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THE building interests have never had placed before them a more straightforward document or one more entitled to belief and respect than that which has just been issued by the new combination of iron and steel working plants that is to operate henceforth under the style of the American Bridge Company. When Abram S. Hewitt, as a director, puts his name to the official statement that it is to be the policy of the newly consolidated concerns that "no advance in prices will be made, but the cost of production will be reduced to an absolute minimum," and that it will, hence, "be in a position to furnish all classes of bridge and structural work at an absolute minimum of cost [to the consumer] and in the very shortest possible time," these assertions may safely be accepted by every one without questioning. When Charles M. Davis is to have charge of the operating department, architects and builders can rest satisfied with the proper and expeditious making of estimates and delivery of material on time and in good order. When the great Pencoyd Works, with its annual capacity of two hundred thousand tons, is only one out of the two dozen plants in the combination, architects can feel secure that even the largest contracts can be handled with as much speed and certainty as are humanly possible, and when J. P. Morgan & Co., Kidder, Peabody & Co., and August Belmont & Co. are interested in financing the consolidation, every one can accept it as a certainty that the new combination is formed to stay, and that it *will be possible* for it to furnish material to the building fraternity at "an absolute minimum of cost." The capacity to do so is beyond question and we earnestly believe that the existence of the will to do so is equally entitled to belief. The American Bridge Company has but to live up to the letter of its announcement and it will find that architects and builders will throw into its hands all the business it can handle, and that from this business it can derive a fair and continuous mercantile profit that will enable it to hold together for an indefinite time.

THIS bridge-building corporation, our readers will recall, is the only "trust" we have ever spoken of in terms of approbation, as one of the chief objects for its formation was the extermination of the unfair competition that the individual plants suffered through the bidding of "bridge brokers" on any and every job that came into the market, and inevitably produced and maintained a state of unsettled prices which reduced most building-operations to mere games of chance. With the new trust to rely on, architects can now talk with intending clients in such a way as to win their confidence, as no wet blanket is to an investor quite so wet as a confessed uncertainty as to the probable cost of his undertaking. As to the many other trusts, we confess to reading with pleasure that several of them have just announced that they must pass their dividends because the "expected economies," to be effected by the consolidation, have failed to materialize. The announced economies have been effected surely enough, works have been closed, workmen have been discharged, and clerks and officials have been callously turned adrift on the world, but it has none the less proved impossible to earn dividends on the vast issues of so-called stock, and though we are ready to commiserate any innocent holders of such stock, we still welcome these announcements as presaging the ultimate downfall of these gigantic industrial swindles. Legitimate combinations created by the joining of actually operating plants and the adjunction of actual capital and live assets are well enough because they are not unnatural, but these huge stock-gambling affairs, with their uttered millions of watered stock, are quite different matters, and are distinct perils to the commercial life of the country in all its parts.

ASIDE from those trusts that have already passed their dividends, there are others that show an indication of returning sanity; that give evidence that they have discovered that their cynical disregard of the right of mankind to live is only likely to bring about their own undoing; that are already finding that in order to earn anything — quite setting out of the question the earning of dividends on the watered stock — something must be done other than the mere arbitrary marking up of prices. The sudden marking up of prices without warning may produce a large temporary profit through catching those already bound by contracts unprovided for; but, aside from the immorality of this method of robbery, it is the most ill-advised course that officials charged with producing a permanent income could adopt. During the last week there have been meetings between the members of the two great iron and steel trusts to consider the matter of prices, and a price of twenty-five dollars a ton for steel billets was agreed on, but in spite of this agreement one of the members later sold a large order at twenty-two dollars, an occurrence that seems to show that these trusts are not very strongly held together. More significant than this is the statement made by the selling-member that it was his conviction that prices had got to "come down to the lowest possible limit if business was to be hoped for," and we will add to this our conviction that they not only have got to come down, but must be kept down if any one is to derive a continuous income from the operations of the plants involved. Prosperity is to be gained and maintained only by encouraging activity in the fields where the plant's output is consumed; it cannot be encouraged through checking it by the application of factitious high prices.

THE terrible calamity that transpired in New York harbor last week has had the effect of turning attention sharply to the happy-go-lucky method under which a vast freight traffic is conducted in one of the world's greatest seaports, and the newspapers have followed columns filled with the harrowing details of the disaster with other columns equally filled with advice as to needed and possible improvements offered by editors, reporters and correspondents. One of the latter, a Philadelphia architect, comes forward with a patented scheme which occupies the pier-heads with seventeen-story fireproof buildings, the lower stories used as freight sheds, the upper as tenements, with, over all, an "esplanade" running over the roof-tops and offering to cranks and would-be suicides greater facilities for a sensational exit from life than is afforded by the Brooklyn Bridge. Doubtless much will be done to mitigate the existing dangers in the way of equipping piers with systems of pumps, pipe-lines, automatic sprinklers, and eventually the present combustible buildings will be replaced by others that are fireproof. But the danger lies less in the buildings than in the cargoes that are temporarily housed in them, which not only may be the cause of a fire through spontaneous combustion, but owing to their very miscellaneous characteristics and the manner in which they are prepared for shipment are particularly liable to ignite through the agency of spark, dropped match or cigar end. The discipline that can control those who regularly work about the piers and sheds, sailors, longshoremen and stevedores, is ineffective as applied to passengers and individuals who may have occasion to visit, on business, the piers or boats lying at them. It would seem that for the use of these classes of occasional visitors a fireproof gallery

above the floor of the piers would be a useful adjunct and one that could be added to existing piers without very great expense. The present system of landing passengers on the common floor of the pier, over which to the exit they have to make their way as best they can, dodging teams and truck loads of bales and boxes at the peril of their life, is, to say the least, uncivilized. No steamship company, apparently, would think of providing safe egress for its passengers, as its responsibility ends with placing them safely on shore, but it is curious that the thought that a match or cigar carelessly dropped by a passenger, startled out of his presence of mind by an angry imprecation from a hurrying longshoreman, might produce disaster, has not led to the adoption of more civilized methods. As men will smoke in spite of rules and regulations, a special smoking-room, where the hands at the noon hour or at each change of shift could draw a few of these consoling and refreshing whiffs, would seem to be a reasonable provision to make, and one which would tend to prevent infractions of the rule against smoking.

BUT fire is not to be dreaded only when one is shut up in a building or on shipboard, and apparatus for the escape from, or the control of, fire is needed in other places than buildings and ships. Those who have had to face a fire in a passenger-car know what is almost the extreme limit of human helplessness, and for the safeguarding of the millions who travel by rail each year the railroads should be forced to provide adequate safeguards in the way of portable extinguishers or apparatus operated from the locomotive. One of the English roads is now, because of a wreck which occurred near a station, equipping all its stations with fire-apparatus, and more than this, is adding to the equipment of its engines a powerful fire-pump and a serviceable length of hose, the needed water being obtained from the tender or from any stream or well that may be accessible. But in cases such as occurred on a Western road, where gas that had leaked from a conveyor suddenly ignited and filled the sleeper instantly with flame, an engineer might proceed for miles without knowing he was drawing behind him a burning car, for an engineer is normally looking out ahead and has no eyes to give to the train behind him. For such cases as this and for the equally dangerous, but more common, mishaps of a train breaking in two, it would be well to enforce the general adoption of a device in use on one of the railways in India, a device which is both adequate and so cheap that the most parsimonious directorate could hardly object to its adoption. The device is simply a mirror attached to the outside of the locomotive cab and adjusted at such an angle that in it is reflected the entire length of the train behind, so that the engineer, without leaning out of his window and turning his head to assure himself that his train is all right, can ascertain the fact by a glance at the mirror so momentary as not to interfere with his outlook ahead.

THE French Chamber of Deputies has just taken a step in which interesting potentialities are involved, since it sets an example that, if followed, may have a material effect in adding to the architectural interest of the city of Washington. The Chamber has voted a credit of something over two hundred and fifty thousand dollars for the purchase of a site and the erection thereon of a suitable official residence for the French ambassador. In nothing is our political system more democratic than in the manner in which our own officials are housed, they being, with the exception of the President, left to house themselves as best they can in leased or purchased private houses, and foreign officials, perhaps feeling called on to adopt the fashion of the country, have done the same thing, so you may find a foreign embassy housed in any sort of a house, hotel or apartment. Some ambassadors temporarily own the buildings they occupy, but none, we believe, has ever built one to suit his official needs. But if France set the example and the result prove to be officially satisfactory and artistically interesting, other embassies are not unlikely to follow suit, and if each country should have its building designed in the style in vogue at home, and if these official residences should be built as neighbors in the same quarter or upon the same square, Washington may acquire a permanent exhibition of "foreign pavilions," which will lend a perpetually "Midway" air to the neighborhood, and country visitors will regularly take it in as one of the sights that must not be overlooked. Then, too, as this country is jealously reciprocal in its international dealings, and, when a foreign minister is transformed into an ambassador, responds by a similar transmogrification of this country's official representative, our architects may expect shortly to have a chance to design an official residence for our ambassador in Paris, but under an appropriation probably much larger than that the French Chamber has just voted, and later there will be further employment in designing similar houses for American democratic simplicity in London, Berlin, Rome, Vienna and elsewhere. The possibilities that can be evolved from this beginning are interesting and it will be amusing to discover what scheming architect first succeeds in getting a bill before Congress nominating him as the architect selected to design the first official home for an American ambassador abroad. The French, unfortunately, have a rather scornful way of thinking that anything in the way of a statue or a monument is good enough to set up in a foreign country, and they may have the same feeling as regards buildings, and so, in place of erecting in Washington a building which will really add to the architectural adornment of the city, they may entrust the work to some one of the designers who have created the architectural nightmares that now house the Exposition of 1900 in Paris.

THE people of this country, we are happy to say, seem inclined to pay attention to the eternal fitness of things and, when they undertake to respond in kind for any favor or honor done them by a foreign country, endeavor to entrust the execution of the symbol to hands that are really capable and intelligences that are really cultivated. Proof of this is to be found in the equestrian statues of "Washington" by Messrs. French and Potter, and of "Lafayette" by Mr. Bartlett, that have just been unveiled in Paris, the first the gift of the Daughters of the Revolution, and the second paid for by contributions from the school-children of the United States, the general Government contributing appropriations more or less large, so that the statues do have some real significance as a token of national amity. Judged by the illustrations that have come to hand, the Washington group is the more satisfactory of the two, though it has at the same time more of the elements of the commonplace than has the other; that is, it has more the air of a portrait-statue from the life, and has not the effect of being the result of a pure effort of the imagination — aided by half remembrances of other statues, which is the main impression one receives from the "Lafayette." Bartlett's work is disappointing in that it seems to be largely made up of unrelated parts embodying too strong reminders of well-known pieces of equine sculpture elsewhere. Thus the crest, eyes and ears of the horse are distinct reminders of Frémiet's work, the forehand is the forehand of a horse of St. Mark's, the tail is the tail of the Colleoni, while the barrel and hindquarters are common to many, and rather commonplace. But it is not easy to model a horse that will not, as distinctly as this, recall in more or less of its parts statues already existing elsewhere. In the pose selected for the Marquis, the sculptor has hardly been more fortunate. It is not a common one, so it is all the more unfortunate that it should at once recall that of the statue of Etienne Marcel, only a few squares away behind the Hôtel de Ville. Considered together, these statues of Washington and Lafayette admirably present what Americans understand to be the different characters of the two men at the time their destinies made them companions: Washington, self-reliant and impressive, Lafayette, impressionable and tending to become merely a hero-worshipper.

THE investigations into the archæology of Central America, which have been carried on with zeal and success by American expeditions, have been rather interfered with by the unwillingness of the Colonial Government to grant permission for the study of the aboriginal remains in British Honduras. As much material is known to exist there, the lack of opportunity for examining and comparing the Maya or Aztec antiquities in this part of the country with those already studied elsewhere is a serious bar to the intelligent elucidation of one of the most curious problems of ethnology and history; and the President of the British Archæological Association, the Marquis of Granby, with the coöperation of some of his personal friends, proposes to organize an expedition to make explorations in the ruined city of Tikal, about sixty miles west of Belize. Being exclusively British, this expedition will undoubtedly have free access to the region in question, and the results of its work will be available to the whole scientific world.

A PLEA FOR RAIN-BATHS IN THE PUBLIC SCHOOLS.[1] — I.

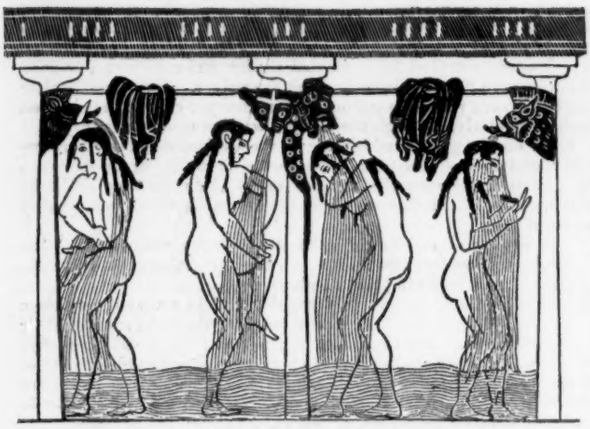


Fig. 1. Woman's Douche-bath: From a Greek Vase.

SANITARY science teaches that infectious diseases can best be prevented by the speedy and regular removal of all dirt and waste refuse from the centres of population. This axiom applies not only to our city streets and habitations, but also to the human body. One of the functions of the skin is to continually secrete waste products from the body. During this process the outer layers of the skin are continually cast off and renewed. The clothing which civilized human beings wear forms an obstruction to the immediate removal of the dead and cast-off matter, hence the skin excretions are retained on the same longer than is desirable. The waste matters form an incrustation on the skin, are then subject to decomposition, give off bad odors, and impair the proper function of the skin. The chief reason for wearing underwear is to prevent the skin dirt from attaching to the outer clothes, but some of the dirt remains in the undergarments until these are sent to the laundry. Bacteriologists have discovered in such clothes not only dirt and layers of the skin, but also many bacteria and disease germs. It is obvious, then, that both the skin of persons and their underclothing need frequent cleaning, the one in the bath, the other in the wash.

Among the chief causes of air contamination in school-rooms are, first, the lack of bodily cleanliness of many school-children, and second, dirt accumulated both in the pupils' underwear and also in their outer garments.

Ventilation of rooms is usually understood to comprise means for the removal of foul air and for the introduction of a sufficient quantity of purified air, warmed during the winter season, and admitted in such a way as to avoid any draught. I assert, however, without fear of contradiction, that in school-rooms the best system of ventilation must fail to remove entirely the odors arising from unwashed bodies and from unclean garments. It is a matter of common observation that the air of a class-room can be rendered much purer by a removal of the pupils during recess and by some energetic air-flushing accomplished by opening all windows than by the best ventilating system, and this for the obvious reason that two of the chief sources of air pollution — the children themselves and their clothes — have been removed. Therefore, it follows that the above, generally accepted, definition of "ventilation" is imperfect, that something more is required than the mere introduction of pure air and the removal of foul air. What we must do in ventilating rooms or audience-halls is to remove entirely, or to keep out, all direct sources of impurities which contaminate the inside air. Applied to buildings in general, this means that plumbing fixtures, traps and pipes, which may contain sewer air, must be made free from defects or leaks, that gas-leaks likewise must be repaired, and that there must be no accumulations of organic waste matters, like garbage. In school-rooms, in particular, it points to the desirability of frequent and thorough ablutions of the children. Incidentally, it shows that it is desirable to remove from class-rooms the usual wardrobes for the overcoats, head-coverings, umbrellas and rubber-shoes of the pupils. Even where such wardrobes are provided with special ventilating-flues, the odors from a large number of damp clothes are apt to assert themselves unpleasantly. It is vastly better to arrange the wardrobes in the corridors outside of the class-rooms, or else to provide special hat-and-coat rooms for pupils near the entrance-halls of the school. The ventilation system adopted for a school-house, whatever it may be, can be a success only if all sources of noxious emanations are done away with.

The purpose of my paper is to advocate the introduction and establishment of "rain-baths" in the public schools. I do not wish to be understood as considering school-baths an absolute necessity in *all* public schools. Some school-buildings are located in good neighborhoods, and are attended by the children of people who are tolerably well-to-do, and in whose homes cleanliness can be, and is usually, attained. Public schools located in the tenement districts, on the other hand, are very much benefited if some method of bathing the children during school hours is provided, for the largest percentage of the tenement-house population must go without a bath the year round. In the narrow, dark and ill-ventilated quarters which they call their "homes" opportunities are seldom afforded for thorough ablutions.

Some years ago, Dr. Hunter Stewart, of Edinburgh, read a paper entitled, "Ventilation of Public Schools," in which he suggested the establishment of "soap-and-water" baths in schools, assuring his audience that "the use of such would go far to purify their atmosphere." Dr. Oscar Lassar, one of the earliest champions of the rain-bath, asserted that the air of theatres and audience-halls generally was polluted not so much by the products of gas-illumination and the respiratory process as by the noxious exhalations emanating from ill-kept skins, and intensified by the heat due to the crowding together of many persons.

The late Sir Edwin Chadwick, in advocating school-baths, said, "Of the lessons that may be taught in the schools, the practice of cleanliness is of the highest order." In a review of the progress of sanitation during the year 1888, he called attention to new bathing-apparatus especially applicable to schools by which a child may be completely washed in three minutes. "Look at the comparative sanitary result of the washed children of a whole school," he says, "as against the common one of the fouled-air and badly-washed children. Look at the service to the poor mother who has no means of washing."

From Kotelmann's book on "*School Hygiene*" I quote as follows: —

"If cleanliness does not prevail in the school-room, and the air is constantly being polluted by filth, no amount of ventilation will prove sufficient. Cleanliness should extend, in the first place, to the pupils themselves. Not only ought their bodies to be scrupulously clean, but also their clothes and shoes.

"In connection with this matter, the school shower-baths introduced by the city of Göttingen deserve more attention from higher institutions of learning than they have hitherto received. For one thing they promote the cleanliness of the skin; and for another, they lead the pupil to desire clean underclothing."

These and similar observations agree entirely with those of the writer, and serve but to confirm the suggestions made in this essay.

It is a deplorable fact that the children of the poorer classes of a population, who form the largest attendance in the public schools, particularly in the elementary grades, often show an utter disregard for, and lack of, personal cleanliness. In the tenements the children usually have no facilities for bathing and keeping clean. They may wash their faces and hands daily — and this usually, too, in a hasty manner — but the feet are bathed only at rare intervals, and in many cases the main body receives no ablution the entire year. In fact, observation shows that many poor children have not the desire for a cleansing bath at regular intervals, for though we see them flocking to the free floating-baths in summer time in cities situated on rivers or near the seashore, they are attracted there solely by the wish to enjoy the refreshing sensation of the bath or to practise swimming.

Assuming, therefore, that school-baths are desirable, if practicable, the question arises: What form of bath should be used in schools? This is answered by considering the object in view, which is to afford the children inexpensive, quickly applied means for ablutions of the whole body. For such a cleansing bath, warm water and soap are required. The former loosens the outer incrustations of the skin, composed of dirt particles and epithelial cells, while the alkali of the soap cuts the grease excretions and assists in removing them.

Warm baths can be given in large swimming-basins, in tubs, and finally by means of simple sprays or douches. Swimming-basins are ill adapted for school-baths, for they are not only very costly to build and maintain, but are not intended for washing and ablutions, and the common use of the water in swimming-basins involves the possibility of the transmission of infectious diseases. Warm tub-baths are likewise unsuitable, for they are more expensive than sprays both in first cost and in maintenance, they require much more space, and a very much larger quantity of water. They also require more time in filling and in emptying, and more labor and attention to keep them clean. In the tub the bather is surrounded by dirty water, whereas in the rain-bath a constantly fresh stream of water pours down upon his body and at once flows off to the sewer. In fact, the same arguments which point to the superiority of the spray or rain baths for people's baths are applicable in their entirety to school-baths.[2] I may reasonably assume that some of the audience are acquainted with my former essays advocating the introduction of the rain-bath. Not the least of the advantages of the douche over the tub bath is that it stimulates the action of the skin by the mechanical effect of the drops of water, and hence renders children more active after the bath, more bright, more eager to learn, and makes them show interest in their studies; whereas a bath taken in a tub has the contrary effect, being usually debilitating. The spray-bath is both cleansing and stimulating, and if followed by a gradually colder douche subsequent catching cold may be prevented, and the body is hardened against many forms of disease.

The particular form of douche which I would recommend is the shower of tepid water from an inclined overhead rose or sprinkler-head, having a large number of perforations, each about three-thirty-seconds of an inch in diameter. The rain-bath is sometimes spoken

[1] A paper by Wm. Paul Gerhard, C. E., Consulting Engineer for Sanitary Works, read at the May 7, 1900, meeting of the American Social Science Association, held at Washington, D. C.

[2] See the author's essays on "The Modern Rain-bath," and on "Bathing and Different Forms of Baths."

of as a modern form of bath, while others aptly call it "the bath of the future." Dr. Oscar Lassar, in an essay,[1] read at the meeting at Cologne, held on September 18, 1888, of the Association of German Naturalists and Physicians, has drawn attention to the fact that a Greek vase, recovered from the excavations at Volci, an ancient Etruscan city located near the shores of the Tyrrhenean Sea, which vase is now said to be in one of the Berlin Imperial Museums, proves that the rain or spray baths were well known to the Greeks. In a description of the new public bath-house at Breslau, Prussia, Dr. Kabierske illustrates another Greek vase, on which is represented a woman's bath, which shows clearly that the use of the inclined overhead douche was known to the ancient nations. (See Fig. 1.)

In taking the ground that the spray-bath is the best form of bath for use in public schools, I do not wish to be understood as underestimating the beneficial effect of swimming-baths. However good swimming as a form of athletic exercise may be, the school-house proper cannot be regarded as the place for practising such exercises.

The *advantages of school-baths* are numerous. In the first place, the school-children are offered the opportunity of a weekly cleansing-bath, which in most cases they lack in their homes. The children are readily kept clean, and this in turn, as already indicated, is a powerful help in keeping the air of the class-rooms free from disagreeable odors. In addition to the direct benefit derived from bathing there is the indirect advantage resulting from the children being taught and brought up to appreciate cleanliness. In the early summer days a dash of water from a cooler douche serves to refresh the body and to reduce its temperature. Moreover, the bathing together of many children necessarily has the effect of making them more tidy as regards their undergarments. This, in turn, cannot help exerting a beneficial influence in the children's homes, for parents will naturally strive to keep their children cleaner and their garments neater when they know that in undressing together, slovenliness of the dress, or raggedness of the underclothes due to the mother's carelessness or inattention, may reflect unfavorably upon the children. To a certain extent the bathing of children in public schools will exert a beneficial and wholesome influence in fostering habits of cleanliness among the people generally. Above all, the habit of taking baths at regular and frequent intervals, if cultivated and taught during the period of early childhood, is bound to exert a wholesome influence upon the later periods of life.

For all these reasons, school-baths may rightly be considered to be a moral factor in the education of the young. The results even extend farther, and include the betterment of their home life and surroundings.

Is it not a fact that, besides being a detriment to health, lack of cleanliness gradually leads to loss of self-respect, to bad habits, vulgarity and vice? In a measure, school-baths even help to reduce the sharp contrasts which exist between the laboring classes and the well-to-do people.

Experience teaches that a school-janitor can readily manage the bathing-apparatus and control the bathing of the boys, while the janitor's wife may take charge of the bathroom for the girls. The hour for bathing can be set so that it will not interfere with any important studies, but it is well to bear in mind not to continue the bathing during the last school-hour, in order not to expose the children to the danger of catching cold when they leave the school. A good way to avoid this danger at all times is to have the tepid douche followed by a cold douche of short duration, in order to close up the pores of the skin and to harden the body in general.

It may be asked, are not school-baths unnecessary in those cities or city districts where people's baths are maintained by the municipality? In answer, let me state that up to the present time there are not, in any city of the United States, a sufficient number of free baths for the people. In the State of New York, for instance, a law was passed in 1893 making the establishment of free people's baths mandatory, yet no free baths have been added so far to those few which existed prior to the passage of this legislative act, except in some of the smaller cities. In New York City some people's baths are now under construction; in Brooklyn no effort whatever has been made lately to erect any free baths open all the year round. Again, experience in European cities, where it has been the custom to give free tickets for the public baths to the children of the public schools, has shown that neither the children nor the parents appreciate the offer sufficiently.

Before presenting a few illustrations of plans for school-baths, let me say a few words about how the establishment of spray-baths in the public schools originated. History informs us that in ancient Greece gymnasia and swimming-baths were often attached to schools. In modern times, a few of the schools in England were provided, some with tub-baths, others with bathing-pools. At one of the large Berlin gymnasiums (high school) there is a complete swimming-bath, besides five tub-baths for preliminary cleaning. The credit of introducing spray-baths into the public schools belongs to Professor Fluegge and Mayor Merkel, both of the university town of Göttingen, in Germany.

The first trial was made there in 1885 in one of the public schools by fitting up in the basement a bath-room, 8 feet long by 16½ feet wide, an adjoining apartment of the same size being used as a dressing-room. The walls were finished with cement, and the floors asphalted and covered with a wooden lattice floor. Three large vertical douches were installed and under each was placed a zinc pan, about three-and-one-fourth feet in diameter, and about fifteen inches high, to which a waste-pipe was attached. The douches were arranged to run simultaneously, three children being placed under each douche. The janitor controlled the mixing of the hot and cold water, and the children were not permitted to touch the valves. Two months after the baths were put in operation, seventy-five per cent of the children bathed regularly, although the bathing was not made obligatory.

Later on, the greater advantage of the *inclined* douche was recognized, and it was also found necessary to provide larger dressing-rooms, so that twice the number of children bathing could be accommodated. In this way the bathing of a class was quickly accomplished.

The success of the school-baths at Göttingen was so great that hygienists, school-teachers and principals, city architects and others, visited the new baths in great numbers.

The idea at once became very popular, and in a very short time a large number of German cities provided spray-baths in some of their school-buildings. I will mention only a few of these out of a large number. In Weimar they were introduced in 1886, and soon out of 1,300 children 910 took the baths. In Madgeburg four schools have spray-baths; Königsberg has two school-houses with baths. Berlin had in 1896 four school-baths, Breslau had four in 1887, and since then five more have been installed. Posen has one school-bath. Frankfort-on-Main had in 1896 three, Hanover nine such baths, in which about one hundred thousand baths were given in six years.

Cologne has several schools so fitted up, and in Altona a large school-house has a special spray-bath pavilion arranged in the centre court between the two wings of the school-building. More recently, school-baths were erected in several of the schools of Zurich (Switzerland), also in Copenhagen (Denmark), Christiania (Norway), and in Paris. Wherever such school-baths were introduced, their success was almost instantaneous and so great that the Boards of Education decided to include baths in the specifications for all new school-buildings. At the annual meeting, in 1886, at Breslau, the German Public Health Association passed resolutions endorsing and recommending school-baths for public schools, modelled after those first introduced at Göttingen. There is not a single instance on record where the bathing arrangements placed in public schools were put out of use on account of a slim attendance.

Soon after the year 1891, when the idea of people's rain-baths was first agitated in the United States, a high-school building in Scranton, Pa., was fitted up with spray-baths under the direction of Theo. P. Chandler, an architect of Philadelphia.

In a report on "School Hygiene and School Houses," written by Dr. A. G. Young, for the seventh annual report (1892) of the State Board of Health of Maine, the German school-baths are referred to as follows: —

"The advantages of the school-baths observed in European schools are bodily cleanliness of the child, greater care on the part of the parents in keeping the clothes of the school-children neat and clean, improvement of the condition of the school-room air, again in the physical health of the pupil and the increase in the mental freshness and activity. There results, therefore, a physical, a moral and an intellectual gain. Moreover, from more than one of the towns where school-baths have been opened comes the testimony that a good reflex moral influence has been exerted upon the parents and families of the pupils.

"The manifest advantages that have come from the establishment of school-baths in the old countries render it evident that their introduction into some of our own city schools is an experiment worth trying."

In 1895, the writer published a brochure on "Bathing and the Different Forms of Baths," from which are quoted the following paragraphs regarding school-baths: —

"Experience teaches that the air of the school-rooms is badly contaminated by the emanations from the children's bodies and by the odor from their clothing. All attempts to improve the sanitary condition of schools will fail to accomplish their object thoroughly if means are not provided to cleanse the bodies of the pupils. Cleanliness of school-children will make the ventilation of school-rooms an easier problem, and further than that, it will tend to increase the appreciation for cleanliness in the lower classes of population, and thus indirectly stimulate bodily — and often moral — purity in the home circle.

"The first one to suggest the advantages and the necessity for school-baths was, I believe, the late Dr. Alfred Carpenter, of Croydon, Eng. In his lectures on 'Preventive Medicine in Relation to Public Health,' delivered in 1877, he discussed the subject as follows: —

"'Every public elementary school ought to have a proper washing-place, so that the children might wash the whole of the body at least twice a week, as well as their hands and face. . . Is the custom of wearing the same dirty garments day after day, getting daily more filthy, an unavoidable one? It is this custom which makes the air of rooms so unwholesome in which the lower classes of children assemble, and which frequently produces the first seed of evil in the constitution, especially when they go into the room damp from the effect of a drizzling rain. Every one accustomed to a badly-ventilated school-room knows that it is the smell from damp and dirty clothes which is the principal source of the offensive atmosphere. . .

[1] "*Die Kultur-Aufgabe der Volksbaeder.*"

I contend that school-baths are necessary for the education of the great mass of our poor, as much as, if not more so, than a knowledge of geography and astronomy, or even of history. It will be impossible for the people to be godly until they are instructed in the way of cleanliness. Cleanly children will acquire a dislike for personal dirt and retain it to the end of their lives. They will make more effort to raise themselves from below the level of brutes to that of Christians than they otherwise would if allowed to remain accustomed to filth. Use becomes second nature, and second nature in a century or two becomes instinctive.

"'It is only by educating our poorer classes in cleanliness in early life that we shall make them, as a whole, love it for its own sake, and hate dirt and those habits which tend to make man lower than the beasts of the earth, too often now arising from an acquaintance, an intimate association with dirt and dirty homes among the poor. Poverty may be clean, and with cleanliness the first step will have been taken to do away with the evils which follow in its train, and that health secured which riches without cleanliness cannot possibly purchase.'

"Of the three classes of baths, the tub-bath, the shower-bath, and the swimming-bath, the first, viz, tubs, are not well suited for schools, as a very large number of fixtures would be required to bathe all the children. The space for the tubs cannot always be found in a school-building, and the process would naturally be slow and result in serious inconveniences; moreover, tub-baths would require the outlay of a vast sum of money.

"Swimming-baths in schools would be good as far as giving an opportunity for bodily exercise is concerned. For a cleansing-bath, however, the swimming-bath is not well suited, for reasons explained heretofore, and here again the tepid shower or rain bath offers immense advantages.

"To Professor Fluegge and Mayor Merkel, of the German university town of Göttingen, belongs the credit of having first tried the experiment of rain-baths in the public schools, about the year 1885.

"Groups of children are bathed together, and care is taken not to give them the baths at the end of the school session, so that they will not catch cold in going home. After some use of the baths, it is found that the children enjoy them; that their minds become more active and more attentive; that the baths induce a better cleanliness in clothing, and particularly in the underwear; that the parents pay more attention to the cleanly and neat appearance of their children; and, finally, that the air of school-rooms is greatly improved.

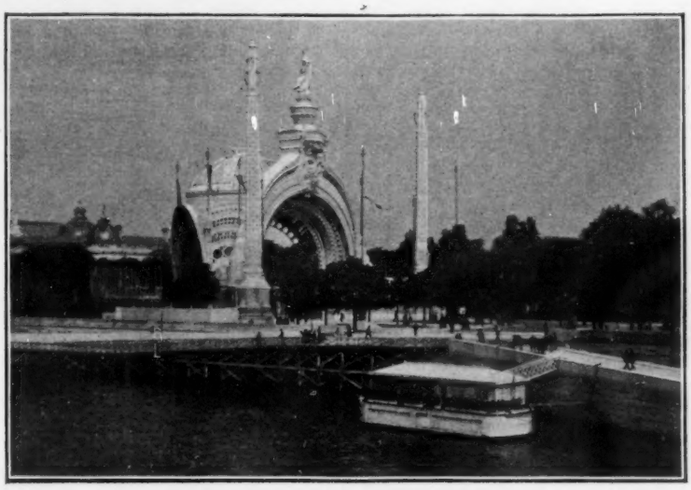
"At first, some teachers and boards of education raised trivial objections to the introduction of bathing in the schools. They claimed that the school was not the place to educate children to appreciate the cleanliness obtained by bathing; that this belonged to the family; fear was expressed lest the children would catch cold, whereas experience has proved that the bath hardens the body; others objected to the cost, claiming that people's-baths and not school-baths were required; a few finally objected to the bathing being made compulsory, whereas experience in the schools demonstrated the fact that the children all soon became eager to bathe.

"In the German schools, bathing has become very popular, and the movement is rapidly extending, so much so that recent school-buildings are rarely constructed without rain-baths for boys and girls in the basement.

"In this country there are as yet but few school-baths. One on the rain-bath principle was erected in a high-school at Scranton, Pa., a year or two ago. At Manistee, Mich., a company erected people's-baths in 1885, and one of the claims of the company was to get as many children as possible to take regular baths by distributing tickets in the schools.

"In February, 1885, a Sub-committee on Baths and Lavatories of a Citizen's Committee, in New York City, made a report, recommending the erection of people's-baths in the tenement districts, and also the equipment of public schools, where practicable, with baths in the basement, and favored the adoption of the rain-bath system, because there is no waste of water, because the cost of erection is very moderate, and because the system is characterized by cleanliness and simplicity."

[To be continued.]



Porte Monumentale, Place de la Concorde. M. Binet, Architect.

PARIS

THE EXPOSITION. — A FEW GENERAL FIGURES. — THE FOREIGN PAVILIONS.

"IT is too big, and there are too many things to see!" Such is the ordinary thought of visitors, really frightened after the first promenade at the thought that they have seen almost nothing of the Exposition. They even feel a kind of discouragement in thinking that however much they do it will be difficult to secure a clear idea of the thousand things only half glimpsed, and draw from them any kind of thorough instruction. It will be necessary, even when seriously studying the Exposition, to content one's self with a general impression of the whole and be satisfied with drawing from it certain general conclusions, and if this feeling is experienced by Parisians, who have all the leisure in the world to come and go as they please, all the more the provincials and foreigners, who come only to spend a few weeks — a few days, perhaps — at Paris, will be troubled in their attempt to see everything, and will be overwhelmed in the midst of this vast quantity of interesting exhibits.

In the first place, conceive that the enclosure of the Exposition contains, in Paris alone, an area of about 110 hectares, while at Vincennes there is occupied a space of almost equal size, which raises the round figure to the very pretty total of 220 hectares which must be passed over once by whomsoever desires to neglect nothing.

A few figures will be interesting as conveying some idea of the importance of the Exposition. In the 110 hectares of the Parisian portion the covered area includes the following buildings:

Grand Palais des Beaux Arts.....	24,900	square metres.
Petit " " "	6,200	" "
Palais de l'Esplanade des Invalides..	43,000	" "
" du Champ-de-Mars.....	223,000	" "
Buildings on the Banks of the Seine..	50,000	" "
" of the French Colonies....	12,000	" "
Foreign Pavilions.....	10,000	" "
Sundry Buildings.....	30,000	" "

If we compare the number of exhibitors this year with those of 1889, we find for 1889, for France and the Colonies, 30,982; foreigners, 25,630; total, 56,612. For 1900, France and the Colonies, 35,767; foreigners, 40,479; total, 76,246. That is, an increase of nearly 20,000 exhibitors, and, contrary to prediction, the foreign exhibitors are more numerous than the French. As for motive power, for electric lighting and the boiler plants distributing steam, the comparison for the two exhibitions gives the following results:

POWER FOR MOTION AND LIGHTING.

1889.		1900.
Number of machines.....	63.	39.
Total power.....	9,773 horse-power.	36,200 horse-power.
Average power per machine..	155 "	929 "

STEAM PLANTS.

1889.		1900.
Number of steam-boilers...	59.	92.
Production steam per hour.	111,100 kilograms.	238,000 kilograms.

ELECTRIC LIGHTING.

1889.		1900.
Number of arc-lamps.....	1,508.	6,100.
" " incandescent-lights..	12,700.	40,600.
	14,208.	46,700.

Or a difference of 32,500 in favor of the exhibition of 1900. Add to this the gas-lighting of the exterior of the palaces of the Invalides, the Champ-de-Mars and the Trocadéro, the acetylene-gas lighting for the foreign pavilions on the banks of the Seine, and on each

side of the Pont Alexandre III, and it will be easy to comprehend that at night it is not difficult to see at the Exposition.

Now let us enter the Exposition anywhere, and draw our first impression at hazard. At the time I am writing this article the Exposition has been open for two months, and with some few exceptions everything is finished. This has not been accomplished without difficulty, and for six weeks the public was too often stopped by barriers prohibiting their entrance to some given pavilion, or by the dust, noise and disorder of unfinished operations. Disappointment was particularly great on account of the delay in finishing the Chateau d'Eau, which even yet has not been put in complete working order; that is, so far as regards the illuminated cascades which are to be one of its chief attractions. But the public had so many things to see that its regrets were kept in check by its admiration, and even in front of the buildings which were not yet occupied by exhibitors it was well enough pleased with admiring their architectural treatment.

When comparing the buildings erected by the French with those erected by foreign architects, the mind is drawn to one thing. The foreigners have more often than not made reconstructions of ancient monuments, exactly repro luced or ingeniously reduced and combined. The French architects, on the other hand, in their administrative buildings, have rather sought a fantastic style; if not always a new one, one not recalling, at any rate, any given classic monument. They have sought to be decorators rather than architects, and, through inspiring themselves only through their own ingenuity, some of them have achieved really charming results. Such has been the case this year with M. Paulin, architect of the Chateau d'Eau, and M. Hénard, author of that delicious silhouette, rich in filigree-work and light, which crowns and encloses the Chateau d'Eau.

Seeking novelty, the French architects, in constructions so hastily studied, must, of course, expose themselves to severe criticism, and some have not been spared. They have "treated their architecture like confectioners and pastry-makers"; they have been accused of bad taste and compared to their disadvantage with the marvellous architecture of the foreign pavilions. This manner of judging is unjust. The artist who seeks can more easily deceive himself than he who reproduces a given work already built and of known repute: he deserves, at least, the respect due to an effort. This is the case with the French architects, who, in spite of some errors, due to an excess of imagination, have given proof of ingenuity, intelligence, elegance and a charming fancy. And then, it must be said, the task is not easy. At this moment we are passing through a period of transition, which brings it about that in all the arts we find ourselves face to face with several opposing manifestations; some do not try to depart from the dry and routine-bound paths of classic art, others are too eager to get out of them and so fall into eccentricity. The most reasonable, desiring to preserve a just medium, have not

Chateau d'Eau. M. Paulin, Architect.

yet altogether cast off the academic formulas, nor have they known how to apply the principles of their classic education to the accomplishment of the new problems which they impose on themselves. Consequently, we arrive at a lack of equilibrium, an absence of cohesion between the parts of a building, in a word, at "*hors d'échelles*" which are often shocking.

We shall find the proof of this theory in the Grand Palais des Beaux Arts, on the Champs-Elysées. The main façade on the

German Building. Herr Radke, Architect. Spanish Building. Sr. Uriosta y Velda and M. Marcel, Architects.

avenue is composed of a grand central portico, with, on the right and left, colonnades of fine appearance, excellent proportion, and decorated with a very beautiful frieze by M. Edouard Fournier, executed in mosaic. This very classic façade, which does not include any new element of construction, conceals an immense interior nave, composed of iron trusses of great span, of great height, and crowned by a circular dome, also in iron, the entire roof being glazed. Here there are new elements of construction; the materials suggest new forms incompatible with the classic lines of the façade. So, while from a distance regarding the general effect of the palace, the observer is troubled, without quite knowing how to account for it, by the effect of this mass of glass crushing the façade and having with it no apparent relationship in style or epoch.

This injurious effect of glazed domes over façades of classic architecture is one of the rare bits of criticism which, although in a much less degree, can be aimed at the Petit Palais des Beaux Arts, by M. Girault. Here there is still something to seek, something not yet found. The shrewdest have, wherever possible, concealed their glass windows behind attics, balustrades and decorative pediments. Up to the present time this is the most satisfactory solution, and with this treatment the architects of the palaces on the Esplanade des Invalides and the Champ-de-Mars content themselves.

The great effort is shown in the study of decoration, and from this point-of-view the palaces of MM. Larche and Nachon, on the Esplanade des Invalides, is particularly interesting. These two architects have laid the realm of Flora under contribution for the decoration of their façades — a rich realm and an elegant, ransacked with artistic perception, and its spoils arranged with grace and fancy; all ending in lending a modern note to the architectural lines, themselves well composed. Here is really a step towards an interesting modern style.

The foreign architects are less fantastic, but the pavilions which they have built on the banks of the Seine are amongst the jewels of the Exposition, because of the picturesqueness of their silhouettes and the architectonic construction of the buildings themselves.

One of the buildings most remarked is the Belgian building, a reproduction of the Hôtel de Ville at Audenarde (1525–1530), dominated by a superb openwork belfry rising to a height of 40 metres, and crowned by a statue in red copper representing a warrior of the Middle Ages bearing the arms of the city on his banner. In the interior, a monumental staircase leads to the first story, where the principal room represents the grand hall of the Hôtel de Ville, with its lofty mantelpiece decorated with sculpture and Gothic statues. The walls are decorated with paintings representing the arms of the principal cities of Belgium and of the different trade-guilds. Magnificent and very ancient Flemish tapestries ornament the panels and aid in giving to this room a very interesting local coloring. On the same floor, a second room reproduces the sheriff's hall, and it also is decorated with ancient tapestries.

This entire series of palaces is very much like a retrospective exhibition of foreign architecture. Thus Germany initiates us into the

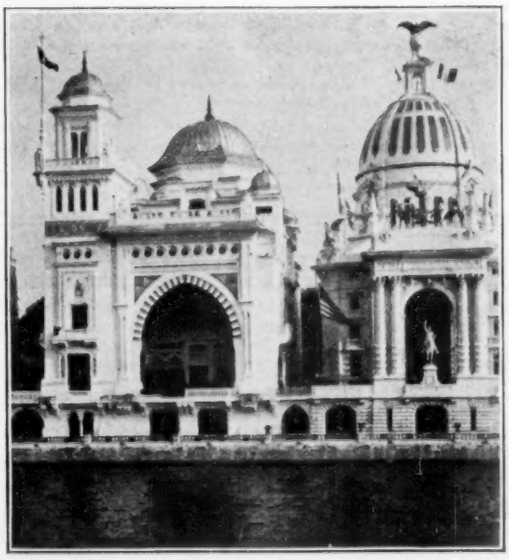
polychromy of her Renaissance façades of the sixteenth century: nothing is more curious than these grand allegorical paintings representing the four elements of nature in lively and crude colors. A picturesque belfry, scintillating with gilding and bearing a large clock and chimes, dominates the palace, the building being an artistic as well as a learned work. It is Herr Radke, architect, who has decorated all the works in the German section, much remarked for their richness and good taste. The interior of the German pavilion is not less interesting from the retrospective point-of-view. It contains a respectable number of paintings drawn from the collection at Potsdam and graciously loaned by Emperor William II himself. It is a treat indeed for intelligent visitors to see these marvellous specimens of French art. Here we find an incomparable series of Watteaus, Lancrets, Paters and Chardins, arranged with taste in a suite of charming rooms ornamented with French furniture in the style of Louis XV. In a room on the first story, amongst the collections of the Royal Printing-press, are to be remarked very interesting reproductions of the *chefs-d'œuvre* of Albert Dürer.

Several of the foreign buildings on the banks of the Seine contain very little in the way of exhibits. They are in some sort reception-rooms, national products being exhibited in the palaces of the Invalides or the Champ-de-Mars, in the sections corresponding to the different kinds of industry.

The United States pavilion, a very important one and in Classic style, contains no exhibits properly so-called, and it must be confessed that, for most, it seems a little empty when its size is considered. The entire interior, in fact, is consecrated to reading-rooms, reception-rooms and offices. The lower story consists of a vast hall, upon which open the circular balconies of the upper stories, and which is itself crowned by a great dome that dominates the exterior of the building. An American post-office occupies one portion of it. Upon the upper floors, served by elevators and four staircases, are arranged divers reception-rooms and those reserved for the Commissioners from the various States, the Members of the Jury, for the Loyal Legion and for the American Chamber of Commerce at Paris. It is, in a certain fashion, an American habitation, whose several parts are always open to American visitors, who there feel themselves thoroughly at home.

The façade is impressive because of its large dimensions. It is preceded by a monumental portico, a kind of grand triumphal arch, of the Corinthian order, supporting a superb quadriga representing "Labor, on the car of Progress." Under the arcade which faces the Seine is found an equestrian statue of Washington. On the lateral façades, which rule with the lines of the portico, are detached *avant-corps* crowned with pediments. Above soars a dome resting upon a series of elegant arcades, and upon its summit an enormous eagle spreads its golden wings. The entire structure is of wood and staff. The style is Classic, of good proportion, and carefully studied by the architects, Coolidge and Morin-Goustiaux; but the neighborhood of the palaces of Italy and Austria, both of them very picturesque and very rich in sculpture and decorations, makes its academic and somewhat severe air all the more pronounced. This imposing piece of architecture should have had a greater isolation to be appreciated at its real worth.

Now here I am at the end of my ordinary space, and what I said



Turkish Building. M. Dubuisson, Architect. United States Building. MM. Coolidge and Morin-Goustiaux, Architects.

at the start strikes me still more. How many things there are to see! And, in the impossibility of satisfying the curiosity, how many things must be sacrificed! Never mind; if the bill of fare of the banquet be too copious, all the dishes are savory. We will therefore choose those which appear to us the finest and most artistically served. The success is already startling, and the enclosures of the Exposition are at all hours too narrow for the crowd which presses within them. During the fêtes of the Pentecost the number of

United States Building. — Austrian Building.

entries exceeded 500,000 a day.— In 1889 the highest figure was about 300,000.—What then is it likely to be in the months of August and September, in the full vacation time? It will be no longer possible to circulate, and the movable platform will be full to overflowing! That is a true success, that movable sidewalk, which on days of crowds presents the aspect of a human ribbon measuring six kilometres, 350 metres, in length — a very pretty girdle indeed!

ILLUSTRATIONS

[Contributors of drawings are requested to send also plans and a full and adequate description of the buildings, including a statement of cost.]

A COMPETITIVE DESIGN FOR THE NEW YORK STOCK EXCHANGE BUILDING. MR. R. H. ROBERTSON, ARCHITECT, NEW YORK, N. Y.

PLANS AND SECTIONS OF THE SAME BUILDING.

TWO DWELLING-HOUSES, BALTIMORE, MD. MR. LEANDER NEAL, ARCHITECT, BALTIMORE, MD.

THE dwelling shown with a tower front is situated upon Eutaw Place, near Druid Hill Park. The front is of red sandstone to second-story sills. Above that point the material is stone and Pompeiian brick, a tile roof surmounting the whole. The finish of the rooms is of *prima vera*, or white mahogany. A wainscot 8′ high is placed in the hall. In the parlor and music-room the wainscot is kept at 3′ above the floor. Above and upon the ceilings is a fresco upon cloth. The design is somewhat Colonial. The dining-room is wainscoted; the ceiling has a beam finish, all of quartered oak. The remaining part of the plan explains itself. The second-floor rooms are well proportioned, each with a connecting toilet. The swell side to library adds very much to the effect of the room. The finish of entire floor is quartered oak. The third floor is similar to the second. The cost of dwelling was $35,000.

The other dwelling is also situated upon Eutaw Place, near McMachen Street. The entire front is of brownstone. The vestibule is wainscoted in carved oak to the height of transom. The hall and stairway are also in quartered oak. The parlor and music-room are finished in cream and gold. The walls are panelled in plaster and silk. The dining-room is finished, panelled, etc., in mahogany. A breakfast-room is placed at the rear of this floor. Upon the second-floor front is placed the library, finished in hardwood, with panelled ceiling and walls. A feature in this room is mirrors placed in the wall panelling. Sliding-doors connect with the adjoining chamber, both rooms to be used upon festive occasions. A children's playroom or study is placed at the rear of the house. The third floor is similar to the second. The cost was about $30,000.

APARTMENT-HOUSE. MESSRS. CRAM, GOODHUE & FERGUSON, ARCHITECTS, BOSTON, MASS.

[The following named illustration may be found by reference to our advertising pages.]

THE ITALIAN BUILDING: PARIS EXPOSITION OF 1900.

THE BELGIAN BUILDING: PARIS EXPOSITION OF 1900.

These plates are copied from *La Construction Moderne.*

[Additional Illustrations in the International Edition.]

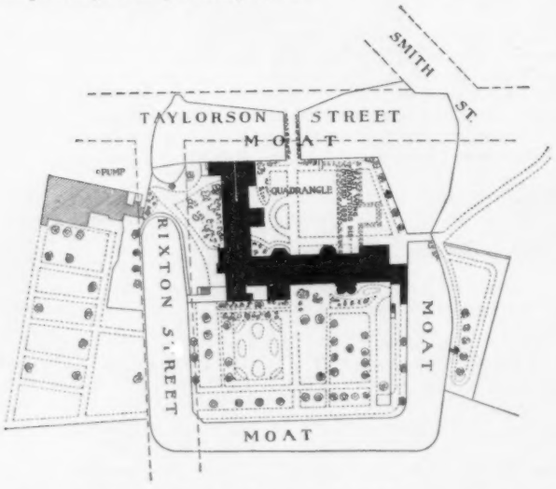
HOUSE OF MR. F. L. V. HOPPIN, ARCHITECT, NO. 118 EAST 22D ST., NEW YORK, N. Y.
[Gelatine Print.]

MAIN ENTRANCE: JUDSON MEMORIAL CHURCH, WASHINGTON SQUARE, NEW YORK, N. Y. MESSRS. McKIM, MEAD & WHITE, ARCHITECTS, NEW YORK, N. Y.
[Gelatine Print.]

CLERK'S OFFICE: COURT-HOUSE OF THE APPELLATE DIVISION, NEW YORK, N. Y. MR. JAMES BROWN LORD, ARCHITECT, NEW YORK, N. Y.
[Gelatine Print.]

RESTORATIONS [1] AT ORDSALL HALL, NEAR MANCHESTER, ENG.: FOUR PLATES.

Ordsall Hall stands on the north bank of the River Irwell on the Salford side, and is about two miles southwest of the Cathedral Church of the city of Manchester. Ordsall is the ancient home of the Radcliffe family, but is now in the possession of Earle Egerton, of Tatton (Tatton Park, Cheshire). The Radcliffe family came into possession of Ordsall about the middle of the thirteenth century. Sir Richard served under Edward III in the French wars, and from their share in those wars was derived the family motto, "Caen, Crescie, Calais."



The Radcliffe family suffered much loss and persecution through their religious convictions, being staunch adherents of the Church of Rome.

Ordsall Hall, in its perfect state, consisted of a centre and two wings, forming three sides of a quadrangle, the whole surrounded by a moat. The house was approached by a bridge and porter's lodge, at the end of a fine avenue of sycamores. From Leland's description [who visited the locality in 1538], it would appear that Ordsall had at that time a fine park.

From observations made during the last four years of restoration, it is clear that Ordsall was built at three different periods. The eastern portion, now used as a rectory-house, was the first portion built of timber framework, the spaces being filled with coarse plaster containing straw and other "binding" material. This certainly is a piece of English domestic architecture of the early part of the fifteenth century. The portion which forms the western end of the great hall was next built, probably about the end of the fifteenth century.

The great hall, fitted in between these portions (a substitute for an earlier building), is of "Perpendicular" work of the time of Henry VII or VIII, and is the result of greater luxury in living consequent on the overthrow of the feudal system and the abolition of fortified architecture.

The brick, or western, wing marks the use of a new material, and was erected by Sir Alexander Radcliffe about the middle of the seventeenth century. This wing occupies the place of a former wing of timber framework, and was devoted to the use of the servants.

It has always been supposed that a similar timber-framed wing occupied the vacant, or eastern, side of the quadrangle and was devoted to the use of the family.

During the work of restoration, the whole of the foundations of this wing have been discovered, thus setting the original plan of Ordsall beyond all doubt.

On the site of this eastern wing, a church is now being erected; its architecture is in keeping with that of the old Hall, and its gables are timber-framed in the black-and-white style.

Ordsall is a typical example of the wooden halls of England, which were erected between the stone and brick building epochs. Its central hall is one of the finest in England. It has an open timber roof of great architectural beauty and a fine screen at the western end. This hall is 42′6″ long by 25′ wide. The hall at Cheetham Hospital, in the city of Manchester, is 43′6″ long by 24′3″ wide. Rufford Hall, in Lancashire, and Arlington Hall, in Cheshire, are respectively 46′6″ and 45′ long. Although not the largest, yet, for architectural beauty and proportion, Ordsall great hall surpasses any other example of the class. In old times a raised dais existed at the eastern end under a canopy. On this dais sat the lord and his family, whilst the rest of the inhabitants of the building sat in the body of the hall, "below the salt." The apartment was heated by an open brazier fixed in the middle of the floor. Over the polygonal window is a small gallery for minstrels, and this has been retained during the work of restoration and repair.

It may be noted that a most interesting discovery has been made by the architect entrusted with the restoration at Ordsall Hall. In the room over the "star chamber" were indications of a construction based on ecclesiastical lines. On penetrating into the roof, it was found that the ceiling below had been interposed in Jacobean times and a small Gothic open-timber roof of an oratory was revealed. It has long been known that in 1360 a license was granted to the then Radcliffe of Ordsall by the Bishop of Lichfield to have divine service solemnized by a fit priest, within his oratory or chapel for two years. This discovery was one of interest, and although the roof was much mutilated, the architect was able to make a drawing showing the original condition of the oratory.

Four years ago (1895) Ordsall Hall was in a sad state of dilapidation and decay, but instead of taking it down, Earl Egerton wisely determined to attempt its restoration and repair. The garden front was in the worst condition and had lost nearly all its original character. It was therefore determined to rebuild the entire elevation with such variations as nineteenth-century wants demanded. The fine "Perpendicular" hall has been carefully restored and repaired, and the oak quatrefoil ornament of the roof revealed. Where rotten timbers have been removed, they have been replaced by oak cut from Tatton Park [the Cheshire property of the Egerton family], and exactly on the old lines of the "Magpie" architecture.

The property is now devoted to Church of England uses. The grand hall is devoted to lectures, concerts, etc., in connection with the Conservative Workingmen's Club, which absorbs that portion of the best wing attached to, and approached from, the hall. The seventeenth-century wing is devoted to parochial purposes, and the "star chamber" portion east of the great hall is used as a clergy-house in connection with the new church, which now forms the eastern side of the quadrangle.

Over one of the Tudor-headed doorways in the great hall has been placed the following inscription:

"This ancient home of the Radcliffes, of Ordsall, was rescued from decay, and restored by Wilbraham, Earl Egerton, of Tatton, and Viscount Salford, 1897."

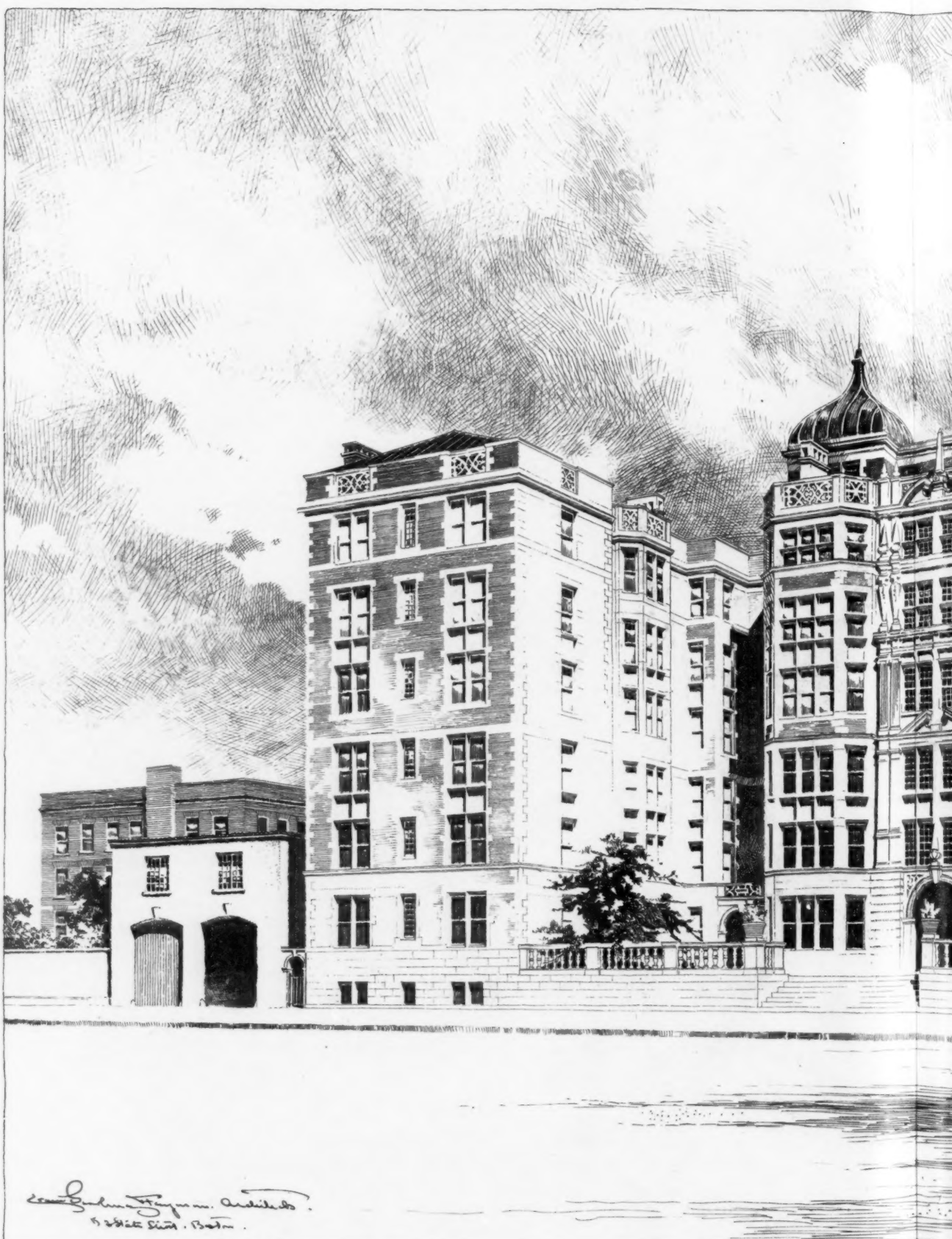
[1] The architect of the restoration is Alfred Darbyshire, F. S. A., F. R. I. B. A., of Manchester. He directed the alterations, decorations, etc., of the Lyceum Theatre, London, when Irving (now Sir Henry) took it, in 1878. He has directed several other important restorations besides Ordsall Hall. He designed and had charge of the reproduction in actual buildings, etc., called "Old Manchester and Selford," at Manchester, at the "Royal Jubilee Exhibition" in 1887. (Also several other similar works at Birmingham, Albert Hall, London, etc.) The restorations at Ordsall Hall are now (October '99) about completed.

NOTES AND CLIPPINGS

Course in Sanitary Engineering at Yale University. — The governing board of the Sheffield Scientific School of Yale University, New Haven, Conn., announce the establishment of a new undergraduate course of instruction in sanitary engineering, to open in September, 1900. Students of the freshmen and junior classes are permitted to elect this course, which is based upon the course in civil engineering. The junior year work will be essentially the same as the course now given in civil engineering, but for the senior year a special course of instruction is arranged, which includes the study of physical geology, masonry and cements, hydraulics, mapping and calculations, surveying, water supply engineering, mechanics, sewer design, sewage disposal, bacteriology and chemistry. — *Metal Worker.*

Ruskin in French. — Ruskin's works are about to be published in their entirety in the French language. What will the French think of Ruskin as an art critic? The London *Globe* believes that thinkers in France cannot fail to find his influence a powerful one, and can hardly escape being affected by his sincerity and enthusiasm. This much may be easily admitted, but no doubt the French, like the rest of the world, will not accept Ruskin's judgment on works of art without a very large grain of salt.

S. J. Parkhill & Co., Printers, Boston, U. S. A.



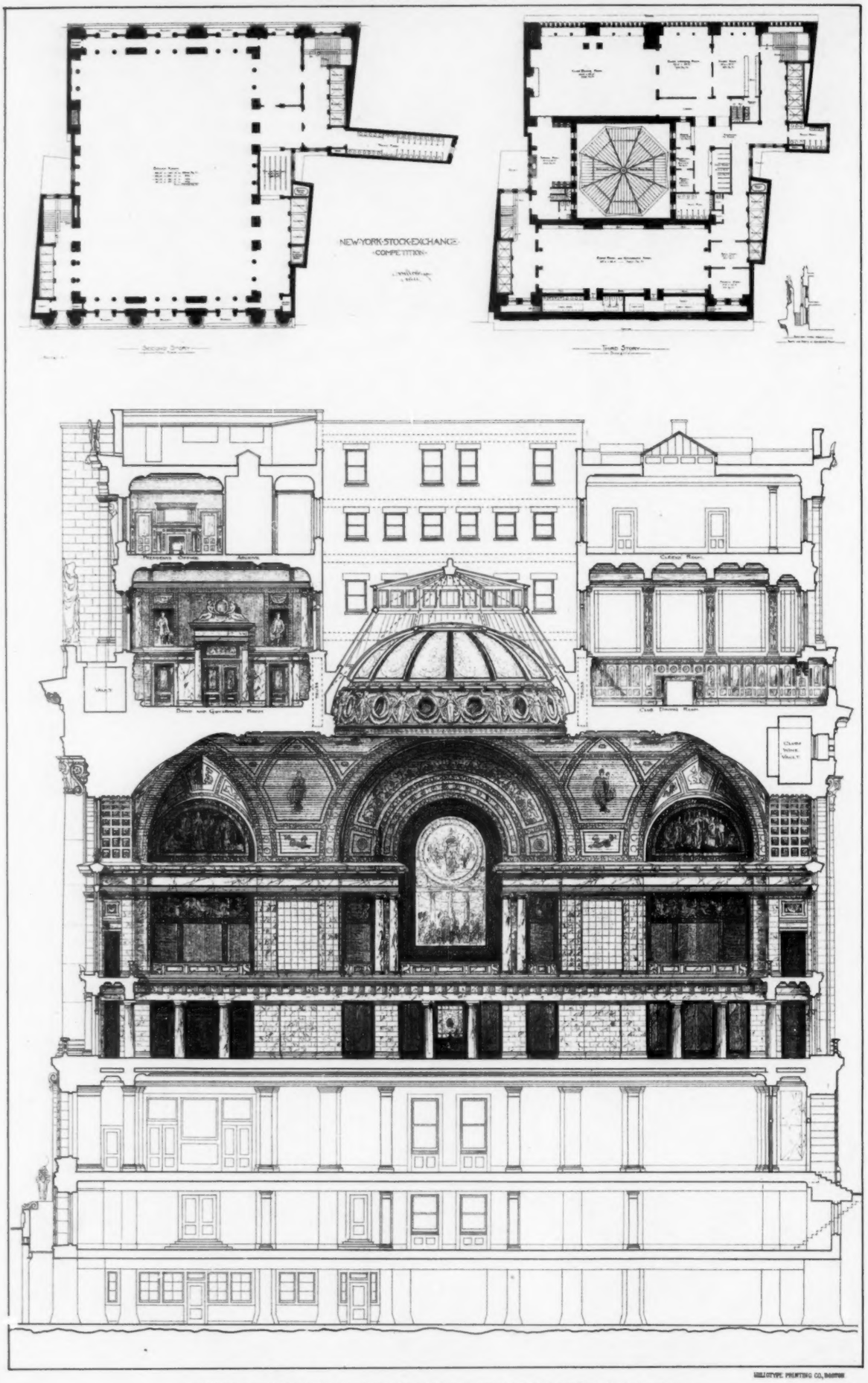
APARTMENT HOUS

CRAM, GOODHUE & FERGUSON,

HELIOTYPE PRINTING CO., BOSTON

TMENT HOUSE.

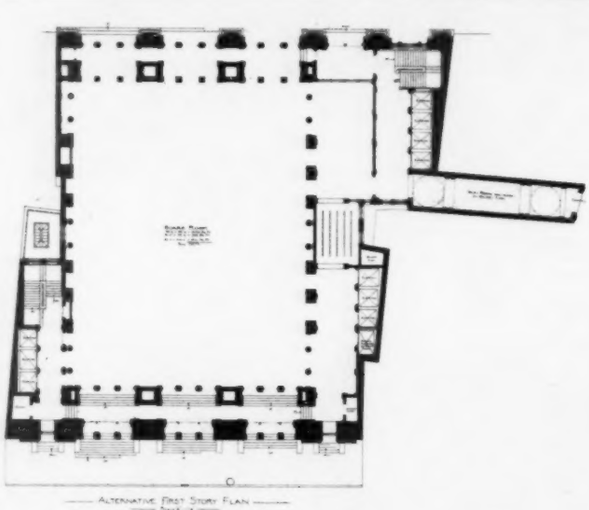
& FERGUSON, ARCHITECTS.



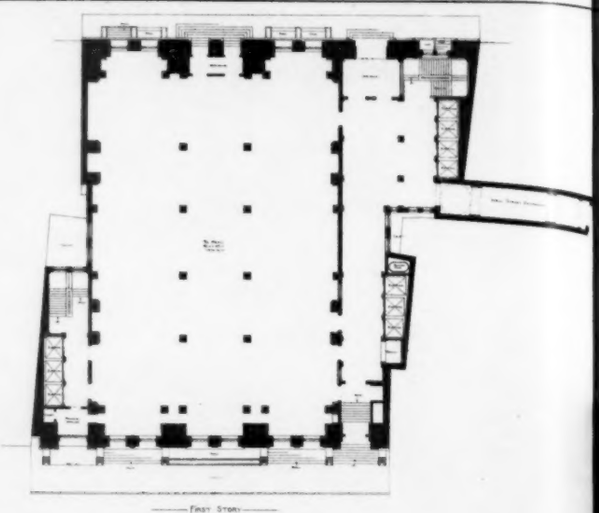
HELIOTYPE PRINTING CO., BOSTON

A COMPETITIVE DESIGN FOR THE NEW YORK STOCK EXCHANGE BLOCK.

R. H. Robertson, Architect.



ALTERNATIVE FIRST STORY PLAN



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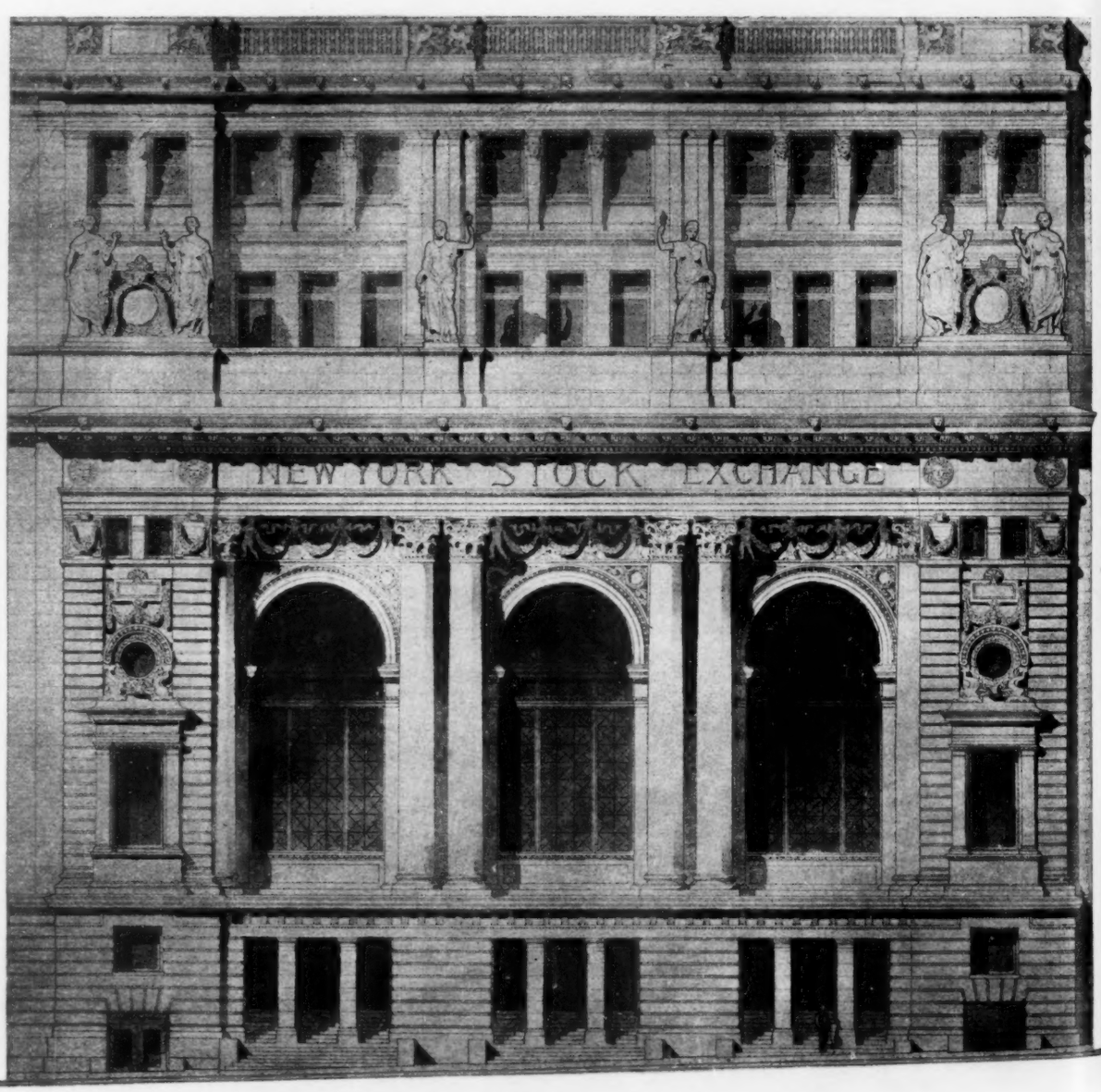

ALTERNATIVE DESIGN.

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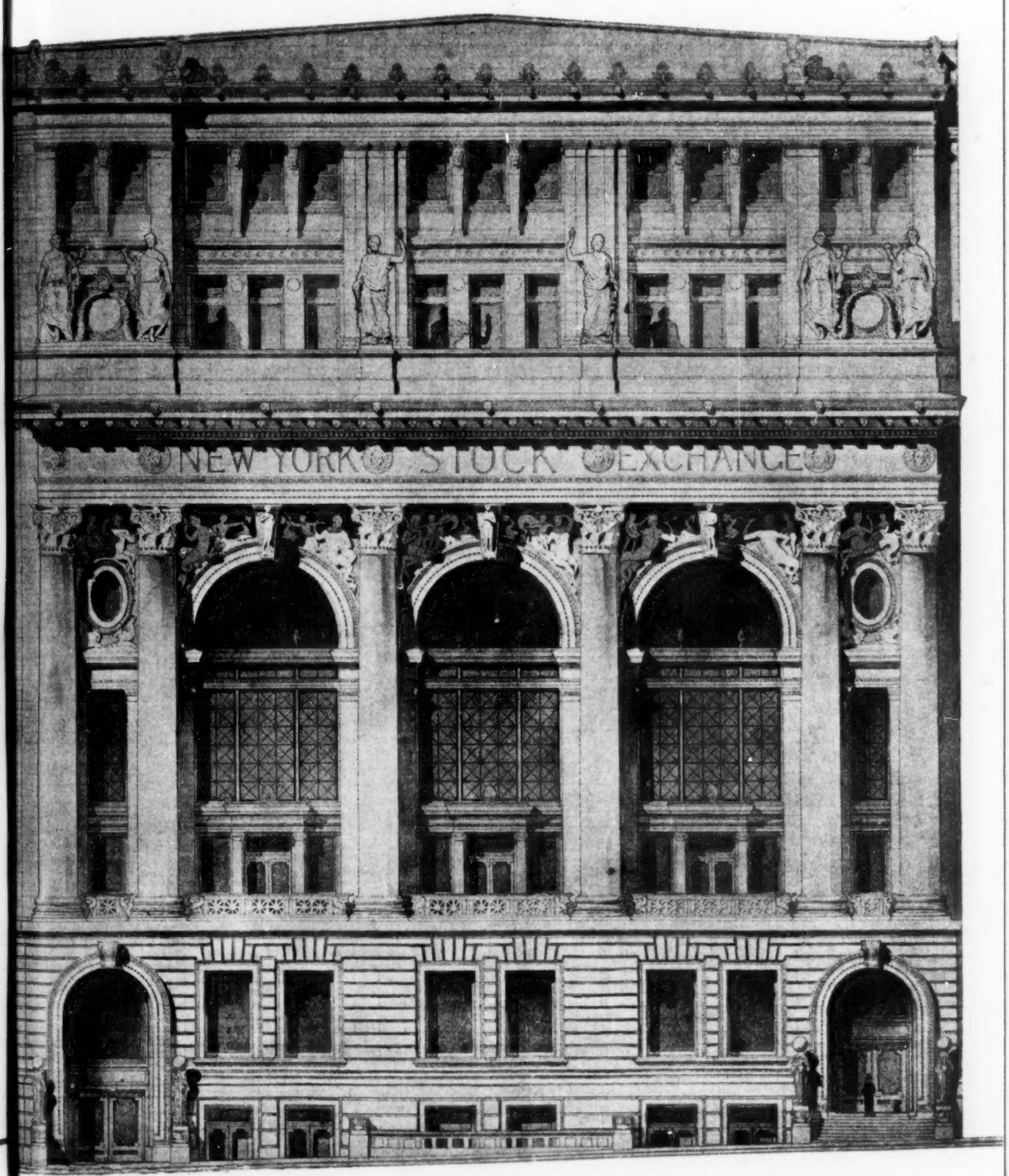


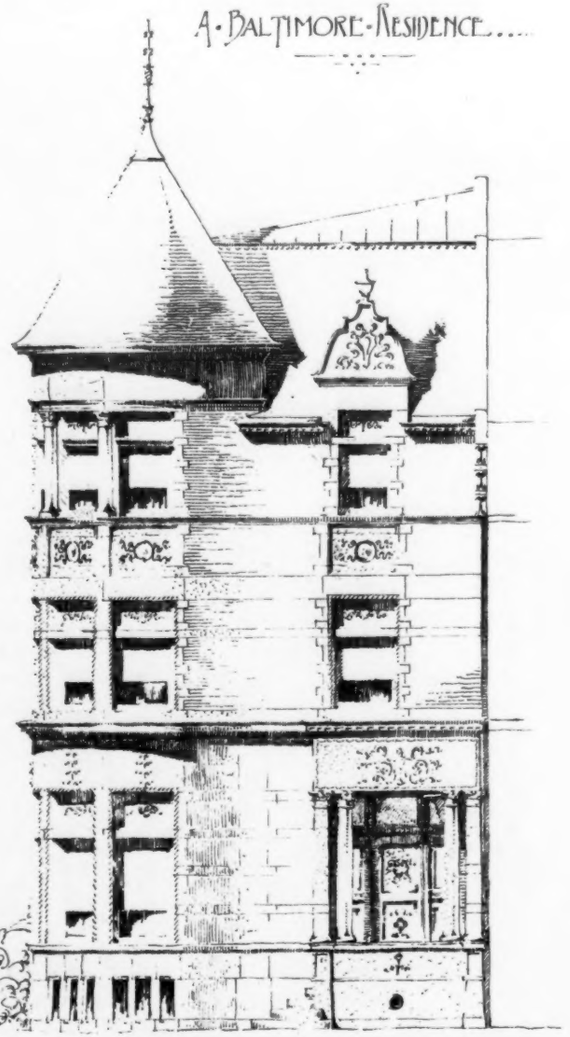
HELIOTYPE PRINTING CO., BOSTON

THE N STOCK EXCHANGE BLOCK.

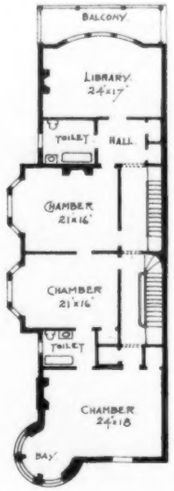
OBERT TECT.

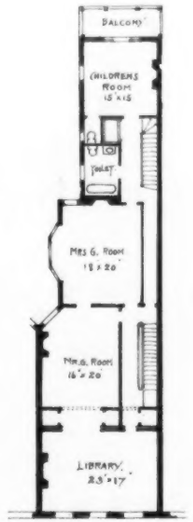
American Architect and Building News. July 14, 1900. No. 1281.

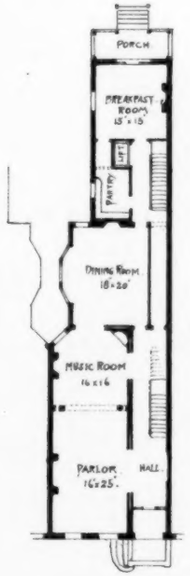
A Baltimore Residence.



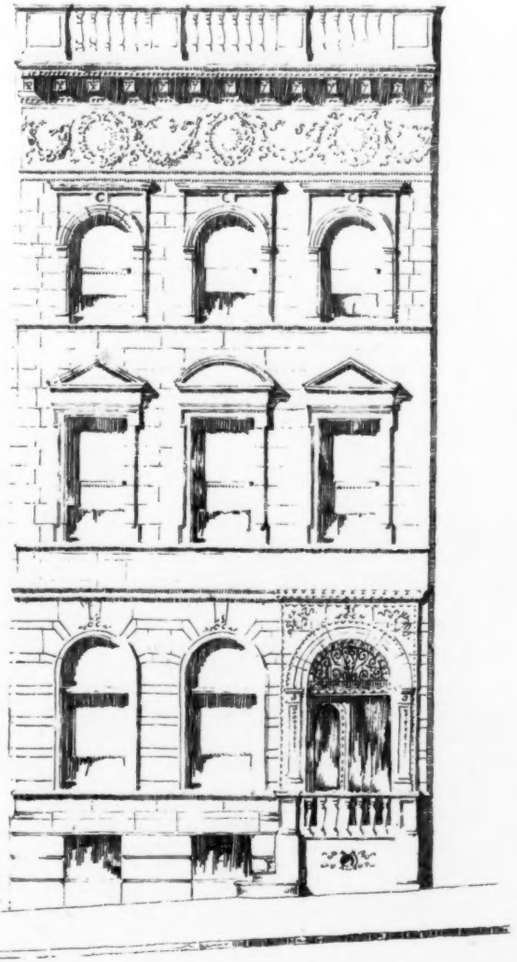
L. Neil. 1900.







A Baltimore Dwelling.



L. Neil. 1900.

HELIOTYPE PRINTING CO. BOSTON

The American Architect and Building News

A WEEKLY JOURNAL OF CONSTRUCTIVE AND DECORATIVE ART.

VOL. LXIX. — No. 1281.] SATURDAY, JULY 14, 1900. PRICE, { INTERNATIONAL ISSUE, 50 CTS / REGULAR " , 15 "

From *La Construction Moderne.*

ITALIAN BUILDING: PARIS EXPOSITION OF 1900.

Topographical Index of Advertisers.

[*For pagination, see Alphabetical Index on Cover 2.*]

THE BELGIAN BUILDING · PARIS EXPOSITION OF 1900.

From La Construction Moderne.

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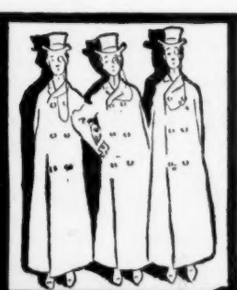

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PUBLISHERS' DEPARTMENT.

The AMERICAN ARCHITECT and BUILDING NEWS

PUBLISHED EVERY SATURDAY BY

THE AMERICAN ARCHITECT AND BUILDING NEWS CO.,

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Advertising Rates furnished on application.
"Wants," and "Proposals," 15 cents a line each insertion. 50 cents the least charge.
Advertisements not received later than Wednesday

Drawings returned uninjured after publication.

ARCHITECTS' REMOVALS, Etc.

MESSRS. SHEPLEY, RUTAN & COOLIDGE, John Lawrence Mauran, architects, Chemical Building, St. Louis, Mo., announce the dissolution of the partnership existing under the above name, Mr. Mauran taking over the business of the office. Mr. Mauran announces that in making this change he has formed a partnership with Mr. Ernest John Russell and Mr. Edward Gordon Garden under the firm name of Mauran, Russell & Garden. 1281

WANTED.

WANTED. — Draughtsman thoroughly versed in construction; one who has had experience in superintendence and specification work. Permanent position for the right man. Give references and state salary expected. Box X, Detroit, Mich. 1281

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BUILDING PATENTS.

[Printed specifications of any patents here mentioned together with full detail illustrations, may be obtained of the Commissioner of Patents, at Washington, for five cents.]

652,252. Railroad-Car Closet. — Arthur P. Dodge, New York, N. Y.
652,256. Weather-Boarding Gage. — Thomas B. Farmer, Exeter, Neb.
652,273. Window Sash and Frame. — Benjamin Benjamin W. Jones, Dubuque, Ia.
652,279. Bolt for Double Doors. — Peter Lauer, Milwaukee, Wis.
652,289. Support for Washbowls. — Thomas R. Powell, Pottsville, Pa.
652,292. Tie-Bar. — Ernst Schild and Fritz Lorey, Darmstadt, Ger.
652,297. Hot-Air Furnace. — Isaac D. Smead, Toledo, O.
652,301. Elevator. — Walter C. Stokes, New York, N. Y.
652,348. Stair-Tread. — William I. Crawford, Sharpsville, Pa.
652,394. Means for Raising or Lowering Windows. — Albert Lagus, Prague, Austria-Hungary.
652,463. Air Cleansing and Cooling Device. — Joseph McCreery, Toledo, O.
652,464. Shutter-Worker. — Anton Ritter, St. Louis, Mo.
652,478. Jet Device for Shower-Baths. — Martin Hahn, Munich, Ger.
652,504. Electric Heater. — Edward Bennett, Jeannette, Pa.
652,509-510. Mantel. — Thomas J. Cox, Gainesville, Tex.
652,515. Safety-Guard for Elevator-Shafts. — Hermann Karberg, St. Louis, Mo.
652,517. Trestle. — Andrew J. Laurent, Indiana, Pa.
652,535. Fireproof Building Construction. — Frederick L. Douglas, New York, N. Y.
652,553. Window. — William D. Watson, Chicago, Ill.

BUILDING PATENTS.

652,575-576. Hot-Air Register. — Chas. E. Wolf and Adam R. Wolf, Altoona, Pa.
652,590. Radiator-Support. — Robert Brown, Norwich, Conn.
652,606. Door-Retainer. — Frank T. Field, Philadelphia, Pa.
652,667. Floor-Drain Trap. — Henri D. Dickinron, New York, N. Y.
652,716. Tile. — Frank Furness, Philadelphia, Pa.
652,732. Concrete Construction. — Ernest L. Ransome, New York, N. Y.
652,733. Concrete Floor. — Ernest L. Ransome, New York, N. Y.

BUILDING INTELLIGENCE.

(Reported for The American Architect and Building News.)

[Although a large portion of the building intelligence is provided by their regular correspondents, the editors greatly desire to receive voluntary information, especially from the smaller and outlying towns.]

ADVANCE RUMORS.

Andover, Mass. — Plans are being prepared for a parochial residence for Rev. James J. Gilday. It is to be a frame dwelling, 23′ x 65′, and to cost about $8,000. Wm. H. McGinty, Boston, architect.

Asheville, N. C. — The Central M. E. Society contemplate erecting a new church, to cost about $40,000.

Baltimore, Md. — Four additional stories, to cost $35,000, will be built to the Merchants' Club building on German St., near Calvert St.

J. Evans Sperry has prepared plans for improvements to the Carrollton Hotel, to cost about $100,000.

The John F. Wiessmer Sons' Brewing Co. have purchased a building site on which they will erect a bottling house, to cost $60,000.

Baraboo, Wis. — Gordon & Paunack, of Madison, have prepared plans for a two-story brick laundry and flat building, 30′ x 85′; cost, $8,000.

Beaver, Pa. — Matthew M. Quay has had plans prepared for a $50,000 residence to be erected on the site of the Quay homestead.

Beloit, Wis. — Fred W. Morgan, of Chicago, Ill., is having plans prepared for a country residence to be erected near this city. It will be 52′ x 150′, two-story, of concrete walls, with tile roof; cost, $30,000.

Bloomington, Ill. — Reeves & Baillie, Peoria, have prepared plans to replace the McLean County Court-house, recently destroyed by fire. The proposed structure will be three stories high, 100′ x 100′, and will be built of brick and stone; cost, $200,000.

Boston, Mass. — Alterations are to be made in the parochial residence of St. Celia's parish in Ward 11, from plans by Wm. H. McGinty.

Brockton, Mass. — Austin & Brigham, architects, Boston, have prepared plans for a three-story brick and stone apartment hotel to be erected for David F. Brigham; cost, $40,000.

Buffalo, N. Y. — Architects Green & Wicks have prepared plans for a three-story brick boat-house to be erected in Delaware Park; cost, $30,000.

Cedar Springs, S. C. — Architect Frank P. Milburn, Charlotte, N. C., is preparing plans and specifications for a new building for the colored blind for which the State has recently appropriated $15,000.

Chicago, Ill. — The Brunswick-Balke Callender Co. have had plans prepared by Treat & Adler for improvements to their factory at Orleans and Sedgwick Sts.; cost, $80,000.

Denver, Col. — The Denver City Tramway Co. will convert its power-house at 18th and Lawrence Sts. into an armory for the Colorado National Guard; cost, $45,000.

Des Moines, Ia. — The C. E. Eastman Co. has prepared plans for a $10,000 flat building to be erected by G. H. Botsford.

The Stile School of Osteopathy will erect a new college building. It will be a three-story structure, 75′ x 150′, constructed of brick; cost, $65,000.

Flatbush, N. Y. — The Baptist Society, recently organized here, has purchased a site at Avenue C and E. 18th St. Plans have been selected for a new church, the erection of which will be begun soon.

Gallipolis, O. — Yost & Packard, Y. M. C. A. Building, Columbus, were successful in the competion for plans for the Ohio State Hospital, to cost $125,000.

Greenwich, Conn. — Henry C. Pelton, New York City, is preparing plans for a new hotel to be built this summer at Edgewood Park for Judge R. J. Walsh and Nathaniel Witherell, both of New York. The structure will be designed to accommodate 250 guests; cost, $100,000.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Hartford, Conn.—The Connecticut Mutual Life Insurance Co. have had plans prepared by Architects Ernest Flagg and Geo. Bartlett for a seven-story brick and stone building, to cost $250,000.

Houghton, Mich.—Architect H. T. Liebert, Hancock, has furnished plans for a two-story brick residence to be erected by Joseph Hodgson; cost, $6,000.

Little Rock, Ark.—Architect C. S. Thompson is preparing plans for a new church for the M. E. Society, to cost about $20,000.

Long Island City, N. Y.—The Police Board of Queen's County have purchased a plot of ground, 100′ x 100′, at Jackson Ave. and Pierson St. The land will be used to erect a building for the headquarters of the police of Queen's Borough.

Macon, Ga.—The Trustees of St. Stanislaus College will erect a three-story brick addition to the main college building, to cost about $25,000.

Madison, Wis.—Prof. C. S. Slichter has had plans prepared for a store and office building, two-story, 24′ x 106′, of common and pressed brick, with local and Bedford stone, composition and gravel roof; cost, $8,000.

Marietta, O.—Samuel Hannaford & Sons, Cincinnati, will furnish plans for the fireproof courthouse and jail to be erected for Washington, D. C.

Marshfield, Wis.—Van Ryn & De Gelleke, architects, Milwaukee, have furnished plans for a new City-hall; cost, $20,000.

Merrick, Mass.—Architects Chickering & O'Connell have completed plans for the new St. Louis Church. It will be a frame structure, 48′ x 102′, having a seating capacity of about 400; cost complete $12,000.

Milwaukee, Wis.—R. C. Eschweiler has prepared plans for a $10,000 residence to be erected on 10th St., for B. Dillman.

Natick, Mass.—Edward Clark will erect a two and one-half story frame residence, 50′ x 58′, to cost $25,000, after plans furnished by Architect Charles E. Barnes, South Framingham.

Newark, N. J.—The Court-house Commission has selected a site for the new court-house on a plot bounded by Market, High and Grove Sts. and 13th Ave. About $1,000,000 will be spent on the structure, the building of which will be begun this year.

Newport, R. I.—Lewis Cass Ledyard, commodore of the New York Yacht Club, has just purchased a plot of ground on which, it is reported, he will build a summer residence.

The N. Y., N. H. & H. R. R. are making preparations to erect a modern railway station here.

New Ulm, Minn.—H. Amme, architect, has prepared plans for a parochial school for the Lutheran Society. It will be two-story, brick veneered, 40′ x 70′, of local brick and Kasota stone; cost, $8,000.

New York, N. Y.—Horgan & Slattery are preparing plans for an armory for the 2d Battalion of Brooklyn, to be erected at 43d St. and river front. It will be a frame structure, costing not over $60,000.

Norristown, Pa.—Architect Seymour Davis, Philadelphia, has completed plans for the new Central Presbyterian Church to be erected at the corner of Mount Airy and Stanbridge Sts. The plans show a structure of stone and granite with iron, frame and truss work with hard wood interior finishing, tile, marble decorative and fresco work; cost, about $50,000.

Port Deposit, Md.—Boring & Tilton, of New York, had their plans selected in the competition for the Joseph Tome Industrial School-building to be erected here at a cost of about $1,000,000.

Rochester, N. Y.—The Rochester Packing & Cold Storage Co., recently incorporated with a capital of $60,000, will erect a three-story brick structure.

St. Albans, Vt.—Plans for a two and one-half story frame dwell., 30′ x 60′, pitch roof and furnace heat, to cost $25,000, are being prepared by Wm. H. McGinty, Boston, for Calvin D Morton.

St Louis, Mo.—St. John's M. E. Society, 29th and Locust Sts., will erect a new church edifice, to cost about $100,000.

Superior, Minn.—George L. Scoville, architect, Duluth, has prepared plans for a 9-room addition to the Howe School. The addition will be two-story, 50′ x 90′, of brick and stone; cost, $20,000.

Syracuse, N. Y.—C. E. Colton has prepared plans for the new convention hall to be built at Pearl and James Sts. It will be built of brick and stone, 80′ x 116′, and will be three stories high; cost, $80,000.

Tyler, Minn.—W. E. E. Greene, architect, of Luverne, has prepared plans for a bank building for the Bank of Tyler. It will be two-story, 25′ x 50′, of pressed and common brick and stone; cost, $24,200.

Waterloo, Ia.—Murphy & Ralston, architects, have plans for a two-story brick business block, 60′ x 82′, for O. C. Miller and E. S. Phelps; cost, $15,000.

Wausau, Wis.—Architects Van Ryn & De Gelleke, Milwaukee, are preparing plans for a frame residence for C. B. Yawkey; cost, $12,000.

ALTERATIONS AND ADDITIONS.

Bernardsville, N. J.—Alteration & addition to 2½-st'y fr. dwell.; $5,600; o., Elize Cameron Bradley, Harrisburg, Pa.; a., Wm. S. Post, 33 E. 17th St.

Brookline, Mass.—Exterior and interior alterations to the old Pierce Grammar School-house; $10,000; o., School Board; b., B. W. Neal; a., Julius Schweinfurth, Boston.

New York, N. Y.—*W. Thirty-fourth St., No. 36,* two-st'y extension, 25′ x 26′ 6″; $11,000; o., Geo. C. Boldt, Waldorf-Astoria Hotel; a., B. W. Berger, 121 Bible House.

Third Ave., cor. 145th St., one-st'y extension, 24′ x 56′ x 16′ 2″ x 30′ 8″; $6,000; o., Manhattan Elevated R. R. Co., 195 Broadway; a., A. E. Davis, 2558 Third Ave.

Forsyth St., Nos. 126-128, raise building; $10,000; o., Paul Zadak Ansche Allge; a., A. Siegel, 90 Allen St.

Niles, O.—Alterations & four-st'y bk. addition to hotel, 54′ x 80′; $18,000; o., Charles S. Pew; a., Owsley & Boucherie, Youngstown.

Philadelphia, Pa.—*Sunset Ave.*, nr. Bethlehem Pike, interior alterations & three-st'y bk. & st. addition, 18′ x 24′; $65,000; o., F. H. Bohlen; b., A. S. Tourison.

Tarrytown, N. Y.—Three-st'y & base. bk. extension & interior alterations to school; $15,000; o., Hackley Mall School; a., Minerva Nichols, 280 Prospect St., Brooklyn.

Taunton, Mass.—*Summer St.*, exterior and interior alterations to fr. dwell.; $3,000; o., Mrs. F. L. Field; a. & b., John A. Crane.

Yonkers, N. Y.—Alteration of two-st'y st. dwell. to public library; $7,000; o., Board of Education; a., C. C. Chipman, 220 Broadway.

APARTMENT-HOUSES.

Brooklyn, N. Y.—*Madison St.*, nr. Sumner Ave, 3 three-st'y bk. flats, 25′ x 69′; $21,000; o., H. Schmidt, 67 Stanhope St.

Rogers Ave., cor. Linden Boulevard, 6 three-st'y bk. flats, 38′ x 63′, gravel roof, steam; $48,000; o., C. Doenecke, 37 Kosciusko St.; a., U. J. Huberty, 911 Broadway.

Chicago, Ill.—*Kenmore Ave., Nos.* 1629-39, three-st'y bk. apart., 85′ x 118′; $80,000; o., John Hamilton; b., Edward Raymond; a., Albert S. Hecht.

Indiana Ave., Nos. 5407-9, three-st'y bk. apart., 44′ x 78′; $16,000; o., John A. Almquist; b., Berg & Co.; a., P. A. Westberg.

CHURCHES.

Bluffton, Ind.—Two-st'y bk. church, 96′ x 120′, slate roof, steam; $12,000; o., First Methodist Society; a., Cuno Kibele.

Boston, Mass.—*E. Cottage St.*, nr. Dorchester Ave., fr. church, 33′ x 80′, pitch roof, furnace; $12,000; o., Bene. Fraternity of Churches; b., John A. Dodge; a., W. Atherton.

Chicago, Ill.—*Kimbark Ave.*, cor. 64th St., st. church, 73′ x 94′, slate roof, steam; $28,000; o., Woodlawn Park Presbyterian Society; a., C. W. Northnagel.

Columbus, O.—*Donaldson St.*, two-st'y bk. church, 40′ x 60′, slate roof, furnace; $10,000; o., Donaldson St. M. E. Society; a., J. A. Jones.

Milwaukee, Wis.—*Grove and Scott Sts.*, bk. church, 48′ x 69′, slate roof, steam; $40,000; o., Milwaukee St. Stephen's Society; a., O. C. Uehling.

CLUB-HOUSES.

Philadelphia, Pa.—*Howard St.*, cor. Somerset St., two-st'y bk. club-house, 89′ 8″ x 102½′; $21,000; o., Boys' Club Co.; b., Appleton & Burrell.

EDUCATIONAL.

Buffalo, N. Y.—*Plaza*, cor. Parkway, three-st'y bk. art institute, 108′ x 155′, copper roof, steam heat; $300,000; o., City of New York, G. V. Brower, Park Commissioner, Prospect Park: a., McKim, Mead & White, 160 Firth Ave., New York.

Crothersville, Ind.—Two-st'y bk. school, 64′ x 75′, slate roof, furnace; $15,000; o., School Board; a., C. F. Sparrell, Columbus.

Montezuma, Ind.—Two-st'y bk. & st. school, 38′ x 44′, slate roof; $5,000; o., School Trustees; a., C. A. Krutsch, Indianapolis.

New York, N. Y.—*One Hundred and Sixty-third St.*, bet. Morris and Grant Aves., four-st'y bk. school, 66′ x 141′ 8″; $140,000; o., City of New York; a., C. B. J. Snyder, 59th St. & Park Ave.

Watrona, Pa.—Two-st'y bk. school, slate roof, warm air; $40,000; o., School Board; a., W. J. Smith, Pittsburgh.

Wayne, Pa.—Two-st'y st. & bk. school, 65′ x 110′, slate roof, steam; $30,000; o., Township of Randor; a., D. Knickerbocker, Philadelphia.

FACTORIES.

Blackshear, Ga.—One to three-st'y fr. & bk. factory building, 30′ x 275′, 38′ x 80′, 120′ x 250′, tin & gravel roof; $20,000; o., A. P. Brantley Co.; engr., M. W. McRae, Atlanta.

BUILDING INTELLIGENCE.

(Alterations and Additions Continued.)

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Third Ave., cor. 145th St., one-st'y extension, 24′ x 56′ x 16′ 2″ x 30′ 8″; $6,000; o., Manhattan Elevated R. R. Co., 195 Broadway; a., A. E. Davis, 2558 Third Ave.

Forsyth St., Nos. 126-128, raise building; $10,000; o., Paul Zadak Ansche Allge; a., A. Siegel, 90 Allen St.

Niles, O.—Alterations & four-st'y bk. addition to hotel, 54′ x 80′; $18,000; o., Charles S. Pew; a., Owsley & Boucherie, Youngstown.

Philadelphia, Pa.—*Sunset Ave.*, nr. Bethlehem Pike, interior alterations & three-st'y bk. & st. addition, 18′ x 24′; $65,000; o., F. H. Bohlen; b., A. S. Tourison.

Tarrytown, N. Y.—Three-st'y & base. bk. extension & interior alterations to school; $15,000; o., Hackley Mall School; a., Minerva Nichols, 280 Prospect St., Brooklyn.

Taunton, Mass.—*Summer St.*, exterior and interior alterations to fr. dwell.; $3,000; o., Mrs. F. L. Field; a. & b., John A. Crane.

Yonkers, N. Y.—Alteration of two-st'y st. dwell. to public library; $7,000; o., Board of Education; a., C. C. Chipman, 220 Broadway.

APARTMENT-HOUSES.

Brooklyn, N. Y.—*Madison St.*, nr. Sumner Ave, 3 three-st'y bk. flats, 25′ x 69′; $21,000; o., H. Schmidt, 67 Stanhope St.

Rogers Ave., cor. Linden Boulevard, 6 three-st'y bk. flats, 38′ x 63′, gravel roof, steam; $48,000; o., C. Doenecke, 37 Kosciusko St.; a., U. J. Huberty, 911 Broadway.

Chicago, Ill.—*Kenmore Ave., Nos.* 1629-39, three-st'y bk. apart., 85′ x 118′; $80,000; o., John Hamilton; b., Edward Raymond; a., Albert S. Hecht.

Indiana Ave., Nos. 5407-9, three-st'y bk. apart., 44′ x 78′; $16,000; o., John A. Almquist; b., Berg & Co.; a., P. A. Westberg.

CHURCHES.

Bluffton, Ind.—Two-st'y bk. church, 96′ x 120′, slate roof, steam; $12,000; o., First Methodist Society; a., Cuno Kibele.

Boston, Mass.—*E. Cottage St.*, nr. Dorchester Ave., fr. church, 33′ x 80′, pitch roof, furnace; $12,000; o., Bene. Fraternity of Churches; b., John A. Dodge; a., W. Atherton.

Chicago, Ill.—*Kimbark Ave.*, cor. 64th St., st. church, 73′ x 94′, slate roof, steam; $28,000; o., Woodlawn Park Presbyterian Society; a., C. W. Northnagel.

Columbus, O.—*Donaldson St.*, two-st'y bk. church, 40′ x 60′, slate roof, furnace; $10,000; o., Donaldson St. M. E. Society; a., J. A. Jones.

Milwaukee, Wis.—*Grove and Scott Sts.*, bk. church, 48′ x 69′, slate roof, steam; $40,000; o., Milwaukee St. Stephen's Society; a., O. C. Uehling.

CLUB-HOUSES.

Philadelphia, Pa.—*Howard St.*, cor. Somerset St., two-st'y bk. club-house, 89′ 8″ x 102½′; $21,000; o., Boys' Club Co.; b., Appleton & Burrell.

EDUCATIONAL.

Buffalo, N. Y.—*Plaza*, cor. Parkway, three-st'y bk. art institute, 108′ x 155′, copper roof, steam heat; $300,000; o., City of New York, G. V. Brower, Park Commissioner, Prospect Park: a., McKim, Mead & White, 160 Firth Ave., New York.

Crothersville, Ind.—Two-st'y bk. school, 64′ x 75′, slate roof, furnace; $15,000; o., School Board; a., C. F. Sparrell, Columbus.

Montezuma, Ind.—Two-st'y bk. & st. school, 38′ x 44′, slate roof; $5,000; o., School Trustees; a., C. A. Krutsch, Indianapolis.

New York, N. Y.—*One Hundred and Sixty-third St.*, bet. Morris and Grant Aves., four-st'y bk. school, 66′ x 141′ 8″; $140,000; o., City of New York; a., C. B. J. Snyder, 59th St. & Park Ave.

Watrona, Pa.—Two-st'y bk. school, slate roof, warm air; $40,000; o., School Board; a., W. J. Smith, Pittsburgh.

Wayne, Pa.—Two-st'y st. & bk. school, 65′ x 110′, slate roof, steam; $30,000; o., Township of Randor; a., D. Knickerbocker, Philadelphia.

FACTORIES.

Blackshear, Ga.—One to three-st'y fr. & bk. factory building, 30′ x 275′, 38′ x 80′, 120′ x 250′, tin & gravel roof; $20,000; o., A. P. Brantley Co.; engr., M. W. McRae, Atlanta.

BUILDING INTELLIGENCE.

(Factories Continued.)

Brooklyn, N. Y.—*Union Ave.*, nr. Withers St., two-st'y bk. factory, 42′ 8″ x 165′, asphalt roof, steam heat; $15,000; o., Vogeley & Lackman, 474 Broadway, N. Y.; a., J. T. Wachter, 1435 Bedford Ave.

Lorimer St., cor. Newton St., two-st'y bk. factory, 50′ x 140′, gravel roof, steam heat; $12,500; o., G. M. Ball & Son, 409 Hancock St.; a., F. F. Cornell, 281 Fourth Ave., New York.

Varick St., cor. Newton Creek, two-st'y fr. factory, 125′ x 156′, gravel roof; $10,000; o., W. Kappmann & Co., 29 Liberty St., New York; a., E. W. Grauert, 10 W. 22d St., New York.

Chicago, Ill.—*S. Paulina St., Nos.* 1203-11, three-st'y bk. factory, 68′ x 102′; $10,000; o., Wichert Mfg Co.; b., H. L. Namvana; a., Wm. T. Branitzky.

New York, N. Y.—*First Ave.*, cor. 61st St., three-st'y bk. factory, 50′ x 90′, plastic slate roof; $15,000; o., Fred'k Buse, 411 E 61st St.; a., Ph. Goerlitz, 242 E. 51st St.

Seventeenth St., nr. Broadway, eight-st'y bk. & st. factory, 37′ 6″ & 24′ 6″ x 183′ 11″; $225,000; o., Thos. H. Bell, 145 W. 96th St.; a., Moore & Landsiedel, 148th St. & 3d Ave.

HOSPITALS.

South Bend, Ind.—Two-st'y & base. fireproof bk. hospital, 210′ x 230′, steam; $75,000; o., St. Joseph's County; a., Freyermuth & Maurer.

HOUSES.

Beloit, Wis.—Two-st'y country residence, 52′ x 150′, tile roof, steam; $30,000; o., Fred W. Morgan; a., Richard Kichnel.

Boston, Mass.—*Auburn St., No.* 9, three-st'y bk. dwell., 26′ x 34′, flat roof, stoves; $8,000; o. & b., Louis Shurman; a., C. A Halstrom.

Cooper St., No. 7, three-st'y bk. dwell. & store, 16′ x 39′, flat roof, stoves; $6,000; o. & b., H. Leshefsky; a., F. A. Norcross.

Esmond St., No. 18, 2½-st'y fr. dwell., 37′ x 40′, pitch roof, hot water; $8,000; o. & b., J. V. Whidden; a., C. A. Russell.

Zamora St., No. 1½, fr. dwell., 36′ x 38′, pitch roof, furnace; $6,500; o., Nelson Curtis; b., Wm. Tobin; a., M. E. Tobin.

Fenway St., nr. Washington St., three-st'y bk. dwell., 100′ x 150′, flat roof, steam; o., Mrs. E. S. Gardner; b., James Smith; a., W. T. Sears.

Langdon Pl., three-st'y bk. dwell., 25′ x 26′, flat roof, stoves; $6,000; o., Kellar & Fish; a., W. E. Clark.

Seaver St., 2½-st'y fr. dwell., 45′ x 67′, gambrel roof; $25,000; o., James F. Morse; b., B. W. Neal; a., J. Schweinfurth.

Bay State Road, Nos. 196-202, 4 three-st'y bk. dwells., 22′ x 55′, flat roofs, furnaces; $85,000; o. & b., W. D. Vinal; a., A. H. Vinal.

Maiden Lane, 2 three-st'y bk. dwells., 22′ x 46′, flat roofs, stoves; $15,000; o., a. & b., C. J. Lord & Co.

Hollander St., nr. Harlod St., fr. dwell., 25′ x 40′, pitch roof, furnace; $5,000; o., French & Shea; b., C. F. Brown; a., R. Rantin.

BUILDING INTELLIGENCE.

(*Houses Continued.*)

Erie St., nr. McClellan St., 2½-st'y fr. dwell., 27′ x 59′, pitch roof, hot water; $6,000; o., J. C. Thornton; a. & b., F. J. Rockwell.

Cummings Road, 2½-st'y fr. dwell., 38′ x 39′, pitch roof, furnace; $10,000; o., a. & b., Edw. L. Rogers.

Hampden St., nr. Maiden Lane, 5 three-st'y bk. dwells., 22′ x 46′, flat roof, stoves; $35,000; o., a. & b., C. J. Lord & Co.

Willis St., cor. W. Cottage St., 2½-st'y fr. dwell., 29′ x 50′, pitch roof, furnace; $6,000; o., Charlotte A. Powell; a., F. G. Powell.

Brooklyn, N. Y. — *Marlborough Road*, nr. Albemarle Road, two-st'y & attic fr. dwell., 37′ x 41′ 4″, shingle roof; $8,000; o., Dean Alvord, E. 15th St. & Albemarle Road; a., J. J. Petit, 186 Remsen St.

Seventy-fifth St., nr. 1st Ave., two-st'y & attic fr. dwell., 37′ x 64′, shingle roof, steam heat; $12,000; o., C. H. Schulties, Ovington & 3d Aves.

Cambridge, Mass. — *Putnam Ave.*, three-st'y fr. dwell., 24′ x 50′, steam; $5,000; o., Jere Corckere; b., Gus Williams.

Columbus, O. — *E. Gay St.*, three-st'y bk. & st. dwell., 38′ x 84′, slate roof, furnace; $15,000; o., E. J. Horn; a., F. H. Elliott.

TENEMENT-HOUSES.

Boston, Mass. — *North St., No.* 117, three-st'y bk. tenements & stores, 26′ x 51′, flat roof, stoves; $9,000; o., Kellar & Fish; a., W. E. Clark.

MISCELLANEOUS.

Boston, Mass. — *Chestnut Hill Reservoir*, bk. gate-house, 21′ x 36′, pitch roof; $10,000; o., Metropolitan Water Board; b., J. S. Jacobs & Son; a., Wheelwright & Haven.

BUILDING INTELLIGENCE.

(*Miscellaneous Continued.*)

COMPETITIONS.

SCHOOL-HOUSE. [At Key West, Fla.]
Plans and specifications are wanted **September 6** for a brick school. GEO. W. REYNOLDS, county clerk. 1283

ARMORY. [At Key West, Fla.]
Plans and specifications will be received **until September 6th**, for a brick armory building. GEO. W. REYNOLDS, county clerk. 1283

PROPOSALS.

HIGH SCHOOL. [At Henderson, Minn.]
Sealed bids will be received **until July 18th**, for the erection and completion of a high-school building. H. W. BOSEL, clerk. 1281

JAIL. [At Bennettsville, S. C.]
Bids will be received **until August 18**, for the construction of a jail. D. J. JESTERLING, county supervisor. 1281

PROPOSALS.

ENGINE-HOUSE. [At Washington, D. C.]
Sealed bids are wanted **until July 21st**, for the erection of an engine-house. LANSING H. BEACH, commr. 1281

Treasury Department, Office of the Supervising Architect, Washington, D. C., July 6, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 30th day of July, 1900, and then opened, for furnishing the heating and ventilating apparatus complete in place, for the U. S. Post-office building at Newport, Kentucky, in accordance with drawings and specification, copies of which may be had at this office or at the office of the Superintendent at Newport, Kentucky, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1282

Treasury Department, Office Supervising Architect, Washington, D. C., July 9th, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 7th day of August, 1900, and then opened, for the erection and completion (except electric work, heating, water supply and other pipes) of Covered Way and Ferry House at the U. S. Immigrant Station, Ellis Island, New York Harbor, in accordance with the drawings and specification, copies of which may be had at this office, or the office of Messrs. Boring & Tilton, architects, 32 Broadway, New York, N. Y. JAMES KNOX TAYLOR, Supervising Architect. 1282

Treasury Department, Office Supervising Architect, Washington, D. C., July 9th, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 7th day of August, 1900, and then opened, for the construction including heating and ventilating, but excepting electric-light wiring, of Surgeon's House at Ellis Island, New York Harbor, in accordance with the drawings and specification, copies of which may be had at this office or the office of Messrs. Boring & Tilton, architects, 32 Broadway, New York, N. Y. JAMES KNOX TAYLOR, Supervising Architect. 1282

STATE-HOUSE. [At Columbus, S. C.]
Sealed bids will be received **until August 1st**, for the completion of the State-house. M. B. McSWEENEY, chmn. State-house commrs. 1283

PROPOSALS.

Treasury Department, Office Supervising Architect, Washington, D. C., July 9th, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 7th day of August, 1900, and then opened, for the construction except heating and ventilating and the electric-light wiring of a Hospital Outbuilding at the U. S. Immigrant Station, Ellis Island, New York Harbor, in accordance with the drawings and specification, copies of which may be had at this office or the office of Boring & Tilton, architects, 32 Broadway, New York, N. Y. JAMES KNOX TAYLOR, Supervising Architect. 1282

Treasury Department, Office Supervising Architect, Washington, D. C., July 9, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 7th day of August, 1900, and then opened, for the heating and ventilating work for the following buildings: Hospital, Hospital Outbuilding, Kitchen and Restaurant, Bath-house and Laundry Building, Connecting Corridor and Covered Ways at the U. S. Immigrant Station, Ellis Island, New York Harbor, in accordance with the drawings and specification, copies of which may be had at this office or at the office of Boring & Tilton, architects, 32 Broadway, New York, N. Y. JAMES KNOX TAYLOR, Supervising Architect. 1282

ENGINE-HOUSE. [At Washington, D. C.]

Sealed proposals will be received at the office of the commissioners **until July 21,** for constructing a chemical engine house for the fire-department. HENRY B. F. MACFARLAND, *et al.*, commissioners. 1282

FIREPROOFING. [At Philadelphia, Pa.]

Sealed proposals, in triplicate, will be received **until August 4th,** for roofing over and putting floors in the courtyard of the fireproof building at Schuylkill Arsenal, also for rearrangement of Inspecting and Issuing Department at Schuylkill Arsenal. LT. COL. JOHN V. FUREY, Deputy Quartermaster, General U. S. Army. 1283

SCHOOL BUILDING. [At Washington, D. C.]

Sealed proposals will be received at the office of the district commissioners **until July 28, 1900,** for constructing a manual training school-building. HENRY B. F. MACFARLAND, *et al.*, commissioners. 1282

ASYLUM. [At Decatur, Ill.]

Sealed bids will be received **until August 9th,** for the erection of the asylum building for Adams County. CUNO KIBELE, architect. 1281

HOSPITAL BUILDINGS. [At Cincinnati, O.]

Sealed proposals will be received by the Trustees of Cincinnati Hospital **until July 18th,** for erecting three buildings at Cincinnati Branch Hospital. JOHN FEHRENBATCH, superintendent. 1281

JAIL. [At Bennettsville, S. C.]

Bids will be received **August 18,** for a jail. D. J. EASTERLING, Co. Superv. 1282

SCHOOL-BUILDING. [At Takoma Park, D. C.]

Sealed proposals will be received at the office of the Commissioners, Washington, D. C., **until July 21,** for constructing a four-room school-building. H. B. F. MACFARLAND, *et al.*, commissioners. 1281

PROPOSALS.

Treasury Department, Office Supervising Architect, Washington, D. C., June 29, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 20th day of July, 1900, and then opened, for the high pressure and exhaust steam, water and drain pipe connections, etc., in the new boiler-house for the U. S. Immigrant Station, Ellis Island, New York Harbor, in accordance with drawing and specification, which will be furnished at the discretion of the Supervising Architect upon application at this office. JAMES KNOX TAYLOR, Supervising Architect. 1281

CHURCH. [At Wapakoneta, O.]

Sealed proposals will be received **until July 16,** for the erection of St. Paul's German Evangelical Church. C. W. TIMMERMEISTER, secretary building committee. 1281

SCHOOL-HOUSE. [At Hamilton, O.]

Bids will be received **until July 17,** for a school in Lindenwald Special School District. F. M. BETZ, Pres. Bd. Educ. 1281

Professional Ethics.

The following . . .
. . . CODE OF ETHICS . . .
Prepared in Conformity with the Best Standards of Practice, and Recommended to its Members by the Boston Society of Architects, was . . . . . .

ADOPTED BY THE SOCIETY, FEBRUARY 1, . . 1895. . .

SECTION 1. No Member should enter into partnership, in any form or degree, with any builder, contractor, or manufacturer.

SECTION 2. A Member having any ownership in any building material, device or invention, proposed to be used on work for which he is architect, should inform his employer of the fact of such ownership.

SECTION 3. No Member should be a party to a building contract except as "owner."

SECTION 4. No Member should guarantee an estimate or contract by personal bond.

SECTION 5. It is unprofessional to offer drawings or other services "on approval" and without adequate pecuniary compensation

SECTION 6. It is unprofessional to advertise in any other way than by a notice giving name, address, profession, and office hours, and special branch (if such) of practice.

SECTION 7. It is unprofessional to make alterations of a building designed by another architect, within ten years of its completion, without ascertaining that the owner refuses to employ the original designer, or, in event of the property having changed hands, without due notice to the said designer.

SECTION 8. It is unprofessional to attempt to supplant an architect after definite steps have been taken toward his employment.

SECTION 9. It is unprofessional for a Member to criticise in the public prints the professional conduct or work of another architect except over his own name or under the authority of a professional journal.

SECTION 10. It is unprofessional to furnish designs in competition for private work or for public work, unless for proper compensation, and unless a competent professional adviser is employed to draw up the "conditions" and assist in the award.

SECTION 11. No Member should submit drawings except as an original contributor in any duly instituted competition, or attempt to secure any work for which such a competition remains undecided.

SECTION 12. The American Institute of Architects' "schedule of charges" represents minimum rates for full, faithful and competent service. It is the duty of every architect to charge higher rates whenever the demand for his services will justify the increase, rather than to accept work to which he cannot give proper personal attention.

SECTION 13. No Member shall compete in amount of commission, or offer to work for less than another, in order to secure the work.

SECTION 14. It is unprofessional to enter into competition with or to consult with an architect who has been dishonorably expelled from the "Institute" or "Society."

SECTION 15. The assumption of the title of "Architect" should be held to mean that the bearer has the professional knowledge and natural ability needed for the proper invention, illustration and supervision of all building operations which he may undertake.

SECTION 16. A Member should so conduct his practice as to forward the cause of professional education and render all possible help to juniors, draughtsmen and students.

[*See Alphabetical Index on Cover 2 for Pagination.*]

CLASSIFIED ADVERTISEMENTS.

[Advertisers can be indexed only under a single head free of charge.]