A SHINGLED HOUSE AT SEATTLE, WASH.

AT intervals in the past we have had requests from some of our readers to publish designs of houses showing the drawings so far as possible with all the data upon them exactly as furnished by the architect. The idea of this was to indicate all the little details and memoranda available for the practical builder as the drawings come from the hands of the architect, and which serve in conjunction with the specifications as his guide in executing the work. With a view to meeting the wants of our readers in this respect we have selected the design of a shingled residence in Seattle, Wash., and present herewith engravings which are direct reproductions from the architect's drawings. The half-tone supplemental plates are made from photographs of the completed structure, one of them showing the general treatment of the exterior, while the other gives an idea of the interior finish.

The house covers an area 30 x 40 feet, with front and rear porches, and has a foundation of concrete made up of

Front Elevation.—Scale, ⅛ Inch to the Foot.

A Shingled House at Seattle, Wash.—A. W. Spalding, Architect, Seattle, Wash.

5 parts gravel, 3 parts washed coarse sand and 1 part Alsen Portland cement. The floor of the basement has 2½ inches of concrete as above, and is finished with 1 inch of sand and cement in equal parts. The same sand and cement finish 1½ inches thick is applied to the slope of the sides of the basement, the earth being first prepared by making it smooth and compact. An idea of this treatment may be gathered from an inspection of the sectional view taken on the line A A of the foundation plan.

The advantages of this form of treatment are set forth by the author of the design in the following words: "While slightly reducing the floor size of the basement it greatly reduces the cost of the foundation wall, as it leaves dry earth beneath the wall, insuring a perfectly dry basement. I have used this form of construction in Minneapolis, a severe climate, and on the Pacific Coast, a mild, wet climate. In certain soft soils it is well to run down piers about 8 feet apart. The cost is reduced on the whole fully three-fourths. No better foundation was ever put under a house than under the one illustrated in the plans and photograph herewith."

Another important feature in connection with the house here shown is the "light mill construction." The joists are 3 x 10 inches, spaced 32 inches on centers; the lining floor is 1¼ x 8 inch shiplap fir laid at right angles to the joist, no bridging being used. The attic flooring is laid single of ⅞ x 4 inch No. 2 fir on 2 x 8 joists placed 16 inches on centers. The first-story ceiling consists of 1½ x 2 inch strips, also placed 16 inches on centers for lathing. The finish flooring of the first and second stories is ⅝ x 2 inch D. & M. quarter sawed white oak laid at right angles to the lining shiplap floor. This wide spacing of joists, with no bridging, reduces the cost of labor and also very materially reduces the spread of fire. The usual construction of light 2-inch joists with bridging constitutes kindling wood between floors. No more material is used in this form of construction than in the ordinary style.

Another point to which the author invites attention is the width of the house as compared to the depth. Usually for inside lots not over 50 feet wide houses are built narrow and deep, but the author of the dwelling here shown claims the latter to be incorrect. The most desirable outlook from a house next to the front is the rear; the sides being usually shadowed by adjoining houses on narrow lots. This house is supplied with an unusual glass surface because located in a cloudy climate; the wide overhanging eaves protect the house from rain.

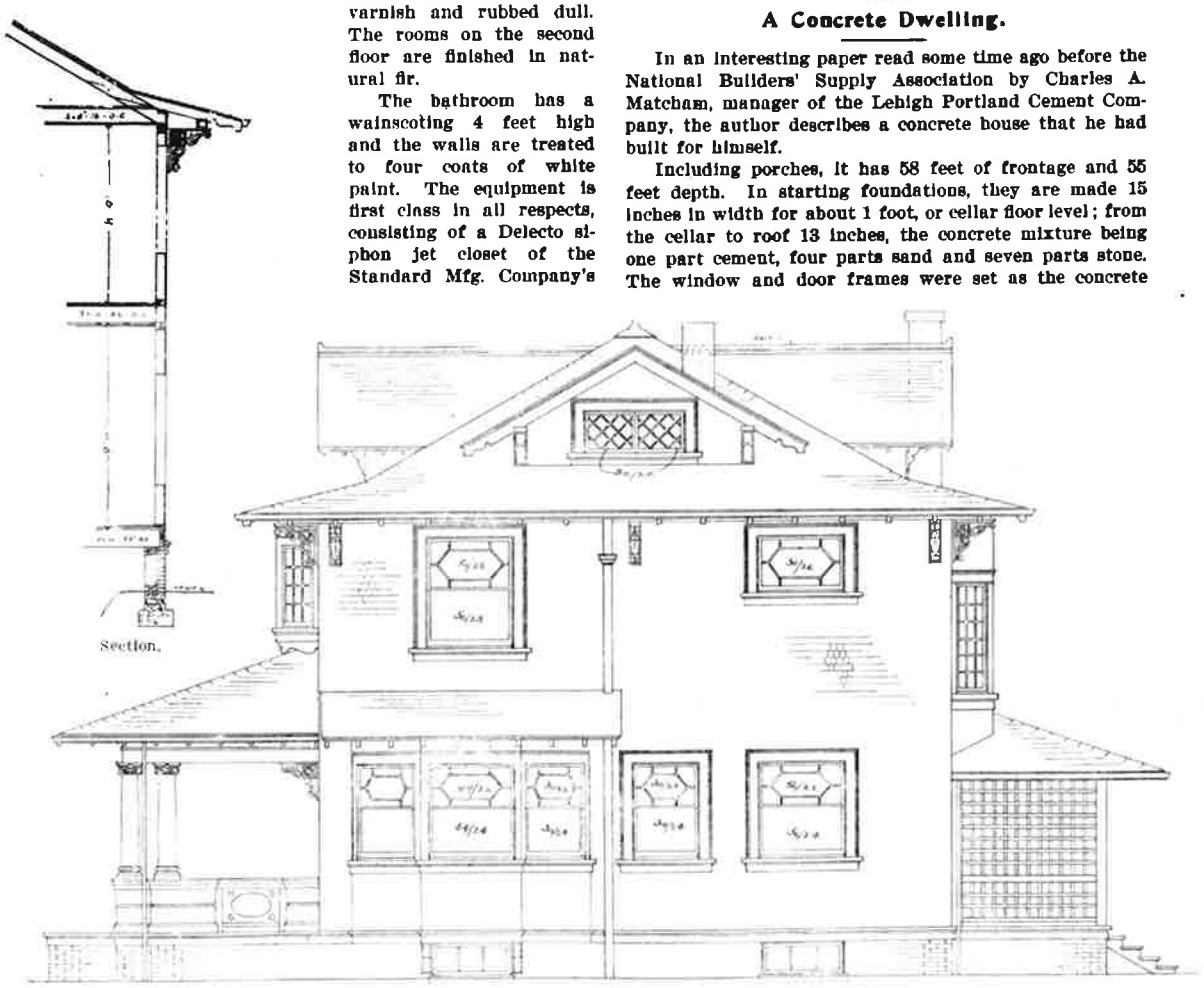
The outside of the frame of the house is sheathed with ⅞-inch fir shiplap, over which is placed tough building paper, No. 1 P. & B., the same being used over the shiplap on the roof. On this, in turn, are laid cedar shingles, as indicated in the half-tone picture of the exterior. The outside trim of the house is painted with three coats of pure white, while the shingles are tinted with two coats of Berry Bros.' dark brown shingle stain. The brick work is selected red sand mold bricks laid in red mortar for basement, veneer and chimney tops.

The building is plastered in a first-class manner with three coats so-called wet work, white putty coat finish. All ceilings are tinted a light cream, the first story ceilings being decorated in an attractive manner. The side walls throughout are papered and those of the reception room and dining room are tinted and paneled in water colors. The hardware is of neat design, sand blast finish.

The interior finish of the principal rooms of the house

is noted on the plans. An inspection of them shows the living room, reception room and hall to be finished in ivory white, three coats, and varnish rubbed to a dull gloss. In the hall, dining room, reception room and living room is a wainscoting 2 feet high. The dining room is finished in natural fir, being treated with two coats of varnish and rubbed dull. The rooms on the second floor are finished in natural fir.

The bathroom has a wainscoting 4 feet high and the walls are treated to four coats of white paint. The equipment is first class in all respects, consisting of a Delecto siphon jet closet of the Standard Mfg. Company's make, wash bowl of the Copley pattern and a bathtub with Imperial waste. The house is piped for gas and wired for electricity, the dotted lines on the first floor plan running from the walls to the chandeliers indicating the position of the various switches controlling the different lines. The house is heated by a Richardson & Boynton furnace and ventilated by the vent flue in the chimney, the vents running to the base of the chimney from each room.



A Shingled House in Seattle, Wash.—Side (Right) Elevation.—Scale, ⅛ Inch to the Foot.

The principal items of cost are mason work, including foundation, concrete floor, chimneys, brick veneer, &c., $400; carpenter work, including lumber, material, work and labor, $1800; plastering, $250; painting, $350; plumbing and sheet metal work, $350; heating, $150; hardware, $150.

The house here shown was erected for himself not long since in Seattle, Wash., by A. W. Spalding, architect, 620 Colman Building, Seattle, Wash.

THE CONCRETE WORK on the west basin of the Jerome Park Reservoir, New York City, is nearly finished. The area of this basin is 93 acres, and it is being lined with concrete 6 inches thick, made by a battery of 18 Ransome concrete mixers. The mixers are mounted on trucks and are readily moved as the work progresses. The stone is delivered to the mixers in flat cars and is shoveled from the cars into Ransome charging hoppers. This is probably the largest number of concrete mixers ever engaged in work at one time on a reservoir. When the contractor, William Bradley of New York City, has finished the west basin he will begin upon the east basin, which covers 160 acres.

A Concrete Dwelling.

In an interesting paper read some time ago before the National Builders' Supply Association by Charles A. Matcham, manager of the Lehigh Portland Cement Company, the author describes a concrete house that he had built for himself.

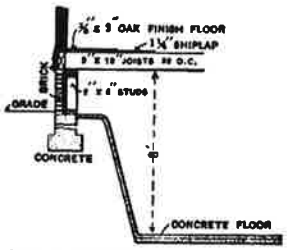
Including porches, it has 58 feet of frontage and 55 feet depth. In starting foundations, they are made 15 inches in width for about 1 foot, or cellar floor level; from the cellar to roof 13 inches, the concrete mixture being one part cement, four parts sand and seven parts stone. The window and door frames were set as the concrete progressed. The hall floors, 16 x 35 and 8 x 15 feet, are of concrete and expanded metal; the floor is 5 inches thick, laid on 12-inch by 17-foot beams set 8 feet apart. These concrete floors were finished off with cement and tile bordering. The porches are also of concrete and expanded metal resting on an offset in the concrete walls, with cement and tile finish. The porch roofs are of a clear span of 12 feet, made of concrete and expanded metal.

This expanded metal was of 2-inch mesh, ⅛ inch thick. It was laid on the boards set to hold the concrete. To this expanded metal were fastened some small channels 1 inch deep and 2 feet apart. The concrete was then laid and tamped into the meshes and around channels and made 4 inches thick. The walls and arches are reinforced with iron rods, the walls having ¼-inch rods set vertically and horizontally about 18 inches apart, and over the windows and porch openings ½-inch rods are laid in the concrete.

All the rough concrete, after framing was removed, received a rough coat of cement and sand plaster, proportions one to four. This gave an even surface and could have been considered the outside finish, but in order to have a light buff finish a second coat of lime and yellow sand was put on very thin, proportions being one part lime to four parts sand.

In doing the work over again Mr. Matcham would

only apply one coat composed of one part cement, one part lime and five or six parts of white or yellow sand. The moldings on the columns were finished by applying the coating of lime and sand with a brush. The adhesion of the coating to the concrete has made a perfect bond. A house with the natural concrete finish, evenly roughed off, would have a neat finish and of course be cheaper, but not as warm in appearance as the buff sand finish of this house.



Section through Foundation on Line A A of Basement Plan. —Scale, ½ Inch to the Foot.

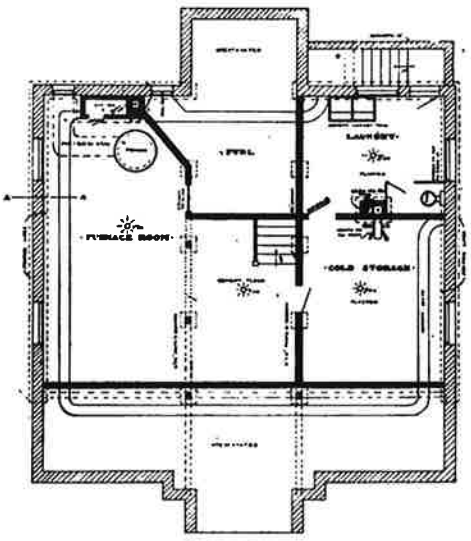
The fire place in the billiard room is made of ordinary red clay brick and gray cement brick, the mantel being molded in one piece, cast out of sand and cement. The fire place in the dining room is of sand and cement brick with molded mantel.

Much has been said as to the feasibility of plastering on solid walls without using lathing, there being doubt about moisture coming through the walls and plaster. Moisture will not penetrate a solid wall if a reasonably wet concrete is used; a dry concrete Mr. Matcham cannot vouch for, and water may penetrate it, although this is doubtful.

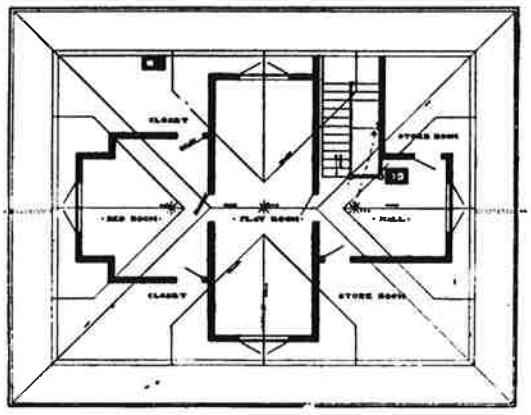
Claims are made that the different temperatures between the inside and outside of walls, particularly in winter time, cause sweating. Mr. Matcham denies this on the ground of experience with various kinds of buildings, all having varying temperatures; all have shown perfect dryness inside, irrespective of temperatures and weather.

As to the cost of construction there were 400 cubic yards of concrete in the walls and floors of the house, and taking into consideration the carpenter work, setting up framing, setting doors and window frames and joists as the work progressed the common labor, cement, sand and stone totaled up to $2600, which would make the concrete cost $6.50 per yard. Ordinary brick houses with pressed brick face cost, he said, from $10 to $12 per cubic yard.

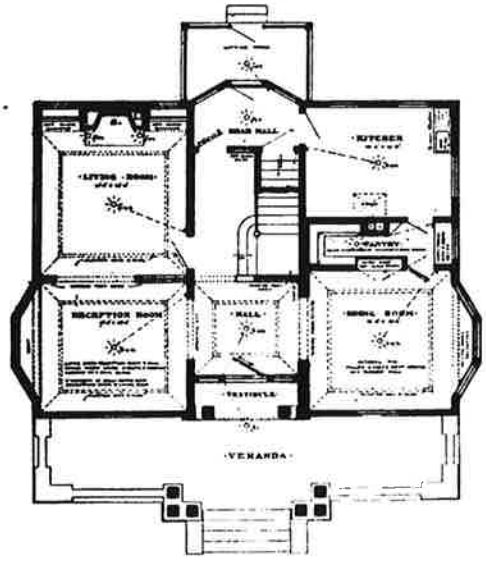
In considering the cubic yards of concrete in this house the hall and porch floors and roofs are figured in. If these had been figured separately the main walls of the house would cost less per cubic yard, and of course the floors and roofs more. The following material was used to a cubic yard of concrete: 320 pounds of cement, 950 pounds of sand, 2560 pounds of crushed stone, 290



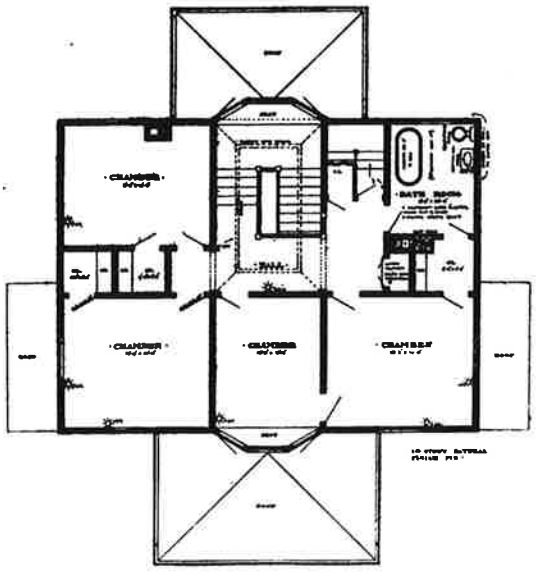
Basement.



Attic and Roof Plan.



First Floor.



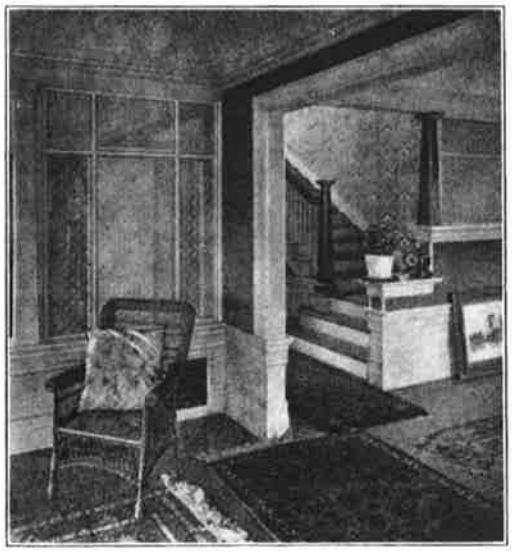
Second Floor.

A Shingled House in Seattle, Wash.—Floor Plans.—Scale, 1-16 Inch to the Foot.

pounds of water. Total, 4120 pounds. The proportions were about one part cement, three parts sand and eight parts stone.

Specialization and the Architect.

The industrial machinery of the twentieth century demands of each individual the performance of the task for which he is best equipped. The tendency of the age is toward specialization and co-operative effort, says Charles H. Israels, a well-known architect of New York City, in a recent issue of the *Architectural Record*. Each department has its definite area of activity, and co-operation itself is obtained through specialists in executive management. Most of the forces of industry are instinctively adjusting themselves to the new conditions. They have selected their own positions in the movement. A few have refused to recognize the tendency; the procession has swept by, and being unable to carry them along has ruthlessly bent them in the direction of progress—where they either remain stationary or are forced into positions for which their workers are ill equipped and their original destiny perverted.

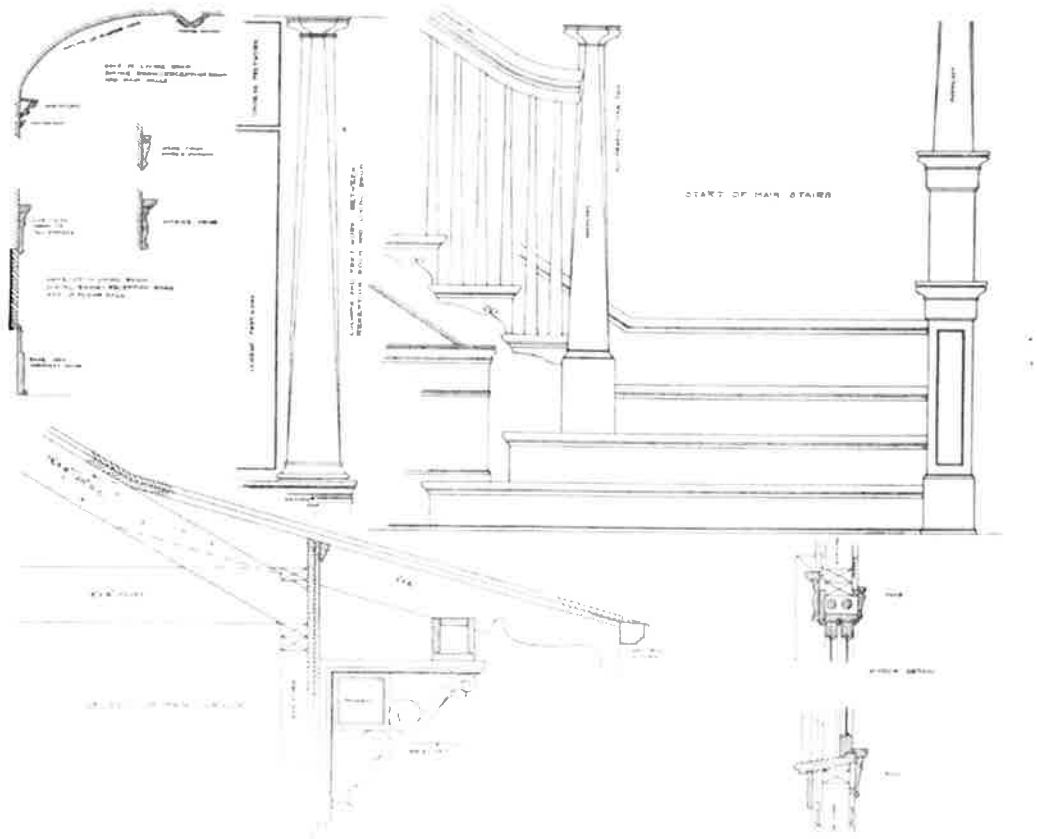


View in Reception Room Looking Toward the Main Stairs.

The complex building trades have responded in the main to this tendency—all but the architect. He is reactionary. Architecture in past ages was an art. Its practitioners were recognized as artists. The architect still proclaims himself an artist, but in a large measure he has become a business man; and the practice of architecture has become a business. A list of the most successful practitioners in the United States would contain the names of an undue proportion of men who owe their success to their abilities as organizers, promoters and business men rather than as designers, as architects.

The architect may deplore the fact, but he is himself responsible. He has not readjusted his work in order to cope successfully with the conditions of the times. He has not specialized in the one field in which his training makes him supreme. He has opposed this specialization. He has been stubborn. Other forces have bent him—and in his own specialty he stands still. His progress has been in directions where others can give better results.

THE USE OF SHEET COPPER has greatly increased during the past year, and in the last six months there has probably been more sheet copper used than during any corresponding period. This was largely brought about through its use for ornamental work where galvanized iron had been used heretofore.



Miscellaneous Interior and Exterior Details.—Scale, ½ Inch to the Foot.

A Shingled House in Seattle, Wash.