings in this country and this can be said to rest in considerable measure on the fact that the old buildings are buildings of *short span*, while the modern buildings are those of *long span*, built with the long reaches of beams and girders made possible as a result of the development of machinery in this modern age.

The spirit of the machine enters into all manufactured lumber. With modern methods we can produce long, clean, accurate boards, in unlimited quantity, the use of which will certainly have a very decided effect upon the design of everything we build. The old use of lumber, with the intimate touch of human hands upon it, had a charm all its own that arose from the texture and incident resulting from hand work. But now hand and brains first make machinery and the machine becomes the modern hand which actually touches the product. The machine handles the products with a fineness, a precision and accuracy never dreamed of before. The qualities of businesslike performance, methodical manner of handling, absolute standards of product have come to represent the romance of modern times and it is these qualities which we must emphasize in modern architectural design.

In all our attempts to give to wood the monumental character which it could have, *these essential qualities* must be recognized as the fundamentals of art. This new machine use of wood is going to show us the way in which we may organize our buildings, so that we will desire always to use wood in the proper way. This does not mean an elimination of mouldings. The modern machine has shown us how to make very wonderful mouldings with possibilities undreamed of before the advent of modern woodworking tools. These mouldings will be of a very different sort than those produced under the old hand methods

duced under the old hand methods. Thus the basic forms of domestic architecture in wood are surely taking on, here in America, a character which has the same common elements, whether on the Pacific Coast, in the Mississippi Valley or in the suburban cities of the East. It only remains now to express these domestic forms with a genuine and complete acceptance of the material which fathered them, and to prove to designers the architectural opportunities which lie at hand in the use of the splendid machine-made product that modern lumber is.

John Ruskin, the nineteenth century English architectural philosopher,

was very much opposed to the use of machine-made mouldings and ornaments. He was also opposed to the use of ornament at all in railroad cars. His arguments to prove his points were sound logic, as based upon the conditions of life at that time. But, if he were now here and saw the universal and useful place which machinery is taking in the modern world, the very arguments which he used against the machine-made mouldings, which he felt to be false imitations of the patient labor of the human hand, and his arguments against the decoration of railroad cars, which he saw only as the conveyors of human freight, which they then were, he would be the first to admit his conclusions to be no longer valid. Our changed conditions would have led him by the same reasoning to approve of modern machine-made ornament, which astonishes us with its display of skill and of delicacy and of myriad repetition, and also to approve of the railroad train with the luxury and opportunity for rest and comfort scarcely dreamed of in the Victorian Club.

♦ Overcoming Functional Architecture ♦

Architecture is the flower of building construction. Architecture is the Fine Art of making things. It is not so much concerned with all the parts and processes that go to make up the material building as it stands before us, as it is the smile that the building gives, the evidence that it is really alive after its structure is complete.

Someone has said that the chief characteristic of our time is that of "being busy and being still." A great big wood-burning locomotive of the olden times, with an enormous funnel smokestack would display about as much energy going from Minneapolis to St. Paul as nowadays would take it to Chicago. We like to have a little motor down under a street car whirling us along at surprising speed. We like to think of great things being accomplished with some insignificant show of force. I think that some of us enjoy most the types of buildings which trouble some architects so much, because they appear to be resting on sheets of plate glass. We like to think it a characteristic of American men not to show off - of going about their business without display. As that is the quality of the times in which we are living, that quality must find a means for expression.

This quality of Art, this even and clean cut aspect of things, this being businesslike, is the quality that we are going to find expressing itself most effectively in the architecture of the times upon which we are now entering. Instead of all the joints and a complete explanation of how it is put together, showing on the outside of each building or each piece of furniture that we make, it is quite

possible that we are going to have our construction covered with a skin or clothing material on the outside which, while it does not deny the way in which the affair is but together, on the other hand does not feel the need of explaining everything in detail. Our own bodies seem very modern and, in this view of things, appear to have been continually expressing the modern spirit since the beginning of time. What wonderful mechanisms they are, and yet the flexible skin hardly more than suggests the highly articulated wrists. The body makes no attempts in the way of architectural design to decorate itself with a single item that is not practically necessary. This

is the modern spirit in art, the spirit of high powered, high idealed usefulness — of being very busy without display. W. G. P.

1916 WORLD WAR NUMBER ONE

As long as the average citi-

zen accepts dwellings that are

little more than cellular boxes.

we cannot expect to secure

public buildings for which we

can come to have affection and respect. The small dwell-

ing house is the school of archi-

tecture through which we will

come to understand the true

nature and possibilities of

wood and to use this knowl-

edge with beauty and distinc-

tion.

AS FAR AS YOU HAVE READ in the text about "Wood in the Modern World," does it all seem in line with today's very "modern" idea? Well, when Mr. Purcell's piece was first shown the Editor of the NORTHWEST ARCHITECT, he was more than surprised to find that the text, which reads like description and analysis of current events in the Architectural World is, as a matter of fact, entirely a prophecy made 28 years ago. This text is taken from a stenographic transcript of a speech made by Mr. Purcell, who was at that time President of the Minnesota Chapter of the American Institute of Architects, in the Minneapolis Club, January 20, 1916, at a dinner given by Minneapolis Lumbermen. It was published in full and given a wide circulation in the Better Building Magazine, number 61, of the National Lumber Manufacturers Association, April, 1917.

At that time such recommendations as these concerning functional design, use of the machine, and scientific organization applied to art were strongly resented by the architectural profession in general and these ideas which now seem logical and reasonable, and have come to be generally accepted by architects the world around, were in 1916 thought radical if not fantastic.

We believe you will concur with the Editor that this remarkable forecast has proved to be practically a specification for what actually came about. We would especially note the last paragraph in which the streamline philosophy and procedure for both industrial and architectural design is clearly stated at least ten years before any evidence of such designing appeared on American drawing boards.

Readers of the NORTHWEST ARCHITECT who have followed Mr. Purcell's writings for the past four years, more particularly the stories about Dr. Gray and the philosophy of honest life, will be interested in the following, taken from one of his recent letters:

"Spoken language is music, and how those word sound patterns stick!,—"McLannahan," "McGauron," (Mageron) "McAllister." For me McAllister always seemed to have an echo in it like footfalls in an empty attic. Then Grandmother scolding me for sliding down our black walnut bannisters when I was four, "Willie, youlloozurebalence." "What a funny word and what a funny idea — first metaphor! I laughed and laughed said the words over and over. And there would be tags of conversation, "Often went over to Chillicothe"; or when she came home from Chicago with many packages, bringing winter freshness and snowflakes on her black sealskin coat, ". . . down at Gossage's on Waubeyshavanue (Wabash Ave.), how fascinating sounds were when plaited into words for using — saying this and that *so* puzzley. Tamoshanter, whiffletree, cuttysark — *very* surprising — like red apples among the leaves. I've always loved to hear good talk and salty speech, and much of it I've heard, Scotch and Irish, Norse, "Dutch," and Lumber Jack."

"The great Harvard master of rhetoric, Edward Tyrrel Channing, who taught Thoreau, Emerson, Holmes, Motley, Parkman — said, "confident freedom of thought and style comes from a writer's pride in his own people, and the world in general values most the writers who bear

E. E. BACH MILLWORK CO. 3121 Hiawatha Ave. - Minneapolis Distributors of Andersen Casement Units and Andersen Narroline Frames the unmistakable stamp, the pungency and native sincerity of their own time and place."

"That, exactly, is the power and flavor of the writing of my grandfather, William Cunningham Gray, and I hope it may prove to be so for mine!" W. G. P.

State Board Announces New Registrants

The State of Minnesota Board of Registration for Architects, Engineers and Land Surveyors announces that the following men have been recently granted certificates to practice as Registered Architects in Minnesota:

John W. Hays, 1161 La Fond, St. Paul. Basil Sourochnikoff, 1875 Carroll Avenue, St. Paul. Theodore L. Sime, 1914 Iglehart Avenue, St. Paul.

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ARCHITECT

American Institute of Architects, Producers' Council Sponsor Adoption of Modular Planning

Co-ordination of dimensions of building materials and equipment concerns. Project A62 of the American Standards Association of which The American Institute of Architects and The Producers' Council are joint sponsors. Technical and secretarial services for this project are furnished by the Modular Service Association, 110 Arlington Street, Boston 16, Mass., of which M. W. Adams is secretary.

Project A62 is conducted by a sectional committee composed of representatives of interested professional and trade organizations, and governmental agencies. Max H. Foley, member of the architectural firm of Voorhees, Walker, Foley & Smith of New York City, is chairman, and the vice-chairman is George J. Haas of the Stran Steel Division of the Great Lakes Steel Corp., representing the Producers' group.

The basic standard for co-ordination (designated as A62.1) was circulated some time ago for industry criticism and suggestions. It will be shortly distributed for letter ballot to the sectional committee, and upon approval will be submitted to the American Standards Council for adoption as an American Standard. Accompanying it will be a proposed supplementary American Standard (A62.2) for co-ordination of masonry, including all types of masonry units.

The adoption of these basic standards will permit the adoption of supplementary American Standards which establish the co-ordinated sizes for various materials and equipment. For example, the Metal Window Institute representing manufacturers in that line have already announced agreement upon modular sizes to be made available following the end of the war. Manufacturers of brick and clay tile products throughout the country, through the efforts of the Structural Clay Products Institute, have also agreed to furnish modular sizes after the war, while the National Concrete Masonry Association has practically completed its work on concrete masonry units. Substantial progress has been



made by the manufacturers of wooden doors and windows working through the National Door Manufacturers Association. It is anticipated that the entire external walls of masonry structures can be built on the modular basis with modular products, within a few months after the end of the war. Manufacturers of other building materials and equipment are at work adapting the dimensions of their products to the modular basis. These studies are being handled in the usual way through study committees established by the A62 sectional executive committee.

The efforts of The American Institute of Architects and The Producers' Council in this project are co-ordinated through their joint technical committee of which Abraham Levy of the architectural firm of Silverman and Levy in Philadelphia, and Tyler S. Rogers, Technical Director of Owens-Corning Fiberglas Corp. in Toledo, are co-chairmen. This joint committee is now studying the material which the architect and engineer will require, including lecture material for local meetings.

Architects are urged to design postwar building projects on the modular basis, as a means of lowering the cost of construction and improving the quality of structures built after the war, in a statement by Tyler S. Rogers, chairman of the Technical Committee of the Producers' Council.

"Recent adoption of new modular sizes by manufacturers of metal windows, supplementing previous agreement on sizes of brick, clay tile, and concrete blocks, and progress in that direction by manufacturers of wooden doors and windows, makes it possible to enjoy the benefits of modular planning on an important scale immediately after the war, if projects are designed accordingly," Mr. Rogers said.

"Modular design is a plan for eliminating waste of labor and materials in construction by co-ordinating the dimensions of the hundreds of building products so that they will fit into the finished structure with a minimum of cutting and fitting on the job.

"In addition, modular planning reduces construction costs by saving time for architects and engineers in the designing of structures, by permitting a reduction in the number of sizes which must be produced and kept in stock by manufacturers, and by saving time and reducing the possibility of error in the actual construction.

"The quality of construction is improved because the various products used in a structure fit together almost automatically, inasmuch as their dimensions have been co-ordinated.

"Within a few months after the end of the war, it is anticipated that the entire external walls of masonry structures can be built on the modular basis with modular products, and manufacturers of other building materials and equipment are at work adapting the dimensions of their products to the modular basis.

"Although no attempt has yet been made to evaluate the dollars and cents savings which will result from general adoption of the plan, it is generally agreed that modular planning will result in substantial economies, and a number of large postwar projects already are being designed to take advantage of the lower costs which are anticipated." Scores of comments have been received from our readers in appreciation of our recent presentation of Louis Sullivan's "What Is Architecture."

H. W. Fridlund, Editor.

• Just a line to let you know that John Coolidge thinks "The Sullivan material is perhaps the best thing you have ever published. Increasingly I find that I value rereadability in magazines more than readability, and the Sullivaniana is something I shall return to frequently"—I consider this a real tribute.

TURPIN C. BANNISTER Editor of the Journal of The American Society of Architectural Historians, Troy, N. Y.

 I enjoyed reading good old Louis Sullivan's symposium and especially your interpretative remarks. H. DERCUM, ARCHITECT Longview, Washington

• The handsome reprint from the NORTHWEST ARCHI-TECT was read and enjoyed from cover to cover. Mr. Sullivan's essay is enhanced and enriched by remarkable interpretative notes, comments and deductions, which are of the highest intellectual and literary standards.

FRANK BRANCH RILEY, Portland, Oregon A Prominent Lawyer of Stanford University and Harvard Law School, Author and Publicist of National Reputation.

- The ordinary layman does not usually think of architecture as an expression of the philosophy of the people. I have found the reading of Sullivan's article and interpretation to be most interesting. C. Y. BROUGH Hanover, Pa.
- This is a valuable service to the course of architecture, especially at this time when there is evidence of an effort—generally among the young men—to do something different or "modern."

RUDOLPH WEAVER, F.A.I.A. Head of Arch. Dept., University of Florida, Gainesville, Fla.

• As one who for many years discussed L.H.S. in lecture courses (1903-1940), I rejoice in anything that helps give him his place, or helps hold it, or create it in the minds of those who come after. The pamphlet is a worthy thing and reflects the spirit of the man. EMIL LORCH, F.A.I.A. Dean Emeritus, Head Department of Architecture, Univ. of Michigan

• And from Carl Sandburg, Author of Famous Series of Lincoln Biographies, Harbert, Michigan.



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Drawing shows how Celo-Rok Roof Slabs are applied. These slabs provide strong, fireproof roof decks that save time and lumber. Celo-Rok Roof Slabs are made by laminating $\frac{1}{2}$ " sheets of gypsum wallboard to thicknesses of 1", $\frac{11}{2}$ " and 2". Width of slab is 2 ft. Lengths: 8, 9, and 10 ft. All thicknesses are available with long edges shiplapped. In addition, $\frac{11}{2}$ " roof slabs are furnished with long edges T&G. Celo-Rok Slabs provide an excellent bonding surface for built-up roofing materials. The exposed inside surface is covered with a light, ivory colored paper to give good light reflection. It can be easily painted if desired.

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The drawing shows a typical wood-framing installation of this famous multiplefunction building material. It is made with a core of Celotex rigid cane fibre insulation, sheathed on both sides with a 1/8'' layer of asbestos cement bonded to the core with bituminous asphalt adhesive. It is used with wood or steel construction, taking the place of exterior and interior walls, insulation and finish. Simplification of framing, fire- and moistureresistance are other advantages of Cemesto. Sizes: 4' wide panels, 4', 6', 8', 10' or 12' long, in thicknesses of 1/8'', 1-9/16'' and 2''.

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Specification Briefs

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(Applied to Wood or Steel Framing) – All exterior wall framing shall be covered with Cemesto $(1\frac{1}{8}")$ (1.9/16") (2") (select thickness) thick, applied in accordance with The Celotex Corporation's current application details and recommendations.

CEMESTO ROOF DECKS

(On Wood)—All roof wood framing, listed or noted on the drawings shall be covered with Cemesto (1-9/16'') (2'') (select thickness) thick, applied to not over 4'0'' spans in accordance with The Celotex Corporation's current application details and recommendations.

CELO-ROK ROOF DECK SLABS

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