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Enthusiastic Meet of Texas Architects

SELECTING Dallas as the place for holding next year's associational meeting, the Texas State Architects adjourned a most enjoyable session at Houston November 14, with a banquet at the Brazos Hotel. The following officers were elected to serve the ensuing year: M. R. Sanguinet, president; E. Stanley Fields, Fort Worth, secretary; Ollie J. Lorehn, first vice-president, Houston; Carl Von Suter, second vice-president, San Antonio; M. R. Barnes, third vice-president, Houston; C. G. Riencaster, fifth vice-president, Marshall.

There were in attendance upon this, the fifth annual convention, more than seventy architects from various parts of the state spreading the doctrine of "The City Beautiful," and preaching the gospel of

civic improvement, for it was from Houston that committees from each city with a state chairman was appointed to see that the plan of the beautification of the Texas cities was carried out and in this they voted to affiliate with the national association, The American Institute of Architects. The architects have planned a great work, and they have chosen Harre M. Bernet of Dallas to work the great plan. The appointment of Mr. Bernet as state chairman of the civic improvement committee met with unanimous approval at the convention.

The city beautiful committee of the association is composed of the following members: Harre M. Bernet, Dallas; Atlee B. Ayres, San Antonio; H. L. Green, Houston; B. G. Leake, Fort Worth; F. E.



Plate by Bucher Eng. Co., Columbus, O.
San Antonio River, San Antonio, Tex., Showing Beauty of Terraced Banks and Flower Beds.

Geisecke, Austin; Roy Lane, Waco; B. H. McKenzie, Galveston; H. C. Trost, El Paso; O. G. Roquemore, Amarillo; C. E. Prager, Victoria; C. G. Lancaster, Marshall; Oscar Ruffine, San Angelo; S. J. Fountain, College Station; George E. Lindsey, Greenville; F. W. Heldenfels, Beeville; John Tulloch, Sherman; E. C. Seibert, Texarkana; Henry Mount, Lubbock; M. C. Kleuser, Cuero; R. S. Glenn, Wichita Falls; Heber E. Pampel, Temple; F. W. Steinman, Beaumont; M. S. Ryan, Laredo; J. P. Annan, Shreveport, representing Sanguinett & Staats, of Fort Worth.

What a practical application of the principles of "The City Beautiful" has done for Kansas City in providing a magnificent park system, in Cleveland where municipal eyesores have given way to artistic landscape features, and in Chicago, in advancing the day when that city will have a lake front park system that will be one of the municipal marvels of the world, the Texas architects hope to accomplish in a measure, at least, for every city of any pretensions in the state.

Considerable business of importance was transacted. D. F. Coburn of the architectural firm of C. D. Hill & Company, of Dallas, introduced a resolution directing the association to arrange for an exhibit at the next state fair, which will embody some of the association's building ideas and attractively present the advantages of artistic construction. This was adopted. Atlee Ayres, of San Antonio, also introduced a resolution censuring the state university board of regents for going outside the state to select their architects at a higher rate of pay than is necessary to secure similar services from state firms. The resolution received warm support. Although some of the members were in favor of a vote upon the resolution, counsel prevailed which advised delay until the next annual convention.

In deciding upon the Dallas meeting next year, November was the month chosen, for at that time the state fair will be in progress, and this is in order to give support and weight to the exhibit which it was already decided to introduce at the fair, exemplifying the association's ideas of fitting architecture in the erection of new buildings in the various parts of the state. Fort Worth was the only serious contender for the convention honors. Telegrams were read from the chambers of commerce and mayors of both cities inviting the architects to gather there. But Dallas was given the preference.

The question came up of recognizing one of the architectural journals of the state as the official organ of the association, but this idea was defeated. A majority of the architects held that as there were two journals in the state devoted to their interests, and as each had shown equal consideration and courtesy to the organization, it would not be proper to show any recognition to one which was denied the other.

A resolution, thanking the press of Houston for the courtesies extended the organization and congratulating the members of the local reception and entertainment committee for the amusement and hospitality provided the delegates was also heartily adopted.

Entertainment and sight seeing was one of the features of the convention. For one day the architects visited Galveston and a portion of the trip was given over to the inspection of the government and municipal buildings of that port. The general attractiveness of design and architectural simplicity exemplified in Galveston's buildings received liberal praise, and several members expressed a desire that at some future date the convention meet in that city. The architects visited Oyster Park, where a delightful repast was served of oysters in all styles known to the culinary art.

Returning to Houston these city builders then repaired to the Bender Hotel, headquarters for the convention, where dinner was served. Afterwards they attended the coronation ball of King Nottoc XIV, in a body.

Floor Polishes.

The following formulas are given as yielding good floor polishes which have the added merit of being cheap:

| | |
|--------------------------|-----------|
| Stearin | 100 parts |
| Yellow beeswax..... | 25 parts |
| Potassium hydroxide..... | 60 parts |
| Yellow laundry soap..... | 10 parts |

Water and coloring matter are added to suit. Heat altogether until saponification takes place.

Another excellent formula is the following:

| | |
|---|----------|
| Beeswax, yellow..... | 25 parts |
| Yellow laundry soap..... | 5 parts |
| Glue | 12 parts |
| Soda ash (80° B.)..... | 25 parts |
| Water and ochre, a sufficient quantity. | |

Dissolve the soda ash in 400 parts of water; add the wax and boil down to 250 parts, then add the soap. Dissolve the glue in 100 parts of hot water, stir in the ochre and mix with the saponified wax.

The following is recommended for light, unstained parquette floors:

| | |
|-------------------------------|-----------|
| White wax | 75 parts |
| Bleached shellac | 75 parts |
| Clear rosin (transparent).... | 6 parts |
| Turpentine | 100 parts |
| Methylated spirit | 400 parts |

Melt the wax, shellac and rosin together, remove from the fire, let cool down somewhat, and add the turpentine with constant stirring. Warm the alcohol carefully to near the boiling point—this must be done on a water bath—then add to the other mixture with constant stirring.

A Pretty Knoxville Residence

Up at Knoxville, Tenn., a city noted for its beautiful homes and pretty streets, during the year now closing, many palatial residences have been erected and some as pretty designs can be seen there as in any city of its size in the country.

Through the courtesy of Messrs. M. E. Parmelee & Son, the well-known Knoxville architects, The Southern Architect and Building News is fortunate in presenting herewith the picture of a residence constructed from a design by this firm for Mr. P. F. Johnson, of Knoxville.

The cost of this pretty residence complete is \$4,500.00, and contains a laundry, a furnace and fuel rooms.

The first floor is mostly finished in oak and contains a reception hall, parlor, living room, dining room, bed room, kitchen, lavatory and many other conveniences.

The second floor has four bed rooms, a bath room and sleeping porch and a balcony, while in the attic is the children's play room.



Plate by Bucher Eng. Co., Columbus, O.

Residence of P. F. Johnson, Knoxville, Tenn., M. E. Parmelee & Son, Architects.

Coming Meeting of American Institute of Architects.

Philadelphia delegates to the annual meeting of the American Institute of Architects, to be held in Washington, D. C., on December 10, 11 and 12, will urge the establishment of a Bureau of Fine Arts that will in effect take the place of the Tarsney act recently repealed. The repeal of the law that for twenty years existed for the benefit of the country was fought by a committee of architects from the American Institute, of which John Hall Rankin, of this city, was chairman. According to Mr. Rankin, his committee was not able to clearly get at the foundation of the opposition to the act. But two

objections were made clear by those opposing it. One was the allegation that the Tarsney act, which permitted public competition in the plans for government buildings, cost more than if the work was done by government architects. The other reason given against the law was that "the secretary of the treasury was given too much freedom." Since the repeal of the law there is no department or branch of the government to supervise construction work. Each department does its own work, and to all new buildings authorized by Congress it will be necessary to attach how the work shall be planned and done.

The Creator of the Frisco Exposition

SOUTHERN friends of Henry Bacon, a native of Wilmington, N. C., are particularly interested to note the remarkable heights which this well-known architect has attained in his chosen profession, his latest triumph since his selection as designer of the Lincoln Memorial in Washington a year or more ago, being a commission to create for the great Panama-Pacific International Exposition at San Francisco the "Court of Seasons," in which, upon a background of bushes and vines tumbling from the walls, will set the massive groups, "Nature and Its Forces," and "Ceres and Her Attributes."

A recent review of the work to be undertaken says:

"Henry Bacon, the New York architect chosen to design the great Lincoln Memorial in Washington, will go to San Francisco next month to attend the third meeting of the Architectural Commission of the Panama-Pacific International Exposition. Mr. Bacon has been selected to create the 'Court of the Seasons,' that will be located between the buildings that will contain the largest exhibits of the greatest of all world fairs.

"The designing of the entire exposition is well advanced, and as there is, according to Mr. Bacon, great unanimity about their plans among all the architects, sculptors and painters, there is every promise of a notably successful outcome. Next month the final working drawing will be started.

" 'We are working together from the very beginning,' said Mr. Bacon in his studio at No. 160 Fifth avenue a few days ago when urged by the Tribune to tell its readers something of the plans. 'This fact cannot be emphasized too strongly. Architect, sculptor and painter are in perfect accord.'

"Mr. Bacon then explained the importance of such unanimity. In former expositions, for example, he said, the architects would design various pedestals. The sculptor was then told to produce sculpture to fit these pedestals. Mr. Bacon did not use the expression 'to fit,' but there was something in his gesture that seemed to promise his willingness to permit the Tribune man to use it if he so desired. For the next paragraph or two, therefore, expressed in his own words the substance of Mr. Bacon's criticism of former attempts to build expositions without first obtaining a harmonious understanding among the artists and the return to the pleasurable duty of quoting the architect's precise language.

"The sculptor, then, was formerly requested to design examples of 'frozen music' in solo, duet or quartette or chorus effects before the real nature of the sculpture was decided upon, the chief concern being that the result be of a size to rest upon the

pedestal without making it appear top-heavy or otherwise out of proportion.

"Authorities agree that a commission of this sort is hard for a sculptor to accept without a grimace. A sculptor, experts assert, does not like to be told that so many yards or tons of sculpture are wanted, and in a hurry. They say that sculpture ought to be beautiful and significant; that it is mere froth if it has no meaning. In other words, it should be fitting and expressive, as opposed to the requirement that it merely fit the pedestal. It is not made by the ton, although there will be tons of it in San Francisco.

"Neither will the painter be handicapped in the Panama Exposition by being ordered at an inopportune time to fill a panel say 300 feet long. It has been discovered in former fairs that the best painting is not done by the 100-yard dash-splash guaranteed-all-fast-color system.

"So Mr. Bacon repeated that the painters, sculptors and architects of the Panama Exposition hold the unanimous opinion that the exposition will have a distinct advantage as a result of their working together from the first. He expressed his belief that the result would impart to the exposition interest, beauty, grandeur, unity and power beyond that hitherto attained in similar undertakings.

"Those engaged in the creation of the artistic features of the exposition will give free reign to such gifts of imagination and technical skill as they may possess—the names of these men are a guarantee of an abundance of both—and in all the works they perform these elements will be harmoniously combined.

"In these days, when the politicians are keynoting from twilight till dawn, it may, therefore, be appropriate to say that harmony is the keynote of the work to be done by the artists of the exposition.

" 'No defect in architecture is more glaring or more unpleasant than want of proportion,' said Mr. Bacon. 'What we are striving for is uniformity in plan, with the diversity of detail. We feel that we will accomplish these things. The fact that there is such delightful unanimity among us enhances the enthusiasm of all concerned.'

"Asked what he thought of the site, Mr. Bacon's voice gave evidence of the enthusiasm of which he had just been speaking when he replied:

" 'I went to California last February to attend, in San Francisco, the first meeting of the architectural commission.

" 'It was my first experience. When I left New York the city was in the rip of winter storm. When I arrived in San Francisco they were mowing the lawn in front of our hotel.

" 'The climate is delightful. San Francisco's

situation, on a peninsula, across which the summer trade winds blow, has given a climate which is unique. The variation in temperature between winter and summer is very small. Semi-tropical plants flourish in the open air throughout the year. In the winter there are periods during which the skies are clear for weeks at a time.

"The site of the exposition at Harbor View is unusually beautiful. We are unusually fortunate in having a view from the water that will be very attractive, as the hills and buildings of San Francisco that face the exposition present an appearance very like Genoa or Constantinople—very much more so than any other city I know. This is a point that has struck all the architects who are working on the exposition.

"The forest covered slopes of the Presidio stretch along the shore toward the west of the exposition grounds. Wonderful—that landscape looking toward the west and the Golden Gate!

"The mountains across the bay have the character of the mountains of Greece or Southern Calabria. It's rather startling to come upon such a beautiful landscape so similar to those countries. Genoa, as seen from the sea, is not soon forgotten. Because there is not much level ground along the shore, it, too, has been compelled to climb the lower hills for the mountains, which afford many opportunities for its architectural beauties to be effectively displayed. Constantinople stands upon a hilly promontory overlooking the magnificent harbor known as the Golden Horn. But San Francisco bay has a charm all its own. Its islands are high and picturesque. It is a beautiful sheet of water completely shut in by wooded mountains 1,000 to 2,000 feet high. In short, the site will permit of the most striking and artistic effects.

"We are aided in every way. The avenue—Van Ness avenue—which will be the principal land approach to the exposition, is a tremendously wide thoroughfare. We haven't anything as fine as that here. And the exposition will also be approached by water—ferries, you know, and yachts, and, of course, the visiting warships of the various fleets will anchor in the bay.

"Imagine what a sight it will be," said Mr. Bacon, his finger pointing to a drawing, "with the warships lying off here in this beautiful blue water. It's a place that gives you a sensation. It's clean, and there is fine, soft, cool sea air."

"To utilize the natural advantages in the best manner possible the greatest care and study are being exercised by the Architectural Commission. It is expected by the men engaged in the work of creating the artistic features of the exposition that the fair to commemorate the opening of the Pana-

ma canal will establish a standard of excellence to equal which will almost require the digging of another and a larger canal.

"All told, the site comprises 625 acres, or approximately the same area as that devoted to the World's Columbian Exposition in Chicago in 1893.

On Ancient Architecture.

An illustrated lecture on architecture dealing for the most part with the prints which were exhibited during his talk, was delivered recently at Lynchburg, Va., by Rev. James D. Paxton, pastor of the First Presbyterian church. Dr. Paxton described his travels through places in the Orient where the styles of architecture were distinctly characteristic, and he applied his observations to the pictures shown to the audience.

The talk was given in the room which is serving as an exhibition hall for the many handsome prints now being shown at the school, and, before the speaker began, the pictures, which are copies of the work of some of the old masters, were admired by those who came to hear Dr. Paxton. The prints were arranged on the walls and the room was converted into a veritable art gallery.

Dr. Paxton began by saying that he would not attempt to cover the whole field of architecture, but would just talk about the styles which were represented in the pictures before him.

"Architecture," he said, "is simply the science of building; making buildings for a purpose, to do something with.

"We find a great variety of buildings every day. It is a great deal better to read about and see architecture through pictures than not at all, and the object of this collection of prints is to take us in our imagination to places where we cannot actually go."

In looking at pictures, he said that one could be carried back into the past. He regretted that he did not have more pictures showing old architectures, for then he would be able to take his hearers on a broader journey, but there were some, he said, which would take them pretty far back into the past.

He described his visit to Egypt and related his experience in going through the pyramids. He went into the largest one twice, but why he did this he was unable to say. Hurrying from the Egyptian pictures he next came to the Grecian prints. He said the early Athenians built their structures upon hills, and the Romans, on the other hand, selected the swamps and lowlands in which their buildings were constructed. He exhibited a large picture of the Roman forum and showed it to be located in a swamp. Other interesting pictures were shown.

Handsome Birmingham Bank Structure

THROUGH the courtesy of Architect Wm. Leslie Welton, of Birmingham, Ala., who is associated with Mowbray & Uffinger, of New York City, in its construction, we are able to present a pretty picture of the new building for the American Trust and Savings Bank at Birmingham, which these well known architects have designed. The descriptive matter given in this connection shows that the structure is to be one of the best arranged buildings in the south. The Fred A. Jones Building Company, of Dallas, Texas, have the contract for the work.

The offices in the building overlook the city on the north, south, east and west, and the upper stories command views of Jones Valley and the mountains. The roof is floored with red promenade tile, permitting tenants and visitors to view the city and its environs from the highest point of observation.

All the rooms and corridors are admirably lighted by direct natural light, there being no inside offices in the building.

The building is twenty stories high above the street level and one full story underground. The height from the sidewalk to coping is 241 feet. The basement extends out under the full width of the sidewalks on both Twentieth street and First avenue. The dimensions above the sidewalk-level are 30 feet by 125 feet, with a light court 6 feet and 6 inches wide by 39 feet long, on the south side above the third floor-level.

The building is designed in the classic style of architecture, with a base of the Corinthian order, three stories high, of Dover marble, surmounted by a rich frieze of ornamental terra cotta. Above this rises a shaft of twelve stories, surmounted in turn by three stories in the Corinthian order of architecture, and terminating at the twentieth story in a rich cornice and cheneaux.

The Twentieth Street and First Avenue fronts above the third story are white mat glazed terra cotta, and the east and south sides are Sibley-Menge buff pressed brick. All windows in the two street fronts are polished plate glass.

The entrance on the corner to the Bank and the main entrance to the office elevator lobby on the Twentieth Street side of the first story are of white Dover marble, richly carved. Over the main entrance to the bank is an electric clock with an illuminated dial.

The basement, sixty-five feet by one hundred and forty feet (65 x 140) is one flight below the level, reached by an ornamental stair from the elevator lobby on the first or ground floor. All five elevators go to the basement.

In the basement is a large working space for the Bank, connected with the first floor by an ornamental stair. Here also are capacious burglar-proof vaults for the storage of silver and other valuables; boiler and machinery rooms; and a space 45 x 50 feet, for rental, which is lighted through the sidewalks of both Twentieth Street and First avenue.

The first and also the second, or mezzanine story will be occupied as the permanent home of the American Trust and Savings Bank, with the exception of the office entrance hall on the first floor on Twentieth Street. The main entrance to the Banking Room is at the corner of Twentieth Street and First Avenue. There is also a secondary entrance through doors in the glazed partition separating the Banking Room and elevator lobby.

The Banking Room is two stories or twenty-seven feet high, with a mezzanine gallery containing space for bookkeepers, directors' room, vaults, etc.

The main floor of the banking room is devoted to the various purposes of the bank, including the president's room, officers' room, safe deposit and savings departments, all arranged around a hollow square or public space. On this floor are also five large vaults. At the extreme end of the public space is seen the mammoth round door of the safe deposit vault. (There is a total of eight steel-clad vaults distributed in basement and first and second or mezzanine floors for the use of the bank.) The entire second or mezzanine floor will also be occupied by the bank, except a large office, thirty feet square, without columns, on the Twentieth Street front of the building.

The main entrance to the building for tenants is through a carved marble doorway on the Twentieth street side at the south end of the building, leading to an elevator lobby with Alabama Pavonatzetta figured marble walls of full height to the ceiling. Here the tenant finds a battery of five latest type direct traction Otis Elevators, running at a speed of 550 feet per minute, enclosed in ornamental iron grills, on the right, with plate glass and marble partition on the left, with doors opening into the banking room on the north side of the lobby, thus giving access to the lobby through the entrance to the bank.

The building conforms throughout to the most modern and scientific system of fire proof steel construction, all columns, beams and girders being covered with hollow terra cotta tile fireproofing. All partitions are built of the same material, and the open shafts have metal fireproof doors.

The building is equipped with the most approved modern devices, such as procelain plumbing; direct

steam heating; gas piping; electric wiring in conduit; five passenger and two freight Otis electric elevators; telegraph and telephone facilities; mail chutes; vacuum sweeper system; complete directory board system; complete fire protection and fire proof stairs.

The third to the twentieth floors are divided into 19 offices, each having porcelain wash basins, electric ceiling outlets, two electric plug outlets for desk lights, etc., plug outlets for gas, best quality maple floor, flemish oak wood work, decorated walls

and ceilings, best hardware and electric fixtures. The corridors have floors of impervious tile and walls lined to the ceiling with Alabama white marble. Each floor has a fireproof stair, toilet rooms and storage closets.

Each of these floors has two lines of vacuum sweepers for the sanitary cleaning of offices; two lines of fire hose for the extinguishing of local fires; and a directory board with names of tenants of the floor supplementing the large directory board in the lobby on the first floor.



Plate by Bucher Eng. Co., Columbus, O.

American Trust & Savings Bank, Birmingham, Ala., Wm. Leslie Welton, Architect.



Plate by Bucher Eng. Co., Columbus, O.

San Antonio, Texas, Main Plaza, Showing Courthouse and Cathedral.

Beauty in American Cities.

(From "The Field of Art," in Scribner's Magazine.)

As I wandered about the streets and the parks, studying them under the constantly shifting and kaleidoscopic effects which are peculiar to our changeable climate, (it might be at twilight, with the lights reflected in long streamers from the wet pavements, or perhaps twinkling through a blur of snow—on rainy days, at night or during the Indian summer days when the tall skyscrapers showed only as towering ghosts through the universal purple haze), I came gradually to perceive that here was another kind of beautiful which, however much it might differ from that to which I had been so long accustomed abroad; was none the less intrinsic and admirable. As time went on I became more and more fascinated with this strange new loveliness. and now, after thirty years, I have come to hold New York the most beautiful city in the world! Not Paris, nor London, nor Rome, nor Antwerp can in my opinion compare with it either in color, in effect, or in the unexpected character and beauty of its piled-up buildings. Even the admitted charm of Venice becomes somewhat petty by comparison; for mere picturesqueness does not necessarily con-

note beauty and a scene which will make an excellent picture postal card will not always make an excellent picture.

I soon found that what was true of New York City was equally true of our American landscape in general. The quality of its beauty differed wholly from that of northern Europe, but was equally adapted to pictorial expression on canvas. It had only to be approached by a sympathetic temperament and with unprejudiced eyes to yield limitless material for the painter's art. And inasmuch as nature's mood on this side of the ocean are infinitely more varied than they are abroad, they lend themselves to the most divergent artistic temperament and permit of a very wide range of personal expression in art.

Finally, it can safely be stated that the field has as yet scarcely been prospected. Between Quebec and New Orleans, between the coast of Maine and California there are countless beauty spots which are still virgin soil for the artist—each offering motives as different from those of Inness, Wyant, Homer Martin and Winslow Homer as theirs were from the motives employed by Corot and Mauve, and Millet and Monet.



Plate by Bucher Eng. Co., Columbus, O.

A Pretty Suburban Home at Dallas, Texas.

New Material For Building.

Throughout the world there is a constant search for new and useful materials with which building can be successfully done.

Not alone are natural resources being developed, but inventors are continually attempting to manufacture materials that will take the place of them.

In Berlin a well-known engineer has produced a new material which is said to be artificial marble. It is made from cinders and a binding cement which is a guarded secret. The whole is colored to taste. The cinders are heated, the other materials are added, and the mass pressed into slabs or blocks.

Experts say the new material is harder than iron, that the elements can not injure it, and that it will become a useful substance for outside as well as interior construction and finishing. It will take a high polish and makes a pleasing appearance when finished.

Church Built in a Day.

At Murfreesboro, Tenn., Thanksgiving Day

thirty-eight carpenters and other workmen constructed a mission church complete in one day.

The building is by no means a shack, but a substantial, commodious and well-built structure. The dimensions are width 26 feet; length 55 feet; and ceiling 12 feet high. The church is built of the best material throughout and would have cost at the lowest estimate \$2,000, including the lot, had not the workmen donated a day's work each, and others lumber and other material.

An interesting fact in connection with the work was the finding by John B. McRae, one of the carpenters, of a copper-jacketed Mauser bullet embedded in one of the pine planks used for the siding. This bullet was found about six inches from one end and had entered from one end and penetrated the board or probably the log from which the board was cut, with the grain. The lumber came here from Tampa, Fla., and is supposed that the bullet was fired into the timber by a soldier while the army was encamped there previous to the Spanish-American war. The shell was partially cut longitudinally by the lumber plane when dressed.

Steam Heated Wooden Wigwams

FOUNDED in 1884 for the practical education of Indian boys and girls, the Haskell Institute at Lawrence, Kan., is at last evolving into a highly specialized trade school. Domestic science and domestic art have been worked out on a practical basis for years, but the Indian boys who left Haskell were not ready to take a place beside practical mechanics. Now, within two years vocational training at Haskell, especially in reference to the building trades, has been revolutionized.

The Indian who leaves Haskell in the future will not share the helplessness of his average white brother. The young brave, to whom farm training has not appealed, will be a carpenter, a painter, a steamfitter, a plumber, a mason, a printer, a blacksmith, a cobbler, a harness maker, a baker or a wagon builder.

Manual training in its day of great advance, is eclipsed in utility by vocational training. Not fancy scrollwork and gimeracks, but actual frame houses are produced by the student carpenters.

These houses are built inside one of the school buildings and when complete in every detail are torn down to be rebuilt on different designs. Part of the ceiling has been removed and through this opening the experimental houses project to the ceiling of the second floor. These indoor houses are usually built on a scale of from a half to a fourth actual size.

Carpentry, jointery, stair building and general woodworking are taught, the students being required to work from drawings and blueprints. An actual cornice, complete with gutter, shingled roof and a section of wall will be constructed, while every form of interior finishing is worked out. Tables, chairs, benches, desks and bookcases used about the institute are built by the students.

A Two-Story Dummy House.

In the course in steam and hot water fitting the students have a dummy house of two stories and basement. Here they install and take down various systems of steam and hot water heating. Complete systems are installed and actually tested. Boys whose fathers may have worn blanket and feathers are busy installing plumbing or electrical wiring into this wooden tepee.

In the building devoted to house and sign painting and decorating a series of small rooms have been built for the students to paint. Afterwards the paint will be burned off and the painters again called in.

The baking students work in an actual bakery, which supplies the institute with bread, the embryo printers in an actual printing office that publishes a weekly newspaper and keeps up the blanks

used in the various departments the students in harness making manufacture each year about fifty sets of heavy harness that is sold to Indians or to agencies, the young blacksmiths repair the farm machinery, the wagon makers are shipping out eight finished wagons this week and the cobbler students repair the shoes of the 650 students.

In outlining instructions in the building trades, J. L. Smoot, the present "superintendent of industries," inspected various trade schools in the East. Prior to a year or so ago, practical instruction on these lines depended on some new building being in progress of erection on the campus.

The Preference of Indians.

The trade courses are for three years, the student spending half the day in his particular trade shop and the other half in the academic schoolroom. The Indian boys divide in the different trade courses:

| | |
|---|-----------|
| Two-year business course preparatory to civil service | 30 |
| Baking | 15 |
| House and sign painting and decorating..... | 20 |
| Blacksmiths | 18 |
| Printing | 20 |
| Wagon making | 6 |
| Steam fitting, plumbing and electrical wiring... | 30 |
| Carpentry | 40 |
| Harness making | 8 |
| Shoemaking | 8 |
| Masons | 10 or 12 |
| Farming, gardening and dairying..... | 75 to 100 |

C. Y. Roop, 613 West Fifth Street, inventor and manufacturer of oil burners, last month was astonished at the aptitude of the Indians whom he encountered in the boiler room at the institute, where he is installing oil burners under the huge boilers of the central heating station, that supplies forty thousand feet of radiation. The uncertainty of the future and a present yearly gas bill of \$14,000 caused the institute to abandon gas as a fuel. Before he became a manufacturer, Mr. Roop had been successful as a school principle and superintendent, and as an early advocate of more practical methods of education he was naturally interested in the apparent results being obtained from vocational training at Haskell.

"These Indian boys are bright and willing workers," the Kansas City manufacturer said one day last week. "I was especially impressed with two Cherokee brothers, the older, who is 17, being in charge of the boilers, while the younger was one of the relays in the boiler room. These boys did not have thirty centuries of culture back of them, but they had had effective training and judging by understanding of the new equipment we were put-



Plate by Bucher Eng. Co., Columbus, O.

Modern Country Club at Dallas, Texas.

ting in they were in a position of helpfulness far surpassing the average white boy, who has had the old methods of instruction.

"It is surprising what the government is doing for these young Indians, how thorough the training is.

"For one thing they are well fed students. Every teacher knows that the advancement of many youthful minds is hindered by half-starved bodies. Even in scrimping through college the white student often gives his body insufficient nourishment. The Indians become fat and sleek on their ample common fare.

"The care of the body is emphasized and at school the Indian is cleanly. They are taught English and all traces of brogue is absent. This is the football season, and I noticed that the Indians were modest in victory. They are all subject to the same democratic regulations, even to the heiress from the oil country whose income in her own name is estimated at \$600 a week.

"But what impresses one most is the trade teaching, the boy being able to go back to his people and elsewhere and to at once enter into some useful occupation for which he has been equipped, not theoretically, but practically."

Metal work, wood working and mechanical

drawing are taught at the institute as the foundation of the metal trades and the hand crafts and as a means of demonstrating certain facts. For carpenters, architectural drawing is taught—to enable the student to read and understand drawings and blueprints. Some become capable of holding jobs as draughtsmen, but that is not the aim. The classes however, have prepared drawings of inexpensive houses for circulation and use among former tribesmen in Oklahoma.

Some Recent Patents.

1,042,927. Door Hanger. Joseph G. King, Hendersonville, N. C.

1,043,833. Automatic Safety Device for Elevators. Peter Hinkel, Ashland, Ky.

1,043,834. Automatic Safety Device for Furnace Skips or Elevators. Peter Hinkle, Ashland, Ky.

1,044,040. Air Valve for Steam Radiators. Weston M. Fulton, Knoxville, Tenn., assignor to the Fulton Co., Knoxville, Tenn.

1,044,330. Fireplace Fender and Screen. Virgil T. Yarborough, Ludowici, Ga.

1,044,341. Kraut-Pack. Edward H. Brunner, Memphis, Tenn.

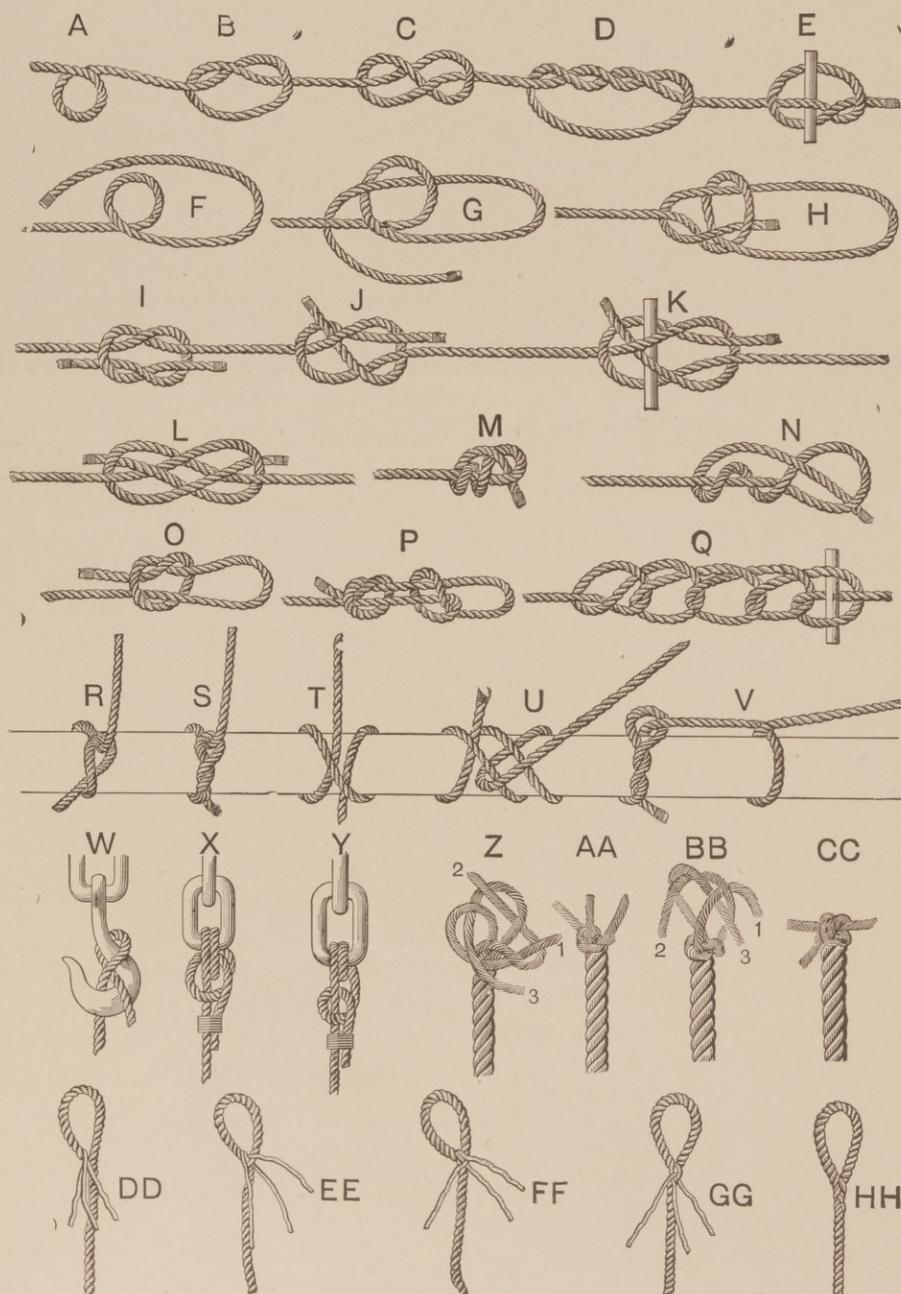
Art of Making Knots, Hitches and Bends

ALL men, whether they are employed in mills, engine rooms, repairing transmission rope drives or on contract work, will be very much interested in learning how to make knots, the principle of which is that no two parts which would move in the same direction, if the rope were to slip, should lie alongside of or touching each other.

Through the courtesy of C. W. Hunt Company, of New York, rope manufacturers, we are presenting in this connection an illustration showing that a great number of knots have been devised of which a few of the most useful are herewith shown. In the engraving they are shown open, or before be-

ing drawn taunt, in order to show the position of the parts. The names usually given to them are:

- A. Bight of a rope.
- B. Simple or Overhand Knot.
- C. Figure 8 Knot.
- D. Double Knot.
- E. Boat Knot.
- F. Bowline, first step.
- G. Bowline, second step.
- H. Bowline completed.
- I. Square or reef knot.
- J. Sheet Bend or Weavers' Knot.
- K. Sheet Bend with a Toggle.



- L. Carrick Bend.
- M. "Stevedore" Knot completed.
- N. "Stevedore" Knot commenced.
- O. Slip Knot.
- P. Flemish Loop.
- Q. Chain Knot with toggle.
- R. Half-hitch.
- S. Timber Hitch.
- T. Clove-hitch.
- U. Rolling hitch.
- V. Timber-hitch and Half-hitch.
- W. Blackwall-hitch.
- X. Fisherman's Bend.
- Y. Round Turn and Half-hitch.
- Z. Wall Knot commenced.
- AA. Wall Knot completed.
- BB. Wall Knot Crown commenced.
- CC. Wall Knot Crown completed.
- DD. to HH. Eye Splice commenced and completed.

The bowline G is one of the most useful knots; it will not slip, and after being strained is easily untied. It should be tied with facility by every one who handles rope. Commence by making a bight in the rope, then put the end through the bight and under the standing part as shown in the engraving, then pass the end again through the bight and haul tight.

The square or reef knot "I" must not be mistaken for the "granny" knot that slips under a strain. Knots H, K and M are easily untied after being under strain. The knot M is useful when the rope passes through an eye and is held by the knot, as it will not slip, and is easily untied after being strained.

The timber-hitch, S, looks as though it would give way but it will not; the greater the strain the tighter it will hold.

The wall knot looks complicated, but it is easily made by proceeding as follows: Form a bight with strand one and pass the strand 2 around the end of it, and the strand 3 around the end of 2, and then through the bight of 1, as shown in engraving Z. Haul the ends taut, when the appearance is as shown in the engraving AA. The end of the strand 1 is now laid over the centre of the knot, strand 2 laid over 1, and 3 over 2, when the end of 3 is passed through the bight of 1, as shown in the engraving BB. Haul all the strands taut as shown in the engraving CC.

The "Stevedore" knot M, N, is used to hold the end of a rope from passing through a hole. When the rope is strained the knot draws up tight, but it can be easily untied when the strain is removed.

If a knot or hitch of any kind is tied in a rope its failure under stress is sure to occur at that place. Each fibre in the straight part of the rope takes

proper share of the load, but in all knots the rope is cramped or has a short bend, which throws an over-load on those fibres that are on the outside of the bend and one fibre after another breaks until the rope is torn apart. The shorter the bend in the standing rope the weaker is the knot.

Early Edinburg Skyscrapers.

Until structural steel opened the way to modern skyscraper construction, the venerable and perilously tall tenement houses in Edinburg's congested Old Town district probably held the world's height records. They were not only too high and too aged for safety; they were, also, fire traps of the worst sort.

When they went to pieces they simply crumpled. Robert Louis Stevenson has described the collapse of one of these antiques: "When in the black hours of a Sunday morning, the whole structure ran together with a hideous uproar and tumbled story upon story to the ground."

Stevenson's version of how these early types of the skyscraper came into existence runs: "It (the Old Town) grew, under the law that regulates the growth of walled cities in precarious situations, not in extent, but in height and density. Public buildings were forced, wherever there was room for them, into the midst of thoroughfares; thoroughfares were diminished into lanes; houses sprang up, story after story, neighbor mounting upon neighbor's shoulder, as in some Black Hole of Calcutta, until the population slept fourteen or fifteen in a vertical direction. The tallest of these "lands," as they are locally termed, have long since been burnt out; but to this day it is not uncommon to see eight or ten windows at a flight; and the cliff of buildings which hangs imminent over Waverly Bridge would still put many natural precipices to shame."

Some of the buildings that still remain, preserving the architectural type of these early tall tenements appear in a photograph of the Cowgate taken from a vantage point of which Stevenson in his book on "Picturesque Edinburg," wrote: "To look over the South Bridge and see the Cowgate below full of crying hawkers is to view one rank of society from another in the twinkling of an eye."

Each Pew Heated.

A Nuremberg church seating 1,200 has an electric heater for each pew. A 3-inch iron tube encloses a small tube wound with resistance wire, and this heater runs in front of the seat and along the back of the pew ahead. Each heater has its own switch.



Plate by Bucher Eng. Co., Columbus, O.

The St. Anthony Hotel, San Antonio, Texas.

National Builders' Supply Association.

We are able to announce that the annual meeting of the National Builders' Association will be held in New Orleans immediately prior to the time of the Mardi Gras Carnival. This much has been decided upon by the executive committee, and so you may as well get ready to go south this winter. There are a number of good retailers and members of the association at the mouth of the Mississippi, and they have already started getting ready to entertain the large crowd that is expected. The first idea about this winter's meeting was to charter an ocean liner and take a trip to the Panama Canal, holding the meetings on the hurricane deck while en route. This was given up, as it was feared some of the members might not prove seaworthy. The holding of the meeting at New Orleans is considered generally satisfactory, as it will enable retailers everywhere to attend the meeting and at the same time witness the annual carnival which has made New Orleans famous, as something else has done for Milwaukee.

Waycross, Ga., Has Building Law.

The city council at Waycross, Ga., has passed a building ordinance adopted after the Southeastern Underwriters' Building Ordinance and the same has gone into effect.

This means that there will be municipal supervision of all buildings erected within the city limits. The plans for all buildings to be erected in the city limits must be submitted to Building Inspector Boggs and receive his approval before work commences and the building will be inspected several times during the course of its construction in order that there may be no deviations from the ordinance passed.

There were several changes made in the Underwriters' Building Ordinance in order that the ordinance might comply with local conditions. The ordinance will be carried out rigidly by the officials and great care will be taken that there are no departures from the specifications laid down in the ordinance.



Plate by Bucher Eng. Co., Columbus, O.

Modern Tile Roofed Residence at Dallas, Texas.

Florida Architects to Organize.

Representatives from twelve firms of architects in Jacksonville, Fla., met at the Board of Trade rooms recently and formed a temporary organization by electing George O. Holmes chairman. It was decided to organize the members of the profession in the state under the name "Florida Association of Architects."

All architects of the state are to be notified to attend a meeting in Jacksonville on Sat., Dec. 14, at which time a permanent organization will be formed.

Rutledge Holmes, one of the prominent architects of this city, was seen this morning by a representative of the Metropolis and asked to state the purpose of the association. He said:

"We feel that a state organization would be of great benefit to the profession. It is the plan to hold state meetings from time to time, at which we will exhibit drawings and discuss business propositions.

"In architecture as well as the other professions an interchange of opinions is very helpful. We desire to take in representatives from all parts of the state as charter members when we organize. The

committee which was framed to invite the men from all parts of the state to take part in the organization will begin work at once, and we expect a large attendance upon that session."

School Engineering Society.

The Engineering Society of the Alabama Polytechnic Institute, at Auburn, Ala., has been reorganized with 95 members of the post graduate course, members of the faculty and the engineering students. It is the object of the society to keep in touch with the progress of all the great engineering tasks of the country.

B. A. Wooten was elected temporary chairman and H. H. Heine was elected temporary secretary. Mr. Wooten called the meeting to order and read the constitution. Routine business was transacted and the following officers were elected: President, J. E. Lacy; senior vice-president, T. W. Wingo; junior vice-president, J. R. Lester; secretary, E. E. Frye; treasurer, Prof. W. B. Stokes; board of council, Prof. M. T. Fullam, J. E. Lacy, J. E. Pitts, and B. A. Wooten.

Building a Nice House for \$173

Out in the enterprising West a house has been built which is within the reach of every man in the country who is willing to do a little hard work. The house is two stories high, of cement, with a wide porch of the same material surrounding it. It is not far from a residential colony in which the minimum price of houses is \$3,000. This house is not different in appearance from the houses in the fashionable home colony, yet it has cost only an eighteenth of the price of the former house. Of course the ground is not included in the cost, only the building is considered. This little structure, which has been admired by every one who has seen it, has cost its owner the sum of \$173 to build.

The house is outside of one of the big Western cities. It was originally an old shack that had been left to ruin for want of a little care. Many of the boards in the walls of the house had fallen off, and those that remained were so warped from the weather that daylight could be seen between them. Several had big knot holes in them. There was probably no more dilapidated house in all the West than this old shack.

The boards were all put back in place and the building was made as tight as it was possible to make it with lumber that had turned gray from long exposure to the weather. It was a sorry sight and nobody could see how anything could be made out of the old building except to build it anew. Every puff of wind that swept through that part of the country went clean through the house, there were so many gaping cracks and holes in its walls. But the renovator, who knew nothing about building, had long before conceded that the house had seen its last day as a frame building.

He planned to make a concrete house, using the old walls as a foundation. With this object in view, he nailed metal lathing all over the weather-beaten house. The lathing was about 18 inches wide and about nine feet long. The strips were nailed securely to the building and the nails bent and pounded down securely on the inside. Covered with blue metal strips it looked worse than ever, and nobody expected that anything would come of the undertaking.

On the lathing a coat of cement plaster was spread. It was put on with a heavy hand and it resembled one of those mud huts down in the sunny stretches of Mexico. The surface was lumpy and coarse. To make it rougher, a block of wood with several wire nails driven through it was jerked back and forth over the surface.

After the coat had dried, the finishing coat was prepared. This was a finer mixture than the first or scratch coat, which was one measure of cement to three of sand. It was prepared on a clean plat-

form to prevent anything foreign getting into the mixture. By experiments and knowledge gained from reading about the use of cement it was found that the best results were obtained by mixing the sand and the cement together thoroughly before wetting. After being well mixed a hole was made in the center of the pile and water poured in. The success of the enterprise rested with this coat, and particular pains were taken to follow instructions. Like the scratch coat, no attempt was made to make it smooth. It was put on thick and smeared all over the surface of the building. Although it was not as lumpy as the first coat, it was as hard and as durable as stone cut out of the Rocky Mountains.

A porch was then built around the house of old lumber taken from a nearby house that was all but in ruins. It was made broad and was carried around three sides of the newly built dwelling. There was enough lumber left after the porch was finished to build a store house in the rear.

Strips of metal laths were nailed on the porch and two coats of the cement was trowelled all over it. The cement used on the floor of the porch was levelled off and made as smooth as glass. The other parts of the porch, the roof and the posts, were made to correspond with the finish of the building.

The work was done in the fall and the cement took longer to dry than if put on during the summer. It was a fortunate happening, as the builder learned later that a cement house is better when built in the fall. It has more time to knit before drying. If built in the summer, this is not always likely, as the hot sun dries the cement before it has time to settle.

The building finished, it was the admiration of every one who saw it. The change was remarkable, and it demonstrated that a substantial home was within the reach of almost any man. This house is two stories high, and measures about 20 x 40. It has a cellar, which was also treated to several coats of cement plaster, three large rooms on the first floor, and two on the second floor.

The remaking of this house and the building of the porch cost \$173, exclusive of labor. For the material that was put into the cellar, \$46 was paid. The cement, sand, nails and metal lathing used on the house cost \$82, and the material for the porch cost \$45. On the store house in the rear of the dwelling, a building 12 x 20, \$21 was spent on material, which included cement, sand, nails and lathing. With this included, the entire improvement cost less than \$200; in other words, a dilapidated building was made not only habitable, but attractive, for this small sum.



Plate by Bucher Eng. Co., Columbus, O.

Tile Roofed Residence and Outhouse at Dallas, Texas.

Louisville Architects Elect.

The Louisville Chapter of the American Institute of Architects at a luncheon at the Tyler Hotel elected officers. They are: President, James C. Murphy; vice president, John Bacon Hutchings; secretary and treasurer, Val P. Collins; directors, Mason Maury, George H. Gray, C. H. Curtin and Herman Wischmeyer.

The following committees were appointed: Competitions, Mason Maury, Kenneth McDonald, Herman Wischmeyer; public information, Arthur Loomis, James J. Gaffney, Brinton B. Davis; education, George Herbert Gray, Arthur Smith, W. J. Dodd; memberships, C. A. Curtin, Alfred Joseph, Julius Hartman.

Val Collins was chosen as delegate to the national convention of the American Institute of Architects.

A Bit of Brick History.

A press bulletin of the U. S. Geological Survey, on the Hudson river brick-making industry, tells of a bit of brick history that Jefferson Middleton has included in his report of this famous brick-making region. He gives to James Wood, an English brickmaker, credit for starting the business back in

1817, that has grown to such proportions. Other prominent pioneers in that field were the Allisons and David Munn, while credit is given to Richard A Ver Valen for inventing, in 1852, a brick machine that gave great impetus to the industry. Another interesting feature of this report is in the estimation that notwithstanding the great quantity of brick that has already been made and sent out of that region, and the present enormous rate of production, there is clay there to serve for half a century.

Miscreants at Work.

Contractors and builders of Montgomery, Ala., employing non-union men to work on their various "jobs" are receiving no end of inconvenience and delay, to say nothing of financial damage, by the action of unknown parties, consistent in pouring cement and other similar material into gas, water and heating pipes and stopping up the openings of sanitary plumbing fixtures therewith, which stuff, when it hardens, completely clogs the piping and makes it necessary to not only lose the time required in doing the work over again, but incurs the delay and expense of tearing out work which has been finished.

The Personal Side

Personal.

Mr. Sargent Hamilton, architect, will manage a branch office of Mr. A. Ten Eyck Brown, architect, at Jacksonville, Fla.

Mr. Otto G. Simonson, architect, has removed to the Maryland Casualty Tower, Baltimore, Md.

Messrs. J. S. McDaniel and George C. Murphy have formed a partnership for practice of architecture at the Realty Building, Louisville, Ky.

Jones & Larsen, building contractors at Orlando, Fla., is to be dissolved as soon as present existing contracts of the firm are completed.

DeLeon Returns to Atlanta.

Moise DeLeon, the wealthy contractor, who disappeared from Atlanta several months ago, and finally "discovered" himself in a hospital in Australia, returned to Atlanta.

DeLeon says that he lost all account of things in Chicago, and drifted to the Pacific coast in this condition. He claims that he was there shanghaied on a Japanese sailing vessel and that when he came to himself he was in Sidney, Australia. He tells rather a remarkable story of his wanderings, which, he says, he remembers vaguely.

DeLeon was the contractor for the new million dollar courthouse, and it is said that his low bid served to unhinge his mind. He left Atlanta presumably for a hunting trip in the Wisconsin woods, and the last heard of him was in Chicago a few days after he left.

Since DeLeon has been away he has been adjudged a bankrupt. He will regain his health, then start on the road to rebuilding his broken fortune.

Savannah Architect Submits Work.

John J. Nevitt, Savannah architect and artist, has contributed four oil paintings to the William A. Clark exhibit, which takes place during December and January at the Cochran Gallery of Fine Arts in Washington.

Former Senator Clark has offered four handsome prizes for the best contemporary paintings by living American artists. There are several stipulations for eligibility, one of which is that the pictures shall not have been exhibited in Washington before, and another is that the pictures must not be more than two years old.

Each competitor in the contest is required to submit four pictures. All of the paintings sent on by Mr. Nevitt are landscapes painted by him during the last summer while he was vacating in the North

Carolina mountains overlooking the Natahala river. The subjects are: "Old Spanish Dam," "Evening on the Natahala River," "A Scene on the Natahala River," and "A Typical Mountaineer's Home in North Carolina."

For several years Mr. Nevitt has been spending his summers in the mountains in North Carolina, which is the paradise of the artists. He brought back nine pictures this summer, the fruits of his summer's labors. Four of the pictures were painted with the Cocoran gallery contest in mind. Gari Melchers, director of the Telfair Academy here is chairman of the hanging committee of the exhibit. The prizes offered range from \$2,000 and a gold medal for first prize to \$500 and honorable mention.

Architect to Study Law.

Mr. E. P. Ryne, a Virginia architect, who has had experience in designing some pretty buildings in that state, has given up his profession and returned to his old home in West Virginia, where he expects to study law.

Was Architect Hamilton Drugged?

Architect Sergeant Hamilton, who went from Atlanta to Jacksonville, Fla., several weeks ago to open an office in that city for A. Ten Eyck Brown, of Atlanta, was picked up unconscious on the streets in the Florida city immediately after he had taken some kind of a drink at the solicitation of two men who called upon him and insisted upon his going with them to the place. He was only ill a short time.

Jacksonville Municipal Architect.

Elmer A. Miller, one of the municipal architects for the District of Columbia, has accepted a position as assistant engineer with the city of Jacksonville, Fla., and will be identified with the unbleo, who was recently selected as chief engineer in charge of this work.

May Locate at Waycross, Ga.

Mr. D. Hallahan, a prominent architect of Chattanooga, Tenn., is considering selling out his business in Chattanooga and locating at Waycross, Ga. Mr. Hallahan makes a specialty of concrete and stone work.

Bigger as a School Designer.

W. R. Bigger, the well known architect of Tampa, Fla., has recently designed eight school buildings in Manatee county, that state, and has to his credit more school buildings than perhaps any other Florida architect.

Build Homes for Comfort.

Extreme Southern architects may well take a tip from a northern architect who was a recent visitor to the south. "What you need" said the architect, "is architecture along distinctively southern lines. It is a mistake to build along the same lines as the houses in the north, changing the plans to meet a southern climate only with greater porch room.

"The architect in the south who makes a study of porch features for residences," continued the speaker, "and develops some original ideas along that line is going to make a reputation for himself, and money, too.

"You see, in a climate that is warm the greater portion of the year, where the people live on the verandas of their homes so much, there is a great opportunity for originality in designing attractive porch homes.

"Make your verandas large and roomy, design your sleeping porch along with the house, so that it won't have the appearance of having been stuck on the side of the building."

Won't Penalize Contractor.

R. E. L. Majors, contractor for the new wing to the state capitol at Montgomery, Ala., failed to complete the building according to contract, and the capitol building commission met the other day to consider penalizing the contractor for said failure, and their decision was that inasmuch as Mr. Majors had done excellent work on the new wing that no penalty should be assessed.

It seems that the contract called for the completion of the new wing by January first of the present year, but owing to numerous delays in the arrival of the necessary material, the wing was not finished until a few months ago.

Tampa Architects Honored.

Bonfoey & Elliott, architects of Tampa, Fla., have received splendid recognition of their ability, being retained as architects and supervisors of construction for a \$3,000,000, twenty-one story building to be erected in Havana, Cuba, by a British firm of bankers. The great building will have a ground area of 328x328 feet, and will be in the main business section of the Cuban capital. B. C. Bonfoey, senior member of the firm, has just returned from Havana, where he closed the contract with the capitalists for whom the building will be constructed. It is believed that this is the biggest job ever awarded to a Florida firm of architects, and Messrs. Bonfoey & Elliott are receiving the congratulations of their friends.

New Architect in Houston.

William E. Joor, consulting and designing engineer, who has been connected with several of the largest construction companies at New Orleans for a number of years, has established a new office at Houston, Texas.

Mr. Asbury Moves Offices.

Mr. Louis Asbury, architect, is to move his offices from the Law building to the Commercial Bank building, at Charlotte, N. C. Mr. S. W. Asbury has taken a position with him as assistant architect. The latter is a graduate of the A. and M. College and succeeds Mr. De Armon, who has gone to Washington and Lee as a candidate for a B. S. degree. Later he will study architecture elsewhere.

November Building at Dallas.

At Dallas, Texas, building activities during the month of November evidenced a splendid condition of affairs, according to a statement prepared in the office of the building inspector. The grand total invested in new buildings during the month, according to this statement, is shown at \$318,250, of which ten brick structures cost \$149,450, ninety frames \$130,450 forty-one additions and repairs, \$36,800 and six outbuildings \$1,550.

New Organization for Norfolk Builders.

Because many members think the organization is not doing what it should, the Norfolk, Va., Builders Exchange Board of the Board of Trade may pull out of that body and go with the new Chamber of Commerce now forming in that city, and a meeting was recently held and the plan freely discussed, and it may be that some favorable action may be decided upon shortly. By such action it is believed that the Builders' Exchange will be greatly strengthened.

Through a committee of two, the builders will ask the council to have printed copies of the building code, making it available for contractors and architects. When the present ordinances are codified the builders will probably ask that a new code be adopted. This matter will be taken up later. The committee to appear before the council will be A. Christie, member of the Board of Aldermen, and J. M. Bunting, member of the Common Council.

Miami Building Code.

The city fathers of Miami, Fla., are considering adopting a building code at its next meeting as the city is growing so rapidly.

Norway Homes Built From Logs

NO one knows when the first log cabin was built in Norway, but it must have been about 1,500 years ago at least. At first they were windowless, chimneyless things, then they gradually became light and airy, acquired chimneys and floors and developed into one and one-half and then into two-story houses, becoming the home-like abode of enlightened people, says The Craftsman. Their development and transformation are easy to understand, thanks to the efforts of Dr. Sandvig, of Lillehammer, Norway.

Born in the country he had from his boyhood a passion for the old homes of the peasants, and even as a child it pained him to see them set aside or torn down to make way for the nondescript buildings of clapboard which appeared in their stead. It became his ambition to collect, before it was too late, the most typical example of the different log cabins.

He had no money, so he had to earn enough to support both himself and his ambition. Through ceaseless efforts he succeeded. Finally the government bought his collection, and the little village of these bygone homes forms a fascinating picture of the history of Norwegian development.

In these old houses is wonderful furniture belonging to the period represented, and always arranged according to ancient traditions. For instance, there are examples of old Norwegian beds, which are appalling contrivances. Rarely are they more than four or five feet long and often almost as wide. It seems that in the 14, 15 and even the 16th centuries, people in Norway did not lie down in their beds—they sat in them. A person was propped up, so to speak, by four or five feather beds and as many more pillows under his head.

Picturesque Chalet.

Those who have traveled in Norway, if they have been out of the beaten track and have walked across the barren mountain tops or through pungent pine forests, will remember coming some evening when the sun was still high to a little log chalet looking strangely picturesque from the outside.

And they will remember when the door was opened how they entered a large room where the white wooden floor was strewn with sprigs of fresh juniper and where an armful of green birch filled the fireplace ready to burst into a pungent flame when a match was set to it.

In Norway these homes are made of heavy pine logs. The bark is carefully taken off and then the logs are hewed square and of the same size from one end to another. It takes some experience

to notch them at the ends so that they fit exactly. The logs are usually either stained or oiled, and their rich yellowish or brownish color is in harmony with almost any surrounding.

The old-fashioned Norway log cabin had a sod roof. It is hard to express the poetry those words should convey except to those who have seen the sod roofed cabin. I have come across roofs that were a riot of wild pansies, and I have seen wonderful roofs, where wild rose bushes hung over the eaves, or a daisy roof, the effect of whose white, starlike flowers topping the dark brown wooden structure was exquisitely picturesque.

Some roofs produce only pasture grass, and the story runs in Norwegian folk lore that a lazy man led the cow on the roof—the cabin was built against a hill—instead of taking her to pasture. I have no doubt that the story is true, for I have often seen a couple of the white kidlets gamboling on the soft green housetops, while the mother goat, grave and ruminative, was tethered to the chimney.

Sod Roofs Watertight.

Sod roofs are just as watertight as others, if they are laid correctly. A roof is first laid on a house, and this is covered with a layer of birch bark. On top of this comes a layer of sod, with the grass turned down to the roof, then a thick layer of earth, and finally another layer of sod, this time with the grass up. The result is a most exquisite and poetic covering for the house.

While all these old houses are haunted with traditions, the cottage that belonged to Peer Gynt, the hero of Ibsen's drama, is naturally most romantic of all. His cottage has two stories and was built at the end of the 16th century. Peer Gynt was a real person, and lived some time during the 17th century at Fron. He was a mighty and powerful man, and very wealthy. But he was peculiar, inasmuch as, although he had a beautiful house and land, he preferred to live in this little cottage, and he liked to wander off for weeks at a time, being out in all kinds of weather. This had given him the habit of half-closing his eyes to gyms, as they called it, and on account of this, mannerism, he was dubbed "Gynt."

The Daughter's Room.

In some old cabins the little room which composed the second floor was called the maiden's bower. This was built for the daughter of the house of marriageable age, though often used as a guest room. In olden days, among the peasants especially, it was not considered proper for girls and boys to be seen together. They say that this was largely because a boy did not care to have

people say he was engaged to a girl when he was merely paying her a little attention, to find out, perhaps, if he would like to be. To spare the feelings of the shy Norwegian youth, social etiquette demanded that every Saturday night the young maiden old enough to receive attention should spend the evening in her bower, there to greet and entertain her friends or her lover.

Her callers could climb the outside stairway unseen by the family, and in case they stayed late the sleeping children and old folks were not disturbed by their departure. As a rule, however, the visits were short, as Saturday night was the one reception time of the week and most of the boys wanted to make as many calls as possible. Sometimes several boys might meet at one girl's bower, and this was, of course, very much to her credit. The door was always open on Saturdays, and any one had the right to walk in, unless a girl was reported engaged, in which case only her fiancee had access to her bower.

Fort Worth Builders' Exchange.

The holding of the convention of the Texas Association of Builders' Exchanges in Fort Worth, Texas, in 1913, will practically necessitate the organization of a builders' exchange in Fort Worth.

The large number of builders, contractors and supply men in Fort Worth is of itself a reason for the organization of an exchange and it is true that the city is behind some other cities with a less number of eligibles.

The convention of builders' exchanges held in Dallas closed with a twelve-course banquet at the Oriental hotel. Lou R. Wright of Dallas was toastmaster. The other speakers were Francis Fisher, of Austin, Otto Lang, of Dallas, J. R. Babcock, secretary of the Dallas Chamber of Commerce; N. M. Karney of San Antonio, C. M. Moore of Austin, M. R. Diony of Beaumont, and J. S. Skirwin of San Antonio. Miss Geneva Lindsay, of Dallas read "Rules for Stealing a Ripe Watermelon."

The following officers were elected: President, N. M. Karney, of San Antonio; vice-president, C. W. Moore, of Austin; secretary, Harry J. Emmins of Dallas; treasurer, Lou R. Wright of Dallas; sergeant-at-arms, Clarence R. Nesbit, of Dallas.

Standing committees were named as follows: Resolutions, Alex Watson of Dallas; nominations, Lou R. Wright and D. R. Hatcher of Dallas; legislative, C. P. Ledbetter of Austin; auditing, J. M. Grasty and Lou R. Wright of Dallas; laws, N. M. Karney of San Antonio.



Plate by Bucher Eng. Co., Columbus, O.

The Country Club at San Antonio, Texas.

Foreign Trade Opportunities.

(Addresses omitted are on file at Bureau of Manufactures, Washington, D. C. In applying for addresses refer to file number. For convenience in filing at Bureau of Manufactures, please use separate letter sheet for each trade opportunity request.)

No. 9650. Heating Apparatus.—The Bureau of Foreign and Domestic Commerce is in receipt of a communication from a business firm in Australia, stating that that it would like to get in touch with a good manufacturer of heating apparatus. The firm desires quotations for a moderate-priced apparatus for heating private houses and offices, particularly suited to small country homes. Freight measurements of such equipment are asked for, so that the firm can calculate the freight charges from New York to the point of destination.

No. 9874. Building Supplies.—A report from an American consular officer in a Latin-American country states that a local American engineer and contractor has the contract for the construction of four buildings—residences and stores—of concrete and wood, and he desires to receive, as early as possible, catalogues and price lists with discount sheets from American manufacturers of building supplies such as doors, windows, veranda railings, and other hardware. Prices should be quoted f. o. b. New York or city of destination, and catalogues, etc., should be sent direct to the contractor deferred to.

No. 9878. Rock-crushing Machinery and Cotton Goods—A report from an American consul states that a general business firm in his district wishes to purchase American rock-crushing machinery also Pepperill cloths and cotton goods. Samples of the cotton goods are desired. References will be furnished to interested firms.

No. 9953. Hardware and Specialties—An American consular officer in Canada reports that a firm of manufacturers' agents in his district desires to be put in touch with American manufacturers of and dealers in general hardware and hardware specialties. References are furnished.

No. 9954. Steel Wire.—A foreign import and export firm informs an American consulate that it is a regular purchaser in the European market of galvanized iron or steel wire 16's gauge, and would like to be put in touch with wire manufacturers in the United States. The firm desires quotations c. i. f. city of destination; minimum single shipment one ton. On the arrival of quotations from the United States orders will be cabled, and to save cable expenses the firm states that shippers may draw upon it on demand for the value of the shipment, with documents attached,

to be negotiated through a local bank, which is given as reference.

No. 9924. Granite for Building Purposes and Monuments—An American architect residing in a South American country has written an American consular officer that there is a market in that country for American granites for building purposes and monuments, but it will be necessary to send a full assortment of samples of granite of various colors and treated in various manners of finish—rough, rubbed, polished, etc. The competition to be met is (1) granite of the country, Tandil, etc., of red, bluish and gray colors; (2) Scotch and Norwegian products. The writer states that he would be glad to receive full assortment of samples and prices. He is at present using "Deer Island granite" for pedestals of monuments, but is in need of a red dark granite polished. Quotations should be given c. i. f. city of destination.

Contractors' Exchange Book.

Carrying out a custom that prevails among the large exchanges of its kind in the United States, the Contractors' and Dealers' Exchange of New Orleans has made arrangements to issue an official reference book, containing information useful to the building industry of the South and especially in New Orleans.

The reference book will contain all acts of the Legislature pertaining to the construction, contracting and building trades, the city building code and all ordinances thereto; the act creating the commission form of government in New Orleans, the state lien law, rules and regulations of the Sewerage and Water Board of New Orleans, the rules governing the New Orleans Fire Prevention Bureau; the location of city departments in the local government, the progress made recently in the building industry in the residential and business section of New Orleans, the names and business classifications of the members of the Contractors' and Dealers' Exchange, a list of names of local architects, and the like.

Expert compilers have been engaged by the local exchange. It is expected the book will be on the market by Feb. 1, 1913. Since the creation of the local exchange the need for such a work has been felt. President Walter F. Jahncke, of the local body, has been untiring in his efforts to have such a work produced.

President Jahncke has been a member of the Louisiana Legislature for several terms. He has been active to secure favorable legislation for the building industry. His efforts were crowned with success on different occasions, especially in the last legislature, when his efforts to secure the passage of lien law was rewarded.

THE MUSHROOM SYSTEM

CONCRETE CONSTRUCTION

NORTH AND SOUTH

This is one of many buildings in which the International Harvester Co., have used the Mushroom Flat slab.



Flat slab construction has been used in all parts of the United States and many foreign countries.

INTERNATIONAL HARVESTER Co., FORT WILLIAM, CANADA.
Built in 1912.

A Warehouse of the highest type. Thoroughly fire-proof and up-to-date in every sense.



Over 2,000 acres of Mushroom System floor erected without a failure.

WOODWARD WIGHT BUILDING, NEW ORLEANS, LA.
Built in 1912.

Submit Your Building Proposition To Us.
SOUTHEASTERN OFFICE, DANVILLE, VA.

C. A. P. TURNER

809-21 Phoenix Bldg., Minneapolis, Minn.

NEW YORK

CHICAGO

WINNIPEG

The Johnson System

*of Temperature Regulation
Is the Greatest Improvement
Ever Made in Heating
Systems*

*Over 100,000 Plants now
in successful operation*

This system consists of automatic devices for regulating the temperature of air, water and other mediums, through its application to all known forms of heating and cooling apparatus. While especially adapted to regulating temperature of schools, office buildings, public buildings and residences it is equally useful in connection with manufacturing processes, where uniformity of temperature is an important factor in quality and economy.

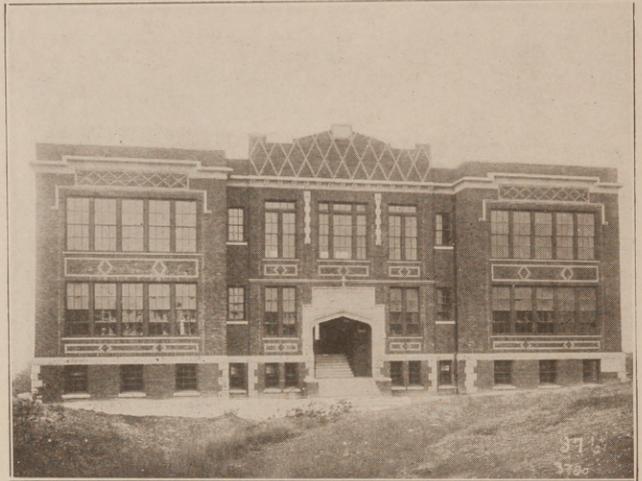
For the Owner of Business Buildings it means satisfied tenants and a *direct saving at the coal-pile*—controlling the temperature by open windows is costly for the owner and unsatisfactory to the tenant.

For Public Buildings and School Houses all sanitary engineers endorse the JOHNSON system as the most satisfactory. It holds the temperature at any point desired without drafts or the possibility of overheating. Our thermostatic control can be regulated to act with every change of one degree. 90 per cent of all public schools in which temperature regulation is installed have the JOHNSON.

The Johnson System is not an Experiment. It is a success. We manufacture thermostats to fit every possible condition and they will do the work which we claim for them. Our system can be arranged to turn off the heat from any room or series of rooms if desired through the positive shut-off at the thermostat. The JOHNSON system is *simple in construction and operation and positive in action.*

Our *service* department means *service.* We have in all large cities a full operating department in charge of a competent engineer who is qualified to install and keep our systems in perfect condition.

Write our main office for the JOHNSON catalogs, we want you to know about the products that carry the JOHNSON name.



Forrest Avenue School, Atlanta, Ga., E. E. Dougherty, Architect.
Equipped by Johnson Service Co. Hood's Oriental Brick used.



Furman Hall, Vanderbilt University, Nashville, Tenn.

Johnson Service Company

Branches Everywhere

Milwaukee, Wis.

An Old George Washington Landmark.

There is a house, built by George Washington in 1790—one hundred and twenty-two years ago, located in Glasgow, Barren county, Kentucky, although when it was built that section was located in Fairfax county, Virginia. Mr. A. L. Harris now owns and occupies the house.

George Washington, at the time the house was built, owned all that land which now comprises Virginia, Tennessee and Kentucky, it having been granted to him by a grateful American government in consideration for the services rendered during the revolutionary war. He built this house as a residence for a cousin, General Spottswood, who was governor of Virginia at that time. Gen. Spottswood was by nature of a very retiring disposition, and later became a recluse. He occupied this house until his death, the exact date of which we were unable to learn, and is now buried at Knob Lick, a small hamlet about five miles from Glasgow, Ky.

The architecture of the house is a wonderful combination of frontiersman's precaution and the city type dwelling. The walls are solid brick, thirty-six inches thick. The floors are of hardwood, two inches thick, made of chestnut and laid with dowel pins. The original roof was hand-drawn chestnut shingles, one-half inch thick and fastened with wooden pegs. There is not a single nail in the entire building, for nails were not manufactured at the time the father of our country built this house. The windows are of glass that was brought over from France, for glass was not made in this country at that time. The wear and tear to which a building is subjected in the course of years is here given full proof, for the glass is worn so thin that many of the panes are not thicker than a piece of ordinary tissue paper. In late years, light rains storms have at times been sufficient to break out some of the panes.

A portion of the roof is still covered with the original hand-drawn chestnut shingles. A small part of the roof was replaced with a tin roof by Mr. Harris a few years ago. Lately Mr. Harris has covered the kitchen with 800 square feet of asbestos roofing. With the exception of this asbestos roofing on the kitchen and the tin roof, the house has not been remodeled during its 122 years existence, and only such minor repairs have been undertaken as were absolutely necessary for its preservation.

To Build an English Village.

William B. Osgood Field has let the contract for the building of a miniature English village at Highlawn, his Lenox estate. Within the circle of the

old trotting track, where the stallions of Highland were trained, Mr. Field will have cottages for chauffeur, coachman, head farmer and garage, barn, greenhouses and storehouses, all of brick. A little further south there will be a poultry plant big enough to house six thousand fowls. The location overlooking Laurel Lake and about a third of a mile from Highlawn House, which Mrs. Field's mother, Mrs. William Douglas Sloane, built and gave to her.

Duty on Galvanized Iron Roofing.

The tariff note concerning the change in the rate of duty on galvanized iron roofing in Salvador, should read, "making the duty, with surtaxes, amount to a little more than 3 cents per kilo," instead of "3 cents per pound."

| | | |
|--|---|--|
| C E M E N T | LIME SEWER PIPE We will quote you prices on any quantity and can make prompt deliveries. Write for prices. V. H. KREIGSHABER & SON Atlanta, Georgia. BUILDING SUPPLIES | P L A S T E R |
|--|---|--|

BROOKHAVEN PRESSED BRICK & MFG. CO.
Brookhaven, Miss.

FINEST FACE BRICK

ALL COLORS PRICES RIGHT

Star Encaustic Tile Company

Manufacturers of

Unglazed Encaustic, Ceramic and Vitrified Tile

For FLOORS, HEARTHES and FACINGS

BURNED BY NATURAL GAS

Medals Granted at World's Columbian Exposition, Chicago, Ill., 1893, and at St. Louis, Fair, 1904.

Office and Factory, BLUFF STREET, NEAR GIST, PITTSBURG, PA.



“F-S” Products are like Aladdin’s Lamp--they mean a better business and bigger profits.

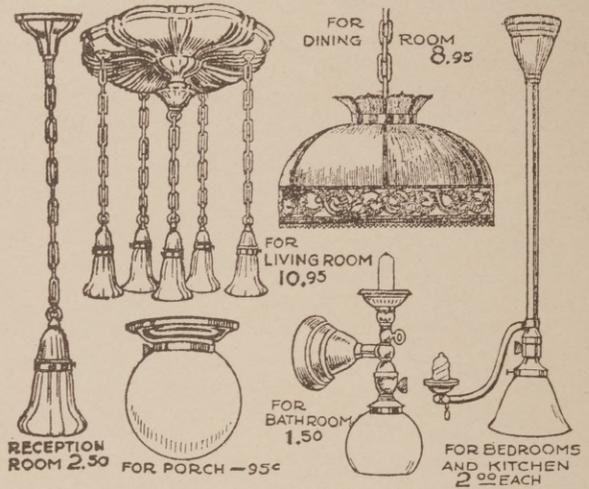
For interior decoration, bath tubs, furniture, etc., nothing can quite equal our splendid Paradox Enamel Colors—they come in eight beautiful tints. It will pay you to try them.

FELTON, SIBLEY & CO., Inc.

Mfrs. of Colors, Paints, Varnishes

136-140 N. 4th St., PHILADELPHIA

Complete Fixtures } 4 ROOMS
As Shown Below } 5 ROOMS
During This Sale } 6 ROOMS

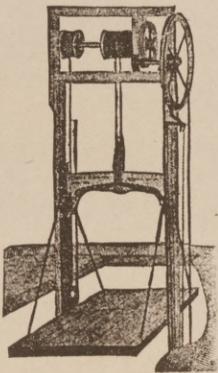


We will also sell single pieces at prices shown above Workmanship and quality guaranteed. Out of town orders \$1 extra for boxing. Write for free blue prints. Estimates cheerfully furnished and courteous treatment extended to all

Chicago Gas Appliance Co.

28 W. Lake St.,

Chicago, Ill.



ELEVATORS

Hand, Belt or Electric Power
DUMB WAITERS—
CONCRETE MIXERS

Write for Prices and
Descriptive Matter
Mention this paper.

SIDNEY ELEVATOR & MFG.
COMPANY

Sidney, Ohio.

Re
Roof
Repairs

Geroofco Elastic Cement

Write for Circular

GRIFFIN ROOFING CO.

CONTRACTORS FOR COMPOSITION
ROOFING, WATERPROOFING AND
ASPHALT WORK

507 W. 26th St.,

New York City

**Small Slates embedded in Asphalt
Over a Standard Built-Up
Waterproofing**

FOR FLAT ROOFS

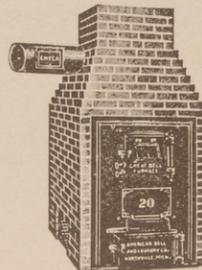
TO WALK ON

A practical roofing for Hotels, Apartment
Houses, Office Buildings, Colleges, Schools,
Public Buildings, etc., and being specified
by leading Architects.

Patented.

INLAID SLATE CO.,

Pen Argyl, Pa.



**A Hot Air
Furnace**

FOR LESS THAN A
BASE BURNER
For 5 and 8 Room
Dwellings

An unheard of Price and
a most Remarkable and
Indestructible Furnace. No
Pipes—no Lost Heat.

American Bell & Foundry Co.,

NORTHVILLE, MICH.

Thinks Lumber Famine Near.

Lumber is becoming so scarce and mill men are cutting such small trees, denuding the forests, that home makers of the next generation will require a small fortune with which to build even the most modest wooden house, according to predictions made by Frank J. Dusenberry, of Portville, N. Y., a big mill owner. Cement, Mr. Dusenberry thinks, is not going to solve the home-building problem after the lumber is gone. He thinks that something else also will be discovered for house-building purposes.

"The complete denuding of the hills and mountains in northern Pennsylvania and southern New York has entirely wiped out the big lumber industries which thrived in that section of the country 20 years ago," said he. "Practically every good-sized town along the Allegheny river had at least one large lumber mill. Now there are none. There is no bark for use in the tanneries and even the lumber used in the cooperage is fast disappearing as an industry along the river.

"Not only has the virgin growth gone, but there is little hope that a new growth will come on to revive the lumber industries now along the river, and these are consuming all the young and new timber which, if left to mature, would bring about a revival of the great lumbering industry. This condition is not alone peculiar to the Allegheny river. It is found in every section of the United States. There will be a lumber famine ere many years have passed, and then this country will be confronted with a serious problem in house construction. The tendency will be toward the big apartment houses because they can be built of other materials, though few are able even in this prosperous age to build in the average sized town or even city a home of concrete and steel or of granite and marble.

One of two things will happen—either there will be community homes or something new and cheap will be discovered. Should the community house arrive it will have, I believe, a bad influence on life, tending as it will to do away with the privacy of the home and the old theory that every man's home is his castle will cease to apply."

The Modern Apartment House.

"When, a quarter of a century ago," says a writer in the Washington Times, "the Portland flats, Washington's pioneer apartment house, at the corner of 14th street and Thomas circle, were erected, conservative old residents said that the enterprise was bound to be a failure—that there couldn't be found in Washington enough tenants to fill the two or three score apartments of the building.

"Yesterday, while walking along R, between

Fourteenth and Fifteenth streets, northwest, the writer counted on the south side of that single square no less than seven huge apartment houses, each of which could accommodate practically as many families as the Portland. Across the street in that same square, three other great apartment houses reared their fronts—and, when curious inquiry asked at each of these ten great structures whether accommodations could be obtained, the unanimous answer of the janitors was that the great majority were already taken for the winter.

"And, as though in final answer to the prophets of a former day, the Cairo, within whose walls half a dozen Portlands could be stored, lifted its great cornice high above the trees just across Fifteenth street. Within a radius of two blocks there are more than twenty times as many apartments as were in the entire city, twenty-five years ago—and all comfortably filled. Yet these are but a fraction of the 500 apartment buildings of the city."

This shows how fast a good thing grows. Why not modern apartment houses for all of the smaller cities of the South? Of course, conservative old residents," as they did in Washington, would say, "it won't pay." It is such ultra conservatism that keeps a young town back. It is, in fact, one of the needs of any city, as there are numbers of people living in small houses or sharing larger houses with others, or boarding, who would greatly prefer apartment accommodations. Not so-called apartments in double tenement houses, but the quiet and exclusiveness of the real apartment house life.

We are of the opinion that many of the small cities need the co-operative spirit that should be invoked in the enterprise of building up-to-date modern apartment houses.

New York's Smallest Store.

Probably the smallest store in New York City is located on Nassau street near Ann street. The dimensions of the tiny store are about 3 by 6. There is just about enough room in it for the proprietor to stock his supply of goods and to squeeze himself in. The size of the store is what attracts the passerby's attention and draws trade in gent's furnishing goods. There is always a group of persons outside intent on gazing in and seeing how large a stock the proprietor can store in it. With the thousands of people continually passing by on their way up and down narrow Nassau street it is certain that some of the people are going to stop and buy something.

There are other small stores scattered throughout the city, but none of them are as small as this one. On the same avenue near 89th street a diminutive store is occupied by a jeweler. All of the stores are deeper than the one near Ann street.

Trade Notes of Interest

New Faces This Month.

The attention of our readers is directed to these new advertisements appearing this month, all representative in their several lines, and worthy the patronage of those interested:

American Bell & Foundry Co., Northville, Mich., calls attention to their hot air furnaces in their illustrated advertisement. They sell for less than base burners.

Hoadley Stone Co., Bloomington, Ind., invite estimates on Bedford stone of every description. Get their prices.

Koehring Machine Co., Wilwaukee, Wis., are manufacturers of concrete mixers of all kinds for street paving purposes, also for general contracting work. Catalogue on request.

The Northfield (Minn.) Iron Co., are now selling their celebrated Northfield Mixer on trial. Its capacity is ninety cubic yards per day and satisfaction guaranteed. Write them for prices and terms.

The best slate roofing in the world comes from the slate quarries in Pennsylvania. Frank Jones & Sons sell the genuine Peach Bottom which will not fade and will last a lifetime. See their advertisement.

The Sidney Elevator & Mfg. Co., Sidney, Ohio, makes elevators, dumb waiters and concrete mixers. Write them for estimates and prices.

Refrigerating Plants.

The use of miniature refrigerating plants for hotels, butcher shops, bars and others using as much as 1,000 pounds of ice per day is becoming quite general.

The plants are very simple and can be installed by any ordinary man, without an expert, and after FOURTEEN—ARCHITECT they are once installed, it is only necessary to throw a switch and produce constant cold up to the limit of the capacity of the machine purchased.

The Portsmouth Engine Company, of Portsmouth, Ohio, have acquired all the patents of the "H. L. Borchers Refrigerating Machinery" line and are offering plants whose capacity is from two tons to ten tons per day of twenty-four hours, which gives refrigeration in six hours, amounting to from 1,000 pounds to 2,500 pounds of ice per day.

The use of these small refrigerating Plants has grown greatly in the last few years in the United States. It is said that about one-half of ice bills can be saved in addition to the expense of caring for the ice and drainage, also the very desirable sanitary features.

New "Reliance" Catalogue Out.

The 1913 catalogue of the Reliance Ball Bearing Door Hanger Company, 1 Madison Avenue, New York, contains more up-to-date information on elevator door hangers and elevator door locks than any of the previous issues of this firm's unusually illuminating printed matter.

The Reliance Company has made a number of improvements in hanger construction during the past year, and has also brought out several new devices in both hangers and elevator locks. On the last page we notice a cut of the company's new factory, which was built and moved into last spring, and the following caption beneath it: "Our factory's facilities have been increased five-fold within the last nine years—another proof of the popularity of the Reliance Ball Bearing Door Hangers."

This new plant enables the company to turn out more than three times as many hangers as they were able to manufacture in their previous plant. The new factory was necessary, as the demand for "Reliance" specialties has been increasing so rapidly that the firm has had great difficulty in filling its orders.

Every architect and builder should have a copy of this interesting catalogue on file.

Building Record at Jacksonville.

Building records for the months of November, at Jacksonville, Fla., show an increase of \$9,785 over those of the previous month, despite the fact that only fifty-seven permits were issued during the past month while 105 were issued in October.

During November permits were issued for forty-three frame houses with a total valuation of \$80,650 and for fourteen brick and stone buildings of a total valuation of \$98,550.

How to Make Colored Wood Oak Fillers.

(1) Antique Oak—Take 10 lbs. paste filler and add $\frac{1}{4}$ to $\frac{1}{2}$ lb. of burnt Turkey umber.

(2) Golden Oak—Ten pounds of paste filler, $\frac{1}{4}$ lb. of Vandyke brown, $\frac{1}{2}$ to 1 pint of black asphaltum varnish.

(3) Dark Golden Oak—Ten lbs. paste filler, $\frac{1}{4}$ lb. Vandyke brown, $\frac{1}{4}$ lb. burnt Turkey umber, $\frac{1}{2}$ ounce drop black, $\frac{1}{2}$ pint of black asphaltum varnish.

(4) Flemish Oak—Ten lbs. paste filler, $\frac{1}{4}$ lb. Vandyke brown, $\frac{1}{2}$ lb. burnt Turkey umber, 1 ounce drop black.

(5) Dark effect on oak or ash, with a greenish cast—Ten lbs. paste filler, 1 to 2 ounces of lamp-black.

PERFECT RESULTS ARE EASILY OBTAINED BY USING
SCHLUETER RAPID FLOOR SURFACER

This machine is built on the only correct principle. It is guaranteed to be **THE BEST** machine with which to produce an even, smooth surface on any kind of large or small wood floor, old or new, hard or soft, and in all buildings: Residences, Stores, Factories, Bowling Alleys, Roller Skating Rinks, Reception and Dance Halls, Etc.

The **SCHLUETER** will remove all joints or warped edges, on all kinds of Southern pine wood floors, as well as maple or oak.

EARNING CAPACITY, \$20.00 to \$35.00 PER DAY

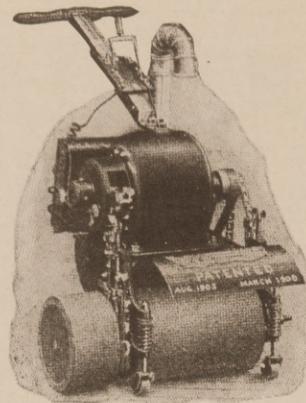
Send for Prices and Free Trial Proposition.

M. L. SCHLUETER,

103 North Canal Street

Chicago, Ill.

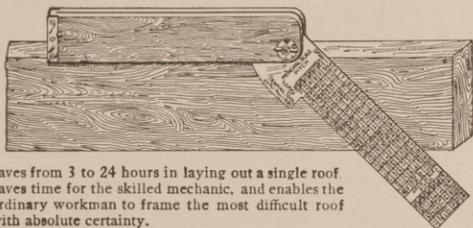
New York Office, 1001 Flat Iron Building



Roller Easily Adjusted to either side

For all Kinds of Stone and Concrete Floors.

Topp's Framing Tool



Saves from 3 to 24 hours in laying out a single roof. Saves time for the skilled mechanic, and enables the ordinary workman to frame the most difficult roof with absolute certainty.

A Perfect Tool, and the Only Tool for the Purpose Ever Invented.

Price, \$1.75

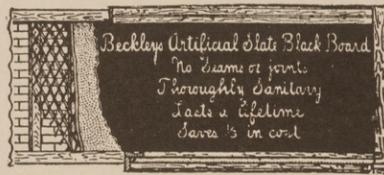
IT DOES ALL THIS { It gives angles for any pitch.
 It gives lengths for any rafters.
 It prevents all mistakes. It is accurate.
 It gives cuts for principals, jacks, hips, valleys and cripples.

G. A. TOPP & CO., Indianapolis, Ind. See Tool at Your Hardware Dealer. Circular on request

The Sanitary Seamless Steel Blackboard

FOR MODERN SCHOOLS

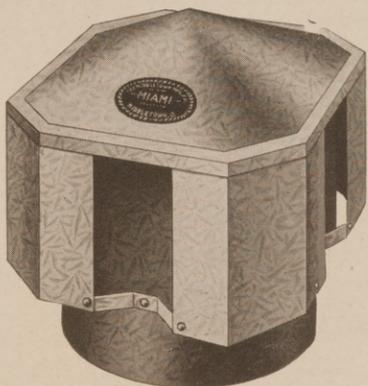
Ground Slate, Steel and Cement, applied with a trowel on a base - coat of hard plaster makes a **Solid Concrete Slate Surface** without seam or joint, lasts as long as the building, is not injured by washing and is **Thoroughly Clean and Sanitary**



Write for catalog.

BECKLEY-CARDY MFG. CO. Manufacturers and Sole Owners 312 W. RANDOLPH STREET, CHICAGO

"MIAMI" Ventilators



Manufactured from Rust Resisting American Ingot Iron
The "MIAMI" Ventilator

Is absolutely weather-proof, and there is always an upward draft because of their peculiar and scientific construction.

The "Miami" Ventilator will automatically exhaust hot and foul air, disease germs, gas, smoke and steam, in greater volume than any other of same diameter. It's an inspiration for smoky chimneys. No back draft, simple in construction, very strong and substantial.

When fitted with an automatic closing device the temperature of the room is easily regulated. The closing device has a vertical motion only, requires no attention after regulating, and can be arranged to automatically close in case of fire.

Manufactured only by

The Dixie Culvert & Metal Company

Southern distributors for American Rolling Mill Co.
 Genuine American Ingot Iron.
 ATLANTA, - GEORGIA.

Deitrich Brothers

SHIPMENT FROM STOCK

12 to 24 Hours from Receipt of Order

Beams, Channels, Plates, Angles, Concrete Bars and Reinforcing Wire Fabric, Cut Wire and Coated Nails

Baltimore, Md.

McKenna—Pittsburgh

RAILINGS, GRILLES, DOOR SADDLES, KICK PLATES, HAND ELEVATORS

A McKenna Manufactured Article is known by its "Quality."

We make a specialty of Structural Brass Work of all kinds for Office Buildings, Theatres and Churches. Write for Catalog.

Our Quotations Will Interest You.

McKenna Brothers Brass Co.

Why Don't You Stop Wasting Money?

What is the advantage in Cutting
up Lumber to Build Your

Concrete Foundations and Walls

when you can obtain Blaw
Steel Forms?

Blaw Steel Forms are adjustable to all
kinds of work. They are practically indestruc-
tible. They can be operated at high speed and
low cost.



Blaw Steel Forms for Foundations.

Blaw Steel Forms are being used for Concrete
Sewers, Drains, Aqueducts, Tunnels
Warehouses, Residences, Foundations
Columns, Beams, Girders
Tanks, Granaries, Silos, Shafts
Retaining Walls, Piers, Abutments
Bridges, Viaducts,
Sidewalks, Curbs, Gutters

Tell Us About Your Work!

Blaw Steel Construction Co.

General Offices
Cor. Anderson St. and Penn. Ave.
PITTSBURGH, PA.

PARK'S
Adjustable
FORM
STEP
HOLDERS

Save
YOU
50% in Labor

Make Your Steps With My Forms

Every contractor should have a set of my Adjustable Step Forms. With these forms you can easily and quickly make steps from 8 to 16 inches wide and with a rise of 6 to 8 inches. Steps can be made any length.

These forms cannot be set up unless they are absolutely plumb. This guarantees work being TRUE and SQUARE.

These forms are quickly adjustable through the tightening of an eccentric. They are made strong and durable. They are easy to use. They save you time, labor and material on every job—no sawing of lumber and fitting necessary.

Forms are sold in sets (rights and lefts), six pairs to a set. They quickly pay for themselves.

Get my circulars and full particulars about these forms. Contractors, get in touch with me. Let me show you just how these forms can make you profits. AGENTS and SALESMEN wanted in every locality.

H. L. Park, Reading, Mass.

93 MAIN STREET

AMERICAN REVOLVING DOOR CO.

Manufacturers of

STANDARD

AND
Anti-Panic
Revolving Doors



2516 W. Monroe St
Chicago, Ill.

ESTABLISHED 1892

Parsons Bros. Slate Co.,

Miners and Manufacturers of

ROOFING SLATE

PEN ARGYL, PA.

Slate Blackboards

Structural, Etc.

Your asking for our prices will be a gilt edge investment

Building and Construction Department

Public Buildings.

Bradentown, Fla.—H. C. Jaudon Engineering Co., Savannah, Ga., has been commissioned by the city to direct municipal construction that will cost about \$200,000 and will include extending paving, sewer system and waterworks system; building city hall and constructing bridge over Jacques Creek and bridge and causeway over Mare's Creek.

Lakeland, Fla.—James Nisbet Hazlehurst, consulting municipal engineer, Candler building, Atlanta, Ga., has been commissioned by the city to direct municipal construction to cost about \$150,000 and to include paving streets with vitrified brick, installing \$75,000 sewer system, extending electric lighting and waterworks systems and building new city hall and fire station.

Ocala, Fla.—Architects Mark & Shetfall, Jacksonville, Fla., have completed plans for Harrington Hall Hotel building to be erected here; exterior of white waterproof cement stucco; roof-cornice of Spanish tile; 50 rooms.

Cartersville, Ga.—Building of new jail for Bartow county was recommended by grand jury. G. A. Veach, chairman of board of commissioners of Bartow county, Adairsville, Ga.

Moultrie, Ga.—Architect Louis B. Benz, Valdosta, Ga., has been commissioned by board of commissioners of Colquitt county to prepare plans for new jail which the board proposes to erect. Dr. J. H. Hall, chairman of board, Norman Park, Ga.

Florence, Ala.—Sealed proposals will be received at the office of Oscar Wenderoth supervising architect, Treasury Department, Washington, D. C., until 3 p. m. of December 12 for installation complete of electric passenger elevator in postoffice building.

Augusta, Ga.—City awarded contract to King Lumber Co., Charlottesville, Va., to build two wings to hospital building; \$122,029. Nisbet Wingfield, chief engineer.

Florence, Ala.—Movement has been begun for erection of building for hospital, Dr. E. B. Hardin and Dr. R. L. Penn.

Augusta, Ga.—Bids are wanted for construction of administration building for city hospital, the structure to be the fourth of a series of four hospital buildings.

Valdosta, Ga.—Announced that Southern Bell Telephone and Telegraph Co. will erect building for its occupancy. Evelyn Harris, Atlanta, Ga.

Montgomery, Ala.—Erection of fireproof archieve and history building for Alabama to cost about \$100,000 is proposed. Thomas M. Owens, director.

Oak Ridge, N. C.—A combined Y. M. C. A. and gymnasium will be erected by the Alumni Association of Oak Ridge Institute at an approximate cost of \$25,000. Prof. T. E. Whitaker can furnish information.

Knoxville, Tenn.—Plans for remodeling the city jail have been made by Building Inspector C. M. Thompson.

Bentonville, Ark.—The Benton county court house is being remodeled.

Little Rock, Ark.—The city council contemplates expending \$20,000 for completion of the third story of the city hall.

Montgomery, Ala.—Plans are under way for the erection of a fireproof archives and history building, to cost \$100,000. Dr. Thomas M. Owen, director of State Department, can give information.

Raleigh, N. C.—Methodist Orphanage to erect a 14-room dormitory, \$10,000.

Greenville, S. C.—A \$125,000 six-story reinforced concrete court house may be erected here.

Jefferson (R. D. Smyrna), Tenn.—A \$50,000 three-story hotel will be erected here. W. W. Dillon, 2-3 Stahlman building Nashville, Tenn., can give information.

Memphis, Tenn.—A fireproof theater will be erected by the Orpheum Theater circuit. The building will have a seating capacity of between 2,000 and 2,500 people. Max Fabish can furnish information.

Nashville, Tenn.—A meeting has been held by the city council and the county court to consider ways and means for the erection of a hospital for contagious diseases, at a cost of \$60,000.

Blockton, Ala.—The Knights of Pythias have begun work on a structure to be used as a hall and office building.

Jasper, Ala.—The Jasper fire company is planning to build a permanent home.

Mobile, Ala.—Plans for the Jewish Country Club house are being drawn.

Marion, Va.—A building will be erected by the Southwestern State Hospital. Dr. J. C. King, superintendent.

Richmond, Va.—Architects Carneal & Johnson have reported to the council committee on markets plans for a new meat market building at the First Market, to cost approximately \$25,000. The plans were referred to a sub-committee, consisting of Messrs. Rogers, Mitchell and Atkinson.

Roanoke, Va.—Shenadoah Hospital, Inc., to construct three-story brick hospital, \$12,500.

Wheeling, W. Va.—The Beni-Kedem Temple of the Mystic Shrine will erect a \$100,000 building.

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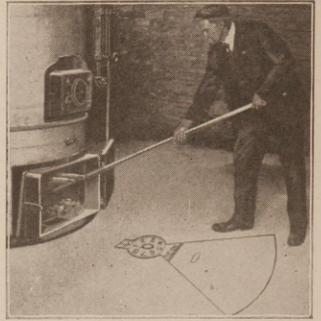


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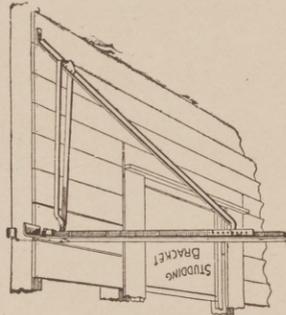
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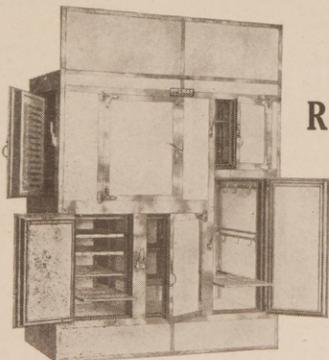
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The building committee is composed of Charles K. Payne, J. N. Carnes and Neil Robinson.

Wheeling, W. Va.—A \$25,000 five-story theater building will be erected by F. H. Lange. Jas. F. Lee will be manager.

Dwellings and Apartments.

Brunswick, Ga.—J. W. Collins, this city, has contract to erect apartment house for James A. Brailey, Jr.; six apartments; steam heating; electric wiring.

Macon, Ga.—Contract has been awarded to G. W. Fanning this city, to erect apartment house for Mrs. B. Walchsebaum, \$9,000. Plans by Architect Frank Happ, Macon.

Savannah, Ga.—W. T. Hussey, this city, has contract to erect apartment house for Mrs. James O. Heyward, New York; two stories; cement block; about \$10,000.

Americus, Ga.—Residence to cost about \$3,000 will be erected by William Humber.

Atlanta, Ga.—Permits for erection of residences which will be built by day labor have been issued as follows: Phoenix Insurance Co., two-story frame, \$3,500; McKenzie Trust Co., one-story frame, \$2,000; also two-story frame \$3,500.

Atlanta, Ga.—Permits for the erection of residences which will be built by day work have been issued as follows: J. N. Renfroe & Co., two-story frame, \$4,500; also two-story frame, \$5,000; W. D. Beattie, one-story frame, \$2,500.

Atlanta, Ga.—J. H. Whisenant has permit to erect one-story frame residence; day work; \$3,000.

Atlanta, Ga.—Col. John J. Woodside will build residence on tract which he has just purchased.

Port Richey, Fla.—David Clark will build residence.

Port Richey, Fla.—Residence will be erected by Dr. J. A. Kyle.

Savannah, Ga.—Permits for erection of residences have been issued as follows: L. W. Kirkland, two-story frame; James Dowling, two-story frame.

Savannah, Ga.—J. W. Lang will build residence.

Savannah, Ga.—Residence will be improved by Dr. Walter S. Wilson.

St. Augustine, Fla.—R. L. Irwin will build residence.

West Palm Beach, Fla.—T. A. Carter will build residence.

Birmingham, Ala.—Permits for the erection of residences have been issued as follows: Keystone Realty Co., two-story frame, \$2,950; F. A. Coleman, two-story frame, \$2,000; Mrs. Rich, two-story veneer, \$8,000.

Bradentown, Fla.—Claud Price will build bungalow.

Bronson, Fla.—S. L. Bean will build residence.

Commerce, Ga.—Y. J. Johnson will erect residence, though probably construction will not begin immediately.

Jacksonville, Fla.—Plans are being prepared by Architect W. B. Camp, of this city, for residence to be erected for Mrs. Selma Swartz; \$3,000.

Jacksonville, Fla.—S. J. Owens has permit to erect two-story frame building.

Gadsden, Ala.—W. H. Mayben, this city, has contract to erect bungalow for Finis McCluney; \$2,000.

Pensacola, Fla.—H. E. Franklin, this city, has contract to erect residence for J. O. Ingstrom; \$2,500.

Pensacola, Fla.—J. E. Van Ausdal & Sons, this city, have contract to erect residence for J. R. Keller; \$2,300.

Atlanta, Ga.—H. T. Yeargin, this city, has contract to erect one-story frame residence for D. W. Morgan; \$2,700; permit issued.

Birmingham, Ala.—Thrach Martin, to repair two-story brick, \$4,000. Richard Jerby is building a residence.

Ensley, Ala.—Permit issued to F. G. Cutler, one-story frame building, \$3,500.

Fort Smith, Ark.—J. W. Kuykendall to erect residence, \$3,000.

Little Rock, Ark.—Bracy, Beauchamp & Neimeyer will erect a two-story residence to cost \$9,000.

Jacksonville, Fla.—Charles Drayer, to erect a two-story frame dwelling to cost \$3,600.

Jacksonville, Fla.—Permit issued to Julian Prewitte one two-story frame residence. J. Safer, two two-story frame residences.

Warrenton, Ga.—It is reported that J. H. Battle will erect a \$10,000 residence to replace the one destroyed by fire November 17.

Louisville, Ky.—F. Scheirich has secured a permit to erect a two-story frame apartment. It will cost about \$5,000.

Louisville, Ky.—F. Scheirich has secured a permit to erect a two-story brick veneer building to cost \$5,000.

Louisville, Ky.—Geo. Chreste, to erect two-story brick dwelling, \$3,500.

Atlanta, Ga.—Permits issued to R. H. Williamson for two-story frame dwelling, \$4,000. Mrs. L. McMillan, two two-story frame dwellings, total cost \$7,200.

Augusta, Ga.—Thos. Barrett, Jr., to erect five cottages estimated cost \$8,000.

Bank and Office.

Savannah, Ga.—Plans by Architects Mowbray & Uffinger, New York, have been received by the Hibernia Bank for building which will be erected by the bank for its occupancy. Plans contemplate one-story building with three-story effect; 60x90

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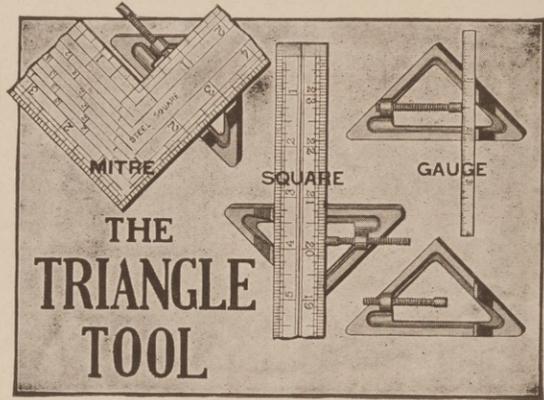
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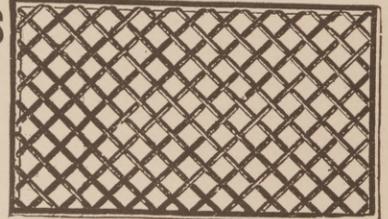
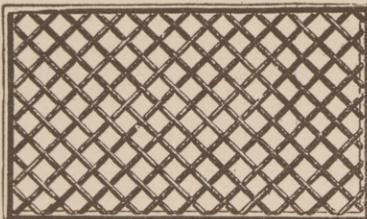
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feet; gray granite construction. It is probable that officers of bank soon will reach decision as to character of building to be erected, it having been suggested at one time that bank and office structure might be built.

Mobile, Ala.—Contract has been awarded to George A. Fuller & Co., to erect eight-story addition to building of City Bank and Trust Co., and add two stories to bank's present building; fireproof construction. Plans prepared by Architect George B. Rogers, Mobile.

Bainbridge, Ga.—Architect Frank R. Happ, Macon, Ga., has prepared plans for building to contain offices and two stores to be erected by M. E. O'Neal, brick and stone; \$6,500.

Nashville, Tenn.—The Broadway National Bank will expend between \$10,000 and \$15,000 for remodeling their building.

San Antonio, Tex.—Preliminary plans have been fully agreed upon and architects of San Antonio will be invited to submit permanent plans and specifications for the proposed structure, to be erected by the chamber of commerce.

San Antonio, Tex.—The plans, as agreed upon, call for the erection of an eight-story building and auditorium which will have a seating capacity of from 4,000 to 5,000, the estimated cost of the building and auditorium now being \$250,000. L. B. Clegg is chairman.

Girard, Ala.—The Phoenix-Girard Journal will erect a new office building here.

Amity, Ark.—The Farmers and Merchants Bank recently organized will erect a building. J. H. Jarnagin, cashier.

Atlanta, Ga.—The Trust Company of the South will remodel and improve building at cost of \$25,000. Day work.

Columbus, Ga.—The Southern Bell Telephone Co., will erect three-story fireproof building of cream colored terra cotta brick.

Whitesburg, Ky.—L. W. Fields will soon begin the erection of an office building.

Charlotte, N. C.—Louis H. Asbury is preparing plans for a terra cotta and brick bank building to cost \$7,500.

Tulsa, Okla.—Merritt C. Glass will erect an office building.

Columbia, Tenn.—The Cumberland Telephone and Telegraph Co. contemplate erecting an office building here.

Schools and Colleges.

Macon, Ga.—The City Board of Education tentatively decided to erect a high school building to cost \$100,000 or more. C. B. Chapman, superintendent.

Washington, Ga.—Dormitory chapel and audi-

torium will be built in place of structures that were burned with loss of about \$100,000. No definite plan as yet. Rev. H. H. McMahon.

Houston, Tex.—Plans prepared by Smith & Leigh, architects of this city, have been accepted by the city school board for the purpose junior high school. With the acceptance of the plans finally, bids for the actual construction of the building will be advertised for.

Macon, Ga.—A report recommending the creation of a fund of two million dollars for the erection of a new plant for Mercer University at Macon, has been adopted by the Georgia Baptist convention.

Huntsville, Tex.—The plans of Waller & Fields, architects of Fort Worth, have been accepted for the \$25,000 gymnasium building of the Sam Houston Normal.

Winston-Salem, N. C.—A school building for colored) will be erected.

Nashville, Tenn.—A \$250,000 addition may be erected to the city high school building.

Calallen, Tex.—A school building will be erected here.

Decatur, Tex.—The board of trustees of the Decatur public schools has decided on plans for school building. The structure will be of brick.

Churches.

Key West, Fla.—Work will be resumed soon after January 1 upon church building for Fleming Street Methodist church. Rev. W. B. Tresca, pastor.

Macon, Ga.—Committee of members of First Baptist church has recommended that addition to be erected to church building at cost of about \$20,000. The pastor.

Uniontown, Ala.—Congregation of Presbyterian church will erect church building to cost about \$15,000; approximately \$5,000 will be expended for furnishings and organ. The Pastor.

Uniontown, Ala.—A \$20,000 edifice will be erected by the Presbyterian congregation.

Helena, Ark.—The congregation of the First Christian church will erect a house of worship.

Murfreesboro, Ark.—The Methodist congregation will erect a church.

Fairmont, Va.—The Christian congregation will rebuild their church.

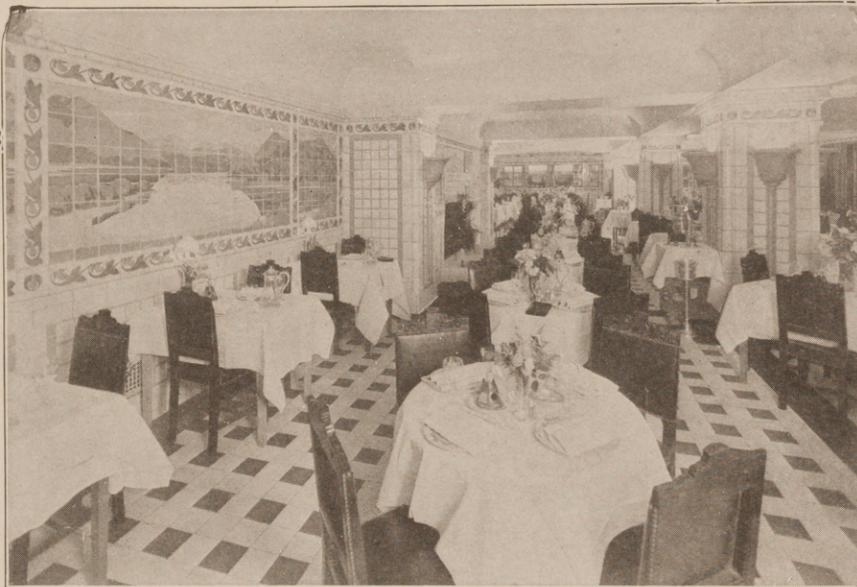
Florence, S. C.—The vestry of St. John's Episcopal church has determined to raise \$10,000 to enlarge its church here. The plans have been adopted. Rev. W. A. Guerry can give information.

Devine, Tex.—The contract has been let for the erection of a \$9,200 Baptist church in this city. Work is expected to commence in a short time.

Atlanta, Ga.—J. F. Brown has donated a site for the erection of a new building for the East Atlanta M. E. church.

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Business and Store Buildings.

Ellijay, Ga.—Store building will be erected by M. J. Webb & Co.

Jacksonville, Fla.—Bids will be received for construction of 11-story building by H. & W. B. Drew Co.; reinforced concrete and brick; 50x90 feet; building to be occupied by printing and publishing business of Drew Company. Plans by Architect H. J. Klutho, Jacksonville.

Mobile, Ala.—Van Antwerp Drug Corporation will erect building for occupancy by its wholesale department. Plans are being prepared and it is expected to award contract after January 1.

Mobile, Ala.—Mobile Drug Co. will erect building for its occupancy; plans have not been prepared.

Gadsden, Ala.—Contract has been awarded to Gadsden Building Co., this city, to erect store building for Phillips-Neely Co.; \$4,500.

Key West, Fla.—Contract has been awarded to Roberts & Wilson, this city, to erect store building, 60x90 feet, for S. H. Kress & Co., Atlanta, Ga.

Memphis, Tenn.—F. W. Mayo, for erection of an addition to store, \$8,000.

Memphis, Tenn.—Carroll Turner will erect \$20,000 building. The building will be two stories high with stores below and apartments above. Hanker & Cairns, the architects, expect to let the contract for the work in the near future.

Mandeville, La.—A new business building is being constructed for the firm of Mrs. N. Levy & Son.

Charlotte, N. C.—A. D. Neal has let the contract for the erection of four-story, pressed brick, business house.

Lincolnton, N. C.—The Jones Fixture Co. will erect a brick building.

Thomasville, N. C.—The Crutchfield Hardware Co., will erect a brick building.

Little Rock, Ark.—The West End Real Estate Company to erect a two-story building, \$3,000. H. C. Bartlett to erect two-story brick veneer building, \$3,300.

Louisville, Ky.—Broadway and Fourth Avenue Realty Company to erect two-story brick building to cost \$75,000. McDonald and Dodd, architects.

Corpus Christi, Tex.—E. L. Bernard will begin the erection of a four-story brick store March 1, 1913.

Anderson, S. C.—B. O. Evalues and Co. will remodel the building recently purchased.

San Antonio, Tex.—Permit issued for the construction of the four-story building for M. Halff & Bro. The building will cost \$75,000 and will be built of brick and reinforced concrete.

El Paso, Tex.—The plans are about completed for a new \$200,000 department store building for El Paso. The building will be five stories high and will be occupied by the Popular Dry Goods Co.

El Paso, Tex.—Two additional stories will be erected to the Western Woodenware Co. building. The original estimate on the building which was to have been two stories high, was \$12,000. The addition of the two additional floors will bring the cost up to \$16,000.

Elgin, Tex.—Otto Bengston and P. Basset have awarded contract for the erection of merchantile buildings.

San Antonio, Tex.—A. Guenther to erect a store to cost \$7,000. L. J. Hart to erect a two-story concrete and brick business house, to cost \$20,270.

Waco, Tex.—A pressed brick building, two to three stories high, ill be erected by the Baby Percy Medicine Company.

Waco, Tex.—The Rotan Development Co., T. J. Primm and J. W. Riggins, will erect a mercantile building.

Roanoke, Va.—Permit issued to George W. Payne, to construct three-story brick storehouse, \$15,000.

Wheeling, W. Va.—Architect Edward Frankzheim has prepared plans for remodeling the McLain block.

Supply and Hardware Companies.

Altus, Oklahoma—The Altus Hardware Co. Capital \$10,000. Incorporators: C. R. Donart and C. T. Duke.

Chandler, Okla.—The Fred Neal Hardware Co. Capital \$7,500. Incorporators: Fred Neal, Bertha Neal and Frank Greff, Chandler.

Charleston, S. C.—Pon-Pon Land and Gravel company, of Charleston, with a capital of \$10,000, the petitioners being C. Deas Gadsden and Geo. R. Fishburne.

Charlotte, N. C.—The Vaughn Building Company was chartered by the secretary of state to do business in Charlotte, beginning with \$1,000 capital and authorized to \$500. B. C. Davidson, S. L. Vaughan, E. E. Vaughan and others are the incorporators.

Birmingham, Ala.—The Peirce-Foshee company, incorporated, real estate and building material manufacturers and dealers, filed articles of incorporation; capital stock stated at \$25,000. R. G. Peirce is president and treasurer, M. T. Peirce, secretary and W. E. Foshee, vice-president.

Architects' Exhibit.

At the request of a number of Atlanta architects an exhibition of the competitive designs for the Grady hospital nurses' dormitory was recently held in the rooms of the department of architecture of the Georgia School of Technology. Twelve or more sets of drawings were shown as examples of the recent academic work at the school.

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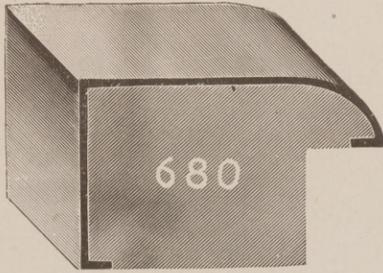
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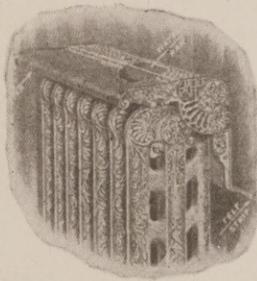
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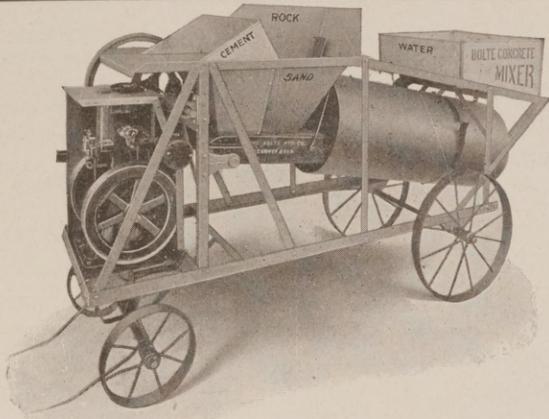
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THE BOLTE MIXER

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HUNDREDS OF CONTRACTORS ARE USING BOLTE CONCRETE MIXERS TO THEIR ENTIRE SATISFACTION. If they will satisfy others, they will satisfy you. WHY NOT INVESTIGATE A BOLTE?

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